GEL Laboratories LLC
a member of The GEL Group INC

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gel.com

October 10, 2017

Mr. Jason Litwiller
URS Corporation
2425 River Road (c/o SPRU DP)
Niskayuna, New York 12309

Re: SPRU Buildings
Work Order: 433718

Dear Mr. Litwiller:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on September 27, 2017. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4778.

Sincerely,

Hope Taylor
Project Manager

Chain of Custody: 17-COC-47
Enclosures

URS Energy & Construction (2012-SC-SPRU-29463-171)
SPRU Buildings
SDG: 433718

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Runlogs.....2124

Case Narrative

Receipt Narrative
for
URS Energy & Construction (2012-SC-SPRU-29463-171)
SDG: 433718

October 10, 2017

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on September 27, 2017 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

Laboratory ID	Client ID
433718001	G2SOL01
433718002	G2SOL01D
433718003	G2SOL01MS
433718004	G2SOL01EB
433718005	G2SOL01TB
433718006	G2SOL02
433718007	G2SOL06
433718008	G2SOL07
433718009	G2SOL09
433718010	G2SOL11
433718011	G2SOL12
433718012	G2SWSOL01
433718013	G2SWSOL02
433718014	G2SWSOL04
433718015	G2SWSOL05
433718016	G2SWSOL06
433718017	G2SWSOL07
433718018	G2ESOL01
433718019	G2ESOL02
433718020	G2ESOL03

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: GC/MS Semivolatile, GC/MS Volatile, Metals and Radiochemistry.

Hope Taylor
Project Manager

Chain of Custody and Supporting Documentation

SPRU DP OFF-SITE CHAIN-OF-CUSTODY FORM

Page: 1 of 2
Project #: SPRU DP
COC Number (1): 17-COC-47

SPRU DP Off-Site Chain-of-Custody and Analytical Request Form

Work Order or Sample Delivery Group (SDG) Number: 433718

Laboratory Address:
GEL Laboratories, LLC
2040 Savage Rd
Charleston, SC 29407

Client Name: URS (c/o Jason Litwiller) Phone #: 518-225-8513

Project/Site Name: SPRU Disposition Project

Address: 2425 River Rd. (SP-24) Niskayuna, NY 12309

Collected by: Jason Litwiller, Ryan LaRochelle & Dean Powell's crew
Send Results: Jason Litwiller
Reference: SPRU-ENV-017, Figure 7 and SPRU-ENV-007 QAPjP

Sample Analysis Requested (5) (Fill in the number of containers for each test, X for analyses run from another container.)

Sample ID* (*Must be obtain from Sample Coordinator)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	Sample Code(2)	Field Filtered (3)	Sample Matrix (4)	Radioactive (Y or N)	TSCA Regulated (Y or N)	Total number of containers	Alpha Spec – Am241	Gamma Spec	Alpha Spec – Th232	Alpha Spec – U	Metals incl Hg (Se by SW6020)	VOCs (SW8260), For this gray till soil, purge and trap & medium level with methanol extraction	SVOCs (SW8270)	Sample Description (required) Note: Additional sample is required for sample-specific QC (as needed)
						Should this Sample be considered:								*-HA		< --Preservative Type (6)
G2SOL01	9/25/17	1035	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 8.5'N/6.5'E' from SW corner; [125ml=VOC]
G2SOL01D	9/25/17	1035	N	N	SO	N	N	1						X		Soil, G2 excavation. 8.5'N/6.5'E' from SW; [125ml=VOC]
G2SOL01MS	9/25/17	1035	Spike	N	SO	N	N	1						X		Soil for matrix spike, G2 excavation. 8.5'N/6.5'E' from SW; [125ml=VOC]
G2SOL01EB	9/25/17	1410	EB	N	W	N	N	1						X		Rinse blank from sampling equipment (VOCs), G2 excavation. [125ml=VOC]
G2SOL01TB	9/25/17	1000	TB	N	W	N	N	1						X*		Trip blank, supplied by GEL Labs [125ml=VOC]
G2SOL02	9/25/17	1048	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 36.5'N / 7'E' from SW; [125ml=VOC]
G2SOL06	9/25/17	1111	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 45'N / 25.5'E' from SW; [125ml=VOC]
G2SOL07	9/25/17	1108	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 25'N / 27'E' from SW; [125ml=VOC]
G2SOL09	9/25/17	1102	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 13.5'N / 38'E' from SW (moved 2' S); [125ml=VOC]
G2SOL11	9/25/17	1410	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 25'N / 57'E' from SW; [125ml=VOC]
G2SOL12	9/25/17	1409	N	N	SO	N	N	1		X	X			X		Soil, G2 excavation. 58'N / 57'E' from SW; [125ml=VOC]

TAT Requested (working days): Normal: Rush: 5 Day VOCs Specify below:

E-mail Results (Yes/No): Yes

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards:*

No (clean confirmation samples). Soil is gray till, dry & grey in color. PID had no detections. Please return cooler & ice packs, REPORT DATA AS pCi/g, DRY WEIGHT CORRECTED.

SPRU-ENV-017, Section 6.1 says: 'KAPL experience has shown low responses of internal standards in gray till samples analyzed for VOCs, resulting in data being unusable. Based on KAPL agreements with NYSDEC and to ensure usable data, the gray till samples will also be analyzed using a modified Method 8260, whereby analysis is performed using the low level purge and trap and the medium level methanol extraction. NYSDEC agreed that reanalysis for low level purge and trap is not needed to confirm the matrix effect from the till on the low internal standard responses. The lower of the usable concentrations from the two analyses (base & modified Method 8260) is used for reporting. Gray till samples can be identified on the COC to alert GEL to perform the dual analysis.'

Environmental Specialist or Manager Approval: JL

Date: 9-26-17

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 Jason Litwiller	9-26-17	1400	1 Alexandra Almen	9/27/17	9:15
2.			2.		

Sample Shipping and Delivery Details

Lab PM: Hope Taylor
Method of Shipment: Fed Ex
Date Shipped: 9-26-17
Airbill #: 7703 4598 2931

1) Chain of Custody Number = Client Determined
2) Sample Codes: **N** = Normal Sample, . **C** = Composite*. **TB** = Trip Blank. **EB** = Equipment Blank. FB – Field Blank
3) Field Filtered: For liquid matrices, indicate with a –**Y**- for yes the sample was field filtered or –**N**- for sample was not field filtered.
4) Matrix Codes: **GW**=Groundwater. **WW**=Waste Water. **W**=Water, **ML**=Misc. Liquid. **SO**=Soil. **SD**=Sediment. **SL**=Sludge. **MW**=Misc. Solid Waste. **O**=Oil. **F**=Filter. **P**=Wipe. SM=smear(s). MET=metal. CON-concrete
5) Sample Analysis Requested: Analytical suite (e.g., Gamma spec (full suite). TCLP metals) or analytical method requested (e.g., Alpha spec (specify isotopes), 8260B (VOCs), 6010B/7470A (total metals +Hg) and number of containers provided for each.
6) Preservative Type: **HA** =Hydrochloric Acid. **NI** =Nitric Acid. **SH** =Sodium Hydroxide. **SA** =Sulfuric Acid. **AA** =Ascorbic Acid. **HX** = Hexane. **ST** =Sodium Thiosulfate. If no preservative is added = leave field blank.

*NOTE: All samples are grab samples unless otherwise specified

For Lab Receiving Use Only	
Custody Seal Intact?	YES NO
Cooler Temp:	C

SPRU DP OFF-SITE CHAIN-OF-CUSTODY FORM

Page: 2 of 2
Project #: SPRU DP
COC Number (1): 17-COC-47

SPRU DP Off-Site Chain-of-Custody and Analytical Request Form

Work Order or Sample Delivery Group (SDG) Number:

Laboratory Address:
GEL Laboratories, LLC
2040 Savage Rd
Charleston, SC 29407

Client Name: URS (c/o Jason Litwiller) Phone #: 518-225-8513

Project/Site Name: SPRU Disposition Project

Address: 2425 River Rd. (SP-24) Niskayuna, NY 12309

Collected by: Jason Litwiller, Ryan LaRochelle & Dean Powell's crew
Send Results: Jason Litwiller
Reference: SPRU-ENV-017, Figure 7 and SPRU-ENV-007 QAPjP

Sample Analysis Requested (5) (Fill in the number of containers for each test, X for analyses run from another container.)

Sample ID* (*Must be obtain from Sample Coordinator)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	Sample Code(2)	Field Filtered (3)	Sample Matrix (4)	Should this Sample be considered: Radioactive (Y or N)	Should this Sample be considered: TSCA Regulated (Y or N)	Total number of containers	Alpha Spec – Am241	Gamma Spec	Alpha Spec – Th232	Alpha Spec – U	Metals incl Hg (Se by SW6020)	VOCs (SW8260), For this gray till soil, purge and trap & medium level with methanol extraction	SVOCs (SW8270)	Sample Description (required) Note: Additional sample is required for sample-specific QC (as needed) (< --Preservative Type (6))
G2SWSOL01	9/25/17	1030	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom. 20'N/0'E' from SW corner; [125ml]
G2SWSOL02	9/25/17	1052	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom. 50'N/0'E' from SW corner; [125ml]
G2SWSOL04	9/25/17	1040	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom. -3'N/15'E' from SW corner; [125ml]
G2SWSOL05	9/25/17	1357	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom N of 103. 12'N/70'E' from SW corner; [125ml]
G2SWSOL06	9/25/17	1400	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom N of 103. 30'N/65'E' from SW corner; [125ml]
G2SWSOL07	9/25/17	1430	N	N	SO	N	N	1		X	X			X		Soil, G2 sidewall bottom N of 103. 65'N/65'E' from SW corner; [125ml]
G2ESOL01	9/25/17	1354	N	N	SO	N	N	2		X	X		X	X	X	Soil, G2 sidewall bottom NE of 103. 19'N/80'E' from SW corner; [250ml=SVOC/metals, 125ml=VOC]
G2ESOL02	9/25/17	1345	N	N	SO	N	N	2		X	X		X	X	X	Soil, G2 sidewall bottom NE of 103. 30'N/80'E' from SW corner; [250ml=SVOC/metals, 125ml=VOC]
G2ESOL03	9/25/17	1350	N	N	SO	Y	N	2		X	X		X	X	X	Soil, G2 sidewall bottom NE of 103. 60'N/80'E' from SW corner; [250ml=SVOC/metals, 125ml=VOC]

TAT Requested (working days): Normal: Rush: 5 Day VOCs Specify below:

E-mail Results (Yes/No): Yes

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards:*

No (clean confirmation samples). Soil is gray till, dry & grey in color. PID had no detections. Please return cooler & ice packs, REPORT DATA AS pCi/g, DRY WEIGHT CORRECTED.

SPRU-ENV-017, Section 6.1 says: 'KAPL experience has shown low responses of internal standards in gray till samples analyzed for VOCs, resulting in data being unusable. Based on KAPL agreements with NYSDEC and to ensure usable data, the gray till samples will also be analyzed using a modified Method 8260, whereby analysis is performed using the low level purge and trap and the medium level methanol extraction. NYSDEC agreed that reanalysis for low level purge and trap is not needed to confirm the matrix effect from the till on the low internal standard responses. The lower of the usable concentrations from the two analyses (base & modified Method 8260) is used for reporting. Gray till samples can be identified on the COC to alert GEL to perform the dual analysis.'

Environmental Specialist or Manager Approval: JL

Date: 9-26-17

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Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
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2.			2.		

Sample Shipping and Delivery Details

Lab PM: Hope Taylor
Method of Shipment: Fed Ex
Date Shipped: 9-26-17
Airbill #: 7703 4598 2931

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3) Field Filtered: For liquid matrices, indicate with a –Y- for yes the sample was field filtered or –N- for sample was not field filtered.
4) Matrix Codes: **GW**=Groundwater, **WW**=Waste Water, **W**=Water, **ML**=Misc. Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **MW**=Misc. Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, SM=smear(s), MET=metal, CON-concrete
5) Sample Analysis Requested: Analytical suite (e.g., Gamma spec (full suite), TCLP metals) or analytical method requested (e.g., Alpha spec (specify isotopes), 8260B (VOCs), 6010B/7470A (total metals +Hg) and number of containers provided for each.
6) Preservative Type: **HA** =Hydrochloric Acid, **NI** =Nitric Acid, **SH** =Sodium Hydroxide, **SA** =Sulfuric Acid, **AA** =Ascorbic Acid, **HX** = Hexane, **ST** =Sodium Thiosulfate, If no preservative is added = leave field blank.

*NOTE: All samples are grab samples unless otherwise specified

For Lab Receiving Use Only	
Custody Seal Intact?	YES NO
Cooler Temp:	C

GEL Laboratories LLC HT

SAMPLE RECEIPT & REVIEW FORM

Client: UASC	SDG/AR/COC/Work Order: 433708
Received By: AA	Date Received: 9/27/17
Carrier and Tracking Number	Circle Applicable: (FedEx Express) FedEx Ground UPS Field Services Courier Other 7703 4598 2931

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#:
COC/Samples marked or classified as radioactive?	✓		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): Ø CPM / mR/Hr **Classified as: (Rad 1) Rad 2 Rad 3**
Is package, COC, and/or Samples marked HAZ?		✓	If yes, select Hazards below, and contact the GEL Safety Group. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice (Ice Packs) Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 1°
4	Daily check performed and passed on IR temperature gun?	✓			**Temperature Device Serial #:** IR2-17 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?		✓		Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?	✓			If Yes, Are Encores or Soil Kits present? Yes___ No ✓ (If yes, take to VOA Freezer) Do VOA vials contain acid preservation? Yes___ No ✓ N/A (If unknown, select No) VOA vials free of headspace? Yes___ No ✓ N/A Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
11	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
12	Are sample containers identifiable as GEL provided?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials HT Date 092717 Page 1 of 1

GL-CHL-SR-001 Rev 5

Laboratory Certifications

List of current GEL Certifications as of 10 October 2017

State	Certification
Alaska	UST−0110
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
Delaware	SC00012
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho Chemistry	SC00012
Idaho Radiochemistry	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana NELAP	03046 (AI33904)
Louisiana SDWA	LA170010
Maryland	270
Massachusetts	M−SC012
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122018−1
New Hampshire NELAP	205415
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	9904
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S.Carolina Radchem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−17−12
Utah NELAP	SC000122017−23
Vermont	VT87156
Virginia NELAP	460202
Washington	C780
West Virginia	997404

Volatile Analysis

Case Narrative

GC/MS Volatile
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 433718

Product: **Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer**
Analytical Method: SW846 8260B
Analytical Procedure: GL-OA-E-038 REV# 26
Analytical Batches: 1705051 and 1705693

Preparation Method: SW846 5030
Preparation Procedure: GL-OA-E-038 REV# 26
Preparation Batch: 1705692

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
433718001	G2SOL01
433718002	G2SOL01D
433718003	G2SOL01MS
433718004	G2SOL01EB
433718005	G2SOL01TB
433718006	G2SOL02
433718007	G2SOL06
433718008	G2SOL07
433718009	G2SOL09
433718010	G2SOL11
433718011	G2SOL12
433718012	G2SWSOL01
433718013	G2SWSOL02
433718014	G2SWSOL04
433718015	G2SWSOL05
433718016	G2SWSOL06
433718017	G2SWSOL07
433718018	G2ESOL01
433718019	G2ESOL02
433718020	G2ESOL03
1203885589	Method Blank (MB)
1203885590	Laboratory Control Sample (LCS)
1203885591	433845001(NonSDG) Post Spike (PS)
1203885592	433845001(NonSDG) Post Spike Duplicate (PSD)
1203887113	Method Blank (MB)
1203887114	High Blank (HB)
1203887115	Laboratory Control Sample (LCS)
1203887116	433718010(G2SOL11) Post Spike (PS)
1203887117	433718010(G2SOL11) Post Spike Duplicate (PSD)
1203887685	Method Blank (MB)
1203887686	Method Blank (MB)
1203887687	Laboratory Control Sample (LCS)
1203887688	Laboratory Control Sample (LCS)
1203888700	High Blank (HB)

Samples 433718001,002,003,006,007,008,009,010,011,012,013,014,015,016,017,018,019 and 020 in this SDG were analyzed on a "dry weight corrected" basis. Samples 433718004 and 005 in this SDG were analyzed on an

"as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Blank (MB) Statement

Target analytes were detected in the blank 1203885589 (MB) below the reporting limit.

Surrogate Recoveries

Surrogate recoveries, in samples 1203887116 (G2SOL11PS), 1203887117 (G2SOL11PSD) and 433718010 (G2SOL11) were outside the acceptance limits. The recoveries were similar. It is believed possible matrix interference has been demonstrated Samples 433718001 (G2SOL01), 433718002 (G2SOL01D), 433718003 (G2SOL01MS), 433718006 (G2SOL02), 433718007 (G2SOL06), 433718008 (G2SOL07), 433718009 (G2SOL09), 433718010 (G2SOL11), 433718011 (G2SOL12), 433718012 (G2SWSOL01), 433718013 (G2SWSOL02), 433718014 (G2SWSOL04), 433718015 (G2SWSOL05), 433718016 (G2SWSOL06), 433718017 (G2SWSOL07), 433718018 (G2ESOL01), 433718019 (G2ESOL02) and 433718020 (G2ESOL03) were re-analyzed due to unacceptable surrogate recoveries in the initial analysis. The Methanol extracts were analyzed and passed recoveries. Both analyses were reported.

Relative Percent Difference (RPD) Statement

The RPD between the matrix spike pair (See Below) were not all within the acceptance limits. The unacceptable RPD may be attributed to matrix interference and/or sample non-homogeneity.

Sample	Analyte	Value
1203887116PS and 1203887117PSD (G2SOL11)	Styrene	RPD 25* (0%-20%)

Internal Standard (ISTD) Acceptance

In samples 1203887116 (G2SOL11PS), 1203887117 (G2SOL11PSD) and 433718010 (G2SOL11), internal standard responses were outside the required acceptance criteria. The recoveries were similar. The results are reported. Samples 433718001 (G2SOL01), 433718002 (G2SOL01D), 433718003 (G2SOL01MS), 433718006 (G2SOL02), 433718007 (G2SOL06), 433718008 (G2SOL07), 433718009 (G2SOL09), 433718010 (G2SOL11), 433718011 (G2SOL12), 433718012 (G2SWSOL01), 433718013 (G2SWSOL02), 433718014 (G2SWSOL04), 433718015 (G2SWSOL05), 433718016 (G2SWSOL06), 433718017 (G2SWSOL07), 433718018 (G2ESOL01), 433718019 (G2ESOL02) and 433718020 (G2ESOL03) were re-analyzed due to unacceptable internal standard responses in the initial analysis. The Methanol extracts were analyzed and passed recoveries. Both analyses were reported.

Technical Information

Sample Preservation and Integrity

Containers for samples 433718018 (G2ESOL01) and 433718019 (G2ESOL02) were previously opened in other lab areas prior to VOA analysis.

Sample Dilutions/Methanol Dilutions

Samples 1203887116 (G2SOL11PS), 1203887117 (G2SOL11PSD), 433718001 (G2SOL01), 433718002 (G2SOL01D), 433718003 (G2SOL01MS), 433718006 (G2SOL02), 433718007 (G2SOL06), 433718008 (G2SOL07), 433718009 (G2SOL09), 433718010 (G2SOL11), 433718011 (G2SOL12), 433718012 (G2SWSOL01), 433718013 (G2SWSOL02), 433718014 (G2SWSOL04), 433718015 (G2SWSOL05), 433718016 (G2SWSOL06), 433718017 (G2SWSOL07), 433718018 (G2ESOL01), 433718019 (G2ESOL02) and 433718020 (G2ESOL03) were analyzed neat and using a Methanol extraction procedure because the

samples did not pass surrogate recoveries and internal standard responses in the initial neat analysis. Both sets of analyses are reported.

Analyte	433718																	
	001	**002**	**003**	**006**	**007**	**008**	**009**	**010**	**011**	**012**	**013**	**014**	**015**	**016**	**017**	**018**	**019**	**020**
Several	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X	50X 1X

Sample Re-extraction/Re-analysis
Samples 433718001 (G2SOL01), 433718002 (G2SOL01D), 433718003 (G2SOL01MS), 433718006 (G2SOL02), 433718007 (G2SOL06), 433718008 (G2SOL07), 433718009 (G2SOL09), 433718010 (G2SOL11), 433718011 (G2SOL12), 433718012 (G2SWSOL01), 433718013 (G2SWSOL02), 433718014 (G2SWSOL04), 433718015 (G2SWSOL05), 433718016 (G2SWSOL06), 433718017 (G2SWSOL07), 433718018 (G2ESOL01), 433718019 (G2ESOL02) and 433718020 (G2ESOL03) were analyzed neat and using a Methanol extraction procedure because the samples did not pass surrogate recoveries and internal standard responses in the initial neat analysis. Both sets of analyses are reported.

Miscellaneous Information

Additional Comments
Sample 433718004 (G2SOL01EB) was collected in 200 mL clear glass jar.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 433718 GEL Work Order: 433718

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
B The target analyte was detected in the associated blank.
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Erin Haubert **Name:** **Erin Haubert**

Date: **10 OCT 2017** **Title:** **Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718001**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 16:23**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:06**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	105	ug/kg	35.1	105
79-34-5	1,1,2,2-Tetrachloroethane	U	105	ug/kg	35.1	105
79-00-5	1,1,2-Trichloroethane	U	105	ug/kg	35.1	105
75-34-3	1,1-Dichloroethane	U	105	ug/kg	35.1	105
75-35-4	1,1-Dichloroethylene	U	105	ug/kg	35.1	105
107-06-2	1,2-Dichloroethane	U	105	ug/kg	35.1	105
78-93-3	2-Butanone	U	527	ug/kg	176	527
591-78-6	2-Hexanone	U	527	ug/kg	176	527
108-10-1	4-Methyl-2-pentanone	U	527	ug/kg	176	527
67-64-1	Acetone	U	527	ug/kg	176	527
71-43-2	Benzene	U	105	ug/kg	35.1	105
75-15-0	Carbon disulfide	U	527	ug/kg	176	527
56-23-5	Carbon tetrachloride	U	105	ug/kg	35.1	105
108-90-7	Chlorobenzene	U	105	ug/kg	35.1	105
75-00-3	Chloroethane	U	105	ug/kg	35.1	105
67-66-3	Chloroform	U	105	ug/kg	35.1	105
74-87-3	Chloromethane	U	105	ug/kg	35.1	105
100-41-4	Ethylbenzene	U	105	ug/kg	35.1	105
75-09-2	Methylene chloride	U	527	ug/kg	176	527
100-42-5	Styrene	U	105	ug/kg	35.1	105
127-18-4	Tetrachloroethylene	U	105	ug/kg	35.1	105
108-88-3	Toluene	U	105	ug/kg	35.1	105
79-01-6	Trichloroethylene	U	105	ug/kg	35.1	105
76-13-1	Trichlorotrifluoroethane	U	527	ug/kg	176	527
108-05-4	Vinyl acetate	U	527	ug/kg	176	527
75-01-4	Vinyl chloride	U	105	ug/kg	35.1	105
1330-20-7	Xylenes (total)	U	316	ug/kg	105	316
156-59-2	cis-1,2-Dichloroethylene	U	105	ug/kg	35.1	105
156-60-5	trans-1,2-Dichloroethylene	U	105	ug/kg	35.1	105

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718001**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:03**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.351	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.351	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.351	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.351	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.351	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.351	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.76	5.27
591-78-6	2-Hexanone	U	5.27	ug/kg	1.76	5.27
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.76	5.27
67-64-1	Acetone	U	5.27	ug/kg	1.76	5.27
71-43-2	Benzene	U	1.05	ug/kg	0.351	1.05
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.76	5.27
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.351	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.351	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.351	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.351	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.351	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.351	1.05
75-09-2	Methylene chloride	U	5.27	ug/kg	1.76	5.27
100-42-5	Styrene	U	1.05	ug/kg	0.351	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.351	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.351	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.351	1.05
76-13-1	Trichlorotrifluoroethane	U	5.27	ug/kg	1.76	5.27
108-05-4	Vinyl acetate	U	5.27	ug/kg	1.76	5.27
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.351	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.351	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.351	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718002**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01D**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 16:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:07**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.2	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.2	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.2	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.2	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.2	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.2	106
78-93-3	2-Butanone	U	528	ug/kg	176	528
591-78-6	2-Hexanone	U	528	ug/kg	176	528
108-10-1	4-Methyl-2-pentanone	U	528	ug/kg	176	528
67-64-1	Acetone	U	528	ug/kg	176	528
71-43-2	Benzene	U	106	ug/kg	35.2	106
75-15-0	Carbon disulfide	U	528	ug/kg	176	528
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.2	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.2	106
75-00-3	Chloroethane	U	106	ug/kg	35.2	106
67-66-3	Chloroform	U	106	ug/kg	35.2	106
74-87-3	Chloromethane	U	106	ug/kg	35.2	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.2	106
75-09-2	Methylene chloride	U	528	ug/kg	176	528
100-42-5	Styrene	U	106	ug/kg	35.2	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.2	106
108-88-3	Toluene	U	106	ug/kg	35.2	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.2	106
76-13-1	Trichlorotrifluoroethane	U	528	ug/kg	176	528
108-05-4	Vinyl acetate	U	528	ug/kg	176	528
75-01-4	Vinyl chloride	U	106	ug/kg	35.2	106
1330-20-7	Xylenes (total)	U	317	ug/kg	106	317
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.2	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.2	106

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718002**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01DRE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:31**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	J	0.402	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718003**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01MS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 17:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:08**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.2	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.2	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.2	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.2	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.2	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.2	106
78-93-3	2-Butanone	U	528	ug/kg	176	528
591-78-6	2-Hexanone	U	528	ug/kg	176	528
108-10-1	4-Methyl-2-pentanone	U	528	ug/kg	176	528
67-64-1	Acetone	U	528	ug/kg	176	528
71-43-2	Benzene	U	106	ug/kg	35.2	106
75-15-0	Carbon disulfide	U	528	ug/kg	176	528
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.2	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.2	106
75-00-3	Chloroethane	U	106	ug/kg	35.2	106
67-66-3	Chloroform	U	106	ug/kg	35.2	106
74-87-3	Chloromethane	U	106	ug/kg	35.2	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.2	106
75-09-2	Methylene chloride	U	528	ug/kg	176	528
100-42-5	Styrene	U	106	ug/kg	35.2	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.2	106
108-88-3	Toluene	U	106	ug/kg	35.2	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.2	106
76-13-1	Trichlorotrifluoroethane	U	528	ug/kg	176	528
108-05-4	Vinyl acetate	U	528	ug/kg	176	528
75-01-4	Vinyl chloride	U	106	ug/kg	35.2	106
1330-20-7	Xylenes (total)	U	317	ug/kg	106	317
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.2	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.2	106

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718003**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01MSRE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:59**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**WATER**
Lab Sample ID:	**433718004**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01EB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:51**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:51**				
Data File:	**092917V6\6A507.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone	U	5.00	ug/L	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.67	5.00
67-64-1	Acetone	U	5.00	ug/L	1.74	5.00
71-43-2	Benzene	U	1.00	ug/L	0.333	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.333	1.00
75-27-4	Bromodichloromethane		2.36	ug/L	0.333	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.337	1.00
75-15-0	Carbon disulfide	U	5.00	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.333	1.00
67-66-3	Chloroform		5.29	ug/L	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.333	1.00
110-82-7	Cyclohexane	U	1.00	ug/L	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.355	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.333	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.333	1.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.67	5.00
108-87-2	Methylcyclohexane	U	1.00	ug/L	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.67	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**WATER**
Lab Sample ID:	**433718004**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01EB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:51**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:51**				
Data File:	**092917V6\6A507.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.00	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.333	1.00
108-88-3	Toluene	U	1.00	ug/L	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.667	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:00**	**Matrix:**	**WATER**
Lab Sample ID:	**433718005**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01TB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 12:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 12:19**				
Data File:	**092917V6\6A508.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone	U	5.00	ug/L	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.67	5.00
67-64-1	Acetone	U	5.00	ug/L	1.74	5.00
71-43-2	Benzene	U	1.00	ug/L	0.333	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.333	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.337	1.00
75-15-0	Carbon disulfide	U	5.00	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.333	1.00
110-82-7	Cyclohexane	U	1.00	ug/L	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.355	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.333	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.333	1.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.67	5.00
108-87-2	Methylcyclohexane	U	1.00	ug/L	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.67	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:00**	**Matrix:**	**WATER**
Lab Sample ID:	**433718005**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01TB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 12:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 12:19**				
Data File:	**092917V6\6A508.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.00	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.333	1.00
108-88-3	Toluene	U	1.00	ug/L	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.667	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:48**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718006**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 17:47**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	34.5	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	34.5	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	34.5	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	34.5	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	34.5	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	34.5	104
78-93-3	2-Butanone	U	518	ug/kg	173	518
591-78-6	2-Hexanone	U	518	ug/kg	173	518
108-10-1	4-Methyl-2-pentanone	U	518	ug/kg	173	518
67-64-1	Acetone	U	518	ug/kg	173	518
71-43-2	Benzene	U	104	ug/kg	34.5	104
75-15-0	Carbon disulfide	U	518	ug/kg	173	518
56-23-5	Carbon tetrachloride	U	104	ug/kg	34.5	104
108-90-7	Chlorobenzene	U	104	ug/kg	34.5	104
75-00-3	Chloroethane	U	104	ug/kg	34.5	104
67-66-3	Chloroform	U	104	ug/kg	34.5	104
74-87-3	Chloromethane	U	104	ug/kg	34.5	104
100-41-4	Ethylbenzene	U	104	ug/kg	34.5	104
75-09-2	Methylene chloride	U	518	ug/kg	173	518
100-42-5	Styrene	U	104	ug/kg	34.5	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	34.5	104
108-88-3	Toluene	U	104	ug/kg	34.5	104
79-01-6	Trichloroethylene	U	104	ug/kg	34.5	104
76-13-1	Trichlorotrifluoroethane	U	518	ug/kg	173	518
108-05-4	Vinyl acetate	U	518	ug/kg	173	518
75-01-4	Vinyl chloride	U	104	ug/kg	34.5	104
1330-20-7	Xylenes (total)	U	311	ug/kg	104	311
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	34.5	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	34.5	104

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:48**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718006**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL02RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 14:28**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:11**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718007**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL06**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 18:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:10**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M118.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.4	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.4	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.4	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.4	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.4	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.4	103
78-93-3	2-Butanone	U	516	ug/kg	172	516
591-78-6	2-Hexanone	U	516	ug/kg	172	516
108-10-1	4-Methyl-2-pentanone	U	516	ug/kg	172	516
67-64-1	Acetone	U	516	ug/kg	172	516
71-43-2	Benzene	U	103	ug/kg	34.4	103
75-15-0	Carbon disulfide	U	516	ug/kg	172	516
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.4	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.4	103
75-00-3	Chloroethane	U	103	ug/kg	34.4	103
67-66-3	Chloroform	U	103	ug/kg	34.4	103
74-87-3	Chloromethane	U	103	ug/kg	34.4	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.4	103
75-09-2	Methylene chloride	U	516	ug/kg	172	516
100-42-5	Styrene	U	103	ug/kg	34.4	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.4	103
108-88-3	Toluene	U	103	ug/kg	34.4	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.4	103
76-13-1	Trichlorotrifluoroethane	U	516	ug/kg	172	516
108-05-4	Vinyl acetate	U	516	ug/kg	172	516
75-01-4	Vinyl chloride	U	103	ug/kg	34.4	103
1330-20-7	Xylenes (total)	U	309	ug/kg	103	309
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.4	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.4	103

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:11**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718007**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL06RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 14:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.350	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.350	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.350	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.350	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.350	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.75	5.26
591-78-6	2-Hexanone	U	5.26	ug/kg	1.75	5.26
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.75	5.26
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
71-43-2	Benzene	U	1.05	ug/kg	0.350	1.05
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.75	5.26
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.350	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.350	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.350	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.350	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.350	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.350	1.05
75-09-2	Methylene chloride	U	5.26	ug/kg	1.75	5.26
100-42-5	Styrene	U	1.05	ug/kg	0.350	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.350	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.350	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.350	1.05
76-13-1	Trichlorotrifluoroethane	U	5.26	ug/kg	1.75	5.26
108-05-4	Vinyl acetate	U	5.26	ug/kg	1.75	5.26
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.350	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:08**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718008**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL07**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 18:42**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:11**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M119.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.5	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.5	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.5	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.5	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.5	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.5	103
78-93-3	2-Butanone	U	517	ug/kg	173	517
591-78-6	2-Hexanone	U	517	ug/kg	173	517
108-10-1	4-Methyl-2-pentanone	U	517	ug/kg	173	517
67-64-1	Acetone	U	517	ug/kg	173	517
71-43-2	Benzene	U	103	ug/kg	34.5	103
75-15-0	Carbon disulfide	U	517	ug/kg	173	517
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.5	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.5	103
75-00-3	Chloroethane	U	103	ug/kg	34.5	103
67-66-3	Chloroform	U	103	ug/kg	34.5	103
74-87-3	Chloromethane	U	103	ug/kg	34.5	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.5	103
75-09-2	Methylene chloride	U	517	ug/kg	173	517
100-42-5	Styrene	U	103	ug/kg	34.5	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.5	103
108-88-3	Toluene	U	103	ug/kg	34.5	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.5	103
76-13-1	Trichlorotrifluoroethane	U	517	ug/kg	173	517
108-05-4	Vinyl acetate	U	517	ug/kg	173	517
75-01-4	Vinyl chloride	U	103	ug/kg	34.5	103
1330-20-7	Xylenes (total)	U	310	ug/kg	103	310
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.5	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.5	103

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:08**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718008**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL07RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 15:25**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.351	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.351	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.351	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.351	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.351	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.351	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.351	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.351	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.351	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.351	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.351	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.351	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.351	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.351	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.351	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.351	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:02**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718009**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL09**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 19:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:12**	**Aliquot:**	**5.2 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M120.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.3	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.3	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.3	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.3	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.3	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.3	103
78-93-3	2-Butanone	U	515	ug/kg	172	515
591-78-6	2-Hexanone	U	515	ug/kg	172	515
108-10-1	4-Methyl-2-pentanone	U	515	ug/kg	172	515
67-64-1	Acetone	U	515	ug/kg	172	515
71-43-2	Benzene	U	103	ug/kg	34.3	103
75-15-0	Carbon disulfide	U	515	ug/kg	172	515
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.3	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.3	103
75-00-3	Chloroethane	U	103	ug/kg	34.3	103
67-66-3	Chloroform	U	103	ug/kg	34.3	103
74-87-3	Chloromethane	U	103	ug/kg	34.3	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.3	103
75-09-2	Methylene chloride	U	515	ug/kg	172	515
100-42-5	Styrene	U	103	ug/kg	34.3	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.3	103
108-88-3	Toluene	U	103	ug/kg	34.3	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.3	103
76-13-1	Trichlorotrifluoroethane	U	515	ug/kg	172	515
108-05-4	Vinyl acetate	U	515	ug/kg	172	515
75-01-4	Vinyl chloride	U	103	ug/kg	34.3	103
1330-20-7	Xylenes (total)	U	309	ug/kg	103	309
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.3	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.3	103

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:02**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718009**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL09RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 15:54**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.356	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.356	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.356	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.356	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.356	1.07
78-93-3	2-Butanone	U	5.35	ug/kg	1.78	5.35
591-78-6	2-Hexanone	U	5.35	ug/kg	1.78	5.35
108-10-1	4-Methyl-2-pentanone	U	5.35	ug/kg	1.78	5.35
67-64-1	Acetone	U	5.35	ug/kg	1.78	5.35
71-43-2	Benzene	U	1.07	ug/kg	0.356	1.07
75-15-0	Carbon disulfide	U	5.35	ug/kg	1.78	5.35
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.356	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.356	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.356	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.356	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.356	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.356	1.07
75-09-2	Methylene chloride	U	5.35	ug/kg	1.78	5.35
100-42-5	Styrene	U	1.07	ug/kg	0.356	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.356	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.356	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.356	1.07
76-13-1	Trichlorotrifluoroethane	U	5.35	ug/kg	1.78	5.35
108-05-4	Vinyl acetate	U	5.35	ug/kg	1.78	5.35
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.356	1.07
1330-20-7	Xylenes (total)	U	3.21	ug/kg	1.07	3.21
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718010**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL11**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 19:37**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:13**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M121.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	35.9	108
78-93-3	2-Butanone	U	539	ug/kg	180	539
591-78-6	2-Hexanone	U	539	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone	U	539	ug/kg	180	539
67-64-1	Acetone	U	539	ug/kg	180	539
71-43-2	Benzene	U	108	ug/kg	35.9	108
75-15-0	Carbon disulfide	U	539	ug/kg	180	539
56-23-5	Carbon tetrachloride	U	108	ug/kg	35.9	108
108-90-7	Chlorobenzene	U	108	ug/kg	35.9	108
75-00-3	Chloroethane	U	108	ug/kg	35.9	108
67-66-3	Chloroform	U	108	ug/kg	35.9	108
74-87-3	Chloromethane	U	108	ug/kg	35.9	108
100-41-4	Ethylbenzene	U	108	ug/kg	35.9	108
75-09-2	Methylene chloride	U	539	ug/kg	180	539
100-42-5	Styrene	U	108	ug/kg	35.9	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	35.9	108
108-88-3	Toluene	U	108	ug/kg	35.9	108
79-01-6	Trichloroethylene	U	108	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate	U	539	ug/kg	180	539
75-01-4	Vinyl chloride	U	108	ug/kg	35.9	108
1330-20-7	Xylenes (total)	U	323	ug/kg	108	323
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	35.9	108

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718010**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL11RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 16:23**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride	U	5.39	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.23	ug/kg	1.08	3.23
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:09**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718011**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**4.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL12**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 20:05**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M122.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	101	ug/kg	33.7	101
79-34-5	1,1,2,2-Tetrachloroethane	U	101	ug/kg	33.7	101
79-00-5	1,1,2-Trichloroethane	U	101	ug/kg	33.7	101
75-34-3	1,1-Dichloroethane	U	101	ug/kg	33.7	101
75-35-4	1,1-Dichloroethylene	U	101	ug/kg	33.7	101
107-06-2	1,2-Dichloroethane	U	101	ug/kg	33.7	101
78-93-3	2-Butanone	U	506	ug/kg	169	506
591-78-6	2-Hexanone	U	506	ug/kg	169	506
108-10-1	4-Methyl-2-pentanone	U	506	ug/kg	169	506
67-64-1	Acetone	U	506	ug/kg	169	506
71-43-2	Benzene	U	101	ug/kg	33.7	101
75-15-0	Carbon disulfide	U	506	ug/kg	169	506
56-23-5	Carbon tetrachloride	U	101	ug/kg	33.7	101
108-90-7	Chlorobenzene	U	101	ug/kg	33.7	101
75-00-3	Chloroethane	U	101	ug/kg	33.7	101
67-66-3	Chloroform	U	101	ug/kg	33.7	101
74-87-3	Chloromethane	U	101	ug/kg	33.7	101
100-41-4	Ethylbenzene	U	101	ug/kg	33.7	101
75-09-2	Methylene chloride	U	506	ug/kg	169	506
100-42-5	Styrene	U	101	ug/kg	33.7	101
127-18-4	Tetrachloroethylene	U	101	ug/kg	33.7	101
108-88-3	Toluene	U	101	ug/kg	33.7	101
79-01-6	Trichloroethylene	U	101	ug/kg	33.7	101
76-13-1	Trichlorotrifluoroethane	U	506	ug/kg	169	506
108-05-4	Vinyl acetate	U	506	ug/kg	169	506
75-01-4	Vinyl chloride	U	101	ug/kg	33.7	101
1330-20-7	Xylenes (total)	U	303	ug/kg	101	303
156-59-2	cis-1,2-Dichloroethylene	U	101	ug/kg	33.7	101
156-60-5	trans-1,2-Dichloroethylene	U	101	ug/kg	33.7	101

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:09**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718011**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**4.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL12RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 16:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:08**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.350	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.350	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.350	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.350	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.350	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.75	5.26
591-78-6	2-Hexanone	U	5.26	ug/kg	1.75	5.26
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.75	5.26
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
71-43-2	Benzene	U	1.05	ug/kg	0.350	1.05
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.75	5.26
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.350	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.350	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.350	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.350	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.350	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.350	1.05
75-09-2	Methylene chloride	U	5.26	ug/kg	1.75	5.26
100-42-5	Styrene	U	1.05	ug/kg	0.350	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.350	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.350	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.350	1.05
76-13-1	Trichlorotrifluoroethane	U	5.26	ug/kg	1.75	5.26
108-05-4	Vinyl acetate	U	5.26	ug/kg	1.75	5.26
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.350	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718012**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 20:33**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:15**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M123.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.3	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.3	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.3	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.3	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.3	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.3	106
78-93-3	2-Butanone	U	530	ug/kg	177	530
591-78-6	2-Hexanone	U	530	ug/kg	177	530
108-10-1	4-Methyl-2-pentanone	U	530	ug/kg	177	530
67-64-1	Acetone	U	530	ug/kg	177	530
71-43-2	Benzene	U	106	ug/kg	35.3	106
75-15-0	Carbon disulfide	U	530	ug/kg	177	530
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.3	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.3	106
75-00-3	Chloroethane	U	106	ug/kg	35.3	106
67-66-3	Chloroform	U	106	ug/kg	35.3	106
74-87-3	Chloromethane	U	106	ug/kg	35.3	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.3	106
75-09-2	Methylene chloride	U	530	ug/kg	177	530
100-42-5	Styrene	U	106	ug/kg	35.3	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.3	106
108-88-3	Toluene	U	106	ug/kg	35.3	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.3	106
76-13-1	Trichlorotrifluoroethane	U	530	ug/kg	177	530
108-05-4	Vinyl acetate	U	530	ug/kg	177	530
75-01-4	Vinyl chloride	U	106	ug/kg	35.3	106
1330-20-7	Xylenes (total)	U	318	ug/kg	106	318
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.3	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.3	106

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718012**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL01RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 17:20**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:09**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.353	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.353	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.353	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.353	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.353	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.353	1.06
78-93-3	2-Butanone	U	5.30	ug/kg	1.77	5.30
591-78-6	2-Hexanone	U	5.30	ug/kg	1.77	5.30
108-10-1	4-Methyl-2-pentanone	U	5.30	ug/kg	1.77	5.30
67-64-1	Acetone	U	5.30	ug/kg	1.77	5.30
71-43-2	Benzene	U	1.06	ug/kg	0.353	1.06
75-15-0	Carbon disulfide	U	5.30	ug/kg	1.77	5.30
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.353	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.353	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.353	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.353	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.353	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.353	1.06
75-09-2	Methylene chloride	U	5.30	ug/kg	1.77	5.30
100-42-5	Styrene	U	1.06	ug/kg	0.353	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.353	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.353	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.353	1.06
76-13-1	Trichlorotrifluoroethane	U	5.30	ug/kg	1.77	5.30
108-05-4	Vinyl acetate	U	5.30	ug/kg	1.77	5.30
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.353	1.06
1330-20-7	Xylenes (total)	U	3.18	ug/kg	1.06	3.18
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.353	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.353	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:52**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718013**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:01**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:16**	**Aliquot:**	**5.5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M124.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	95.9	ug/kg	31.9	95.9
79-34-5	1,1,2,2-Tetrachloroethane	U	95.9	ug/kg	31.9	95.9
79-00-5	1,1,2-Trichloroethane	U	95.9	ug/kg	31.9	95.9
75-34-3	1,1-Dichloroethane	U	95.9	ug/kg	31.9	95.9
75-35-4	1,1-Dichloroethylene	U	95.9	ug/kg	31.9	95.9
107-06-2	1,2-Dichloroethane	U	95.9	ug/kg	31.9	95.9
78-93-3	2-Butanone	U	480	ug/kg	160	480
591-78-6	2-Hexanone	U	480	ug/kg	160	480
108-10-1	4-Methyl-2-pentanone	U	480	ug/kg	160	480
67-64-1	Acetone	U	480	ug/kg	160	480
71-43-2	Benzene	U	95.9	ug/kg	31.9	95.9
75-15-0	Carbon disulfide	U	480	ug/kg	160	480
56-23-5	Carbon tetrachloride	U	95.9	ug/kg	31.9	95.9
108-90-7	Chlorobenzene	U	95.9	ug/kg	31.9	95.9
75-00-3	Chloroethane	U	95.9	ug/kg	31.9	95.9
67-66-3	Chloroform	U	95.9	ug/kg	31.9	95.9
74-87-3	Chloromethane	U	95.9	ug/kg	31.9	95.9
100-41-4	Ethylbenzene	U	95.9	ug/kg	31.9	95.9
75-09-2	Methylene chloride	U	480	ug/kg	160	480
100-42-5	Styrene	U	95.9	ug/kg	31.9	95.9
127-18-4	Tetrachloroethylene	U	95.9	ug/kg	31.9	95.9
108-88-3	Toluene	U	95.9	ug/kg	31.9	95.9
79-01-6	Trichloroethylene	U	95.9	ug/kg	31.9	95.9
76-13-1	Trichlorotrifluoroethane	U	480	ug/kg	160	480
108-05-4	Vinyl acetate	U	480	ug/kg	160	480
75-01-4	Vinyl chloride	U	95.9	ug/kg	31.9	95.9
1330-20-7	Xylenes (total)	U	288	ug/kg	95.9	288
156-59-2	cis-1,2-Dichloroethylene	U	95.9	ug/kg	31.9	95.9
156-60-5	trans-1,2-Dichloroethylene	U	95.9	ug/kg	31.9	95.9

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:52**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718013**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL02RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 17:48**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.351	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.351	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.351	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.351	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.351	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.351	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.351	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.351	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.351	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.351	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.351	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.351	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.351	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.351	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.351	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.351	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718014**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL04**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:28**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:17**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M125.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	107	ug/kg	35.6	107
79-34-5	1,1,2,2-Tetrachloroethane	U	107	ug/kg	35.6	107
79-00-5	1,1,2-Trichloroethane	U	107	ug/kg	35.6	107
75-34-3	1,1-Dichloroethane	U	107	ug/kg	35.6	107
75-35-4	1,1-Dichloroethylene	U	107	ug/kg	35.6	107
107-06-2	1,2-Dichloroethane	U	107	ug/kg	35.6	107
78-93-3	2-Butanone	U	535	ug/kg	178	535
591-78-6	2-Hexanone	U	535	ug/kg	178	535
108-10-1	4-Methyl-2-pentanone	U	535	ug/kg	178	535
67-64-1	Acetone	U	535	ug/kg	178	535
71-43-2	Benzene	U	107	ug/kg	35.6	107
75-15-0	Carbon disulfide	U	535	ug/kg	178	535
56-23-5	Carbon tetrachloride	U	107	ug/kg	35.6	107
108-90-7	Chlorobenzene	U	107	ug/kg	35.6	107
75-00-3	Chloroethane	U	107	ug/kg	35.6	107
67-66-3	Chloroform	U	107	ug/kg	35.6	107
74-87-3	Chloromethane	U	107	ug/kg	35.6	107
100-41-4	Ethylbenzene	U	107	ug/kg	35.6	107
75-09-2	Methylene chloride	U	535	ug/kg	178	535
100-42-5	Styrene	U	107	ug/kg	35.6	107
127-18-4	Tetrachloroethylene	U	107	ug/kg	35.6	107
108-88-3	Toluene	U	107	ug/kg	35.6	107
79-01-6	Trichloroethylene	U	107	ug/kg	35.6	107
76-13-1	Trichlorotrifluoroethane	U	535	ug/kg	178	535
108-05-4	Vinyl acetate	U	535	ug/kg	178	535
75-01-4	Vinyl chloride	U	107	ug/kg	35.6	107
1330-20-7	Xylenes (total)	U	321	ug/kg	107	321
156-59-2	cis-1,2-Dichloroethylene	U	107	ug/kg	35.6	107
156-60-5	trans-1,2-Dichloroethylene	U	107	ug/kg	35.6	107

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718014**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL04RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 18:17**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.356	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.356	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.356	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.356	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.356	1.07
78-93-3	2-Butanone	U	5.35	ug/kg	1.78	5.35
591-78-6	2-Hexanone	U	5.35	ug/kg	1.78	5.35
108-10-1	4-Methyl-2-pentanone	U	5.35	ug/kg	1.78	5.35
67-64-1	Acetone	U	5.35	ug/kg	1.78	5.35
71-43-2	Benzene	U	1.07	ug/kg	0.356	1.07
75-15-0	Carbon disulfide	U	5.35	ug/kg	1.78	5.35
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.356	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.356	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.356	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.356	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.356	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.356	1.07
75-09-2	Methylene chloride	U	5.35	ug/kg	1.78	5.35
100-42-5	Styrene	U	1.07	ug/kg	0.356	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.356	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.356	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.356	1.07
76-13-1	Trichlorotrifluoroethane	U	5.35	ug/kg	1.78	5.35
108-05-4	Vinyl acetate	U	5.35	ug/kg	1.78	5.35
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.356	1.07
1330-20-7	Xylenes (total)	U	3.21	ug/kg	1.07	3.21
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:57**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718015**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**12.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL05**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:18**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M126.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	113	ug/kg	37.5	113
79-34-5	1,1,2,2-Tetrachloroethane	U	113	ug/kg	37.5	113
79-00-5	1,1,2-Trichloroethane	U	113	ug/kg	37.5	113
75-34-3	1,1-Dichloroethane	U	113	ug/kg	37.5	113
75-35-4	1,1-Dichloroethylene	U	113	ug/kg	37.5	113
107-06-2	1,2-Dichloroethane	U	113	ug/kg	37.5	113
78-93-3	2-Butanone	U	563	ug/kg	188	563
591-78-6	2-Hexanone	U	563	ug/kg	188	563
108-10-1	4-Methyl-2-pentanone	U	563	ug/kg	188	563
67-64-1	Acetone	U	563	ug/kg	188	563
71-43-2	Benzene	U	113	ug/kg	37.5	113
75-15-0	Carbon disulfide	U	563	ug/kg	188	563
56-23-5	Carbon tetrachloride	U	113	ug/kg	37.5	113
108-90-7	Chlorobenzene	U	113	ug/kg	37.5	113
75-00-3	Chloroethane	U	113	ug/kg	37.5	113
67-66-3	Chloroform	U	113	ug/kg	37.5	113
74-87-3	Chloromethane	U	113	ug/kg	37.5	113
100-41-4	Ethylbenzene	U	113	ug/kg	37.5	113
75-09-2	Methylene chloride	U	563	ug/kg	188	563
100-42-5	Styrene	U	113	ug/kg	37.5	113
127-18-4	Tetrachloroethylene	U	113	ug/kg	37.5	113
108-88-3	Toluene	U	113	ug/kg	37.5	113
79-01-6	Trichloroethylene	U	113	ug/kg	37.5	113
76-13-1	Trichlorotrifluoroethane	U	563	ug/kg	188	563
108-05-4	Vinyl acetate	U	563	ug/kg	188	563
75-01-4	Vinyl chloride	U	113	ug/kg	37.5	113
1330-20-7	Xylenes (total)	U	338	ug/kg	113	338
156-59-2	cis-1,2-Dichloroethylene	U	113	ug/kg	37.5	113
156-60-5	trans-1,2-Dichloroethylene	U	113	ug/kg	37.5	113

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:57**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718015**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**12.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL05RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 18:45**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.382	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.382	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.382	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.382	1.15
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.382	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.382	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.91	5.74
591-78-6	2-Hexanone	U	5.74	ug/kg	1.91	5.74
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.91	5.74
67-64-1	Acetone	U	5.74	ug/kg	1.91	5.74
71-43-2	Benzene	U	1.15	ug/kg	0.382	1.15
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.91	5.74
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.382	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.382	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.382	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.382	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.382	1.15
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.382	1.15
75-09-2	Methylene chloride	U	5.74	ug/kg	1.91	5.74
100-42-5	Styrene	U	1.15	ug/kg	0.382	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.382	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.382	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.382	1.15
76-13-1	Trichlorotrifluoroethane	U	5.74	ug/kg	1.91	5.74
108-05-4	Vinyl acetate	U	5.74	ug/kg	1.91	5.74
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.382	1.15
1330-20-7	Xylenes (total)	U	3.44	ug/kg	1.15	3.44
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.382	1.15
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.382	1.15

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718016**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL06**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 22:24**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:19**	**Aliquot:**	**5.8 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M127.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	93.0	ug/kg	31.0	93.0
79-34-5	1,1,2,2-Tetrachloroethane	U	93.0	ug/kg	31.0	93.0
79-00-5	1,1,2-Trichloroethane	U	93.0	ug/kg	31.0	93.0
75-34-3	1,1-Dichloroethane	U	93.0	ug/kg	31.0	93.0
75-35-4	1,1-Dichloroethylene	U	93.0	ug/kg	31.0	93.0
107-06-2	1,2-Dichloroethane	U	93.0	ug/kg	31.0	93.0
78-93-3	2-Butanone	U	465	ug/kg	155	465
591-78-6	2-Hexanone	U	465	ug/kg	155	465
108-10-1	4-Methyl-2-pentanone	U	465	ug/kg	155	465
67-64-1	Acetone	U	465	ug/kg	155	465
71-43-2	Benzene	U	93.0	ug/kg	31.0	93.0
75-15-0	Carbon disulfide	U	465	ug/kg	155	465
56-23-5	Carbon tetrachloride	U	93.0	ug/kg	31.0	93.0
108-90-7	Chlorobenzene	U	93.0	ug/kg	31.0	93.0
75-00-3	Chloroethane	U	93.0	ug/kg	31.0	93.0
67-66-3	Chloroform	U	93.0	ug/kg	31.0	93.0
74-87-3	Chloromethane	U	93.0	ug/kg	31.0	93.0
100-41-4	Ethylbenzene	U	93.0	ug/kg	31.0	93.0
75-09-2	Methylene chloride	U	465	ug/kg	155	465
100-42-5	Styrene	U	93.0	ug/kg	31.0	93.0
127-18-4	Tetrachloroethylene	U	93.0	ug/kg	31.0	93.0
108-88-3	Toluene	U	93.0	ug/kg	31.0	93.0
79-01-6	Trichloroethylene	U	93.0	ug/kg	31.0	93.0
76-13-1	Trichlorotrifluoroethane	U	465	ug/kg	155	465
108-05-4	Vinyl acetate	U	465	ug/kg	155	465
75-01-4	Vinyl chloride	U	93.0	ug/kg	31.0	93.0
1330-20-7	Xylenes (total)	U	279	ug/kg	93.0	279
156-59-2	cis-1,2-Dichloroethylene	U	93.0	ug/kg	31.0	93.0
156-60-5	trans-1,2-Dichloroethylene	U	93.0	ug/kg	31.0	93.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718016**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL06RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 19:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride	U	5.39	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.24	ug/kg	1.08	3.24
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718017**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL07**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 22:52**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:20**	**Aliquot:**	**5.6 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M128.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	94.5	ug/kg	31.5	94.5
79-34-5	1,1,2,2-Tetrachloroethane	U	94.5	ug/kg	31.5	94.5
79-00-5	1,1,2-Trichloroethane	U	94.5	ug/kg	31.5	94.5
75-34-3	1,1-Dichloroethane	U	94.5	ug/kg	31.5	94.5
75-35-4	1,1-Dichloroethylene	U	94.5	ug/kg	31.5	94.5
107-06-2	1,2-Dichloroethane	U	94.5	ug/kg	31.5	94.5
78-93-3	2-Butanone	U	472	ug/kg	157	472
591-78-6	2-Hexanone	U	472	ug/kg	157	472
108-10-1	4-Methyl-2-pentanone	U	472	ug/kg	157	472
67-64-1	Acetone	U	472	ug/kg	157	472
71-43-2	Benzene	U	94.5	ug/kg	31.5	94.5
75-15-0	Carbon disulfide	U	472	ug/kg	157	472
56-23-5	Carbon tetrachloride	U	94.5	ug/kg	31.5	94.5
108-90-7	Chlorobenzene	U	94.5	ug/kg	31.5	94.5
75-00-3	Chloroethane	U	94.5	ug/kg	31.5	94.5
67-66-3	Chloroform	U	94.5	ug/kg	31.5	94.5
74-87-3	Chloromethane	U	94.5	ug/kg	31.5	94.5
100-41-4	Ethylbenzene	U	94.5	ug/kg	31.5	94.5
75-09-2	Methylene chloride	U	472	ug/kg	157	472
100-42-5	Styrene	U	94.5	ug/kg	31.5	94.5
127-18-4	Tetrachloroethylene	U	94.5	ug/kg	31.5	94.5
108-88-3	Toluene	U	94.5	ug/kg	31.5	94.5
79-01-6	Trichloroethylene	U	94.5	ug/kg	31.5	94.5
76-13-1	Trichlorotrifluoroethane	U	472	ug/kg	157	472
108-05-4	Vinyl acetate	U	472	ug/kg	157	472
75-01-4	Vinyl chloride	U	94.5	ug/kg	31.5	94.5
1330-20-7	Xylenes (total)	U	283	ug/kg	94.5	283
156-59-2	cis-1,2-Dichloroethylene	U	94.5	ug/kg	31.5	94.5
156-60-5	trans-1,2-Dichloroethylene	U	94.5	ug/kg	31.5	94.5

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718017**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL07RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 19:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.76	5.29
591-78-6	2-Hexanone	U	5.29	ug/kg	1.76	5.29
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.76	5.29
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.76	5.29
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.29	ug/kg	1.76	5.29
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.29	ug/kg	1.76	5.29
108-05-4	Vinyl acetate	U	5.29	ug/kg	1.76	5.29
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 20:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.354	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.354	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.354	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.354	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.354	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.354	1.06
78-93-3	2-Butanone	U	5.32	ug/kg	1.77	5.32
591-78-6	2-Hexanone	U	5.32	ug/kg	1.77	5.32
108-10-1	4-Methyl-2-pentanone	U	5.32	ug/kg	1.77	5.32
67-64-1	Acetone	J	2.06	ug/kg	1.77	5.32
71-43-2	Benzene	U	1.06	ug/kg	0.354	1.06
75-15-0	Carbon disulfide	U	5.32	ug/kg	1.77	5.32
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.354	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.354	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.354	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.354	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.354	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.354	1.06
75-09-2	Methylene chloride		6.60	ug/kg	1.77	5.32
100-42-5	Styrene	U	1.06	ug/kg	0.354	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.354	1.06
108-88-3	Toluene	J	0.426	ug/kg	0.354	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.354	1.06
76-13-1	Trichlorotrifluoroethane	U	5.32	ug/kg	1.77	5.32
108-05-4	Vinyl acetate	U	5.32	ug/kg	1.77	5.32
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.354	1.06
1330-20-7	Xylenes (total)	U	3.19	ug/kg	1.06	3.19
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.354	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.354	1.06

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 01:42**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:50**	**Aliquot:**	**6 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	88.7	ug/kg	29.5	88.7
79-34-5	1,1,2,2-Tetrachloroethane	U	88.7	ug/kg	29.5	88.7
79-00-5	1,1,2-Trichloroethane	U	88.7	ug/kg	29.5	88.7
75-34-3	1,1-Dichloroethane	U	88.7	ug/kg	29.5	88.7
75-35-4	1,1-Dichloroethylene	U	88.7	ug/kg	29.5	88.7
107-06-2	1,2-Dichloroethane	U	88.7	ug/kg	29.5	88.7
78-93-3	2-Butanone	U	443	ug/kg	148	443
591-78-6	2-Hexanone	U	443	ug/kg	148	443
108-10-1	4-Methyl-2-pentanone	U	443	ug/kg	148	443
67-64-1	Acetone	U	443	ug/kg	148	443
71-43-2	Benzene	U	88.7	ug/kg	29.5	88.7
75-15-0	Carbon disulfide	U	443	ug/kg	148	443
56-23-5	Carbon tetrachloride	U	88.7	ug/kg	29.5	88.7
108-90-7	Chlorobenzene	U	88.7	ug/kg	29.5	88.7
75-00-3	Chloroethane	U	88.7	ug/kg	29.5	88.7
67-66-3	Chloroform	U	88.7	ug/kg	29.5	88.7
74-87-3	Chloromethane	U	88.7	ug/kg	29.5	88.7
100-41-4	Ethylbenzene	U	88.7	ug/kg	29.5	88.7
75-09-2	Methylene chloride	U	443	ug/kg	148	443
100-42-5	Styrene	U	88.7	ug/kg	29.5	88.7
127-18-4	Tetrachloroethylene	U	88.7	ug/kg	29.5	88.7
108-88-3	Toluene	U	88.7	ug/kg	29.5	88.7
79-01-6	Trichloroethylene	U	88.7	ug/kg	29.5	88.7
76-13-1	Trichlorotrifluoroethane	U	443	ug/kg	148	443
108-05-4	Vinyl acetate	U	443	ug/kg	148	443
75-01-4	Vinyl chloride	U	88.7	ug/kg	29.5	88.7
1330-20-7	Xylenes (total)	U	266	ug/kg	88.7	266
156-59-2	cis-1,2-Dichloroethylene	U	88.7	ug/kg	29.5	88.7
156-60-5	trans-1,2-Dichloroethylene	U	88.7	ug/kg	29.5	88.7

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 20:39**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride		5.48	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	J	0.734	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	J	0.421	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.24	ug/kg	1.08	3.24
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 02:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:51**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	35.9	108
78-93-3	2-Butanone	U	539	ug/kg	180	539
591-78-6	2-Hexanone	U	539	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone	U	539	ug/kg	180	539
67-64-1	Acetone	U	539	ug/kg	180	539
71-43-2	Benzene	U	108	ug/kg	35.9	108
75-15-0	Carbon disulfide	U	539	ug/kg	180	539
56-23-5	Carbon tetrachloride	U	108	ug/kg	35.9	108
108-90-7	Chlorobenzene	U	108	ug/kg	35.9	108
75-00-3	Chloroethane	U	108	ug/kg	35.9	108
67-66-3	Chloroform	U	108	ug/kg	35.9	108
74-87-3	Chloromethane	U	108	ug/kg	35.9	108
100-41-4	Ethylbenzene	U	108	ug/kg	35.9	108
75-09-2	Methylene chloride	U	539	ug/kg	180	539
100-42-5	Styrene	U	108	ug/kg	35.9	108
127-18-4	Tetrachloroethylene	J	46.4	ug/kg	35.9	108
108-88-3	Toluene	U	108	ug/kg	35.9	108
79-01-6	Trichloroethylene	U	108	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate	U	539	ug/kg	180	539
75-01-4	Vinyl chloride	U	108	ug/kg	35.9	108
1330-20-7	Xylenes (total)	U	324	ug/kg	108	324
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	35.9	108

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 21:07**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M225.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.355	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.355	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.355	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.355	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.355	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.355	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.78	5.33
591-78-6	2-Hexanone	U	5.33	ug/kg	1.78	5.33
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.78	5.33
67-64-1	Acetone	U	5.33	ug/kg	1.78	5.33
71-43-2	Benzene	U	1.07	ug/kg	0.355	1.07
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.78	5.33
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.355	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.355	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.355	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.355	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.355	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.355	1.07
75-09-2	Methylene chloride		5.55	ug/kg	1.78	5.33
100-42-5	Styrene	U	1.07	ug/kg	0.355	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.355	1.07
108-88-3	Toluene	J	0.543	ug/kg	0.355	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.355	1.07
76-13-1	Trichlorotrifluoroethane	U	5.33	ug/kg	1.78	5.33
108-05-4	Vinyl acetate	U	5.33	ug/kg	1.78	5.33
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.355	1.07
1330-20-7	Xylenes (total)	U	3.20	ug/kg	1.07	3.20
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.355	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.355	1.07

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 02:36**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:52**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	34.8	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	34.8	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	34.8	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	34.8	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	34.8	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	34.8	104
78-93-3	2-Butanone	U	522	ug/kg	174	522
591-78-6	2-Hexanone	U	522	ug/kg	174	522
108-10-1	4-Methyl-2-pentanone	U	522	ug/kg	174	522
67-64-1	Acetone	U	522	ug/kg	174	522
71-43-2	Benzene	U	104	ug/kg	34.8	104
75-15-0	Carbon disulfide	U	522	ug/kg	174	522
56-23-5	Carbon tetrachloride	U	104	ug/kg	34.8	104
108-90-7	Chlorobenzene	U	104	ug/kg	34.8	104
75-00-3	Chloroethane	U	104	ug/kg	34.8	104
67-66-3	Chloroform	U	104	ug/kg	34.8	104
74-87-3	Chloromethane	U	104	ug/kg	34.8	104
100-41-4	Ethylbenzene	U	104	ug/kg	34.8	104
75-09-2	Methylene chloride	U	522	ug/kg	174	522
100-42-5	Styrene	U	104	ug/kg	34.8	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	34.8	104
108-88-3	Toluene	U	104	ug/kg	34.8	104
79-01-6	Trichloroethylene	U	104	ug/kg	34.8	104
76-13-1	Trichlorotrifluoroethane	U	522	ug/kg	174	522
108-05-4	Vinyl acetate	U	522	ug/kg	174	522
75-01-4	Vinyl chloride	U	104	ug/kg	34.8	104
1330-20-7	Xylenes (total)	U	313	ug/kg	104	313
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	34.8	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	34.8	104

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 433718

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1203885590	LCS for batch 1705051	101	98	98
1203885589	MB for batch 1705051	104	101	102
433718004	G2SOL01EB	104	98	102
433718005	G2SOL01TB	101	98	101
1203885591	AA-98PS	103	100	100
1203885592	AA-98PSD	103	100	100

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(71%-134%)
TOL	= Toluene-d8	(74%-124%)
BFB	= Bromofluorobenzene	(70%-131%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 433718

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
1203887115	LCS for batch 1705692	99		101		103	
1203887113	MB for batch 1705692	104		99		102	
1203887114	HB for batch 1705692	102	D	98	D	102	D
433718001	G2SOL01	102	D	99	D	102	D
433718002	G2SOL01D	101	D	99	D	101	D
433718003	G2SOL01MS	102	D	99	D	101	D
433718006	G2SOL02	101	D	101	D	100	D
433718007	G2SOL06	102	D	99	D	99	D
433718008	G2SOL07	103	D	100	D	100	D
433718009	G2SOL09	101	D	99	D	101	D
433718010	G2SOL11	102	D	99	D	99	D
433718011	G2SOL12	102	D	100	D	100	D
433718012	G2SWSOL01	102	D	99	D	100	D
433718013	G2SWSOL02	103	D	101	D	105	D
433718014	G2SWSOL04	102	D	99	D	101	D
433718015	G2SWSOL05	105	D	97	D	101	D
433718016	G2SWSOL06	102	D	100	D	98	D
433718017	G2SWSOL07	104	D	98	D	98	D
1203887687	LCS for batch 1705692	100		97		100	
1203887685	MB for batch 1705692	104		98		99	
433718001	G2SOL01RE	191 *		107		59 *	
433718002	G2SOL01DRE	181 *		111		63 *	
433718003	G2SOL01MSRE	174 *		100		62 *	
433718006	G2SOL02RE	160 *		148 *		90	

DCED4 = 1,2-Dichloroethane-d4 (81%-124%)
TOL = Toluene-d8 (81%-120%)
BFB = Bromofluorobenzene (70%-130%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Surrogate Recovery Report

SDG Number: 433718

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC		TOL %REC		BFB %REC	
433718007	G2SOL06RE	195 *		136 *		76	
433718008	G2SOL07RE	196 *		142 *		76	
433718009	G2SOL09RE	139 *		145 *		90	
433718010	G2SOL11RE	134 *		152 *		102	
433718011	G2SOL12RE	159 *		148 *		81	
433718012	G2SWSOL01RE	166 *		152 *		88	
433718013	G2SWSOL02RE	180 *		140 *		80	
433718014	G2SWSOL04RE	165 *		150 *		85	
433718015	G2SWSOL05RE	134 *		162 *		121	
433718016	G2SWSOL06RE	134 *		161 *		119	
433718017	G2SWSOL07RE	152 *		166 *		95	
433718018	G2ESOL01	144 *		155 *		100	
433718019	G2ESOL02	121		165 *		141 *	
433718020	G2ESOL03	128 *		173 *		134 *	
1203887688	LCS for batch 1705692	100		98		96	
1203887686	MB for batch 1705692	103		96		99	
1203888700	HB for batch 1705692	101	D	96	D	100	D
433718018	G2ESOL01REDL	104	D	98	D	99	D
433718019	G2ESOL02REDL	104	D	100	D	98	D
433718020	G2ESOL03REDL	103	D	98	D	98	D
1203887116	G2SOL11PS	102	D	99	D	96	D
1203887117	G2SOL11PSD	100	D	99	D	97	D
1203887116	G2SOL11REPS	115		142 *		101	
1203887117	G2SOL11REPSD	122		148 *		102	

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(81%-124%)
TOL	= Toluene-d8	(81%-120%)
BFB	= Bromofluorobenzene	(70%-130%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705051**
Lab Sample ID **1203885590**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **09/29/2017 09:59**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	89.7	90	71-127
67-64-1	LCS	Acetone	250	0.0	280	112	48-157
79-20-9	LCS	Methyl acetate	250	0.0	214	86	69-136
75-15-0	LCS	Carbon disulfide	250	0.0	218	87	69-138
78-93-3	LCS	2-Butanone	250	0.0	256	102	55-138
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	231	92	66-124
591-78-6	LCS	2-Hexanone	250	0.0	260	104	56-140
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	72.9	146	40-160
74-87-3	LCS	Chloromethane	50.0	0.0	57.4	115	58-135
75-01-4	LCS	Vinyl chloride	50.0	0.0	55.8	112	65-137
74-83-9	LCS	Bromomethane	50.0	0.0	51.0	102	63-137
75-00-3	LCS	Chloroethane	50.0	0.0	53.9	108	69-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	58.2	116	69-138
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.3	91	66-126
75-09-2	LCS	Methylene chloride	50.0	0.0	45.9	92	68-119
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	44.1	88	76-128
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.3	93	71-124
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	45.6	91	73-123
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	45.8	92	75-123
74-97-5	LCS	Bromochloromethane	50.0	0.0	44.7	89	76-125
67-66-3	LCS	Chloroform	50.0	0.0	45.6	91	76-123
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	46.1	92	74-136

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705051**
Lab Sample ID **1203885590**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **09/29/2017 09:59**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	LCS	Cyclohexane	50.0	0.0	44.8	90	67-136
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	47.9	96	72-140
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	45.3	91	74-122
71-43-2	LCS	Benzene	50.0	0.0	43.4	87	72-121
79-01-6	LCS	Trichloroethylene	50.0	0.0	45.9	92	74-125
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.8	90	73-121
108-87-2	LCS	Methylcyclohexane	50.0	0.0	44.4	89	72-134
75-27-4	LCS	Bromodichloromethane	50.0	0.0	46.1	92	77-131
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	46.4	93	78-131
108-88-3	LCS	Toluene	50.0	0.0	44.3	89	71-121
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.9	96	78-131
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.8	92	74-118
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.5	91	69-129
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.6	97	76-137
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.4	95	78-122
108-90-7	LCS	Chlorobenzene	50.0	0.0	44.0	88	74-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.1	90	73-125
95-47-6	LCS	o-Xylene	50.0	0.0	44.5	89	74-126
100-42-5	LCS	Styrene	50.0	0.0	46.4	93	72-130
75-25-2	LCS	Bromoform	50.0	0.0	42.5	85	72-136
98-82-8	LCS	Isopropylbenzene	50.0	0.0	45.6	91	70-130
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	46.3	93	70-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Sample Type: **Laboratory Control Sample**
Client ID: **LCS for batch 1705051**
Matrix: **WATER**
Lab Sample ID **1203885590**
Instrument: **VOA6.I**
Analysis Date: **09/29/2017 09:59**
Dilution: 1
Analyst: **JP1**
Purge Vol: **5 mL**
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	45.3	91	72-121
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.9	90	71-120
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	40.5	81	68-141
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	48.0	96	70-130
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	48.9	98	71-129
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.9	92	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **AA-98PS**
Lab Sample ID **1203885591**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **GROUND WATER**
Analysis Date: **09/29/2017 20:17**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	80.8	81	59-132
67-64-1	PS	Acetone	250	0.00	U	125	50	25-155
79-20-9	PS	Methyl acetate	250	0.00	U	185	74	61-141
75-15-0	PS	Carbon disulfide	250	0.00	U	218	87	61-141
78-93-3	PS	2-Butanone	250	0.00	U	141	56	25-143
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	215	86	61-127
591-78-6	PS	2-Hexanone	250	0.00	U	171	68	33-138
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	69.5	139	33-164
74-87-3	PS	Chloromethane	50.0	0.00	U	52.5	105	53-139
75-01-4	PS	Vinyl chloride	50.0	0.00	U	49.9	100	58-140
74-83-9	PS	Bromomethane	50.0	0.00	U	53.4	107	59-146
75-00-3	PS	Chloroethane	50.0	0.00	U	52.1	104	65-129
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	53.7	107	65-141
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	46.1	92	59-130
75-09-2	PS	Methylene chloride	50.0	0.00	U	48.3	97	62-123
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	45.0	90	69-132
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.4	95	65-127
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	47.5	95	67-127
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	47.2	94	69-127
74-97-5	PS	Bromochloromethane	50.0	0.00	U	46.4	93	71-130
67-66-3	PS	Chloroform	50.0	0.00	U	47.1	94	71-129
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	45.6	91	69-139

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **AA-98PS**
Lab Sample ID **1203885591**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **GROUND WATER**
Analysis Date: **09/29/2017 20:17**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
110-82-7	PS	Cyclohexane	50.0	0.00	U	44.5	89	58-138
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	47.0	94	66-143
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	48.0	96	69-130
71-43-2	PS	Benzene	50.0	0.00	U	44.0	88	66-125
79-01-6	PS	Trichloroethylene	50.0	0.00	U	44.3	89	65-131
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	46.2	92	67-127
108-87-2	PS	Methylcyclohexane	50.0	0.00	U	44.0	88	63-136
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	47.7	95	70-138
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.4	89	70-134
108-88-3	PS	Toluene	50.0	0.00	U	42.2	84	60-126
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.7	91	69-135
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.7	93	66-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.9	84	60-130
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	49.0	98	68-143
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	47.9	96	71-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.2	82	64-124
100-41-4	PS	Ethylbenzene	50.0	0.00	U	40.9	82	61-130
95-47-6	PS	o-Xylene	50.0	0.00	U	41.2	82	62-131
100-42-5	PS	Styrene	50.0	0.00	U	42.9	86	59-135
75-25-2	PS	Bromoform	50.0	0.00	U	40.5	81	64-138
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	39.1	78	55-133
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.9	92	62-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **AA-98PS**
Lab Sample ID **1203885591**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **GROUND WATER**
Analysis Date: **09/29/2017 20:17**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	38.5	77	56-126
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	37.8	76	55-125
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	37.2	74	62-141
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	39.8	80	52-135
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	37.4	75	50-133
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	40.3	81	60-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **AA-98PSD**
Lab Sample ID **1203885592**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **09/29/2017 20:45**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	91.0	91	59-132	12	0-20
67-64-1	PSD	Acetone	250	0.00	U	128	51	25-155	2	0-20
79-20-9	PSD	Methyl acetate	250	0.00	U	187	75	61-141	1	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	217	87	61-141	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	144	58	25-143	2	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	227	91	61-127	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	176	70	33-138	3	0-20
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	67.3	135	33-164	3	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	53.2	106	53-139	1	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	51.1	102	58-140	2	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	51.9	104	59-146	3	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	51.4	103	65-129	1	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	53.0	106	65-141	1	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	45.0	90	59-130	2	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	47.6	95	62-123	2	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	45.7	91	69-132	1	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.5	95	65-127	0	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	47.6	95	67-127	0	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.5	95	69-127	1	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	46.8	94	71-130	1	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	47.7	95	71-129	1	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	46.0	92	69-139	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **AA-98PSD**
Lab Sample ID **1203885592**
Instrument: **VOA6.I**
Analyst: **JP1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **09/29/2017 20:45**
Dilution: 1
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
110-82-7	PSD	Cyclohexane	50.0	0.00	U	44.9	90	58-138	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	47.1	94	66-143	0	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	48.5	97	69-130	1	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	44.6	89	66-125	1	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.4	93	65-131	5	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	46.5	93	67-127	1	0-20
108-87-2	PSD	Methylcyclohexane	50.0	0.00	U	44.9	90	63-136	2	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	48.5	97	70-138	2	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	46.3	93	70-134	4	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	45.1	90	60-126	7	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	48.6	97	69-135	6	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	47.7	95	66-125	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	45.6	91	60-130	8	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	50.1	100	68-143	2	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	49.6	99	71-127	4	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	45.6	91	64-124	10	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	45.7	91	61-130	11	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	45.7	91	62-131	10	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	47.4	95	59-135	10	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	42.0	84	64-138	4	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	45.0	90	55-133	14	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.0	94	62-129	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Sample Type: **Post Spike Duplicate**
Client ID: **AA-98PSD**
Matrix: **GROUND WATER**
Lab Sample ID **1203885592**
Instrument: **VOA6.I**
Analysis Date: **09/29/2017 20:45**
Dilution: 1
Analyst: **JP1**
Purge Vol: **5 mL**
Batch ID: **1705051**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	44.5	89	56-126	14	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	44.3	89	55-125	16	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.8	78	62-141	4	0-20
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	45.6	91	52-135	13	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	44.2	88	50-133	16	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	45.8	92	60-125	13	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887115**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/02/2017 13:14**
Dilution: 1
Prep Batch ID: **1705692**
Batch ID: **1705693**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
1330-20-7	LCS	Xylenes (total)	150	0.0	143	95	72-123
67-64-1	LCS	Acetone	250	0.0	280	112	60-143
75-15-0	LCS	Carbon disulfide	250	0.0	262	105	69-137
108-05-4	LCS	Vinyl acetate	250	0.0	262	105	66-130
78-93-3	LCS	2-Butanone	250	0.0	266	106	61-140
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	228	91	65-123
591-78-6	LCS	2-Hexanone	250	0.0	269	108	61-147
74-87-3	LCS	Chloromethane	50.0	0.0	51.2	102	59-135
75-01-4	LCS	Vinyl chloride	50.0	0.0	52.2	104	63-140
75-00-3	LCS	Chloroethane	50.0	0.0	50.7	101	67-129
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.3	99	64-129
75-09-2	LCS	Methylene chloride	50.0	0.0	51.9	104	66-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.0	98	69-124
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.9	98	71-124
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.1	96	73-124
67-66-3	LCS	Chloroform	50.0	0.0	47.2	94	75-123
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	48.9	98	73-137
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	49.5	99	71-140
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.5	97	72-121
71-43-2	LCS	Benzene	50.0	0.0	46.7	93	71-123
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.3	97	72-127
108-88-3	LCS	Toluene	50.0	0.0	46.4	93	70-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887115**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/02/2017 13:14**
Prep Batch ID: **1705692**
Batch ID: **1705693**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.0	96	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	47.2	94	68-129
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.5	95	72-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	43.9	88	72-123
100-42-5	LCS	Styrene	50.0	0.0	44.5	89	72-127
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.7	97	72-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11PS**
Lab Sample ID **1203887116**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 03:03**
Prep Batch ID: **1705692**
Batch ID: **1705693**

Dilution: 50

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
1330-20-7	PS	Xylenes (total)	150	0.00	U	150	100	48-138
67-64-1	PS	Acetone	250	0.00	U	212	85	30-151
75-15-0	PS	Carbon disulfide	250	0.00	U	279	111	45-150
108-05-4	PS	Vinyl acetate	250	0.00	U	211	84	45-139
78-93-3	PS	2-Butanone	250	0.00	U	217	87	40-147
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	212	85	55-132
591-78-6	PS	2-Hexanone	250	0.00	U	228	91	35-149
74-87-3	PS	Chloromethane	50.0	0.00	U	48.0	96	47-144
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.9	86	54-143
75-00-3	PS	Chloroethane	50.0	0.00	U	42.4	85	45-130
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	52.2	104	53-141
75-09-2	PS	Methylene chloride	50.0	0.00	U	55.3	111	60-127
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	51.6	103	59-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	51.9	104	64-130
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	51.6	103	64-130
67-66-3	PS	Chloroform	50.0	0.00	U	51.8	104	67-128
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	51.9	104	65-137
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	51.1	102	53-147
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	53.6	107	63-127
71-43-2	PS	Benzene	50.0	0.00	U	49.9	100	62-128
79-01-6	PS	Trichloroethylene	50.0	0.00	U	50.9	102	56-136
108-88-3	PS	Toluene	50.0	0.00	U	48.8	98	56-132

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11PS**
Lab Sample ID **1203887116**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 03:03**
Prep Batch ID: **1705692**
Batch ID: **1705693**

Dilution: **50**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	49.2	98	40-140
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	48.7	97	51-138
108-90-7	PS	Chlorobenzene	50.0	0.00	U	49.6	99	56-129
100-41-4	PS	Ethylbenzene	50.0	0.00	U	46.3	93	52-135
100-42-5	PS	Styrene	50.0	0.00	U	47.0	94	45-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	46.0	92	60-133

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11REPS**
Lab Sample ID **1203887116**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 03:57**
Prep Batch ID: **1705692**
Batch ID: **1705693**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
1330-20-7	PS	Xylenes (total)	150	0.00	U	65.4	44 *	48-138
67-64-1	PS	Acetone	250	0.00	U	240	96	30-151
75-15-0	PS	Carbon disulfide	250	0.00	U	162	65	45-150
108-05-4	PS	Vinyl acetate	250	0.00	U	82.1	33 *	45-139
78-93-3	PS	2-Butanone	250	0.00	U	150	60	40-147
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	115	46 *	55-132
591-78-6	PS	2-Hexanone	250	0.00	U	36.6	15 *	35-149
74-87-3	PS	Chloromethane	50.0	0.00	U	64.6	129	47-144
75-01-4	PS	Vinyl chloride	50.0	0.00	U	46.6	93	54-143
75-00-3	PS	Chloroethane	50.0	0.00	U	47.3	95	45-130
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	33.6	67	53-141
75-09-2	PS	Methylene chloride	50.0	0.00	U	40.8	82	60-127
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	24.9	50 *	59-130
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	35.9	72	64-130
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	27.1	54 *	64-130
67-66-3	PS	Chloroform	50.0	0.00	U	31.2	62 *	67-128
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	35.1	70	65-137
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	33.3	67	53-147
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	21.5	43 *	63-127
71-43-2	PS	Benzene	50.0	0.00	U	24.3	49 *	62-128
79-01-6	PS	Trichloroethylene	50.0	0.00	U	20.9	42 *	56-136
108-88-3	PS	Toluene	50.0	0.00	U	32.8	66	56-132

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**433718**	**Sample Type:**	**Post Spike**
Client ID:	**G2SOL11REPS**	**Matrix:**	**SOIL**
Lab Sample ID	**1203887116**	**%Moisture:**	**7.3**
Instrument:	**VOA9.I**	**Analysis Date:**	**10/04/2017 03:57**
Analyst:	**RXY1**	**Prep Batch ID:**	**1705692**
Purge Vol:	**5 mL**	**Batch ID:**	**1705693**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	29.9	60	40-140
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	39.9	80	51-138
108-90-7	PS	Chlorobenzene	50.0	0.00	U	17.6	35 *	56-129
100-41-4	PS	Ethylbenzene	50.0	0.00	U	26.0	52	52-135
100-42-5	PS	Styrene	50.0	0.00	U	9.60	19 *	45-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	30.0	60	60-133

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11PSD**
Lab Sample ID **1203887117**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 03:30**
Prep Batch ID: **1705692**
Batch ID: **1705693**
Dilution: **50**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1330-20-7	PSD	Xylenes (total)	150	0.00	U	155	103	48-138	3	0-20
67-64-1	PSD	Acetone	250	0.00	U	239	96	30-151	12	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	280	112	45-150	0	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	242	97	45-139	14	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	246	99	40-147	13	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	239	96	55-132	12	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	257	103	35-149	12	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	53.2	106	47-144	10	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	46.5	93	54-143	8	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	48.1	96	45-130	13	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	52.2	104	53-141	0	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	56.7	113	60-127	2	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	52.5	105	59-130	2	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	53.5	107	64-130	3	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	52.8	106	64-130	2	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	53.1	106	67-128	2	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	52.6	105	65-137	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	52.3	105	53-147	2	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	55.2	110	63-127	3	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	51.3	103	62-128	3	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	52.7	105	56-136	4	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	50.6	101	56-132	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11PSD**
Lab Sample ID **1203887117**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 03:30**
Prep Batch ID: **1705692**
Batch ID: **1705693**
Dilution: **50**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	53.0	106	40-140	8	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	50.8	102	51-138	4	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	52.0	104	56-129	5	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	47.6	95	52-135	3	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	49.2	98	45-143	4	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	51.0	102	60-133	10	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11REPSD**
Lab Sample ID **1203887117**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 04:24**
Prep Batch ID: **1705692**
Batch ID: **1705693**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
1330-20-7	PSD	Xylenes (total)	150	0.00	U	54.8	37 *	48-138	18	0-20
67-64-1	PSD	Acetone	250	0.00	U	278	111	30-151	14	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	159	63	45-150	2	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	70.5	28 *	45-139	15	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	165	66	40-147	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	126	50 *	55-132	9	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	35.1	14 *	35-149	4	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	64.3	129	47-144	0	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	44.1	88	54-143	6	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	45.3	91	45-130	4	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	34.7	69	53-141	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	43.7	87	60-127	7	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	24.3	49 *	59-130	3	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	36.9	74	64-130	3	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	27.2	54 *	64-130	0	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	32.2	64 *	67-128	3	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	35.8	72	65-137	2	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	33.9	68	53-147	2	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	21.9	44 *	63-127	2	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	23.9	48 *	62-128	2	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	19.0	38 *	56-136	9	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	31.6	63	56-132	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2SOL11REPSD**
Lab Sample ID **1203887117**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **SOIL**
%Moisture: **7.3**
Analysis Date: **10/04/2017 04:24**
Prep Batch ID: **1705692**
Batch ID: **1705693**

Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	31.7	63	40-140	6	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	37.5	75	51-138	6	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	15.7	31 *	56-129	12	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	23.2	46 *	52-135	11	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	7.50	15 *	45-143	25 *	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	34.1	68	60-133	13	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887687**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/03/2017 11:10**
Prep Batch ID: **1705692**
Batch ID: **1705693**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
1330-20-7	LCS	Xylenes (total)	150	0.0	155	103	72-123
67-64-1	LCS	Acetone	250	0.0	307	123	60-143
75-15-0	LCS	Carbon disulfide	250	0.0	279	112	69-137
108-05-4	LCS	Vinyl acetate	250	0.0	251	101	66-130
78-93-3	LCS	2-Butanone	250	0.0	290	116	61-140
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	239	95	65-123
591-78-6	LCS	2-Hexanone	250	0.0	296	118	61-147
74-87-3	LCS	Chloromethane	50.0	0.0	48.5	97	59-135
75-01-4	LCS	Vinyl chloride	50.0	0.0	51.1	102	63-140
75-00-3	LCS	Chloroethane	50.0	0.0	49.1	98	67-129
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	52.8	106	64-129
75-09-2	LCS	Methylene chloride	50.0	0.0	55.3	111	66-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	53.2	106	69-124
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	52.6	105	71-124
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	52.1	104	73-124
67-66-3	LCS	Chloroform	50.0	0.0	51.0	102	75-123
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	53.3	107	73-137
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.8	108	71-140
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	52.1	104	72-121
71-43-2	LCS	Benzene	50.0	0.0	50.8	102	71-123
79-01-6	LCS	Trichloroethylene	50.0	0.0	52.6	105	72-127
108-88-3	LCS	Toluene	50.0	0.0	49.7	99	70-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887687**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/03/2017 11:10**
Dilution: 1
Prep Batch ID: **1705692**
Batch ID: **1705693**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	51.4	103	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	51.6	103	68-129
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.6	103	72-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.4	95	72-123
100-42-5	LCS	Styrene	50.0	0.0	48.3	97	72-127
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	50.3	101	72-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887688**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/03/2017 23:23**
Dilution: 1
Prep Batch ID: **1705692**
Batch ID: **1705693**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
1330-20-7	LCS	Xylenes (total)	150	0.0	138	92	72-123
67-64-1	LCS	Acetone	250	0.0	192	77	60-143
75-15-0	LCS	Carbon disulfide	250	0.0	258	103	69-137
108-05-4	LCS	Vinyl acetate	250	0.0	244	97	66-130
78-93-3	LCS	2-Butanone	250	0.0	207	83	61-140
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	219	88	65-123
591-78-6	LCS	2-Hexanone	250	0.0	225	90	61-147
74-87-3	LCS	Chloromethane	50.0	0.0	45.5	91	59-135
75-01-4	LCS	Vinyl chloride	50.0	0.0	47.1	94	63-140
75-00-3	LCS	Chloroethane	50.0	0.0	47.1	94	67-129
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	48.0	96	64-129
75-09-2	LCS	Methylene chloride	50.0	0.0	52.0	104	66-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.9	96	69-124
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.8	98	71-124
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	47.9	96	73-124
67-66-3	LCS	Chloroform	50.0	0.0	48.0	96	75-123
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	48.3	97	73-137
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	48.1	96	71-140
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.9	100	72-121
71-43-2	LCS	Benzene	50.0	0.0	46.5	93	71-123
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.1	94	72-127
108-88-3	LCS	Toluene	50.0	0.0	46.4	93	70-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1705692**
Lab Sample ID **1203887688**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/03/2017 23:23**
Dilution: 1
Prep Batch ID: **1705692**
Batch ID: **1705693**

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.9	98	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.2	90	68-129
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.6	93	72-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	42.9	86	72-123
100-42-5	LCS	Styrene	50.0	0.0	43.5	87	72-127
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.1	94	72-123

Method Blank Summary

SDG Number:	**433718**	**Client:**	**URSC013**	**Matrix:**	**WATER**
Client ID:	**MB for batch 1705051**	**Instrument ID:**	**VOA6.I**	**Data File:**	**092917V6\6A506BC.D**
Lab Sample ID:	**1203885589**	**Prep Date:**	**09/29/2017 11:23**	**Analyzed:**	**09/29/17 11:23**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 1705051	1203885590	092917V6\6A503LC.D	09/29/17	0959
02 G2SOL01EB	433718004	092917V6\6A507.D	09/29/17	1151
03 G2SOL01TB	433718005	092917V6\6A508.D	09/29/17	1219
04 AA-98PS	1203885591	092917V6\6A525.D	09/29/17	2017
05 AA-98PSD	1203885592	092917V6\6A526.D	09/29/17	2045

Method Blank Summary

SDG Number:	**433718**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1705692**	**Instrument ID:**	**VOA9.I**	**Data File:**	**100217V9\9M111B.D**
Lab Sample ID:	**1203887113**	**Prep Date:**	**10/02/2017 10:00**	**Analyzed:**	**10/02/17 14:39**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 1705692	1203887115	100217V9\9M108L.D	10/02/17	1314
02	HB for batch 1705692	1203887114	100217V9\9M113.D	10/02/17	1556
03	G2SOL01	433718001	100217V9\9M114.D	10/02/17	1623
04	G2SOL01D	433718002	100217V9\9M115.D	10/02/17	1651
05	G2SOL01MS	433718003	100217V9\9M116.D	10/02/17	1719
06	G2SOL02	433718006	100217V9\9M117.D	10/02/17	1747
07	G2SOL06	433718007	100217V9\9M118.D	10/02/17	1814
08	G2SOL07	433718008	100217V9\9M119.D	10/02/17	1842
09	G2SOL09	433718009	100217V9\9M120.D	10/02/17	1910
10	G2SOL11	433718010	100217V9\9M121.D	10/02/17	1937
11	G2SOL12	433718011	100217V9\9M122.D	10/02/17	2005
12	G2SWSOL01	433718012	100217V9\9M123.D	10/02/17	2033
13	G2SWSOL02	433718013	100217V9\9M124.D	10/02/17	2101
14	G2SWSOL04	433718014	100217V9\9M125.D	10/02/17	2128
15	G2SWSOL05	433718015	100217V9\9M126.D	10/02/17	2156
16	G2SWSOL06	433718016	100217V9\9M127.D	10/02/17	2224
17	G2SWSOL07	433718017	100217V9\9M128.D	10/02/17	2252

Method Blank Summary

SDG Number:	**433718**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1705692**	**Instrument ID:**	**VOA9.I**	**Data File:**	**100317V9\9M207B.D**
Lab Sample ID:	**1203887685**	**Prep Date:**	**10/03/2017 09:00**	**Analyzed:**	**10/03/17 12:34**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
19	LCS for batch 1705692	1203887687	100317V9\9M204L.D	10/03/17	1110
20	G2SOL01RE	433718001	100317V9\9M208.D	10/03/17	1303
21	G2SOL01DRE	433718002	100317V9\9M209.D	10/03/17	1331
22	G2SOL01MSRE	433718003	100317V9\9M210.D	10/03/17	1359
23	G2SOL02RE	433718006	100317V9\9M211.D	10/03/17	1428
24	G2SOL06RE	433718007	100317V9\9M212.D	10/03/17	1456
25	G2SOL07RE	433718008	100317V9\9M213.D	10/03/17	1525
26	G2SOL09RE	433718009	100317V9\9M214.D	10/03/17	1554
27	G2SOL11RE	433718010	100317V9\9M215.D	10/03/17	1623
28	G2SOL12RE	433718011	100317V9\9M216.D	10/03/17	1651
29	G2SWSOL01RE	433718012	100317V9\9M217.D	10/03/17	1720
30	G2SWSOL02RE	433718013	100317V9\9M218.D	10/03/17	1748
31	G2SWSOL04RE	433718014	100317V9\9M219.D	10/03/17	1817
32	G2SWSOL05RE	433718015	100317V9\9M220.D	10/03/17	1845
33	G2SWSOL06RE	433718016	100317V9\9M221.D	10/03/17	1914
34	G2SWSOL07RE	433718017	100317V9\9M222.D	10/03/17	1943
35	G2ESOL01	433718018	100317V9\9M223.D	10/03/17	2010
36	G2ESOL02	433718019	100317V9\9M224.D	10/03/17	2039
37	G2ESOL03	433718020	100317V9\9M225.D	10/03/17	2107

Method Blank Summary

SDG Number:	**433718**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1705692**	**Instrument ID:**	**VOA9.I**	**Data File:**	**100317V9\9M233B.D**
Lab Sample ID:	**1203887686**	**Prep Date:**	**10/03/2017 15:00**	**Analyzed:**	**10/04/17 00:47**
Column:	**DB-624**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
39	LCS for batch 1705692	1203887688	100317V9\9M230L.D	10/03/17	2323
40	HB for batch 1705692	1203888700	100317V9\9M234.D	10/04/17	0114
41	G2ESOL01REDL	433718018	100317V9\9M235.D	10/04/17	0142
42	G2ESOL02REDL	433718019	100317V9\9M236.D	10/04/17	0209
43	G2ESOL03REDL	433718020	100317V9\9M237.D	10/04/17	0236
44	G2SOL11PS	1203887116	100317V9\9M238.D	10/04/17	0303
45	G2SOL11PSD	1203887117	100317V9\9M239.D	10/04/17	0330
46	G2SOL11REPS	1203887116	100317V9\9M240.D	10/04/17	0357
47	G2SOL11REPSD	1203887117	100317V9\9M241.D	10/04/17	0424

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA6.I **Injection Date/Time:** 19-SEP-17 13:21

Column Description: DB-624 **Lab File ID** 091917V6\6Z201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	23
75	30.0 - 60.0% of mass 95	48.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	74.8
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.8
177	5.0 - 9.0% of mass 176	6.9

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM170919-01	091917V6\6Z202.D	19-SEP-17 13:49
ICALMIX[A]	W6VM170919-02	091917V6\6Z203.D	19-SEP-17 14:17
ICALMIX[A]	W6VM170919-03	091917V6\6Z204.D	19-SEP-17 14:45
ICALMIX[A]	W6VM170919-04	091917V6\6Z205.D	19-SEP-17 15:14
ICALMIX[A]	W6VM170919-05	091917V6\6Z206.D	19-SEP-17 15:42
ICALMIX[A]	W6VM170919-06	091917V6\6Z207.D	19-SEP-17 16:10
ICALMIX[A]	W6VM170919-07	091917V6\6Z208.D	19-SEP-17 16:37
ICALMIX[A]	W6VM170919-08	091917V6\6Z209.D	19-SEP-17 17:05
ICALMIX[A]	W6VM170919-09	091917V6\6Z210.D	19-SEP-17 17:33
ICVMIX[A]01	W6VM170919-10	091917V6\6Z212.D	19-SEP-17 18:30
ICALMIX[B]	W6VM170919-11	091917V6\6Z213.D	19-SEP-17 18:58
ICALMIX[B]	W6VM170919-12	091917V6\6Z214.D	19-SEP-17 19:25
ICALMIX[B]	W6VM170919-13	091917V6\6Z215.D	19-SEP-17 19:53
ICALMIX[B]	W6VM170919-14	091917V6\6Z216.D	19-SEP-17 20:22
ICALMIX[B]	W6VM170919-15	091917V6\6Z217.D	19-SEP-17 20:50
ICALMIX[B]	W6VM170919-16	091917V6\6Z218.D	19-SEP-17 21:18
ICALMIX[B]	W6VM170919-17	091917V6\6Z219.D	19-SEP-17 21:46
ICALMIX[B]	W6VM170919-18	091917V6\6Z220.D	19-SEP-17 22:14
ICVMIX[B]02	W6VM170919-19	091917V6\6Z222.D	19-SEP-17 23:09

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA6.I **Injection Date/Time:** 29-SEP-17 09:02

Column Description: DB-624 **Lab File ID** 092917V6\6A501.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	23.1
75	30.0 - 60.0% of mass 95	51.7
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	79.2
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W6VM170929-01	092917V6\6A502.D	29-SEP-17 09:30
BLK01LCS	1203885590	092917V6\6A503LC.D	29-SEP-17 09:59
CCVMIX[B]02	W6VM170929-03	092917V6\6A504.D	29-SEP-17 10:27
BLK01	1203885589	092917V6\6A506BC.D	29-SEP-17 11:23
G2SOL01EB	433718004	092917V6\6A507.D	29-SEP-17 11:51
G2SOL01TB	433718005	092917V6\6A508.D	29-SEP-17 12:19
AA-98MS	1203885591	092917V6\6A525.D	29-SEP-17 20:17
AA-98MSD	1203885592	092917V6\6A526.D	29-SEP-17 20:45

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 06-SEP-17 13:54

Column Description: DB-624 **Lab File ID** 090617V9\9I305.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	18
75	30.0 - 60.0% of mass 95	46.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	78.9
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.5
177	5.0 - 9.0% of mass 176	6.8

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W9VM170906-01	090617V9\9I306.D	06-SEP-17 14:21
ICALMIX[A]	W9VM170906-02	090617V9\9I307.D	06-SEP-17 14:50
ICALMIX[A]	W9VM170906-03	090617V9\9I308.D	06-SEP-17 15:18
ICALMIX[A]	W9VM170906-04	090617V9\9I310.D	06-SEP-17 16:17
ICALMIX[A]	W9VM170906-05	090617V9\9I311.D	06-SEP-17 16:45
ICALMIX[A]	W9VM170906-06	090617V9\9I312.D	06-SEP-17 17:13
ICALMIX[A]	W9VM170906-07	090617V9\9I313.D	06-SEP-17 17:42
ICALMIX[A]	W9VM170906-08	090617V9\9I314.D	06-SEP-17 18:10
ICALMIX[A]	W9VM170906-09	090617V9\9I315.D	06-SEP-17 18:39
ICVMIX[A]01	W9VM170906-10	090617V9\9I316.D	06-SEP-17 19:08
ICALMIX[B]	W9VM170906-11	090617V9\9I317.D	06-SEP-17 19:37
ICALMIX[B]	W9VM170906-12	090617V9\9I318.D	06-SEP-17 20:05
ICALMIX[B]	W9VM170906-13	090617V9\9I319.D	06-SEP-17 20:34
ICALMIX[B]	W9VM170906-14	090617V9\9I320.D	06-SEP-17 21:02
ICALMIX[B]	W9VM170906-15	090617V9\9I321.D	06-SEP-17 21:30
ICALMIX[B]	W9VM170906-16	090617V9\9I322.D	06-SEP-17 21:58
ICALMIX[B]	W9VM170906-17	090617V9\9I323.D	06-SEP-17 22:26
ICALMIX[B]	W9VM170906-18	090617V9\9I324.D	06-SEP-17 22:53
ICVMIX[B]02	W9VM170906-21	090617V9\9I328.D	07-SEP-17 00:45

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 02-OCT-17 11:22

Column Description: DB-624 **Lab File ID** 100217V9\9M104.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	78.8
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	99.6
177	5.0 - 9.0% of mass 176	6.6

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W9VM171002-03	100217V9\9M107.D	02-OCT-17 12:45
BLK02LCS	1203887115	100217V9\9M108L.D	02-OCT-17 13:14
CCVMIX[B]02	W9VM171002-05	100217V9\9M109.D	02-OCT-17 13:42
BLK02	1203887113	100217V9\9M111B.D	02-OCT-17 14:39
HBLK01	1203887114	100217V9\9M113.D	02-OCT-17 15:56
G2SOL01	433718001	100217V9\9M114.D	02-OCT-17 16:23
G2SOL01D	433718002	100217V9\9M115.D	02-OCT-17 16:51
G2SOL01MS	433718003	100217V9\9M116.D	02-OCT-17 17:19
G2SOL02	433718006	100217V9\9M117.D	02-OCT-17 17:47
G2SOL06	433718007	100217V9\9M118.D	02-OCT-17 18:14
G2SOL07	433718008	100217V9\9M119.D	02-OCT-17 18:42
G2SOL09	433718009	100217V9\9M120.D	02-OCT-17 19:10
G2SOL11	433718010	100217V9\9M121.D	02-OCT-17 19:37
G2SOL12	433718011	100217V9\9M122.D	02-OCT-17 20:05
G2SWSOL01	433718012	100217V9\9M123.D	02-OCT-17 20:33
G2SWSOL02	433718013	100217V9\9M124.D	02-OCT-17 21:01
G2SWSOL04	433718014	100217V9\9M125.D	02-OCT-17 21:28
G2SWSOL05	433718015	100217V9\9M126.D	02-OCT-17 21:56
G2SWSOL06	433718016	100217V9\9M127.D	02-OCT-17 22:24

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 02-OCT-17 11:22

Column Description: DB-624 **Lab File ID** 100217V9\9M104.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	78.8
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	99.6
177	5.0 - 9.0% of mass 176	6.6

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
G2SWSOL07	433718017	100217V9\9M128.D	02-OCT-17 22:52

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 03-OCT-17 09:47

Column Description: DB-624 **Lab File ID** 100317V9\9M201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	50.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	75.9
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	98.4
177	5.0 - 9.0% of mass 176	6.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	W9VM171003-01	100317V9\9M202.D	03-OCT-17 10:14
BLK03LCS	1203887687	100317V9\9M204L.D	03-OCT-17 11:10
CCVMIX[B]04	W9VM171003-04	100317V9\9M205.D	03-OCT-17 11:38
BLK03	1203887685	100317V9\9M207B.D	03-OCT-17 12:34
G2SOL01RE	433718001	100317V9\9M208.D	03-OCT-17 13:03
G2SOL01DRE	433718002	100317V9\9M209.D	03-OCT-17 13:31
G2SOL01MSRE	433718003	100317V9\9M210.D	03-OCT-17 13:59
G2SOL02RE	433718006	100317V9\9M211.D	03-OCT-17 14:28
G2SOL06RE	433718007	100317V9\9M212.D	03-OCT-17 14:56
G2SOL07RE	433718008	100317V9\9M213.D	03-OCT-17 15:25
G2SOL09RE	433718009	100317V9\9M214.D	03-OCT-17 15:54
G2SOL11RE	433718010	100317V9\9M215.D	03-OCT-17 16:23
G2SOL12RE	433718011	100317V9\9M216.D	03-OCT-17 16:51
G2SWSOL01RE	433718012	100317V9\9M217.D	03-OCT-17 17:20
G2SWSOL02RE	433718013	100317V9\9M218.D	03-OCT-17 17:48
G2SWSOL04RE	433718014	100317V9\9M219.D	03-OCT-17 18:17
G2SWSOL05RE	433718015	100317V9\9M220.D	03-OCT-17 18:45
G2SWSOL06RE	433718016	100317V9\9M221.D	03-OCT-17 19:14
G2SWSOL07RE	433718017	100317V9\9M222.D	03-OCT-17 19:43

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 03-OCT-17 09:47

Column Description: DB-624 **Lab File ID** 100317V9\9M201.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.7
75	30.0 - 60.0% of mass 95	50.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	75.9
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	98.4
177	5.0 - 9.0% of mass 176	6.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
G2ESOL01	433718018	100317V9\9M223.D	03-OCT-17 20:10
G2ESOL02	433718019	100317V9\9M224.D	03-OCT-17 20:39
G2ESOL03	433718020	100317V9\9M225.D	03-OCT-17 21:07

Instrument Performance Check

BROMOFLUOROBENZENE

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: VOA9.I **Injection Date/Time:** 03-OCT-17 22:01

Column Description: DB-624 **Lab File ID** 100317V9\9M227.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	50.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.2
174	50.0 - 100.0% of mass 95	77.9
175	5.0 -9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	98.8
177	5.0 - 9.0% of mass 176	6.4

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]05	W9VM171003-05	100317V9\9M228.D	03-OCT-17 22:28
BLK04LCS	1203887688	100317V9\9M230L.D	03-OCT-17 23:23
CCVMIX[B]06	W9VM171003-08	100317V9\9M231.D	03-OCT-17 23:51
BLK04	1203887686	100317V9\9M233B.D	04-OCT-17 00:47
HBLK02	1203888700	100317V9\9M234.D	04-OCT-17 01:14
G2ESOL01REDL	433718018	100317V9\9M235.D	04-OCT-17 01:42
G2ESOL02REDL	433718019	100317V9\9M236.D	04-OCT-17 02:09
G2ESOL03REDL	433718020	100317V9\9M237.D	04-OCT-17 02:36
G2SOL11MS	1203887116	100317V9\9M238.D	04-OCT-17 03:03
G2SOL11MSD	1203887117	100317V9\9M239.D	04-OCT-17 03:30
G2SOL11REMS	1203887116	100317V9\9M240.D	04-OCT-17 03:57
G2SOL11REMSD	1203887117	100317V9\9M241.D	04-OCT-17 04:24

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: VOA6.I

STD Analysis Time: 29-SEP-17 09:30

GC Column: DB-624

Data File: 092917V6\6A502.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1212561		9.44	931118		12.6	496546		15.1
Upper Limit	2425122		9.94	1862236		13.1	993092		15.6
Lower Limit	606281		8.94	465559		12.1	248273		14.6
Sample ID									
BLK01LCS	1223825		9.43	932400		12.6	492127		15.1
BLK01	1170975		9.44	890191		12.6	460745		15.1
G2SOL01EB	1104518		9.43	840726		12.6	431405		15.1
G2SOL01TB	1185834		9.43	904379		12.6	458438		15.1
AA-98MS	1101534		9.43	841241		12.6	447691		15.1
AA-98MSD	1131485		9.43	859226		12.6	460334		15.1

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: VOA9.I

STD Analysis Time: 02-OCT-17 12:45

GC Column: DB-624

Data File: 100217V9\9M107.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1339754		10.5	994426		13.6	570228		16.0
Upper Limit	2679508		11.0	1988852		14.1	1140456		16.5
Lower Limit	669877		9.95	497213		13.1	285114		15.5
Sample ID									
BLK02LCS	1379173		10.5	1056306		13.6	588489		16.0
BLK02	1456328		10.5	1111816		13.6	626240		16.0
HBLK01	1349216		10.5	1038096		13.6	590339		16.0
G2SOL01	1344126		10.5	1031639		13.6	582749		16.0
G2SOL01D	1321110		10.5	1022933		13.6	573534		16.0
G2SOL01MS	1318677		10.5	977604		13.6	557948		16.0
G2SOL02	1301089		10.5	947177		13.6	534268		16.0
G2SOL06	1259010		10.5	937551		13.6	533250		16.0
G2SOL07	1276971		10.5	954986		13.6	546455		16.0
G2SOL09	1278105		10.5	967932		13.6	537207		16.0
G2SOL11	1257025		10.5	933569		13.6	531351		16.0
G2SOL12	1253988		10.5	924896		13.6	524779		16.0
G2SWSOL01	1256122		10.5	931571		13.6	527379		16.0
G2SWSOL02	1266298		10.5	943823		13.6	510118		16.0
G2SWSOL04	1259569		10.5	961226		13.6	532140		16.0
G2SWSOL05	1212926		10.5	942247		13.6	531408		16.0
G2SWSOL06	1218649		10.5	906037		13.6	520390		16.0
G2SWSOL07	1224917		10.5	925792		13.6	537750		16.0

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: VOA9.I

STD Analysis Time: 03-OCT-17 10:14

GC Column: DB-624

Data File: 100317V9\9M202.D

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1257262		10.5		956859		13.6		553345		16.0	
Upper Limit	2514524		11.0		1913718		14.1		1106690		16.5	
Lower Limit	628631		9.95		478430		13.1		276673		15.5	
Sample ID												
BLK03LCS	1334856		10.5		1032570		13.6		584399		16.0	
BLK03	1391615		10.5		1033597		13.6		596419		16.0	
G2SOL01RE	282220	*	10.5		70902	*	13.6		23140	*	16.1	
G2SOL01DRE	291174	*	10.5		73405	*	13.6		22284	*	16.1	
G2SOL01MSRE	290224	*	10.5		82058	*	13.6		22121	*	16.1	
G2SOL02RE	398293	*	10.5		89653	*	13.6		19270	*	16.1	
G2SOL06RE	281000	*	10.5		63086	*	13.6		16002	*	16.1	
G2SOL07RE	268389	*	10.5		55984	*	13.6		15575	*	16.1	
G2SOL09RE	613607	*	10.5		158756	*	13.6		32400	*	16.1	
G2SOL11RE	653610		10.5		185998	*	13.6		37060	*	16.1	
G2SOL12RE	369660	*	10.5		90119	*	13.6		22970	*	16.1	
G2SWSOL01RE	444339	*	10.5		103056	*	13.6		21487	*	16.1	
G2SWSOL02RE	309304	*	10.5		66488	*	13.6		15575	*	16.1	
G2SWSOL04RE	426124	*	10.5		92505	*	13.6		19614	*	16.1	
G2SWSOL05RE	633511		10.5		171637	*	13.6		29945	*	16.1	
G2SWSOL06RE	692736		10.5		189911	*	13.6		31650	*	16.0	
G2SWSOL07RE	513397	*	10.5		117099	*	13.6		23827	*	16.1	
G2ESOL01	582341	*	10.5		157100	*	13.6		31427	*	16.1	
G2ESOL02	766475		10.5		249003	*	13.6		40673	*	16.0	
G2ESOL03	686369		10.5		187625	*	13.6		29667	*	16.1	

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: VOA9.I

STD Analysis Time: 03-OCT-17 22:28

GC Column: DB-624

Data File: 100317V9\9M228.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1019248		10.5	785433		13.6	440138		16.0
Upper Limit	2038496		11.0	1570866		14.1	880276		16.5
Lower Limit	509624		9.95	392717		13.1	220069		15.5
Sample ID									
BLK04LCS	1221297		10.5	905021		13.6	507490		16.0
BLK04	1256634		10.5	964435		13.6	540783		16.0
HBLK02	1176854		10.5	918330		13.6	510468		16.0
G2ESOL01REDL	1179539		10.5	898744		13.6	508582		16.0
G2ESOL02REDL	1154774		10.5	853492		13.6	477793		16.0
G2ESOL03REDL	1119554		10.4	859232		13.6	488946		16.0
G2SOL11MS	1067532		10.5	812209		13.6	467080		16.0
G2SOL11MSD	1116764		10.5	852577		13.6	484409		16.0
G2SOL11REMS	866688		10.5	301514	*	13.6	68121	*	16.0
G2SOL11REMSD	838259		10.5	270608	*	13.6	55170	*	16.0

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718001**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 16:23**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:06**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M114.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	105	ug/kg	35.1	105
79-34-5	1,1,2,2-Tetrachloroethane	U	105	ug/kg	35.1	105
79-00-5	1,1,2-Trichloroethane	U	105	ug/kg	35.1	105
75-34-3	1,1-Dichloroethane	U	105	ug/kg	35.1	105
75-35-4	1,1-Dichloroethylene	U	105	ug/kg	35.1	105
107-06-2	1,2-Dichloroethane	U	105	ug/kg	35.1	105
78-93-3	2-Butanone	U	527	ug/kg	176	527
591-78-6	2-Hexanone	U	527	ug/kg	176	527
108-10-1	4-Methyl-2-pentanone	U	527	ug/kg	176	527
67-64-1	Acetone	U	527	ug/kg	176	527
71-43-2	Benzene	U	105	ug/kg	35.1	105
75-15-0	Carbon disulfide	U	527	ug/kg	176	527
56-23-5	Carbon tetrachloride	U	105	ug/kg	35.1	105
108-90-7	Chlorobenzene	U	105	ug/kg	35.1	105
75-00-3	Chloroethane	U	105	ug/kg	35.1	105
67-66-3	Chloroform	U	105	ug/kg	35.1	105
74-87-3	Chloromethane	U	105	ug/kg	35.1	105
100-41-4	Ethylbenzene	U	105	ug/kg	35.1	105
75-09-2	Methylene chloride	U	527	ug/kg	176	527
100-42-5	Styrene	U	105	ug/kg	35.1	105
127-18-4	Tetrachloroethylene	U	105	ug/kg	35.1	105
108-88-3	Toluene	U	105	ug/kg	35.1	105
79-01-6	Trichloroethylene	U	105	ug/kg	35.1	105
76-13-1	Trichlorotrifluoroethane	U	527	ug/kg	176	527
108-05-4	Vinyl acetate	U	527	ug/kg	176	527
75-01-4	Vinyl chloride	U	105	ug/kg	35.1	105
1330-20-7	Xylenes (total)	U	316	ug/kg	105	316
156-59-2	cis-1,2-Dichloroethylene	U	105	ug/kg	35.1	105
156-60-5	trans-1,2-Dichloroethylene	U	105	ug/kg	35.1	105

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M114.D
Acq On : 02 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 09:55:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1344126	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	1031639	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	582749	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1344126	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	1031639	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	582749	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	329336	50.84	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1150560	49.66	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	523927	50.97	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.168	7.145	0.686	819	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane	142	7.406	7.418	0.708	195	N.D.		
12) Acetonitrile	41	7.524	7.512	0.720	186	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	1418	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2899	Below Cal		96
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	632	N.D.		
19) Vinyl acetate	43	8.532	8.520	0.816	362	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	1036	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	489	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M114.D
Acq On : 02 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 09:55:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.161	12.173	0.893	1239	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone	43	12.730	12.718	0.935	228	Below Cal	#	35
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene	112	13.655	13.655	1.003	791	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.714	13.714	1.007	300	N.D.		
57) m,p-Xylenes	106	13.833	13.821	1.016	196	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene	104	14.272	14.260	1.048	189	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene	105	14.616	14.616	0.911	181	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene	91	15.043	15.043	0.938	856	N.D.		
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	446	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1037	N.D.		
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	548	N.D.		
73) sec-Butylbenzene	105	15.790	15.790	0.984	835	N.D.		
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	827	N.D.		
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	937	N.D.		
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	1178	N.D.		
77) n-Butylbenzene	91	16.359	16.359	1.020	1338	Below Cal	#	62
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	731	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	1532	Below Cal		96
81) Hexachlorobutadiene	225	18.683	18.683	1.165	742	Below Cal	#	71
82) Naphthalene	128	18.920	18.908	1.180	3922	Below Cal	#	69
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	1501	Below Cal	#	79
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1257	N.D.		
88) Allyl chloride	41	7.524	7.596	0.720	186	Below Cal	#	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M114.D
Acq On : 02 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 09:55:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

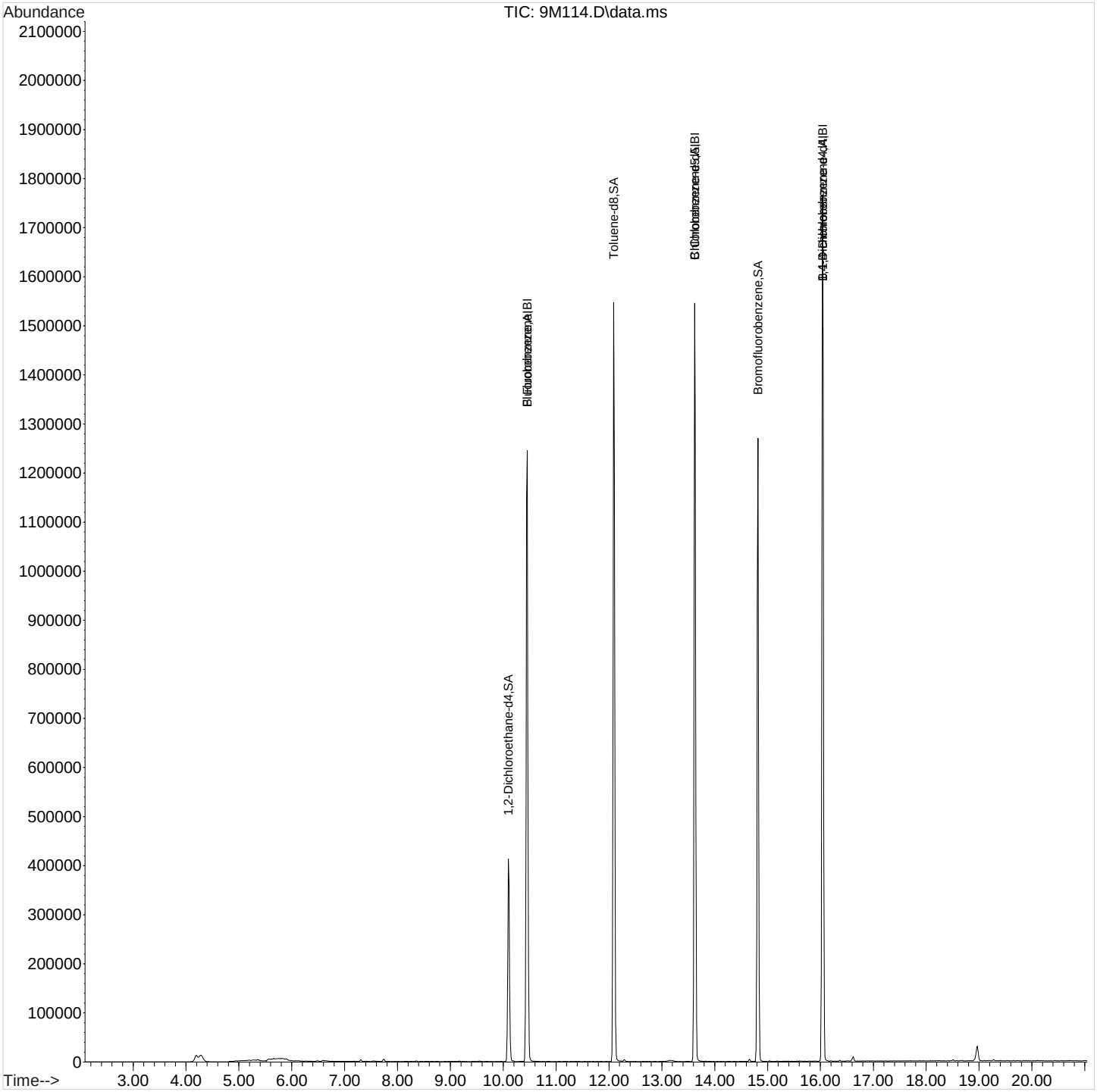
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	1036	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	1050	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.327	12.304	0.905	659	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	1280	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.596	16.584	1.035	707	N.D.	

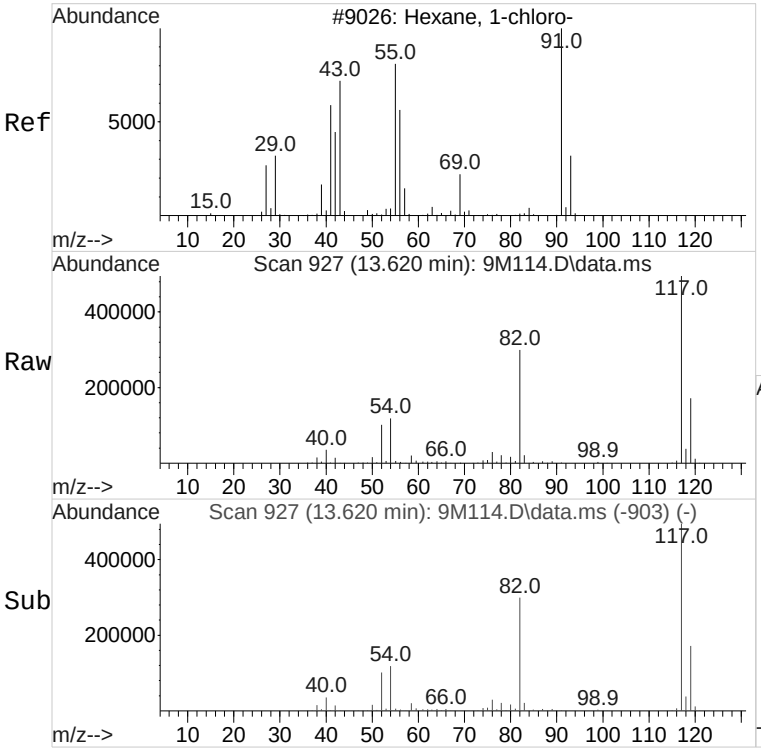
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M114.D
Acq On : 02 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 09:55:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

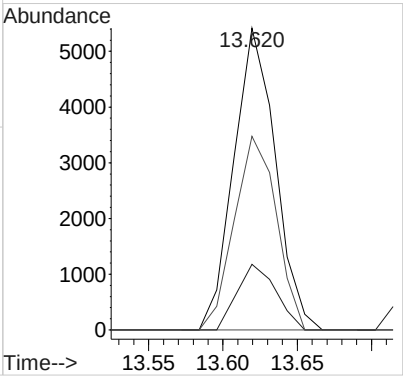




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.48 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M114.D
Acq: 02 Oct 2017 16:23

Tgt Ion: 55 Resp: 10601

Ion	Ratio	Lower	Upper
55	100		
91	20.3	114.6	174.6#
56	64.8	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718001**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.1**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:03**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M208.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.351	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.351	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.351	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.351	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.351	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.351	1.05
78-93-3	2-Butanone	U	5.27	ug/kg	1.76	5.27
591-78-6	2-Hexanone	U	5.27	ug/kg	1.76	5.27
108-10-1	4-Methyl-2-pentanone	U	5.27	ug/kg	1.76	5.27
67-64-1	Acetone	U	5.27	ug/kg	1.76	5.27
71-43-2	Benzene	U	1.05	ug/kg	0.351	1.05
75-15-0	Carbon disulfide	U	5.27	ug/kg	1.76	5.27
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.351	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.351	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.351	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.351	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.351	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.351	1.05
75-09-2	Methylene chloride	U	5.27	ug/kg	1.76	5.27
100-42-5	Styrene	U	1.05	ug/kg	0.351	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.351	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.351	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.351	1.05
76-13-1	Trichlorotrifluoroethane	U	5.27	ug/kg	1.76	5.27
108-05-4	Vinyl acetate	U	5.27	ug/kg	1.76	5.27
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.351	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.351	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.351	1.05

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M208.D
Acq On : 03 Oct 2017 13:03
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 8 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 03 14:24:50 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	282220	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	70902	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	23140	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	282220	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	70902	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	23140	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	129708	95.37	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	84831	53.27	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	12034	29.48	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	191%#
45) Toluene-d8	50.000	81 - 120	107%
63) Bromofluorobenzene	50.000	70 - 130	59%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D. d		
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.572	7.512	0.724	1087	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	12251	Below Cal		89
15) Methylene chloride	84	7.738	7.738	0.740	4599	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate	43	8.532	8.520	0.816	422	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	1245	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.205	10.204	0.976	763	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M208.D
Acq On : 03 Oct 2017 13:03
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 03 14:24:50 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		0.000	12.173	0.000	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone	43	12.742	12.718	0.935	482	Below Cal	#	35
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene		0.000	13.655	0.000	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.715	13.714	1.006	544	N.D.		
57) m,p-Xylenes	106	13.821	13.821	1.014	380	0.46	ug/L #	58
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene		0.000	14.260	0.000	0	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		0.000	14.616	0.000	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0m	N.D.	d	
67) n-Propylbenzene		0.000	15.043	0.000	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0m	N.D.	d	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene		0.000	15.292	0.000	0m	N.D.	d	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0m	N.D.	d	
73) sec-Butylbenzene		0.000	15.790	0.000	0m	N.D.	d	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0m	N.D.	d	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.996	1195	1.80	ug/L	91
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	1542	2.47	ug/L	89
77) n-Butylbenzene		0.000	16.359	0.000	0m	N.D.	d	
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.029	1017	1.60	ug/L	76
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d	
81) Hexachlorobutadiene		0.000	18.683	0.000	0m	N.D.	d	
82) Naphthalene		0.000	18.908	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0m	N.D.	d	
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.311	7.228	0.699	720	N.D.		
88) Allyl chloride	41	7.572	7.596	0.724	1087	Below Cal	#	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M208.D
Acq On : 03 Oct 2017 13:03
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 03 14:24:50 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

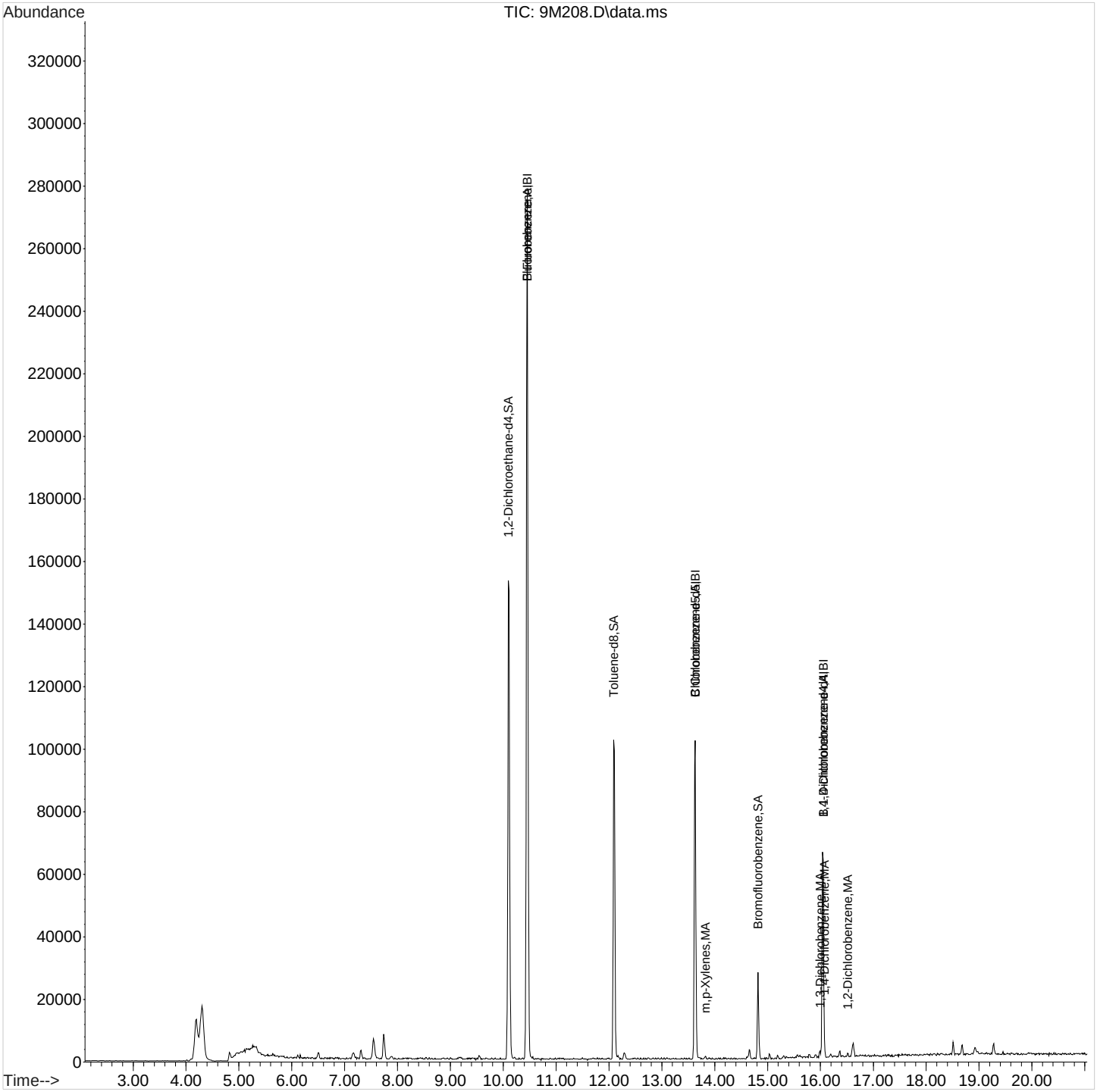
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	1245	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran		0.000	9.540	0.000	0m	N.D.	d
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.327	12.304	0.904	534	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

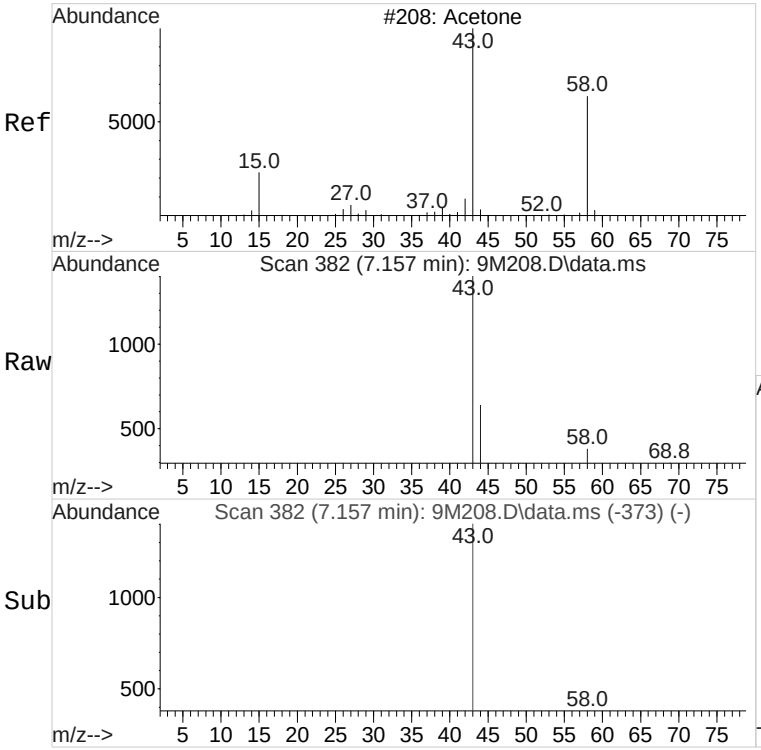
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M208.D
Acq On : 03 Oct 2017 13:03
Operator : RXY1
InstName : VOA9
Sample : |433718001|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 03 14:24:50 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

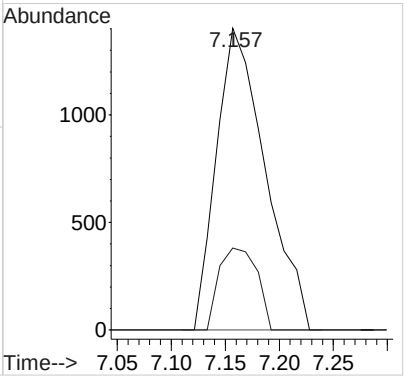


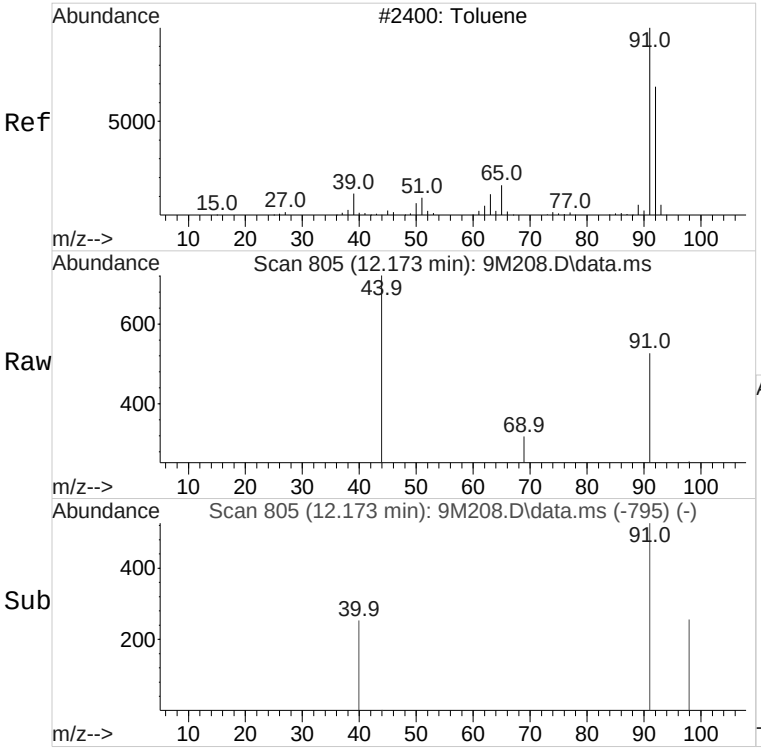


#9 BEFORE analyst DELETION
Acetone
Concen: 4.34 ug/L
RT: 7.157 min Scan# 382
Delta R.T. 0.012 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 43 Resp: 4432

Ion	Ratio	Lower	Upper
43	100		
58	21.1	3.0	63.0

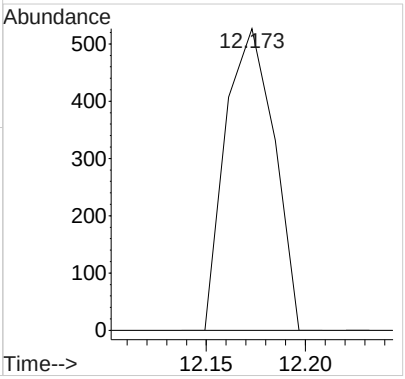


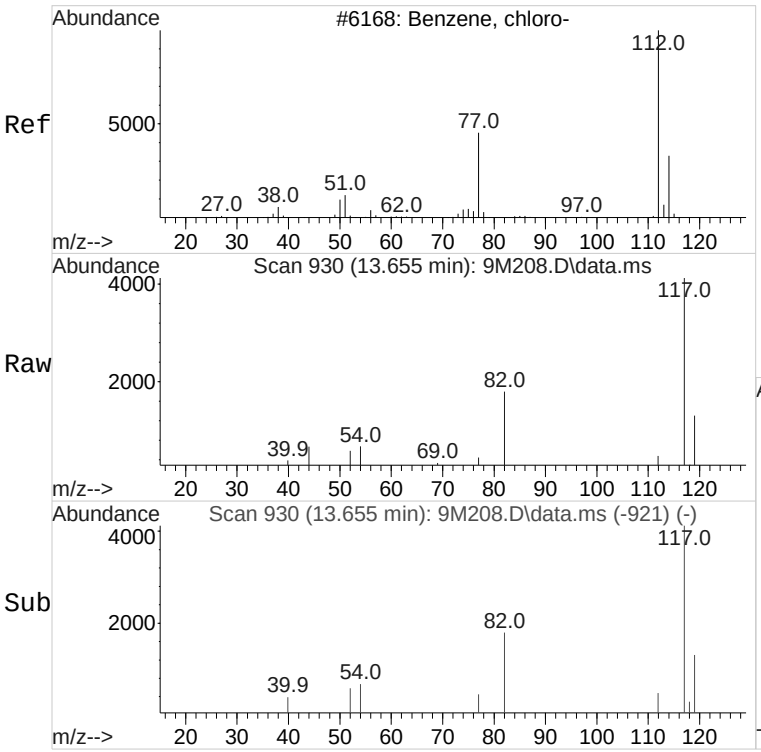


#46 BEFORE analyst DELETION
Toluene
Concen: 0.49 ug/L
RT: 12.173 min Scan# 805
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 91 Resp: 901

Ion	Ratio	Lower	Upper
91	100		
92	0.0	34.6	94.6#

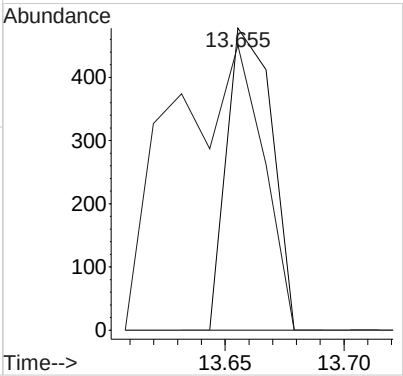


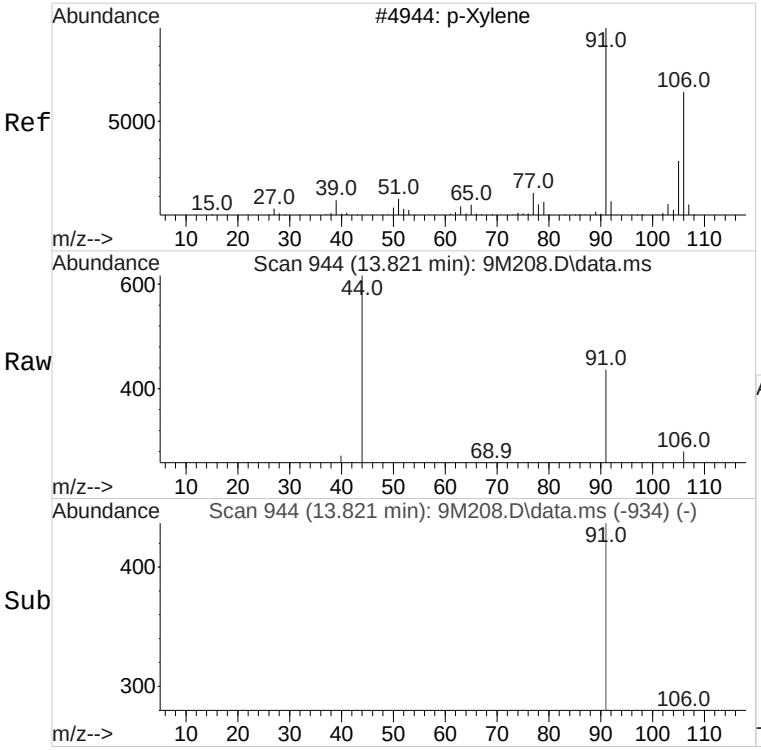


#54 BEFORE analyst DELETION
Chlorobenzene
Concen: 0.53 ug/L
RT: 13.655 min Scan# 930
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:112 Resp: 633

Ion	Ratio	Lower	Upper
112	100		
77	191.2	33.5	93.5#
114	0.0	3.7	63.7#

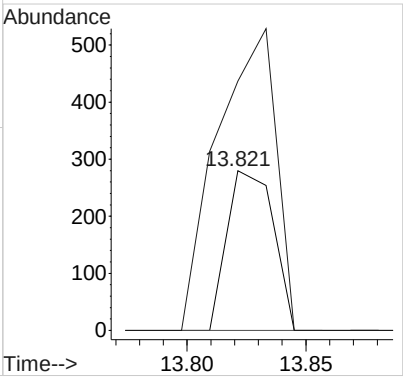


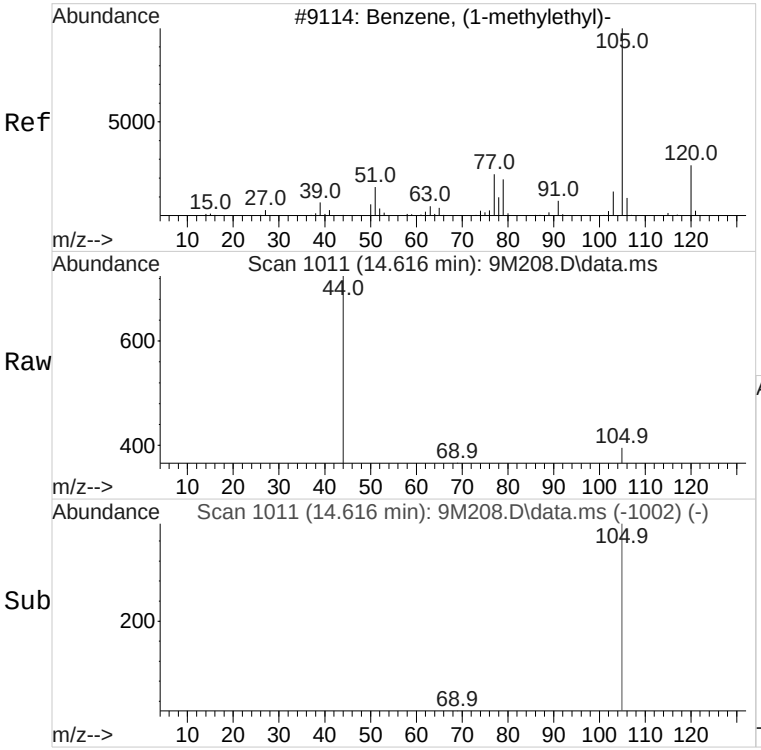


#57
m,p-Xylenes
Concen: 0.46 ug/L
RT: 13.821 min Scan# 944
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:106 Resp: 380

Ion	Ratio	Lower	Upper
106	100		
91	239.7	150.7	210.7#

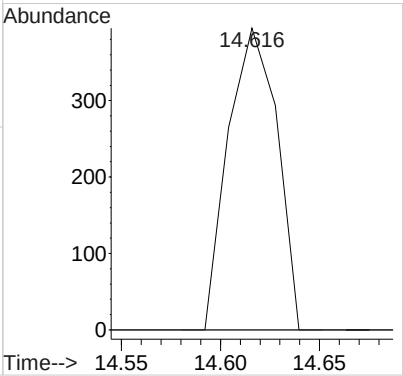


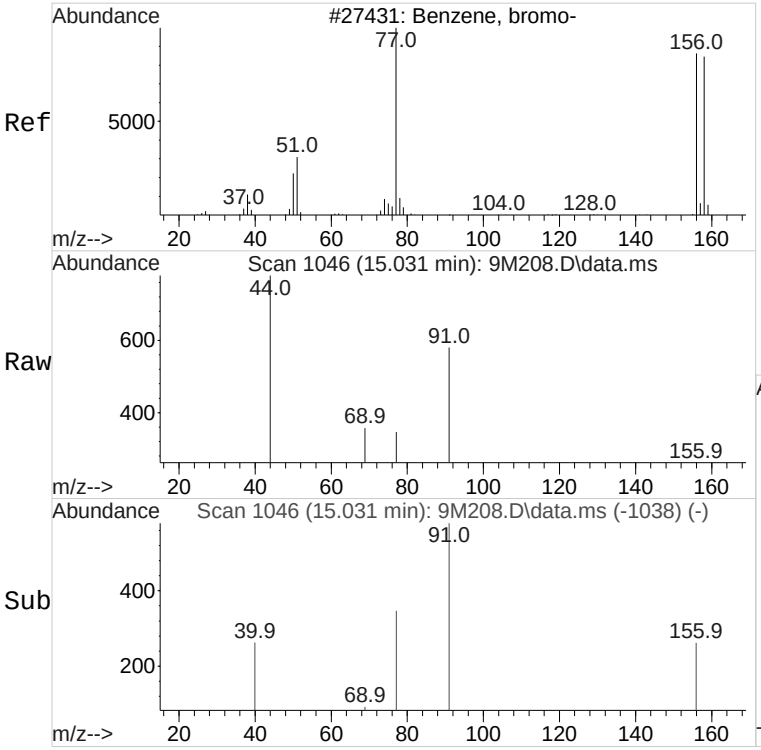


#62 BEFORE analyst DELETION
Isopropylbenzene
Concen: 0.51 ug/L
RT: 14.616 min Scan# 1011
Delta R.T. -0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:105 Resp: 679

Ion	Ratio	Lower	Upper
105	100		
120	0.0	0.0	58.6

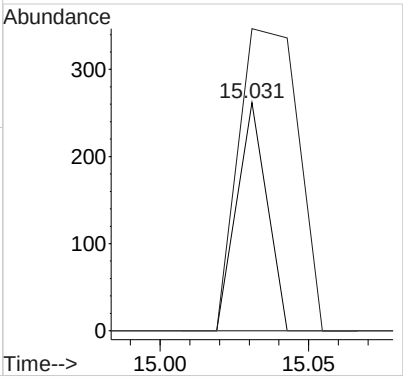


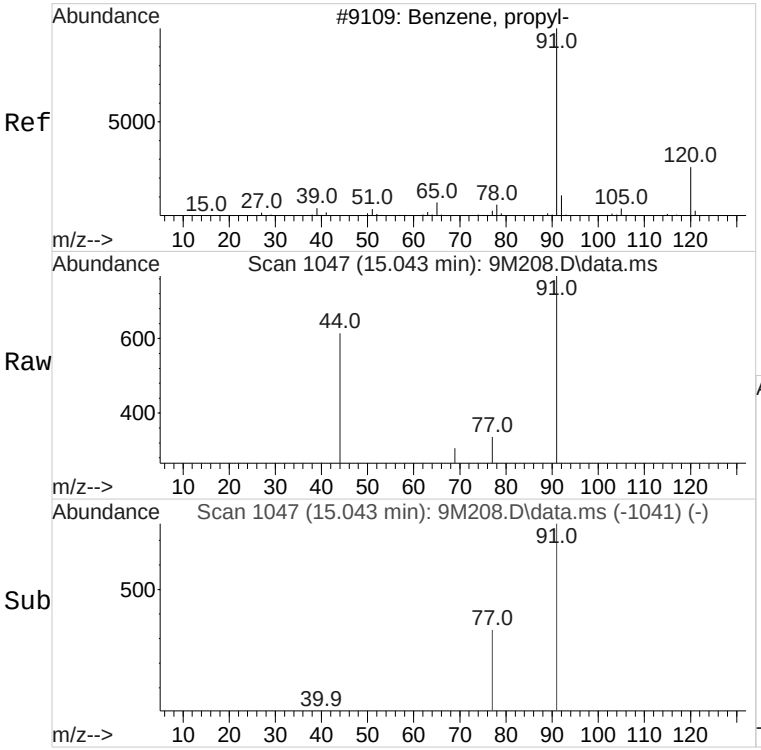


#66 BEFORE analyst DELETION
Bromobenzene
Concen: 0.57 ug/L
RT: 15.031 min Scan# 1046
Delta R.T. -0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:156 Resp: 186

Ion	Ratio	Lower	Upper
156	100		
77	261.3	163.5	223.5#
158	0.0	70.1	130.1#

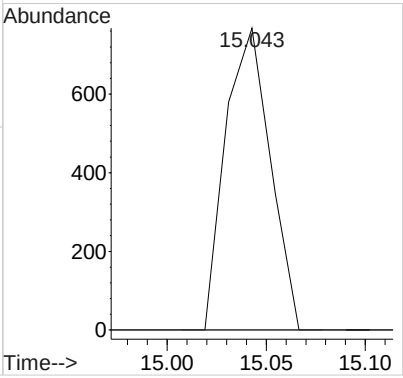


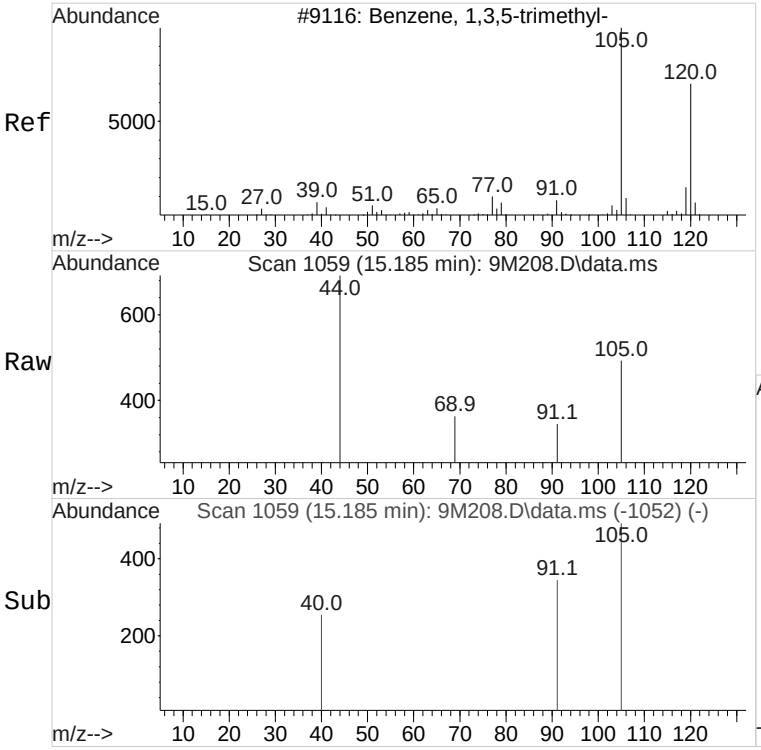


#67 BEFORE analyst DELETION
n-Propylbenzene
Concen: 0.74 ug/L
RT: 15.043 min Scan# 1047
Delta R.T. -0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 91 Resp: 1206

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	55.2

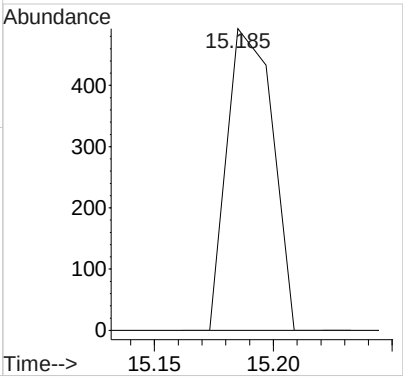


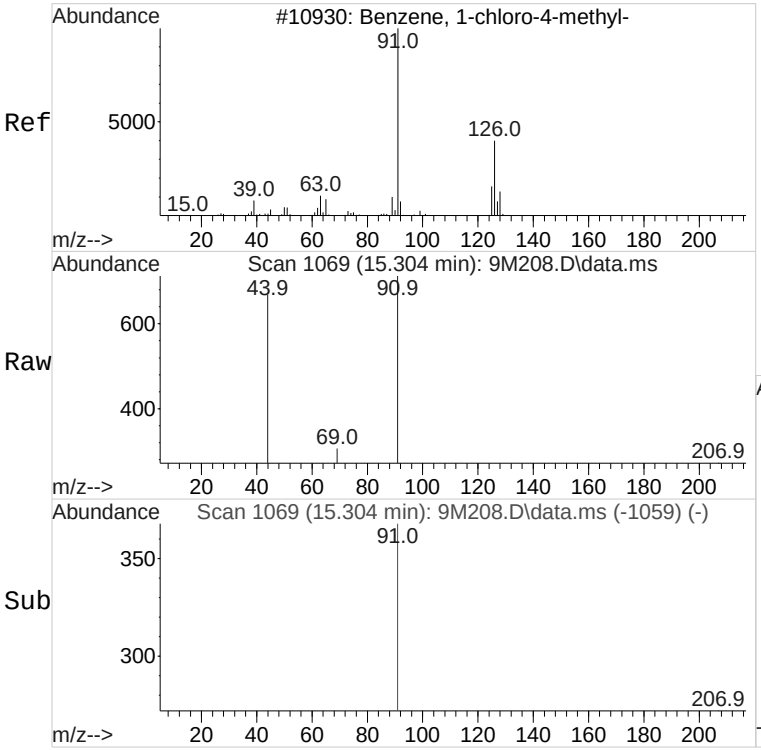


#68 BEFORE analyst DELETION
1,3,5-Trimethylbenzene
Concen: 0.59 ug/L
RT: 15.185 min Scan# 1059
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:105 Resp: 659

Ion	Ratio	Lower	Upper
105	100		
120	0.0	23.6	83.6#

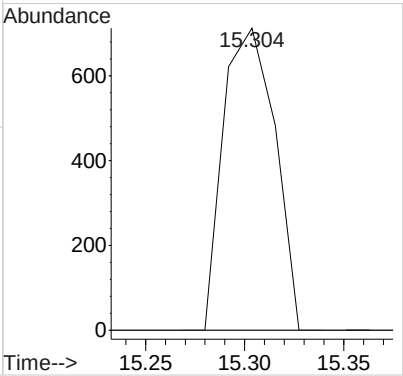


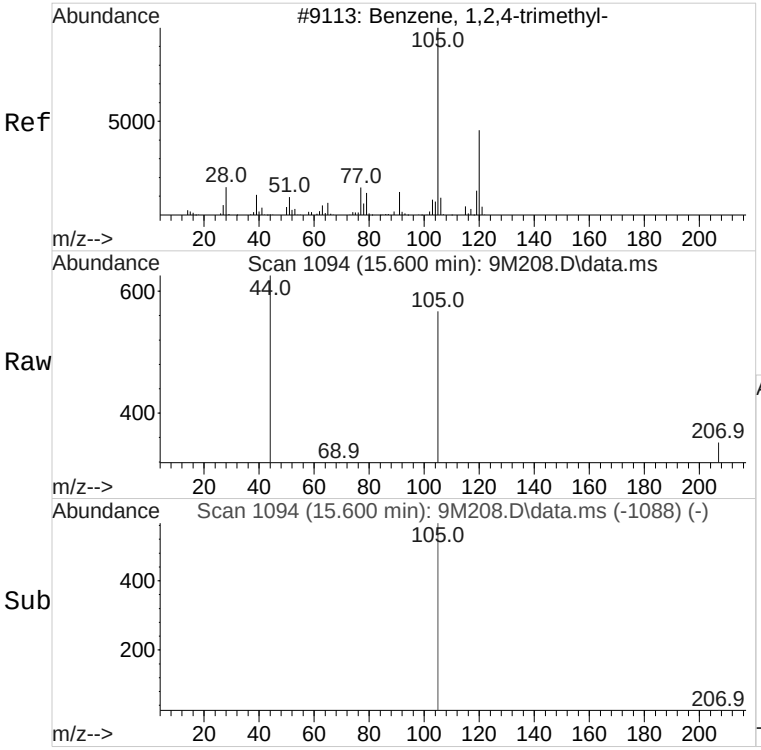


#70 BEFORE analyst DELETION
4-Chlorotoluene
Concen: 1.31 ug/L
RT: 15.304 min Scan# 1069
Delta R.T. 0.012 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 91 Resp: 1294

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.9	64.9#

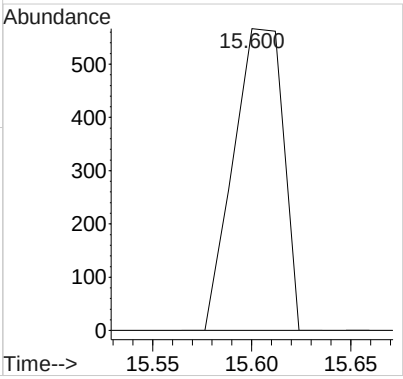


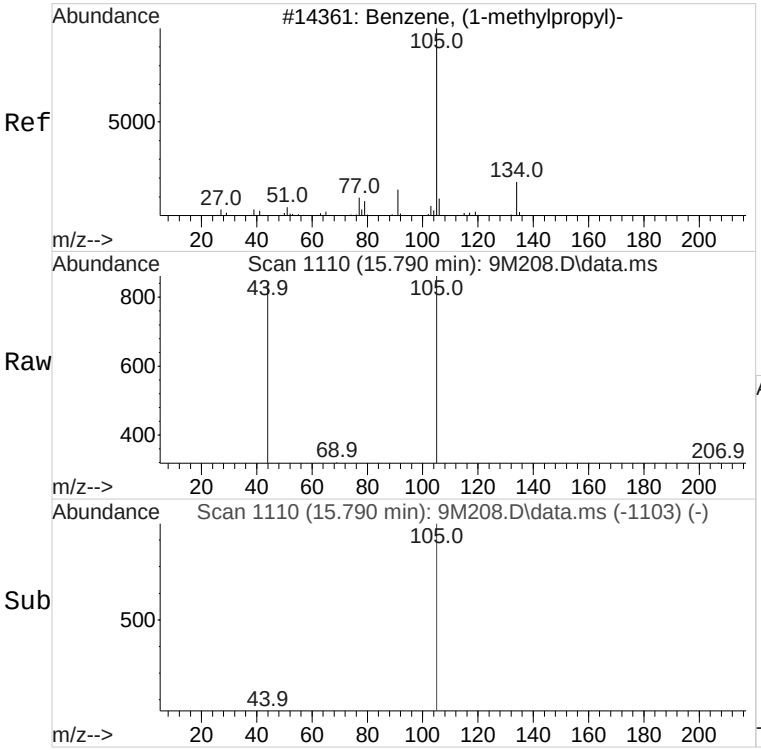


#72 BEFORE analyst DELETION
1,2,4-Trimethylbenzene
Concen: 0.84 ug/L
RT: 15.600 min Scan# 1094
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:105 Resp: 991

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.7	79.7#

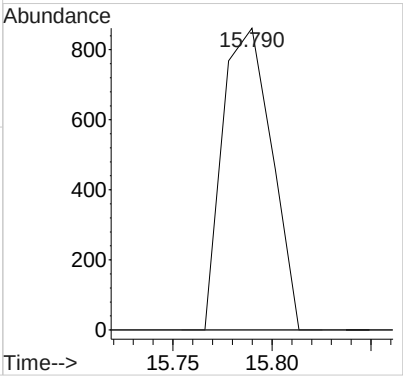


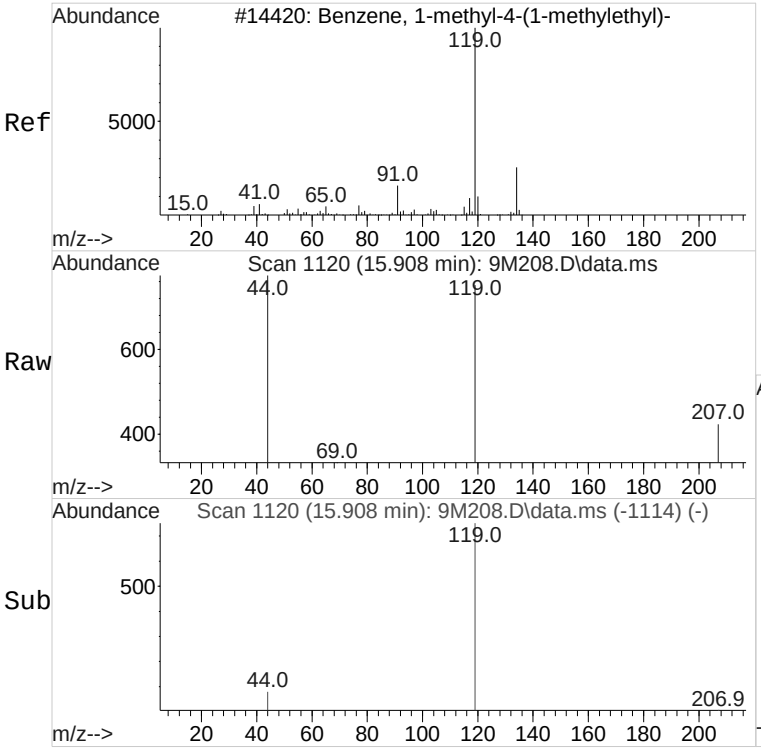


#73 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 0.95 ug/L
RT: 15.790 min Scan# 1110
Delta R.T. -0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:105 Resp: 1487

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	51.8

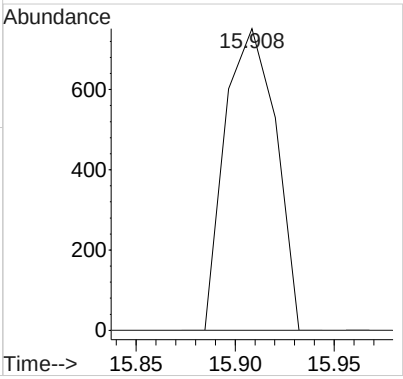


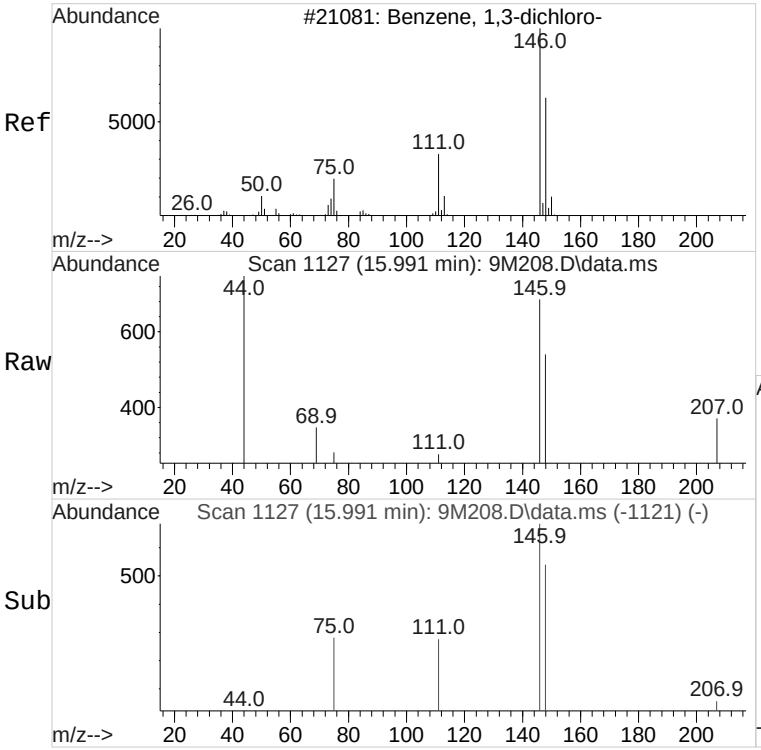


#74 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 1.03 ug/L
RT: 15.908 min Scan# 1120
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:119 Resp: 1340

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.8
91	0.0	0.0	53.3

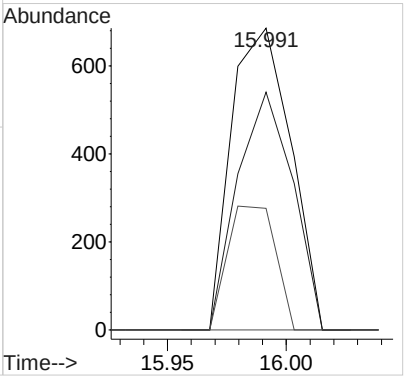


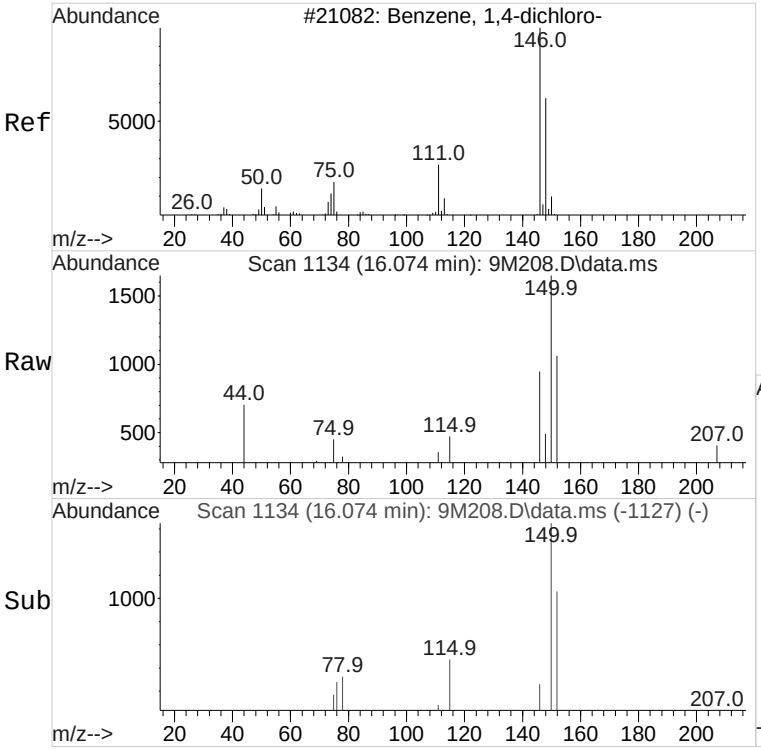


#75
1,3-Dichlorobenzene
Concen: 1.80 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:146 Resp: 1195

Ion	Ratio	Lower	Upper
146	100		
148	73.1	37.5	97.5
111	33.1	10.0	70.0

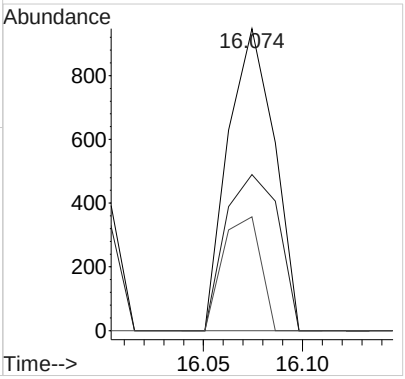


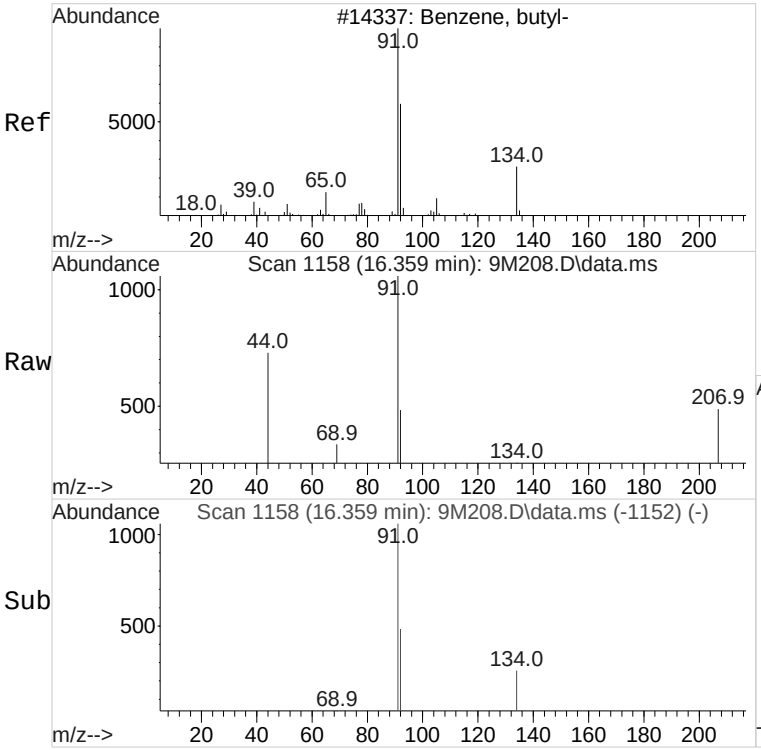


#76
1,4-Dichlorobenzene
Concen: 2.47 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:146 Resp: 1542

Ion	Ratio	Lower	Upper
146	100		
148	59.3	36.9	96.9
111	31.1	9.0	69.0

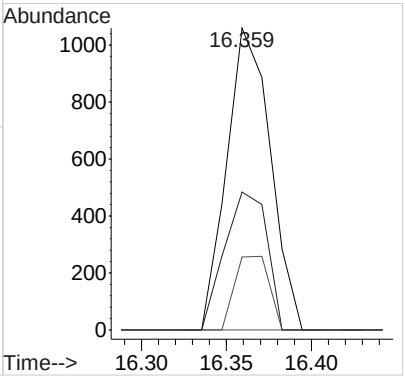


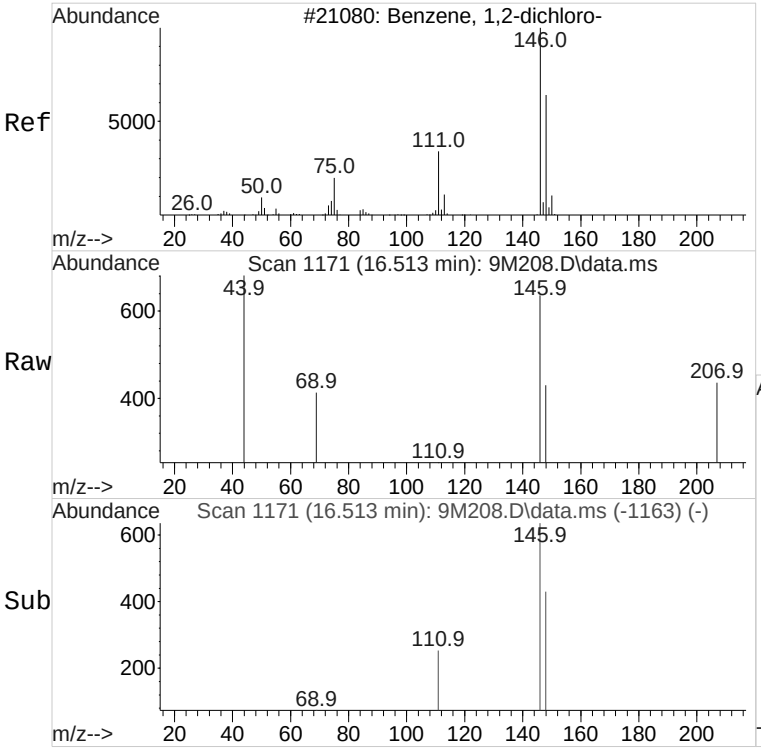


#77 BEFORE analyst DELETION
n-Butylbenzene
Concen: 0.85 ug/L
RT: 16.359 min Scan# 1158
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 91 Resp: 1900

Ion	Ratio	Lower	Upper
91	100		
92	44.3	30.4	90.4
134	19.3	0.0	59.9

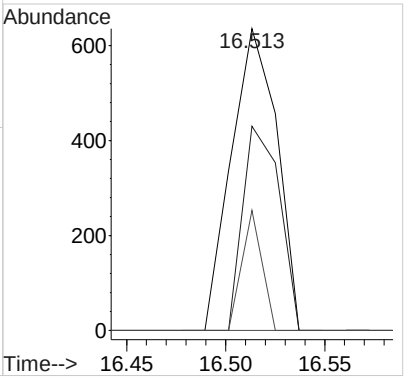


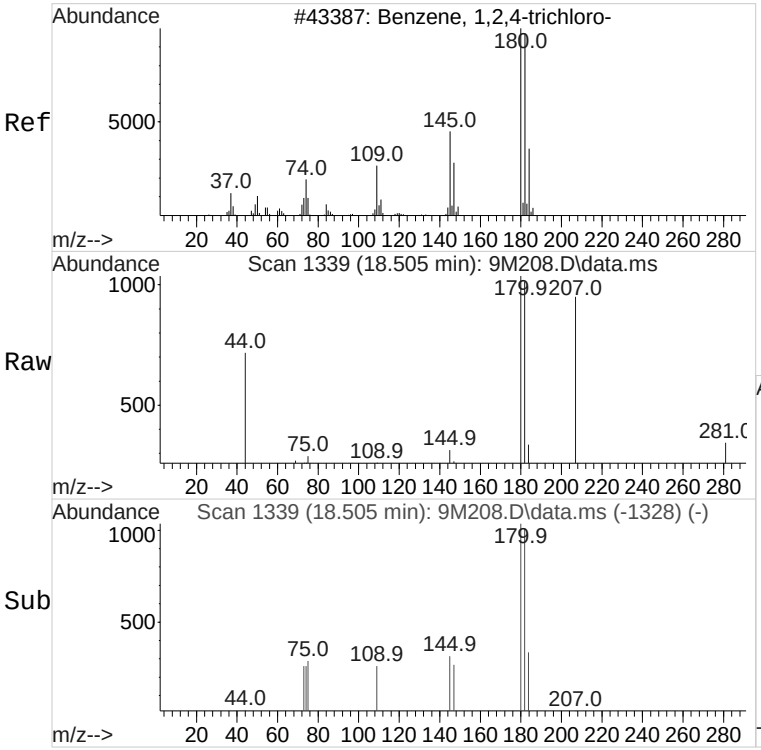


#78
1,2-Dichlorobenzene
Concen: 1.60 ug/L
RT: 16.513 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:146 Resp: 1017

Ion	Ratio	Lower	Upper
146	100		
148	54.8	36.7	96.7
111	17.7	11.2	71.2

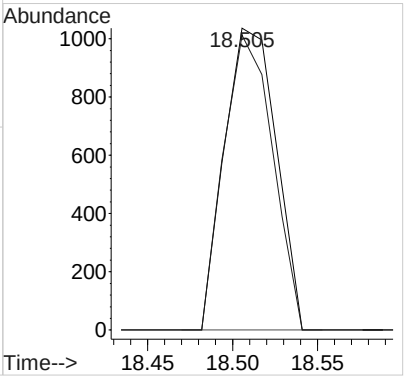


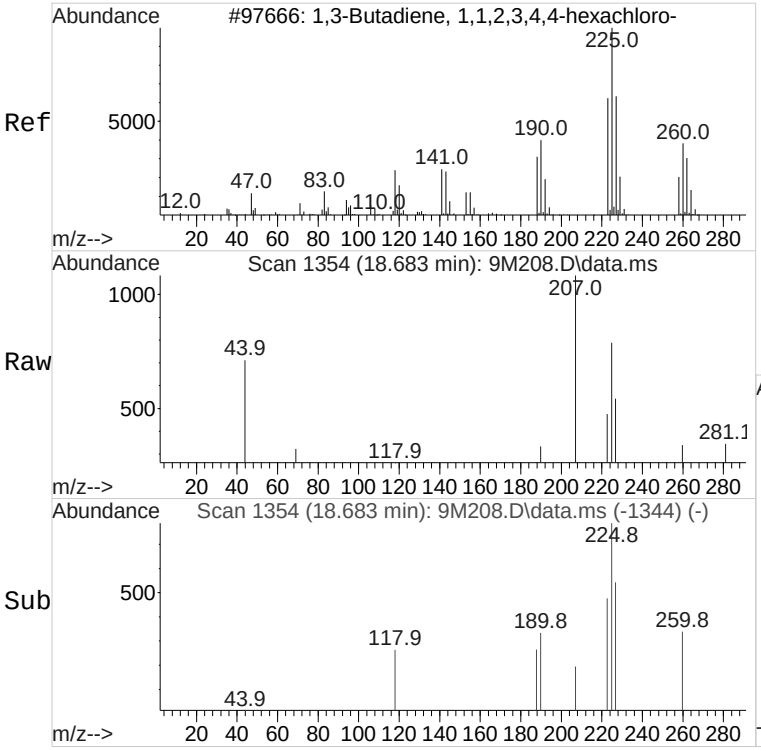


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 3.99 ug/L
RT: 18.505 min Scan# 1339
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:180 Resp: 2207

Ion	Ratio	Lower	Upper
180	100		
182	92.3	68.7	128.7

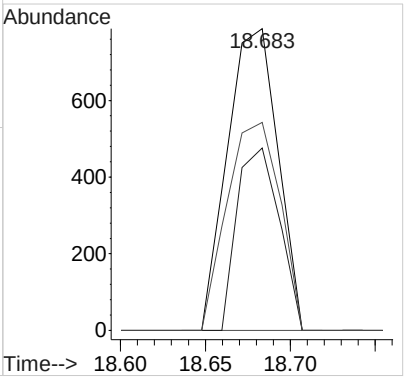


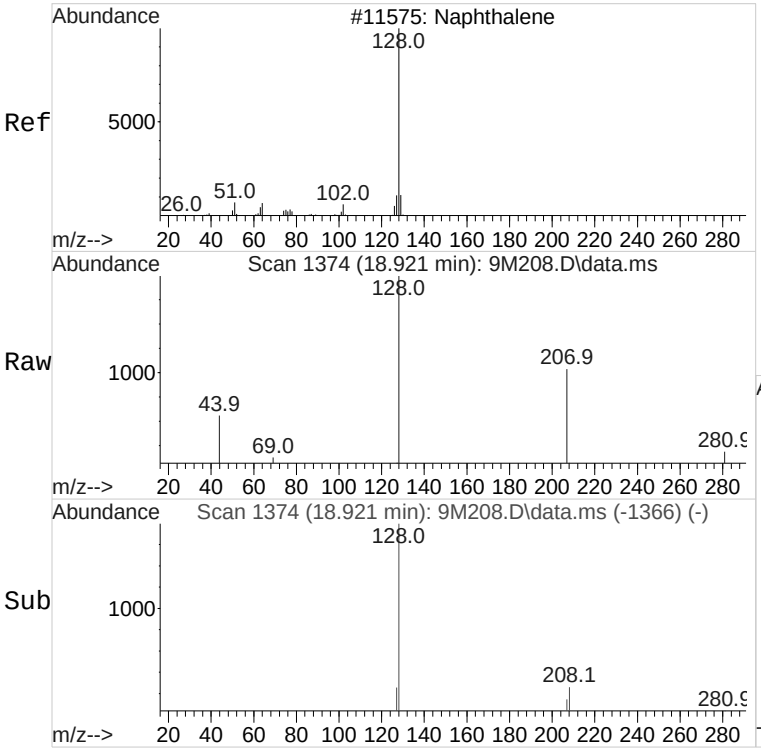


#81 BEFORE analyst DELETION
Hexachlorobutadiene
Concen: 5.14 ug/L
RT: 18.683 min Scan# 1354
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:225 Resp: 1632

Ion	Ratio	Lower	Upper
225	100		
223	50.7	31.9	91.9
227	72.2	35.5	95.5

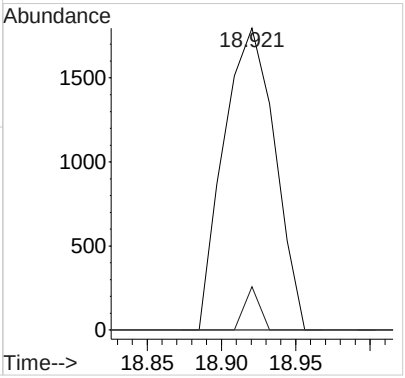


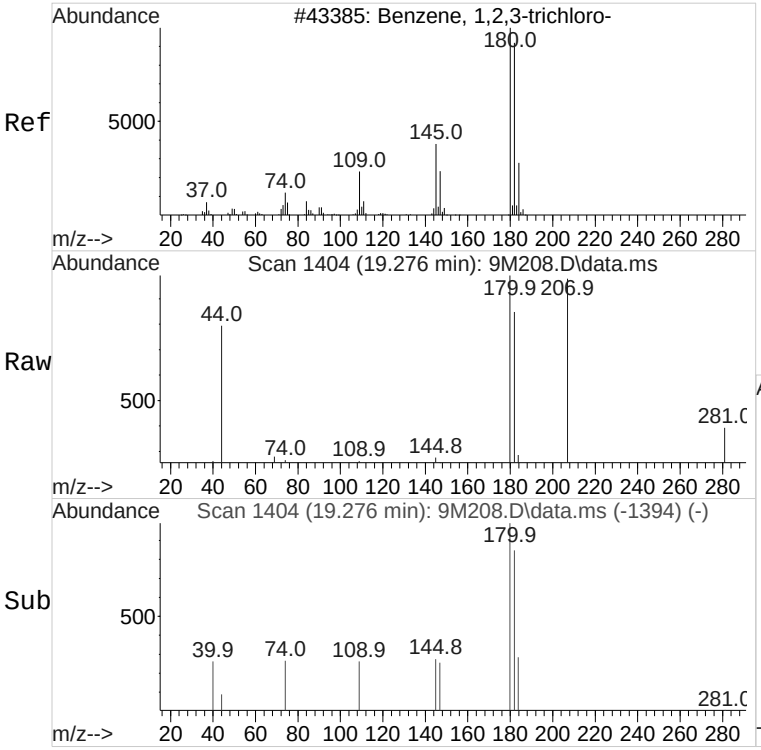


#82 BEFORE analyst DELETION
Naphthalene
Concen: 3.26 ug/L
RT: 18.921 min Scan# 1374
Delta R.T. 0.013 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:128 Resp: 4307

Ion	Ratio	Lower	Upper
128	100		
127	4.2	0.0	42.3
129	0.0	0.0	41.5

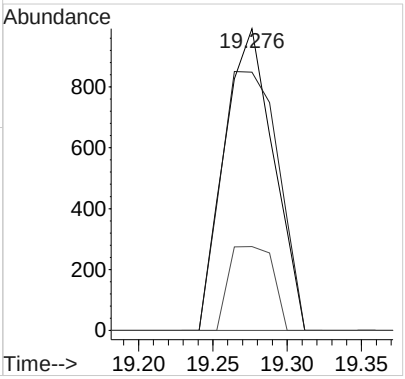


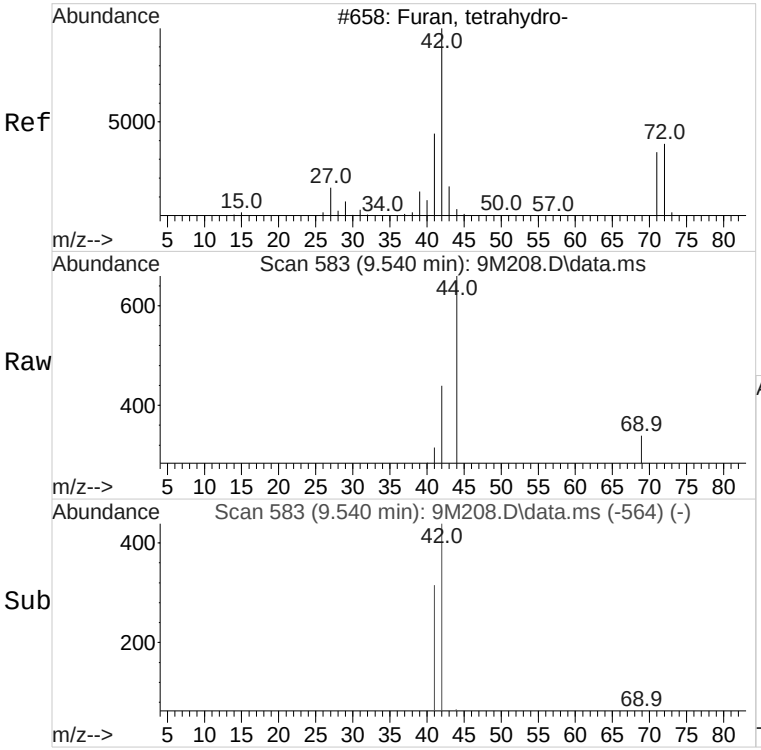


#83 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 4.63 ug/L
RT: 19.276 min Scan# 1404
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion:180 Resp: 2287

Ion	Ratio	Lower	Upper
180	100		
182	100.3	67.9	127.9
145	25.0	0.3	60.3

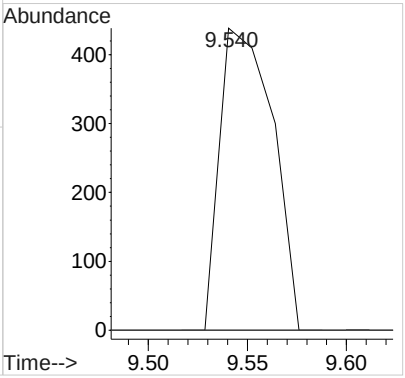


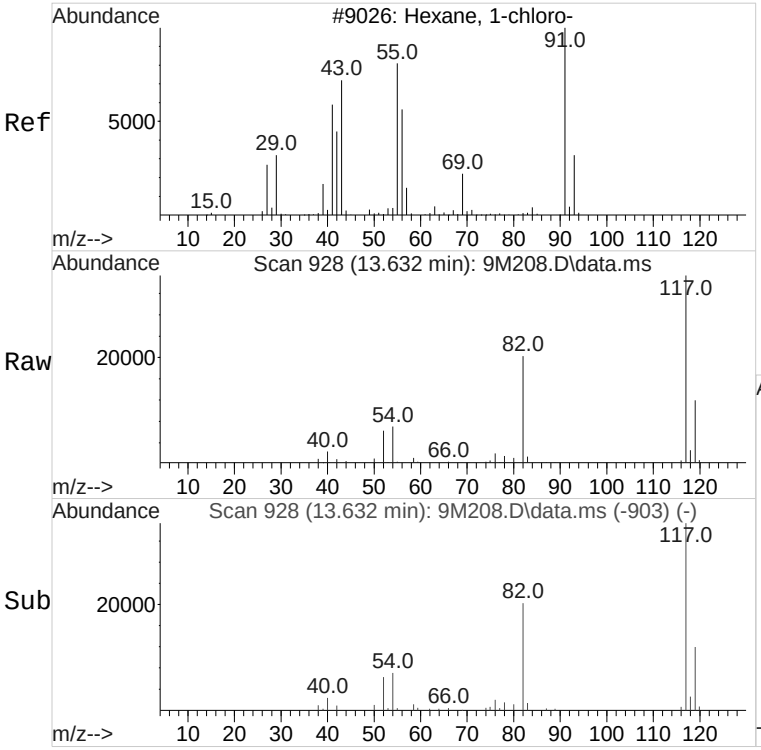


#97 BEFORE analyst DELETION
Tetrahydrofuran
Concen: 2.06 ug/L
RT: 9.540 min Scan# 583
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 42 Resp: 818

Ion	Ratio	Lower	Upper
42	100		
72	0.0	12.3	72.3#
71	0.0	10.2	70.2#

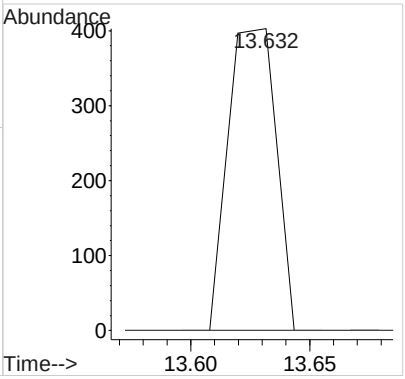


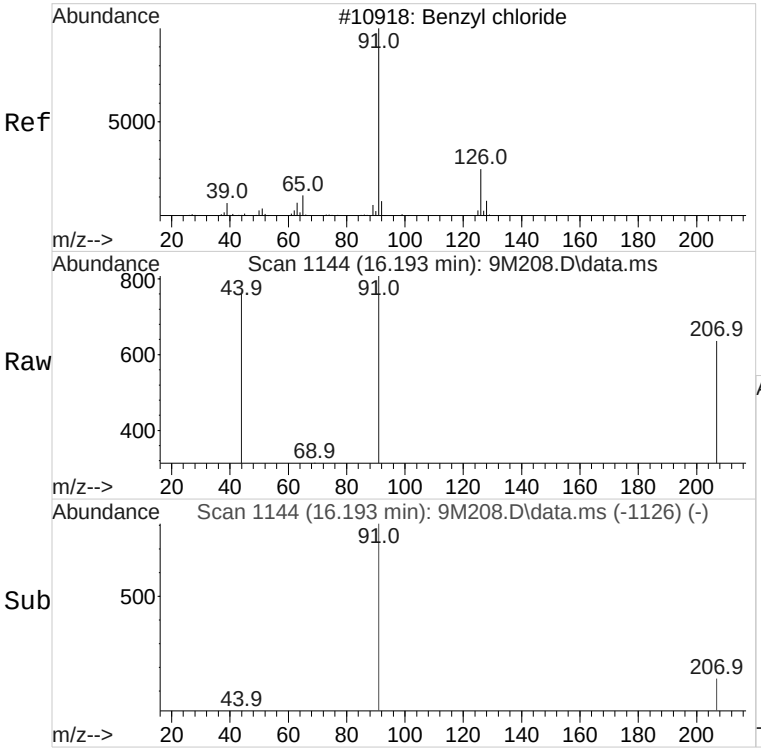


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.00 ug/L
RT: 13.632 min Scan# 928
Delta R.T. 0.119 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 55 Resp: 569

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	0.0	31.6	91.6#

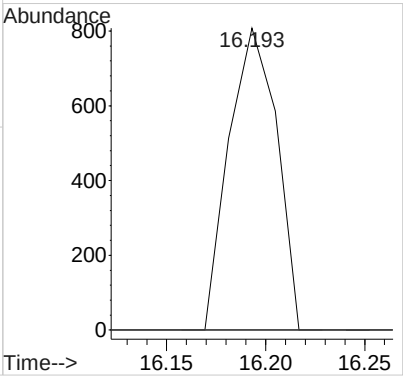


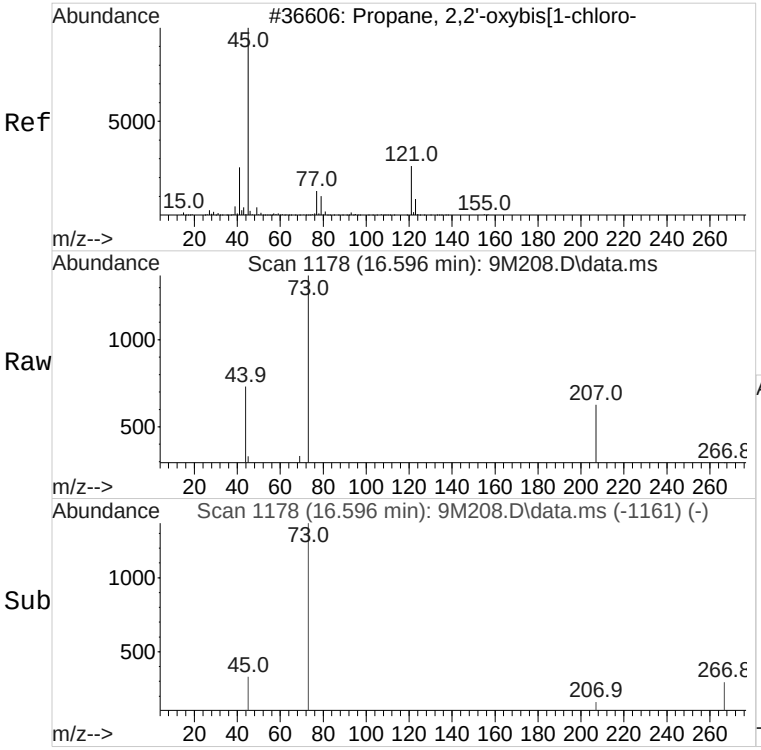


#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 2.85 ug/L
RT: 16.193 min Scan# 1144
Delta R.T. 0.000 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 91 Resp: 1357

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.7
65	0.0	0.0	43.5

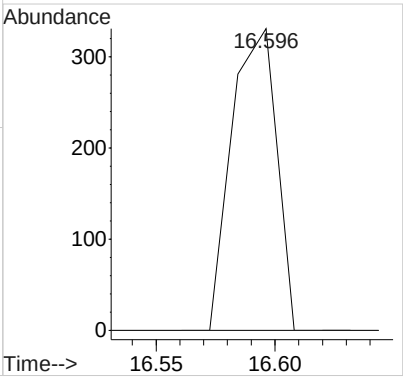




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.79 ug/L
RT: 16.596 min Scan# 1178
Delta R.T. 0.012 min
Lab File: 9M208.D
Acq: 03 Oct 2017 13:03

Tgt Ion: 45 Resp: 435

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718002**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01D**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 16:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:07**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M115.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.2	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.2	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.2	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.2	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.2	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.2	106
78-93-3	2-Butanone	U	528	ug/kg	176	528
591-78-6	2-Hexanone	U	528	ug/kg	176	528
108-10-1	4-Methyl-2-pentanone	U	528	ug/kg	176	528
67-64-1	Acetone	U	528	ug/kg	176	528
71-43-2	Benzene	U	106	ug/kg	35.2	106
75-15-0	Carbon disulfide	U	528	ug/kg	176	528
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.2	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.2	106
75-00-3	Chloroethane	U	106	ug/kg	35.2	106
67-66-3	Chloroform	U	106	ug/kg	35.2	106
74-87-3	Chloromethane	U	106	ug/kg	35.2	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.2	106
75-09-2	Methylene chloride	U	528	ug/kg	176	528
100-42-5	Styrene	U	106	ug/kg	35.2	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.2	106
108-88-3	Toluene	U	106	ug/kg	35.2	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.2	106
76-13-1	Trichlorotrifluoroethane	U	528	ug/kg	176	528
108-05-4	Vinyl acetate	U	528	ug/kg	176	528
75-01-4	Vinyl chloride	U	106	ug/kg	35.2	106
1330-20-7	Xylenes (total)	U	317	ug/kg	106	317
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.2	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.2	106

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M115.D
Acq On : 02 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 03 09:55:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1321110	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	1022933	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	573534	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1321110	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	1022933	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	573534	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	320936	50.41	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1135553	49.43	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	513271	50.73	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.180	7.145	0.687	737	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	419	N.D.		
11) Iodomethane	142	7.406	7.418	0.708	206	N.D.		
12) Acetonitrile	41	7.536	7.512	0.721	403	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	1229	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2952	Below Cal		94
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	734	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	795	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	413	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M115.D
Acq On : 02 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 03 09:55:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.161	12.173	0.893	861	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone	43	12.730	12.718	0.935	179	Below Cal	#	35
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene	112	13.667	13.655	1.003	771	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.714	13.714	1.007	223	N.D.		
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene	104	14.272	14.260	1.048	209	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene	91	15.043	15.043	0.938	528	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene	91	15.304	15.292	0.954	971	N.D.		
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	435	N.D.		
73) sec-Butylbenzene	105	15.790	15.790	0.984	575	N.D.		
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	655	N.D.		
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	576	N.D.		
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	1081	N.D.		
77) n-Butylbenzene	91	16.371	16.359	1.021	719	Below Cal	#	51
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	516	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	1258	Below Cal		95
81) Hexachlorobutadiene	225	18.683	18.683	1.165	480	Below Cal	#	18
82) Naphthalene	128	18.920	18.908	1.180	3023	Below Cal	#	69
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	1273	Below Cal	#	71
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1123	N.D.		
88) Allyl chloride	41	7.536	7.596	0.721	403	Below Cal	#	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M115.D
Acq On : 02 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 03 09:55:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

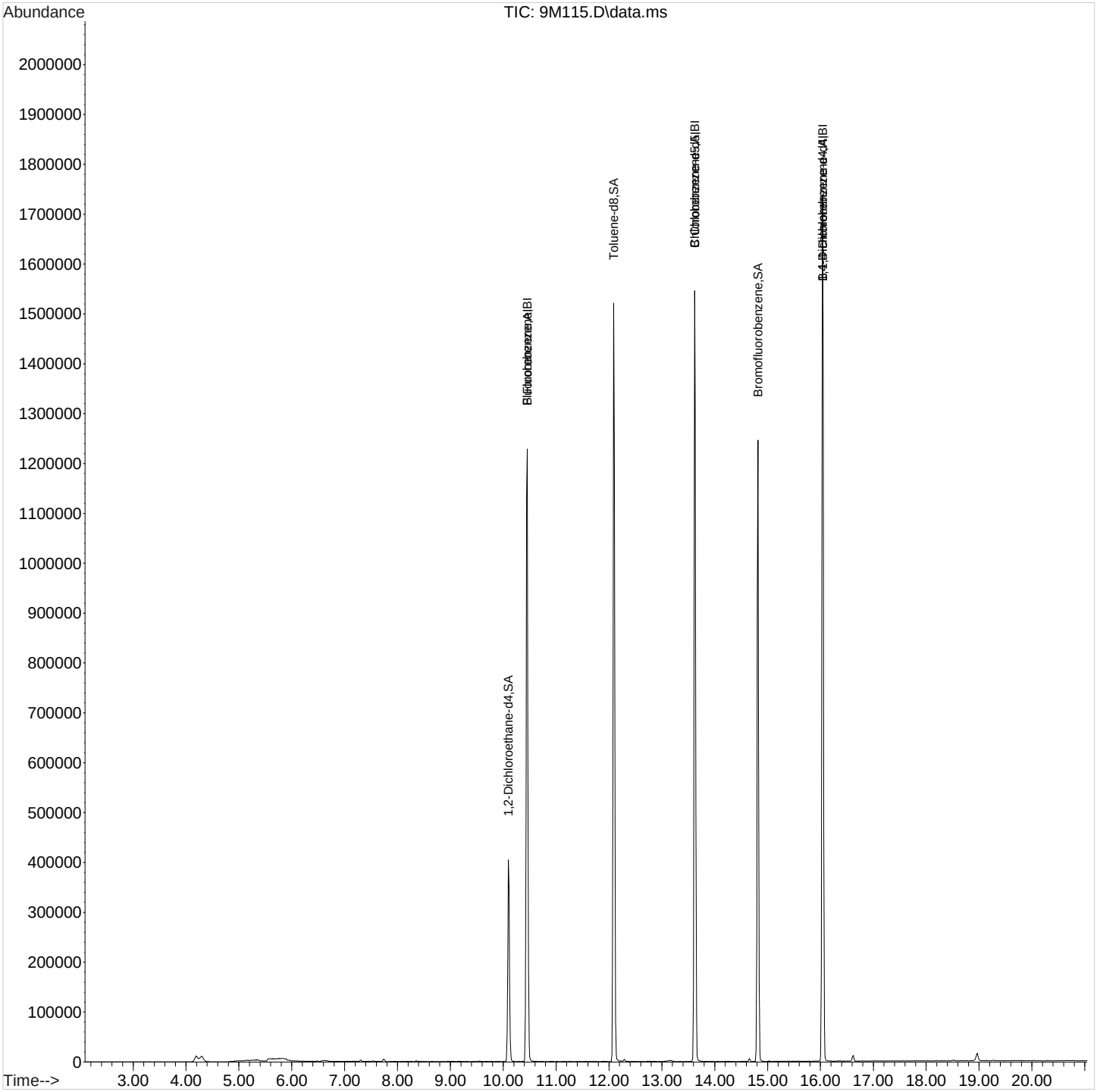
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	795	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1163	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	1032	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.596	16.584	1.035	954	N.D.	

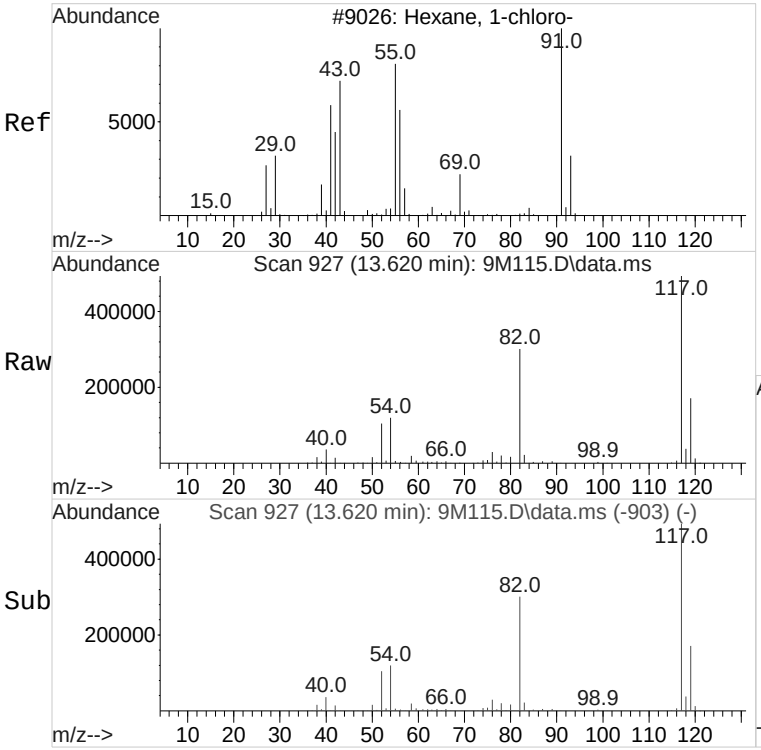
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M115.D
Acq On : 02 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 03 09:55:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

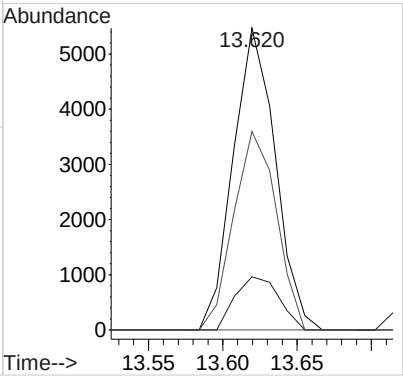




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.54 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M115.D
Acq: 02 Oct 2017 16:51

Tgt Ion: 55 Resp: 10845

Ion	Ratio	Lower	Upper
55	100		
91	18.3	114.6	174.6#
56	66.5	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718002**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.4**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01DRE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:31**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M209.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	J	0.402	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M209.D
Acq On : 03 Oct 2017 13:31
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 14:39:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	291174	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	73405	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22284	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	291174	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	73405	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22284	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	126976	90.49	ug/L	0.00
45) Toluene-d8	98	12.102	12.090	0.888	91896	55.74	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	12297	31.28	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	181%#
45) Toluene-d8	50.000	81 - 120	111%
63) Bromofluorobenzene	50.000	70 - 130	63%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.548	7.512	0.722	213	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	9707	Below Cal		93
15) Methylene chloride	84	7.750	7.738	0.741	3995	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	730	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	287	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M209.D
Acq On : 03 Oct 2017 13:31
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 03 14:39:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.173	12.173	0.893	734	0.38	ug/L #	53
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene		0.000	13.655	0.000	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57) m,p-Xylenes	106	13.833	13.821	1.015	203	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene		0.000	14.260	0.000	0	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene	105	14.616	14.616	0.911	180	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene		0.000	15.043	0.000	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.946	199	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene		0.000	15.292	0.000	0m	N.D.	d	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0m	N.D.	d	
73) sec-Butylbenzene		0.000	15.790	0.000	0m	N.D.	d	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0m	N.D.	d	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.996	797	1.25	ug/L #	71
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	1150	1.91	ug/L	98
77) n-Butylbenzene	91	16.359	16.359	1.019	1078	N.D.		
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.029	740	1.21	ug/L #	45
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d	
81) Hexachlorobutadiene		0.000	18.683	0.000	0m	N.D.	d	
82) Naphthalene		0.000	18.908	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0m	N.D.	d	
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.311	7.228	0.699	767	N.D.		
88) Allyl chloride	41	7.548	7.596	0.722	213	Below Cal	#	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M209.D
Acq On : 03 Oct 2017 13:31
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 03 14:39:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

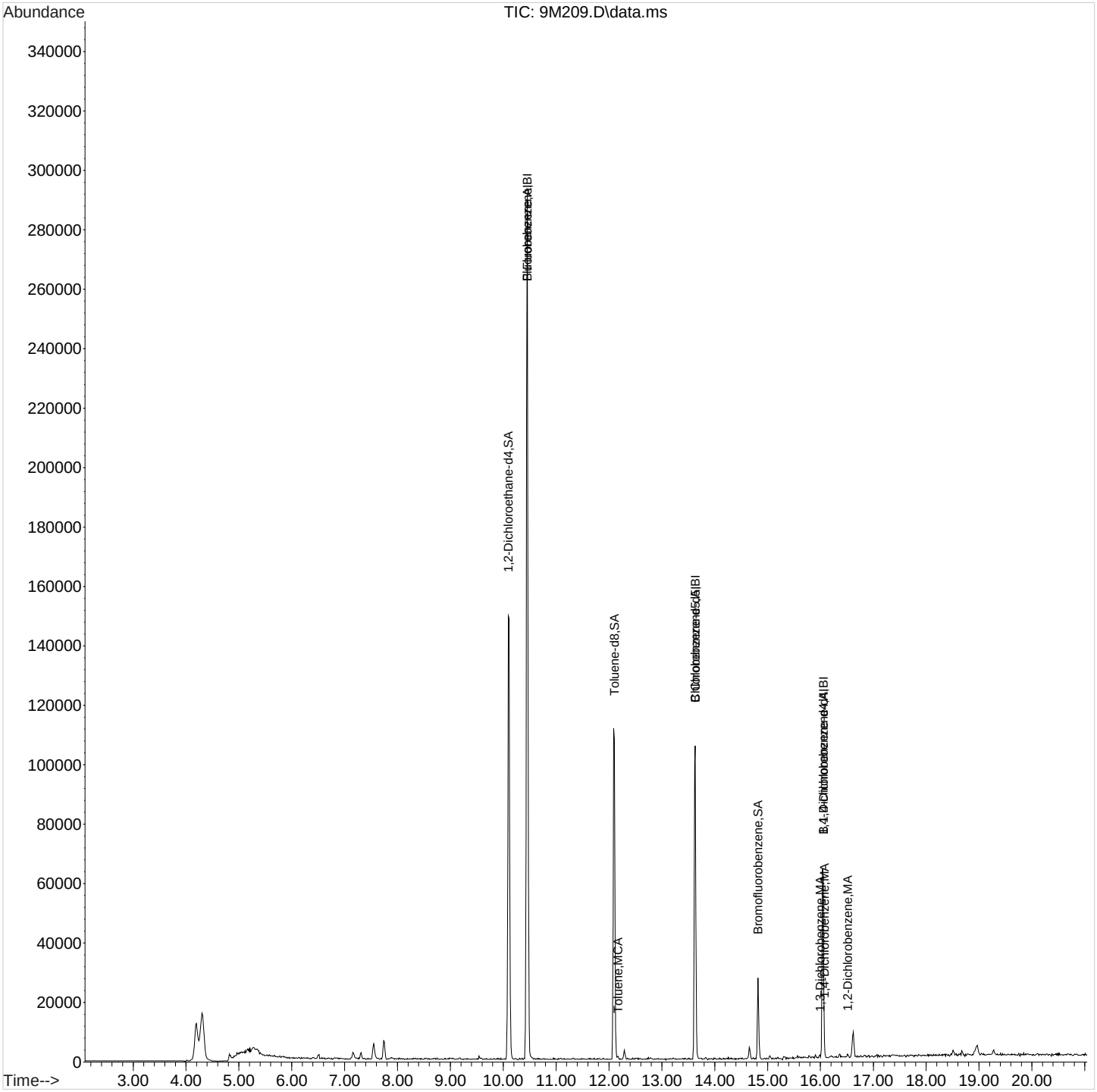
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	730	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran		0.000	9.540	0.000	0m	N.D.	d
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.070	11.047	1.059	398	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.303	12.304	0.903	423	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

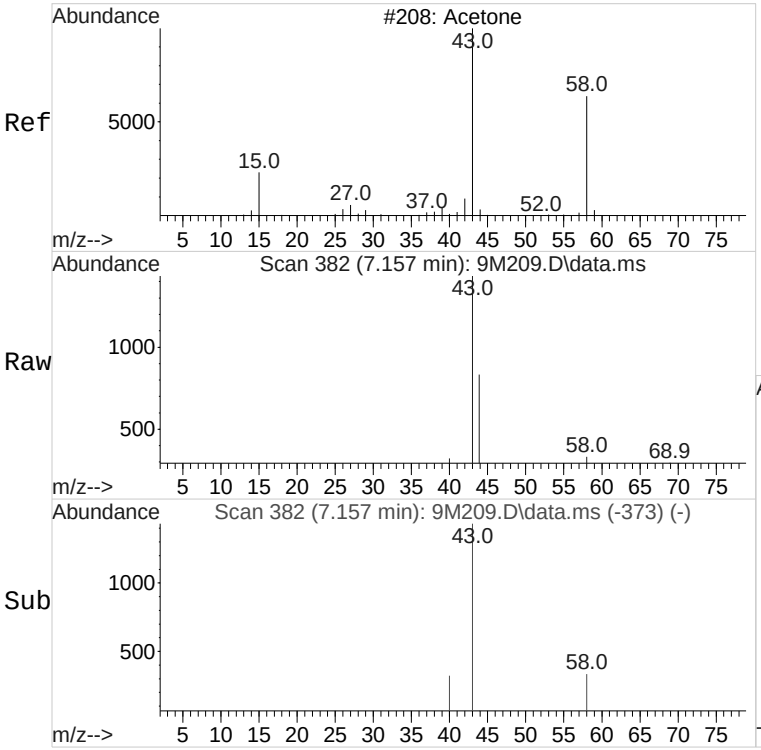
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M209.D
Acq On : 03 Oct 2017 13:31
Operator : RXY1
InstName : VOA9
Sample : |433718002|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 03 14:39:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

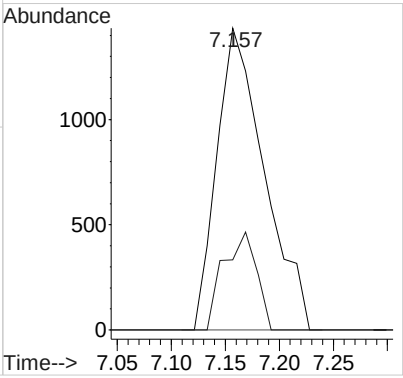


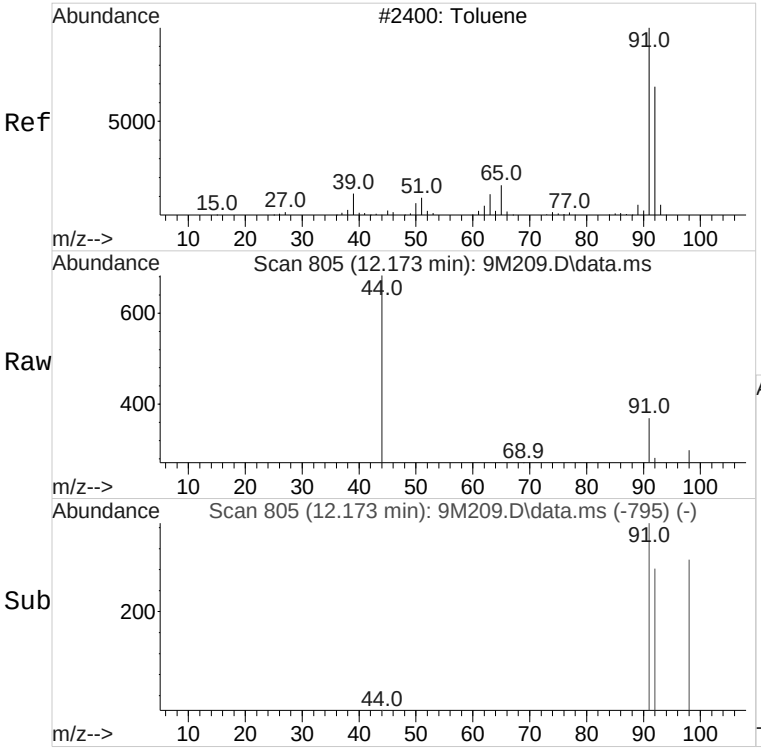


#9 BEFORE analyst DELETION
Acetone
Concen: 4.01 ug/L
RT: 7.157 min Scan# 382
Delta R.T. 0.012 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 43 Resp: 4397

Ion	Ratio	Lower	Upper
43	100		
58	22.5	3.0	63.0

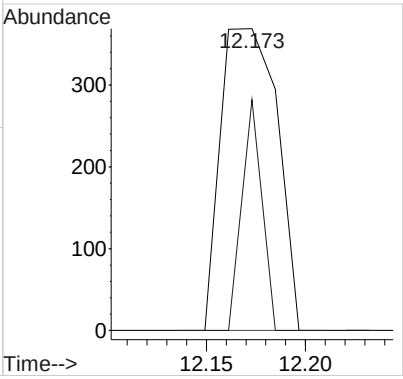


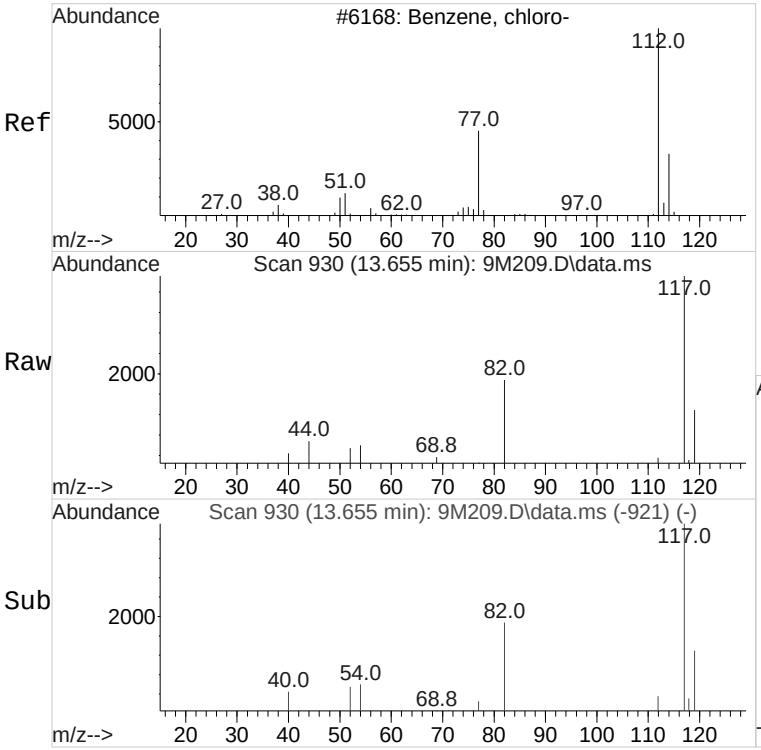


#46
Toluene
Concen: 0.38 ug/L
RT: 12.173 min Scan# 805
Delta R.T. -0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 91 Resp: 734

Ion	Ratio	Lower	Upper
91	100		
92	27.4	34.6	94.6#

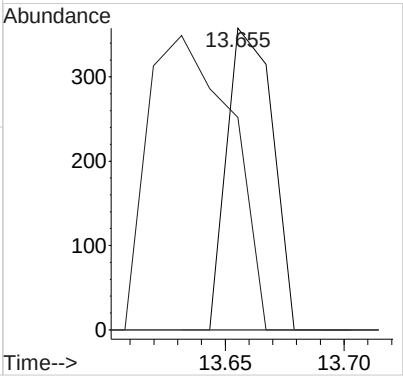


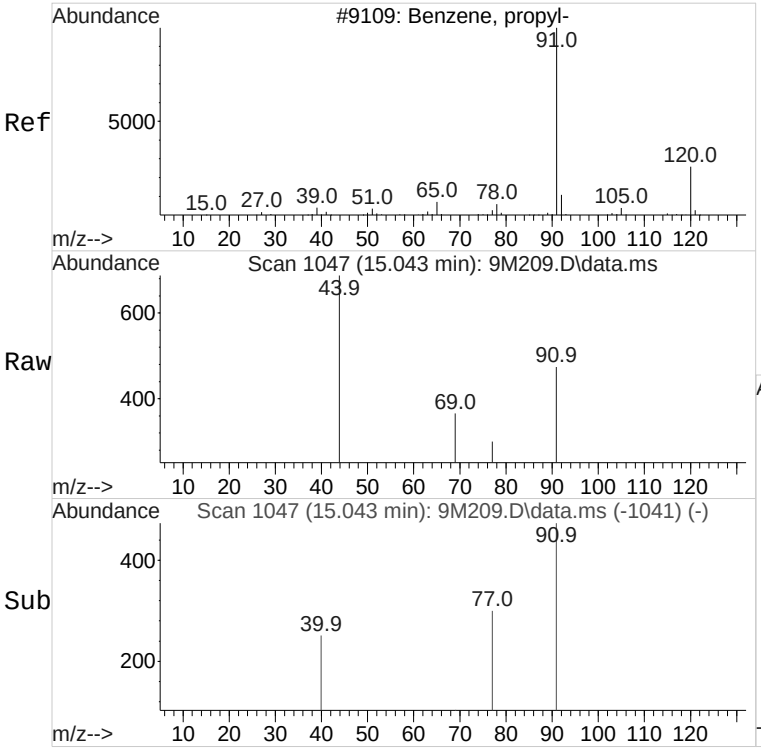


#54 BEFORE analyst DELETION
Chlorobenzene
Concen: 0.39 ug/L
RT: 13.655 min Scan# 930
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:112 Resp: 479

Ion	Ratio	Lower	Upper
112	100		
77	178.3	33.5	93.5#
114	0.0	3.7	63.7#

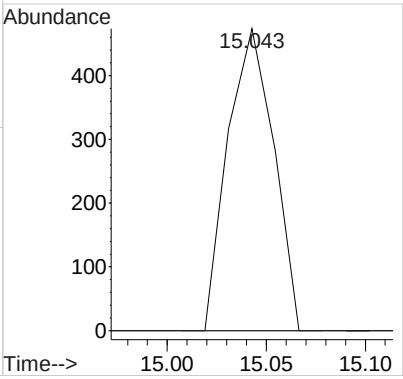


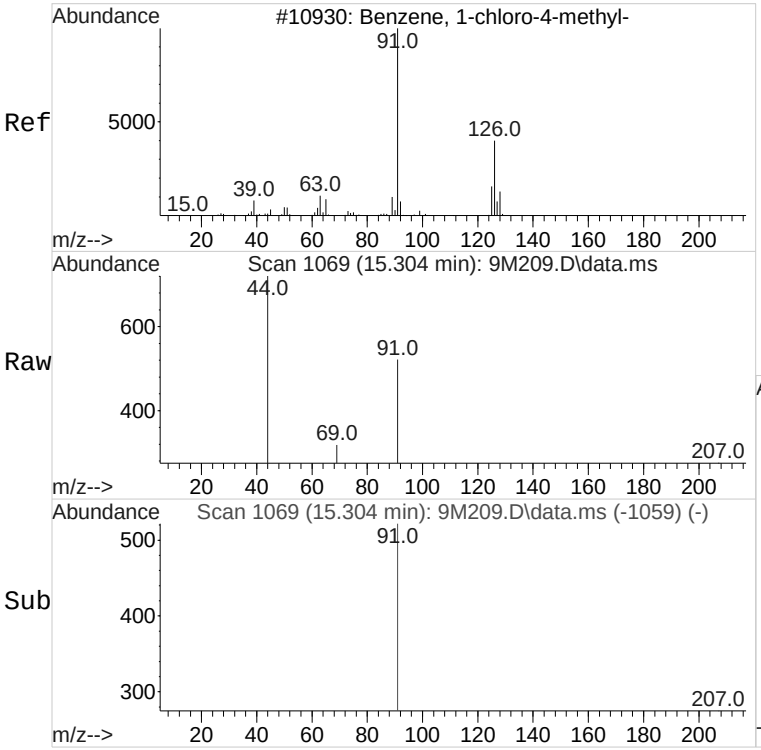


#67 BEFORE analyst DELETION
n-Propylbenzene
Concen: 0.49 ug/L
RT: 15.043 min Scan# 1047
Delta R.T. -0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 91 Resp: 763

Ion	Ratio	Lower	Upper
91	100		
120	0.0	0.0	55.2

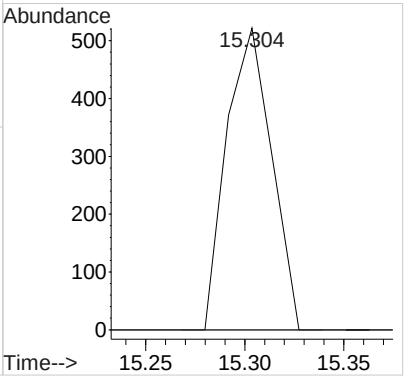


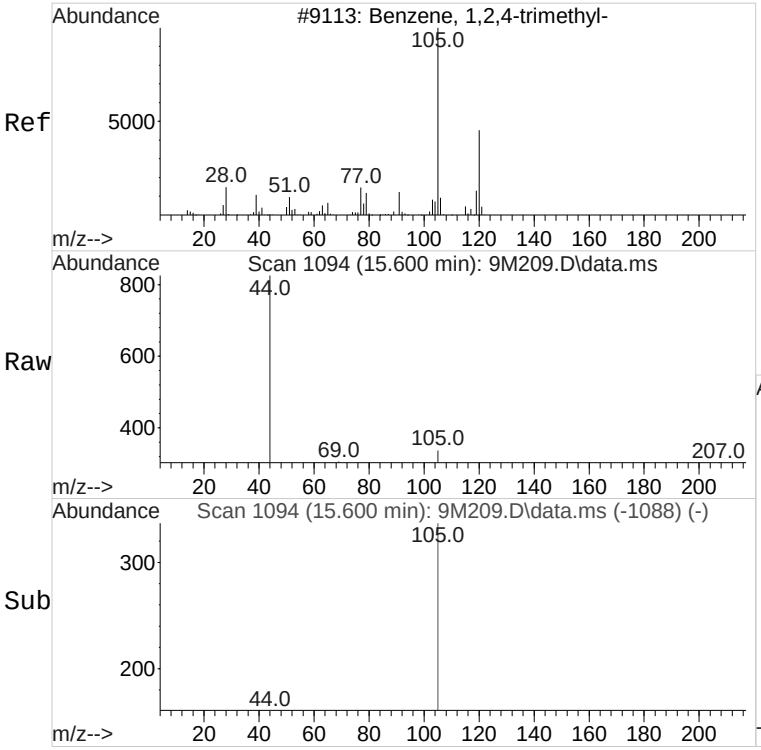


#70 BEFORE analyst DELETION
4-Chlorotoluene
Concen: 0.86 ug/L
RT: 15.304 min Scan# 1069
Delta R.T. 0.012 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 91 Resp: 825

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.9	64.9#

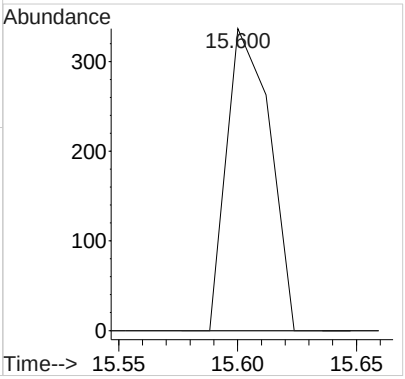


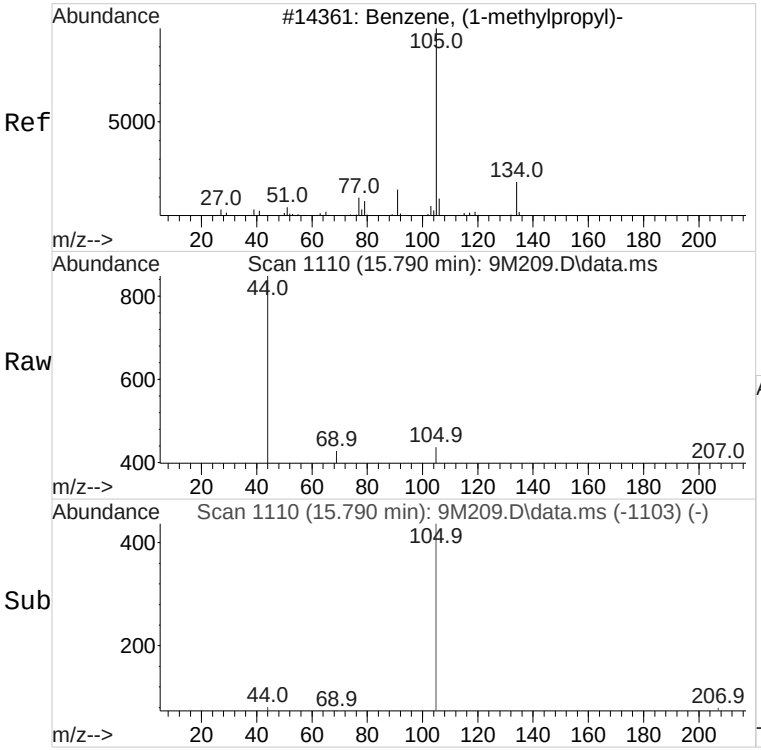


#72 BEFORE analyst DELETION
1,2,4-Trimethylbenzene
Concen: 0.38 ug/L
RT: 15.600 min Scan# 1094
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:105 Resp: 427

Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.7	79.7#

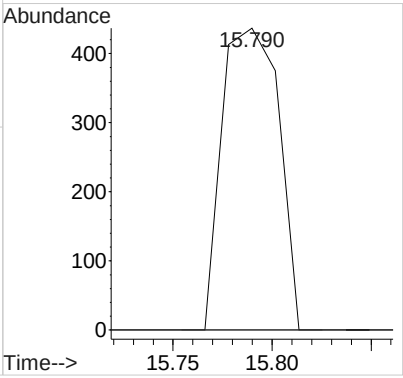


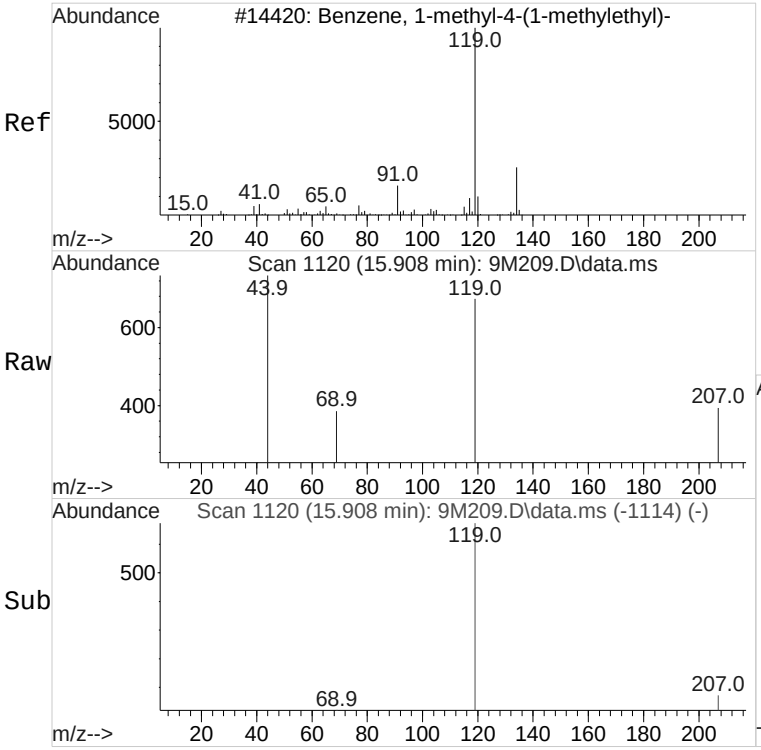


#73 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 0.58 ug/L
RT: 15.790 min Scan# 1110
Delta R.T. -0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:105 Resp: 872

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	51.8

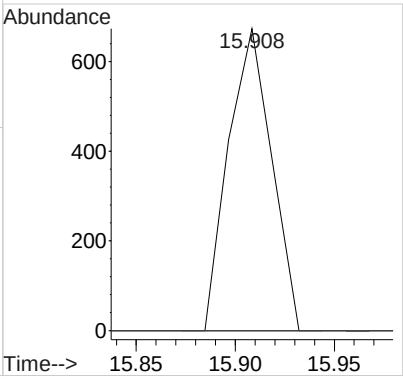


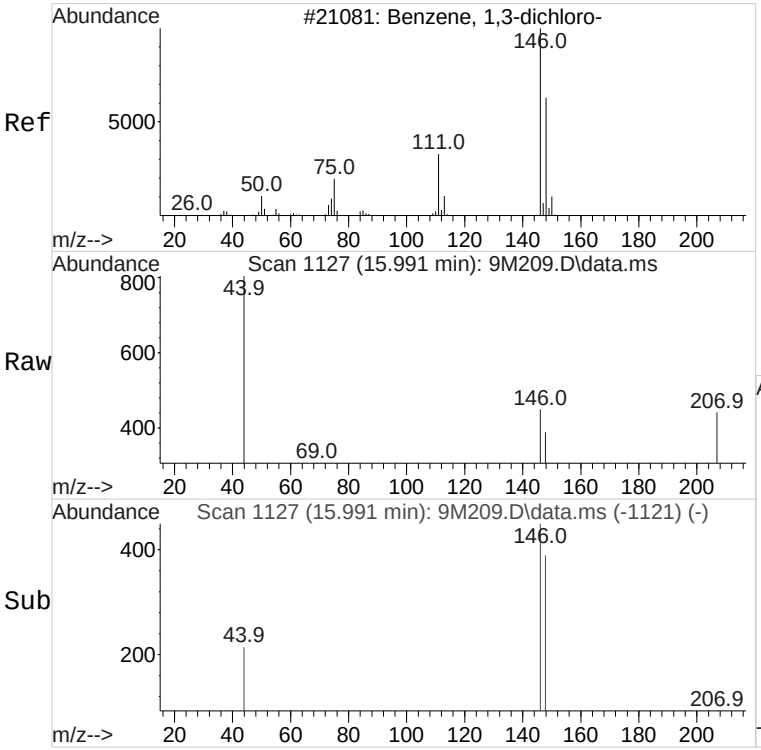


#74 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 0.82 ug/L
RT: 15.908 min Scan# 1120
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:119 Resp: 1021

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.8
91	0.0	0.0	53.3

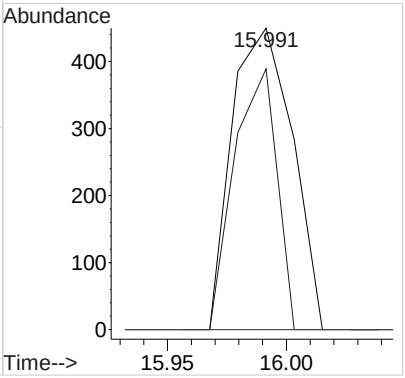


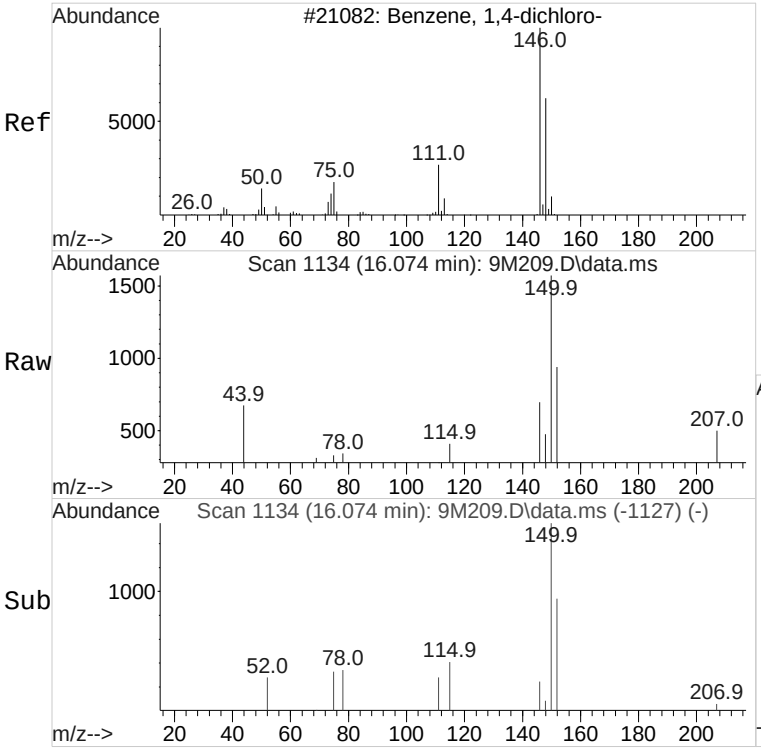


#75
1,3-Dichlorobenzene
Concen: 1.25 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:146 Resp: 797

Ion	Ratio	Lower	Upper
146	100		
148	61.0	37.5	97.5
111	0.0	10.0	70.0#

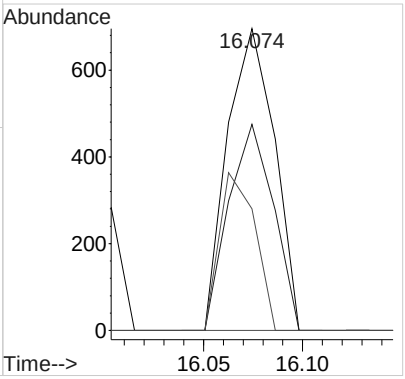


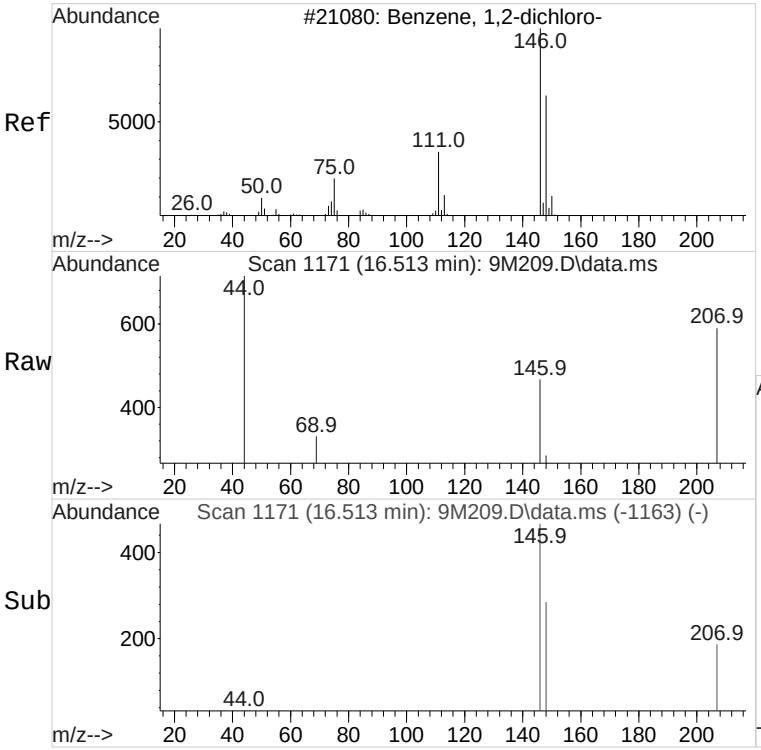


#76
1,4-Dichlorobenzene
Concen: 1.91 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:146 Resp: 1150

Ion	Ratio	Lower	Upper
146	100		
148	65.0	36.9	96.9
111	39.8	9.0	69.0

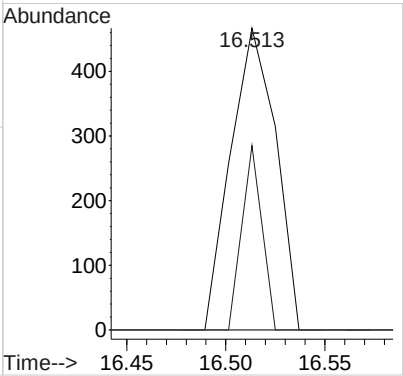


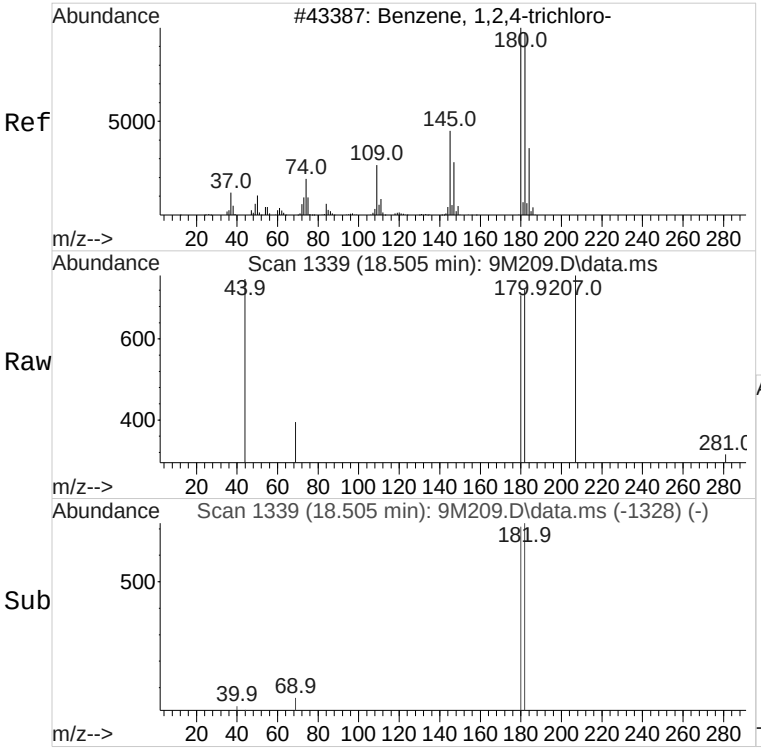


#78
1,2-Dichlorobenzene
Concen: 1.21 ug/L
RT: 16.513 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:146 Resp: 740

Ion	Ratio	Lower	Upper
146	100		
148	27.4	36.7	96.7#
111	0.0	11.2	71.2#

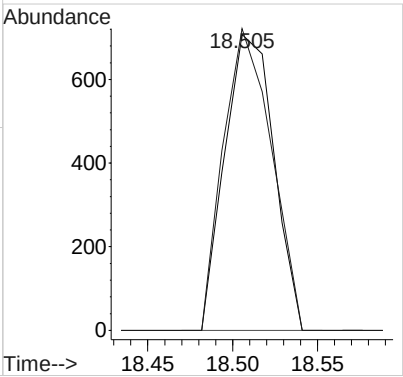


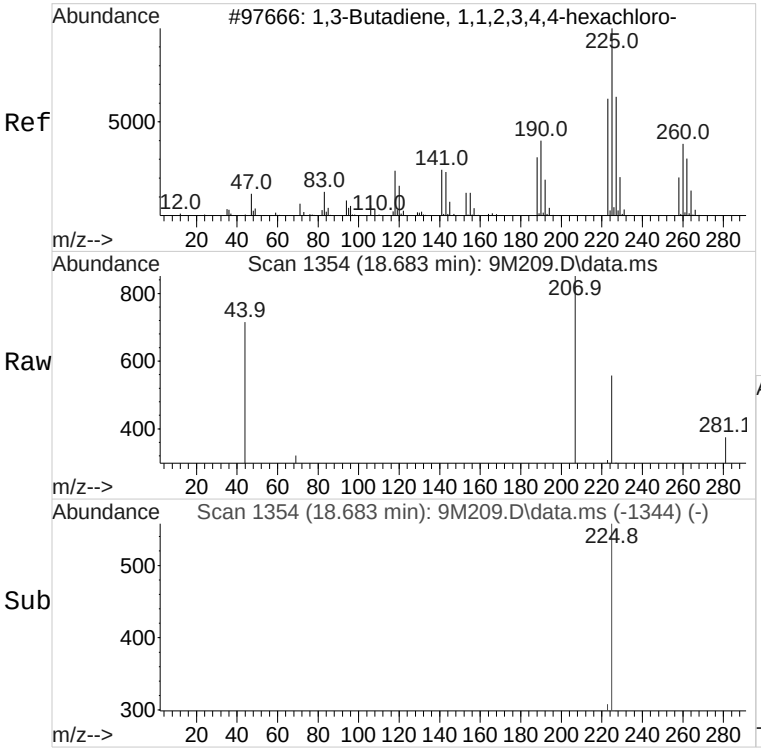


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 2.37 ug/L
RT: 18.505 min Scan# 1339
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:180 Resp: 1426

Ion	Ratio	Lower	Upper
180	100		
182	100.2	68.7	128.7

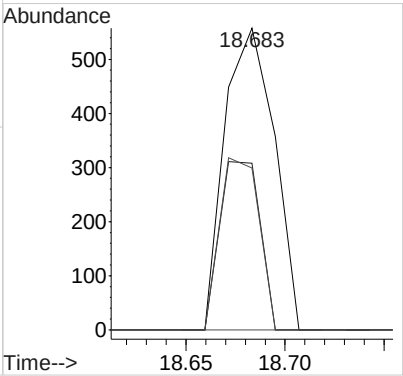


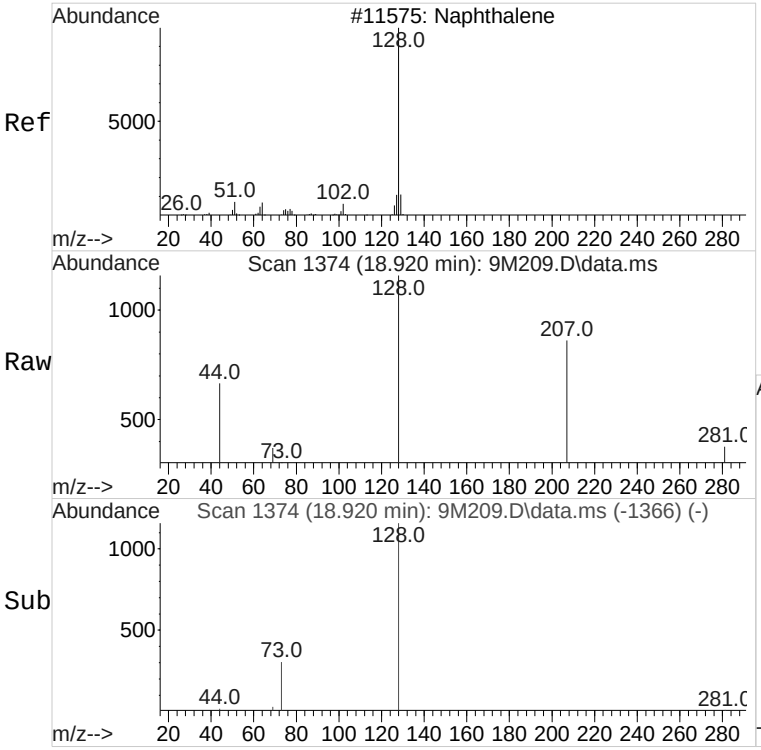


#81 BEFORE analyst DELETION
Hexachlorobutadiene
Concen: 2.89 ug/L
RT: 18.683 min Scan# 1354
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:225 Resp: 971

Ion	Ratio	Lower	Upper
225	100		
223	45.3	31.9	91.9
227	45.2	35.5	95.5

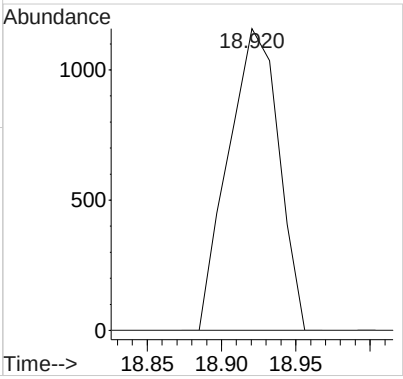


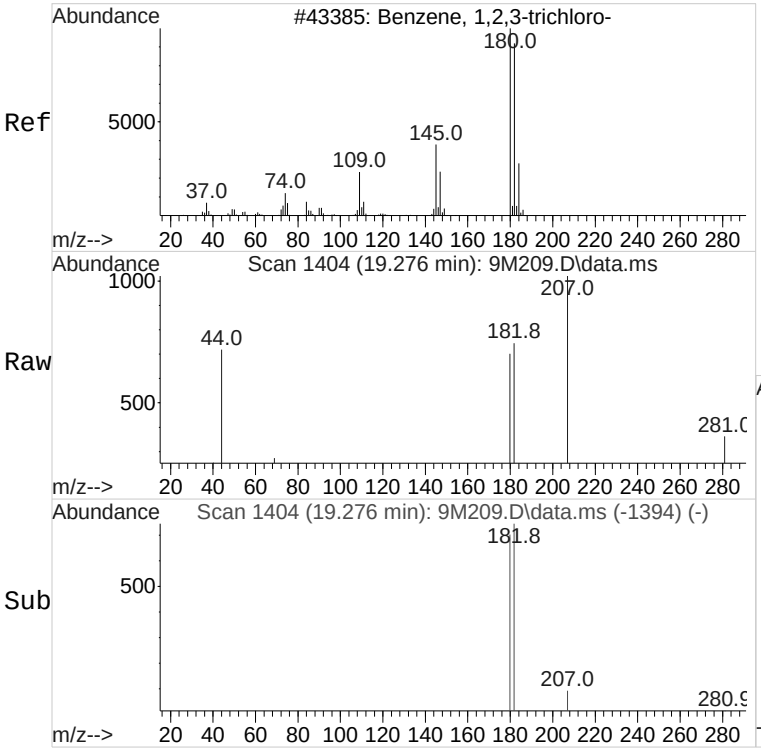


#82 BEFORE analyst DELETION
Naphthalene
Concen: 1.77 ug/L
RT: 18.920 min Scan# 1374
Delta R.T. 0.012 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:128 Resp: 2741

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.3
129	0.0	0.0	41.5

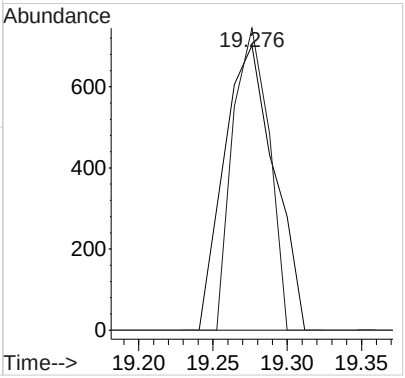


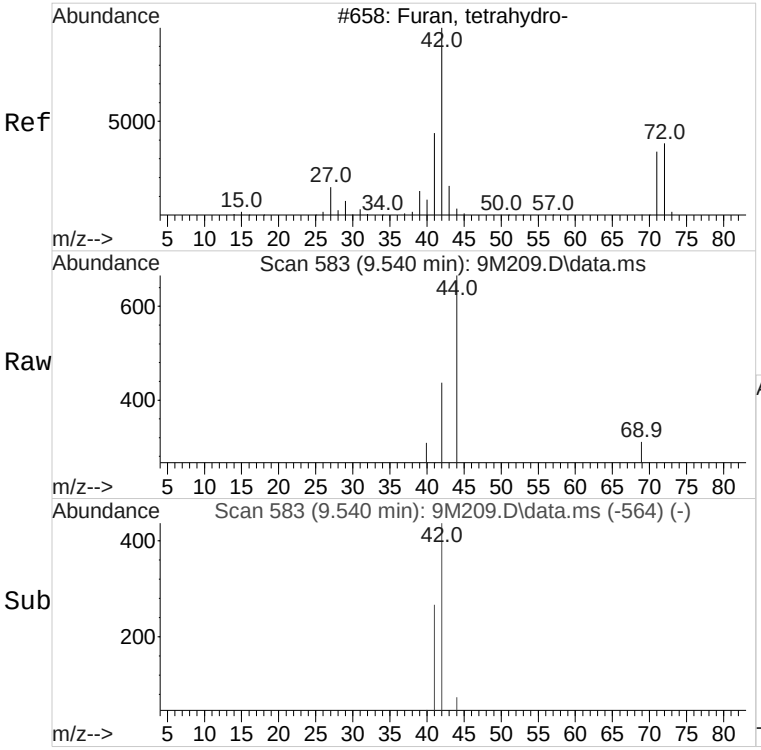


#83 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 3.23 ug/L
RT: 19.276 min Scan# 1404
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion:180 Resp: 1651

Ion	Ratio	Lower	Upper
180	100		
182	76.8	67.9	127.9
145	0.0	0.3	60.3#

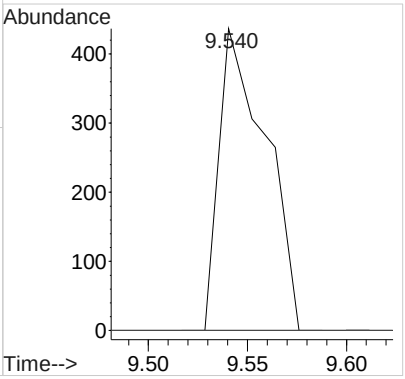


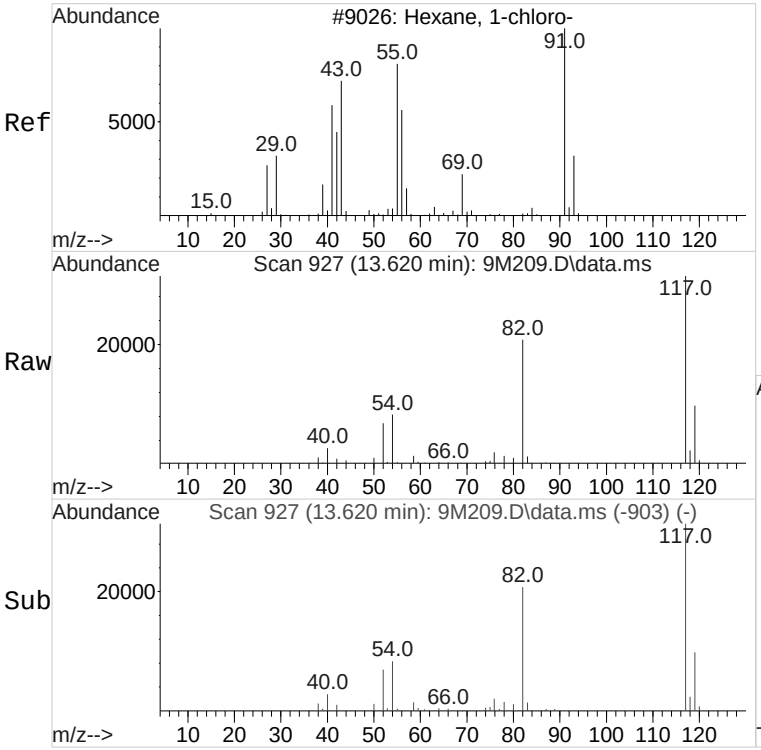


#97 BEFORE analyst DELETION
Tetrahydrofuran
Concen: 1.75 ug/L
RT: 9.540 min Scan# 583
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 42 Resp: 717

Ion	Ratio	Lower	Upper
42	100		
72	0.0	12.3	72.3#
71	0.0	10.2	70.2#

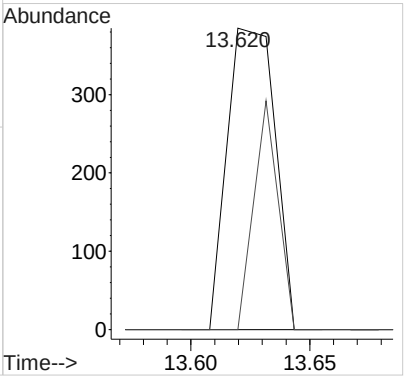


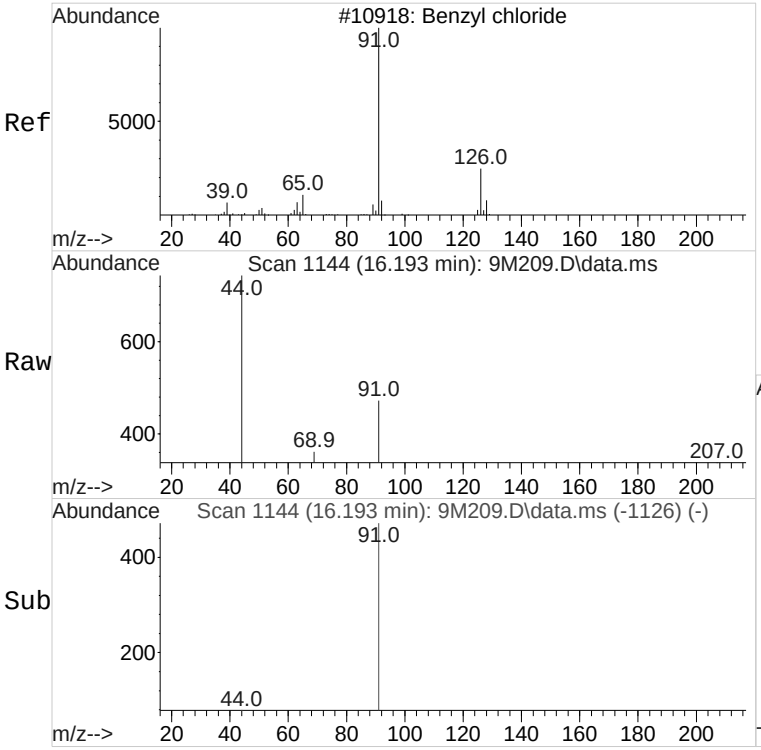


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.97 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 55 Resp: 540

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	38.5	31.6	91.6

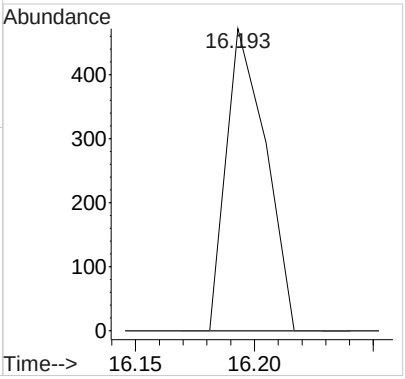


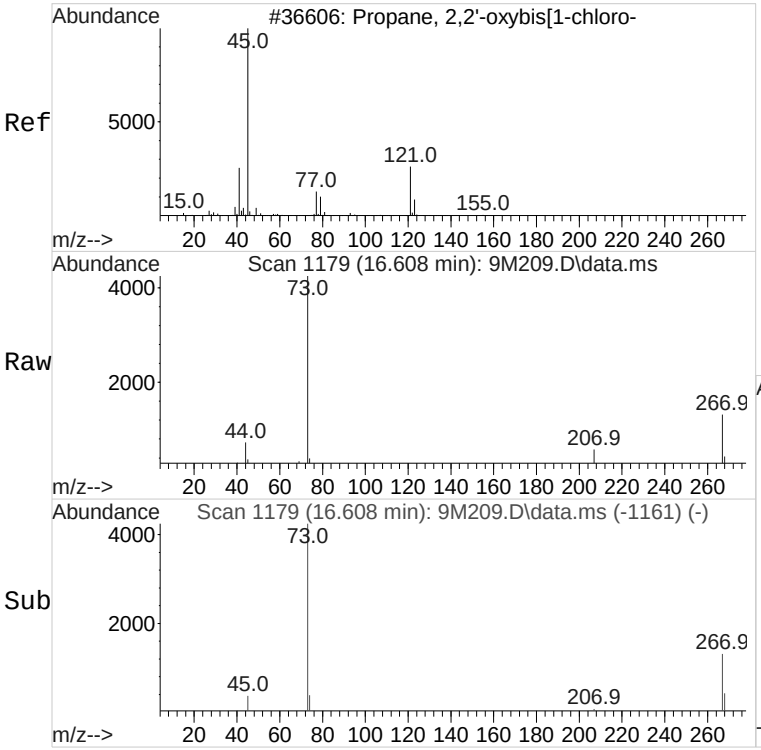


#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 1.19 ug/L
RT: 16.193 min Scan# 1144
Delta R.T. 0.000 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 91 Resp: 545

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	53.7
65	0.0	0.0	43.5

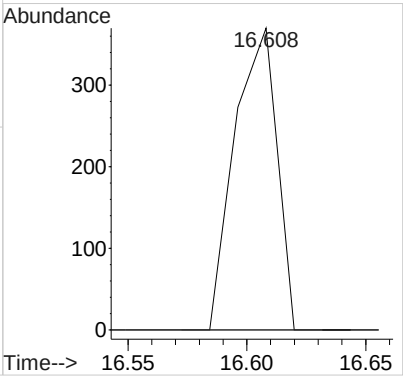




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.05 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M209.D
Acq: 03 Oct 2017 13:31

Tgt Ion: 45 Resp: 458

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718003**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01MS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 17:19**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:08**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M116.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.2	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.2	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.2	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.2	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.2	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.2	106
78-93-3	2-Butanone	U	528	ug/kg	176	528
591-78-6	2-Hexanone	U	528	ug/kg	176	528
108-10-1	4-Methyl-2-pentanone	U	528	ug/kg	176	528
67-64-1	Acetone	U	528	ug/kg	176	528
71-43-2	Benzene	U	106	ug/kg	35.2	106
75-15-0	Carbon disulfide	U	528	ug/kg	176	528
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.2	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.2	106
75-00-3	Chloroethane	U	106	ug/kg	35.2	106
67-66-3	Chloroform	U	106	ug/kg	35.2	106
74-87-3	Chloromethane	U	106	ug/kg	35.2	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.2	106
75-09-2	Methylene chloride	U	528	ug/kg	176	528
100-42-5	Styrene	U	106	ug/kg	35.2	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.2	106
108-88-3	Toluene	U	106	ug/kg	35.2	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.2	106
76-13-1	Trichlorotrifluoroethane	U	528	ug/kg	176	528
108-05-4	Vinyl acetate	U	528	ug/kg	176	528
75-01-4	Vinyl chloride	U	106	ug/kg	35.2	106
1330-20-7	Xylenes (total)	U	317	ug/kg	106	317
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.2	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.2	106

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M116.D
Acq On : 02 Oct 2017 17:19
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 09:55:10 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1318677	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	977604	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	557948	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1318677	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	977604	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	557948	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	324889	51.12	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1089593	49.63	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	497430	50.54	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	716	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	214	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate	43	7.560	7.548	0.723	178	Below Cal	#	61
14) Carbon disulfide	76	7.548	7.548	0.722	1294	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2607	Below Cal		91
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.343	8.354	0.798	680	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	450	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	203	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M116.D
Acq On : 02 Oct 2017 17:19
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 03 09:55:10 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.894	751	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	557	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes	106	13.833	13.821	1.016	204	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene	104	14.272	14.260	1.048	197	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene	91	15.031	15.043	0.937	435	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	739	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene	105	15.778	15.790	0.984	413	N.D.	
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	232	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	573	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	875	N.D.	
77) n-Butylbenzene	91	16.359	16.359	1.020	486	Below Cal #	28
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	402	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	999	Below Cal	90
81) Hexachlorobutadiene	225	18.683	18.683	1.165	226	Below Cal #	18
82) Naphthalene	128	18.920	18.908	1.180	2509	Below Cal #	69
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	754	Below Cal #	78
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1198	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M116.D
Acq On : 02 Oct 2017 17:19
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 03 09:55:10 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

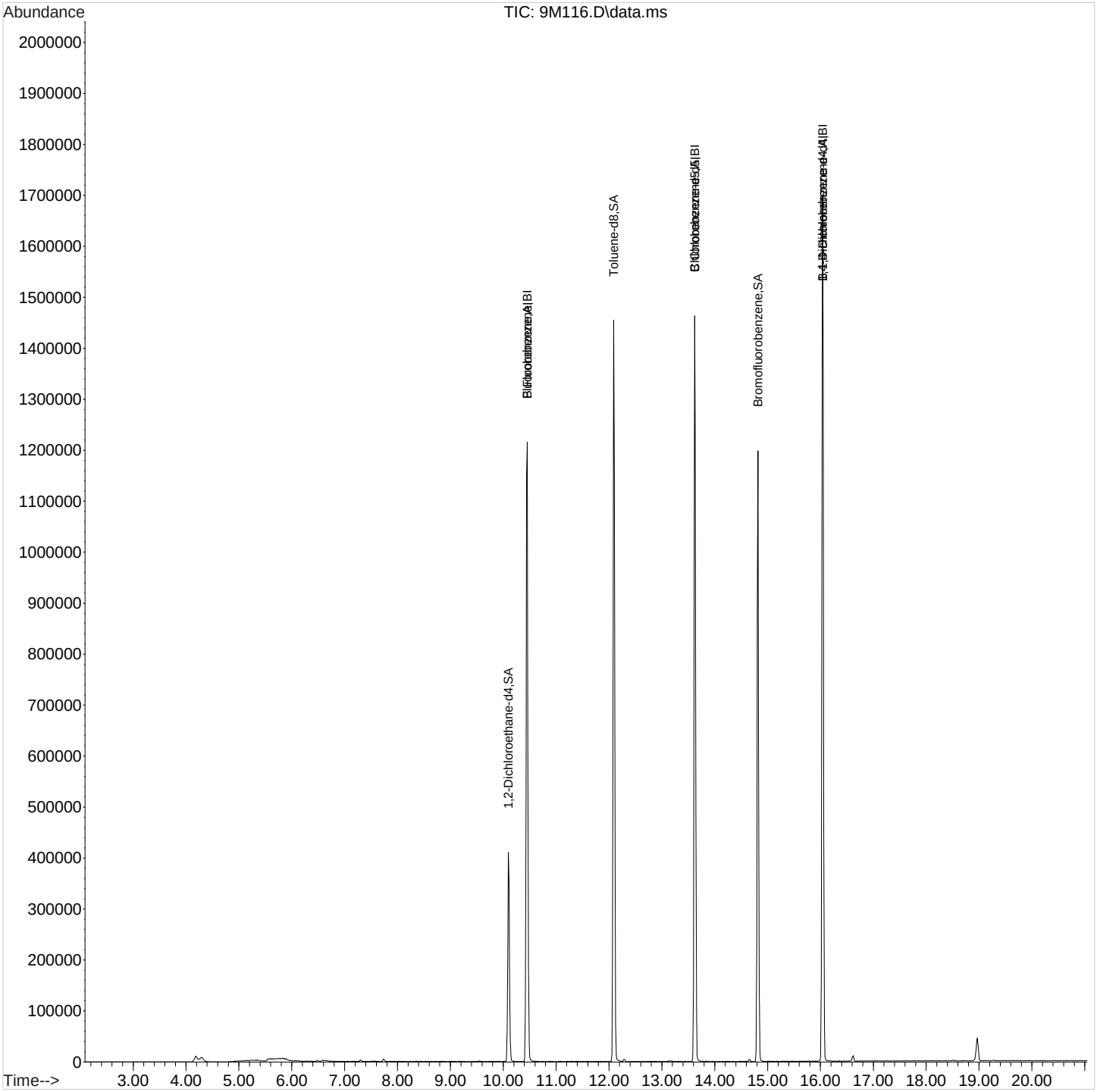
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	450	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1143	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.035	11.047	1.056	240	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	751	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	623	N.D.	

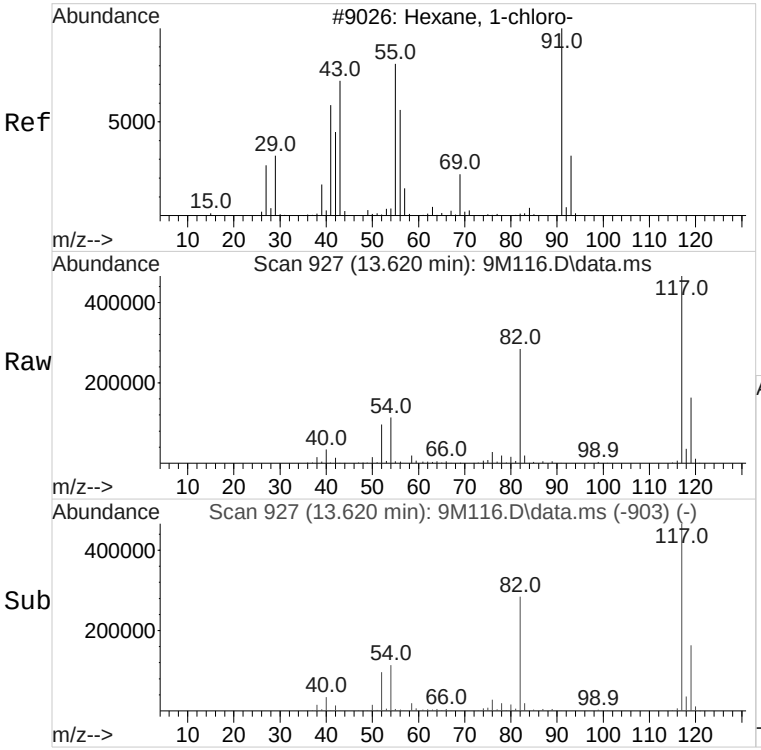
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M116.D
Acq On : 02 Oct 2017 17:19
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 03 09:55:10 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

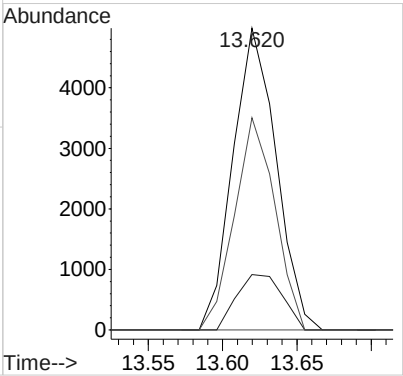




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.48 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M116.D
Acq: 02 Oct 2017 17:19

Tgt Ion: 55 Resp: 10137

Ion	Ratio	Lower	Upper
55	100		
91	19.4	114.6	174.6#
56	65.7	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:35**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718003**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01MSRE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 13:59**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:02**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M210.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M210.D
Acq On : 03 Oct 2017 13:59
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 14:40:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	290224	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	82058	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22121	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	290224	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	82058	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22121	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	121373	86.78	ug/L	0.00
45) Toluene-d8	98	12.102	12.090	0.888	91798	49.81	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	12051	30.88	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	174%#
45) Toluene-d8	50.000	81 - 120	100%
63) Bromofluorobenzene	50.000	70 - 130	62%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.536	7.512	0.721	201	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	9938	Below Cal		90
15) Methylene chloride	84	7.738	7.738	0.740	3630	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	552	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	430	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M210.D
Acq On : 03 Oct 2017 13:59
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 03 14:40:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.173	12.173	0.893	462	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene		0.000	13.655	0.000	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene		0.000	14.260	0.000	0	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene	91	15.043	15.043	0.937	463	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene	91	15.304	15.292	0.953	258	N.D.		
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene	105	15.612	15.600	0.973	220	N.D.		
73) sec-Butylbenzene		0.000	15.790	0.000	0m	N.D.	d	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0m	N.D.	d	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0m	N.D.	d	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	901	1.51	ug/L #	59
77) n-Butylbenzene	91	16.359	16.359	1.019	612	Below Cal	#	28
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d	
81) Hexachlorobutadiene		0.000	18.683	0.000	0m	N.D.	d	
82) Naphthalene		0.000	18.908	0.000	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0m	N.D.	d	
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.311	7.228	0.699	534	N.D.		
88) Allyl chloride	41	7.536	7.596	0.721	201	Below Cal	#	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M210.D
Acq On : 03 Oct 2017 13:59
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 03 14:40:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

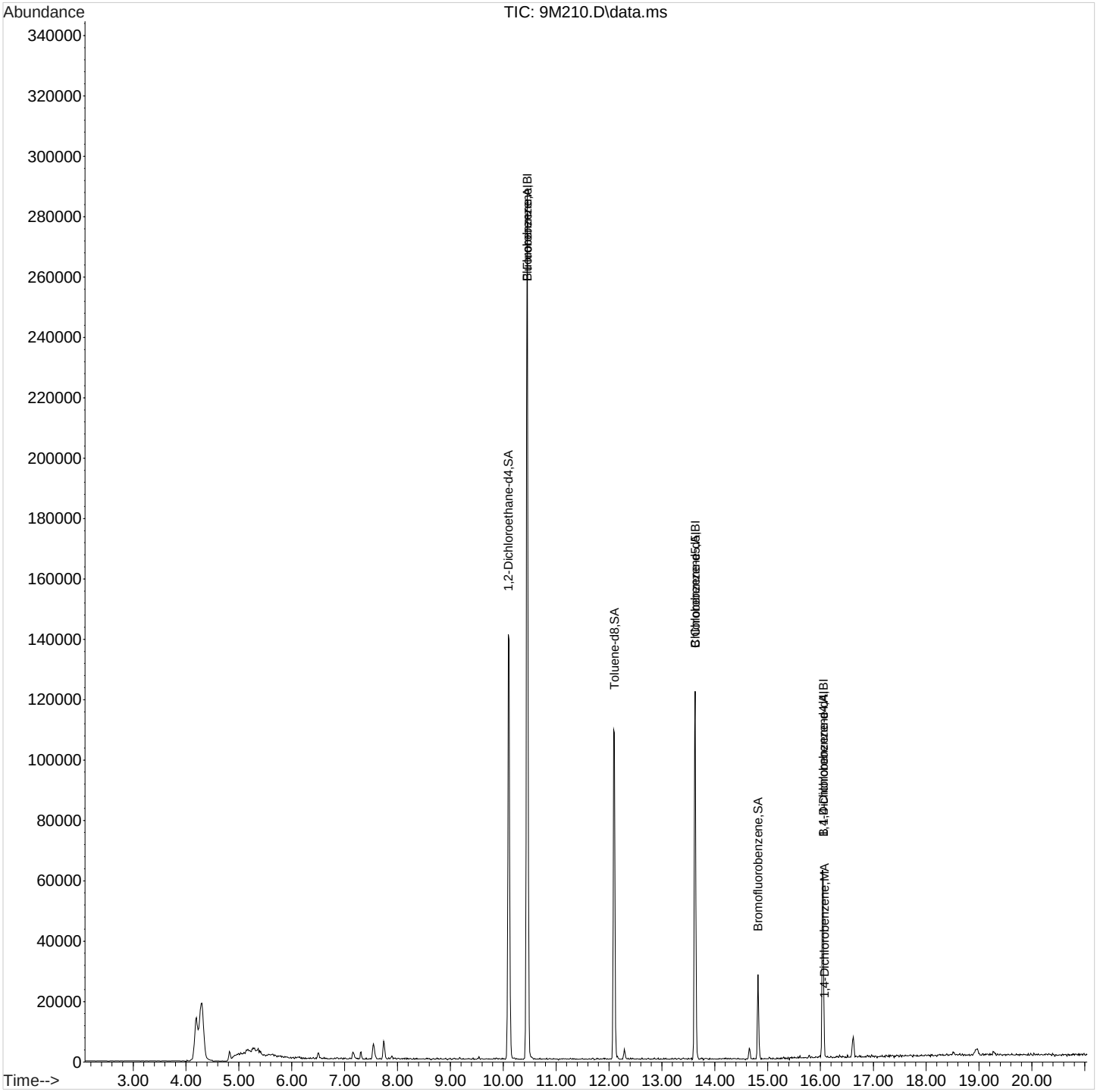
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	552	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	555	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.315	12.304	0.903	272	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.009	276	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.596	16.584	1.034	184	N.D.	

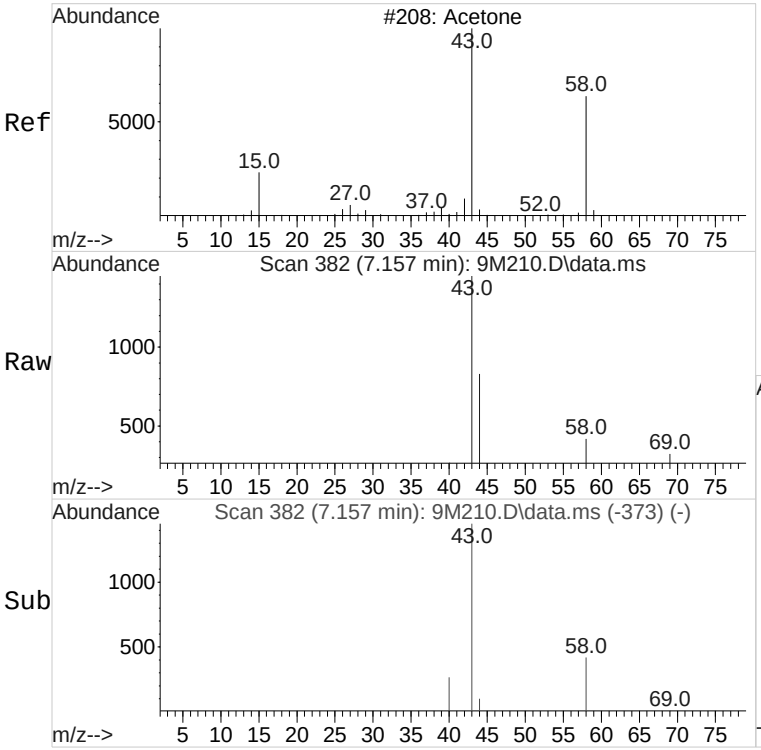
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M210.D
Acq On : 03 Oct 2017 13:59
Operator : RXY1
InstName : VOA9
Sample : |433718003|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Oct 03 14:40:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

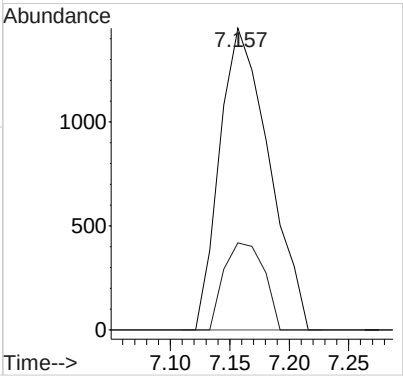


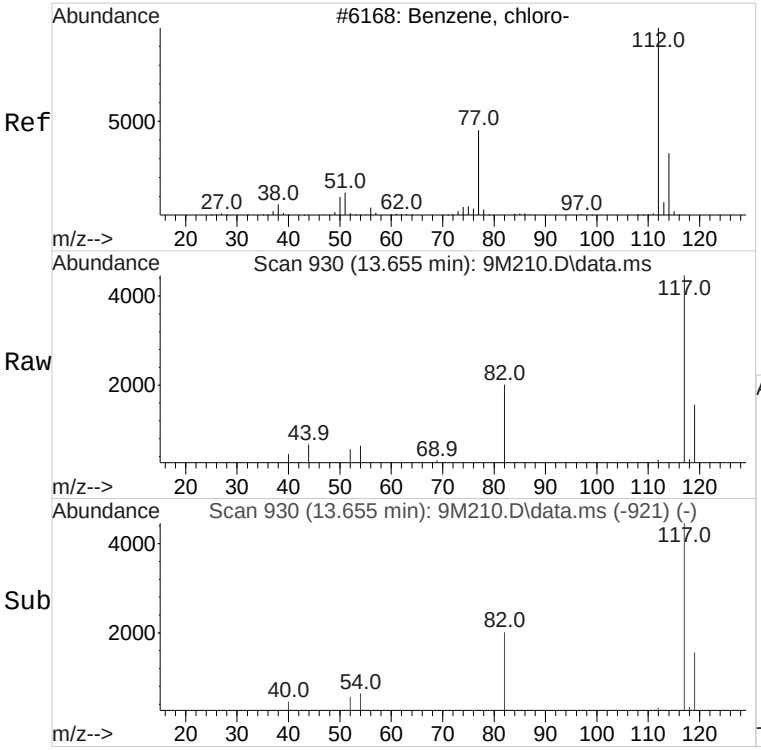


#9 BEFORE analyst DELETION
Acetone
Concen: 3.64 ug/L
RT: 7.157 min Scan# 382
Delta R.T. 0.012 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion: 43 Resp: 4189

Ion	Ratio	Lower	Upper
43	100		
58	23.6	3.0	63.0

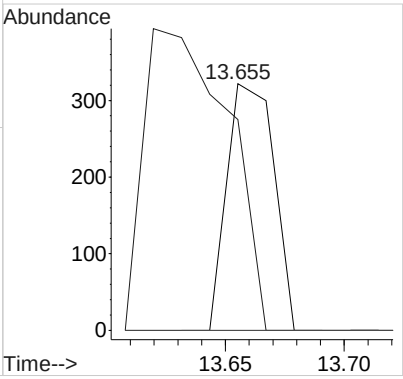


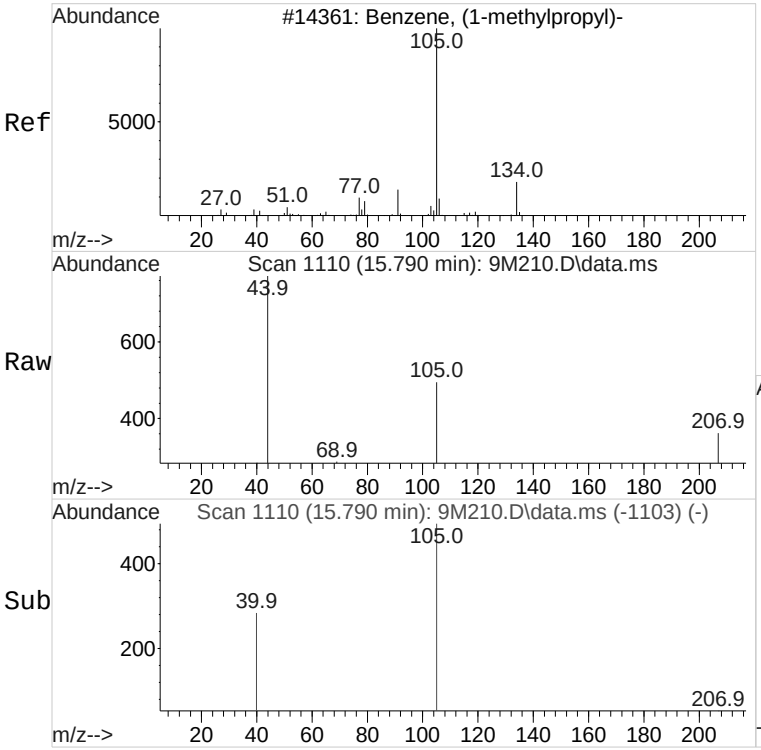


#54 BEFORE analyst DELETION
Chlorobenzene
Concen: 0.32 ug/L
RT: 13.655 min Scan# 930
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:112 Resp: 443

Ion	Ratio	Lower	Upper
112	100		
77	218.3	33.5	93.5#
114	0.0	3.7	63.7#

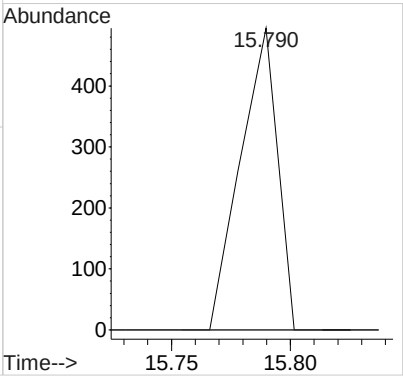


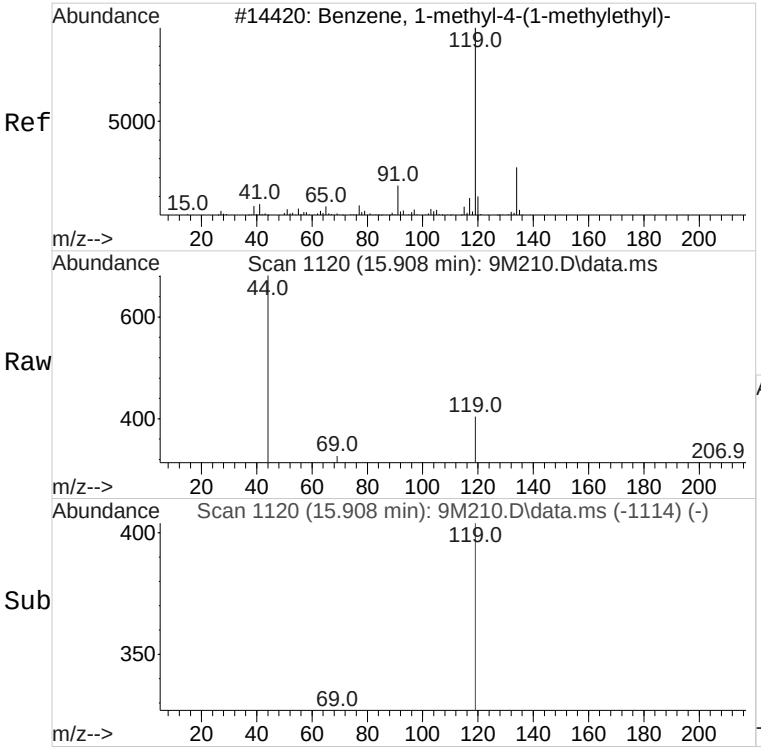


#73 BEFORE analyst DELETION
sec-Butylbenzene
Concen: 0.36 ug/L
RT: 15.790 min Scan# 1110
Delta R.T. -0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:105 Resp: 537

Ion	Ratio	Lower	Upper
105	100		
134	0.0	0.0	51.8

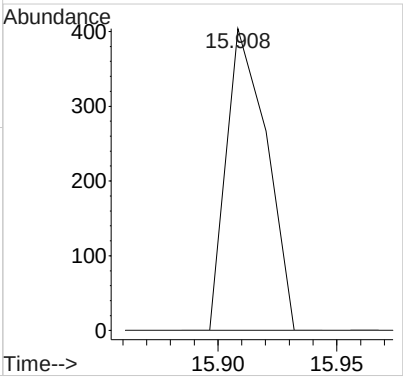


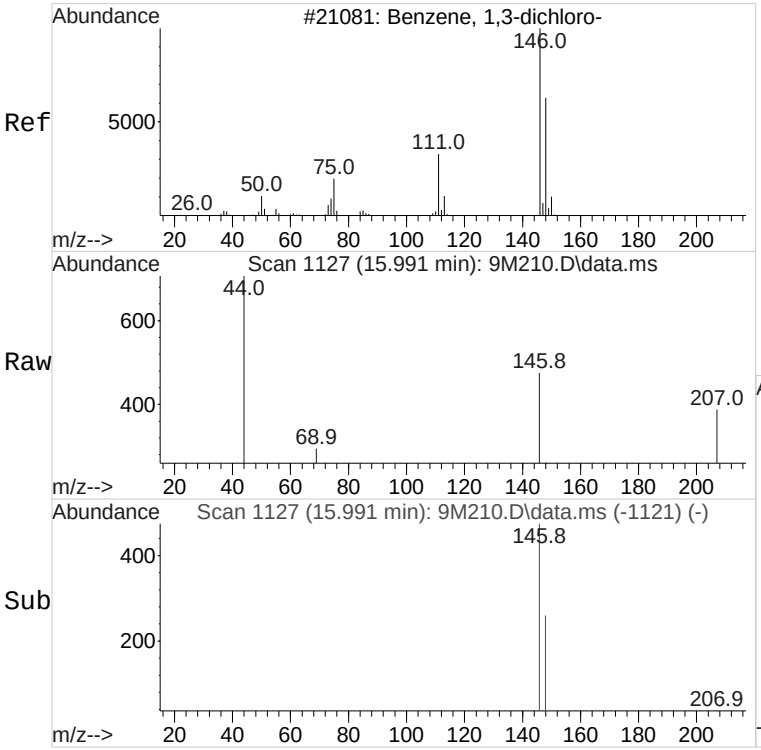


#74 BEFORE analyst DELETION
4-Isopropyltoluene
Concen: 0.38 ug/L
RT: 15.908 min Scan# 1120
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:119 Resp: 477

Ion	Ratio	Lower	Upper
119	100		
134	0.0	0.0	58.8
91	0.0	0.0	53.3

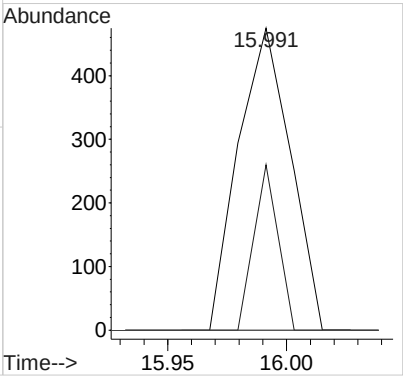


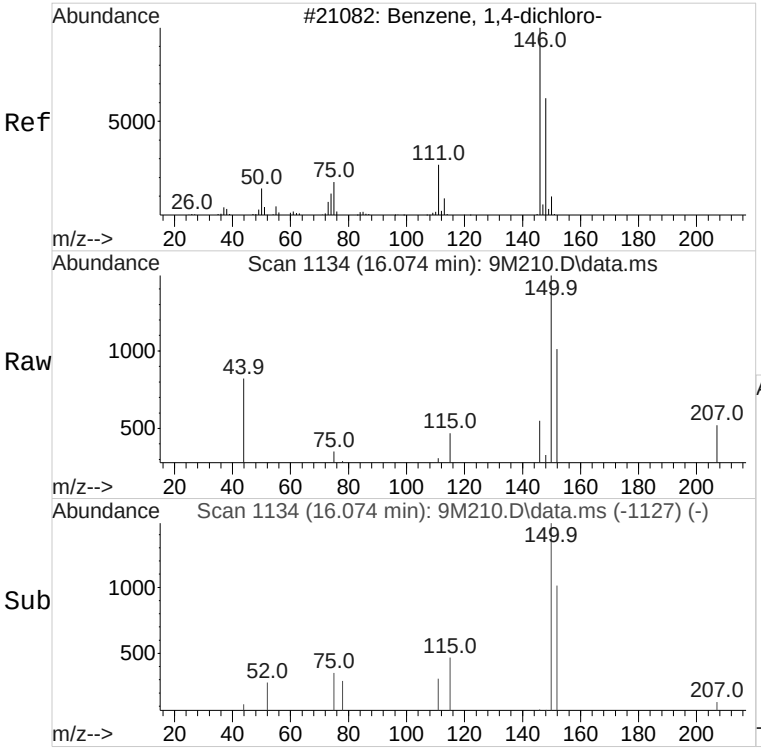


#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 1.15 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:146 Resp: 726

Ion	Ratio	Lower	Upper
146	100		
148	25.5	37.5	97.5#
111	0.0	10.0	70.0#

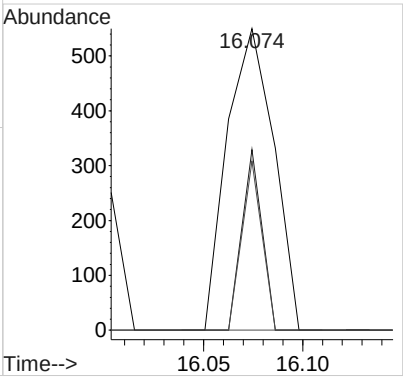


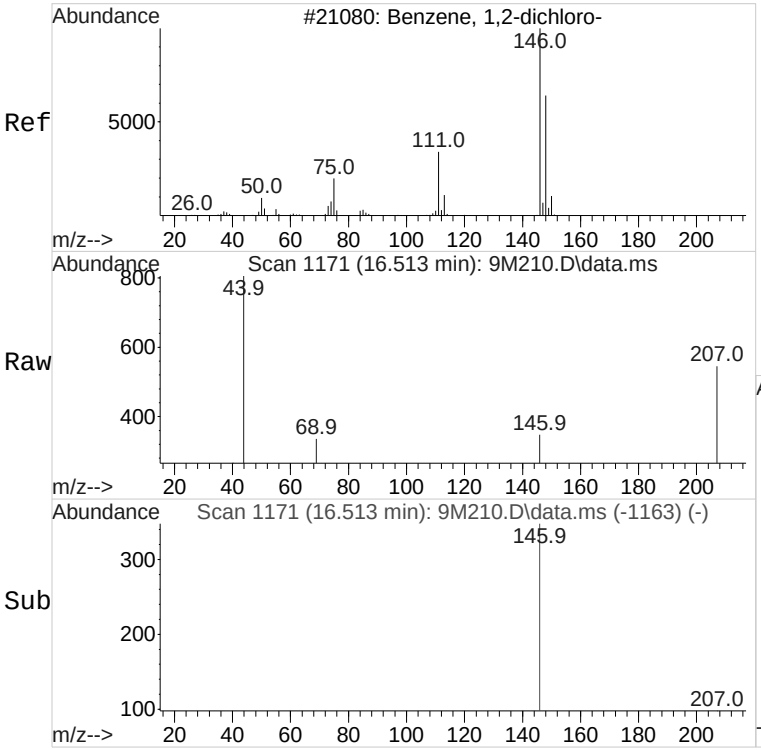


#76
1,4-Dichlorobenzene
Concen: 1.51 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:146 Resp: 901

Ion	Ratio	Lower	Upper
146	100		
148	26.0	36.9	96.9#
111	24.3	9.0	69.0

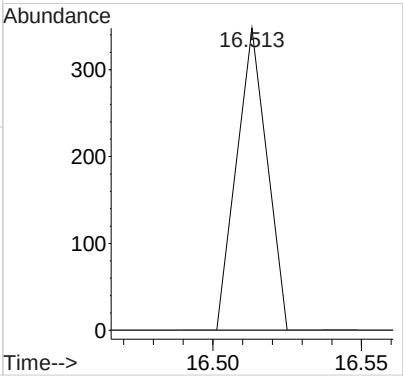


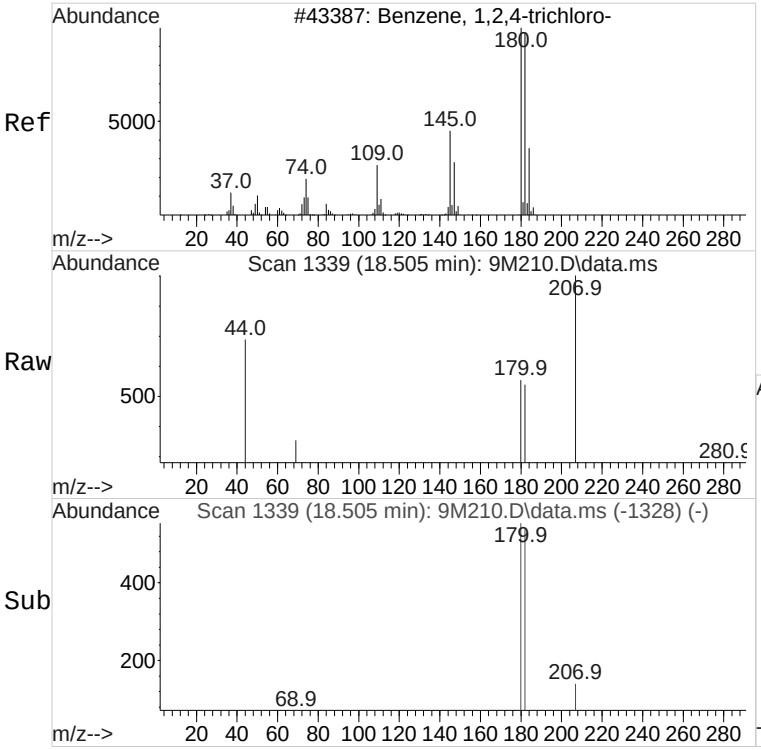


#78 BEFORE analyst DELETION
1,2-Dichlorobenzene
Concen: 0.41 ug/L
RT: 16.513 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:146 Resp: 248

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.7	96.7#
111	0.0	11.2	71.2#

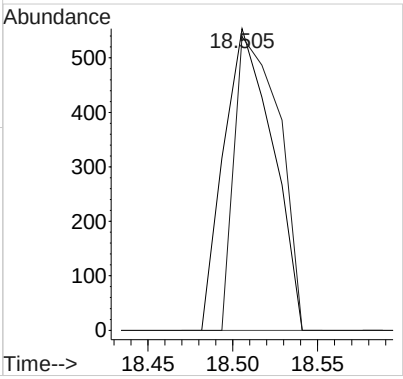


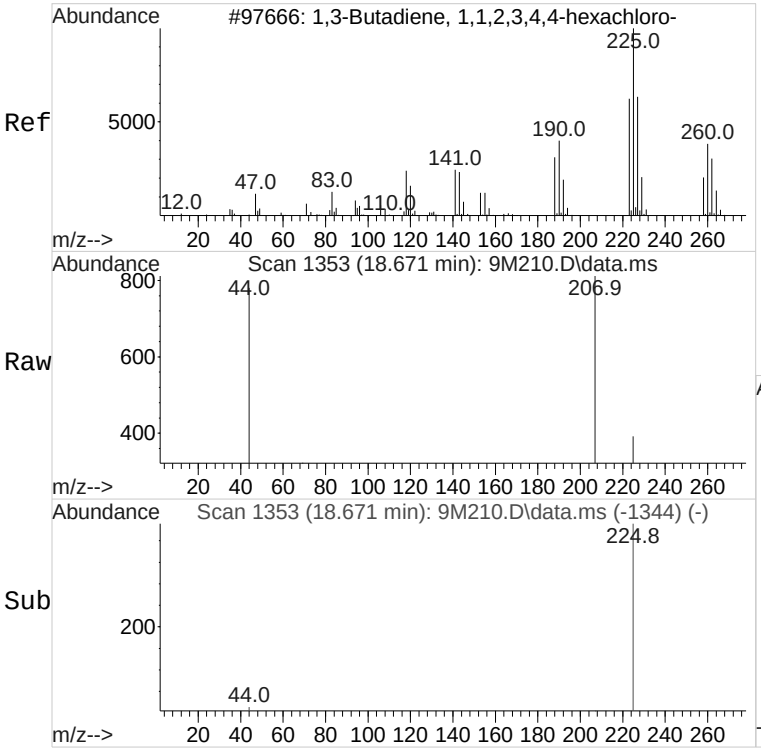


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 1.66 ug/L
RT: 18.505 min Scan# 1339
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:180 Resp: 1114

Ion	Ratio	Lower	Upper
180	100		
182	90.2	68.7	128.7

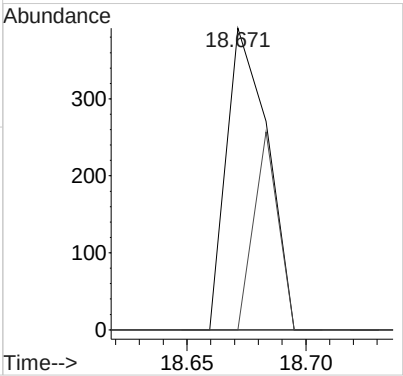


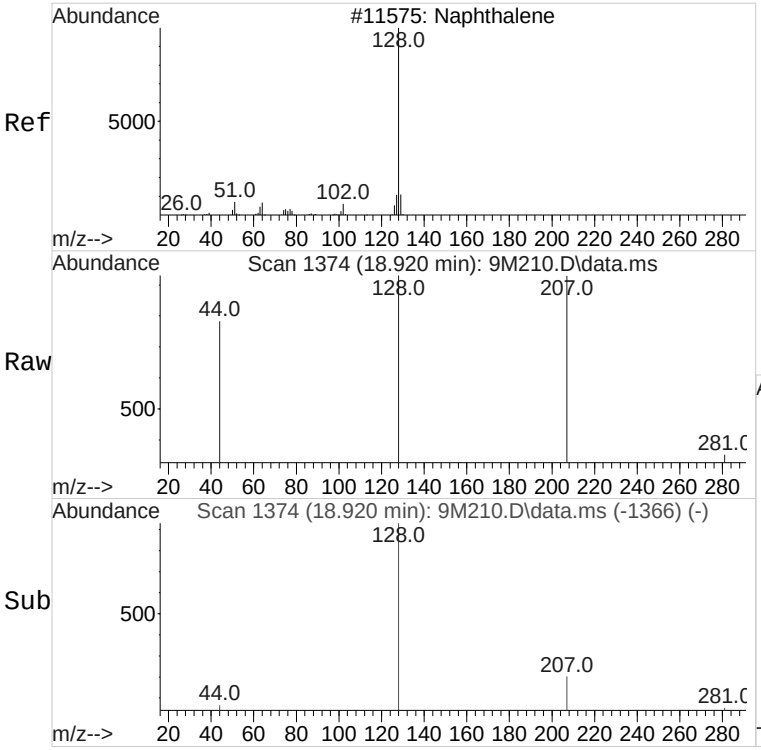


#81 BEFORE analyst DELETION
Hexachlorobutadiene
Concen: 1.03 ug/L
RT: 18.671 min Scan# 1353
Delta R.T. -0.012 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:225 Resp: 472

Ion	Ratio	Lower	Upper
225	100		
223	0.0	31.9	91.9#
227	38.8	35.5	95.5

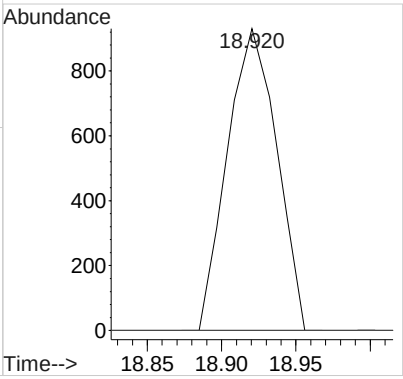


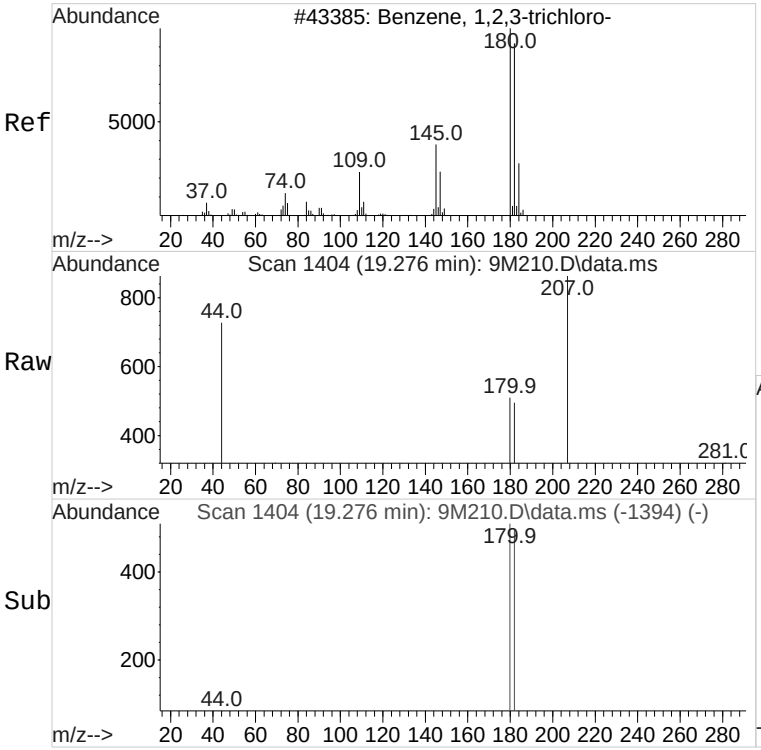


#82 BEFORE analyst DELETION
Naphthalene
Concen: 1.16 ug/L
RT: 18.920 min Scan# 1374
Delta R.T. 0.012 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:128 Resp: 2153

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.3
129	0.0	0.0	41.5

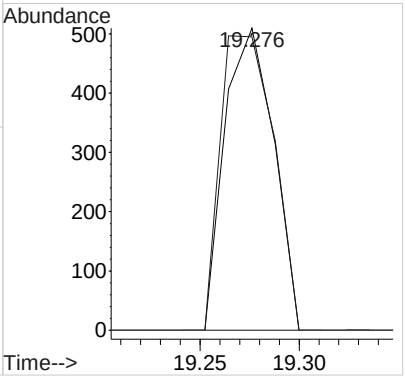


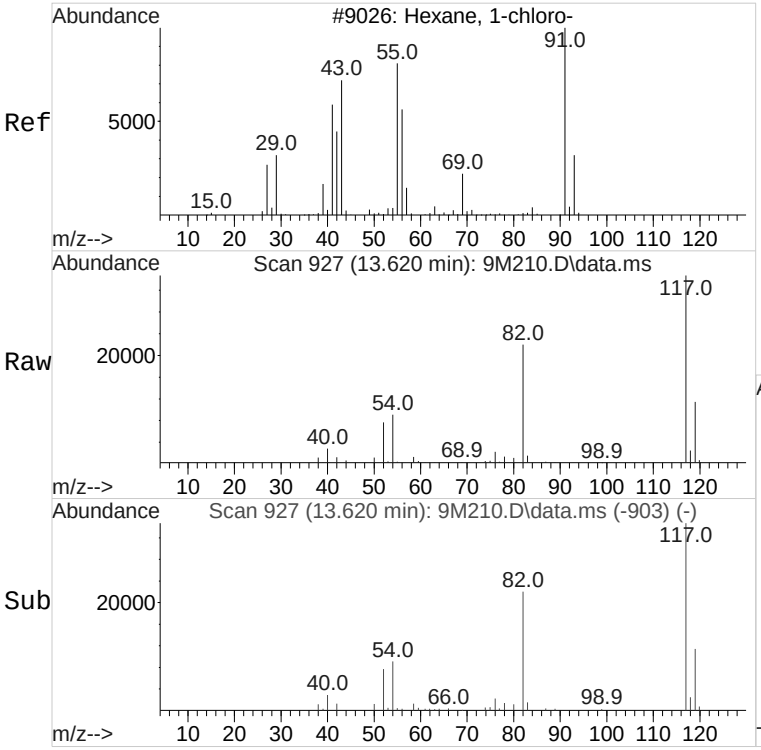


#83 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 1.27 ug/L
RT: 19.276 min Scan# 1404
Delta R.T. 0.000 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion:180 Resp: 875

Ion	Ratio	Lower	Upper
180	100		
182	106.6	67.9	127.9
145	0.0	0.3	60.3#

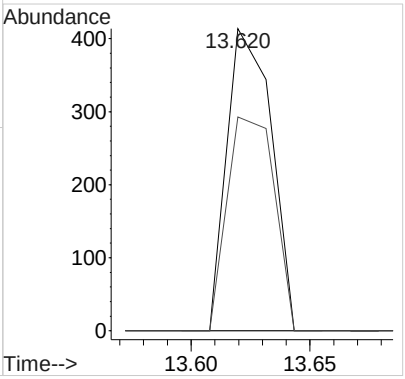




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.98 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M210.D
Acq: 03 Oct 2017 13:59

Tgt Ion: 55 Resp: 539

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	75.3	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**WATER**
Lab Sample ID:	**433718004**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01EB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:51**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:51**				
Data File:	**092917V6\6A507.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone	U	5.00	ug/L	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.67	5.00
67-64-1	Acetone	U	5.00	ug/L	1.74	5.00
71-43-2	Benzene	U	1.00	ug/L	0.333	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.333	1.00
75-27-4	Bromodichloromethane		2.36	ug/L	0.333	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.337	1.00
75-15-0	Carbon disulfide	U	5.00	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.333	1.00
67-66-3	Chloroform		5.29	ug/L	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.333	1.00
110-82-7	Cyclohexane	U	1.00	ug/L	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.355	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.333	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.333	1.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.67	5.00
108-87-2	Methylcyclohexane	U	1.00	ug/L	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.67	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**WATER**
Lab Sample ID:	**433718004**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01EB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:51**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:51**				
Data File:	**092917V6\6A507.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.00	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.333	1.00
108-88-3	Toluene	U	1.00	ug/L	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.667	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A507.D
Acq On : 29 Sep 2017 11:51
Operator : JP1
InstName : VOA6
Sample : |433718004|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH7
ALS Vial : 7 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Oct 02 08:45:01 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1104518	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	840726	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	431405	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1104518	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	840726	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	431405	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	294362	52.22	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1026560	49.21	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	438597	50.77	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	104%
45) Toluene-d8	50.000	74 - 124	98%
63) Bromofluorobenzene	50.000	70 - 131	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone	43	6.203	6.191	0.658	8419	Below Cal		92
10) 1,1-Dichloroethylene		0.000	6.191	0.000	0	N.D.		
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile	41	6.562	6.544	0.696	757	N.D.		
13) Methyl acetate	43	6.562	6.569	0.696	129	N.D.		
14) Carbon disulfide	76	6.544	6.544	0.694	842	N.D.		
15) Methylene chloride	84	6.758	6.752	0.716	3590	Below Cal		87
16) tert-Butyl methyl ether		0.000	7.044	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane	57	7.355	7.361	0.780	1848	N.D.		
19) Vinyl acetate	43	7.544	7.526	0.800	445	N.D.		
20) 1,1-Dichloroethane		0.000	7.562	0.000	0	N.D.		
21) 2-Butanone	43	8.190	8.154	0.868	1915	N.D.		
22) cis-1,2-Dichloroethylene		0.000	8.203	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform	83	8.519	8.513	0.903	58236	5.29	ug/L	99
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		0.000	8.867	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	8.940	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	9.166	0.000	0	N.D.		
32) Benzene	78	9.190	9.178	0.974	561	N.D.		
33) Cyclohexene	67	9.251	9.288	0.981	209	N.D.		
34) n-Butyl alcohol		0.000	9.562	0.000	0	N.D.		
35) Trichloroethylene		0.000	9.824	0.000	0	N.D.		
36) 2-Pentanone	43	9.946	9.922	1.054	148	N.D.		
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		0.000	10.062	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A507.D
Acq On : 29 Sep 2017 11:51
Operator : JP1
InstName : VOA6
Sample : |433718004|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 08:45:01 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane	83	10.330	10.330	1.095	19061	2.36	ug/L	98
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	10.781	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46) Toluene	91	11.165	11.165	0.884	977	N.D.		
47) trans-1,3-Dichloroprop...		0.000	11.336	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49) 2-Hexanone	43	11.750	11.744	0.930	762	N.D.		
50) 1,3-Dichloropropane		0.000	11.744	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	11.757	0.000	0	N.D.		
52) Dibromochloromethane		0.000	12.007	0.000	0m	N.D.	d	
53) 1,2-Dibromoethane		0.000	12.171	0.000	0	N.D.		
54) Chlorobenzene	112	12.653	12.659	1.002	866	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	12.720	0.000	0	N.D.		
56) Ethylbenzene	91	12.726	12.726	1.008	705	N.D.		
57) m,p-Xylenes	106	12.848	12.842	1.017	405	N.D.		
58) o-Xylene	91	13.281	13.275	1.052	482	N.D.		
59) Styrene	104	13.281	13.281	1.052	605	N.D.		
61) Bromoform		0.000	13.531	0.000	0m	N.D.	d	
62) Isopropylbenzene	105	13.640	13.634	0.906	613	N.D.		
64) 1,1,2,2-Tetrachloroethane	83	13.835	13.921	0.919	131	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66) Bromobenzene	156	14.043	14.037	0.933	317	N.D.		
67) n-Propylbenzene	91	14.067	14.067	0.934	1359	N.D.		
68) 1,3,5-Trimethylbenzene	105	14.232	14.226	0.945	929	N.D.		
69) 2-Chlorotoluene		0.000	14.207	0.000	0	N.D.		
70) 4-Chlorotoluene	91	14.317	14.311	0.951	1135	N.D.		
71) tert-Butylbenzene	134	14.652	14.592	0.973	361	N.D.		
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1154	N.D.		
73) sec-Butylbenzene	105	14.817	14.817	0.984	1999	N.D.		
74) 4-Isopropyltoluene	119	14.591	14.592	0.969	1181	N.D.		
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	1148	N.D.		
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	1524	N.D.		
77) n-Butylbenzene	91	15.372	15.372	1.021	2156	N.D.		
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	932	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	2318	N.D.		
81) Hexachlorobutadiene	225	17.438	17.439	1.158	2259	0.38	ug/L	95
82) Naphthalene	128	17.633	17.627	1.171	4429	N.D.		
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	2212	N.D.		
85) Acrolein		0.000	6.020	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol	45	6.282	6.276	0.666	416	N.D.		
88) Allyl chloride	41	6.562	6.605	0.696	757	N.D.		
89) tert-Butyl Alcohol	59	6.758	6.770	0.716	2054	N.D.		
90) Acrylonitrile		0.000	7.007	0.000	0	N.D.		
91) Isopropyl ether		0.000	7.550	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate	43	8.190	8.172	0.868	1915	N.D.		
95) Propionitrile		0.000	8.239	0.000	0	N.D.		
96) Methacrylonitrile	41	8.422	8.410	0.893	401	N.D.		
97) Tetrahydrofuran	42	8.532	8.519	0.904	1099	N.D.		
98) Isobutyl alcohol	41	8.885	8.867	0.942	136	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A507.D
Acq On : 29 Sep 2017 11:51
Operator : JP1
InstName : VOA6
Sample : |433718004|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 08:45:01 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

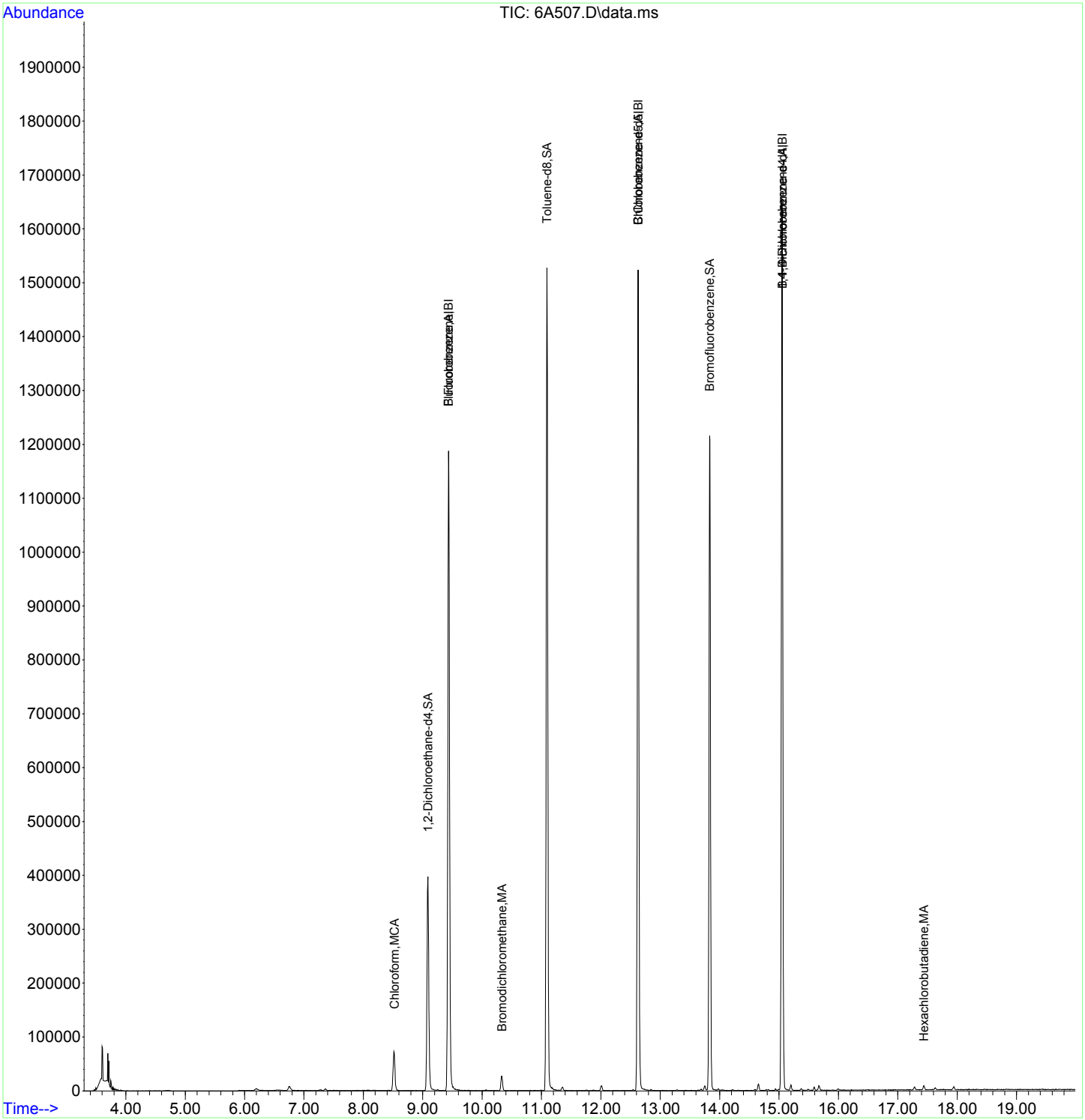
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	9.208	0.000	0	N.D.	
100)	Methyl methacrylate	69	10.062	10.062	1.067	112	N.D.	
101)	1,4-Dioxane		0.000	10.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	10.543	0.000	0	N.D.	
104)	Ethyl methacrylate	69	11.354	11.348	0.899	905	N.D.	
106)	1-Chlorohexane	55	12.537	12.537	0.833	470	N.D.	
107)	cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	919	N.D.	
108)	Cyclohexanone	42	13.781	13.787	0.915	707	N.D.	
109)	trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	809	N.D.	
110)	Pentachloroethane	167	14.658	14.652	0.974	1698	N.D.	
111)	Benzyl chloride	91	15.201	15.195	1.010	6720	N.D.	
112)	bis(2-Chloroisopropyl)...	45	15.597	15.591	1.036	3285	N.D.	

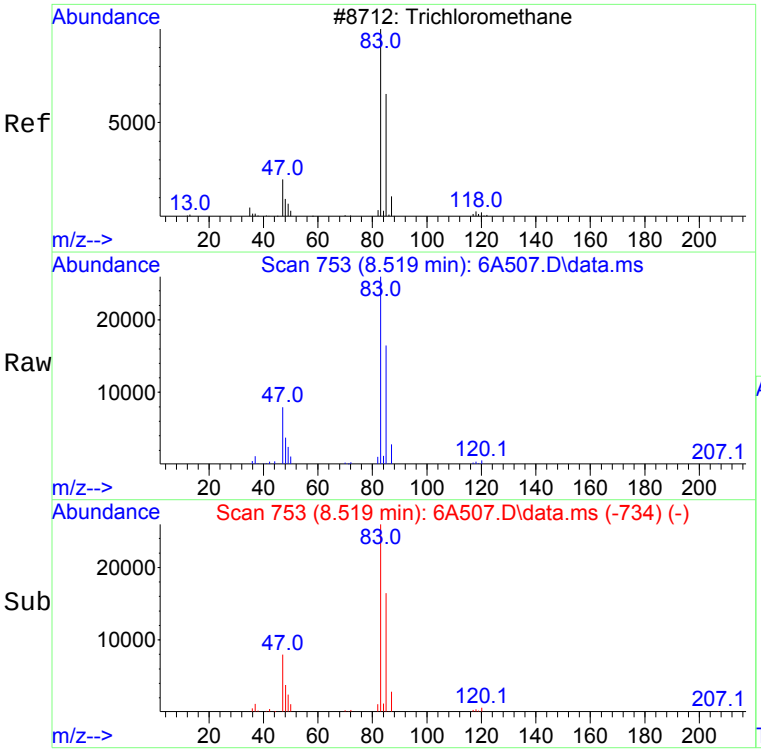
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A507.D
Acq On : 29 Sep 2017 11:51
Operator : JP1
InstName : VOA6
Sample : |433718004|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH7
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 08:45:01 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

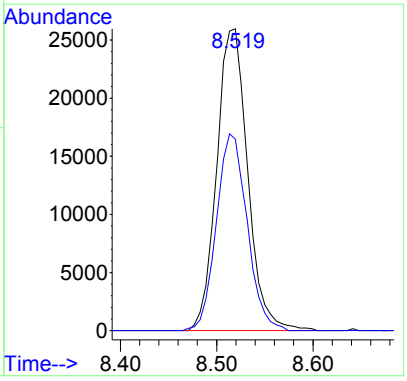


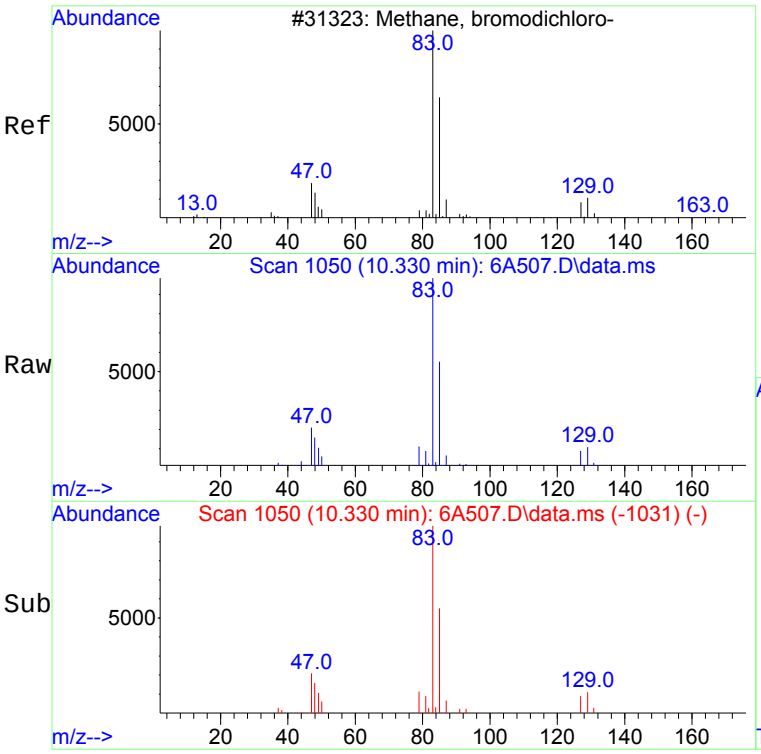


#25
Chloroform
Concen: 5.29 ug/L
RT: 8.519 min Scan# 753
Delta R.T. 0.006 min
Lab File: 6A507.D
Acq: 29 Sep 2017 11:51

Tgt Ion: 83 Resp: 58236

Ion	Ratio	Lower	Upper
83	100		
85	64.5	35.6	95.6

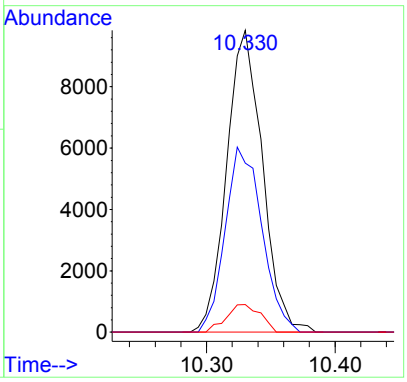


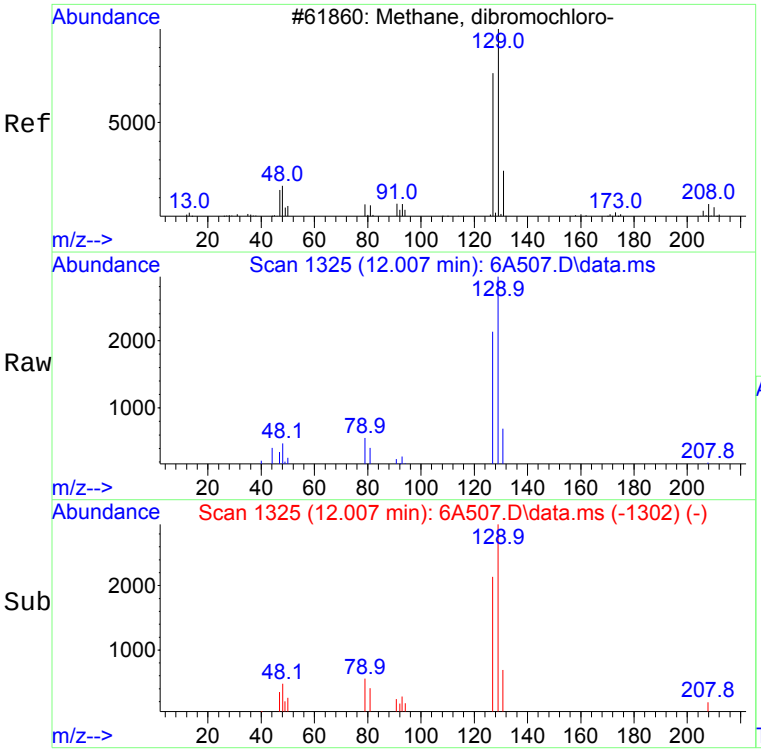


#40
Bromodichloromethane
Concen: 2.36 ug/L
RT: 10.330 min Scan# 1050
Delta R.T. -0.000 min
Lab File: 6A507.D
Acq: 29 Sep 2017 11:51

Tgt Ion: 83 Resp: 19061

Ion	Ratio	Lower	Upper
83	100		
85	62.9	34.5	94.5
127	8.7	0.0	28.6

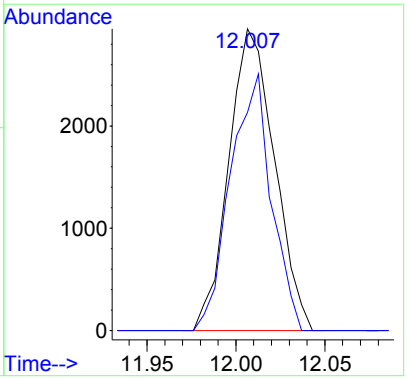


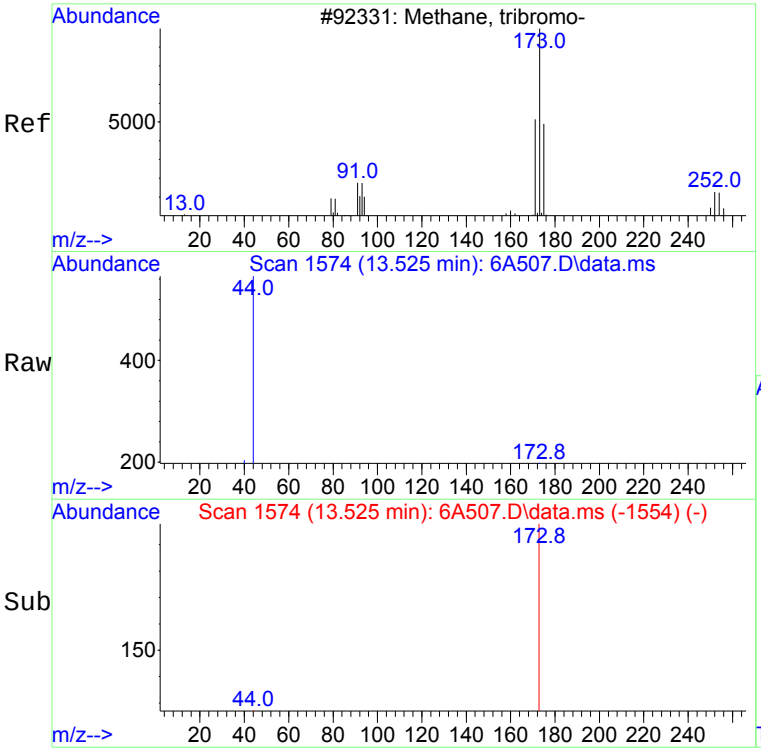


#52 BEFORE analyst DELETION
Dibromochloromethane
Concen: 0.98 ug/L
RT: 12.007 min Scan# 1325
Delta R.T. -0.000 min
Lab File: 6A507.D
Acq: 29 Sep 2017 11:51

Tgt Ion:129 Resp: 5265

Ion	Ratio	Lower	Upper
129	100		
127	75.8	47.4	107.4

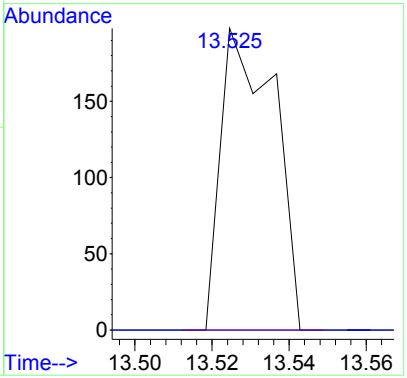


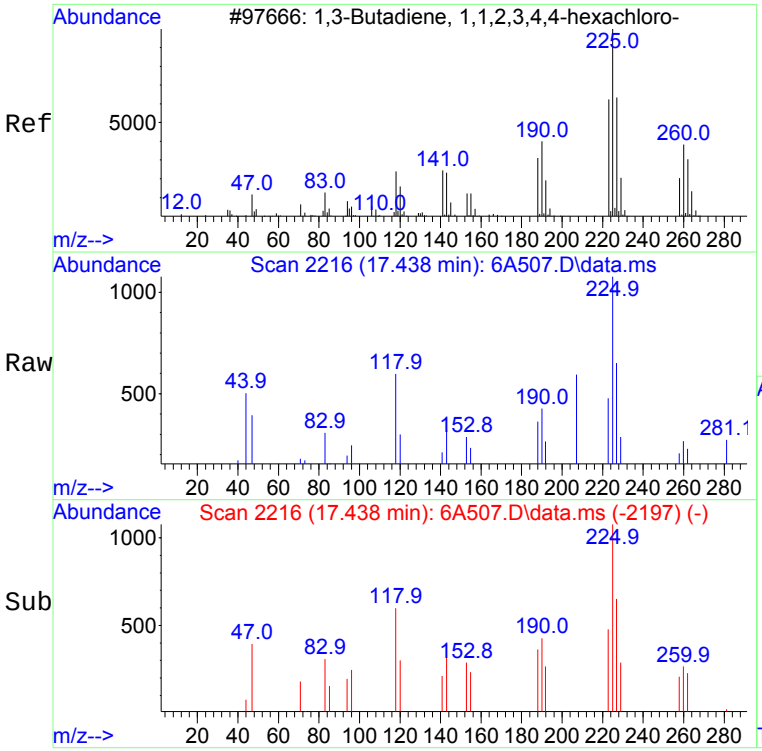


#61 BEFORE analyst DELETION
Bromoform
Concen: 0.73 ug/L
RT: 13.525 min Scan# 1574
Delta R.T. -0.006 min
Lab File: 6A507.D
Acq: 29 Sep 2017 11:51

Tgt Ion:173 Resp: 191

Ion	Ratio	Lower	Upper
173	100		
175	0.0	20.8	80.8#

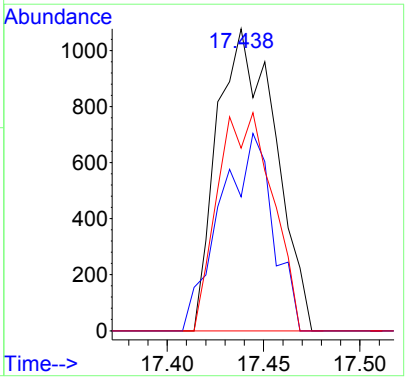




#81
Hexachlorobutadiene
Concen: 0.38 ug/L
RT: 17.438 min Scan# 2216
Delta R.T. -0.000 min
Lab File: 6A507.D
Acq: 29 Sep 2017 11:51

Tgt Ion:225 Resp: 2259

Ion	Ratio	Lower	Upper
225	100		
223	58.8	32.8	92.8
227	68.1	34.1	94.1



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:00**	**Matrix:**	**WATER**
Lab Sample ID:	**433718005**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01TB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 12:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 12:19**				
Data File:	**092917V6\6A508.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone	U	5.00	ug/L	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.67	5.00
67-64-1	Acetone	U	5.00	ug/L	1.74	5.00
71-43-2	Benzene	U	1.00	ug/L	0.333	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.333	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.337	1.00
75-15-0	Carbon disulfide	U	5.00	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.333	1.00
110-82-7	Cyclohexane	U	1.00	ug/L	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.355	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.333	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.333	1.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.67	5.00
108-87-2	Methylcyclohexane	U	1.00	ug/L	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/L	1.67	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:00**	**Matrix:**	**WATER**
Lab Sample ID:	**433718005**	**Date Received:**	**09/27/2017 09:15**		
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL01TB**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 12:19**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 12:19**				
Data File:	**092917V6\6A508.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-42-5	Styrene	U	1.00	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.333	1.00
108-88-3	Toluene	U	1.00	ug/L	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.667	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A508.D
Acq On : 29 Sep 2017 12:19
Operator : JP1
InstName : VOA6
Sample : |433718005|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Oct 02 08:45:03 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1185834	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.629	12.628	1.000	904379	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	458438	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1185239	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.629	12.628	1.000	904379	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	458438	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.087	9.086	0.963	306369	50.63	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1094583	48.78	ug/L	0.00
63) Bromofluorobenzene	95	13.830	13.829	0.919	464900	50.64	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	101%
45) Toluene-d8	50.000	74 - 124	98%
63) Bromofluorobenzene	50.000	70 - 131	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether	59	5.830	5.822	0.618	607	N.D.		
9) Acetone	43	6.197	6.191	0.657	2970	Below Cal		86
10) 1,1-Dichloroethylene		0.000	6.191	0.000	0	N.D.		
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile	41	6.575	6.544	0.697	949	N.D.		
13) Methyl acetate		0.000	6.569	0.000	0	N.D.		
14) Carbon disulfide	76	6.532	6.544	0.692	1456	N.D.		
15) Methylene chloride	84	6.752	6.752	0.716	4455	N.D.		
16) tert-Butyl methyl ether		0.000	7.044	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane	57	7.355	7.361	0.780	1780	N.D.		
19) Vinyl acetate	43	7.556	7.526	0.801	375	N.D.		
20) 1,1-Dichloroethane		0.000	7.562	0.000	0	N.D.		
21) 2-Butanone	43	8.190	8.154	0.868	774	N.D.		
22) cis-1,2-Dichloroethylene		0.000	8.203	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		0.000	8.513	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		0.000	8.867	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	8.940	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	9.099	9.166	0.964	179	N.D.		
32) Benzene	78	9.166	9.178	0.972	321	N.D.		
33) Cyclohexene		0.000	9.288	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	9.562	0.000	0	N.D.		
35) Trichloroethylene		0.000	9.824	0.000	0	N.D.		
36) 2-Pentanone	43	9.964	9.922	1.056	149	N.D.		
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		0.000	10.062	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A508.D
Acq On : 29 Sep 2017 12:19
Operator : JP1
InstName : VOA6
Sample : |433718005|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 08:45:03 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
39) Dibromomethane		0.000	10.208	0.000	0	N.D.	
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	10.781	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.	
46) Toluene	91	11.153	11.165	0.883	1453	N.D.	
47) trans-1,3-Dichloroprop...	75	11.354	11.336	0.899	413	N.D.	
48) 1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.	
49) 2-Hexanone	43	11.757	11.744	0.931	559	N.D.	
50) 1,3-Dichloropropane		0.000	11.744	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	11.757	0.000	0	N.D.	
52) Dibromochloromethane		0.000	12.007	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	12.171	0.000	0	N.D.	
54) Chlorobenzene	112	12.665	12.659	1.003	983	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	12.720	0.000	0	N.D.	
56) Ethylbenzene	91	12.738	12.726	1.009	573	N.D.	
57) m,p-Xylenes	106	12.848	12.842	1.017	341	N.D.	
58) o-Xylene	91	13.275	13.275	1.051	240	N.D.	
59) Styrene	104	13.287	13.281	1.052	301	N.D.	
61) Bromoform		0.000	13.531	0.000	0	N.D.	
62) Isopropylbenzene	105	13.641	13.634	0.906	444	N.D.	
64) 1,1,2,2-Tetrachloroethane	83	13.830	13.921	0.919	189	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.	
66) Bromobenzene	156	14.043	14.037	0.933	131	N.D.	
67) n-Propylbenzene	91	14.067	14.067	0.934	751	N.D.	
68) 1,3,5-Trimethylbenzene	105	14.232	14.226	0.945	450	N.D.	
69) 2-Chlorotoluene		0.000	14.207	0.000	0	N.D.	
70) 4-Chlorotoluene	91	14.311	14.311	0.951	726	N.D.	
71) tert-Butylbenzene		0.000	14.592	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	14.646	14.634	0.973	725	N.D.	
73) sec-Butylbenzene	105	14.811	14.817	0.984	1204	N.D.	
74) 4-Isopropyltoluene	119	14.598	14.592	0.970	581	N.D.	
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	661	N.D.	
76) 1,4-Dichlorobenzene	146	15.073	15.079	1.001	1054	N.D.	
77) n-Butylbenzene	91	15.372	15.372	1.021	1498	N.D.	
78) 1,2-Dichlorobenzene	146	15.494	15.488	1.029	648	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	1460	N.D.	
81) Hexachlorobutadiene	225	17.439	17.439	1.158	1468	N.D.	
82) Naphthalene	128	17.628	17.627	1.171	2596	N.D.	
83) 1,2,3-Trichlorobenzene	180	17.945	17.938	1.192	1653	N.D.	
85) Acrolein		0.000	6.020	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.	
87) Isopropyl Alcohol	45	6.264	6.276	0.664	131	N.D.	
88) Allyl chloride	41	6.575	6.605	0.697	949	N.D.	
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.007	0.000	0	N.D.	
91) Isopropyl ether		0.000	7.550	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.	
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.	
94) Ethyl acetate	43	8.190	8.172	0.868	774	N.D.	
95) Propionitrile		0.000	8.239	0.000	0	N.D.	
96) Methacrylonitrile	41	8.434	8.410	0.894	132	N.D.	
97) Tetrahydrofuran	42	8.526	8.519	0.904	1128	N.D.	
98) Isobutyl alcohol		0.000	8.867	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A508.D
Acq On : 29 Sep 2017 12:19
Operator : JP1
InstName : VOA6
Sample : |433718005|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 08:45:03 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

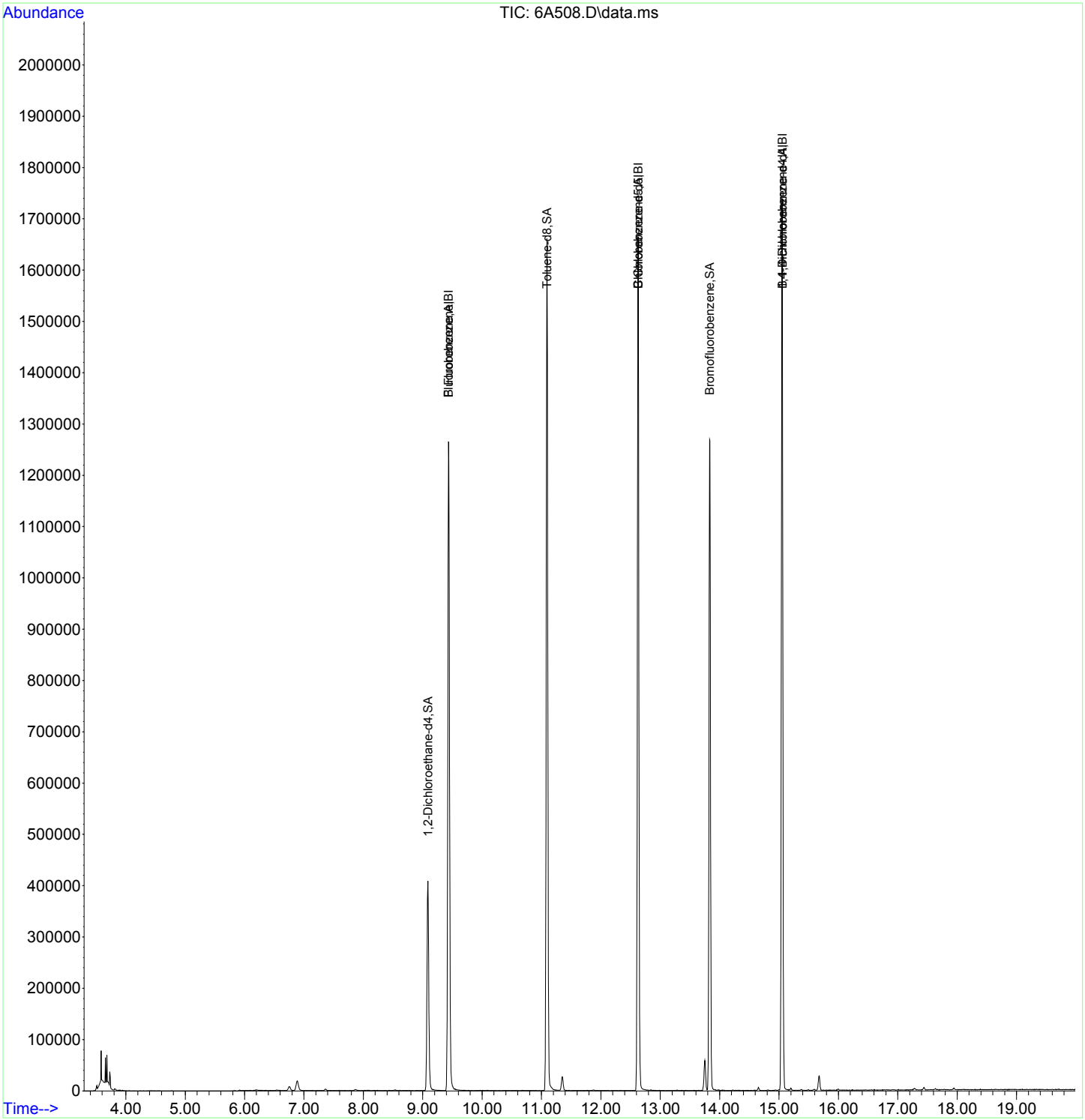
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		0.000	9.208	0.000	0	N.D.	
100)	Methyl methacrylate	69	10.086	10.062	1.069	131	N.D.	
101)	1,4-Dioxane		0.000	10.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	10.543	0.000	0	N.D.	
104)	Ethyl methacrylate	69	11.354	11.348	0.899	178	N.D.	
106)	1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107)	cis-1,4-Dichloro-2-butene	53	13.689	13.683	0.909	141	N.D.	
108)	Cyclohexanone	42	13.799	13.787	0.917	286	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110)	Pentachloroethane	167	14.659	14.652	0.974	761	N.D.	
111)	Benzyl chloride	91	15.195	15.195	1.009	3053	N.D.	
112)	bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	1797	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A508.D
Acq On : 29 Sep 2017 12:19
Operator : JP1
InstName : VOA6
Sample : |433718005|1705051|1|VOAF|1|VOA8260BL|
Misc : URSC 5ML PH<2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 08:45:03 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:48**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718006**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 17:47**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:09**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M117.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	34.5	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	34.5	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	34.5	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	34.5	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	34.5	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	34.5	104
78-93-3	2-Butanone	U	518	ug/kg	173	518
591-78-6	2-Hexanone	U	518	ug/kg	173	518
108-10-1	4-Methyl-2-pentanone	U	518	ug/kg	173	518
67-64-1	Acetone	U	518	ug/kg	173	518
71-43-2	Benzene	U	104	ug/kg	34.5	104
75-15-0	Carbon disulfide	U	518	ug/kg	173	518
56-23-5	Carbon tetrachloride	U	104	ug/kg	34.5	104
108-90-7	Chlorobenzene	U	104	ug/kg	34.5	104
75-00-3	Chloroethane	U	104	ug/kg	34.5	104
67-66-3	Chloroform	U	104	ug/kg	34.5	104
74-87-3	Chloromethane	U	104	ug/kg	34.5	104
100-41-4	Ethylbenzene	U	104	ug/kg	34.5	104
75-09-2	Methylene chloride	U	518	ug/kg	173	518
100-42-5	Styrene	U	104	ug/kg	34.5	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	34.5	104
108-88-3	Toluene	U	104	ug/kg	34.5	104
79-01-6	Trichloroethylene	U	104	ug/kg	34.5	104
76-13-1	Trichlorotrifluoroethane	U	518	ug/kg	173	518
108-05-4	Vinyl acetate	U	518	ug/kg	173	518
75-01-4	Vinyl chloride	U	104	ug/kg	34.5	104
1330-20-7	Xylenes (total)	U	311	ug/kg	104	311
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	34.5	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	34.5	104

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M117.D
Acq On : 02 Oct 2017 17:47
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 03 09:55:12 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1301089	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	947177	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	534268	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1301089	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	947177	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	534268	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	317311	50.61	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1076925	50.63	ug/L	0.00
63) Bromofluorobenzene	95	14.818	14.817	0.924	471252	50.00	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	101%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.181	7.145	0.687	705	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.584	7.512	0.725	183	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	1030	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2687	Below Cal		84
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	694	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	386	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.205	10.204	0.976	207	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M117.D
Acq On : 02 Oct 2017 17:47
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 03 09:55:12 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.893	719	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	466	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene	91	13.715	13.714	1.007	179	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene	91	15.043	15.043	0.938	225	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	553	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene	105	15.790	15.790	0.984	196	N.D.	
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	190	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	526	N.D.	
76) 1,4-Dichlorobenzene	146	16.075	16.074	1.002	847	N.D.	
77) n-Butylbenzene	91	16.359	16.359	1.020	403	Below Cal #	28
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	202	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	942	Below Cal	72
81) Hexachlorobutadiene	225	18.672	18.683	1.164	202	Below Cal #	18
82) Naphthalene	128	18.921	18.908	1.180	2245	Below Cal #	69
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	689	Below Cal #	82
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	1227	N.D.	
88) Allyl chloride	41	7.584	7.596	0.725	183	Below Cal #	1
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M117.D
Acq On : 02 Oct 2017 17:47
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 03 09:55:12 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

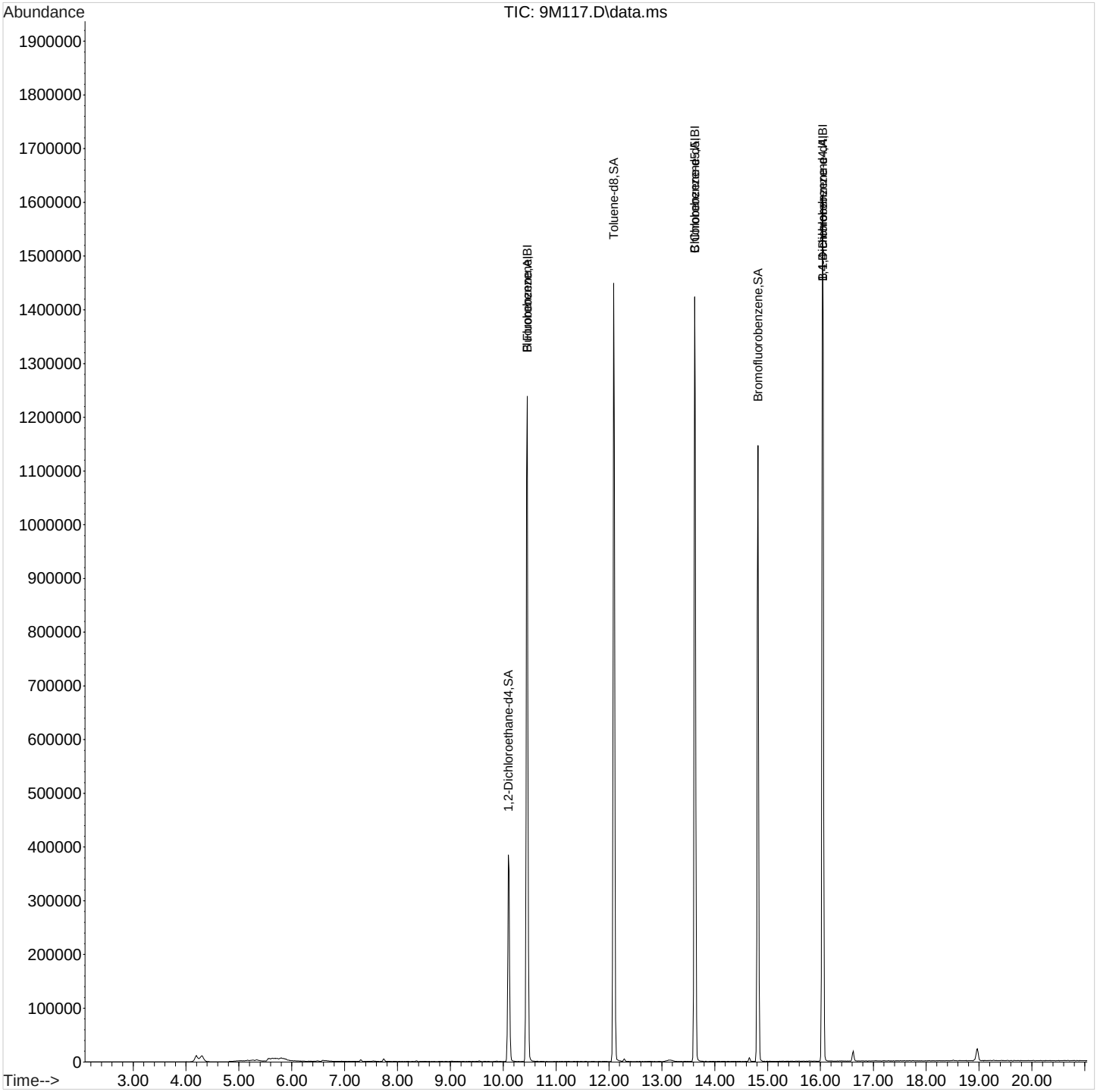
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	386	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	858	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.058	11.047	1.058	490	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	288	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	949	N.D.	

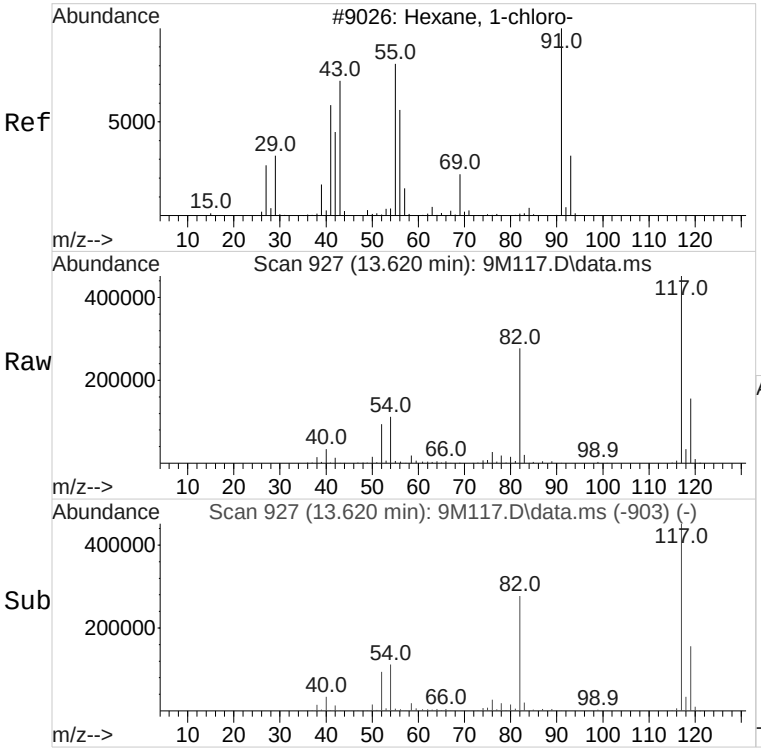
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M117.D
Acq On : 02 Oct 2017 17:47
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 03 09:55:12 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

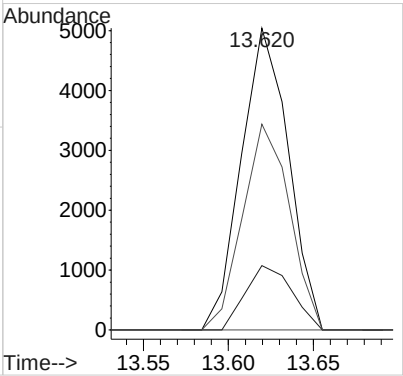




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.49 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M117.D
Acq: 02 Oct 2017 17:47

Tgt Ion: 55 Resp: 9766

Ion	Ratio	Lower	Upper
55	100		
91	21.1	114.6	174.6#
56	67.8	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:48**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718006**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL02RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 14:28**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:03**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M211.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M211.D
Acq On : 03 Oct 2017 14:28
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 03 15:56:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	398293	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	89653	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	19270	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	398293	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	89653	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	19270	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	153245	79.84	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	149162	74.08	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	15297	45.00	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	160%#
45) Toluene-d8	50.000	81 - 120	148%#
63) Bromofluorobenzene	50.000	70 - 130	90%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	2112	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	10666	Below Cal		84
15) Methylene chloride	84	7.750	7.738	0.741	2941	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.216	10.204	0.977	200	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M211.D
Acq On : 03 Oct 2017 14:28
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 03 15:56:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.	
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46)	Toluene	91	12.173	12.173	0.893	298	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58)	o-Xylene		0.000	14.260	0.000	0	N.D.	
59)	Styrene		0.000	14.260	0.000	0	N.D.	
61)	Bromoform		0.000	14.533	0.000	0	N.D.	
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.	
67)	n-Propylbenzene	91	15.043	15.043	0.937	180	N.D.	
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70)	4-Chlorotoluene		0.000	15.292	0.000	0m	N.D.	d
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73)	sec-Butylbenzene	105	15.790	15.790	0.984	195	N.D.	
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75)	1,3-Dichlorobenzene		0.000	15.991	0.000	0m	N.D.	d
76)	1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77)	n-Butylbenzene	91	16.359	16.359	1.019	430	Below Cal	# 66
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0m	N.D.	d
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d
81)	Hexachlorobutadiene	225	18.672	18.683	1.163	192	N.D.	
82)	Naphthalene		0.000	18.908	0.000	0m	N.D.	d
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0m	N.D.	d
85)	Acrolein		0.000	6.979	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	667	N.D.	
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M211.D
Acq On : 03 Oct 2017 14:28
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 03 15:56:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

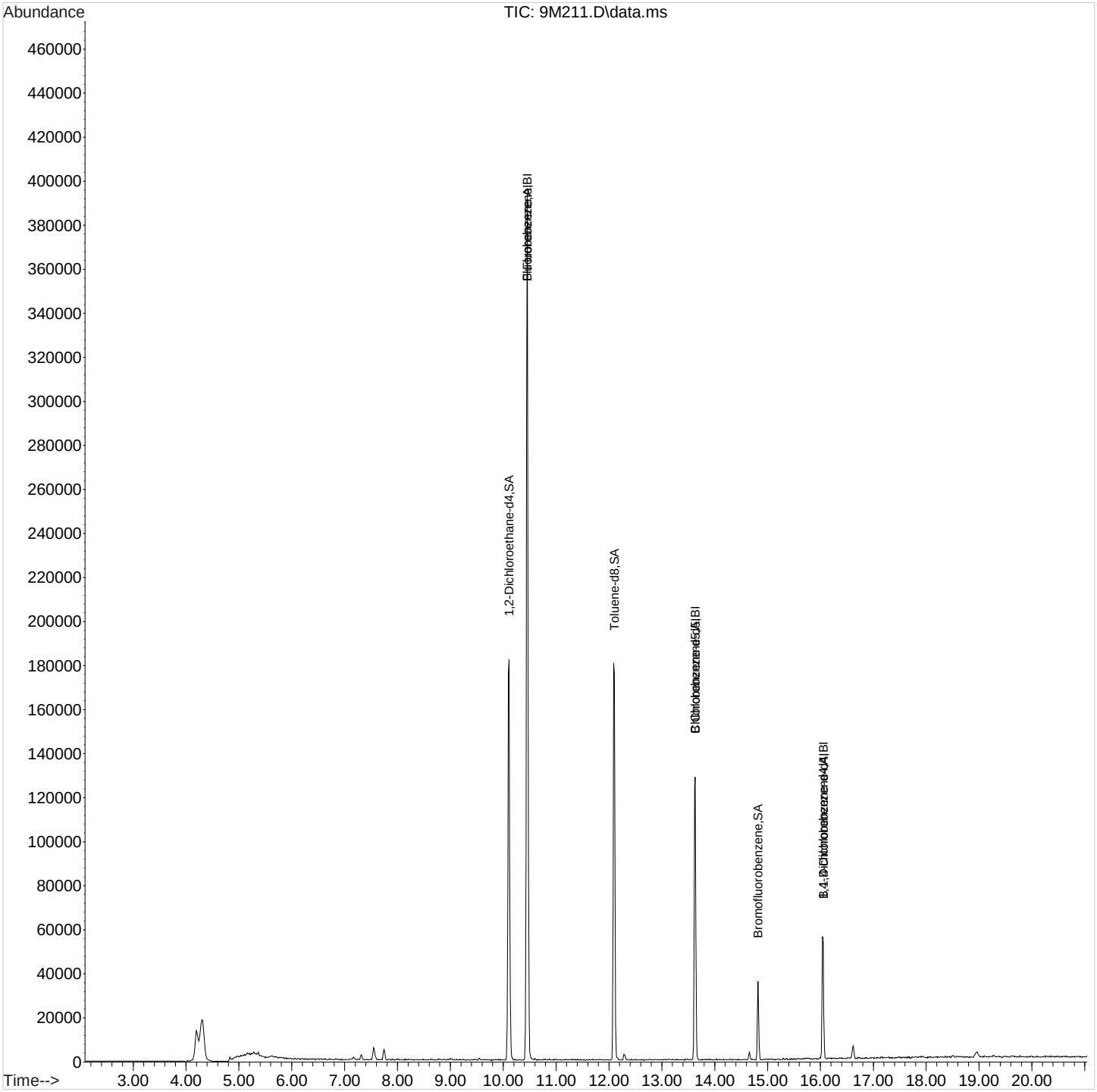
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.540	9.540	0.913	736	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate	69	11.011	11.047	1.053	522	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.315	12.304	0.903	296	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.193	16.193	1.009	189	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

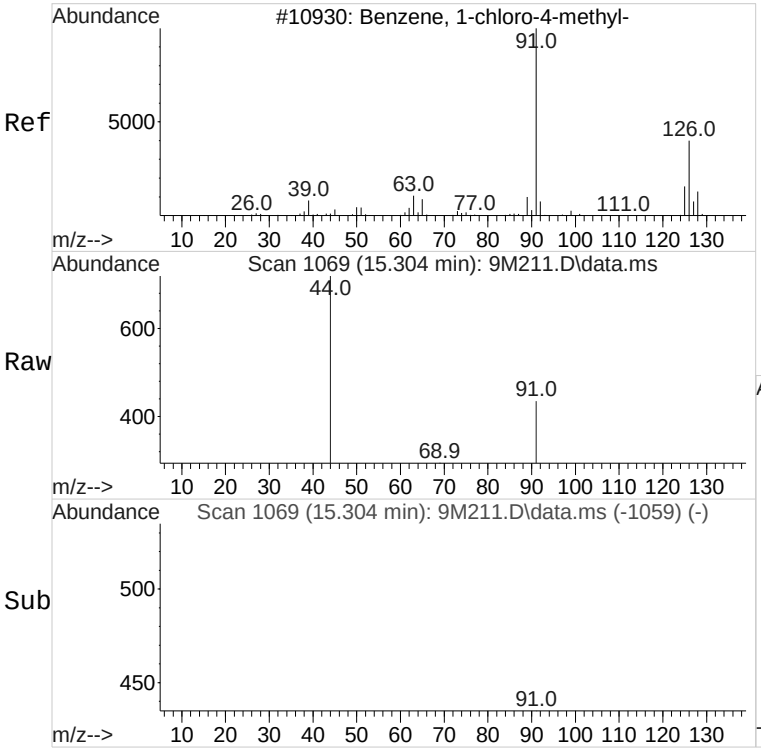
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M211.D
Acq On : 03 Oct 2017 14:28
Operator : RXY1
InstName : VOA9
Sample : |433718006|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 03 15:56:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

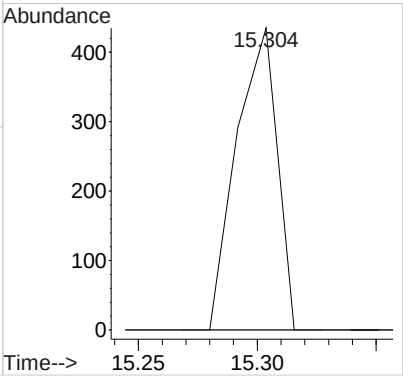


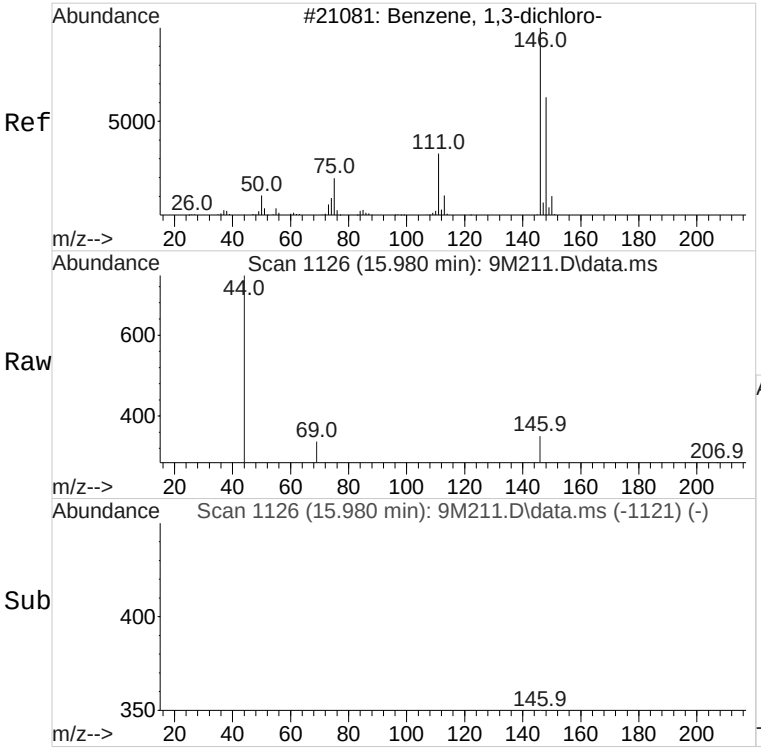


#70 BEFORE analyst DELETION
4-Chlorotoluene
Concen: 0.63 ug/L
RT: 15.304 min Scan# 1069
Delta R.T. 0.012 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion: 91 Resp: 517

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.9	64.9#

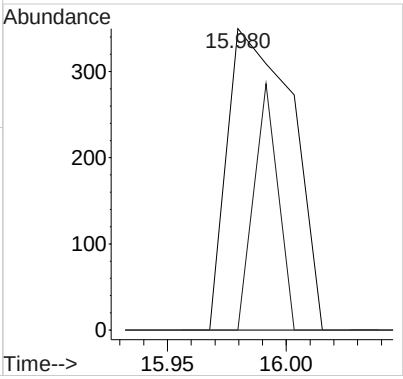


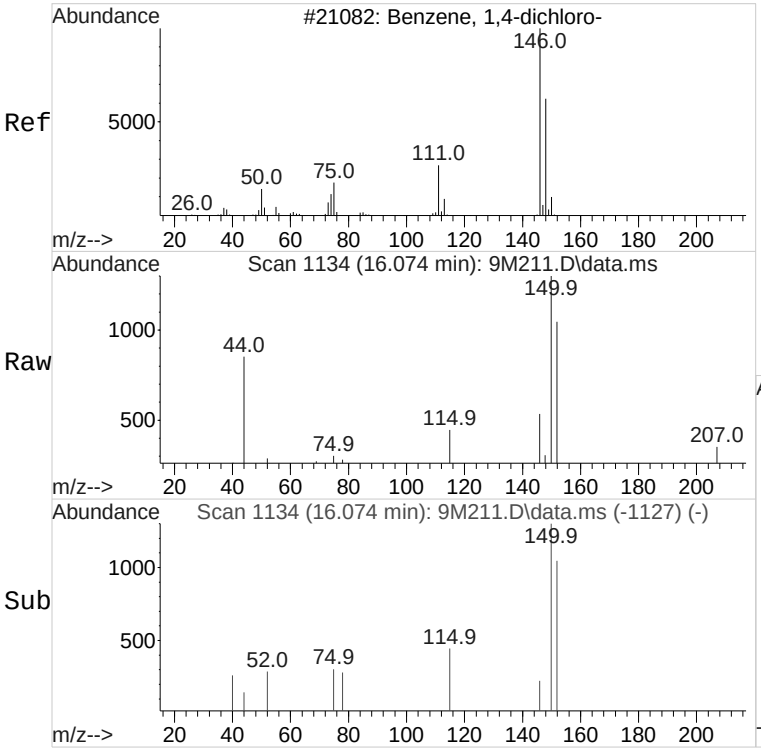


#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 1.20 ug/L
RT: 15.980 min Scan# 1126
Delta R.T. -0.011 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:146 Resp: 663

Ion	Ratio	Lower	Upper
146	100		
148	30.6	37.5	97.5#
111	0.0	10.0	70.0#

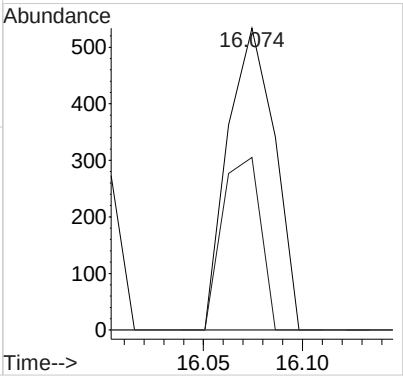


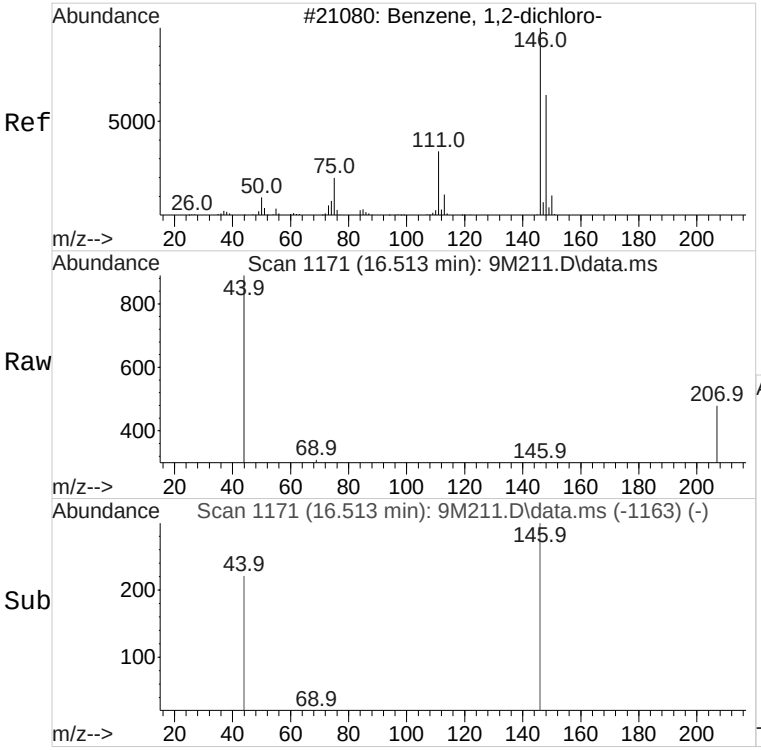


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 1.70 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:146 Resp: 882

Ion	Ratio	Lower	Upper
146	100		
148	46.9	36.9	96.9
111	0.0	9.0	69.0#

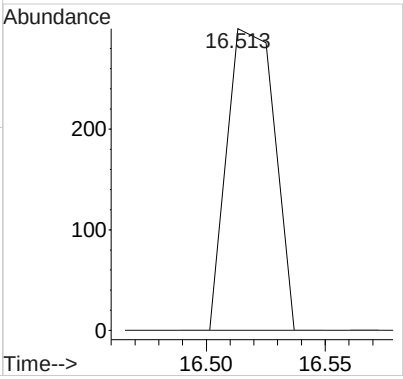


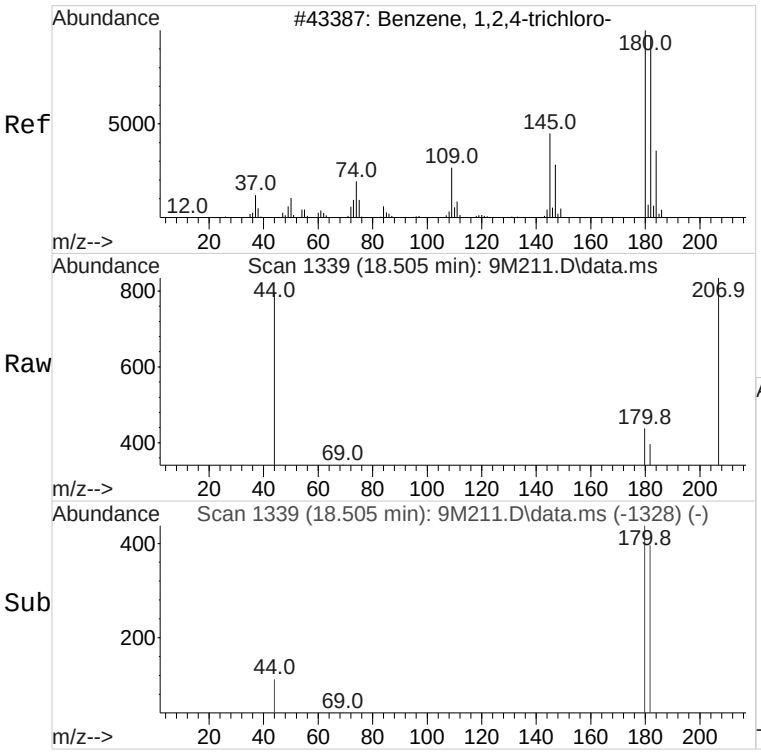


#78 BEFORE analyst DELETION
1,2-Dichlorobenzene
Concen: 0.79 ug/L
RT: 16.513 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:146 Resp: 417

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.7	96.7#
111	0.0	11.2	71.2#

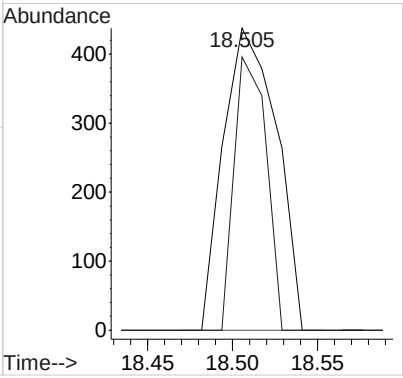


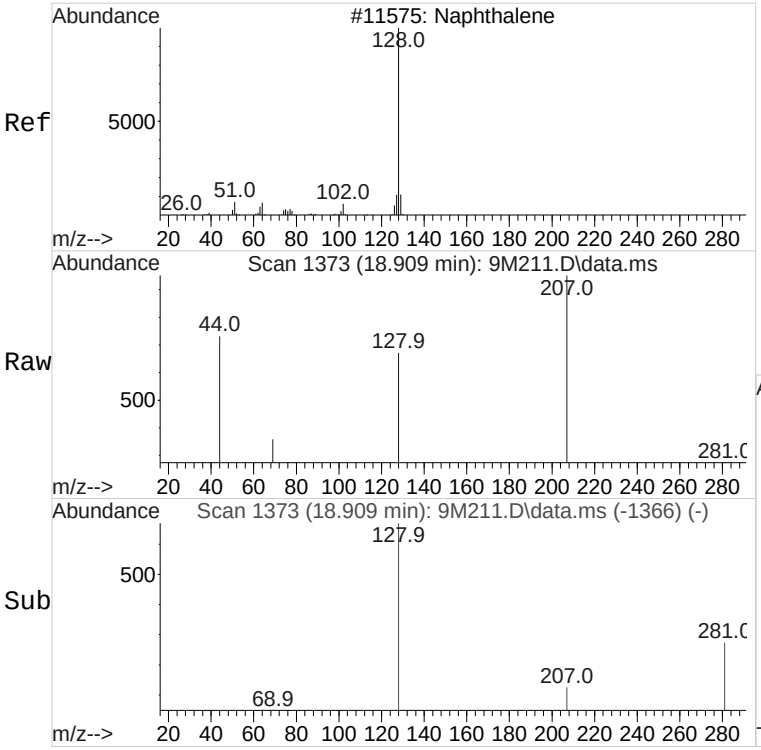


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 1.63 ug/L
RT: 18.505 min Scan# 1339
Delta R.T. 0.000 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:180 Resp: 958

Ion	Ratio	Lower	Upper
180	100		
182	54.7	68.7	128.7#

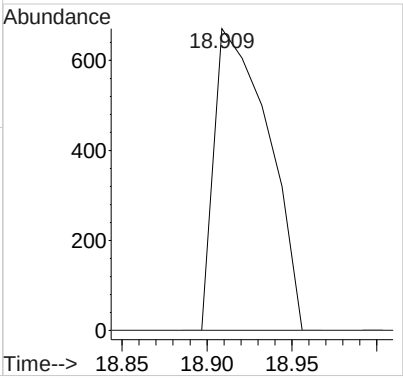


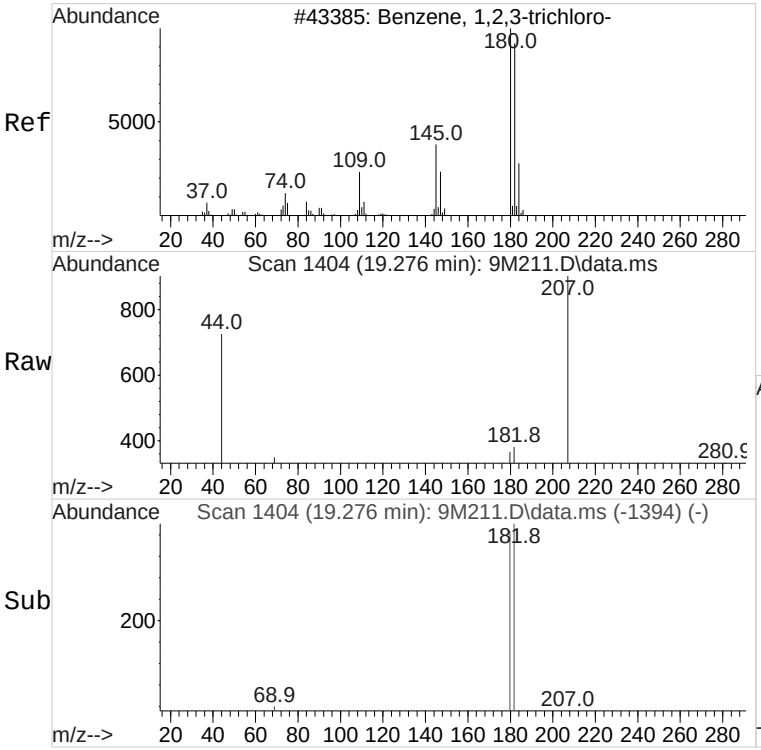


#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.69 ug/L
RT: 18.909 min Scan# 1373
Delta R.T. 0.001 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:128 Resp: 1491

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.3
129	0.0	0.0	41.5

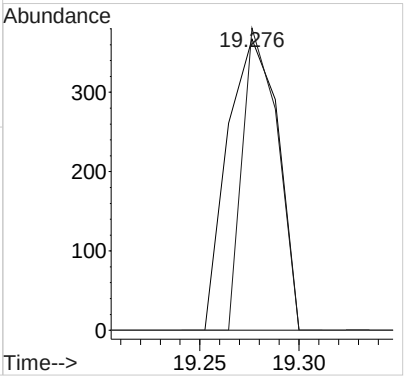


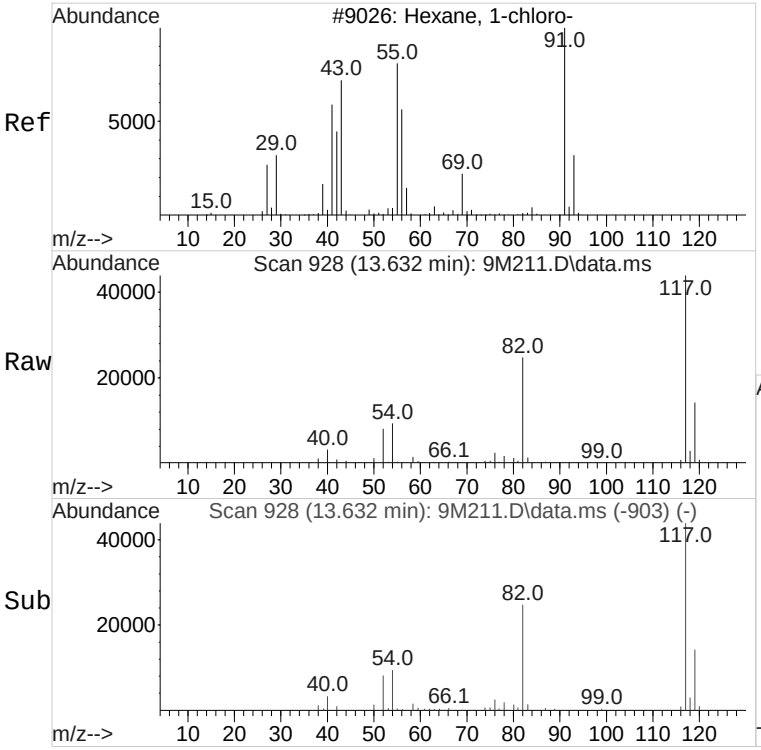


#83 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 0.95 ug/L
RT: 19.276 min Scan# 1404
Delta R.T. 0.000 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion:180 Resp: 654

Ion	Ratio	Lower	Upper
180	100		
182	71.9	67.9	127.9
145	0.0	0.3	60.3#

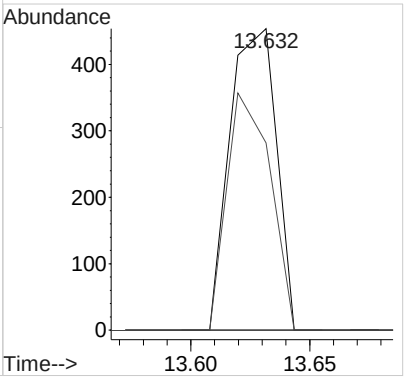




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.61 ug/L
RT: 13.632 min Scan# 928
Delta R.T. 0.119 min
Lab File: 9M211.D
Acq: 03 Oct 2017 14:28

Tgt Ion: 55 Resp: 618

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	73.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:11**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718007**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL06**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 18:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:10**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M118.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.4	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.4	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.4	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.4	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.4	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.4	103
78-93-3	2-Butanone	U	516	ug/kg	172	516
591-78-6	2-Hexanone	U	516	ug/kg	172	516
108-10-1	4-Methyl-2-pentanone	U	516	ug/kg	172	516
67-64-1	Acetone	U	516	ug/kg	172	516
71-43-2	Benzene	U	103	ug/kg	34.4	103
75-15-0	Carbon disulfide	U	516	ug/kg	172	516
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.4	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.4	103
75-00-3	Chloroethane	U	103	ug/kg	34.4	103
67-66-3	Chloroform	U	103	ug/kg	34.4	103
74-87-3	Chloromethane	U	103	ug/kg	34.4	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.4	103
75-09-2	Methylene chloride	U	516	ug/kg	172	516
100-42-5	Styrene	U	103	ug/kg	34.4	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.4	103
108-88-3	Toluene	U	103	ug/kg	34.4	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.4	103
76-13-1	Trichlorotrifluoroethane	U	516	ug/kg	172	516
108-05-4	Vinyl acetate	U	516	ug/kg	172	516
75-01-4	Vinyl chloride	U	103	ug/kg	34.4	103
1330-20-7	Xylenes (total)	U	309	ug/kg	103	309
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.4	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.4	103

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M118.D
Acq On : 02 Oct 2017 18:14
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 03 09:55:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1259010	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	937551	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	533250	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1259010	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	937551	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	533250	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	308434	50.83	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1041854	49.48	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	467873	49.74	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	733	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	425	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	876	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2850	Below Cal		97
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	634	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	178	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	399	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M118.D
Acq On : 02 Oct 2017 18:14
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 03 09:55:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.894	847	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	265	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes	106	13.833	13.821	1.016	371	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene	91	15.043	15.043	0.938	201	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	768	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene	105	15.790	15.790	0.984	190	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	497	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	756	N.D.	
77) n-Butylbenzene	91	16.359	16.359	1.020	448	Below Cal #	28
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	669	Below Cal	70
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.180	1989	Below Cal #	69
83) 1,2,3-Trichlorobenzene	180	19.264	19.276	1.201	689	Below Cal #	82
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1002	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M118.D
Acq On : 02 Oct 2017 18:14
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 03 09:55:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

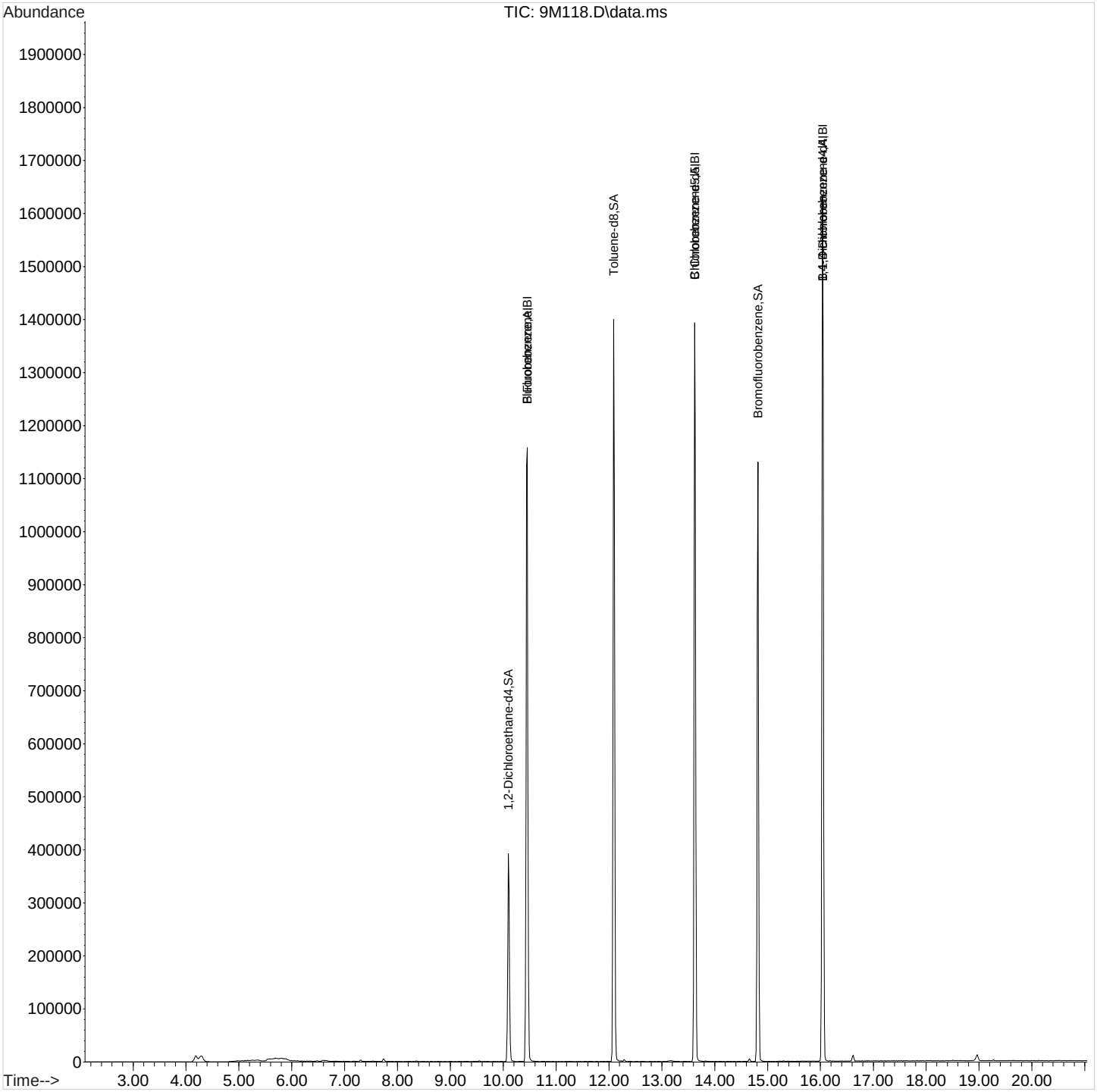
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.173	9.161	0.877	178	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	1108	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate	69	11.058	11.047	1.058	207	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.220	12.304	0.897	341	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.181	16.193	1.009	380	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	647	N.D.	

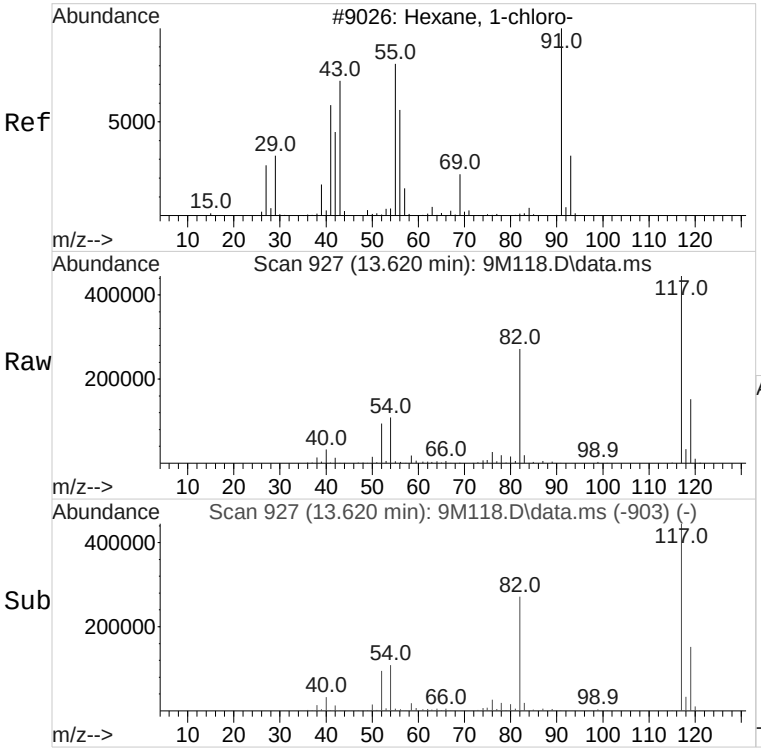
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M118.D
Acq On : 02 Oct 2017 18:14
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 03 09:55:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

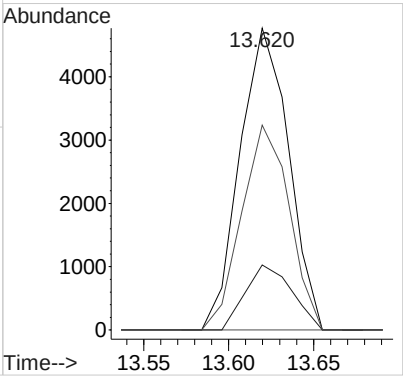




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.46 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M118.D
Acq: 02 Oct 2017 18:14

Tgt Ion: 55 Resp: 9561

Ion	Ratio	Lower	Upper
55	100		
91	20.6	114.6	174.6#
56	66.4	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:11**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718007**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL06RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 14:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:04**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M212.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.350	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.350	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.350	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.350	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.350	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.75	5.26
591-78-6	2-Hexanone	U	5.26	ug/kg	1.75	5.26
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.75	5.26
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
71-43-2	Benzene	U	1.05	ug/kg	0.350	1.05
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.75	5.26
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.350	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.350	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.350	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.350	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.350	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.350	1.05
75-09-2	Methylene chloride	U	5.26	ug/kg	1.75	5.26
100-42-5	Styrene	U	1.05	ug/kg	0.350	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.350	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.350	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.350	1.05
76-13-1	Trichlorotrifluoroethane	U	5.26	ug/kg	1.75	5.26
108-05-4	Vinyl acetate	U	5.26	ug/kg	1.75	5.26
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.350	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M212.D
Acq On : 03 Oct 2017 14:56
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 03 15:56:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	281000	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	63086	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	16002	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	281000	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	63086	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	16002	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	132288	97.69	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	96523	68.13	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	10670	37.80	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	195%#
45) Toluene-d8	50.000	81 - 120	136%#
63) Bromofluorobenzene	50.000	70 - 130	76%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	12631	Below Cal		89
15) Methylene chloride	84	7.750	7.738	0.741	2859	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	566	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	409	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M212.D
Acq On : 03 Oct 2017 14:56
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 03 15:56:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	206	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.002	186	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0m	N.D.	d
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0m	N.D.	d
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene	91	16.359	16.359	1.019	380	Below Cal	# 28
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0m	N.D.	d
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene		0.000	18.908	0.000	0m	N.D.	d
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.201	196	Below Cal	# 78
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.323	7.228	0.701	636	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M212.D
Acq On : 03 Oct 2017 14:56
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 03 15:56:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

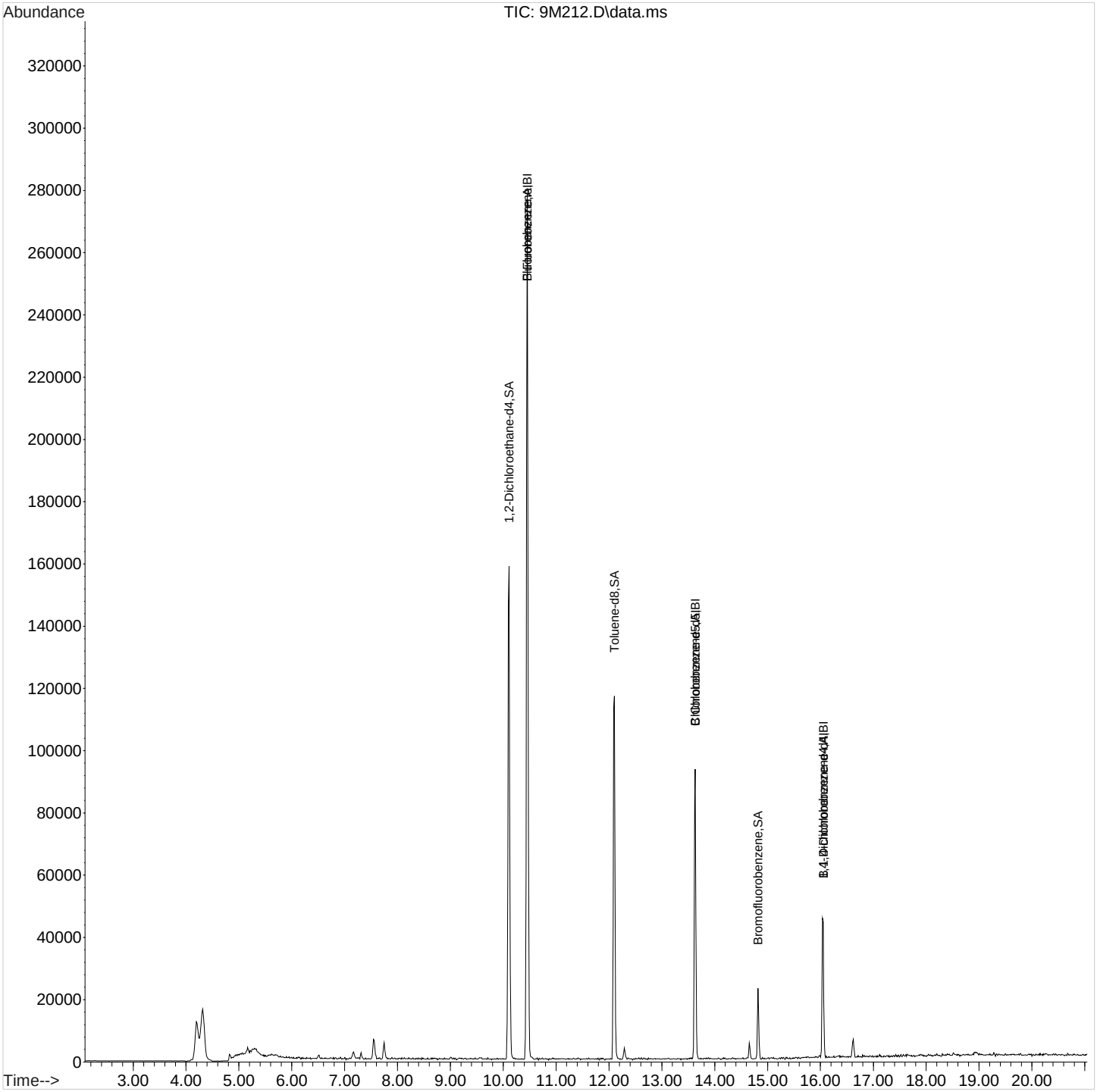
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	566	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	484	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

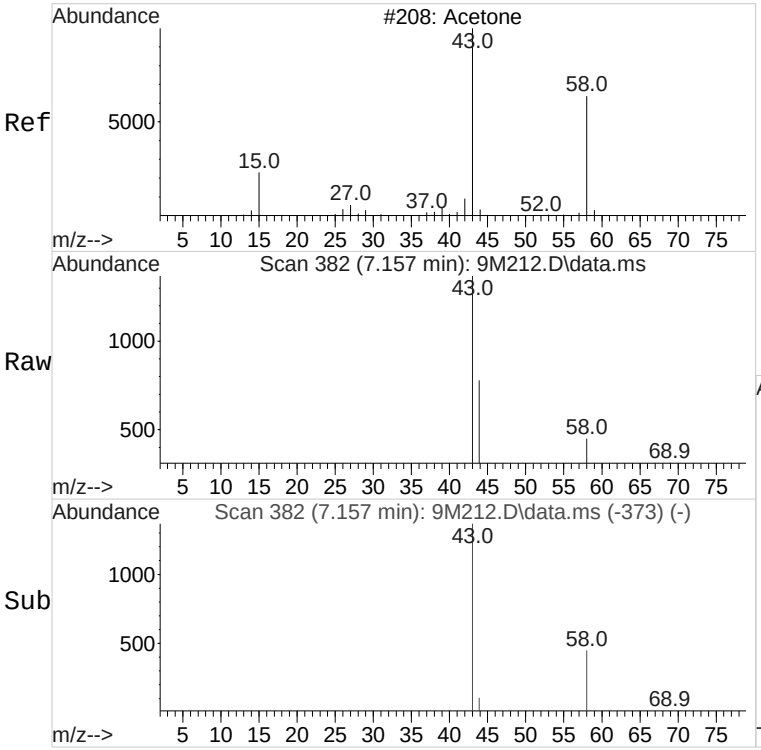
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M212.D
Acq On : 03 Oct 2017 14:56
Operator : RXY1
InstName : VOA9
Sample : |433718007|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 03 15:56:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

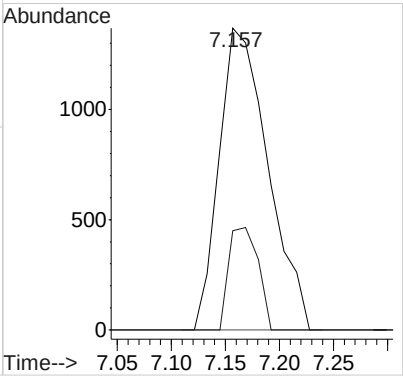


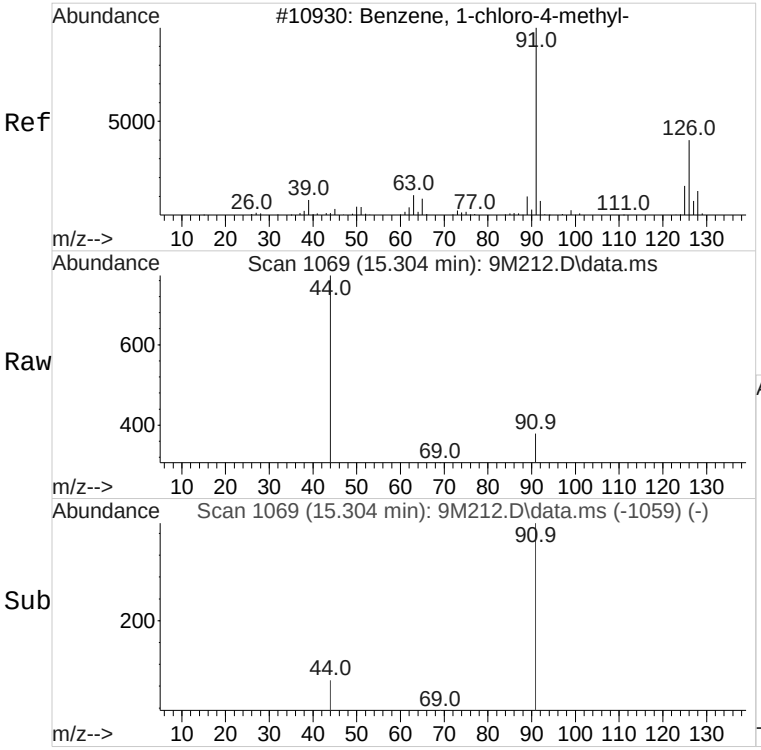


#9 BEFORE analyst DELETION
Acetone
Concen: 4.14 ug/L
RT: 7.157 min Scan# 382
Delta R.T. 0.012 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion: 43 Resp: 4310

Ion	Ratio	Lower	Upper
43	100		
58	20.4	3.0	63.0

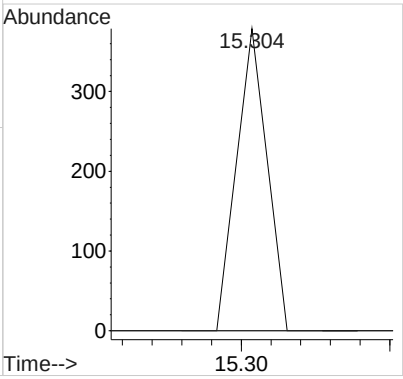


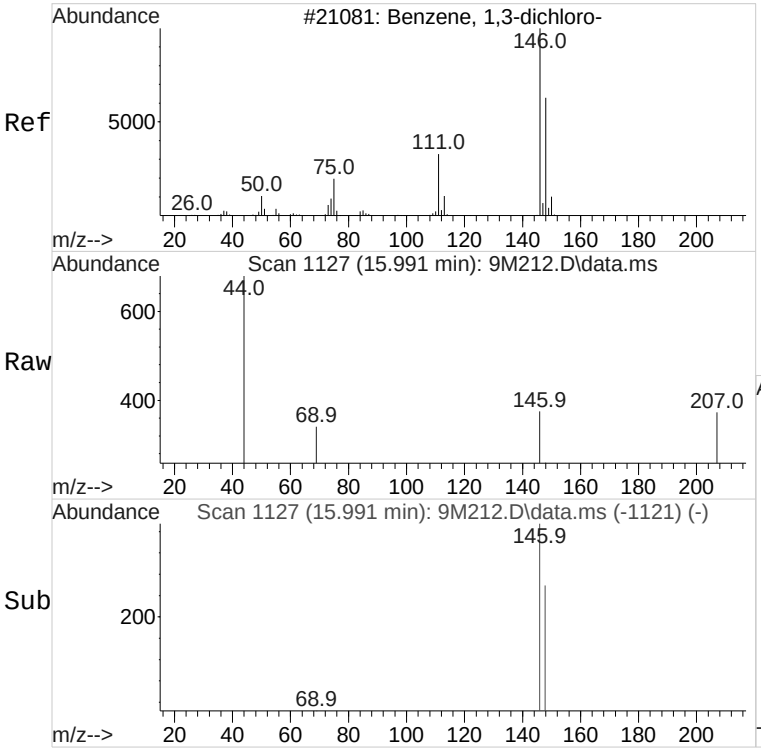


#70 BEFORE analyst DELETION
4-Chlorotoluene
Concen: 0.39 ug/L
RT: 15.304 min Scan# 1069
Delta R.T. 0.012 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion: 91 Resp: 270

Ion	Ratio	Lower	Upper
91	100		
126	0.0	4.9	64.9#

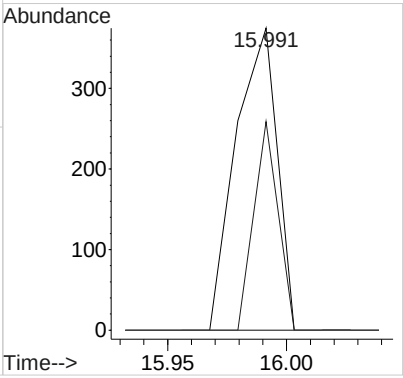


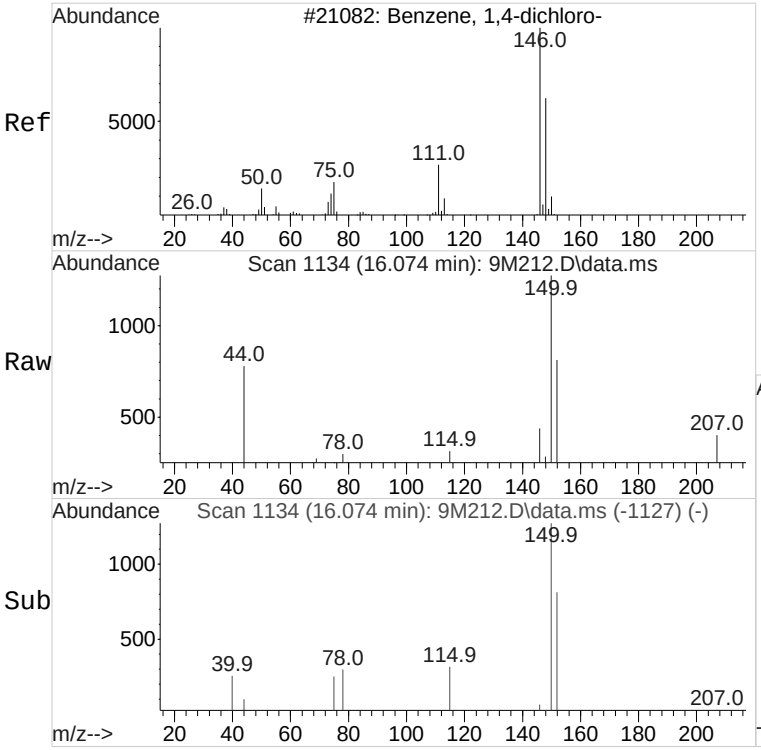


#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.99 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion:146 Resp: 452

Ion	Ratio	Lower	Upper
146	100		
148	40.7	37.5	97.5
111	0.0	10.0	70.0#

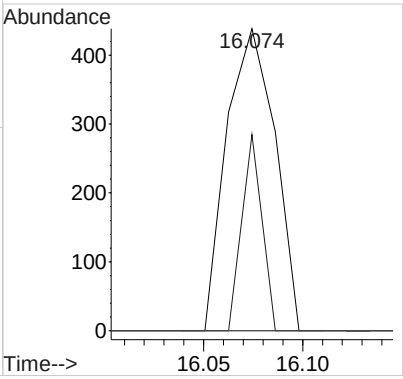


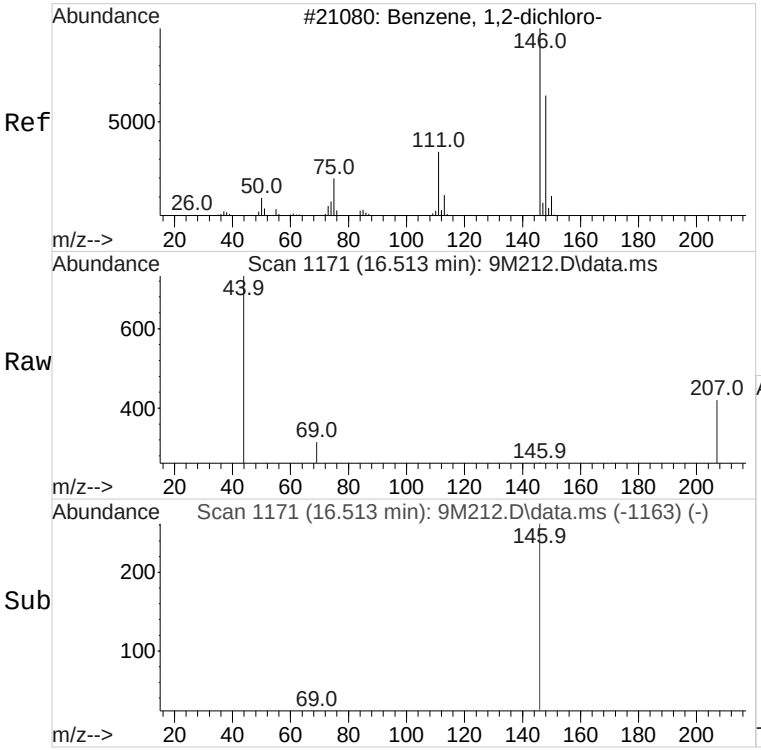


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 1.72 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion:146 Resp: 744

Ion	Ratio	Lower	Upper
146	100		
148	27.3	36.9	96.9#
111	0.0	9.0	69.0#

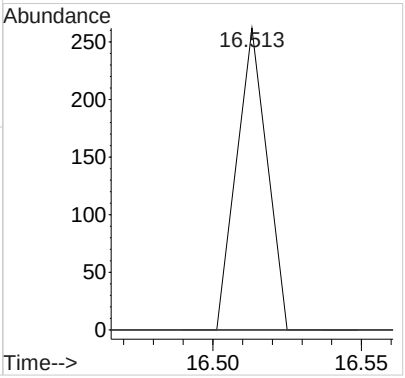


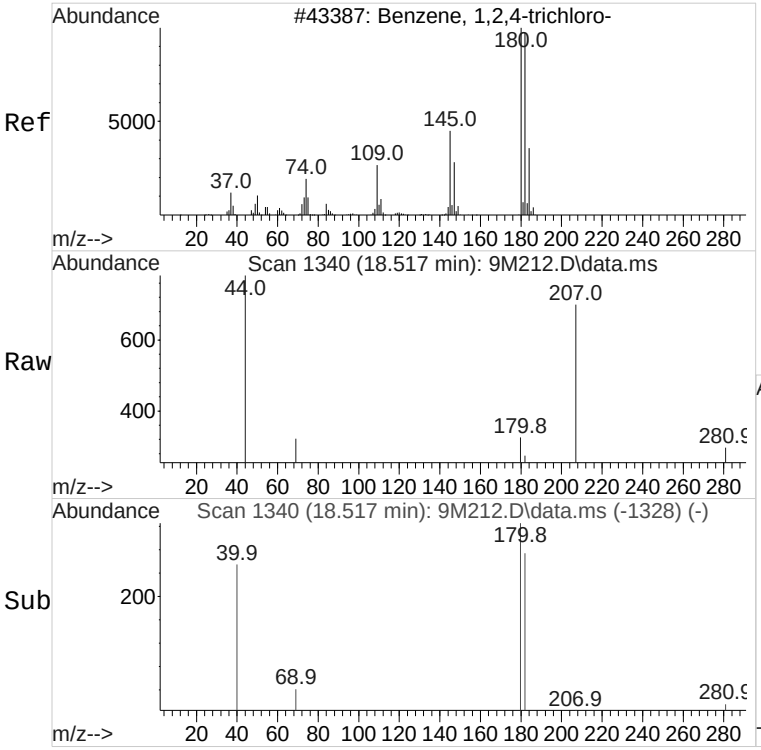


#78 BEFORE analyst DELETION
1,2-Dichlorobenzene
Concen: 0.42 ug/L
RT: 16.513 min Scan# 1171
Delta R.T. 0.000 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion:146 Resp: 186

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.7	96.7#
111	0.0	11.2	71.2#

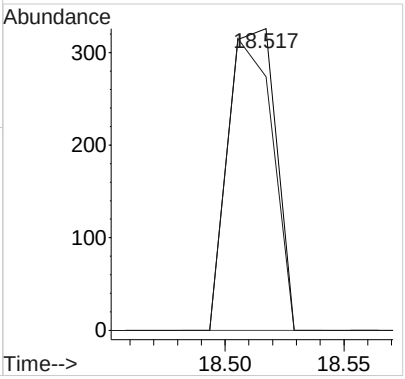


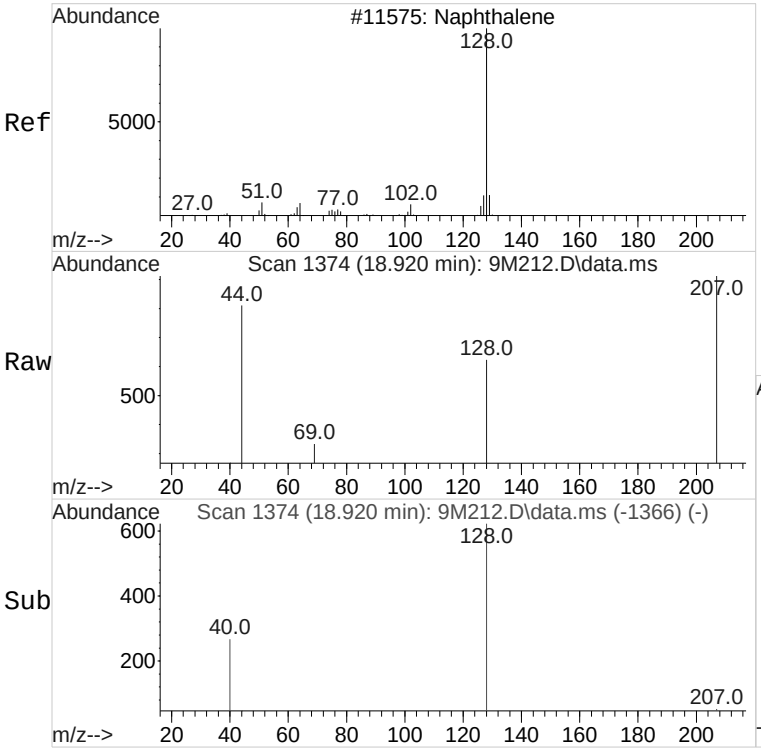


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 0.52 ug/L
RT: 18.517 min Scan# 1340
Delta R.T. 0.012 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion:180 Resp: 455

Ion	Ratio	Lower	Upper
180	100		
182	92.1	68.7	128.7

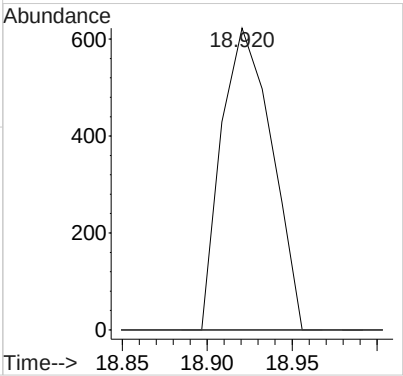


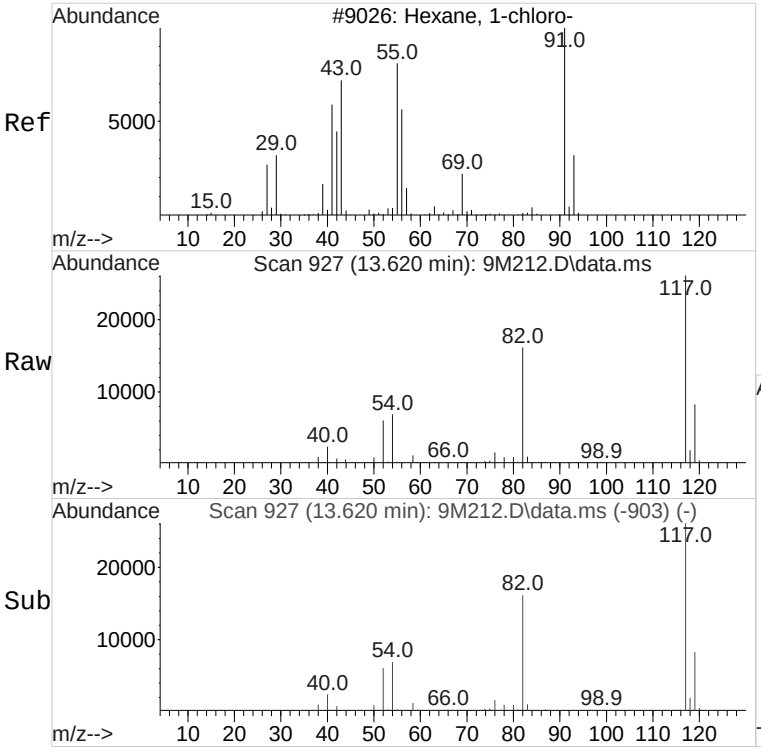


#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.76 ug/L
RT: 18.920 min Scan# 1374
Delta R.T. 0.012 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion:128 Resp: 1289

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.3
129	0.0	0.0	41.5

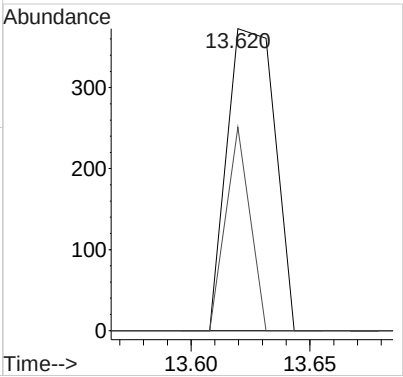




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.65 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M212.D
Acq: 03 Oct 2017 14:56

Tgt Ion: 55 Resp: 522

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	34.3	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:08**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718008**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL07**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 18:42**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:11**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M119.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.5	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.5	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.5	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.5	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.5	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.5	103
78-93-3	2-Butanone	U	517	ug/kg	173	517
591-78-6	2-Hexanone	U	517	ug/kg	173	517
108-10-1	4-Methyl-2-pentanone	U	517	ug/kg	173	517
67-64-1	Acetone	U	517	ug/kg	173	517
71-43-2	Benzene	U	103	ug/kg	34.5	103
75-15-0	Carbon disulfide	U	517	ug/kg	173	517
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.5	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.5	103
75-00-3	Chloroethane	U	103	ug/kg	34.5	103
67-66-3	Chloroform	U	103	ug/kg	34.5	103
74-87-3	Chloromethane	U	103	ug/kg	34.5	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.5	103
75-09-2	Methylene chloride	U	517	ug/kg	173	517
100-42-5	Styrene	U	103	ug/kg	34.5	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.5	103
108-88-3	Toluene	U	103	ug/kg	34.5	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.5	103
76-13-1	Trichlorotrifluoroethane	U	517	ug/kg	173	517
108-05-4	Vinyl acetate	U	517	ug/kg	173	517
75-01-4	Vinyl chloride	U	103	ug/kg	34.5	103
1330-20-7	Xylenes (total)	U	310	ug/kg	103	310
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.5	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.5	103

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M119.D
Acq On : 02 Oct 2017 18:42
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 09:55:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1276971	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	954986	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	546455	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1276971	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	954986	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	546455	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	317644	51.62	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1066993	49.75	ug/L	0.00
63) Bromofluorobenzene	95	14.818	14.817	0.924	481247	49.92	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	103%
45) Toluene-d8	50.000	81 - 120	100%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane	94	5.841	5.852	0.559	189	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.181	7.145	0.687	466	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	753	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2908	Below Cal		95
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	667	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	449	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.193	10.204	0.975	585	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M119.D
Acq On : 02 Oct 2017 18:42
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 03 09:55:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.893	1148	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	410	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene	91	13.715	13.714	1.007	189	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	508	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	420	N.D.	
76) 1,4-Dichlorobenzene	146	16.075	16.074	1.002	643	N.D.	
77) n-Butylbenzene	91	16.359	16.359	1.020	367	Below Cal #	28
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	425	Below Cal	93
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.921	18.908	1.180	1800	Below Cal #	69
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	561	Below Cal #	37
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1047	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M119.D
Acq On : 02 Oct 2017 18:42
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 03 09:55:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

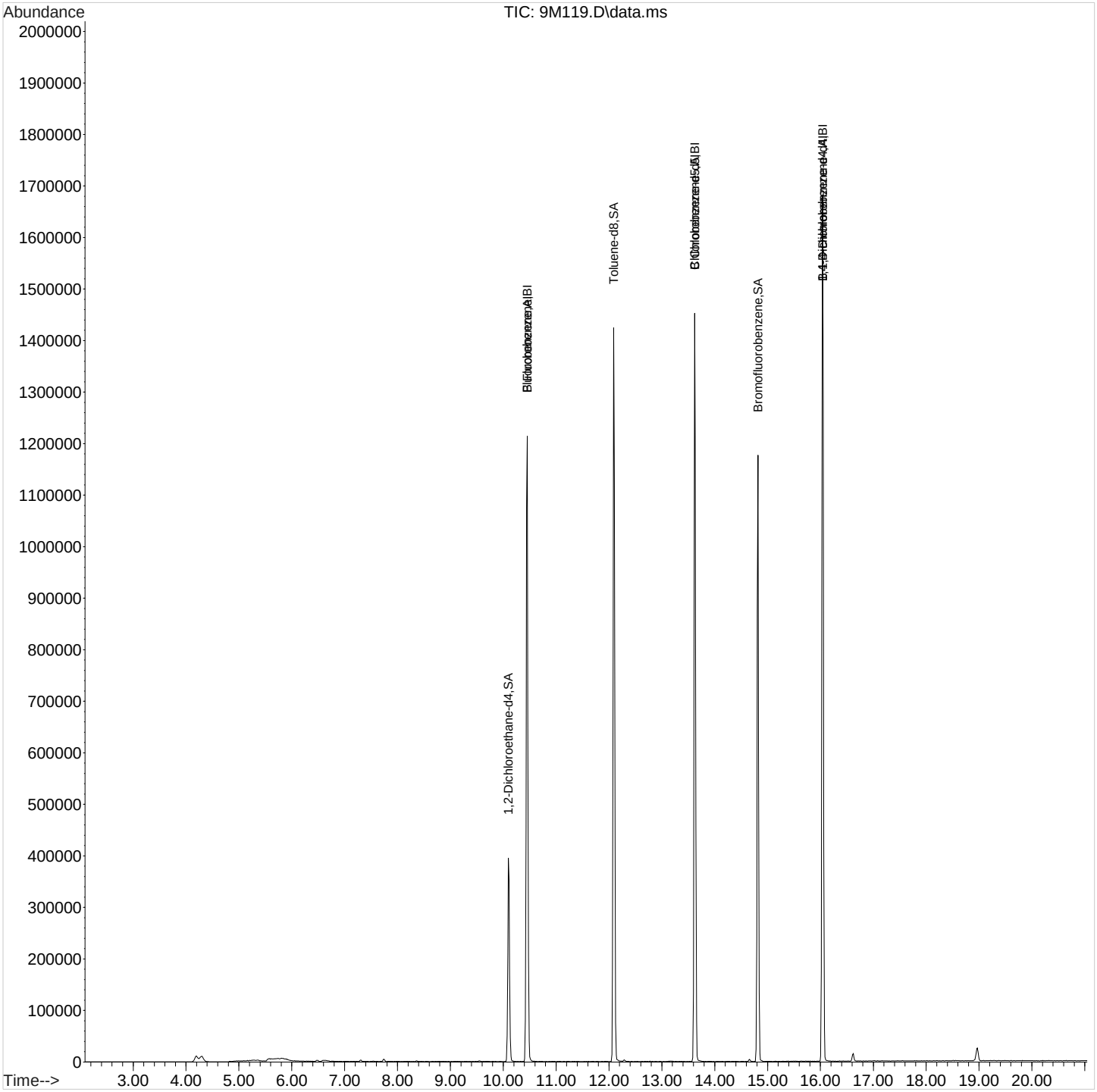
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	449	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1249	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	184	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	712	N.D.	

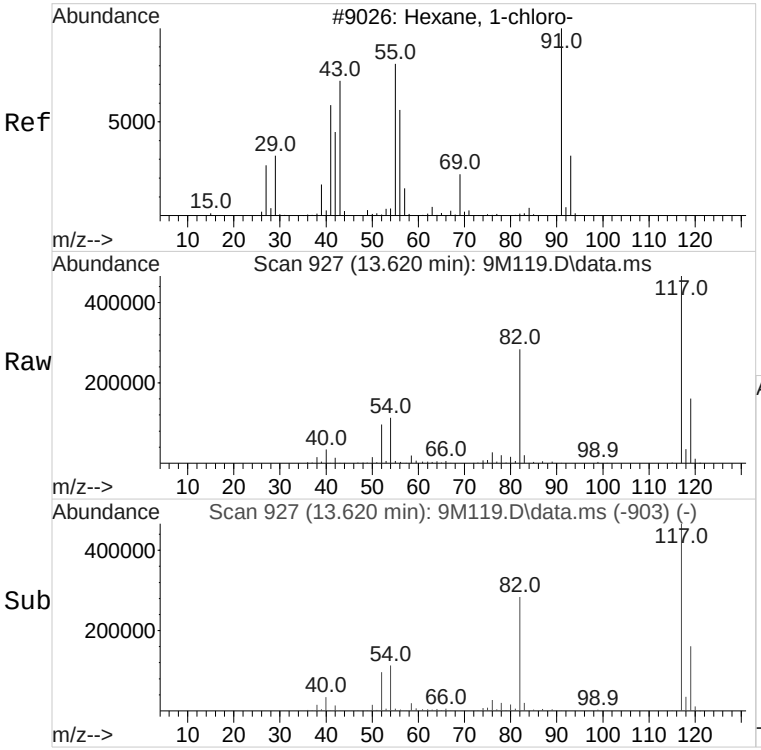
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M119.D
Acq On : 02 Oct 2017 18:42
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 03 09:55:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

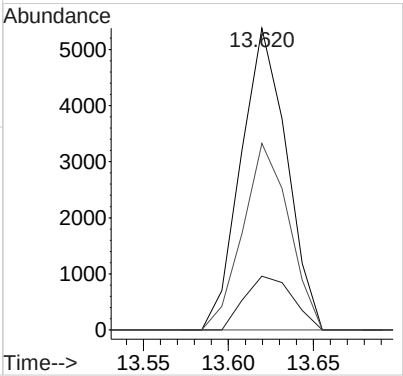




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.51 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M119.D
Acq: 02 Oct 2017 18:42

Tgt Ion: 55 Resp: 10144

Ion	Ratio	Lower	Upper
55	100		
91	18.8	114.6	174.6#
56	62.3	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:08**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718008**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL07RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 15:25**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:05**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M213.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.351	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.351	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.351	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.351	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.351	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.351	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.351	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.351	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.351	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.351	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.351	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.351	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.351	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.351	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.351	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.351	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06

RY 10/10/2017

EM 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M213.D
Acq On : 03 Oct 2017 15:25
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 15:56:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	268389	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	55984	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	15575	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	268389	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	55984	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	15575	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	126678	97.94	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	89570	71.24	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	10504	38.23	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	196%#
45) Toluene-d8	50.000	81 - 120	142%#
63) Bromofluorobenzene	50.000	70 - 130	76%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	8903	Below Cal		85
15) Methylene chloride	84	7.750	7.738	0.741	4081	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.185	9.161	0.879	764	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	657	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M213.D
Acq On : 03 Oct 2017 15:25
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 15:56:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	423	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0m	N.D.	d
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0m	N.D.	d
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene		0.000	18.908	0.000	0m	N.D.	d
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.201	234	Below Cal	# 72
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	654	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M213.D
Acq On : 03 Oct 2017 15:25
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 15:56:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

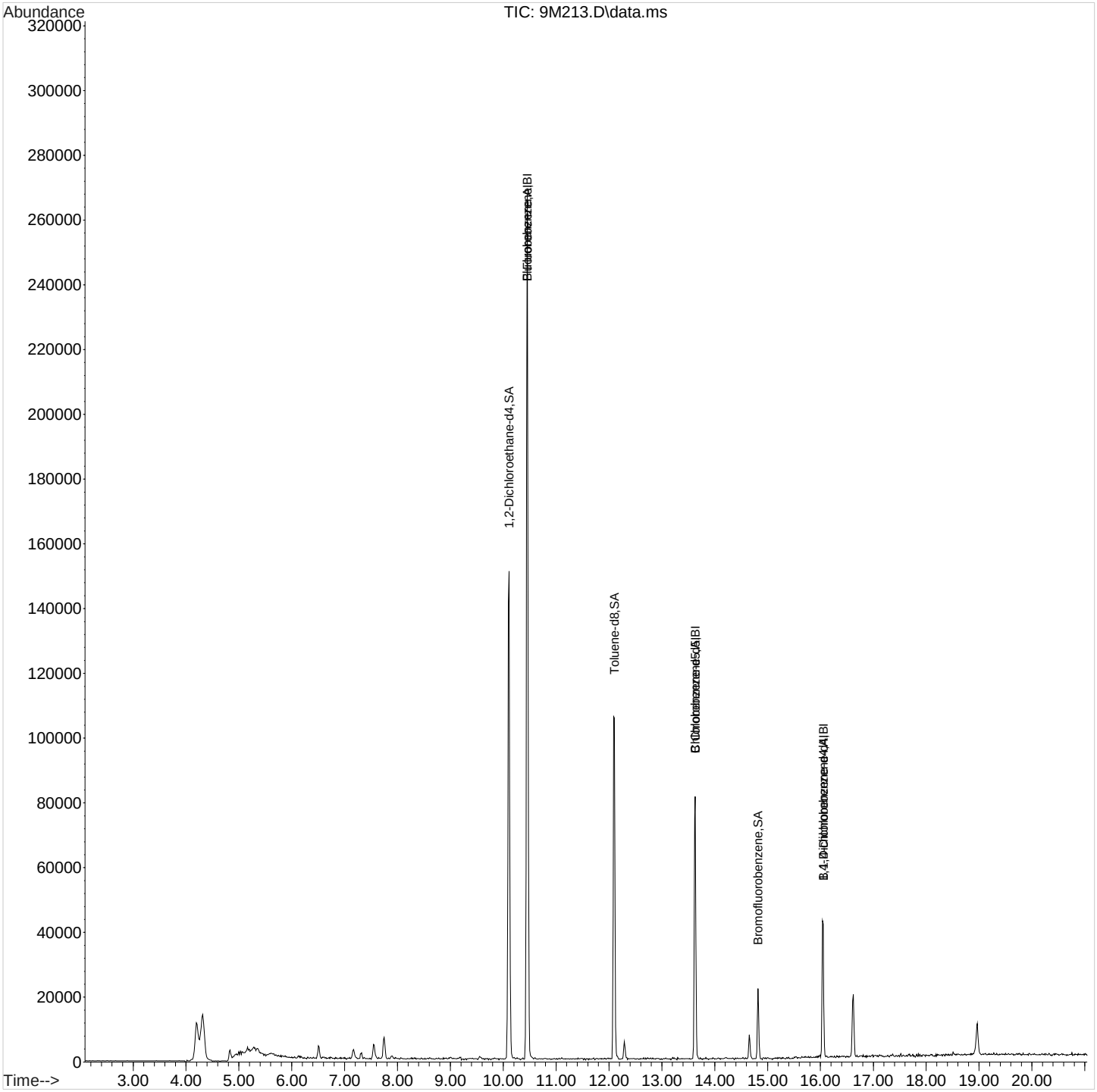
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.185	9.161	0.879	764	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran		0.000	9.540	0.000	0m	N.D.	d
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

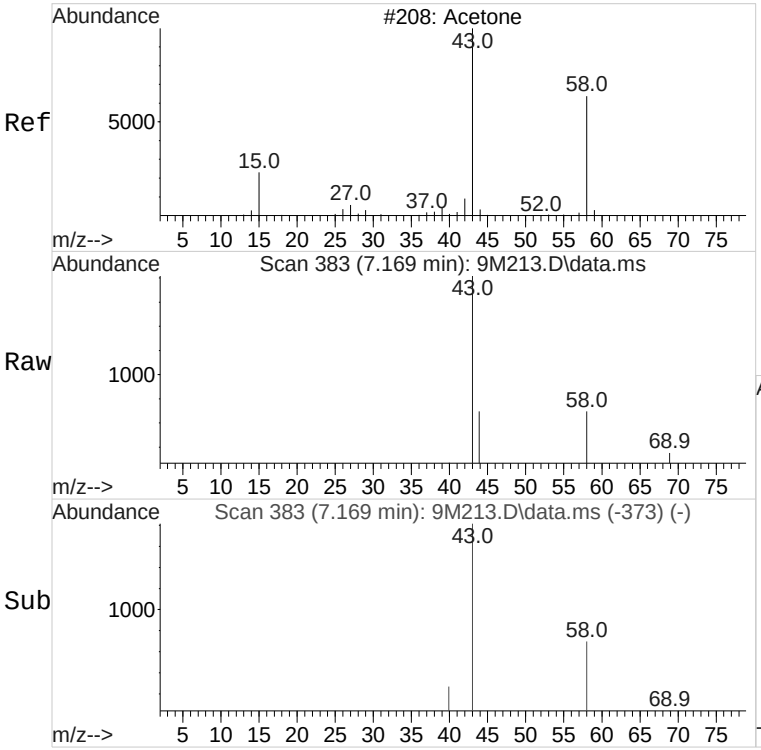
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M213.D
Acq On : 03 Oct 2017 15:25
Operator : RXY1
InstName : VOA9
Sample : |433718008|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 15:56:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

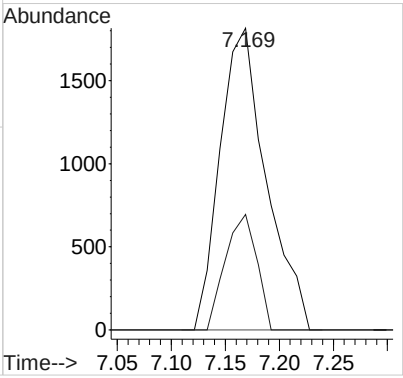


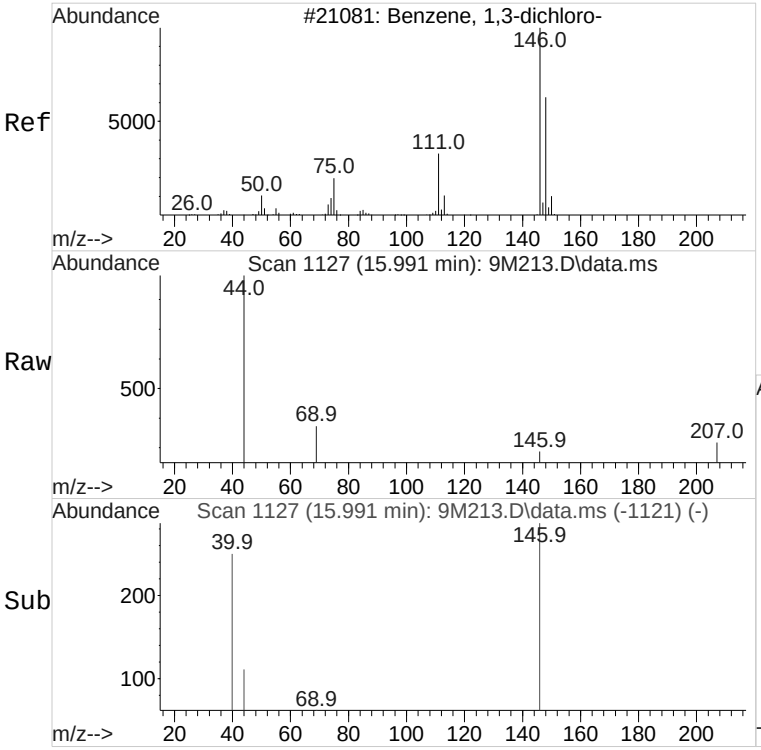


#9 BEFORE analyst DELETION
Acetone
Concen: 6.80 ug/L
RT: 7.169 min Scan# 383
Delta R.T. 0.024 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion: 43 Resp: 5413

Ion	Ratio	Lower	Upper
43	100		
58	26.0	3.0	63.0

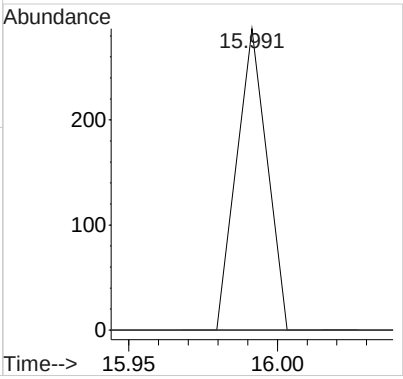


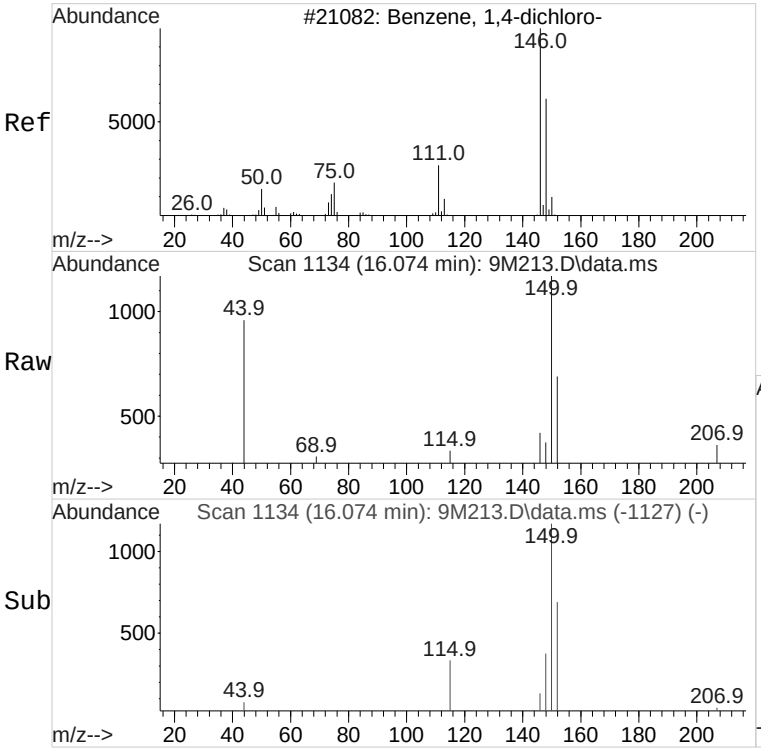


#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.46 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion:146 Resp: 204

Ion	Ratio	Lower	Upper
146	100		
148	0.0	37.5	97.5#
111	0.0	10.0	70.0#

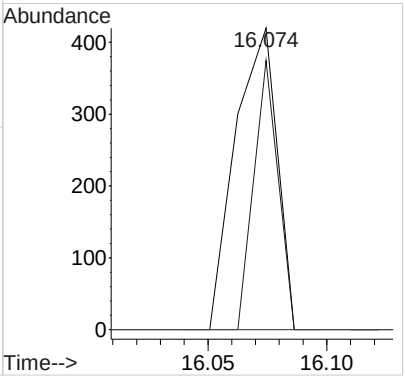


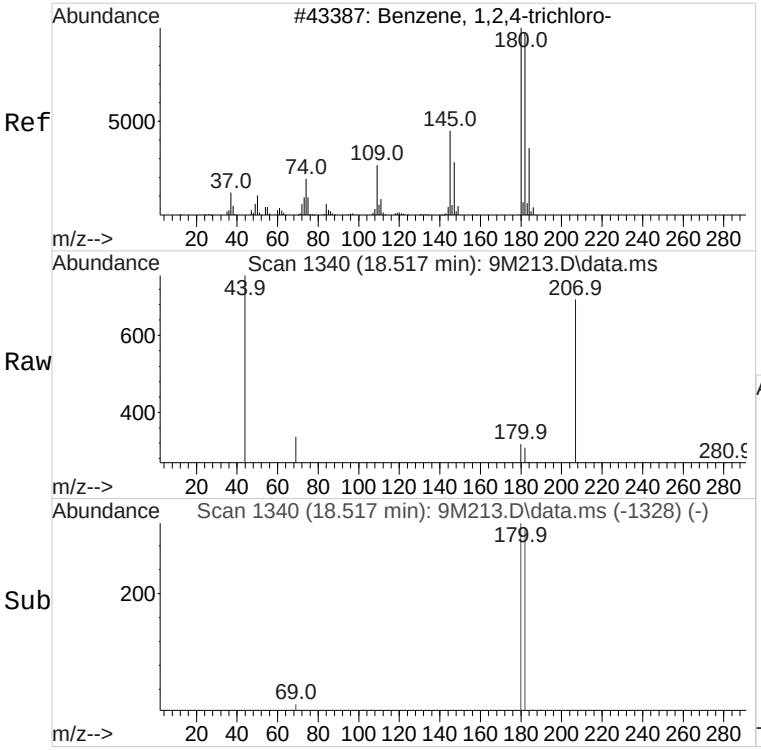


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 1.22 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion:146 Resp: 513

Ion	Ratio	Lower	Upper
146	100		
148	52.0	36.9	96.9
111	0.0	9.0	69.0#

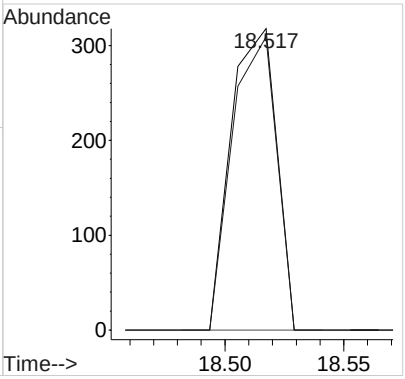


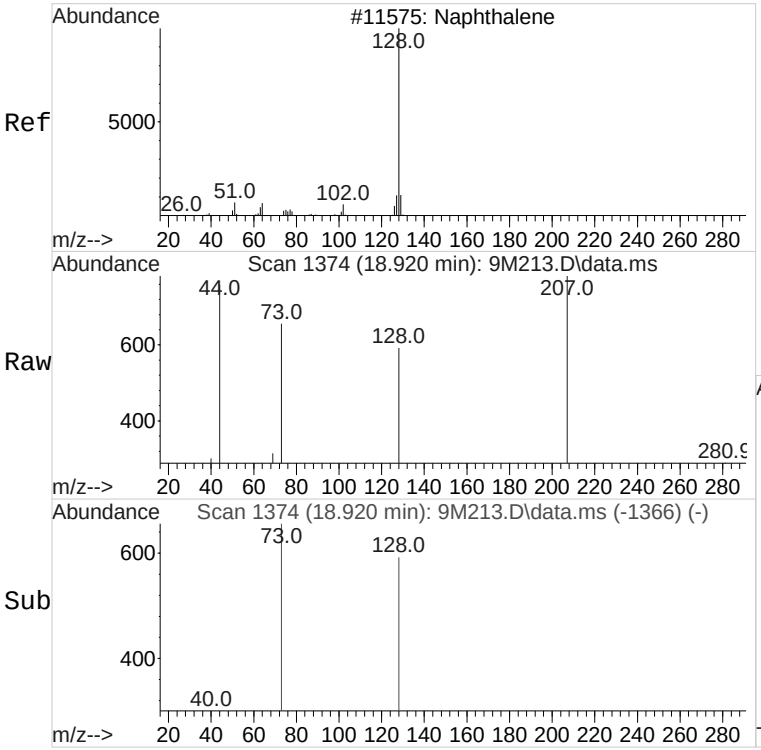


#80 BEFORE analyst DELETION
1,2,4-Trichlorobenzene
Concen: 0.46 ug/L
RT: 18.517 min Scan# 1340
Delta R.T. 0.012 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion:180 Resp: 424

Ion	Ratio	Lower	Upper
180	100		
182	95.0	68.7	128.7

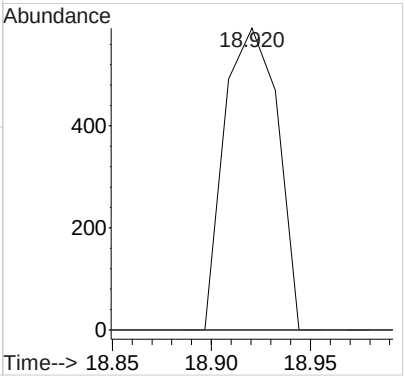


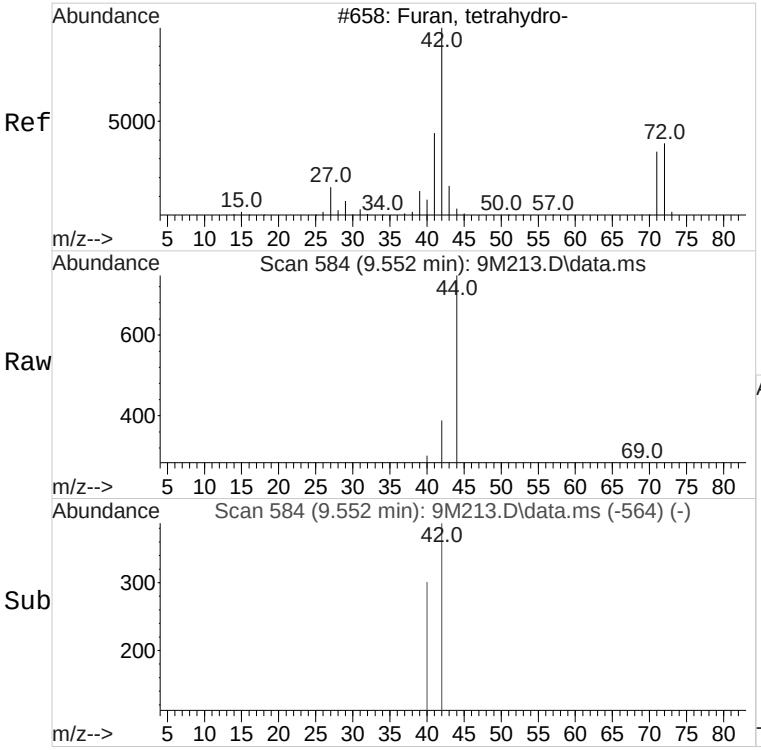


#82 BEFORE analyst DELETION
Naphthalene
Concen: 0.54 ug/L
RT: 18.920 min Scan# 1374
Delta R.T. 0.012 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion:128 Resp: 1106

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.3
129	0.0	0.0	41.5

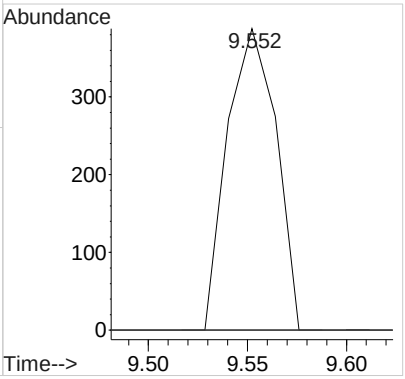


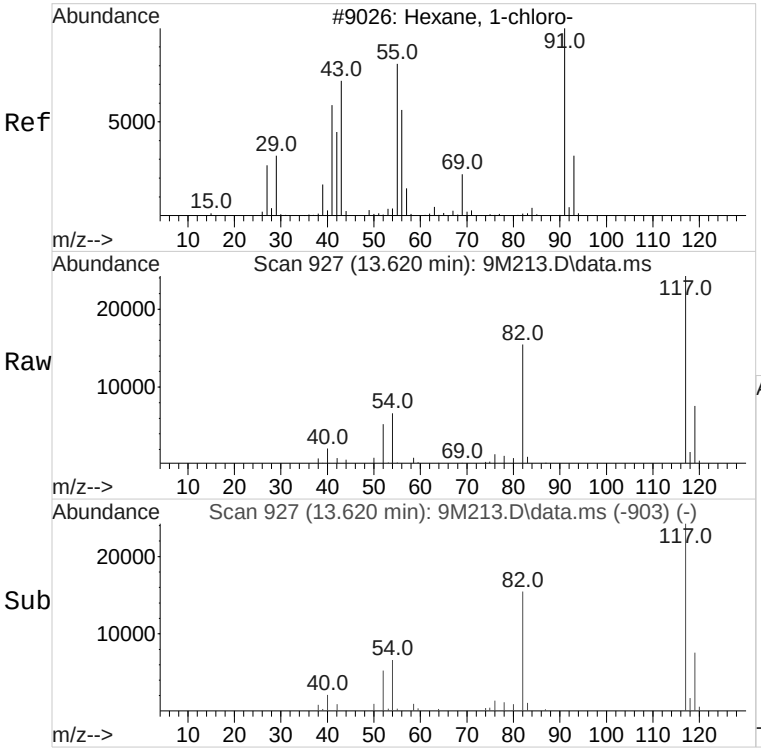


#97 BEFORE analyst DELETION
Tetrahydrofuran
Concen: 1.76 ug/L
RT: 9.552 min Scan# 584
Delta R.T. 0.012 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion: 42 Resp: 665

Ion	Ratio	Lower	Upper
42	100		
72	0.0	12.3	72.3#
71	0.0	10.2	70.2#

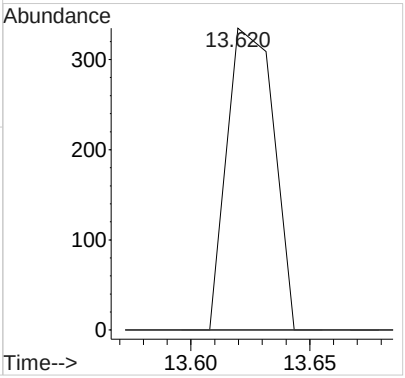


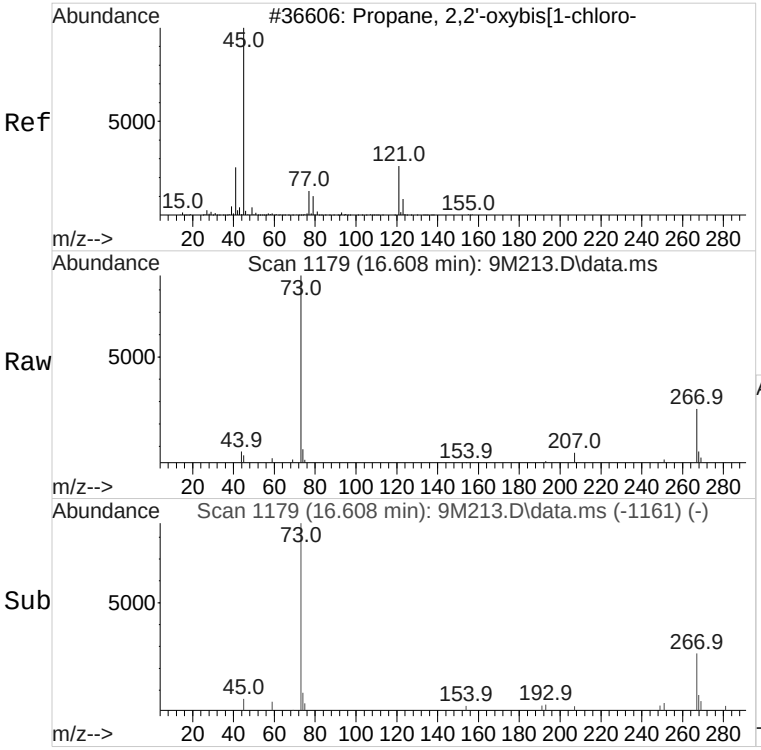


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.39 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion: 55 Resp: 458

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	0.0	31.6	91.6#

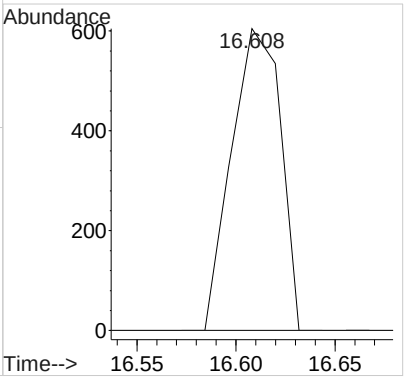




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 9.95 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M213.D
Acq: 03 Oct 2017 15:25

Tgt Ion: 45 Resp: 1044

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:02**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718009**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL09**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 19:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:12**	**Aliquot:**	**5.2 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M120.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	103	ug/kg	34.3	103
79-34-5	1,1,2,2-Tetrachloroethane	U	103	ug/kg	34.3	103
79-00-5	1,1,2-Trichloroethane	U	103	ug/kg	34.3	103
75-34-3	1,1-Dichloroethane	U	103	ug/kg	34.3	103
75-35-4	1,1-Dichloroethylene	U	103	ug/kg	34.3	103
107-06-2	1,2-Dichloroethane	U	103	ug/kg	34.3	103
78-93-3	2-Butanone	U	515	ug/kg	172	515
591-78-6	2-Hexanone	U	515	ug/kg	172	515
108-10-1	4-Methyl-2-pentanone	U	515	ug/kg	172	515
67-64-1	Acetone	U	515	ug/kg	172	515
71-43-2	Benzene	U	103	ug/kg	34.3	103
75-15-0	Carbon disulfide	U	515	ug/kg	172	515
56-23-5	Carbon tetrachloride	U	103	ug/kg	34.3	103
108-90-7	Chlorobenzene	U	103	ug/kg	34.3	103
75-00-3	Chloroethane	U	103	ug/kg	34.3	103
67-66-3	Chloroform	U	103	ug/kg	34.3	103
74-87-3	Chloromethane	U	103	ug/kg	34.3	103
100-41-4	Ethylbenzene	U	103	ug/kg	34.3	103
75-09-2	Methylene chloride	U	515	ug/kg	172	515
100-42-5	Styrene	U	103	ug/kg	34.3	103
127-18-4	Tetrachloroethylene	U	103	ug/kg	34.3	103
108-88-3	Toluene	U	103	ug/kg	34.3	103
79-01-6	Trichloroethylene	U	103	ug/kg	34.3	103
76-13-1	Trichlorotrifluoroethane	U	515	ug/kg	172	515
108-05-4	Vinyl acetate	U	515	ug/kg	172	515
75-01-4	Vinyl chloride	U	103	ug/kg	34.3	103
1330-20-7	Xylenes (total)	U	309	ug/kg	103	309
156-59-2	cis-1,2-Dichloroethylene	U	103	ug/kg	34.3	103
156-60-5	trans-1,2-Dichloroethylene	U	103	ug/kg	34.3	103

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M120.D
Acq On : 02 Oct 2017 19:10
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1278105	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	967932	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	537207	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1278105	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	967932	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	537207	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	312460	50.73	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1081368	49.74	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	477369	50.37	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	627	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane	142	7.406	7.418	0.708	406	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	838	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2766	Below Cal		91
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	679	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.185	9.161	0.879	212	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	395	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M120.D
Acq On : 02 Oct 2017 19:10
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.894	879	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.003	408	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene	104	14.272	14.260	1.048	189	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.304	15.292	0.954	446	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	230	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	470	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	804	N.D.		
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	221	Below Cal	#	8
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82)	Naphthalene	128	18.920	18.908	1.180	1773	Below Cal	#	69
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	372	Below Cal	#	55
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.299	7.228	0.698	898	N.D.		
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.		
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M120.D
Acq On : 02 Oct 2017 19:10
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

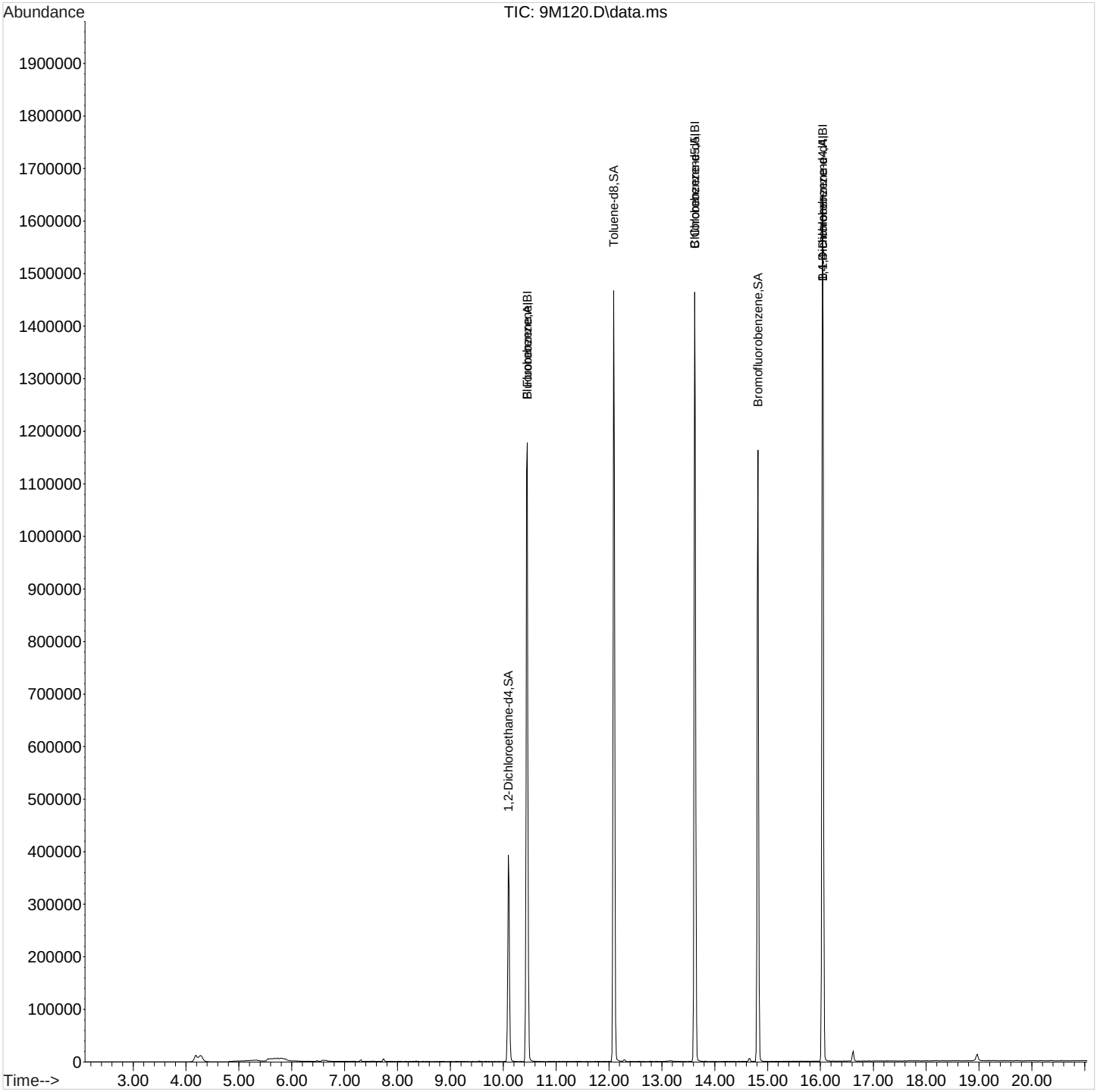
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.185	9.161	0.879	212	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1153	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.070	11.047	1.059	862	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.244	12.304	0.899	156	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	223	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.620	16.584	1.036	827	N.D.	

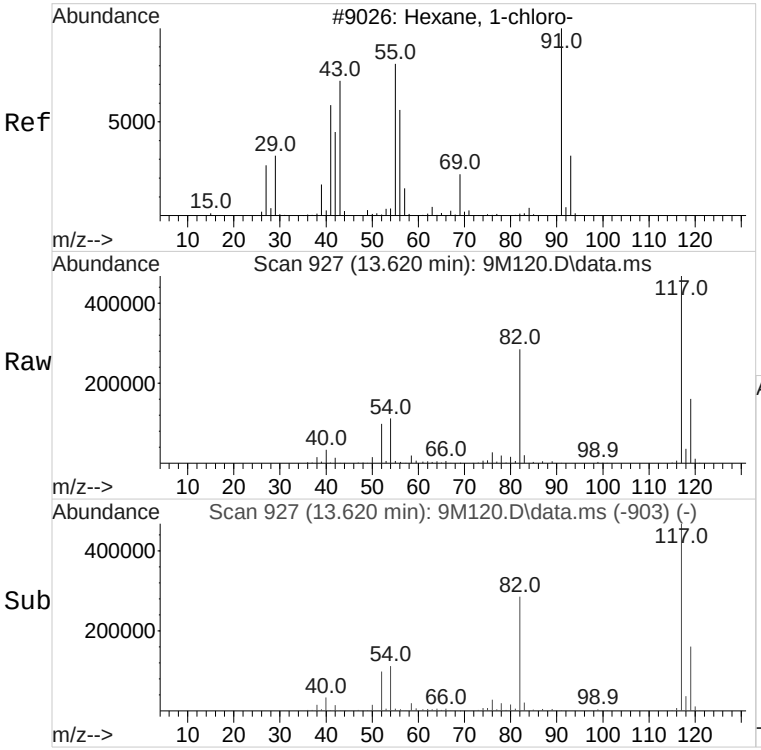
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M120.D
Acq On : 02 Oct 2017 19:10
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 03 09:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

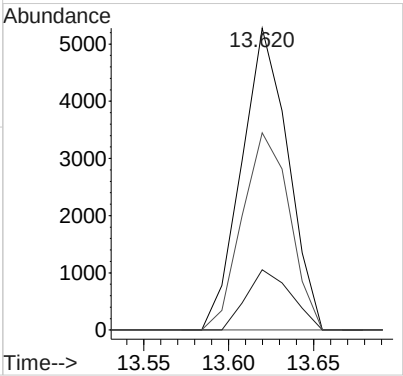




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.53 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M120.D
Acq: 02 Oct 2017 19:10

Tgt Ion: 55 Resp: 10105

Ion	Ratio	Lower	Upper
55	100		
91	19.2	114.6	174.6#
56	66.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 11:02**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718009**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL09RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 15:54**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:06**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M214.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.356	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.356	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.356	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.356	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.356	1.07
78-93-3	2-Butanone	U	5.35	ug/kg	1.78	5.35
591-78-6	2-Hexanone	U	5.35	ug/kg	1.78	5.35
108-10-1	4-Methyl-2-pentanone	U	5.35	ug/kg	1.78	5.35
67-64-1	Acetone	U	5.35	ug/kg	1.78	5.35
71-43-2	Benzene	U	1.07	ug/kg	0.356	1.07
75-15-0	Carbon disulfide	U	5.35	ug/kg	1.78	5.35
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.356	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.356	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.356	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.356	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.356	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.356	1.07
75-09-2	Methylene chloride	U	5.35	ug/kg	1.78	5.35
100-42-5	Styrene	U	1.07	ug/kg	0.356	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.356	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.356	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.356	1.07
76-13-1	Trichlorotrifluoroethane	U	5.35	ug/kg	1.78	5.35
108-05-4	Vinyl acetate	U	5.35	ug/kg	1.78	5.35
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.356	1.07
1330-20-7	Xylenes (total)	U	3.21	ug/kg	1.07	3.21
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M214.D
Acq On : 03 Oct 2017 15:54
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 16:15:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	613607	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	158756	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	32400	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	613607	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	158756	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	32400	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	205767	69.58	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	257771	72.30	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	25677	44.93	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	139%#
45) Toluene-d8	50.000	81 - 120	145%#
63) Bromofluorobenzene	50.000	70 - 130	90%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	1724	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	7513	Below Cal		79
15) Methylene chloride	84	7.750	7.738	0.741	2709	Below Cal		91
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	366	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.185	9.161	0.879	222	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	379	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M214.D
Acq On : 03 Oct 2017 15:54
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 16:15:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.893	420	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.667	13.655	1.003	193	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene		0.000	14.260	0.000	0	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.304	15.292	0.953	214	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.996	202	N.D.		
76)	1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d	
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.153	216	Below Cal		96
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82)	Naphthalene	128	18.920	18.908	1.179	877	Below Cal	#	69
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.		
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	506	N.D.		
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.		
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M214.D
Acq On : 03 Oct 2017 15:54
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 16:15:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

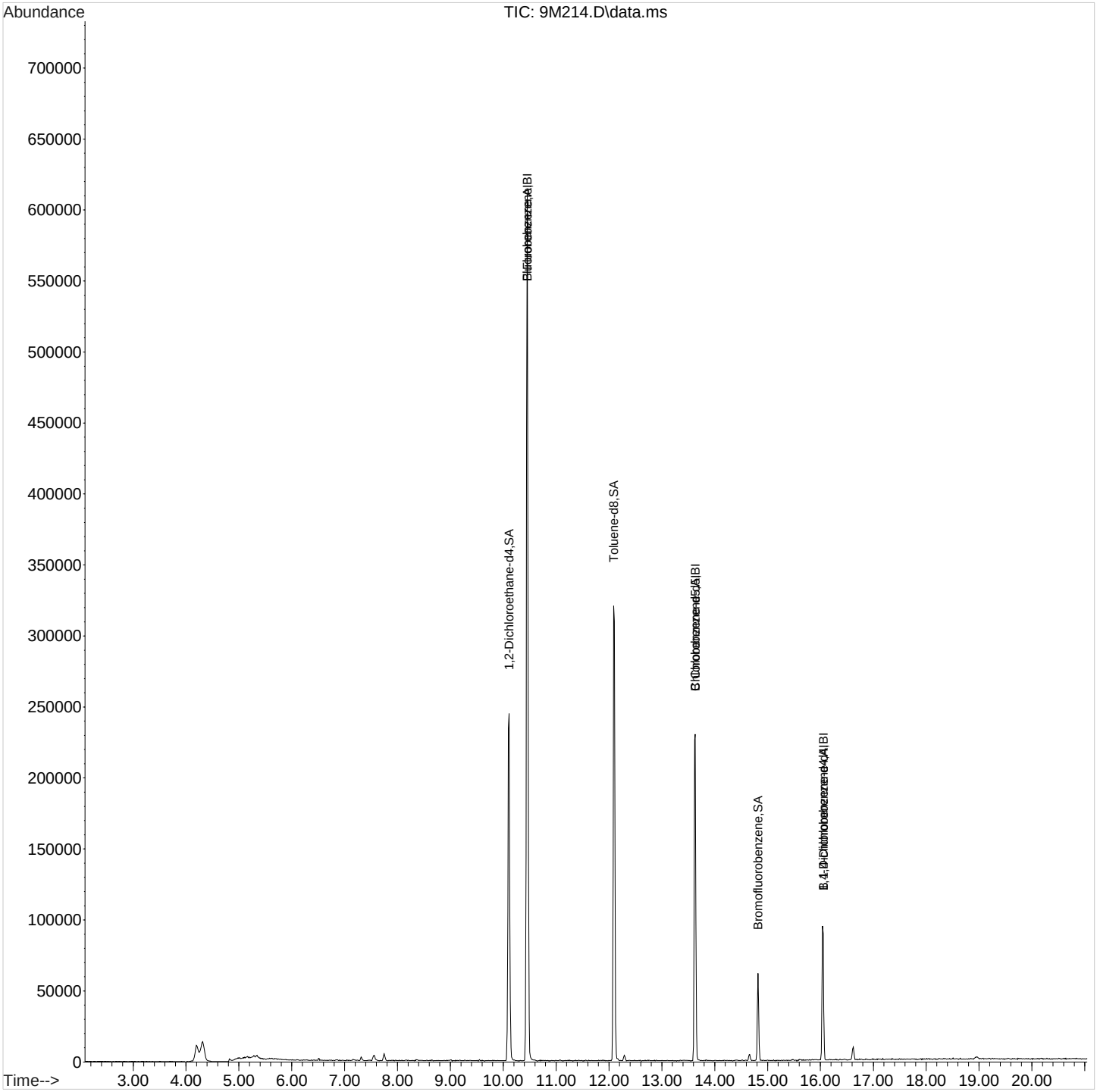
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.185	9.161	0.879	222	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	484	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.209	12.304	0.896	349	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

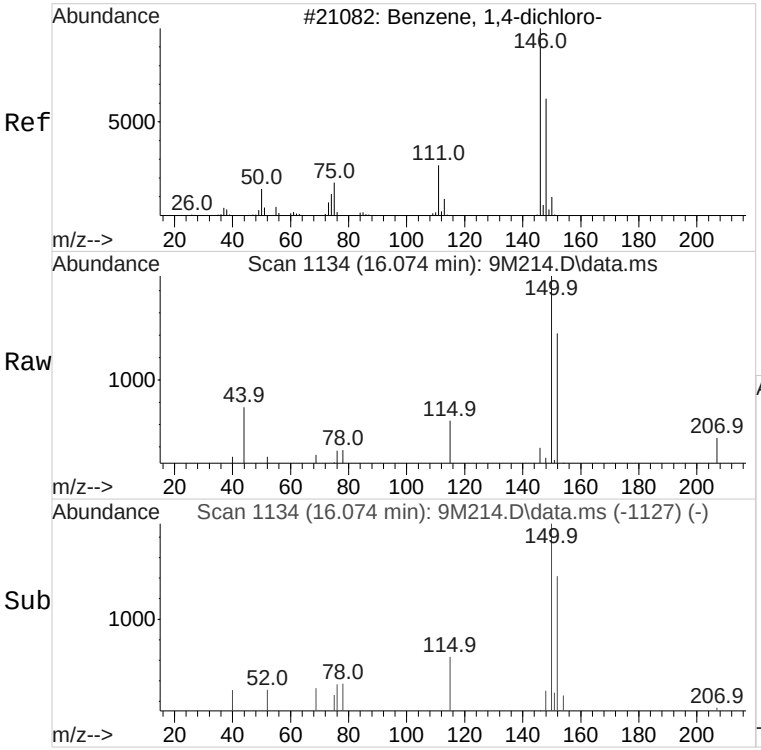
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M214.D
Acq On : 03 Oct 2017 15:54
Operator : RXY1
InstName : VOA9
Sample : |433718009|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 03 16:15:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

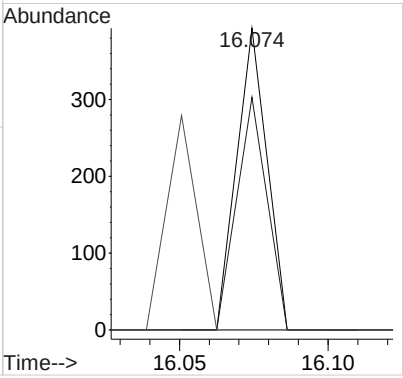


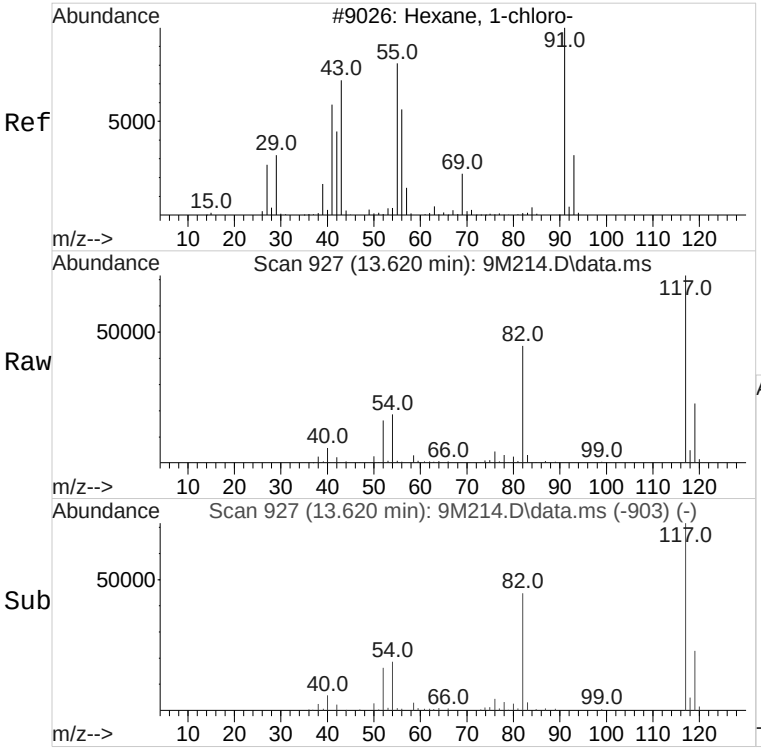


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.32 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M214.D
Acq: 03 Oct 2017 15:54

Tgt Ion:146 Resp: 280

Ion	Ratio	Lower	Upper
146	100		
148	77.1	36.9	96.9
111	71.1	9.0	69.0#

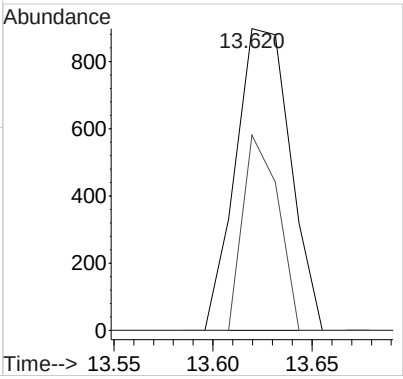


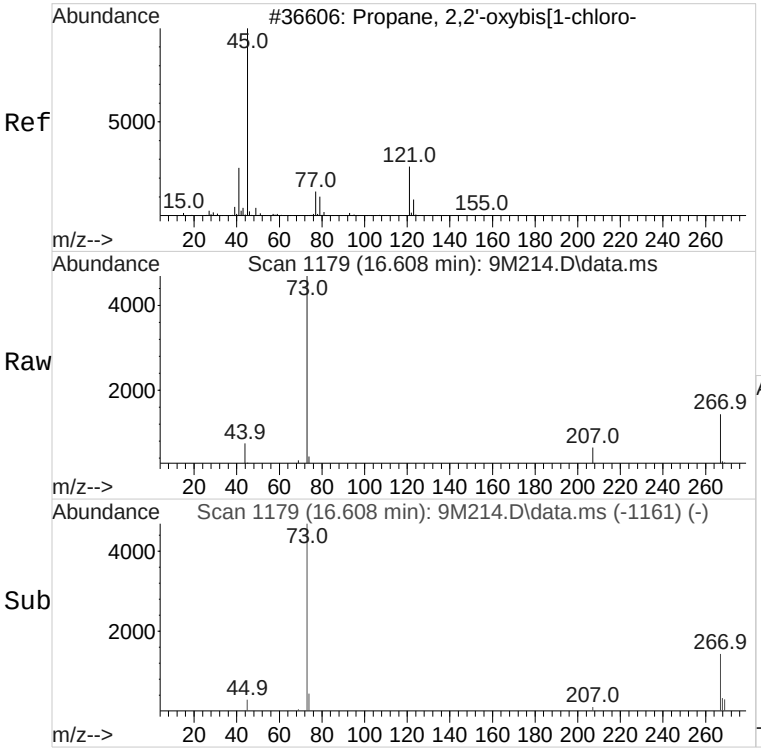


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 4.33 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M214.D
Acq: 03 Oct 2017 15:54

Tgt Ion: 55 Resp: 1728

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	42.1	31.6	91.6

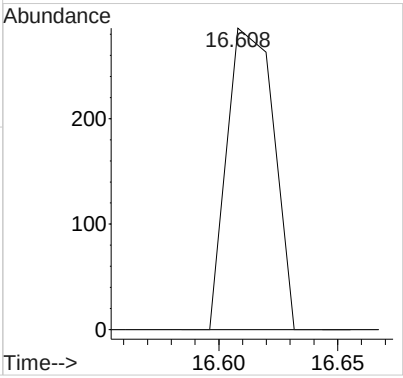




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.79 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M214.D
Acq: 03 Oct 2017 15:54

Tgt Ion: 45 Resp: 391

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718010**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL11**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 19:37**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:13**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M121.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	35.9	108
78-93-3	2-Butanone	U	539	ug/kg	180	539
591-78-6	2-Hexanone	U	539	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone	U	539	ug/kg	180	539
67-64-1	Acetone	U	539	ug/kg	180	539
71-43-2	Benzene	U	108	ug/kg	35.9	108
75-15-0	Carbon disulfide	U	539	ug/kg	180	539
56-23-5	Carbon tetrachloride	U	108	ug/kg	35.9	108
108-90-7	Chlorobenzene	U	108	ug/kg	35.9	108
75-00-3	Chloroethane	U	108	ug/kg	35.9	108
67-66-3	Chloroform	U	108	ug/kg	35.9	108
74-87-3	Chloromethane	U	108	ug/kg	35.9	108
100-41-4	Ethylbenzene	U	108	ug/kg	35.9	108
75-09-2	Methylene chloride	U	539	ug/kg	180	539
100-42-5	Styrene	U	108	ug/kg	35.9	108
127-18-4	Tetrachloroethylene	U	108	ug/kg	35.9	108
108-88-3	Toluene	U	108	ug/kg	35.9	108
79-01-6	Trichloroethylene	U	108	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate	U	539	ug/kg	180	539
75-01-4	Vinyl chloride	U	108	ug/kg	35.9	108
1330-20-7	Xylenes (total)	U	323	ug/kg	108	323
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	35.9	108

RY
10/04/2017

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10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M121.D
Acq On : 02 Oct 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:55:22 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1257025	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	933569	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	531351	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1257025	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	933569	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	531351	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	308992	51.01	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1042517	49.72	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	464781	49.59	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	231	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane	142	7.418	7.418	0.710	197	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	469	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3222	Below Cal		92
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	410	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	257	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	228	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M121.D
Acq On : 02 Oct 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:55:22 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.173	12.173	0.894	567	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.		
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene	112	13.655	13.655	1.003	221	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.714	13.714	1.007	198	N.D.		
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene		0.000	14.260	0.000	0	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene	91	15.304	15.292	0.954	452	N.D.		
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.		
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	397	N.D.		
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	544	N.D.		
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	497	Below Cal		77
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82) Naphthalene	128	18.920	18.908	1.180	1624	Below Cal	#	69
83) 1,2,3-Trichlorobenzene	180	19.288	19.276	1.203	203	Below Cal	#	11
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.311	7.228	0.699	946	N.D.		
88) Allyl chloride		0.000	7.596	0.000	0	N.D.		
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M121.D
Acq On : 02 Oct 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:55:22 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

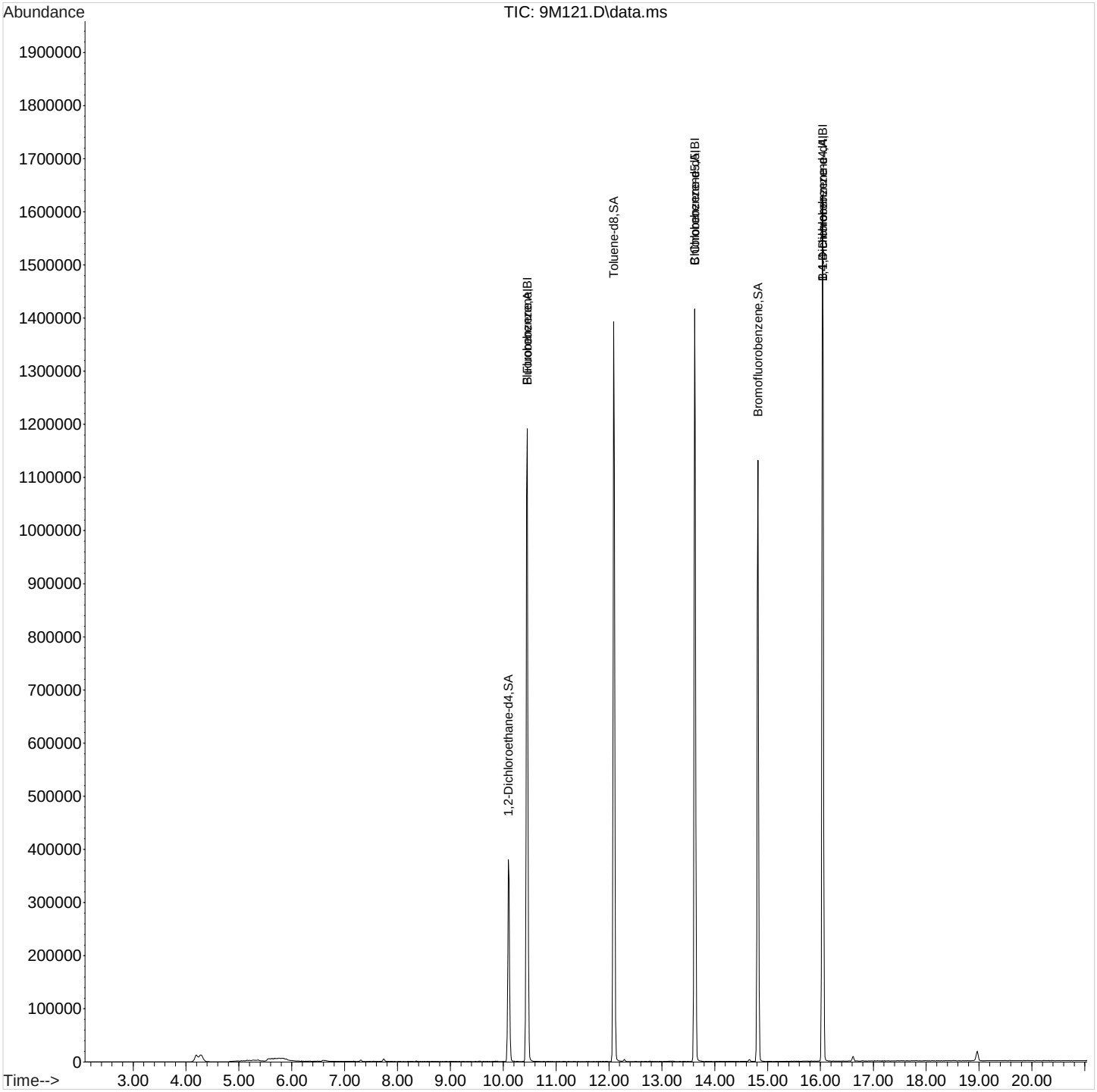
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.173	9.161	0.877	257	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.540	9.540	0.913	862	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.051	16.193	1.001	1286	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	240	N.D.	

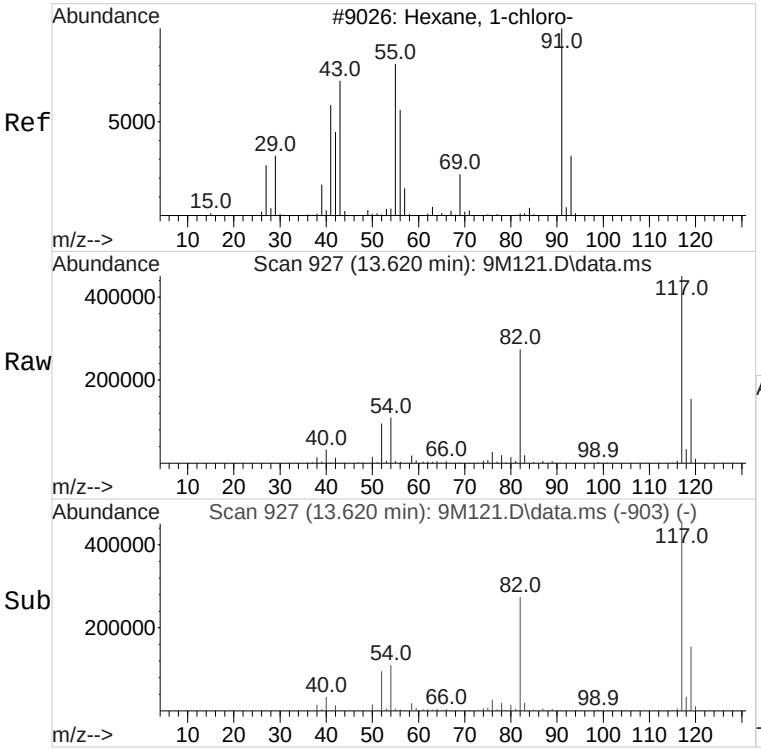
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M121.D
Acq On : 02 Oct 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 03 09:55:22 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

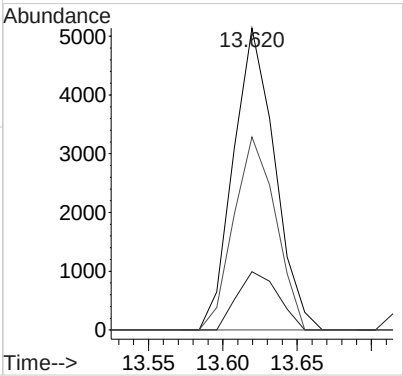




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.53 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M121.D
Acq: 02 Oct 2017 19:37

Tgt Ion: 55 Resp: 9988

Ion	Ratio	Lower	Upper
55	100		
91	19.2	114.6	174.6#
56	64.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718010**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL11RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 16:23**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:07**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M215.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride	U	5.39	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.23	ug/kg	1.08	3.23
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M215.D
Acq On : 03 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 10 12:50:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	653610	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	185998	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	37060	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	653610	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	185998	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	37060	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	211698	67.21	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	316501	75.77	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	33250	50.86	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	134%#
45) Toluene-d8	50.000	81 - 120	152%#
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	3992	Below Cal		81
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	6974	Below Cal		78
15) Methylene chloride	84	7.750	7.738	0.741	2619	Below Cal		94
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	488	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	436	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M215.D
Acq On : 03 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 10 12:50:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	423	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.002	184	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.953	198	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	222	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.179	754	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	660	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M215.D
Acq On : 03 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 10 12:50:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

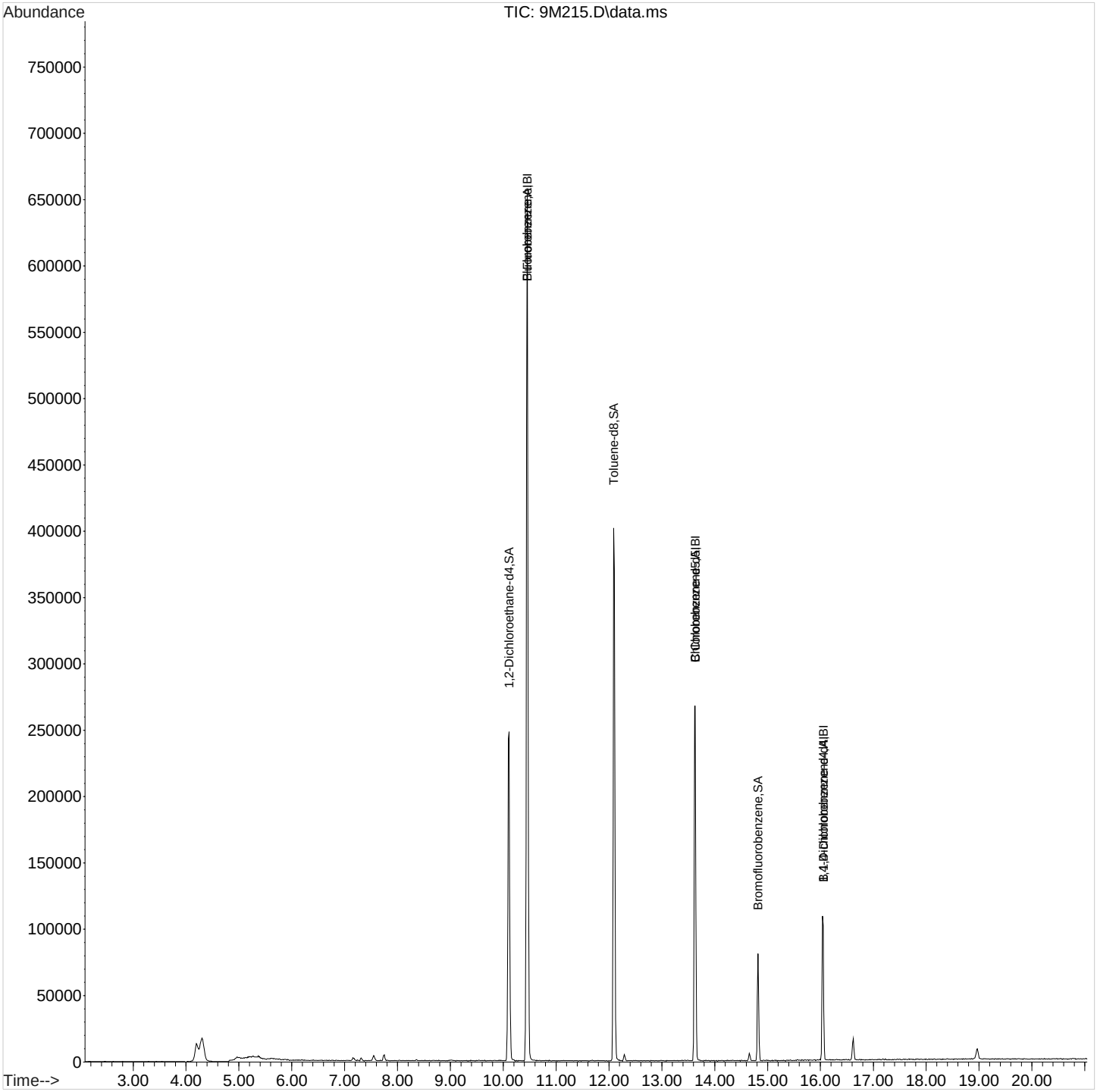
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	402	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

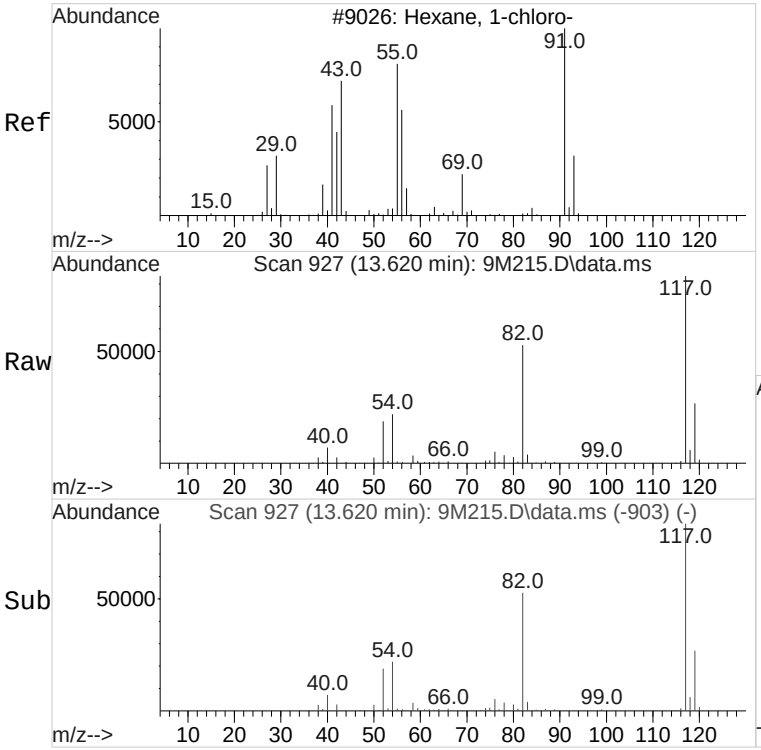
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M215.D
Acq On : 03 Oct 2017 16:23
Operator : RXY1
InstName : VOA9
Sample : |433718010|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 10 12:50:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

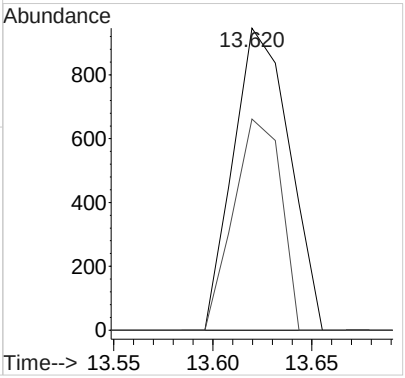


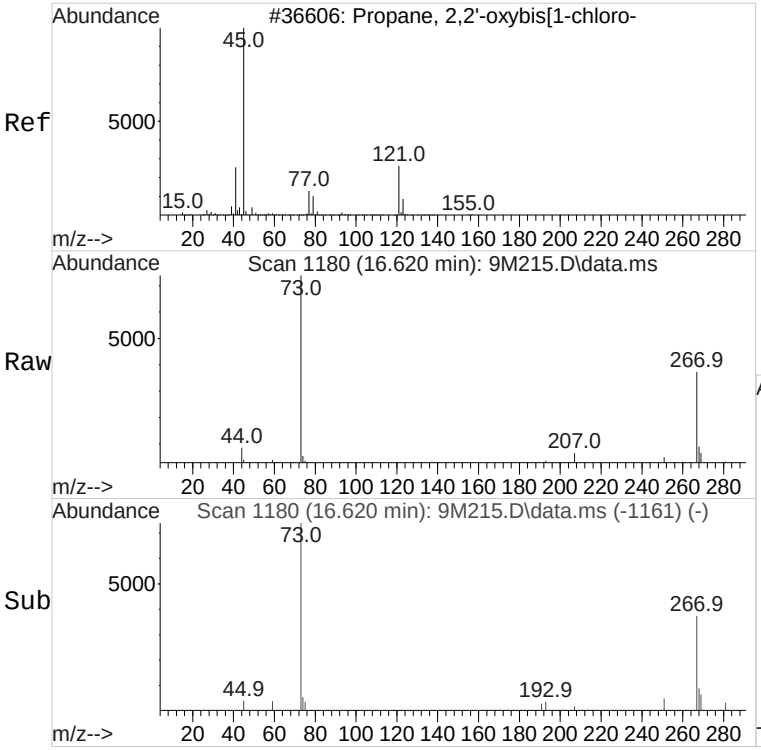


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 4.10 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M215.D
Acq: 03 Oct 2017 16:23

Tgt Ion: 55 Resp: 1871

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	59.3	31.6	91.6

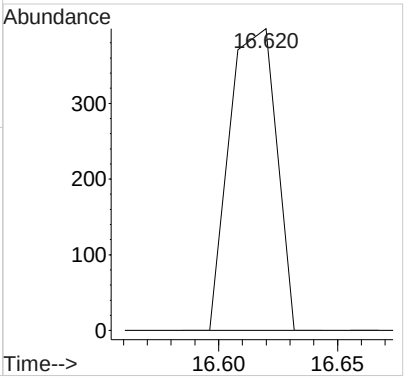




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.19 ug/L
RT: 16.620 min Scan# 1180
Delta R.T. 0.036 min
Lab File: 9M215.D
Acq: 03 Oct 2017 16:23

Tgt Ion: 45 Resp: 548

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:09**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718011**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**4.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL12**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 20:05**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:14**	**Aliquot:**	**5.2 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M122.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	101	ug/kg	33.7	101
79-34-5	1,1,2,2-Tetrachloroethane	U	101	ug/kg	33.7	101
79-00-5	1,1,2-Trichloroethane	U	101	ug/kg	33.7	101
75-34-3	1,1-Dichloroethane	U	101	ug/kg	33.7	101
75-35-4	1,1-Dichloroethylene	U	101	ug/kg	33.7	101
107-06-2	1,2-Dichloroethane	U	101	ug/kg	33.7	101
78-93-3	2-Butanone	U	506	ug/kg	169	506
591-78-6	2-Hexanone	U	506	ug/kg	169	506
108-10-1	4-Methyl-2-pentanone	U	506	ug/kg	169	506
67-64-1	Acetone	U	506	ug/kg	169	506
71-43-2	Benzene	U	101	ug/kg	33.7	101
75-15-0	Carbon disulfide	U	506	ug/kg	169	506
56-23-5	Carbon tetrachloride	U	101	ug/kg	33.7	101
108-90-7	Chlorobenzene	U	101	ug/kg	33.7	101
75-00-3	Chloroethane	U	101	ug/kg	33.7	101
67-66-3	Chloroform	U	101	ug/kg	33.7	101
74-87-3	Chloromethane	U	101	ug/kg	33.7	101
100-41-4	Ethylbenzene	U	101	ug/kg	33.7	101
75-09-2	Methylene chloride	U	506	ug/kg	169	506
100-42-5	Styrene	U	101	ug/kg	33.7	101
127-18-4	Tetrachloroethylene	U	101	ug/kg	33.7	101
108-88-3	Toluene	U	101	ug/kg	33.7	101
79-01-6	Trichloroethylene	U	101	ug/kg	33.7	101
76-13-1	Trichlorotrifluoroethane	U	506	ug/kg	169	506
108-05-4	Vinyl acetate	U	506	ug/kg	169	506
75-01-4	Vinyl chloride	U	101	ug/kg	33.7	101
1330-20-7	Xylenes (total)	U	303	ug/kg	101	303
156-59-2	cis-1,2-Dichloroethylene	U	101	ug/kg	33.7	101
156-60-5	trans-1,2-Dichloroethylene	U	101	ug/kg	33.7	101

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M122.D
Acq On : 02 Oct 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:55:25 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1253988	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	924896	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	524779	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1253988	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	924896	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	524779	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	308620	51.07	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1034755	49.81	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	460908	49.79	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	100%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	850	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	211	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	2448	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3282	Below Cal		95
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	651	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.193	10.204	0.975	385	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M122.D
Acq On : 02 Oct 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:55:25 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.	
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46)	Toluene	91	12.173	12.173	0.894	692	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54)	Chlorobenzene	112	13.655	13.655	1.003	203	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56)	Ethylbenzene	91	13.715	13.714	1.007	487	N.D.	
57)	m,p-Xylenes	106	13.821	13.821	1.015	414	N.D.	
58)	o-Xylene		0.000	14.260	0.000	0	N.D.	
59)	Styrene		0.000	14.260	0.000	0	N.D.	
61)	Bromoform		0.000	14.533	0.000	0	N.D.	
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.	
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70)	4-Chlorotoluene	91	15.304	15.292	0.954	460	N.D.	
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75)	1,3-Dichlorobenzene	146	15.980	15.991	0.996	380	N.D.	
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	552	N.D.	
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	191	Below Cal	# 1
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82)	Naphthalene	128	18.921	18.908	1.180	1730	Below Cal	# 69
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85)	Acrolein		0.000	6.979	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	7.299	7.228	0.698	785	N.D.	
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M122.D
Acq On : 02 Oct 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:55:25 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

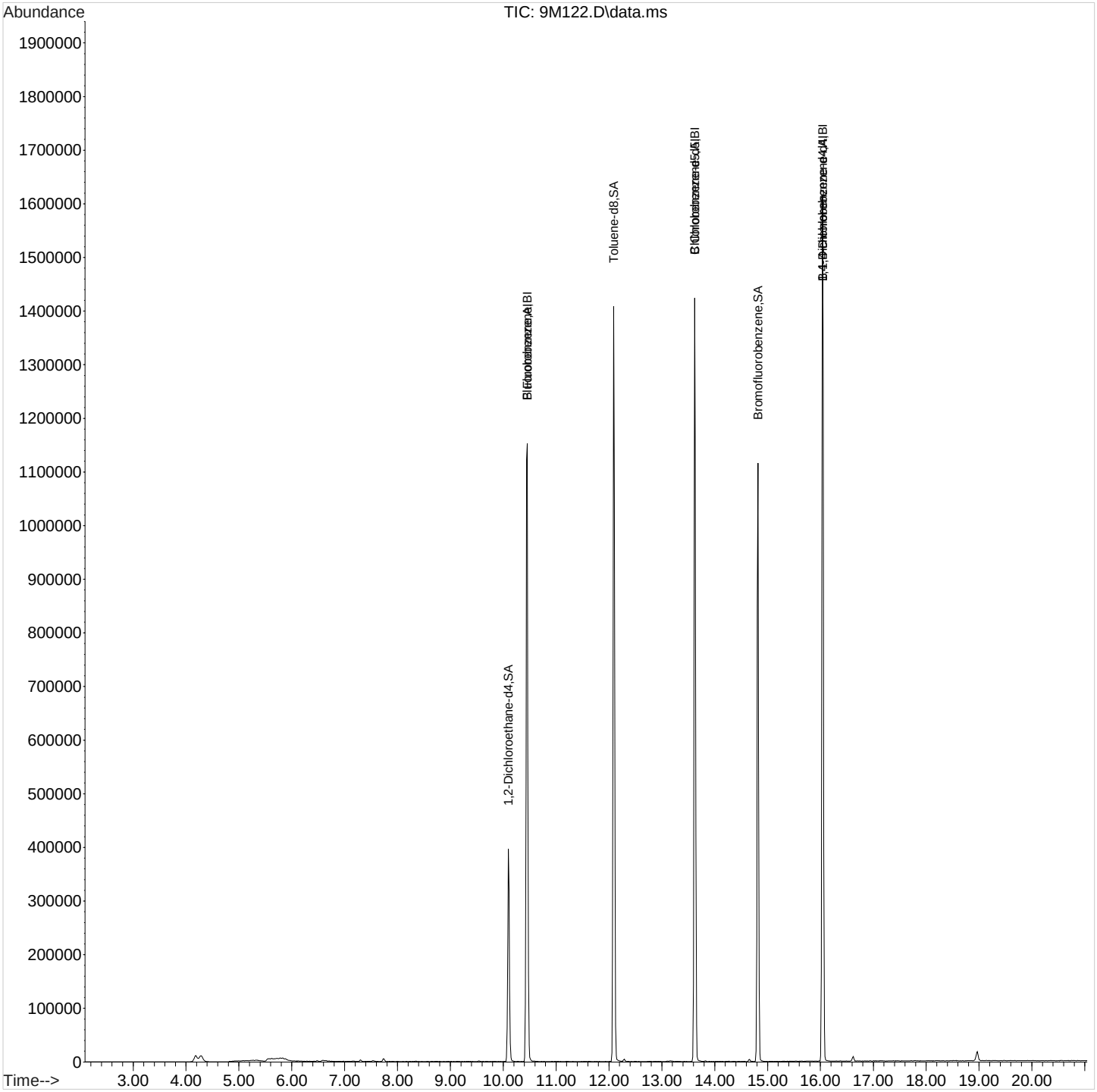
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	1205	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.315	12.304	0.904	259	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.039	16.193	1.000	1208	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.620	16.584	1.036	180	N.D.	

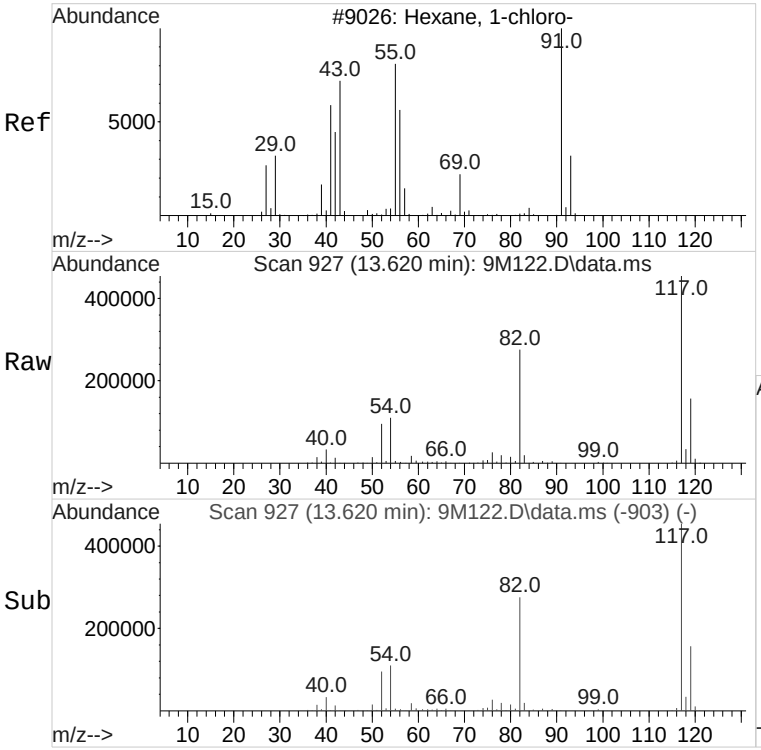
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M122.D
Acq On : 02 Oct 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 03 09:55:25 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

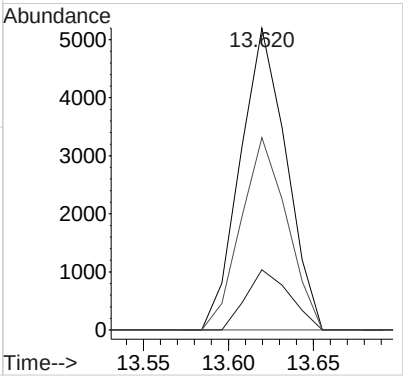




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.53 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M122.D
Acq: 02 Oct 2017 20:05

Tgt Ion: 55 Resp: 9865

Ion	Ratio	Lower	Upper
55	100		
91	18.9	114.6	174.6#
56	63.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:09**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718011**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**4.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SOL12RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 16:51**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:08**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M216.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.05	ug/kg	0.350	1.05
79-34-5	1,1,2,2-Tetrachloroethane	U	1.05	ug/kg	0.350	1.05
79-00-5	1,1,2-Trichloroethane	U	1.05	ug/kg	0.350	1.05
75-34-3	1,1-Dichloroethane	U	1.05	ug/kg	0.350	1.05
75-35-4	1,1-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
107-06-2	1,2-Dichloroethane	U	1.05	ug/kg	0.350	1.05
78-93-3	2-Butanone	U	5.26	ug/kg	1.75	5.26
591-78-6	2-Hexanone	U	5.26	ug/kg	1.75	5.26
108-10-1	4-Methyl-2-pentanone	U	5.26	ug/kg	1.75	5.26
67-64-1	Acetone	U	5.26	ug/kg	1.75	5.26
71-43-2	Benzene	U	1.05	ug/kg	0.350	1.05
75-15-0	Carbon disulfide	U	5.26	ug/kg	1.75	5.26
56-23-5	Carbon tetrachloride	U	1.05	ug/kg	0.350	1.05
108-90-7	Chlorobenzene	U	1.05	ug/kg	0.350	1.05
75-00-3	Chloroethane	U	1.05	ug/kg	0.350	1.05
67-66-3	Chloroform	U	1.05	ug/kg	0.350	1.05
74-87-3	Chloromethane	U	1.05	ug/kg	0.350	1.05
100-41-4	Ethylbenzene	U	1.05	ug/kg	0.350	1.05
75-09-2	Methylene chloride	U	5.26	ug/kg	1.75	5.26
100-42-5	Styrene	U	1.05	ug/kg	0.350	1.05
127-18-4	Tetrachloroethylene	U	1.05	ug/kg	0.350	1.05
108-88-3	Toluene	U	1.05	ug/kg	0.350	1.05
79-01-6	Trichloroethylene	U	1.05	ug/kg	0.350	1.05
76-13-1	Trichlorotrifluoroethane	U	5.26	ug/kg	1.75	5.26
108-05-4	Vinyl acetate	U	5.26	ug/kg	1.75	5.26
75-01-4	Vinyl chloride	U	1.05	ug/kg	0.350	1.05
1330-20-7	Xylenes (total)	U	3.16	ug/kg	1.05	3.16
156-59-2	cis-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05
156-60-5	trans-1,2-Dichloroethylene	U	1.05	ug/kg	0.350	1.05

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M216.D
Acq On : 03 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:51:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	369660	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	90119	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22970	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	369660	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	90119	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	22970	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	141609	79.49	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	149635	73.93	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	16507	40.74	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	159%#
45) Toluene-d8	50.000	81 - 120	148%#
63) Bromofluorobenzene	50.000	70 - 130	81%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	1205	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	25852	N.D.		
15) Methylene chloride	84	7.738	7.738	0.740	3620	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	178	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	208	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M216.D
Acq On : 03 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 10 12:51:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	465	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.179	719	Below Cal	# 69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	459	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M216.D
Acq On : 03 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 10 12:51:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

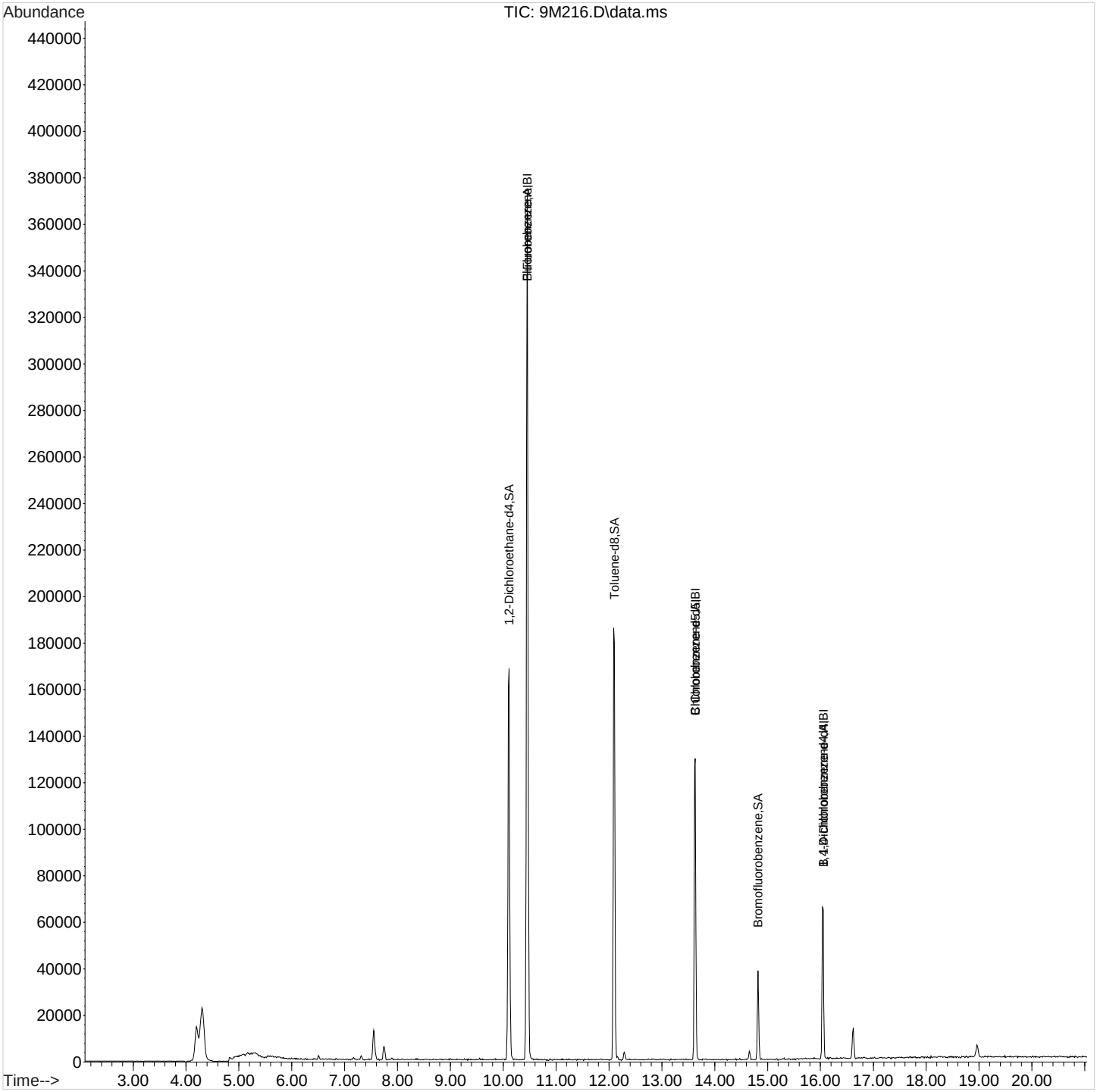
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	480	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

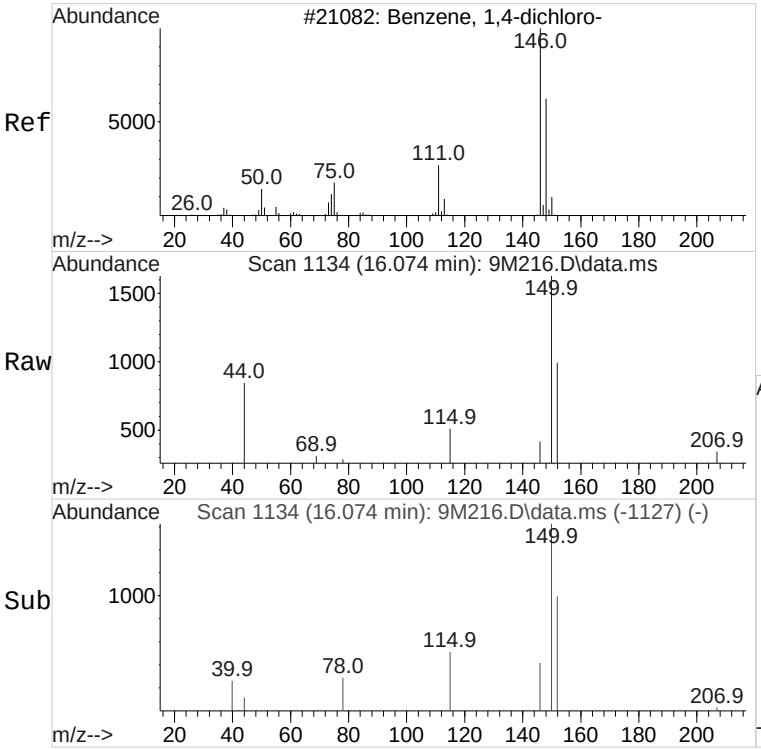
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M216.D
Acq On : 03 Oct 2017 16:51
Operator : RXY1
InstName : VOA9
Sample : |433718011|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 10 12:51:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

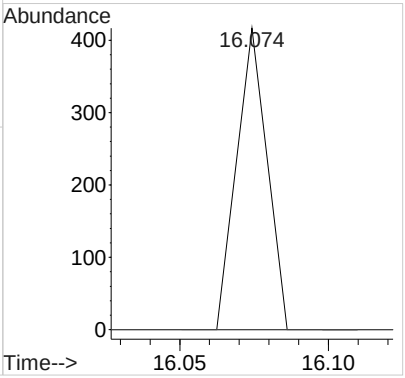


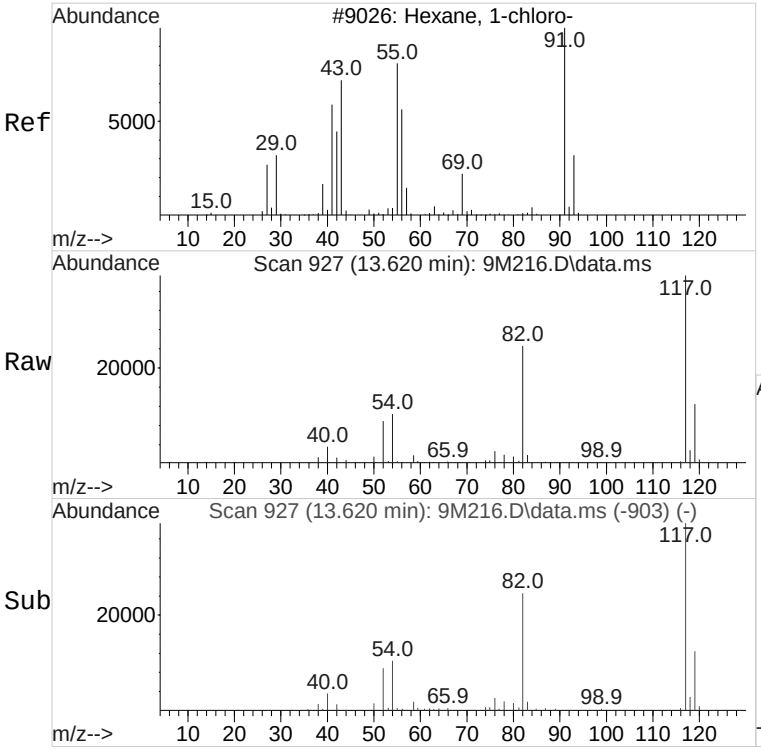


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.48 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M216.D
Acq: 03 Oct 2017 16:51

Tgt Ion:146 Resp: 297

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.9	96.9#
111	0.0	9.0	69.0#

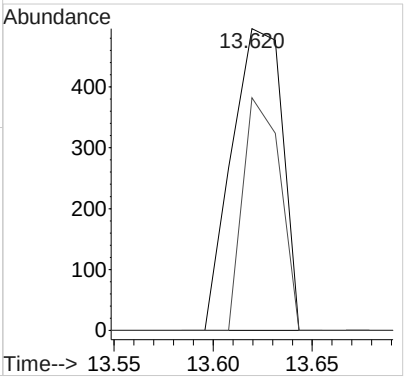


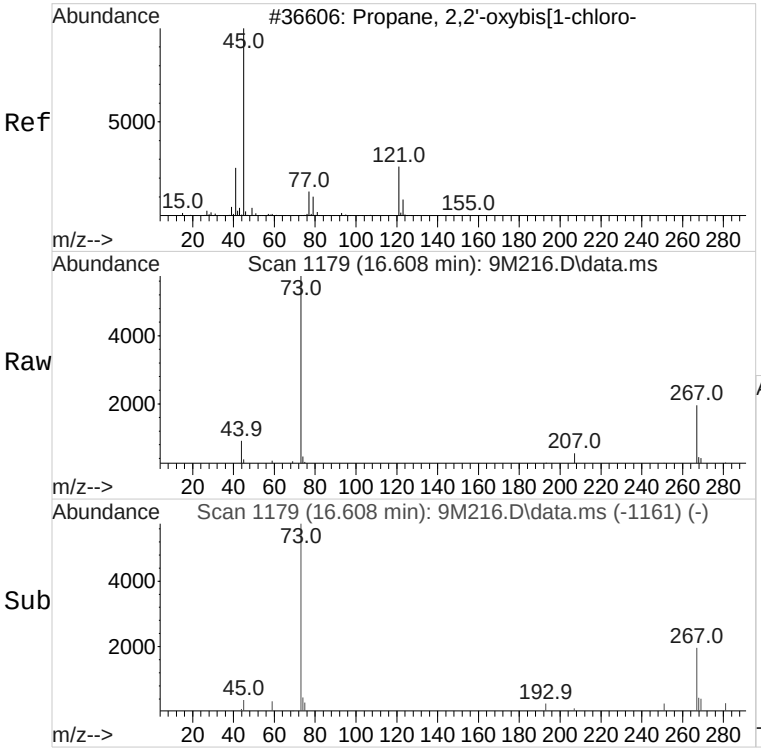


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 3.12 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M216.D
Acq: 03 Oct 2017 16:51

Tgt Ion: 55 Resp: 882

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	56.9	31.6	91.6

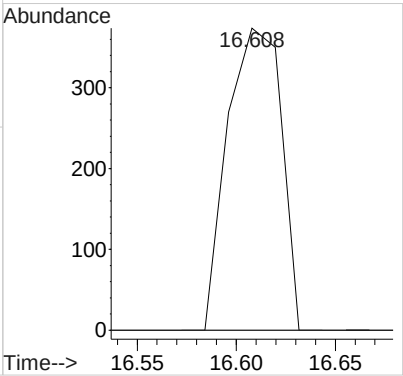




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.57 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M216.D
Acq: 03 Oct 2017 16:51

Tgt Ion: 45 Resp: 707

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718012**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 20:33**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:15**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M123.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	106	ug/kg	35.3	106
79-34-5	1,1,2,2-Tetrachloroethane	U	106	ug/kg	35.3	106
79-00-5	1,1,2-Trichloroethane	U	106	ug/kg	35.3	106
75-34-3	1,1-Dichloroethane	U	106	ug/kg	35.3	106
75-35-4	1,1-Dichloroethylene	U	106	ug/kg	35.3	106
107-06-2	1,2-Dichloroethane	U	106	ug/kg	35.3	106
78-93-3	2-Butanone	U	530	ug/kg	177	530
591-78-6	2-Hexanone	U	530	ug/kg	177	530
108-10-1	4-Methyl-2-pentanone	U	530	ug/kg	177	530
67-64-1	Acetone	U	530	ug/kg	177	530
71-43-2	Benzene	U	106	ug/kg	35.3	106
75-15-0	Carbon disulfide	U	530	ug/kg	177	530
56-23-5	Carbon tetrachloride	U	106	ug/kg	35.3	106
108-90-7	Chlorobenzene	U	106	ug/kg	35.3	106
75-00-3	Chloroethane	U	106	ug/kg	35.3	106
67-66-3	Chloroform	U	106	ug/kg	35.3	106
74-87-3	Chloromethane	U	106	ug/kg	35.3	106
100-41-4	Ethylbenzene	U	106	ug/kg	35.3	106
75-09-2	Methylene chloride	U	530	ug/kg	177	530
100-42-5	Styrene	U	106	ug/kg	35.3	106
127-18-4	Tetrachloroethylene	U	106	ug/kg	35.3	106
108-88-3	Toluene	U	106	ug/kg	35.3	106
79-01-6	Trichloroethylene	U	106	ug/kg	35.3	106
76-13-1	Trichlorotrifluoroethane	U	530	ug/kg	177	530
108-05-4	Vinyl acetate	U	530	ug/kg	177	530
75-01-4	Vinyl chloride	U	106	ug/kg	35.3	106
1330-20-7	Xylenes (total)	U	318	ug/kg	106	318
156-59-2	cis-1,2-Dichloroethylene	U	106	ug/kg	35.3	106
156-60-5	trans-1,2-Dichloroethylene	U	106	ug/kg	35.3	106

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M123.D
Acq On : 02 Oct 2017 20:33
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 09:55:27 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1256122	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	931571	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	527379	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1256122	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	931571	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	527379	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	309353	51.10	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1034231	49.43	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	463164	49.79	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	418	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	1189	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3231	Below Cal		95
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	387	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	243	N.D.		
33) Cyclohexene	67	10.454	10.311	1.000	207	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M123.D
Acq On : 02 Oct 2017 20:33
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:55:27 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.894	636	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	238	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	425	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	444	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	527	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	394	Below Cal #	51
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.921	18.908	1.180	1282	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	822	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M123.D
Acq On : 02 Oct 2017 20:33
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:55:27 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

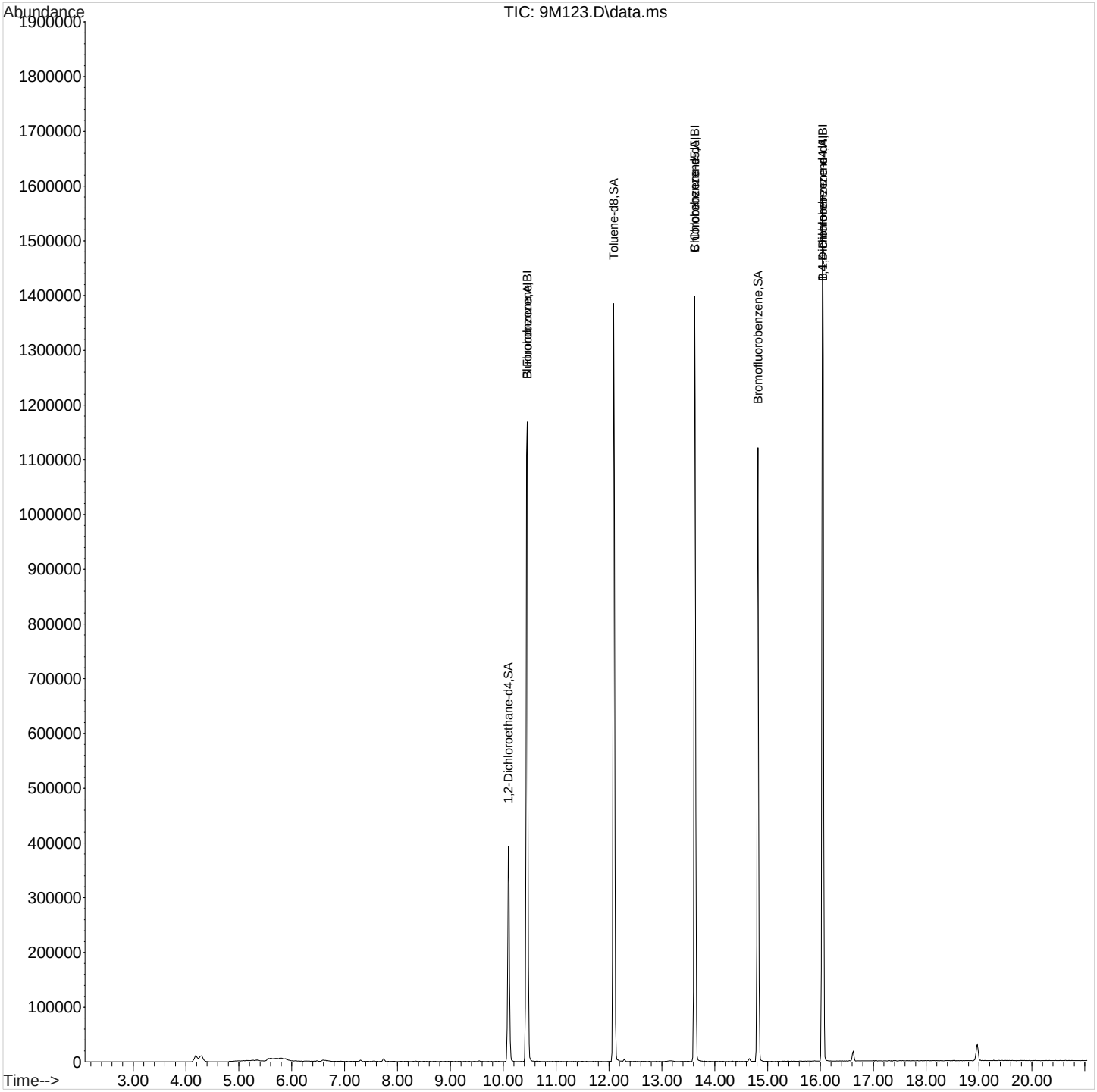
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1258	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.070	11.047	1.059	316	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.039	16.193	1.000	1223	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	810	N.D.	

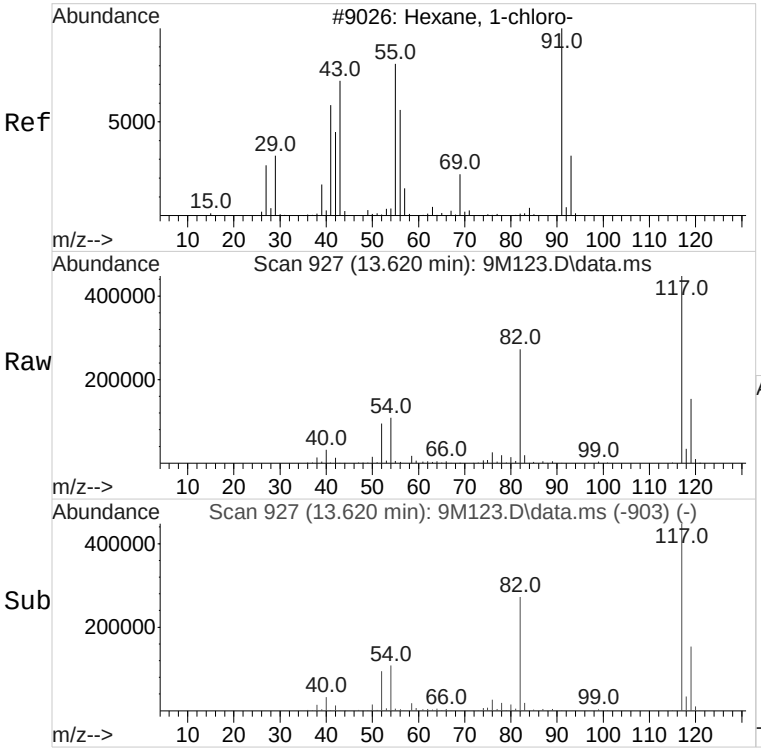
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M123.D
Acq On : 02 Oct 2017 20:33
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 03 09:55:27 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

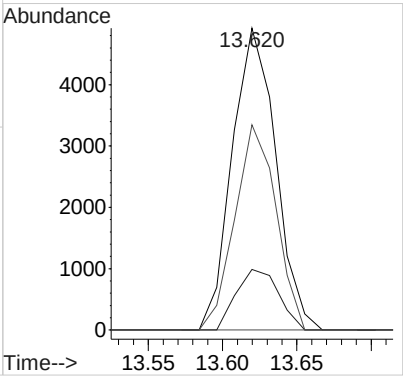




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.55 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M123.D
Acq: 02 Oct 2017 20:33

Tgt Ion: 55 Resp: 10071

Ion	Ratio	Lower	Upper
55	100		
91	19.5	114.6	174.6#
56	64.1	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718012**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL01RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 17:20**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:09**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M217.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.353	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.353	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.353	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.353	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.353	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.353	1.06
78-93-3	2-Butanone	U	5.30	ug/kg	1.77	5.30
591-78-6	2-Hexanone	U	5.30	ug/kg	1.77	5.30
108-10-1	4-Methyl-2-pentanone	U	5.30	ug/kg	1.77	5.30
67-64-1	Acetone	U	5.30	ug/kg	1.77	5.30
71-43-2	Benzene	U	1.06	ug/kg	0.353	1.06
75-15-0	Carbon disulfide	U	5.30	ug/kg	1.77	5.30
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.353	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.353	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.353	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.353	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.353	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.353	1.06
75-09-2	Methylene chloride	U	5.30	ug/kg	1.77	5.30
100-42-5	Styrene	U	1.06	ug/kg	0.353	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.353	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.353	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.353	1.06
76-13-1	Trichlorotrifluoroethane	U	5.30	ug/kg	1.77	5.30
108-05-4	Vinyl acetate	U	5.30	ug/kg	1.77	5.30
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.353	1.06
1330-20-7	Xylenes (total)	U	3.18	ug/kg	1.06	3.18
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.353	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.353	1.06

RY 10/10/2017

EM 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M217.D
Acq On : 03 Oct 2017 17:20
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 12:51:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	444339	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	103056	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	21487	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	444339	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	103056	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	21487	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	177475	82.88	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	175412	75.79	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	16754	44.20	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	166%#
45) Toluene-d8	50.000	81 - 120	152%#
63) Bromofluorobenzene	50.000	70 - 130	88%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	4463	N.D.		
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	16916	Below Cal		92
15) Methylene chloride	84	7.750	7.738	0.741	2730	Below Cal		93
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	379	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	294	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M217.D
Acq On : 03 Oct 2017 17:20
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 12:51:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	438	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.179	465	Below Cal	# 69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	234	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M217.D
Acq On : 03 Oct 2017 17:20
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 12:51:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

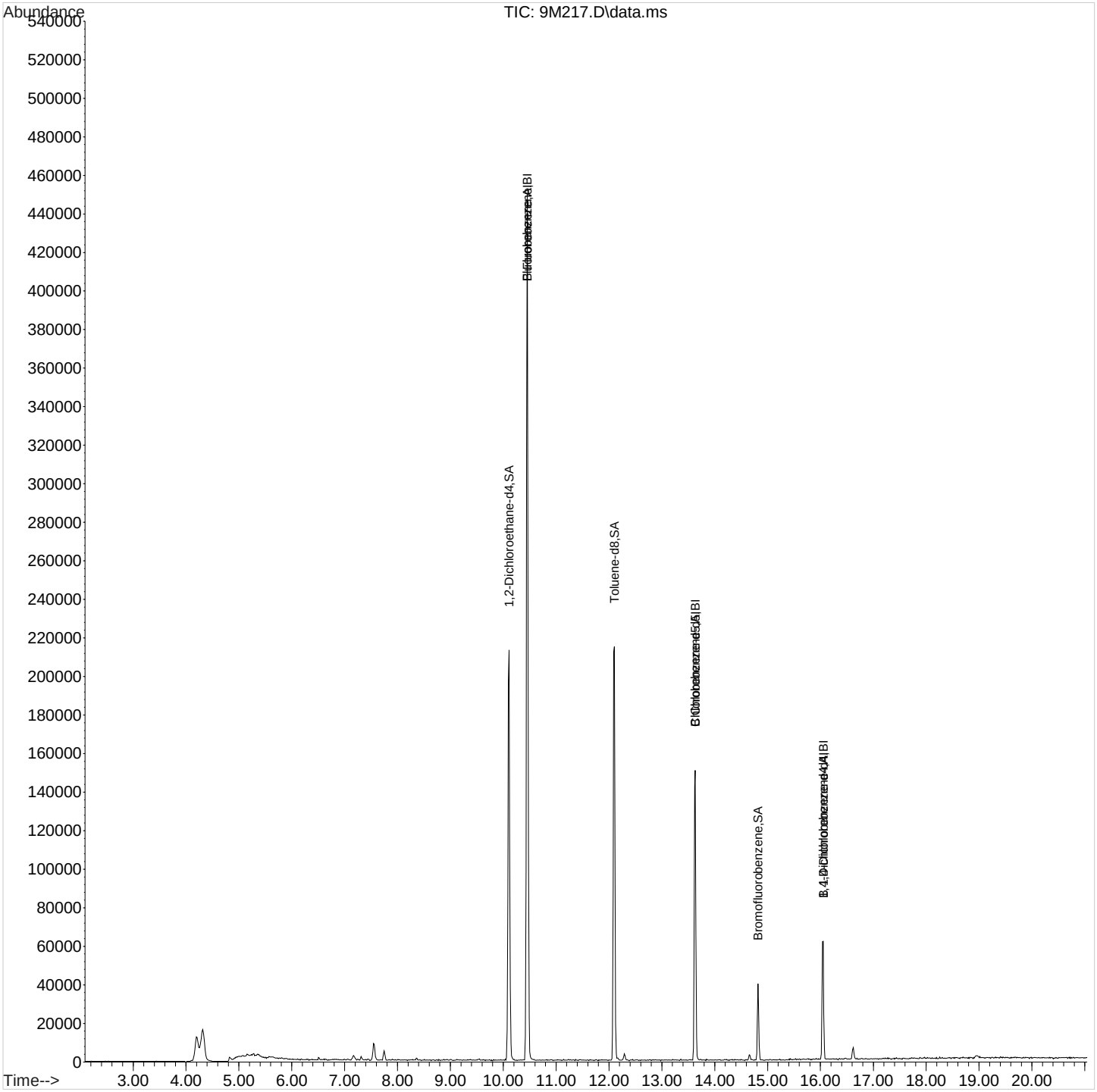
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.540	9.540	0.913	449	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0m	N.D.	d
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

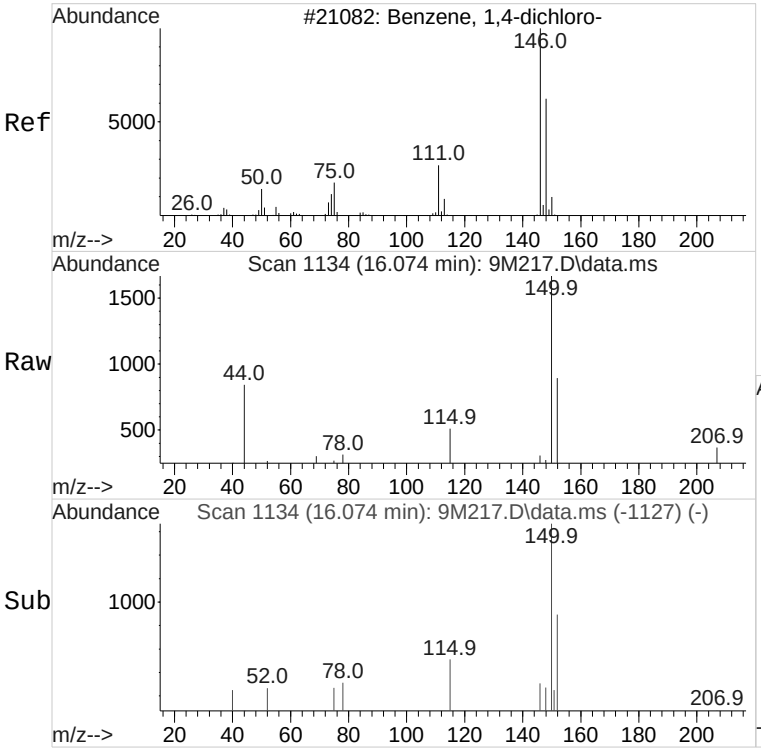
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M217.D
Acq On : 03 Oct 2017 17:20
Operator : RXY1
InstName : VOA9
Sample : |433718012|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 10 12:51:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

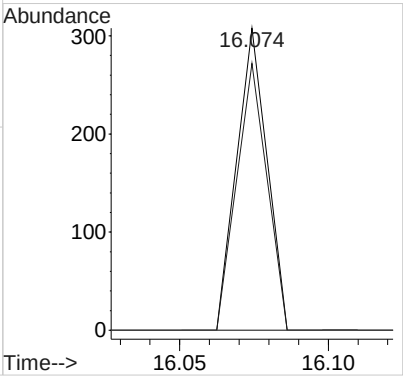


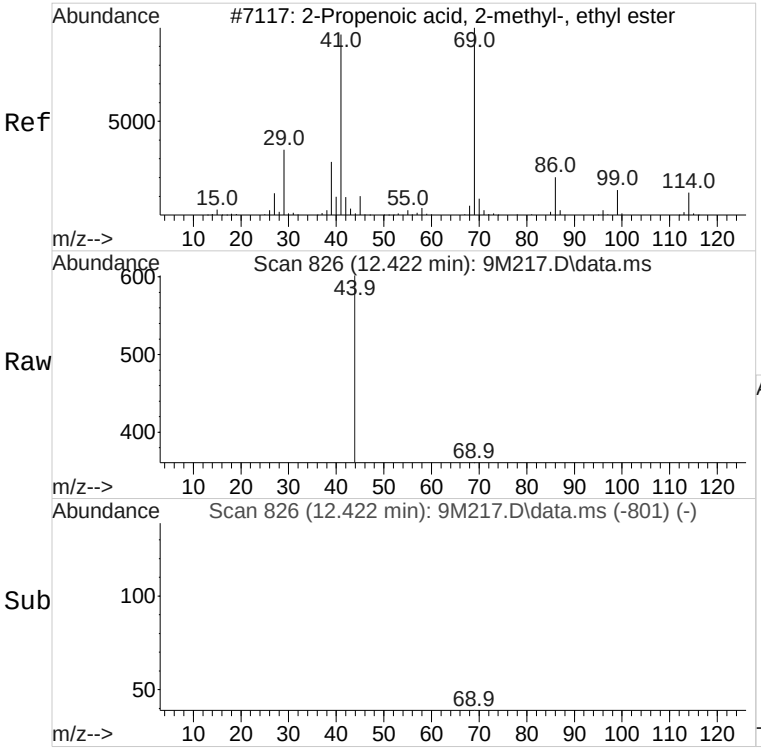


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.38 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M217.D
Acq: 03 Oct 2017 17:20

Tgt Ion:146 Resp: 219

Ion	Ratio	Lower	Upper
146	100		
148	88.6	36.9	96.9
111	0.0	9.0	69.0#

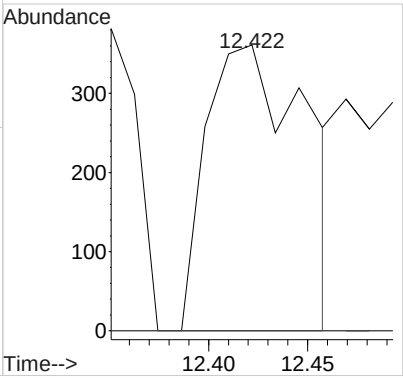


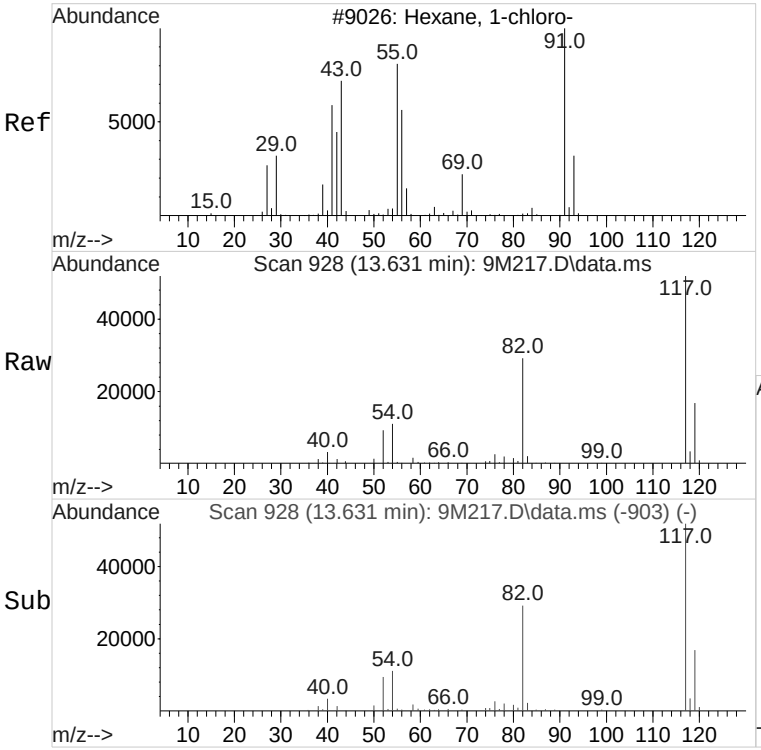


#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.60 ug/L
RT: 12.422 min Scan# 826
Delta R.T. 0.118 min
Lab File: 9M217.D
Acq: 03 Oct 2017 17:20

Tgt Ion: 69 Resp: 1269

Ion	Ratio	Lower	Upper
69	100		
41	0.0	38.7	98.7#
99	0.0	0.0	51.3

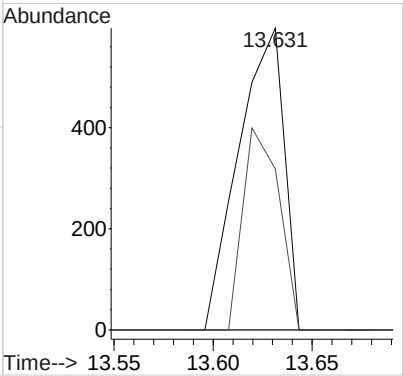




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 3.61 ug/L
RT: 13.631 min Scan# 928
Delta R.T. 0.118 min
Lab File: 9M217.D
Acq: 03 Oct 2017 17:20

Tgt Ion: 55 Resp: 955

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	53.4	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:52**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718013**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:01**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:16**	**Aliquot:**	**5.5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M124.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	95.9	ug/kg	31.9	95.9
79-34-5	1,1,2,2-Tetrachloroethane	U	95.9	ug/kg	31.9	95.9
79-00-5	1,1,2-Trichloroethane	U	95.9	ug/kg	31.9	95.9
75-34-3	1,1-Dichloroethane	U	95.9	ug/kg	31.9	95.9
75-35-4	1,1-Dichloroethylene	U	95.9	ug/kg	31.9	95.9
107-06-2	1,2-Dichloroethane	U	95.9	ug/kg	31.9	95.9
78-93-3	2-Butanone	U	480	ug/kg	160	480
591-78-6	2-Hexanone	U	480	ug/kg	160	480
108-10-1	4-Methyl-2-pentanone	U	480	ug/kg	160	480
67-64-1	Acetone	U	480	ug/kg	160	480
71-43-2	Benzene	U	95.9	ug/kg	31.9	95.9
75-15-0	Carbon disulfide	U	480	ug/kg	160	480
56-23-5	Carbon tetrachloride	U	95.9	ug/kg	31.9	95.9
108-90-7	Chlorobenzene	U	95.9	ug/kg	31.9	95.9
75-00-3	Chloroethane	U	95.9	ug/kg	31.9	95.9
67-66-3	Chloroform	U	95.9	ug/kg	31.9	95.9
74-87-3	Chloromethane	U	95.9	ug/kg	31.9	95.9
100-41-4	Ethylbenzene	U	95.9	ug/kg	31.9	95.9
75-09-2	Methylene chloride	U	480	ug/kg	160	480
100-42-5	Styrene	U	95.9	ug/kg	31.9	95.9
127-18-4	Tetrachloroethylene	U	95.9	ug/kg	31.9	95.9
108-88-3	Toluene	U	95.9	ug/kg	31.9	95.9
79-01-6	Trichloroethylene	U	95.9	ug/kg	31.9	95.9
76-13-1	Trichlorotrifluoroethane	U	480	ug/kg	160	480
108-05-4	Vinyl acetate	U	480	ug/kg	160	480
75-01-4	Vinyl chloride	U	95.9	ug/kg	31.9	95.9
1330-20-7	Xylenes (total)	U	288	ug/kg	95.9	288
156-59-2	cis-1,2-Dichloroethylene	U	95.9	ug/kg	31.9	95.9
156-60-5	trans-1,2-Dichloroethylene	U	95.9	ug/kg	31.9	95.9

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M124.D
Acq On : 02 Oct 2017 21:01
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 03 09:55:29 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1266298	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	943823	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	510118	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1266298	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	943823	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	510118	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	315512	51.70	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1070798	50.52	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	470156	52.25	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	103%
45) Toluene-d8	50.000	81 - 120	101%
63) Bromofluorobenzene	50.000	70 - 130	105%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	683	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	415	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.738	7.512	0.740	183	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	1836	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3226	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	440	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	218	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	213	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M124.D
Acq On : 02 Oct 2017 21:01
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 03 09:55:29 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.894	632	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	190	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	211	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	15.979	15.991	0.996	436	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	500	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.180	1282	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	1073	N.D.	
88) Allyl chloride	41	7.738	7.596	0.740	183	Below Cal #	27
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M124.D
Acq On : 02 Oct 2017 21:01
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 03 09:55:29 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

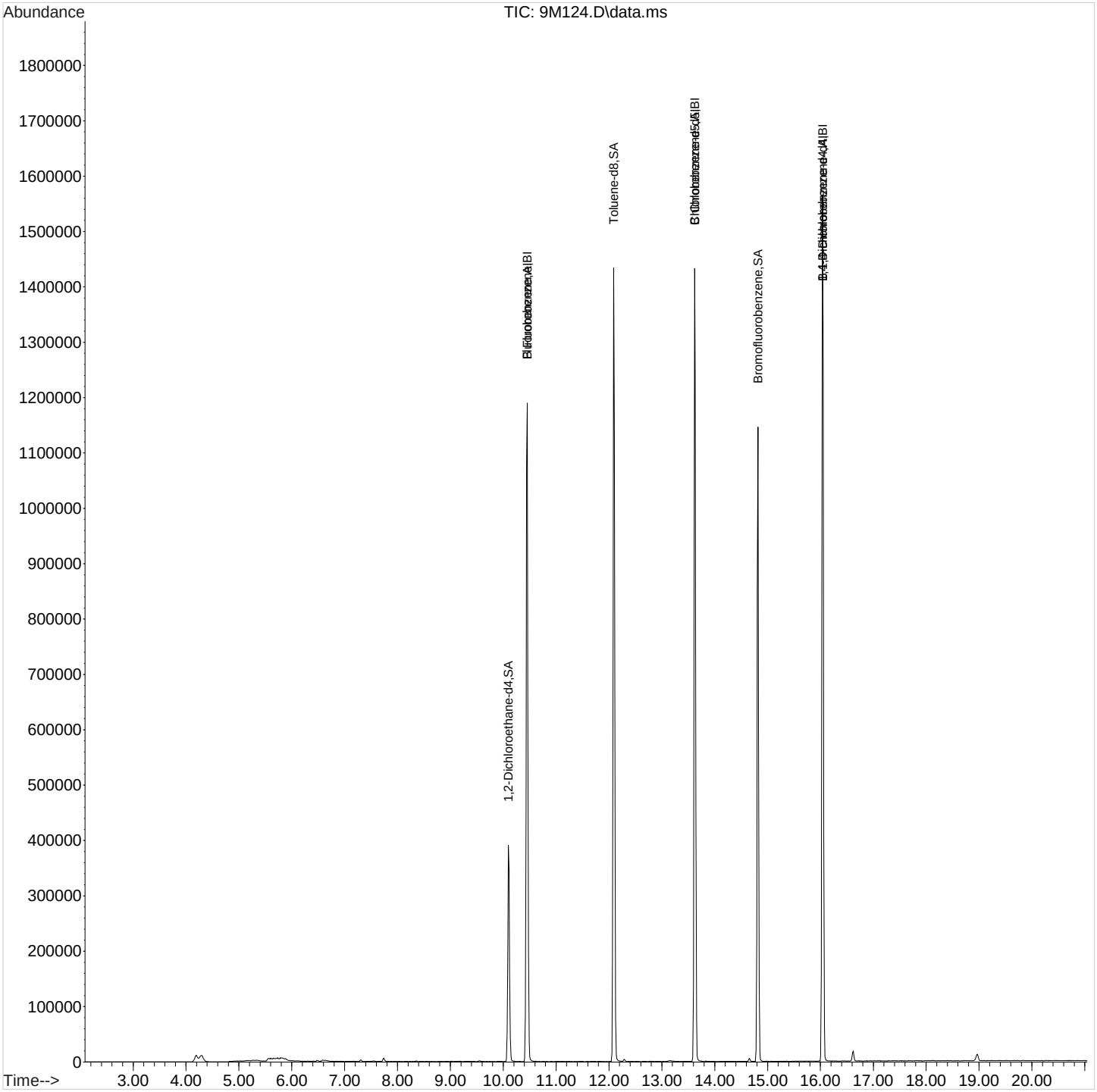
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.173	9.161	0.877	218	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.540	9.540	0.913	887	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.039	16.193	1.000	1140	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	858	N.D.	

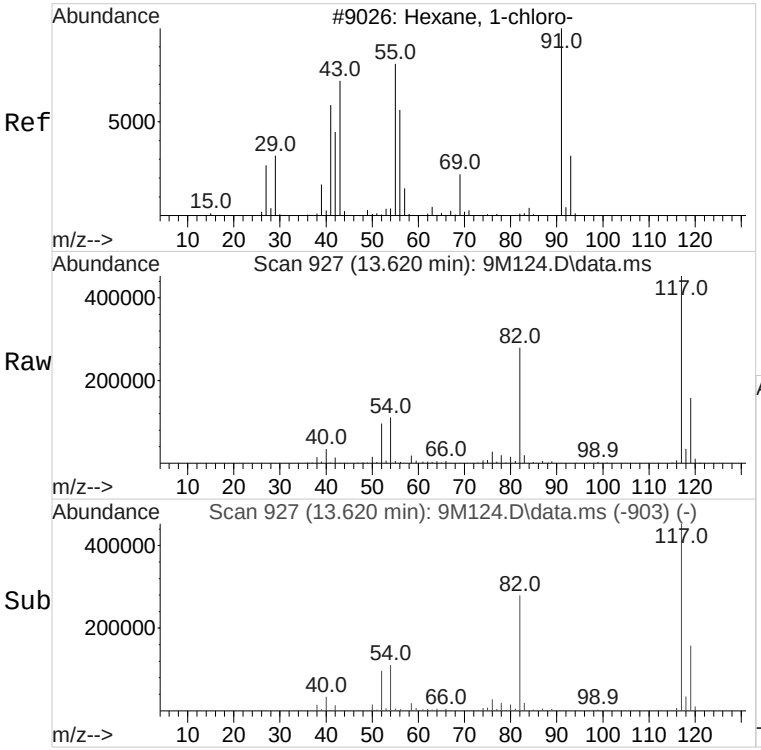
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M124.D
Acq On : 02 Oct 2017 21:01
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 03 09:55:29 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

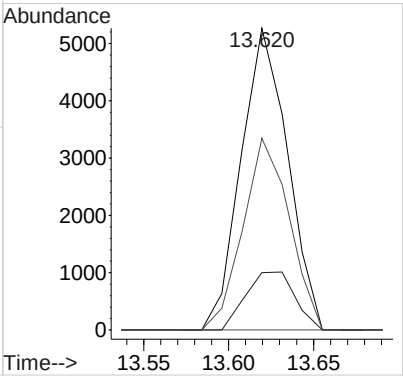




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.61 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M124.D
Acq: 02 Oct 2017 21:01

Tgt Ion: 55 Resp: 10102

Ion	Ratio	Lower	Upper
55	100		
91	20.2	114.6	174.6#
56	63.1	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:52**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718013**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL02RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 17:48**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:10**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M218.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.351	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.351	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.351	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.351	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.351	1.06
78-93-3	2-Butanone	U	5.28	ug/kg	1.76	5.28
591-78-6	2-Hexanone	U	5.28	ug/kg	1.76	5.28
108-10-1	4-Methyl-2-pentanone	U	5.28	ug/kg	1.76	5.28
67-64-1	Acetone	U	5.28	ug/kg	1.76	5.28
71-43-2	Benzene	U	1.06	ug/kg	0.351	1.06
75-15-0	Carbon disulfide	U	5.28	ug/kg	1.76	5.28
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.351	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.351	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.351	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.351	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.351	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.351	1.06
75-09-2	Methylene chloride	U	5.28	ug/kg	1.76	5.28
100-42-5	Styrene	U	1.06	ug/kg	0.351	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.351	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.351	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.351	1.06
76-13-1	Trichlorotrifluoroethane	U	5.28	ug/kg	1.76	5.28
108-05-4	Vinyl acetate	U	5.28	ug/kg	1.76	5.28
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.351	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.351	1.06

RY 10/10/2017

EM 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M218.D
Acq On : 03 Oct 2017 17:48
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 10 12:52:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	309304	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	66488	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	15575	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	309304	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	66488	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	15575	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	134089	89.96	ug/L	0.01
45) Toluene-d8	98	12.102	12.090	0.888	104736	70.14	ug/L	0.01
63) Bromofluorobenzene	95	14.817	14.817	0.923	10948	39.85	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	180%#
45) Toluene-d8	50.000	81 - 120	140%#
63) Bromofluorobenzene	50.000	70 - 130	80%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		0.000	7.145	0.000	0m	N.D.	d	
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide		0.000	7.548	0.000	0m	N.D.	d	
15) Methylene chloride	84	7.750	7.738	0.741	3496	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.185	9.161	0.879	813	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	184	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M218.D
Acq On : 03 Oct 2017 17:48
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 10 12:52:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	238	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0m	N.D.	d
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.932	18.908	1.180	430	Below Cal	# 69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	254	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M218.D
Acq On : 03 Oct 2017 17:48
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 10 12:52:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

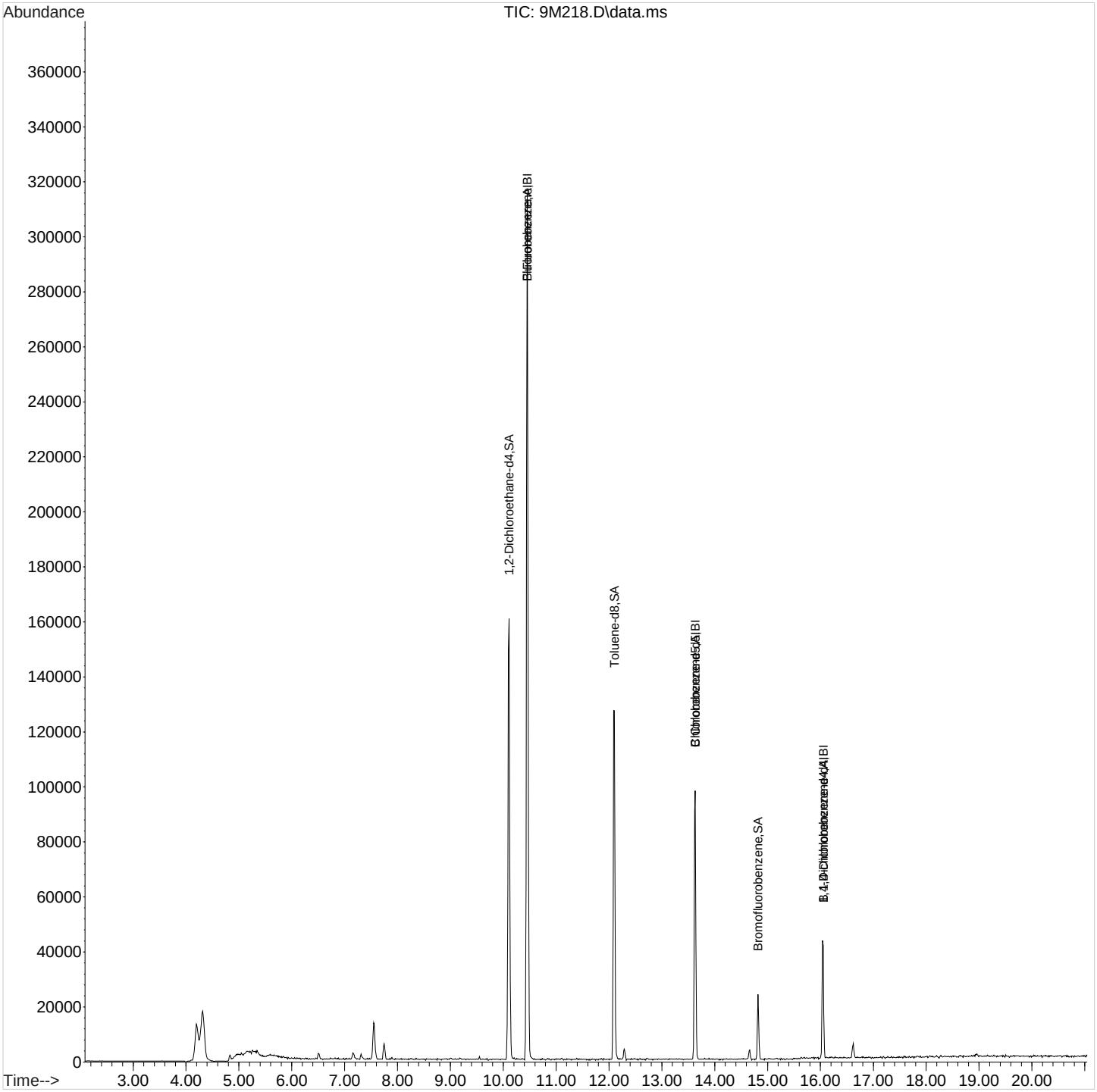
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.185	9.161	0.879	813	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	482	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0m	N.D.	d
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

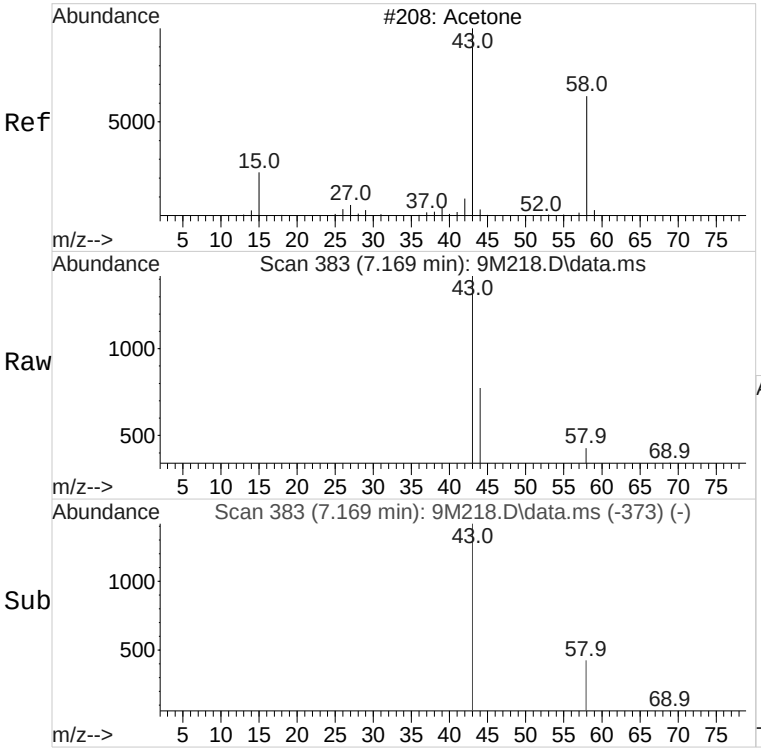
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M218.D
Acq On : 03 Oct 2017 17:48
Operator : RXY1
InstName : VOA9
Sample : |433718013|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 10 12:52:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

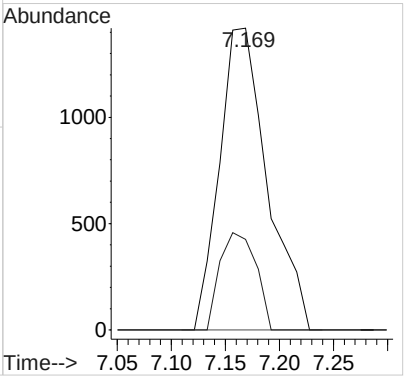


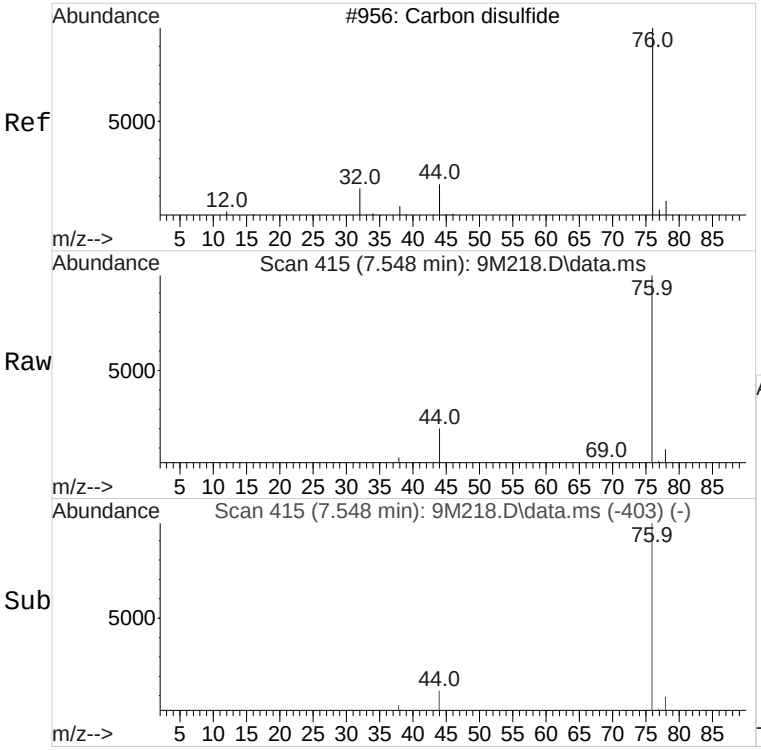


#9 BEFORE analyst DELETION
Acetone
Concen: 3.48 ug/L
RT: 7.169 min Scan# 383
Delta R.T. 0.024 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion: 43 Resp: 4373

Ion	Ratio	Lower	Upper
43	100		
58	24.3	3.0	63.0

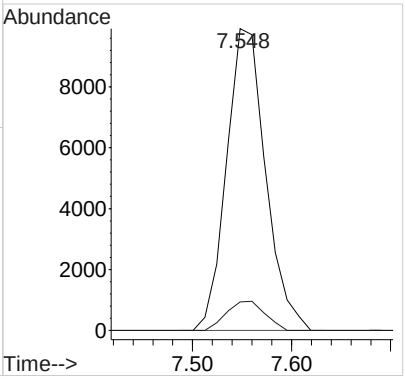


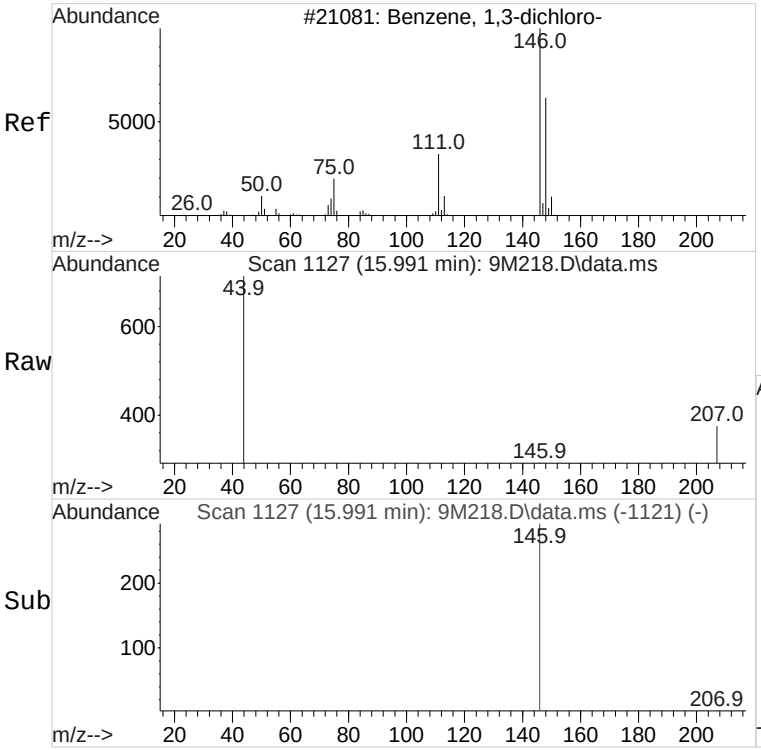


#14 BEFORE analyst DELETION
Carbon disulfide
Concen: 2.11 ug/L
RT: 7.548 min Scan# 415
Delta R.T. 0.000 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion: 76 Resp: 27194

Ion	Ratio	Lower	Upper
76	100		
78	9.6	0.0	40.8

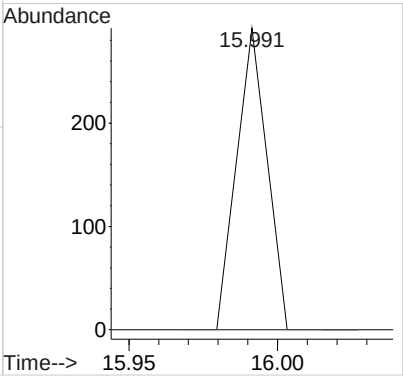


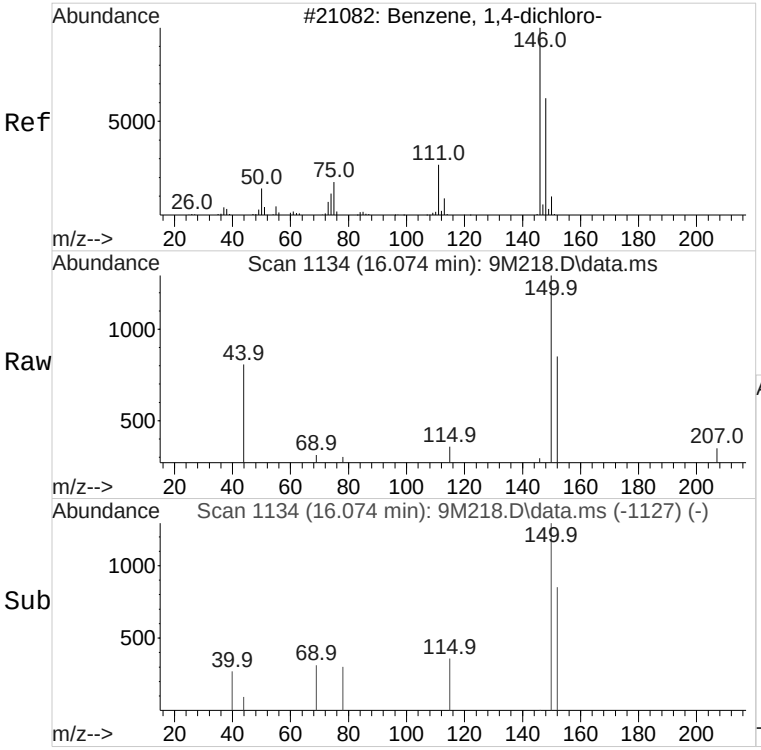


#75 BEFORE analyst DELETION
1,3-Dichlorobenzene
Concen: 0.47 ug/L
RT: 15.991 min Scan# 1127
Delta R.T. 0.000 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion:146 Resp: 208

Ion	Ratio	Lower	Upper
146	100		
148	0.0	37.5	97.5#
111	0.0	10.0	70.0#

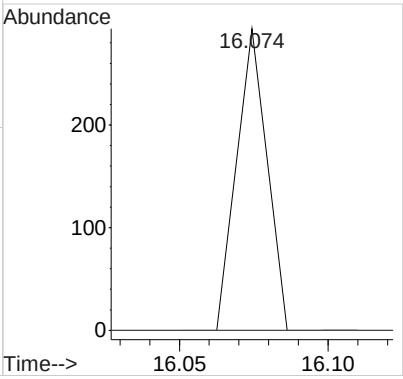


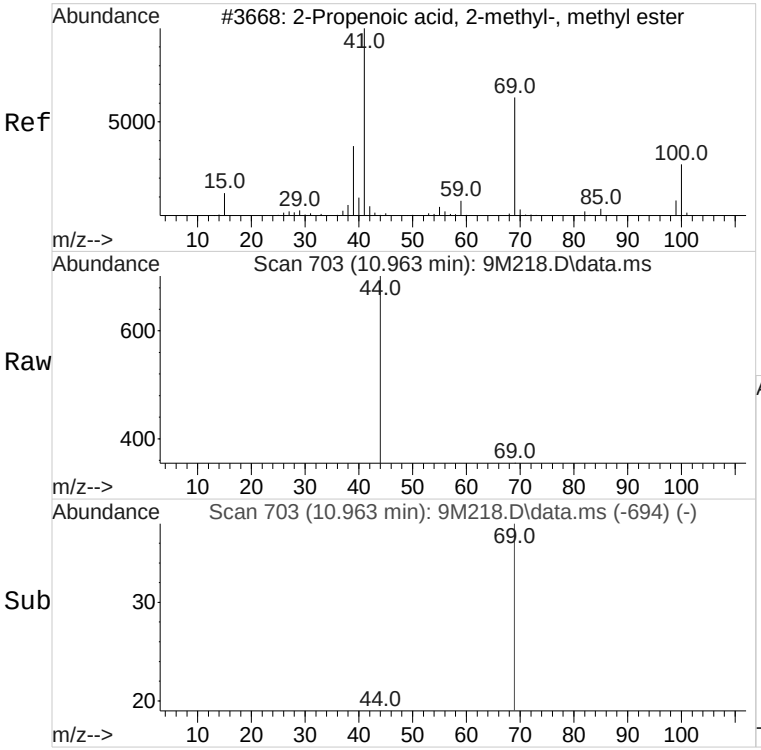


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.50 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion:146 Resp: 209

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.9	96.9#
111	0.0	9.0	69.0#

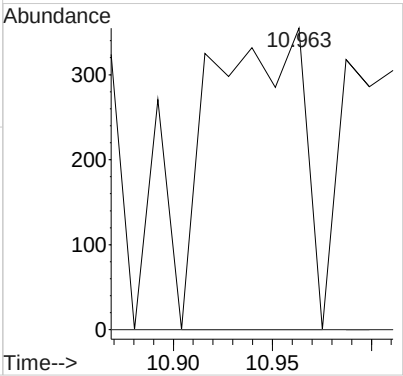


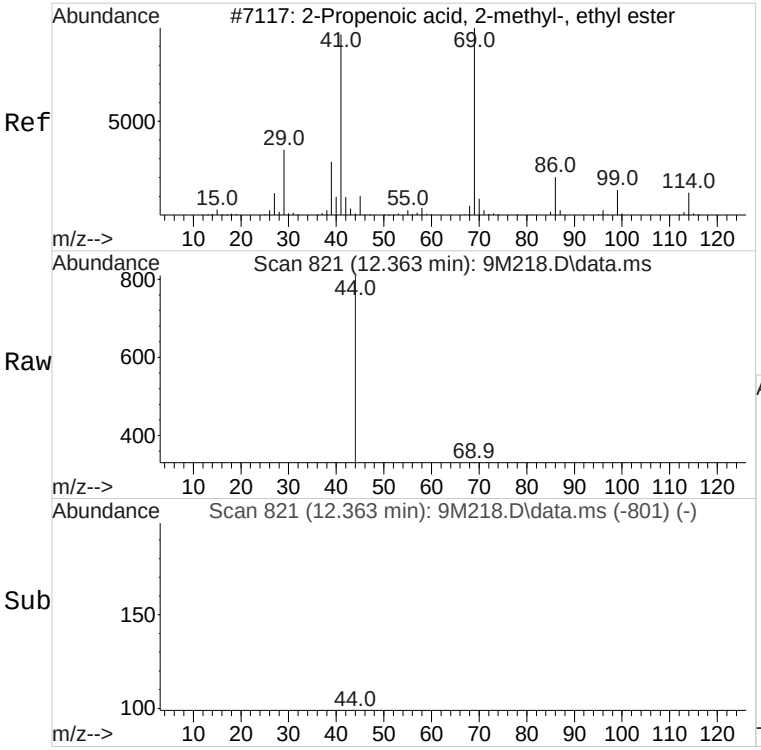


#100 BEFORE analyst DELETION
Methyl methacrylate
Concen: 1.26 ug/L
RT: 10.963 min Scan# 703
Delta R.T. -0.084 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion: 69 Resp: 1135

Ion	Ratio	Lower	Upper
69	100		
41	0.0	91.9	151.9#
100	0.0	10.6	70.6#

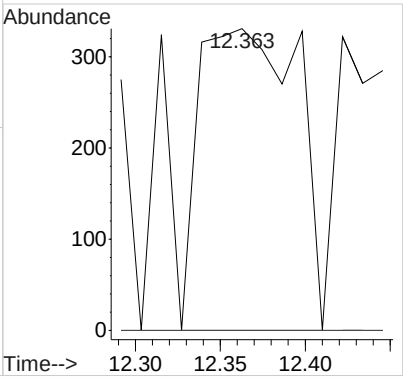


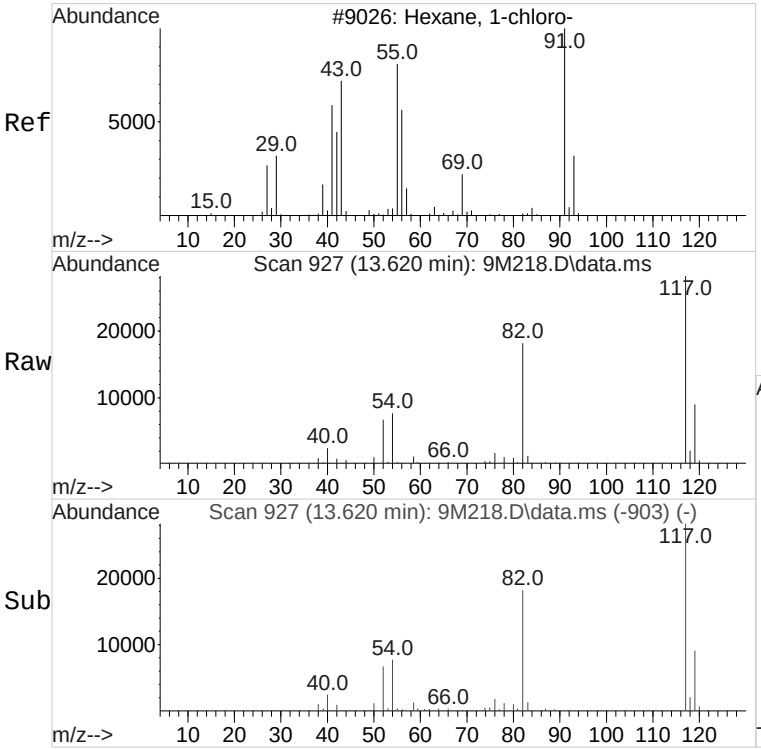


#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 2.61 ug/L
RT: 12.363 min Scan# 821
Delta R.T. 0.059 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion: 69 Resp: 1334

Ion	Ratio	Lower	Upper
69	100		
41	0.0	38.7	98.7#
99	0.0	0.0	51.3

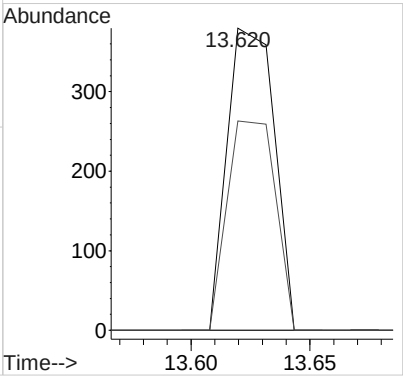




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.74 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M218.D
Acq: 03 Oct 2017 17:48

Tgt Ion: 55 Resp: 526

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	70.5	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718014**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL04**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:28**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:17**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M125.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	107	ug/kg	35.6	107
79-34-5	1,1,2,2-Tetrachloroethane	U	107	ug/kg	35.6	107
79-00-5	1,1,2-Trichloroethane	U	107	ug/kg	35.6	107
75-34-3	1,1-Dichloroethane	U	107	ug/kg	35.6	107
75-35-4	1,1-Dichloroethylene	U	107	ug/kg	35.6	107
107-06-2	1,2-Dichloroethane	U	107	ug/kg	35.6	107
78-93-3	2-Butanone	U	535	ug/kg	178	535
591-78-6	2-Hexanone	U	535	ug/kg	178	535
108-10-1	4-Methyl-2-pentanone	U	535	ug/kg	178	535
67-64-1	Acetone	U	535	ug/kg	178	535
71-43-2	Benzene	U	107	ug/kg	35.6	107
75-15-0	Carbon disulfide	U	535	ug/kg	178	535
56-23-5	Carbon tetrachloride	U	107	ug/kg	35.6	107
108-90-7	Chlorobenzene	U	107	ug/kg	35.6	107
75-00-3	Chloroethane	U	107	ug/kg	35.6	107
67-66-3	Chloroform	U	107	ug/kg	35.6	107
74-87-3	Chloromethane	U	107	ug/kg	35.6	107
100-41-4	Ethylbenzene	U	107	ug/kg	35.6	107
75-09-2	Methylene chloride	U	535	ug/kg	178	535
100-42-5	Styrene	U	107	ug/kg	35.6	107
127-18-4	Tetrachloroethylene	U	107	ug/kg	35.6	107
108-88-3	Toluene	U	107	ug/kg	35.6	107
79-01-6	Trichloroethylene	U	107	ug/kg	35.6	107
76-13-1	Trichlorotrifluoroethane	U	535	ug/kg	178	535
108-05-4	Vinyl acetate	U	535	ug/kg	178	535
75-01-4	Vinyl chloride	U	107	ug/kg	35.6	107
1330-20-7	Xylenes (total)	U	321	ug/kg	107	321
156-59-2	cis-1,2-Dichloroethylene	U	107	ug/kg	35.6	107
156-60-5	trans-1,2-Dichloroethylene	U	107	ug/kg	35.6	107

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M125.D
Acq On : 02 Oct 2017 21:28
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 03 09:55:31 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1259569	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	961226	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	532140	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1259569	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	961226	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	532140	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	309066	50.92	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1069285	49.53	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	475953	50.70	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	450	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	225	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	751	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3302	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	439	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.192	10.204	0.975	396	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M125.D
Acq On : 02 Oct 2017 21:28
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 03 09:55:31 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.	
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46)	Toluene	91	12.161	12.173	0.893	569	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54)	Chlorobenzene	112	13.655	13.655	1.003	223	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58)	o-Xylene		0.000	14.260	0.000	0	N.D.	
59)	Styrene		0.000	14.260	0.000	0	N.D.	
61)	Bromoform		0.000	14.533	0.000	0	N.D.	
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.	
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70)	4-Chlorotoluene	91	15.304	15.292	0.954	252	N.D.	
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	414	N.D.	
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	514	N.D.	
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82)	Naphthalene	128	18.920	18.908	1.180	1062	Below Cal #	69
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85)	Acrolein		0.000	6.979	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	1041	N.D.	
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M125.D
Acq On : 02 Oct 2017 21:28
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 03 09:55:31 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

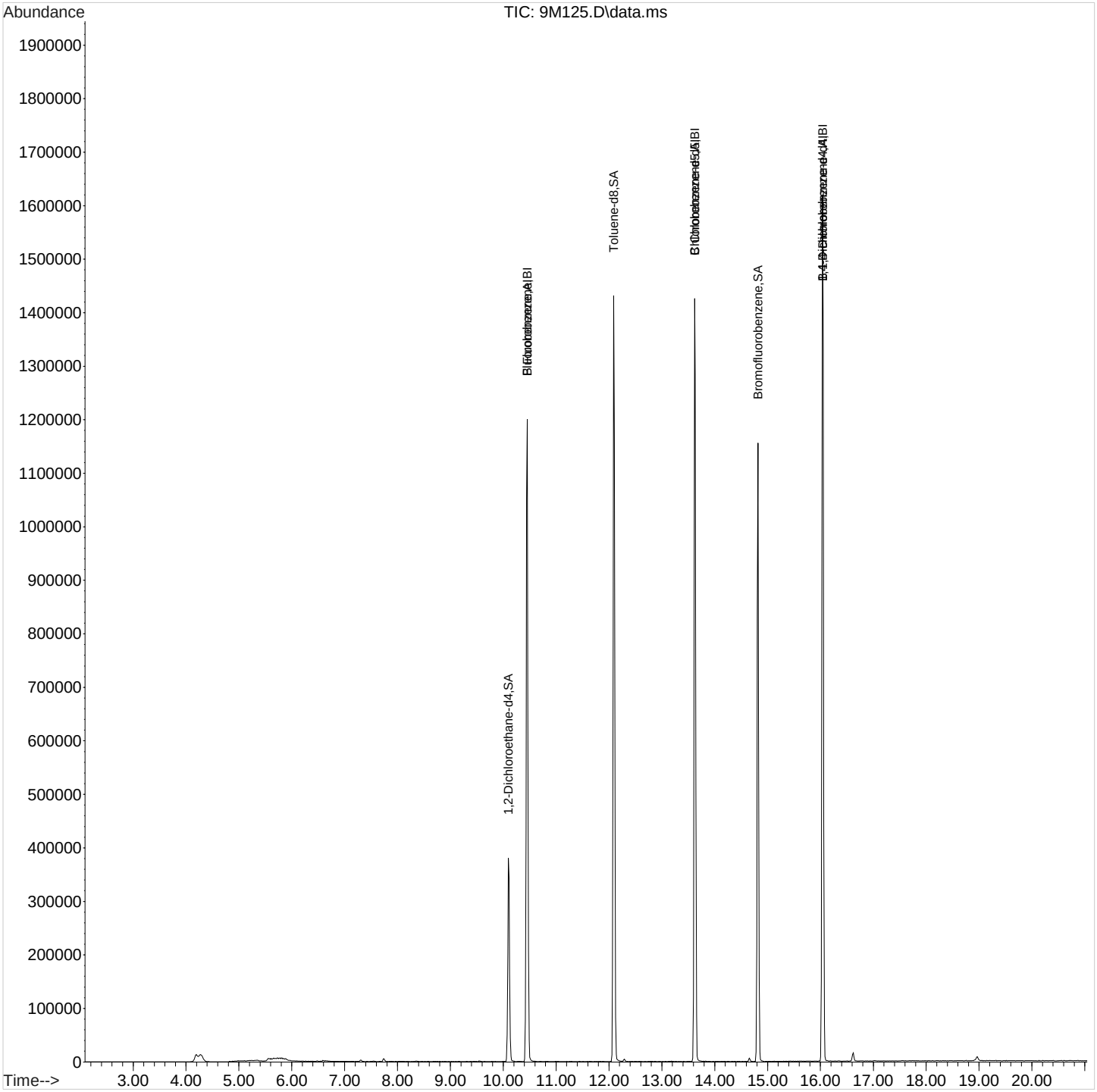
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	860	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.197	12.304	0.896	181	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	194	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	717	N.D.	

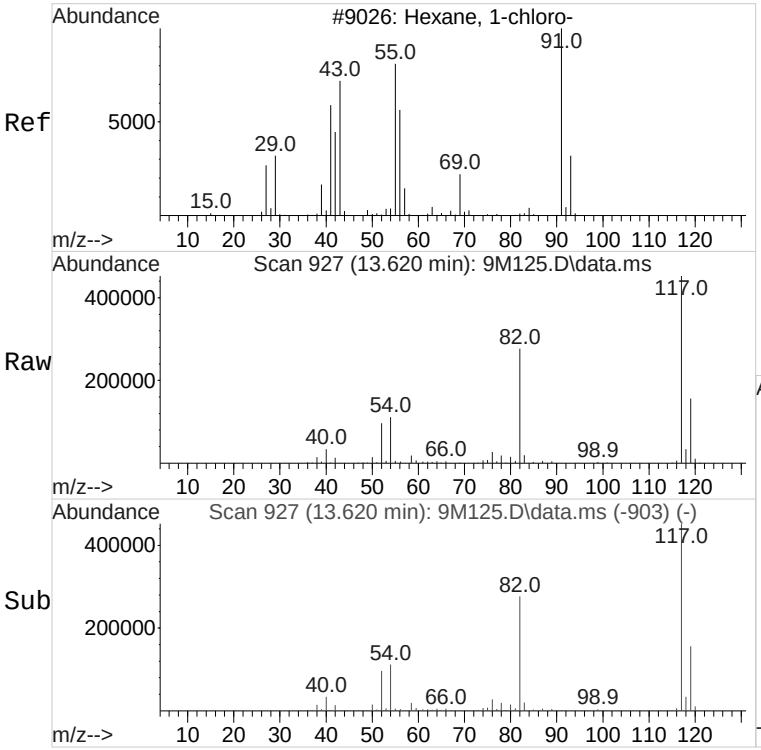
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M125.D
Acq On : 02 Oct 2017 21:28
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 03 09:55:31 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

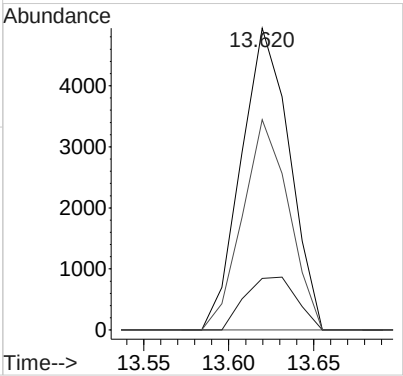




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.50 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M125.D
Acq: 02 Oct 2017 21:28

Tgt Ion: 55 Resp: 9845

Ion	Ratio	Lower	Upper
55	100		
91	18.8	114.6	174.6#
56	66.7	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 10:40**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718014**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL04RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 18:17**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:11**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M219.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.356	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.356	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.356	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.356	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.356	1.07
78-93-3	2-Butanone	U	5.35	ug/kg	1.78	5.35
591-78-6	2-Hexanone	U	5.35	ug/kg	1.78	5.35
108-10-1	4-Methyl-2-pentanone	U	5.35	ug/kg	1.78	5.35
67-64-1	Acetone	U	5.35	ug/kg	1.78	5.35
71-43-2	Benzene	U	1.07	ug/kg	0.356	1.07
75-15-0	Carbon disulfide	U	5.35	ug/kg	1.78	5.35
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.356	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.356	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.356	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.356	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.356	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.356	1.07
75-09-2	Methylene chloride	U	5.35	ug/kg	1.78	5.35
100-42-5	Styrene	U	1.07	ug/kg	0.356	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.356	1.07
108-88-3	Toluene	U	1.07	ug/kg	0.356	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.356	1.07
76-13-1	Trichlorotrifluoroethane	U	5.35	ug/kg	1.78	5.35
108-05-4	Vinyl acetate	U	5.35	ug/kg	1.78	5.35
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.356	1.07
1330-20-7	Xylenes (total)	U	3.21	ug/kg	1.07	3.21
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.356	1.07

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M219.D
Acq On : 03 Oct 2017 18:17
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 10 12:53:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	426124	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	92505	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	19614	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	426124	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	92505	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	19614	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	169875	82.72	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	155420	74.81	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	14654	42.35	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	165%#
45) Toluene-d8	50.000	81 - 120	150%#
63) Bromofluorobenzene	50.000	70 - 130	85%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.168	7.145	0.686	2866	Below Cal		71
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	10231	Below Cal		94
15) Methylene chloride	84	7.750	7.738	0.741	3202	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	499	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.184	9.161	0.879	402	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M219.D
Acq On : 03 Oct 2017 18:17
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 10 12:53:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.893	208	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.179	213	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	608	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M219.D
Acq On : 03 Oct 2017 18:17
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 10 12:53:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

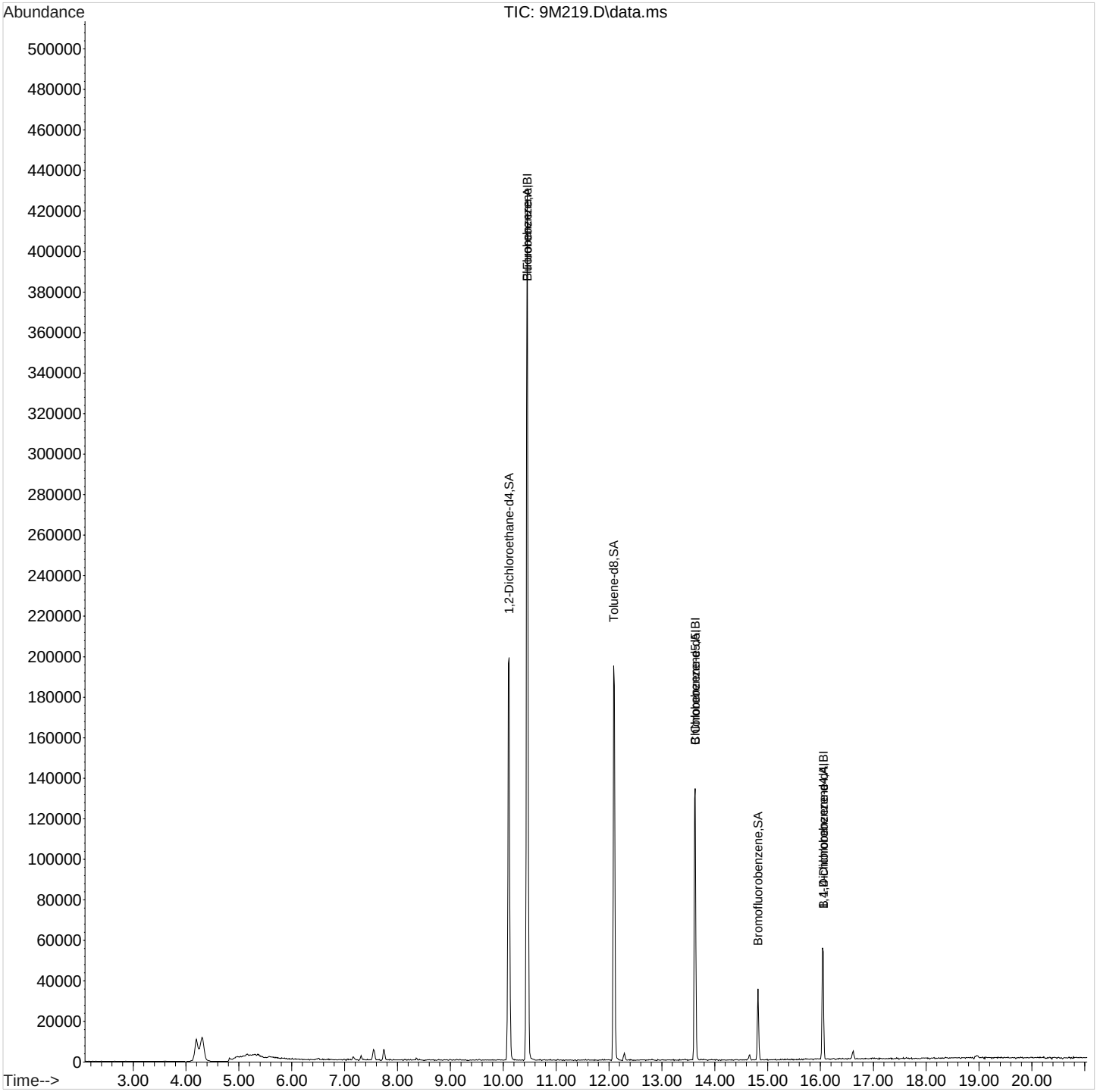
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.184	9.161	0.879	402	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	415	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0m	N.D.	d
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

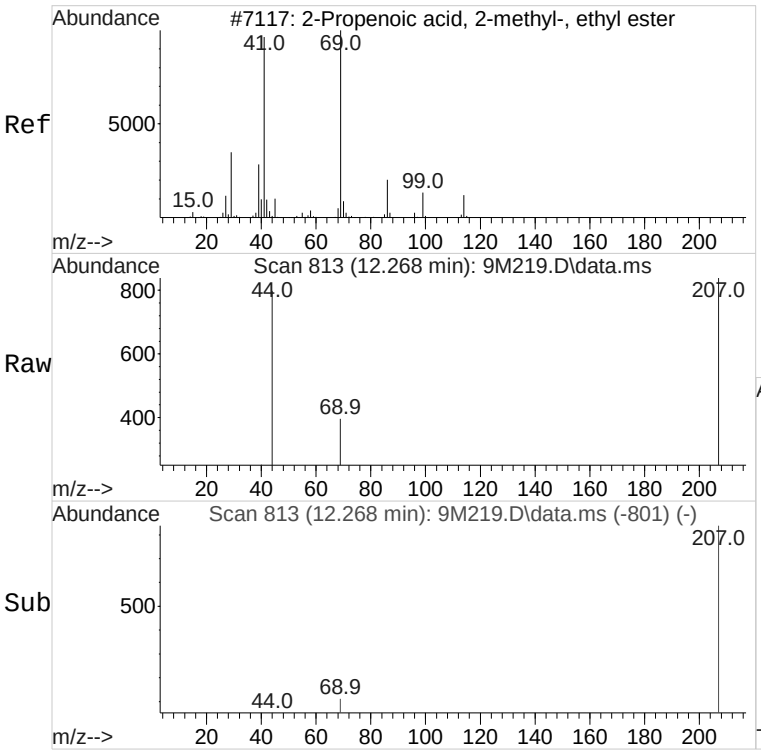
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M219.D
Acq On : 03 Oct 2017 18:17
Operator : RXY1
InstName : VOA9
Sample : |433718014|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 10 12:53:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

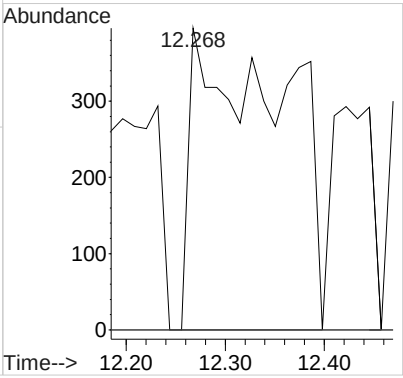


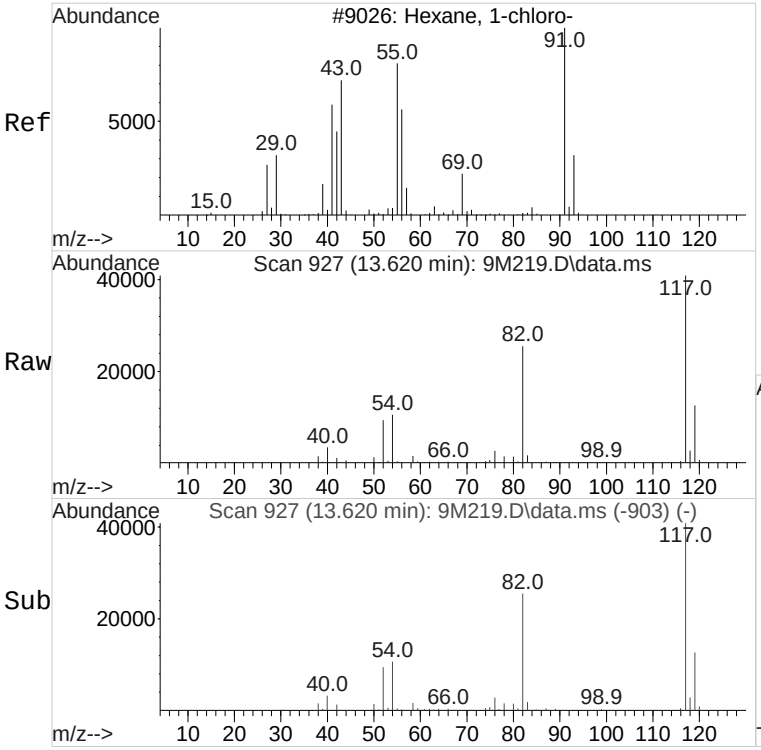


#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 3.55 ug/L
RT: 12.268 min Scan# 813
Delta R.T. -0.036 min
Lab File: 9M219.D
Acq: 03 Oct 2017 18:17

Tgt Ion: 69 Resp: 2523

Ion	Ratio	Lower	Upper
69	100		
41	0.0	38.7	98.7#
99	0.0	0.0	51.3

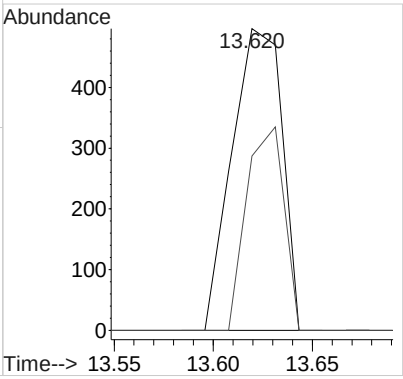




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 3.62 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M219.D
Acq: 03 Oct 2017 18:17

Tgt Ion: 55 Resp: 874

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	50.7	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:57**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718015**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**12.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL05**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 21:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:18**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M126.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	113	ug/kg	37.5	113
79-34-5	1,1,2,2-Tetrachloroethane	U	113	ug/kg	37.5	113
79-00-5	1,1,2-Trichloroethane	U	113	ug/kg	37.5	113
75-34-3	1,1-Dichloroethane	U	113	ug/kg	37.5	113
75-35-4	1,1-Dichloroethylene	U	113	ug/kg	37.5	113
107-06-2	1,2-Dichloroethane	U	113	ug/kg	37.5	113
78-93-3	2-Butanone	U	563	ug/kg	188	563
591-78-6	2-Hexanone	U	563	ug/kg	188	563
108-10-1	4-Methyl-2-pentanone	U	563	ug/kg	188	563
67-64-1	Acetone	U	563	ug/kg	188	563
71-43-2	Benzene	U	113	ug/kg	37.5	113
75-15-0	Carbon disulfide	U	563	ug/kg	188	563
56-23-5	Carbon tetrachloride	U	113	ug/kg	37.5	113
108-90-7	Chlorobenzene	U	113	ug/kg	37.5	113
75-00-3	Chloroethane	U	113	ug/kg	37.5	113
67-66-3	Chloroform	U	113	ug/kg	37.5	113
74-87-3	Chloromethane	U	113	ug/kg	37.5	113
100-41-4	Ethylbenzene	U	113	ug/kg	37.5	113
75-09-2	Methylene chloride	U	563	ug/kg	188	563
100-42-5	Styrene	U	113	ug/kg	37.5	113
127-18-4	Tetrachloroethylene	U	113	ug/kg	37.5	113
108-88-3	Toluene	U	113	ug/kg	37.5	113
79-01-6	Trichloroethylene	U	113	ug/kg	37.5	113
76-13-1	Trichlorotrifluoroethane	U	563	ug/kg	188	563
108-05-4	Vinyl acetate	U	563	ug/kg	188	563
75-01-4	Vinyl chloride	U	113	ug/kg	37.5	113
1330-20-7	Xylenes (total)	U	338	ug/kg	113	338
156-59-2	cis-1,2-Dichloroethylene	U	113	ug/kg	37.5	113
156-60-5	trans-1,2-Dichloroethylene	U	113	ug/kg	37.5	113

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M126.D
Acq On : 02 Oct 2017 21:56
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 03 09:55:33 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1212926	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	942247	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	531408	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1212926	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	942247	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	531408	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	306079	52.36	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1028809	48.62	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	473618	50.52	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	105%
45) Toluene-d8	50.000	81 - 120	97%
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	423	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane	142	7.406	7.418	0.708	179	N.D.		
12) Acetonitrile	41	7.750	7.512	0.741	201	Below Cal	#	34
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	258	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3234	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.193	10.204	0.975	192	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M126.D
Acq On : 02 Oct 2017 21:56
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 03 09:55:33 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.893	553	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	212	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	399	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	397	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	484	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.180	943	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	887	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M126.D
Acq On : 02 Oct 2017 21:56
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 03 09:55:33 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

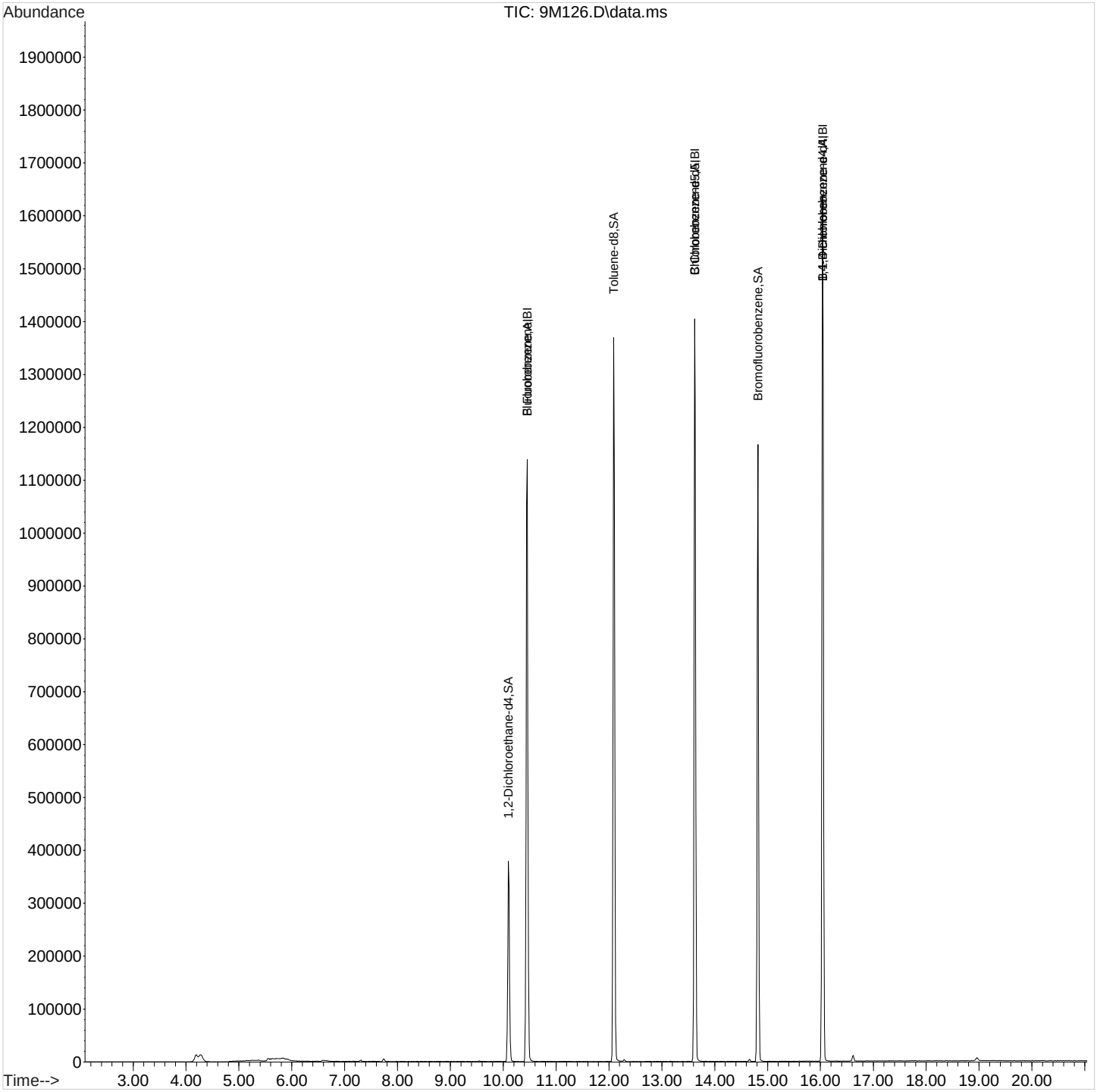
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	930	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	11.153	11.047	1.067	274	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.303	12.304	0.903	329	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.039	16.193	1.000	1239	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	629	N.D.	

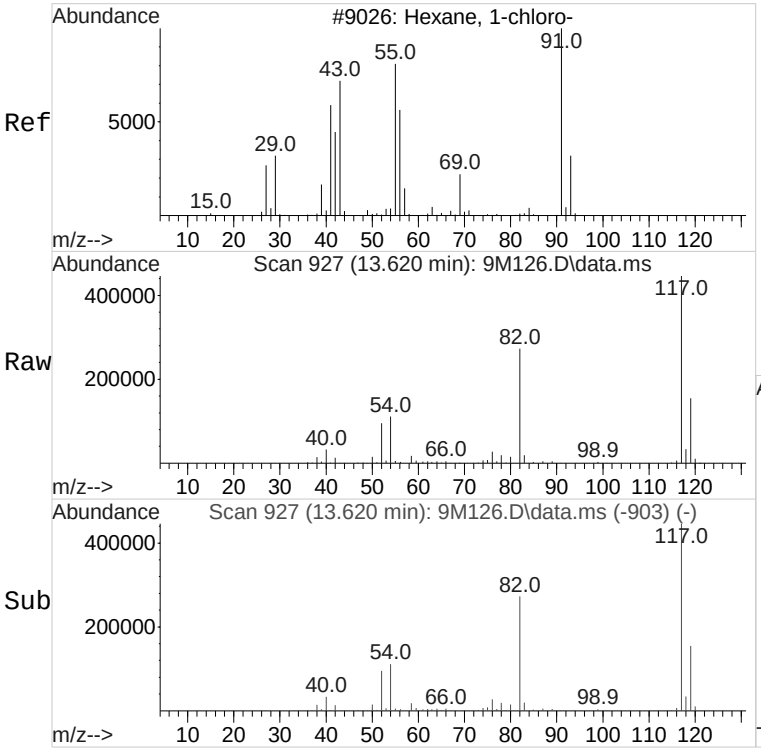
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M126.D
Acq On : 02 Oct 2017 21:56
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 03 09:55:33 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

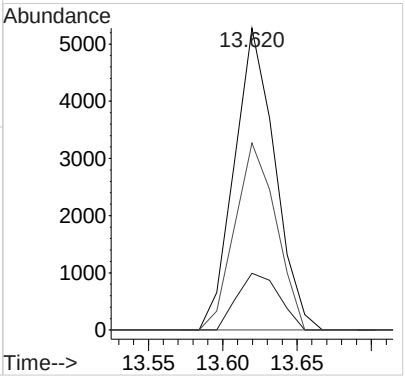




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.54 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M126.D
Acq: 02 Oct 2017 21:56

Tgt Ion: 55 Resp: 10067

Ion	Ratio	Lower	Upper
55	100		
91	19.5	114.6	174.6#
56	62.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:57**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718015**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**12.9**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL05RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 18:45**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:12**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M220.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.15	ug/kg	0.382	1.15
79-34-5	1,1,2,2-Tetrachloroethane	U	1.15	ug/kg	0.382	1.15
79-00-5	1,1,2-Trichloroethane	U	1.15	ug/kg	0.382	1.15
75-34-3	1,1-Dichloroethane	U	1.15	ug/kg	0.382	1.15
75-35-4	1,1-Dichloroethylene	U	1.15	ug/kg	0.382	1.15
107-06-2	1,2-Dichloroethane	U	1.15	ug/kg	0.382	1.15
78-93-3	2-Butanone	U	5.74	ug/kg	1.91	5.74
591-78-6	2-Hexanone	U	5.74	ug/kg	1.91	5.74
108-10-1	4-Methyl-2-pentanone	U	5.74	ug/kg	1.91	5.74
67-64-1	Acetone	U	5.74	ug/kg	1.91	5.74
71-43-2	Benzene	U	1.15	ug/kg	0.382	1.15
75-15-0	Carbon disulfide	U	5.74	ug/kg	1.91	5.74
56-23-5	Carbon tetrachloride	U	1.15	ug/kg	0.382	1.15
108-90-7	Chlorobenzene	U	1.15	ug/kg	0.382	1.15
75-00-3	Chloroethane	U	1.15	ug/kg	0.382	1.15
67-66-3	Chloroform	U	1.15	ug/kg	0.382	1.15
74-87-3	Chloromethane	U	1.15	ug/kg	0.382	1.15
100-41-4	Ethylbenzene	U	1.15	ug/kg	0.382	1.15
75-09-2	Methylene chloride	U	5.74	ug/kg	1.91	5.74
100-42-5	Styrene	U	1.15	ug/kg	0.382	1.15
127-18-4	Tetrachloroethylene	U	1.15	ug/kg	0.382	1.15
108-88-3	Toluene	U	1.15	ug/kg	0.382	1.15
79-01-6	Trichloroethylene	U	1.15	ug/kg	0.382	1.15
76-13-1	Trichlorotrifluoroethane	U	5.74	ug/kg	1.91	5.74
108-05-4	Vinyl acetate	U	5.74	ug/kg	1.91	5.74
75-01-4	Vinyl chloride	U	1.15	ug/kg	0.382	1.15
1330-20-7	Xylenes (total)	U	3.44	ug/kg	1.15	3.44
156-59-2	cis-1,2-Dichloroethylene	U	1.15	ug/kg	0.382	1.15
156-60-5	trans-1,2-Dichloroethylene	U	1.15	ug/kg	0.382	1.15

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M220.D
Acq On : 03 Oct 2017 18:45
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:54:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	633511	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	171637	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	29945	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.454	10.454	1.000	633511	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	171637	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	29945	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	204738	67.06	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	312714	81.12	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	31863	60.32	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	134%#
45) Toluene-d8	50.000	81 - 120	162%#
63) Bromofluorobenzene	50.000	70 - 130	121%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	6477	N.D.		
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.750	7.512	0.741	370	Below Cal	#	35
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	7505	Below Cal		79
15) Methylene chloride	84	7.738	7.738	0.740	7305	N.D.		
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	652	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	1277	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M220.D
Acq On : 03 Oct 2017 18:45
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 10 12:54:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.	
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46)	Toluene	91	12.173	12.173	0.893	555	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58)	o-Xylene		0.000	14.260	0.000	0	N.D.	
59)	Styrene		0.000	14.260	0.000	0	N.D.	
61)	Bromoform		0.000	14.533	0.000	0	N.D.	
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.	
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70)	4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75)	1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.001	209	N.D.	
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82)	Naphthalene	128	18.932	18.908	1.180	216	Below Cal #	69
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85)	Acrolein		0.000	6.979	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	445	N.D.	
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M220.D
Acq On : 03 Oct 2017 18:45
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 10 12:54:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

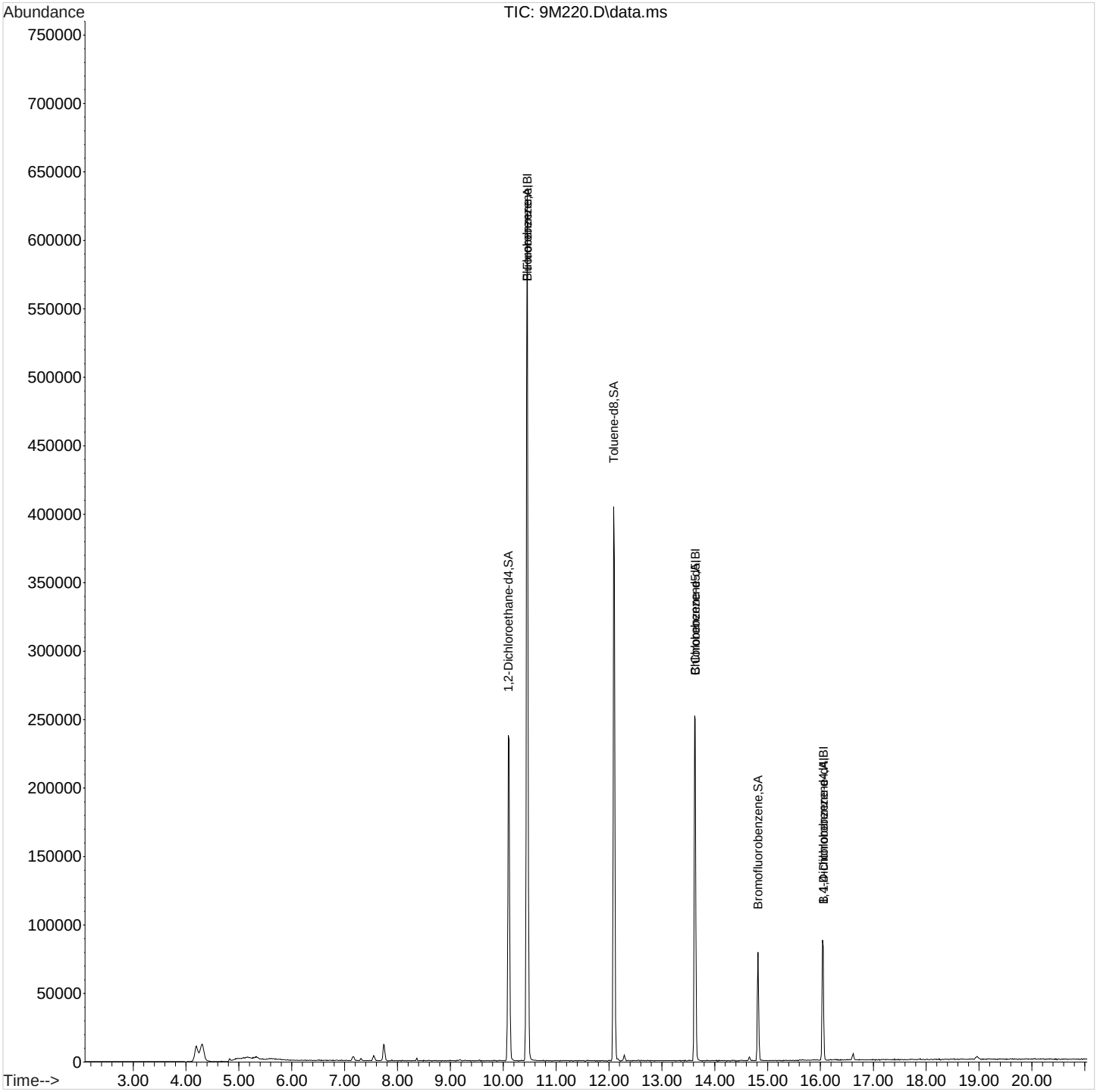
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.173	9.161	0.877	1277	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.540	9.540	0.913	469	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0m	N.D.	d
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

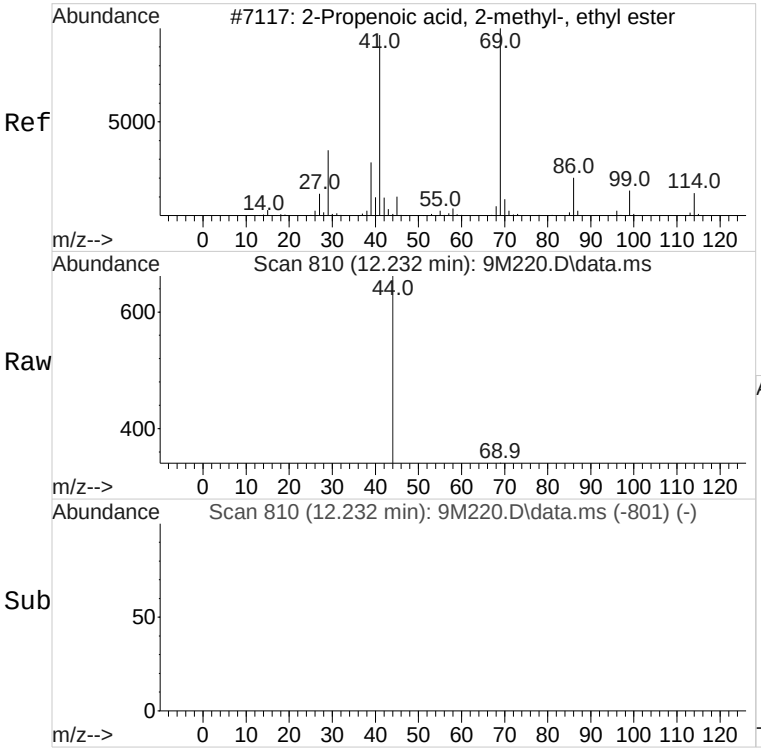
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M220.D
Acq On : 03 Oct 2017 18:45
Operator : RXY1
InstName : VOA9
Sample : |433718015|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 10 12:54:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

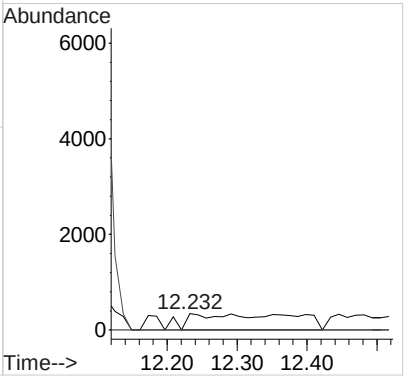


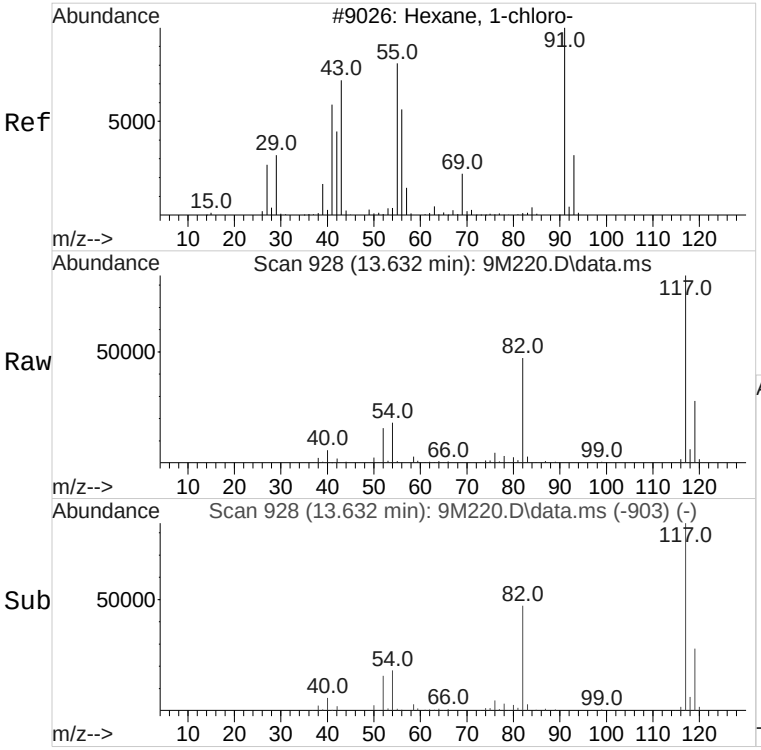


#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 2.56 ug/L
RT: 12.232 min Scan# 810
Delta R.T. -0.072 min
Lab File: 9M220.D
Acq: 03 Oct 2017 18:45

Tgt Ion: 69 Resp: 3375

Ion	Ratio	Lower	Upper
69	100		
41	0.0	38.7	98.7#
99	0.0	0.0	51.3

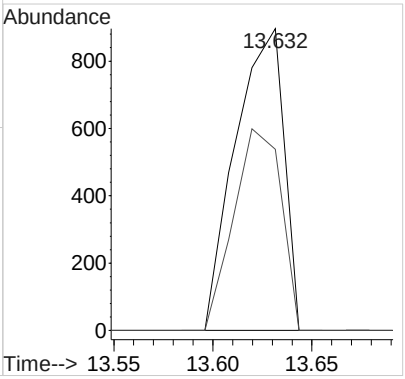




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 4.15 ug/L
RT: 13.632 min Scan# 928
Delta R.T. 0.119 min
Lab File: 9M220.D
Acq: 03 Oct 2017 18:45

Tgt Ion: 55 Resp: 1528

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	65.5	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718016**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL06**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 22:24**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:19**	**Aliquot:**	**5.8 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M127.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	93.0	ug/kg	31.0	93.0
79-34-5	1,1,2,2-Tetrachloroethane	U	93.0	ug/kg	31.0	93.0
79-00-5	1,1,2-Trichloroethane	U	93.0	ug/kg	31.0	93.0
75-34-3	1,1-Dichloroethane	U	93.0	ug/kg	31.0	93.0
75-35-4	1,1-Dichloroethylene	U	93.0	ug/kg	31.0	93.0
107-06-2	1,2-Dichloroethane	U	93.0	ug/kg	31.0	93.0
78-93-3	2-Butanone	U	465	ug/kg	155	465
591-78-6	2-Hexanone	U	465	ug/kg	155	465
108-10-1	4-Methyl-2-pentanone	U	465	ug/kg	155	465
67-64-1	Acetone	U	465	ug/kg	155	465
71-43-2	Benzene	U	93.0	ug/kg	31.0	93.0
75-15-0	Carbon disulfide	U	465	ug/kg	155	465
56-23-5	Carbon tetrachloride	U	93.0	ug/kg	31.0	93.0
108-90-7	Chlorobenzene	U	93.0	ug/kg	31.0	93.0
75-00-3	Chloroethane	U	93.0	ug/kg	31.0	93.0
67-66-3	Chloroform	U	93.0	ug/kg	31.0	93.0
74-87-3	Chloromethane	U	93.0	ug/kg	31.0	93.0
100-41-4	Ethylbenzene	U	93.0	ug/kg	31.0	93.0
75-09-2	Methylene chloride	U	465	ug/kg	155	465
100-42-5	Styrene	U	93.0	ug/kg	31.0	93.0
127-18-4	Tetrachloroethylene	U	93.0	ug/kg	31.0	93.0
108-88-3	Toluene	U	93.0	ug/kg	31.0	93.0
79-01-6	Trichloroethylene	U	93.0	ug/kg	31.0	93.0
76-13-1	Trichlorotrifluoroethane	U	465	ug/kg	155	465
108-05-4	Vinyl acetate	U	465	ug/kg	155	465
75-01-4	Vinyl chloride	U	93.0	ug/kg	31.0	93.0
1330-20-7	Xylenes (total)	U	279	ug/kg	93.0	279
156-59-2	cis-1,2-Dichloroethylene	U	93.0	ug/kg	31.0	93.0
156-60-5	trans-1,2-Dichloroethylene	U	93.0	ug/kg	31.0	93.0

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M127.D
Acq On : 02 Oct 2017 22:24
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 03 09:55:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1218649	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	906037	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	520390	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1218649	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	906037	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	520390	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	300612	51.19	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1013878	49.83	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	451010	49.13	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	100%
63) Bromofluorobenzene	50.000	70 - 130	98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	614	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	199	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	740	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3293	Below Cal		95
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	226	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M127.D
Acq On : 02 Oct 2017 22:24
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 03 09:55:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.893	560	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene	91	13.714	13.714	1.007	543	N.D.	
57) m,p-Xylenes	106	13.821	13.821	1.015	830	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.303	15.292	0.954	247	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	442	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.180	994	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	844	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M127.D
Acq On : 02 Oct 2017 22:24
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 03 09:55:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

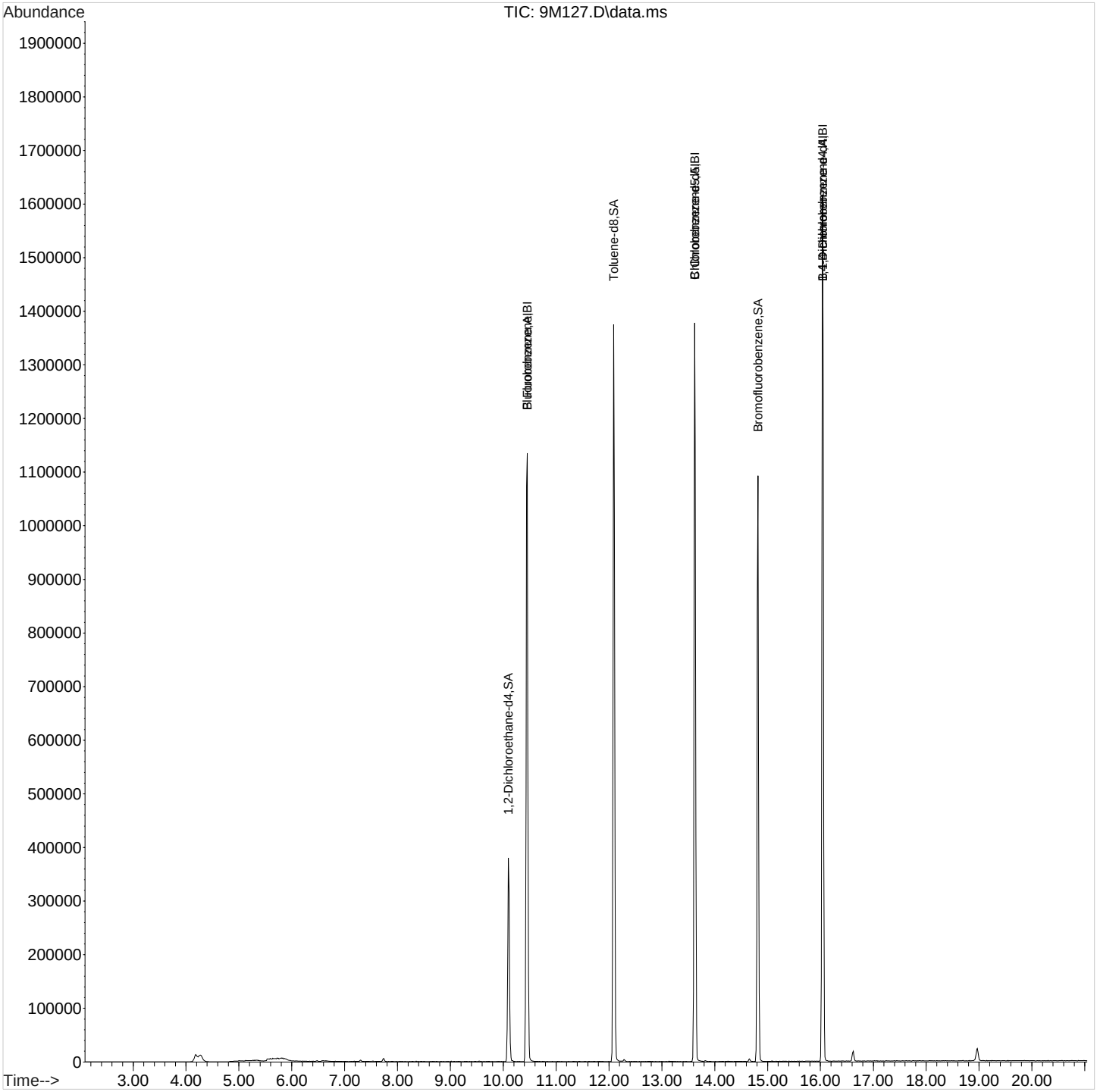
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	766	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.039	16.193	1.000	1225	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	890	N.D.	

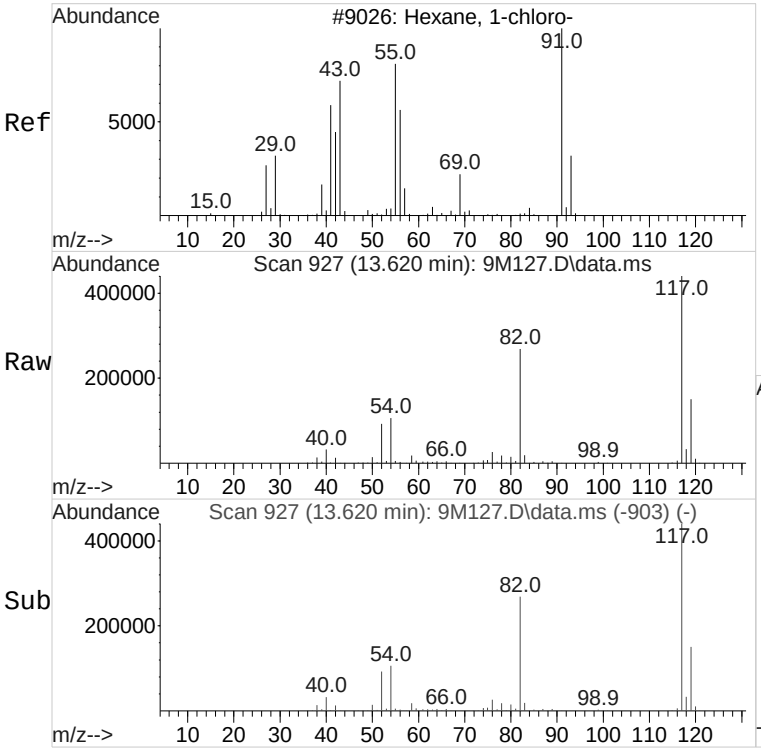
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M127.D
Acq On : 02 Oct 2017 22:24
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 03 09:55:35 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

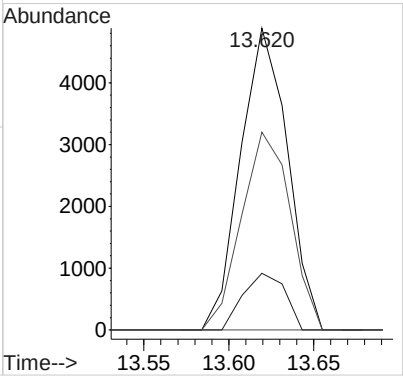




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.47 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M127.D
Acq: 02 Oct 2017 22:24

Tgt Ion: 55 Resp: 9445

Ion	Ratio	Lower	Upper
55	100		
91	16.7	114.6	174.6#
56	68.3	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:00**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718016**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL06RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 19:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:13**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M221.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride	U	5.39	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	U	1.08	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	U	1.08	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.24	ug/kg	1.08	3.24
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

RY
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M221.D
Acq On : 03 Oct 2017 19:14
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 10 12:54:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	692736	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	189911	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	31650	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	692736	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	189911	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	31650	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	223942	67.08	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	343705	80.58	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	33322	59.68	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	134%#
45) Toluene-d8	50.000	81 - 120	161%#
63) Bromofluorobenzene	50.000	70 - 130	119%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	4767	Below Cal		82
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	6692	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2010	Below Cal		83
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	507	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.205	10.204	0.976	193	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M221.D
Acq On : 03 Oct 2017 19:14
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 10 12:54:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.	
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46)	Toluene	91	12.173	12.173	0.893	455	N.D.	
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58)	o-Xylene		0.000	14.260	0.000	0	N.D.	
59)	Styrene		0.000	14.260	0.000	0	N.D.	
61)	Bromoform		0.000	14.533	0.000	0	N.D.	
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.	
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70)	4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	185	N.D.	
76)	1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82)	Naphthalene	128	18.921	18.908	1.180	377	Below Cal # 69	
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85)	Acrolein		0.000	6.979	0.000	0	N.D.	
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	186	N.D.	
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M221.D
Acq On : 03 Oct 2017 19:14
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 10 12:54:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

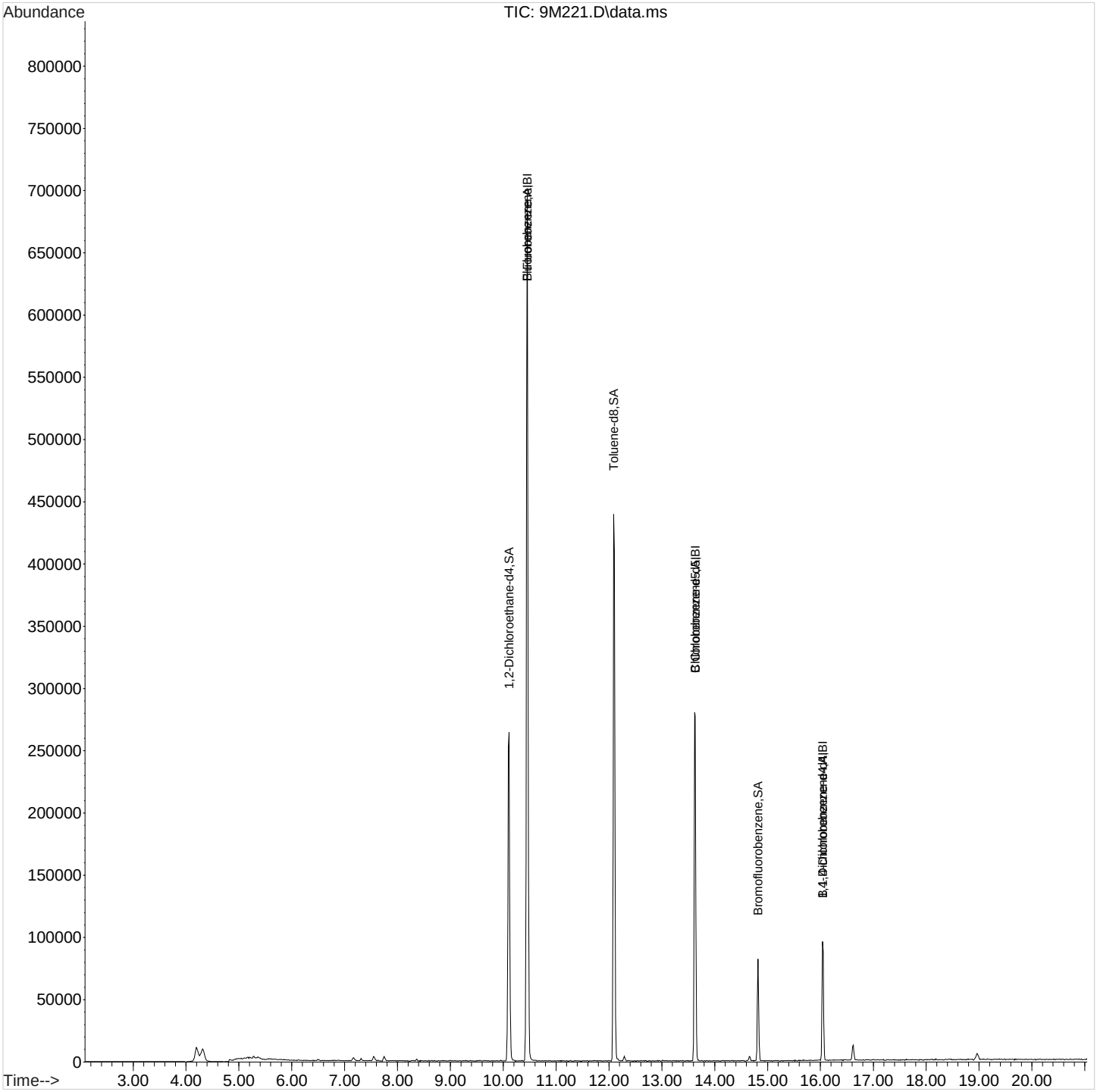
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	213	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

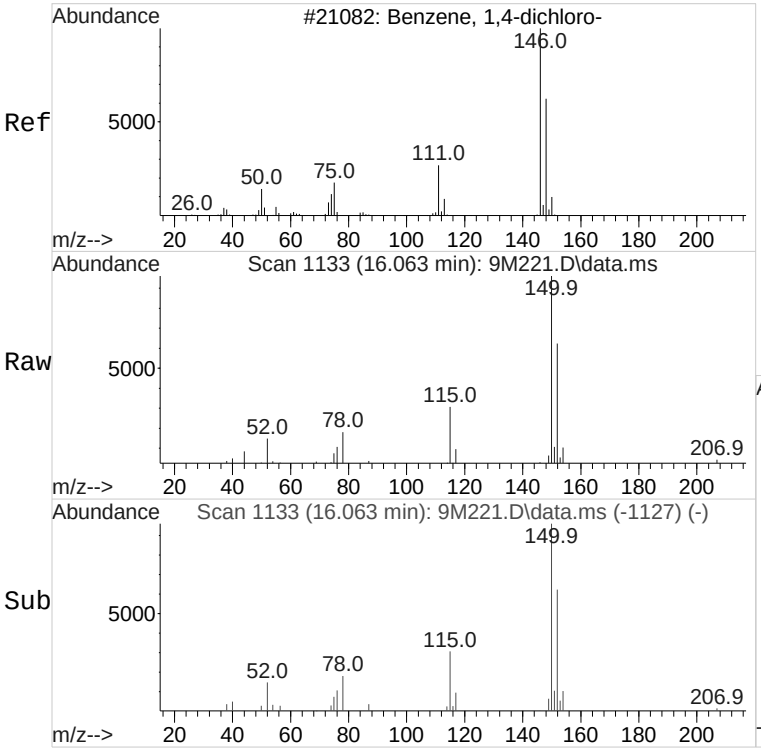
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M221.D
Acq On : 03 Oct 2017 19:14
Operator : RXY1
InstName : VOA9
Sample : |433718016|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Oct 10 12:54:26 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

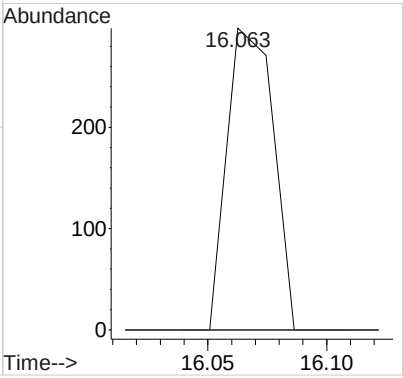


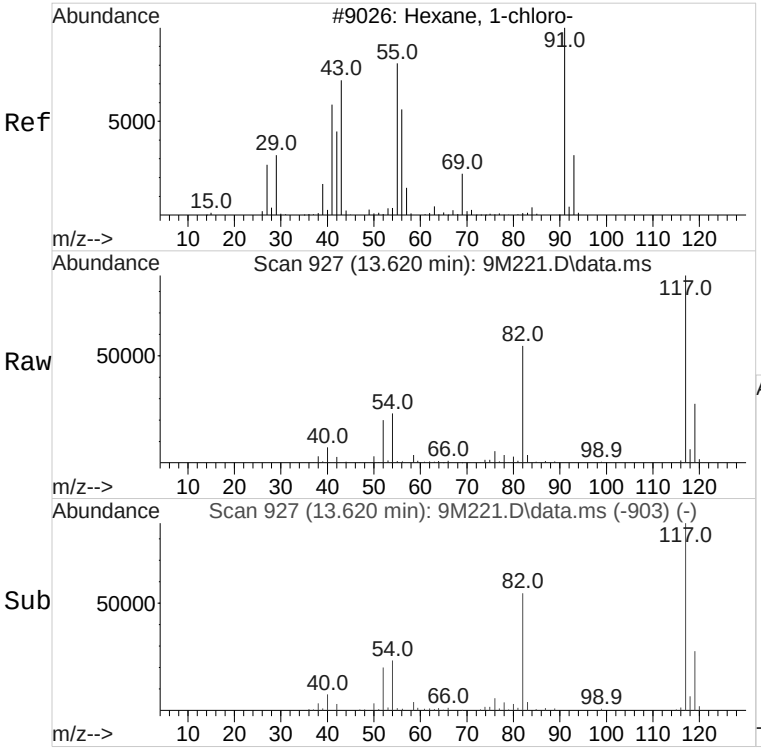


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.47 ug/L
RT: 16.063 min Scan# 1133
Delta R.T. -0.011 min
Lab File: 9M221.D
Acq: 03 Oct 2017 19:14

Tgt Ion:146 Resp: 405

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.9	96.9#
111	0.0	9.0	69.0#

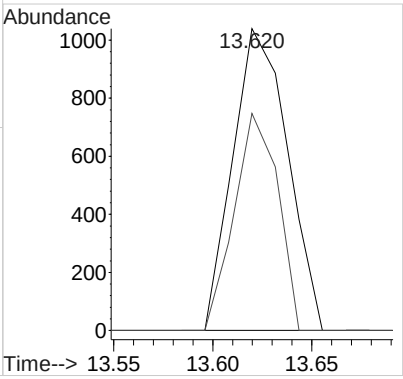


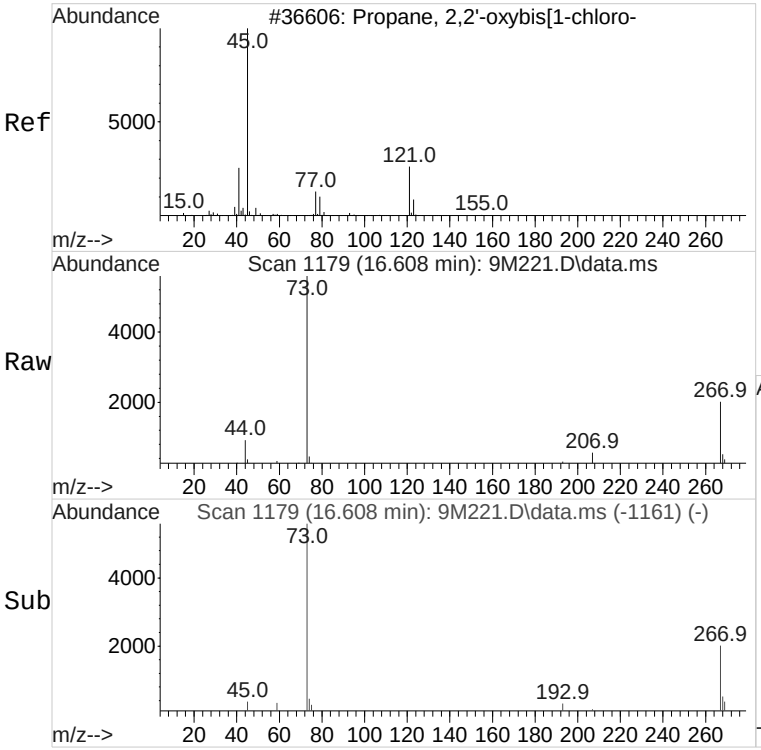


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 5.13 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M221.D
Acq: 03 Oct 2017 19:14

Tgt Ion: 55 Resp: 1999

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	57.4	31.6	91.6

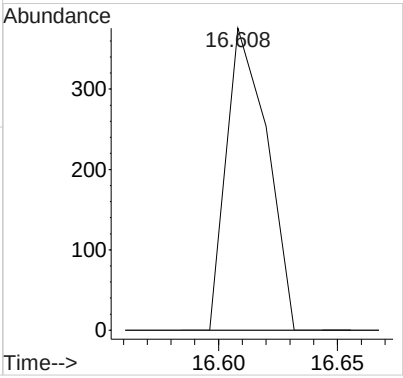




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 2.10 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M221.D
Acq: 03 Oct 2017 19:14

Tgt Ion: 45 Resp: 448

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718017**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL07**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 22:52**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:20**	**Aliquot:**	**5.6 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M128.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	94.5	ug/kg	31.5	94.5
79-34-5	1,1,2,2-Tetrachloroethane	U	94.5	ug/kg	31.5	94.5
79-00-5	1,1,2-Trichloroethane	U	94.5	ug/kg	31.5	94.5
75-34-3	1,1-Dichloroethane	U	94.5	ug/kg	31.5	94.5
75-35-4	1,1-Dichloroethylene	U	94.5	ug/kg	31.5	94.5
107-06-2	1,2-Dichloroethane	U	94.5	ug/kg	31.5	94.5
78-93-3	2-Butanone	U	472	ug/kg	157	472
591-78-6	2-Hexanone	U	472	ug/kg	157	472
108-10-1	4-Methyl-2-pentanone	U	472	ug/kg	157	472
67-64-1	Acetone	U	472	ug/kg	157	472
71-43-2	Benzene	U	94.5	ug/kg	31.5	94.5
75-15-0	Carbon disulfide	U	472	ug/kg	157	472
56-23-5	Carbon tetrachloride	U	94.5	ug/kg	31.5	94.5
108-90-7	Chlorobenzene	U	94.5	ug/kg	31.5	94.5
75-00-3	Chloroethane	U	94.5	ug/kg	31.5	94.5
67-66-3	Chloroform	U	94.5	ug/kg	31.5	94.5
74-87-3	Chloromethane	U	94.5	ug/kg	31.5	94.5
100-41-4	Ethylbenzene	U	94.5	ug/kg	31.5	94.5
75-09-2	Methylene chloride	U	472	ug/kg	157	472
100-42-5	Styrene	U	94.5	ug/kg	31.5	94.5
127-18-4	Tetrachloroethylene	U	94.5	ug/kg	31.5	94.5
108-88-3	Toluene	U	94.5	ug/kg	31.5	94.5
79-01-6	Trichloroethylene	U	94.5	ug/kg	31.5	94.5
76-13-1	Trichlorotrifluoroethane	U	472	ug/kg	157	472
108-05-4	Vinyl acetate	U	472	ug/kg	157	472
75-01-4	Vinyl chloride	U	94.5	ug/kg	31.5	94.5
1330-20-7	Xylenes (total)	U	283	ug/kg	94.5	283
156-59-2	cis-1,2-Dichloroethylene	U	94.5	ug/kg	31.5	94.5
156-60-5	trans-1,2-Dichloroethylene	U	94.5	ug/kg	31.5	94.5

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M128.D
Acq On : 02 Oct 2017 22:52
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 28 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 09:55:37 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1224917	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	925792	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	537750	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1224917	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	925792	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	537750	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	305833	51.81	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1016208	48.87	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	463304	48.84	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.180	7.145	0.687	421	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	196	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	1938	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	3247	Below Cal		93
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	215	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	179	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M128.D
Acq On : 02 Oct 2017 22:52
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 03 09:55:37 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.893	785	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	184	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	248	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	495	N.D.	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene	128	18.920	18.908	1.180	1007	Below Cal #	69
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.698	825	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M128.D
Acq On : 02 Oct 2017 22:52
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 03 09:55:37 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

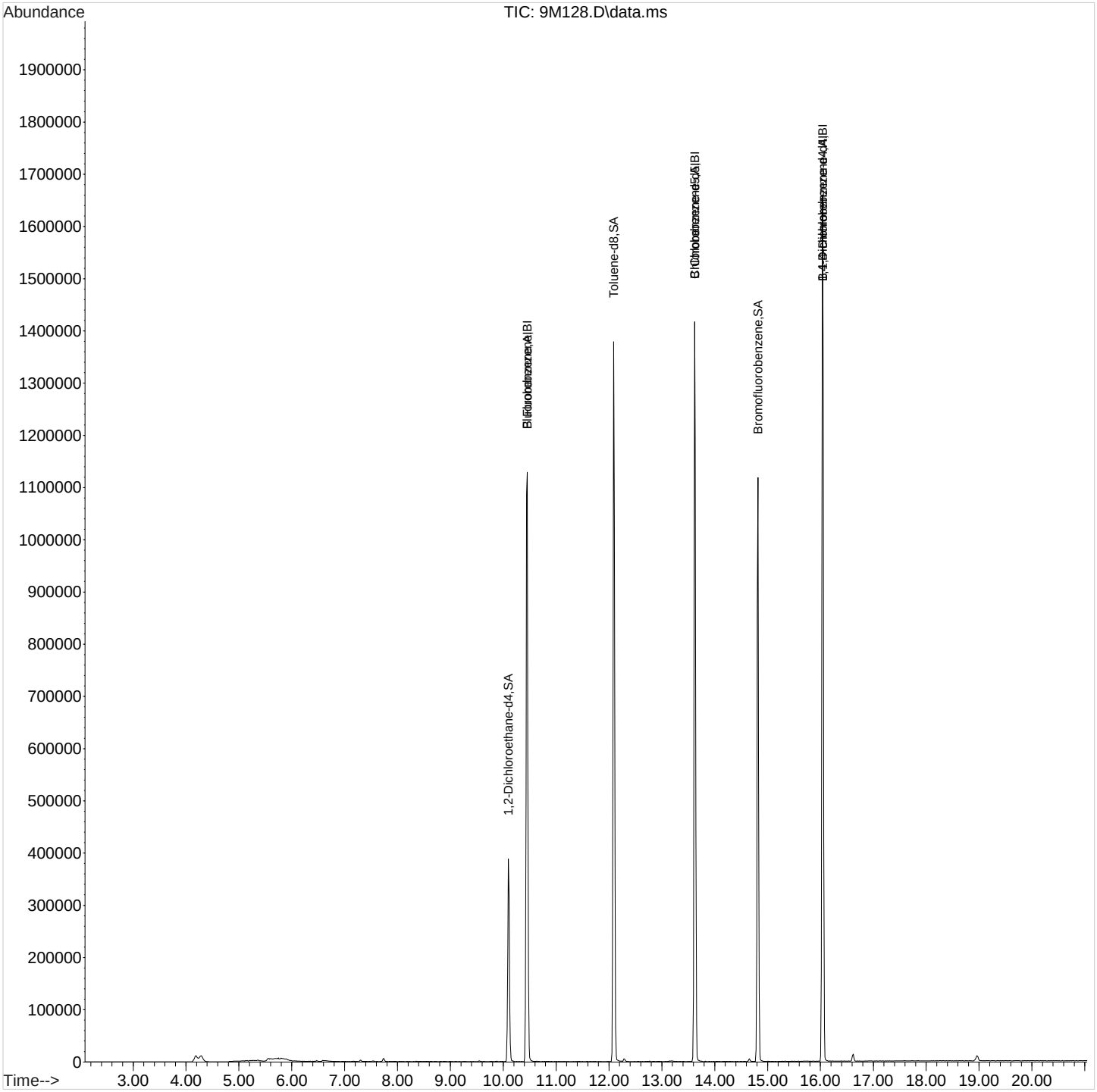
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	179	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	1079	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	10.951	11.047	1.048	201	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.039	16.193	1.000	1239	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	684	N.D.	

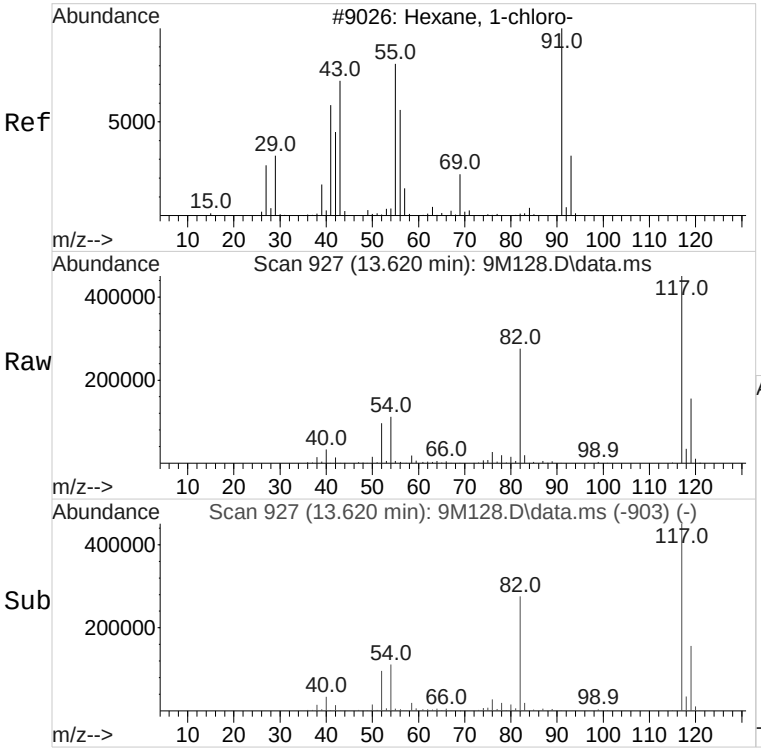
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M128.D
Acq On : 02 Oct 2017 22:52
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 03 09:55:37 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

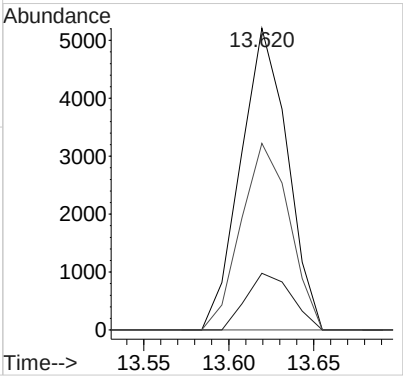




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.52 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M128.D
Acq: 02 Oct 2017 22:52

Tgt Ion: 55 Resp: 10035

Ion	Ratio	Lower	Upper
55	100		
91	18.4	114.6	174.6#
56	64.0	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:30**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718017**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**5.5**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2SWSOL07RE**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 19:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 12:14**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M222.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.352	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.352	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.352	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.352	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.352	1.06
78-93-3	2-Butanone	U	5.29	ug/kg	1.76	5.29
591-78-6	2-Hexanone	U	5.29	ug/kg	1.76	5.29
108-10-1	4-Methyl-2-pentanone	U	5.29	ug/kg	1.76	5.29
67-64-1	Acetone	U	5.29	ug/kg	1.76	5.29
71-43-2	Benzene	U	1.06	ug/kg	0.352	1.06
75-15-0	Carbon disulfide	U	5.29	ug/kg	1.76	5.29
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.352	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.352	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.352	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.352	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.352	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.352	1.06
75-09-2	Methylene chloride	U	5.29	ug/kg	1.76	5.29
100-42-5	Styrene	U	1.06	ug/kg	0.352	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.352	1.06
108-88-3	Toluene	U	1.06	ug/kg	0.352	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.352	1.06
76-13-1	Trichlorotrifluoroethane	U	5.29	ug/kg	1.76	5.29
108-05-4	Vinyl acetate	U	5.29	ug/kg	1.76	5.29
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.352	1.06
1330-20-7	Xylenes (total)	U	3.17	ug/kg	1.06	3.17
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.352	1.06

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M222.D
Acq On : 03 Oct 2017 19:43
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:54:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	513397	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	117099	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	23827	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	513397	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	117099	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	23827	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	187776	75.90	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	218119	82.94	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	19931	47.42	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	152%#
45) Toluene-d8	50.000	81 - 120	166%#
63) Bromofluorobenzene	50.000	70 - 130	95%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	3797	Below Cal		86
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	26141	Below Cal		93
15) Methylene chloride	84	7.750	7.738	0.741	2364	Below Cal		92
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	194	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M222.D
Acq On : 03 Oct 2017 19:43
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 10 12:54:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.161	12.173	0.892	393	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene		0.000	13.655	0.000	0	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene		0.000	13.714	0.000	0	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene		0.000	15.043	0.000	0	N.D.	
68) 1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene		0.000	15.292	0.000	0	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.	
73) sec-Butylbenzene		0.000	15.790	0.000	0	N.D.	
74) 4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.	
75) 1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.	
76) 1,4-Dichlorobenzene		0.000	16.074	0.000	0m	N.D.	d
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.	
78) 1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.	
81) Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.	
82) Naphthalene		0.000	18.908	0.000	0	N.D.	
83) 1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.	
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.311	7.228	0.699	259	N.D.	
88) Allyl chloride		0.000	7.596	0.000	0	N.D.	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M222.D
Acq On : 03 Oct 2017 19:43
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 10 12:54:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

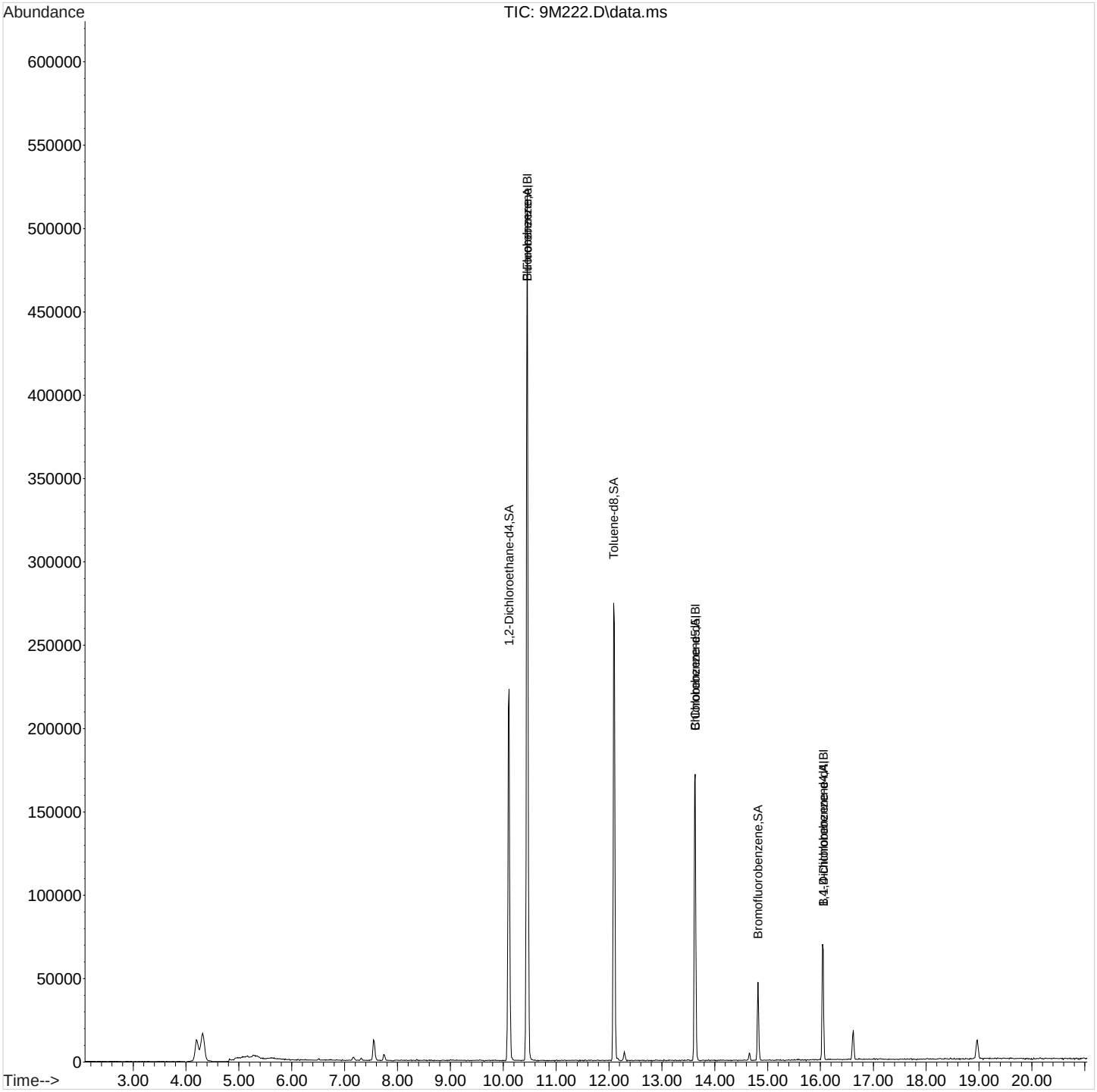
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	406	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	10.951	11.047	1.048	993	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0m	N.D.	d

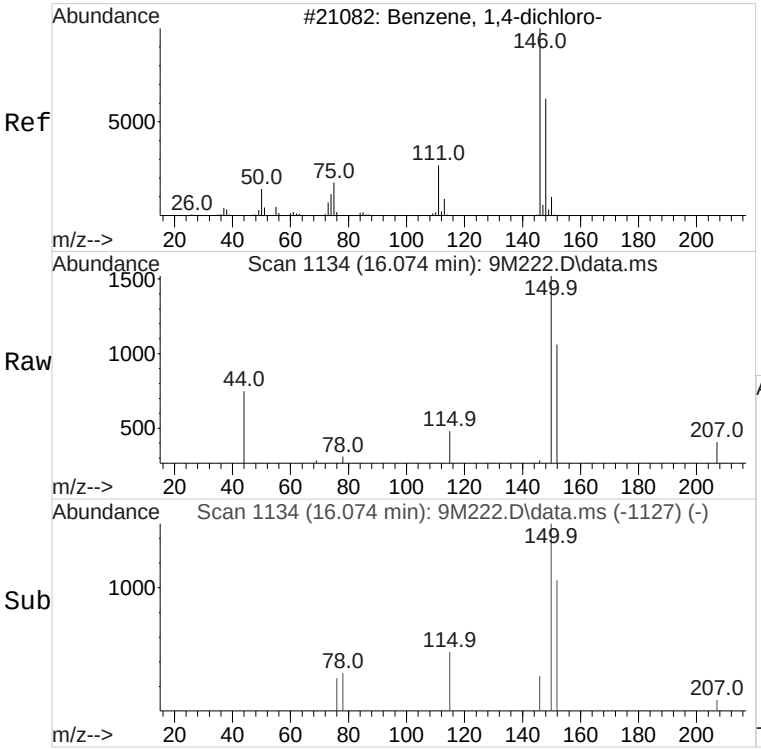
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M222.D
Acq On : 03 Oct 2017 19:43
Operator : RXY1
InstName : VOA9
Sample : |433718017|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Oct 10 12:54:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

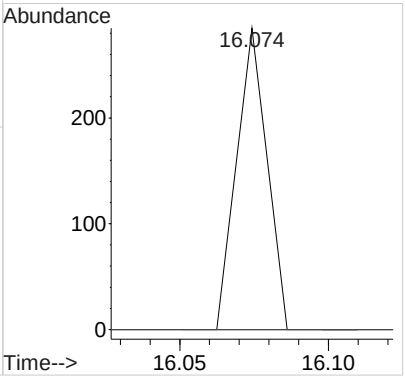


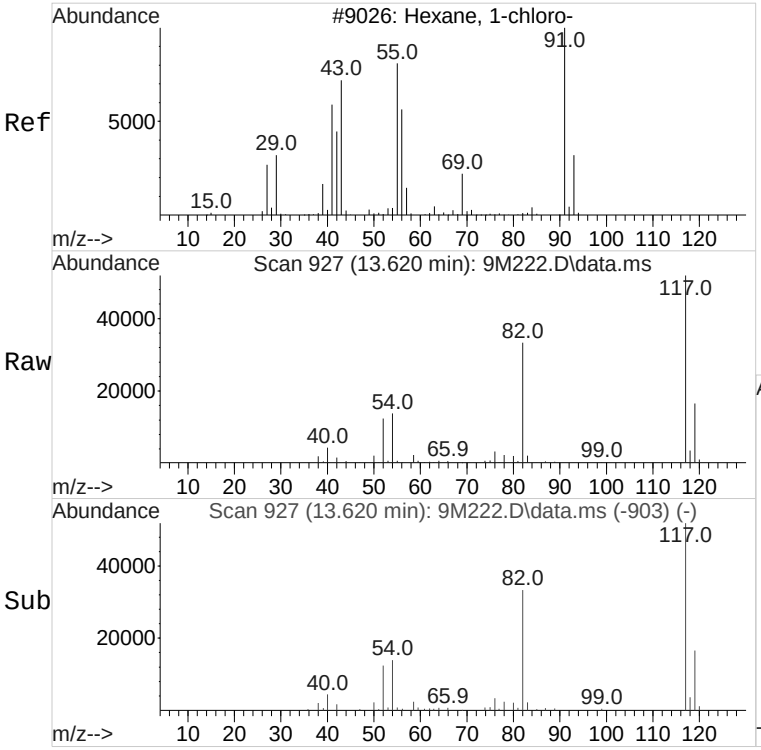


#76 BEFORE analyst DELETION
1,4-Dichlorobenzene
Concen: 0.32 ug/L
RT: 16.074 min Scan# 1134
Delta R.T. 0.000 min
Lab File: 9M222.D
Acq: 03 Oct 2017 19:43

Tgt Ion:146 Resp: 203

Ion	Ratio	Lower	Upper
146	100		
148	0.0	36.9	96.9#
111	0.0	9.0	69.0#

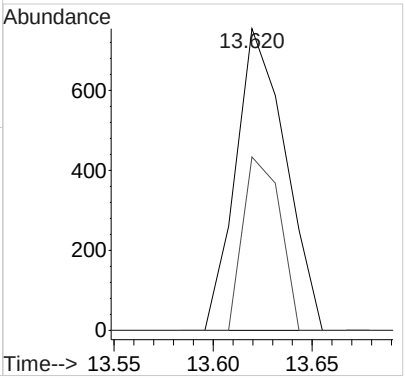


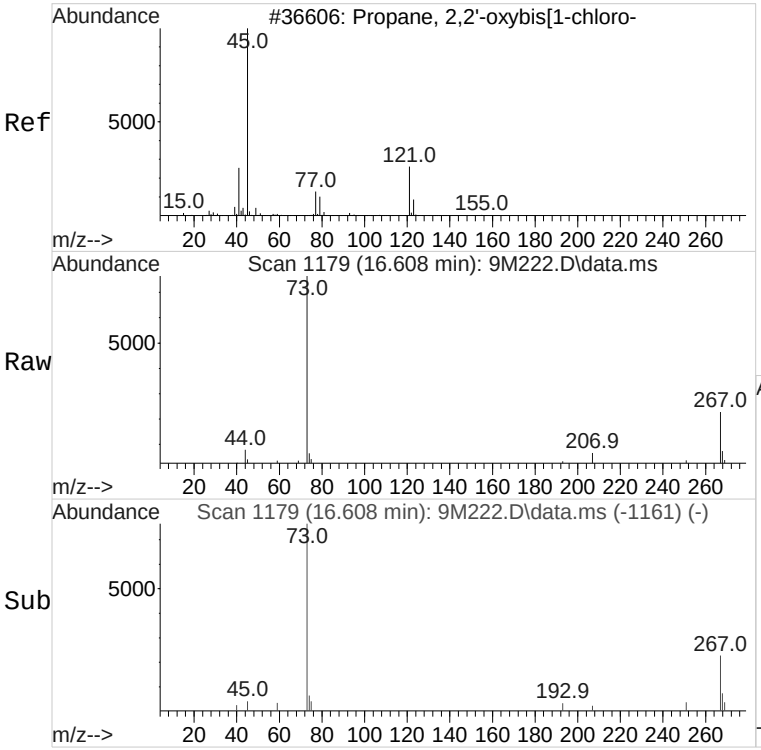


#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 4.49 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M222.D
Acq: 03 Oct 2017 19:43

Tgt Ion: 55 Resp: 1318

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	43.3	31.6	91.6

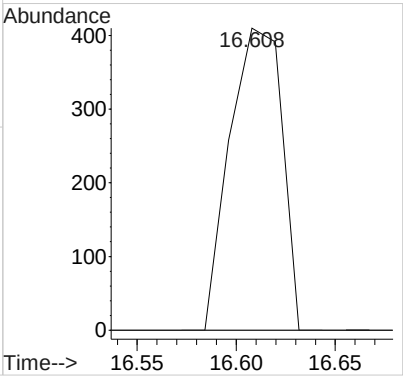




#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 4.69 ug/L
RT: 16.608 min Scan# 1179
Delta R.T. 0.024 min
Lab File: 9M222.D
Acq: 03 Oct 2017 19:43

Tgt Ion: 45 Resp: 753

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 20:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:45**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M223.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.06	ug/kg	0.354	1.06
79-34-5	1,1,2,2-Tetrachloroethane	U	1.06	ug/kg	0.354	1.06
79-00-5	1,1,2-Trichloroethane	U	1.06	ug/kg	0.354	1.06
75-34-3	1,1-Dichloroethane	U	1.06	ug/kg	0.354	1.06
75-35-4	1,1-Dichloroethylene	U	1.06	ug/kg	0.354	1.06
107-06-2	1,2-Dichloroethane	U	1.06	ug/kg	0.354	1.06
78-93-3	2-Butanone	U	5.32	ug/kg	1.77	5.32
591-78-6	2-Hexanone	U	5.32	ug/kg	1.77	5.32
108-10-1	4-Methyl-2-pentanone	U	5.32	ug/kg	1.77	5.32
67-64-1	Acetone	J	2.06	ug/kg	1.77	5.32
71-43-2	Benzene	U	1.06	ug/kg	0.354	1.06
75-15-0	Carbon disulfide	U	5.32	ug/kg	1.77	5.32
56-23-5	Carbon tetrachloride	U	1.06	ug/kg	0.354	1.06
108-90-7	Chlorobenzene	U	1.06	ug/kg	0.354	1.06
75-00-3	Chloroethane	U	1.06	ug/kg	0.354	1.06
67-66-3	Chloroform	U	1.06	ug/kg	0.354	1.06
74-87-3	Chloromethane	U	1.06	ug/kg	0.354	1.06
100-41-4	Ethylbenzene	U	1.06	ug/kg	0.354	1.06
75-09-2	Methylene chloride		6.60	ug/kg	1.77	5.32
100-42-5	Styrene	U	1.06	ug/kg	0.354	1.06
127-18-4	Tetrachloroethylene	U	1.06	ug/kg	0.354	1.06
108-88-3	Toluene	J	0.426	ug/kg	0.354	1.06
79-01-6	Trichloroethylene	U	1.06	ug/kg	0.354	1.06
76-13-1	Trichlorotrifluoroethane	U	5.32	ug/kg	1.77	5.32
108-05-4	Vinyl acetate	U	5.32	ug/kg	1.77	5.32
75-01-4	Vinyl chloride	U	1.06	ug/kg	0.354	1.06
1330-20-7	Xylenes (total)	U	3.19	ug/kg	1.06	3.19
156-59-2	cis-1,2-Dichloroethylene	U	1.06	ug/kg	0.354	1.06
156-60-5	trans-1,2-Dichloroethylene	U	1.06	ug/kg	0.354	1.06

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M223.D
Acq On : 03 Oct 2017 20:10
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	582341	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	157100	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	31427	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	582341	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	157100	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	31427	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	202730	72.24	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	272921	77.35	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	27579	49.75	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	144%#
45) Toluene-d8	50.000	81 - 120	155%#
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane	101	6.398	6.445	0.612	559	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	6604	1.94	ug/L	90
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.524	7.512	0.720	6807	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	7417	Below Cal		78
15) Methylene chloride	84	7.750	7.738	0.741	22746	6.20	ug/L	93
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	2446	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	423	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	870	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M223.D
Acq On : 03 Oct 2017 20:10
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 10 12:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.893	1663	0.40	ug/L	68
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene		0.000	14.260	0.000	0	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.304	15.292	0.953	178	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.		
75)	1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.001	232	N.D.		
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.		
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82)	Naphthalene	128	18.920	18.908	1.179	194	Below Cal	#	69
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.		
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	261	N.D.		
88)	Allyl chloride	41	7.524	7.596	0.720	6807	Below Cal	#	20
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M223.D
Acq On : 03 Oct 2017 20:10
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 10 12:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

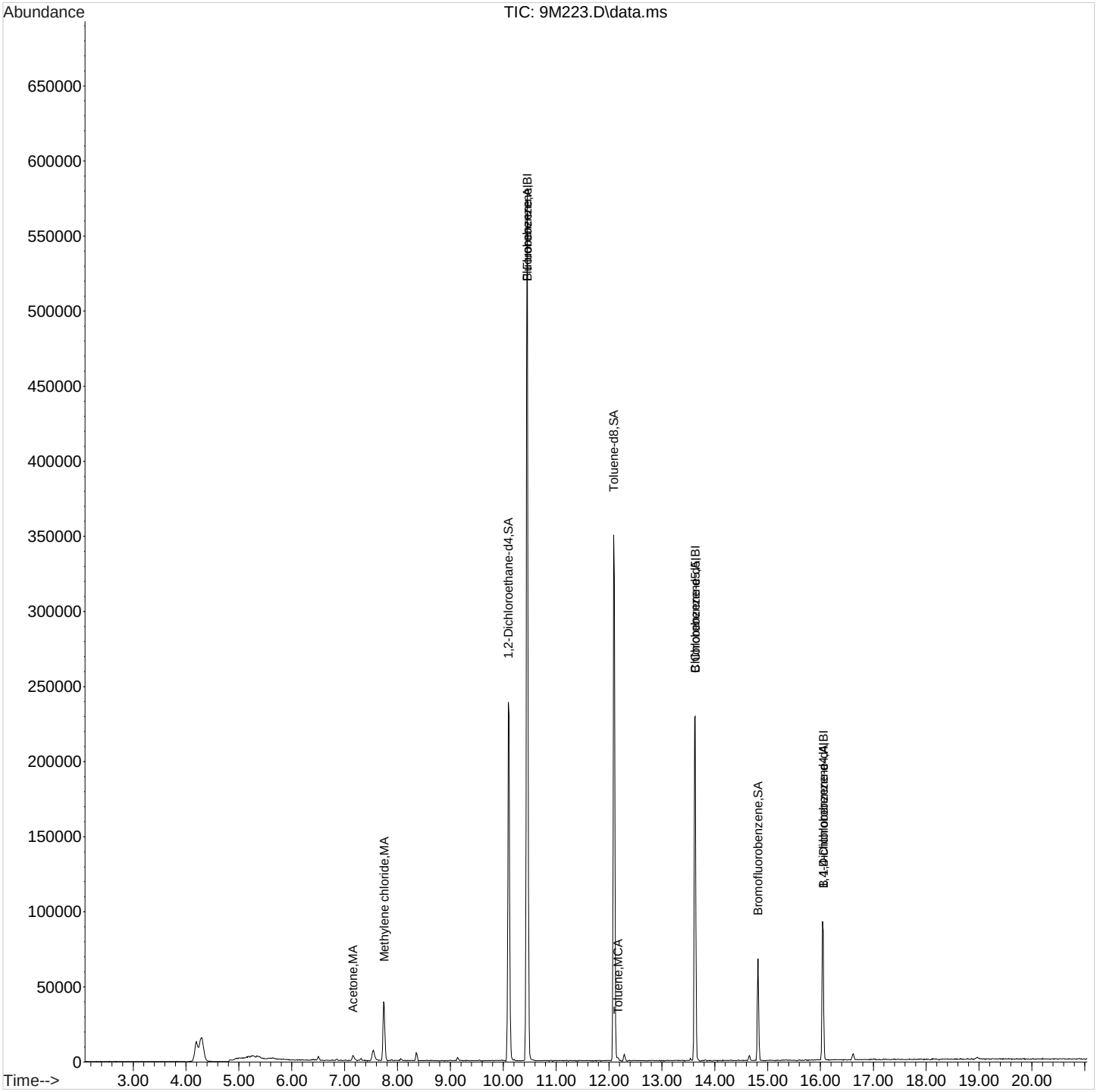
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	423	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	407	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate	69	10.987	11.047	1.051	1067	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.280	12.304	0.901	1057	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

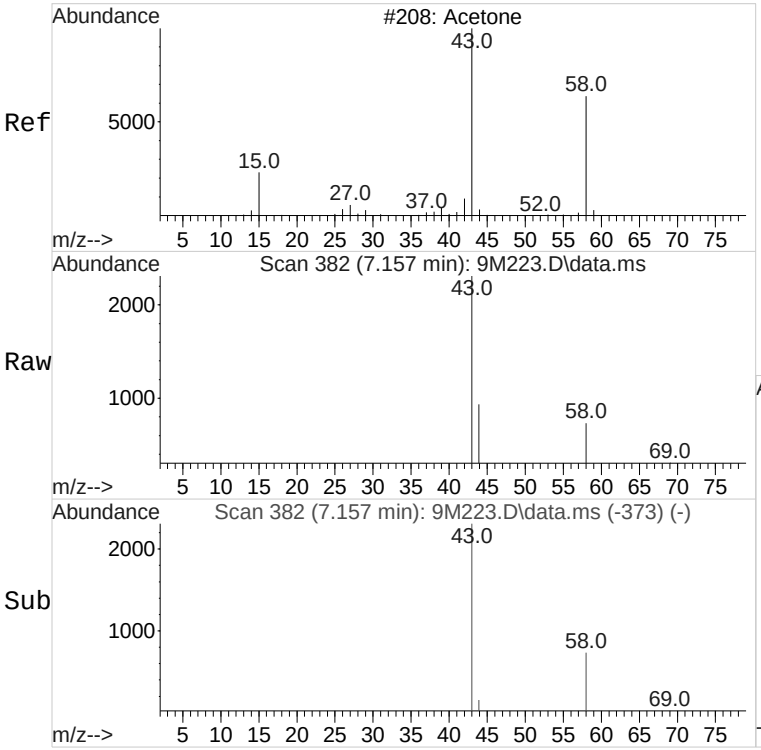
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M223.D
Acq On : 03 Oct 2017 20:10
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Oct 10 12:55:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

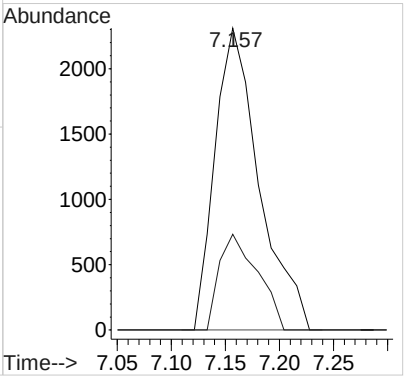


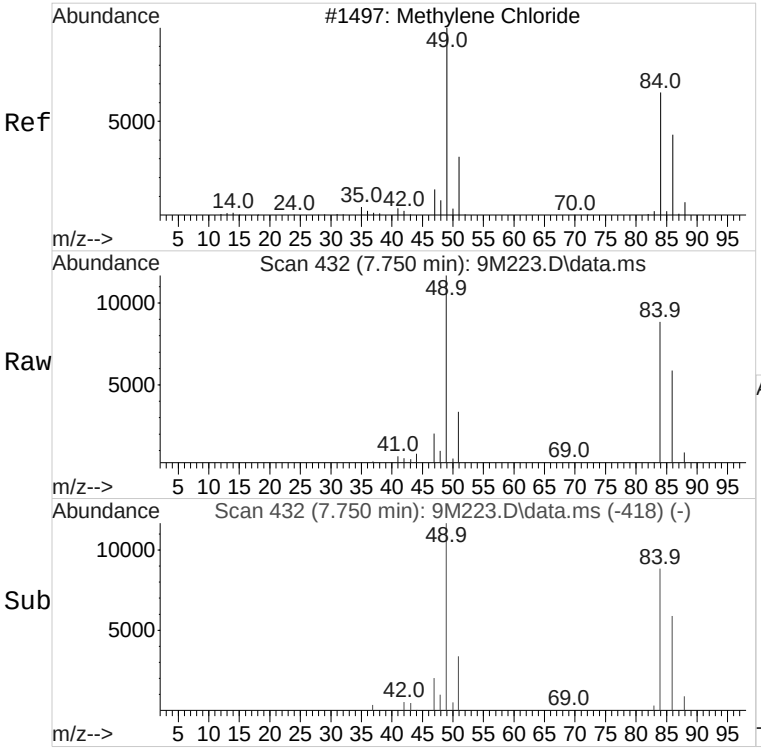


#9
Acetone
Concen: 1.94 ug/L
RT: 7.157 min Scan# 382
Delta R.T. 0.012 min
Lab File: 9M223.D
Acq: 03 Oct 2017 20:10

Tgt Ion: 43 Resp: 6604

Ion	Ratio	Lower	Upper
43	100		
58	27.5	3.0	63.0

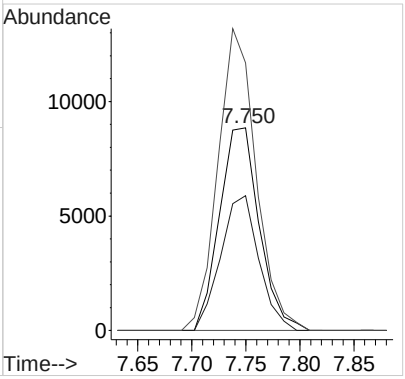


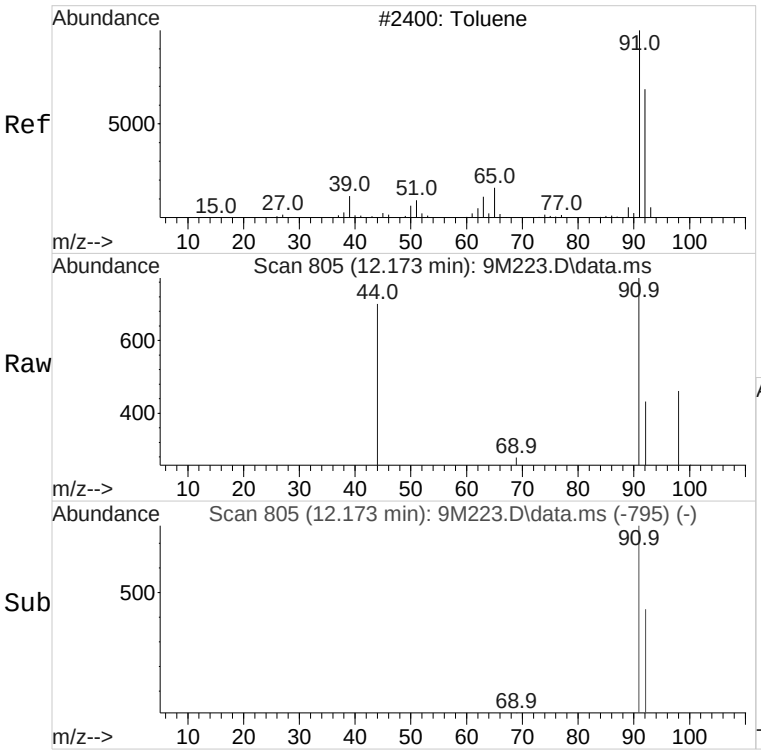


#15
Methylene chloride
Concen: 6.20 ug/L
RT: 7.750 min Scan# 432
Delta R.T. 0.012 min
Lab File: 9M223.D
Acq: 03 Oct 2017 20:10

Tgt Ion: 84 Resp: 22746

Ion	Ratio	Lower	Upper
84	100		
86	63.8	34.7	94.7
49	142.6	101.5	161.5

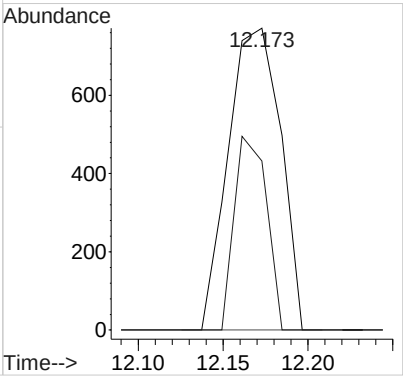


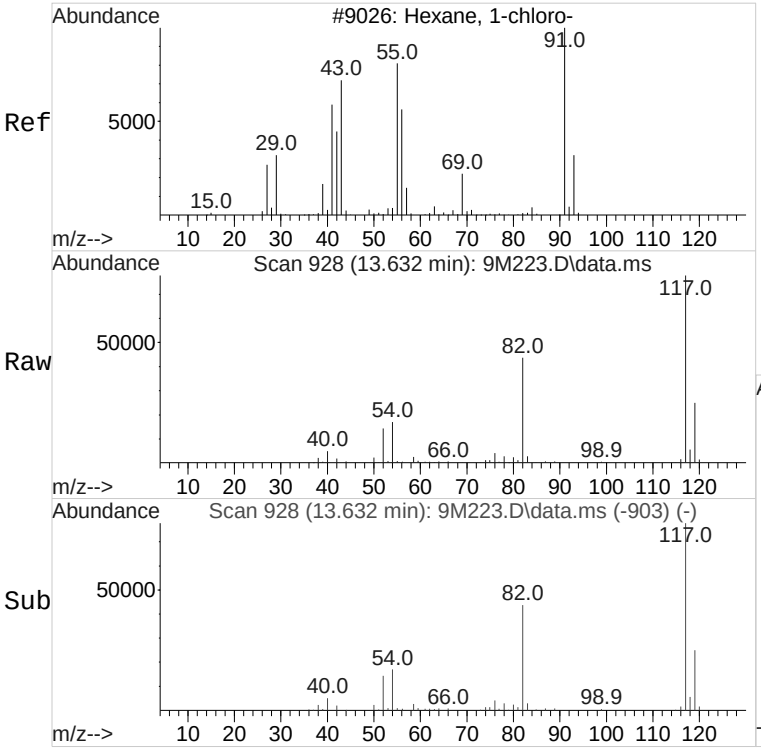


#46
Toluene
Concen: 0.40 ug/L
RT: 12.173 min Scan# 805
Delta R.T. -0.000 min
Lab File: 9M223.D
Acq: 03 Oct 2017 20:10

Tgt Ion: 91 Resp: 1663

Ion	Ratio	Lower	Upper
91	100		
92	39.6	34.6	94.6

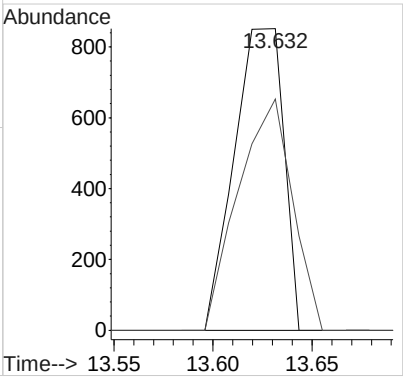




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 3.84 ug/L
RT: 13.632 min Scan# 928
Delta R.T. 0.119 min
Lab File: 9M223.D
Acq: 03 Oct 2017 20:10

Tgt Ion: 55 Resp: 1485

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	83.8	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 01:42**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:50**	**Aliquot:**	**6 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M235.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	88.7	ug/kg	29.5	88.7
79-34-5	1,1,2,2-Tetrachloroethane	U	88.7	ug/kg	29.5	88.7
79-00-5	1,1,2-Trichloroethane	U	88.7	ug/kg	29.5	88.7
75-34-3	1,1-Dichloroethane	U	88.7	ug/kg	29.5	88.7
75-35-4	1,1-Dichloroethylene	U	88.7	ug/kg	29.5	88.7
107-06-2	1,2-Dichloroethane	U	88.7	ug/kg	29.5	88.7
78-93-3	2-Butanone	U	443	ug/kg	148	443
591-78-6	2-Hexanone	U	443	ug/kg	148	443
108-10-1	4-Methyl-2-pentanone	U	443	ug/kg	148	443
67-64-1	Acetone	U	443	ug/kg	148	443
71-43-2	Benzene	U	88.7	ug/kg	29.5	88.7
75-15-0	Carbon disulfide	U	443	ug/kg	148	443
56-23-5	Carbon tetrachloride	U	88.7	ug/kg	29.5	88.7
108-90-7	Chlorobenzene	U	88.7	ug/kg	29.5	88.7
75-00-3	Chloroethane	U	88.7	ug/kg	29.5	88.7
67-66-3	Chloroform	U	88.7	ug/kg	29.5	88.7
74-87-3	Chloromethane	U	88.7	ug/kg	29.5	88.7
100-41-4	Ethylbenzene	U	88.7	ug/kg	29.5	88.7
75-09-2	Methylene chloride	U	443	ug/kg	148	443
100-42-5	Styrene	U	88.7	ug/kg	29.5	88.7
127-18-4	Tetrachloroethylene	U	88.7	ug/kg	29.5	88.7
108-88-3	Toluene	U	88.7	ug/kg	29.5	88.7
79-01-6	Trichloroethylene	U	88.7	ug/kg	29.5	88.7
76-13-1	Trichlorotrifluoroethane	U	443	ug/kg	148	443
108-05-4	Vinyl acetate	U	443	ug/kg	148	443
75-01-4	Vinyl chloride	U	88.7	ug/kg	29.5	88.7
1330-20-7	Xylenes (total)	U	266	ug/kg	88.7	266
156-59-2	cis-1,2-Dichloroethylene	U	88.7	ug/kg	29.5	88.7
156-60-5	trans-1,2-Dichloroethylene	U	88.7	ug/kg	29.5	88.7

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M235.D
Acq On : 04 Oct 2017 01:42
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 10:15:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1179539	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	898744	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	508582	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1179539	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	898744	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	508582	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	295971	52.07	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	984897	48.79	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	442768	49.35	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane	50	4.987	4.998	0.477	203	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.168	7.145	0.686	426	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.548	7.512	0.722	430	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	1164	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	6891	Below Cal		96
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	1109	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	401	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	225	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M235.D
Acq On : 04 Oct 2017 01:42
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 10:15:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.161	12.173	0.893	996	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.003	512	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene	91	13.714	13.714	1.007	514	N.D.		
57)	m,p-Xylenes	106	13.821	13.821	1.015	449	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene	104	14.272	14.260	1.048	189	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene	105	14.616	14.616	0.911	218	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene	91	15.043	15.043	0.938	980	N.D.		
68)	1,3,5-Trimethylbenzene	105	15.197	15.185	0.948	514	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.303	15.292	0.954	1043	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	642	N.D.		
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1139	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1718	N.D.		
75)	1,3-Dichlorobenzene	146	15.979	15.991	0.996	915	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	1417	N.D.		
77)	n-Butylbenzene	91	16.359	16.359	1.020	1795	Below Cal	#	73
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	716	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	1790	Below Cal		98
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	1336	Below Cal		78
82)	Naphthalene	128	18.920	18.908	1.180	3143	Below Cal	#	69
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	1795	Below Cal		89
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.299	7.228	0.698	679	N.D.		
88)	Allyl chloride	41	7.548	7.596	0.722	430	Below Cal	#	1
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M235.D
Acq On : 04 Oct 2017 01:42
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 10:15:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

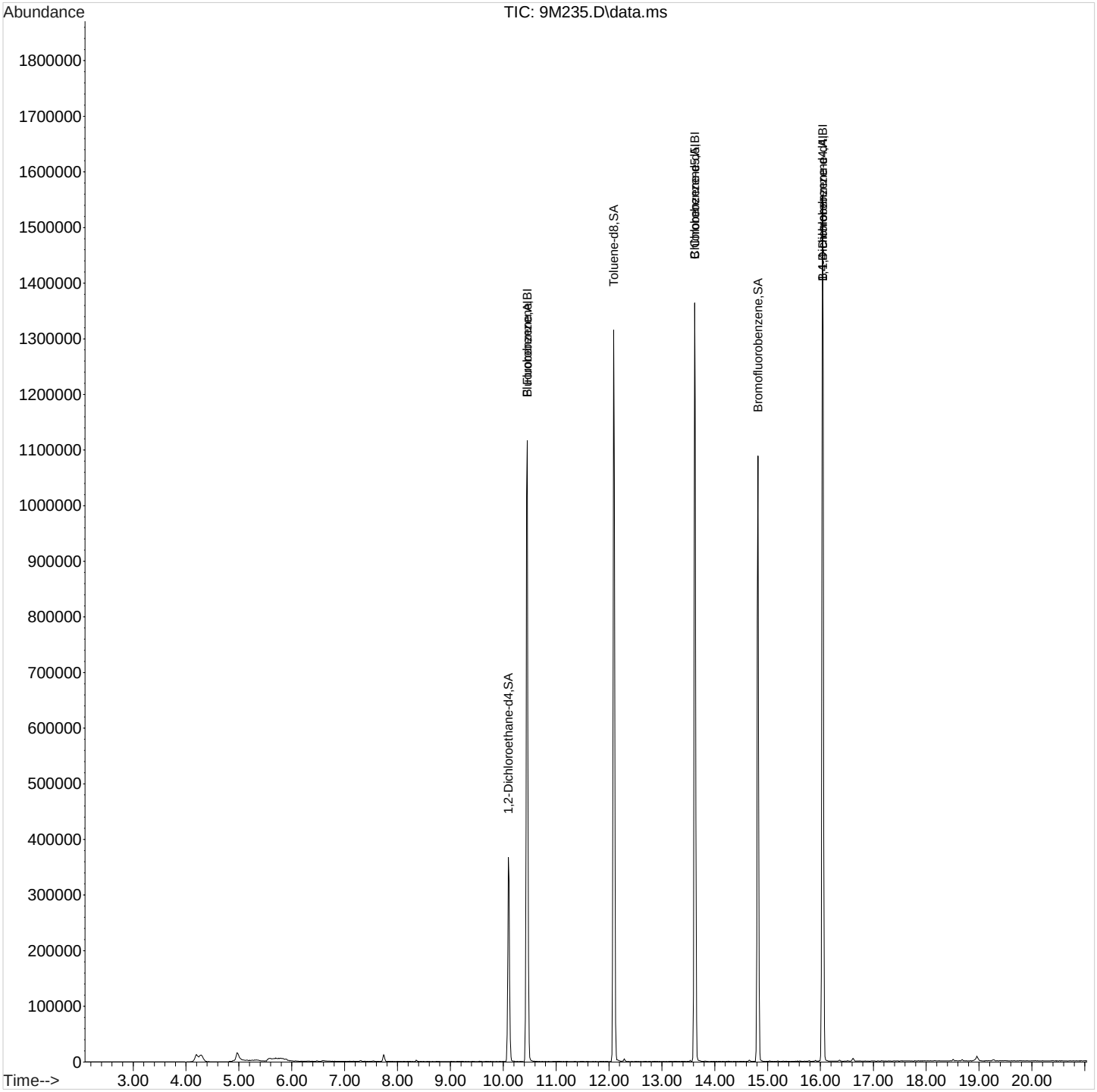
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	401	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	829	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.185	12.304	0.895	607	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	236	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	419	N.D.	

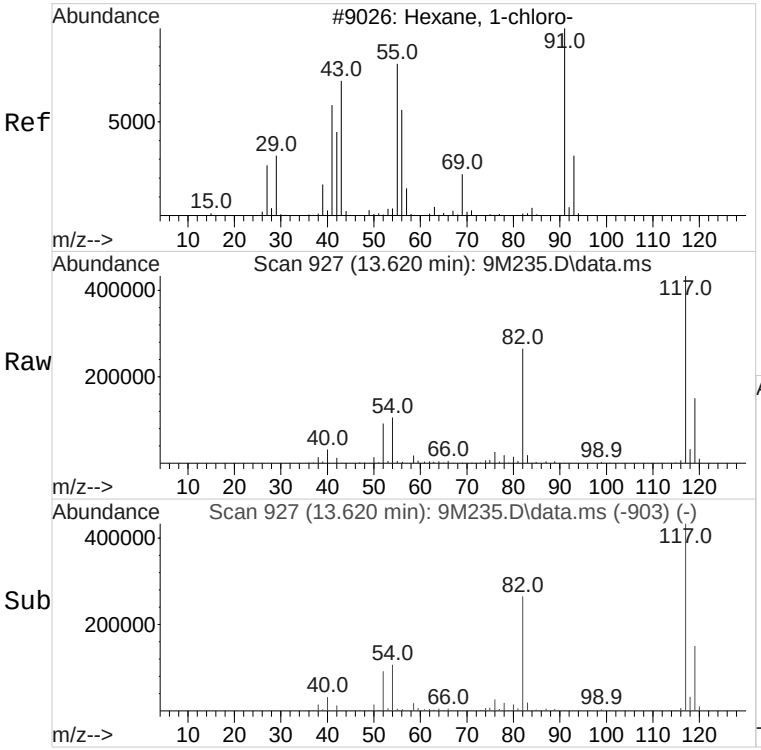
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M235.D
Acq On : 04 Oct 2017 01:42
Operator : RXY1
InstName : VOA9
Sample : |433718018|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 04 10:15:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

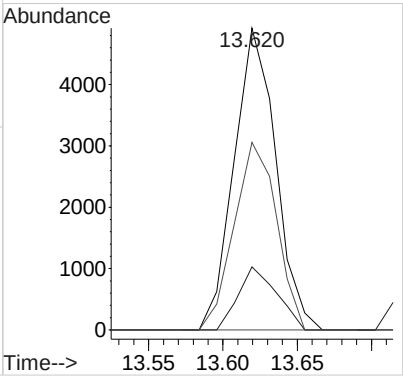




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.54 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M235.D
Acq: 04 Oct 2017 01:42

Tgt Ion: 55 Resp: 9632

Ion	Ratio	Lower	Upper
55	100		
91	19.2	114.6	174.6#
56	63.2	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 20:39**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:46**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M224.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.08	ug/kg	0.359	1.08
79-34-5	1,1,2,2-Tetrachloroethane	U	1.08	ug/kg	0.359	1.08
79-00-5	1,1,2-Trichloroethane	U	1.08	ug/kg	0.359	1.08
75-34-3	1,1-Dichloroethane	U	1.08	ug/kg	0.359	1.08
75-35-4	1,1-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
107-06-2	1,2-Dichloroethane	U	1.08	ug/kg	0.359	1.08
78-93-3	2-Butanone	U	5.39	ug/kg	1.80	5.39
591-78-6	2-Hexanone	U	5.39	ug/kg	1.80	5.39
108-10-1	4-Methyl-2-pentanone	U	5.39	ug/kg	1.80	5.39
67-64-1	Acetone	U	5.39	ug/kg	1.80	5.39
71-43-2	Benzene	U	1.08	ug/kg	0.359	1.08
75-15-0	Carbon disulfide	U	5.39	ug/kg	1.80	5.39
56-23-5	Carbon tetrachloride	U	1.08	ug/kg	0.359	1.08
108-90-7	Chlorobenzene	U	1.08	ug/kg	0.359	1.08
75-00-3	Chloroethane	U	1.08	ug/kg	0.359	1.08
67-66-3	Chloroform	U	1.08	ug/kg	0.359	1.08
74-87-3	Chloromethane	U	1.08	ug/kg	0.359	1.08
100-41-4	Ethylbenzene	U	1.08	ug/kg	0.359	1.08
75-09-2	Methylene chloride		5.48	ug/kg	1.80	5.39
100-42-5	Styrene	U	1.08	ug/kg	0.359	1.08
127-18-4	Tetrachloroethylene	J	0.734	ug/kg	0.359	1.08
108-88-3	Toluene	U	1.08	ug/kg	0.359	1.08
79-01-6	Trichloroethylene	J	0.421	ug/kg	0.359	1.08
76-13-1	Trichlorotrifluoroethane	U	5.39	ug/kg	1.80	5.39
108-05-4	Vinyl acetate	U	5.39	ug/kg	1.80	5.39
75-01-4	Vinyl chloride	U	1.08	ug/kg	0.359	1.08
1330-20-7	Xylenes (total)	U	3.24	ug/kg	1.08	3.24
156-59-2	cis-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08
156-60-5	trans-1,2-Dichloroethylene	U	1.08	ug/kg	0.359	1.08

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M224.D
Acq On : 03 Oct 2017 20:39
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:56:48 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	766475	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	249003	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	40673	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	766475	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	249003	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	40673	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	224026	60.65	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	461588	82.54	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	50599	70.52	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	121%
45) Toluene-d8	50.000	81 - 120	165%#
63) Bromofluorobenzene	50.000	70 - 130	141%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.157	7.145	0.685	403	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.536	7.512	0.721	1476	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	8796	Below Cal		86
15) Methylene chloride	84	7.750	7.738	0.741	25523	5.08	ug/L	95
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	1323	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	432	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	706	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene	95	10.845	10.833	1.037	1464	0.39	ug/L	93

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M224.D
Acq On : 03 Oct 2017 20:39
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 10 12:56:48 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.893	1365	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene	164	12.766	12.766	0.936	872	0.68	ug/L #	65
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene		0.000	14.260	0.000	0	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene		0.000	15.292	0.000	0	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.		
75)	1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	191	N.D.		
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.		
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82)	Naphthalene		0.000	18.908	0.000	0	N.D.		
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.		
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.323	7.228	0.701	633	N.D.		
88)	Allyl chloride	41	7.536	7.596	0.721	1476	Below Cal	#	1
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M224.D
Acq On : 03 Oct 2017 20:39
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 10 12:56:48 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

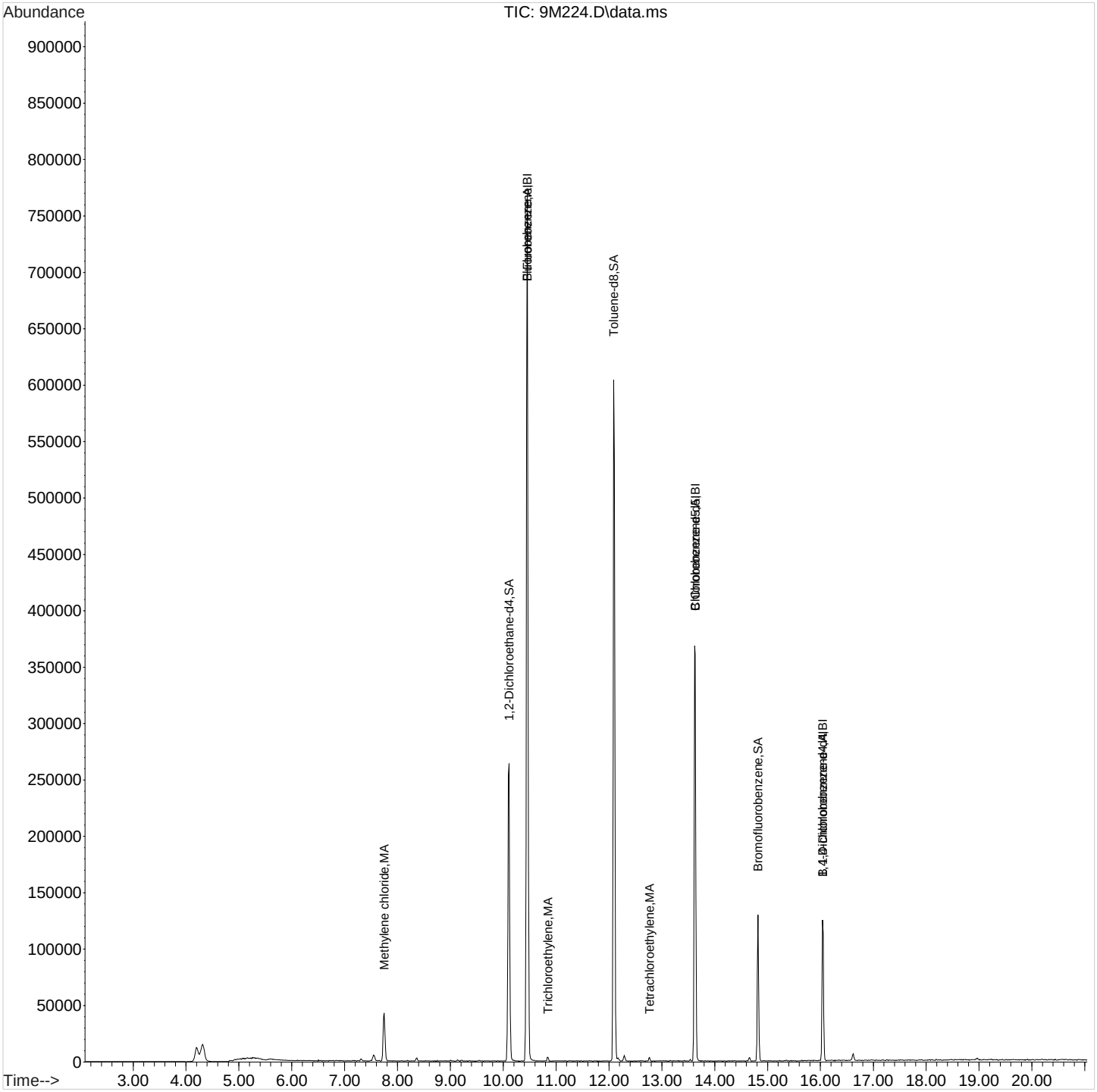
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	407	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0m	N.D.	d
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

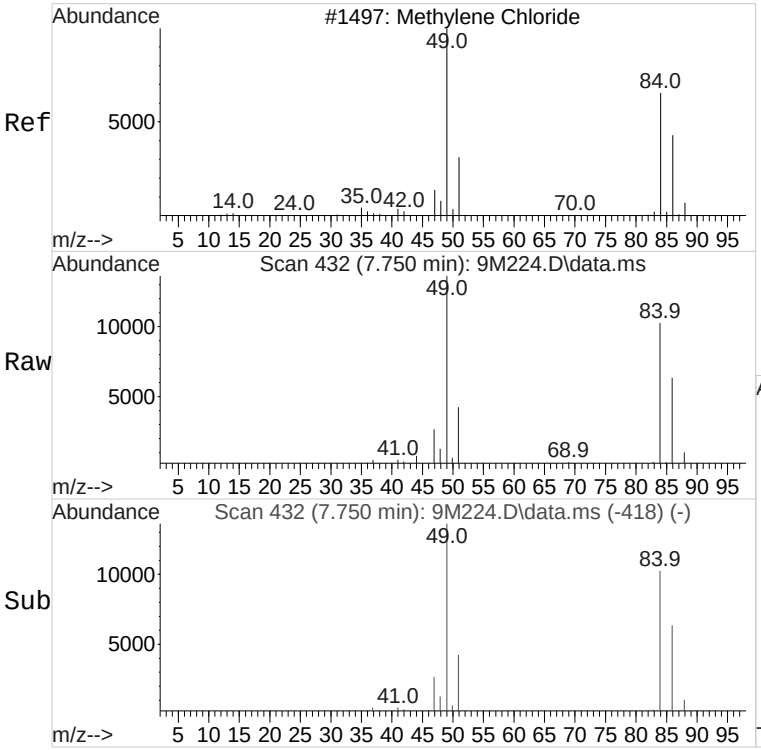
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M224.D
Acq On : 03 Oct 2017 20:39
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Oct 10 12:56:48 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

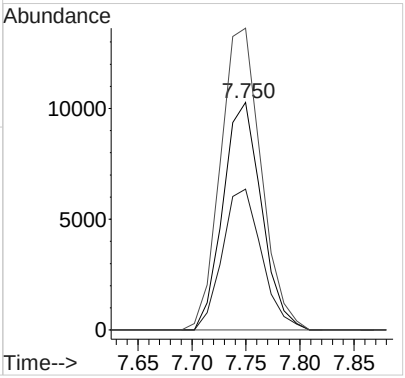


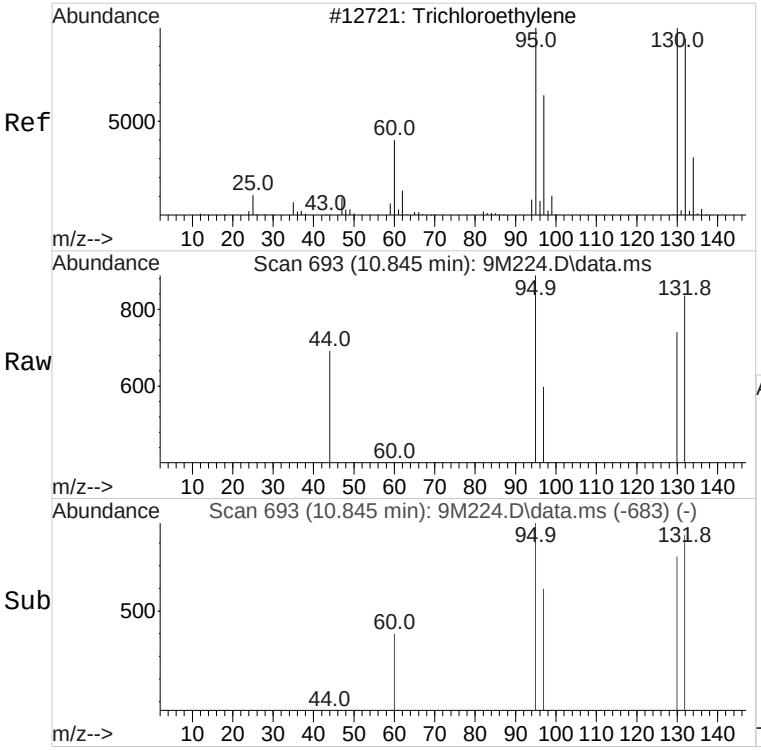


#15
Methylene chloride
Concen: 5.08 ug/L
RT: 7.750 min Scan# 432
Delta R.T. 0.012 min
Lab File: 9M224.D
Acq: 03 Oct 2017 20:39

Tgt Ion: 84 Resp: 25523

Ion	Ratio	Lower	Upper
84	100		
86	63.4	34.7	94.7
49	140.0	101.5	161.5

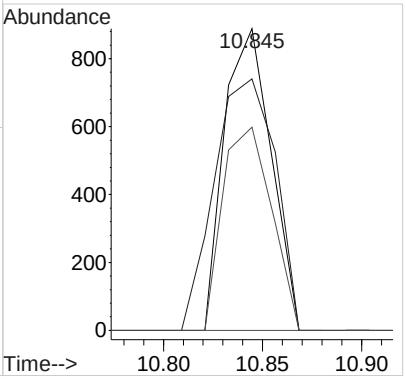


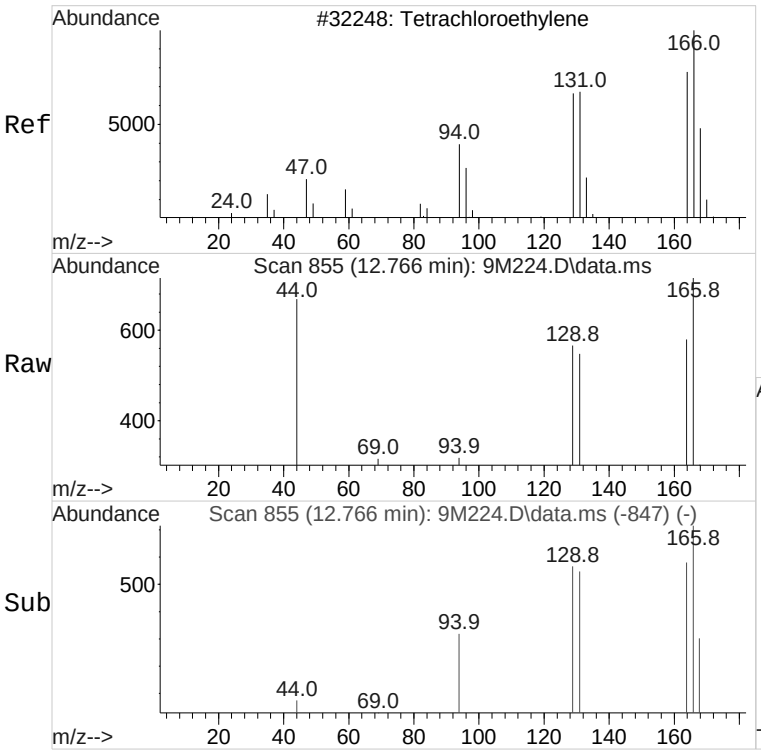


#35
Trichloroethylene
Concen: 0.39 ug/L
RT: 10.845 min Scan# 693
Delta R.T. 0.012 min
Lab File: 9M224.D
Acq: 03 Oct 2017 20:39

Tgt Ion: 95 Resp: 1464

Ion	Ratio	Lower	Upper
95	100		
130	108.5	70.4	130.4
97	70.2	36.2	96.2

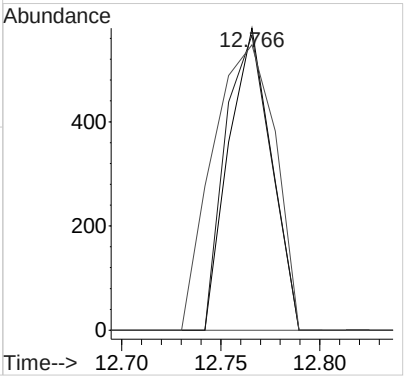


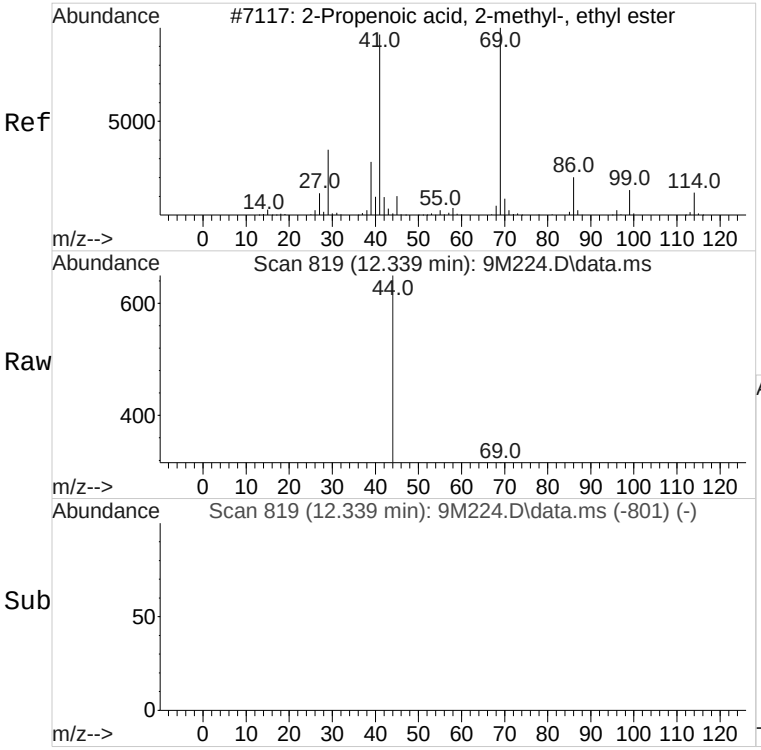


#51
Tetrachloroethylene
Concen: 0.68 ug/L
RT: 12.766 min Scan# 855
Delta R.T. -0.000 min
Lab File: 9M224.D
Acq: 03 Oct 2017 20:39

Tgt Ion:164 Resp: 872

Ion	Ratio	Lower	Upper
164	100		
129	104.8	59.8	119.8
131	138.3	57.2	117.2#

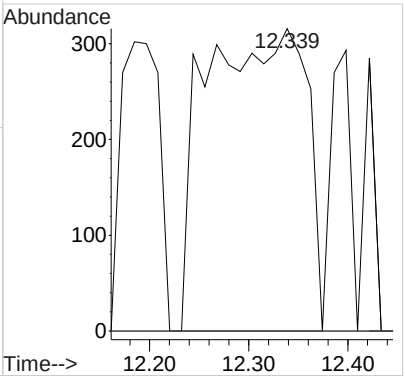


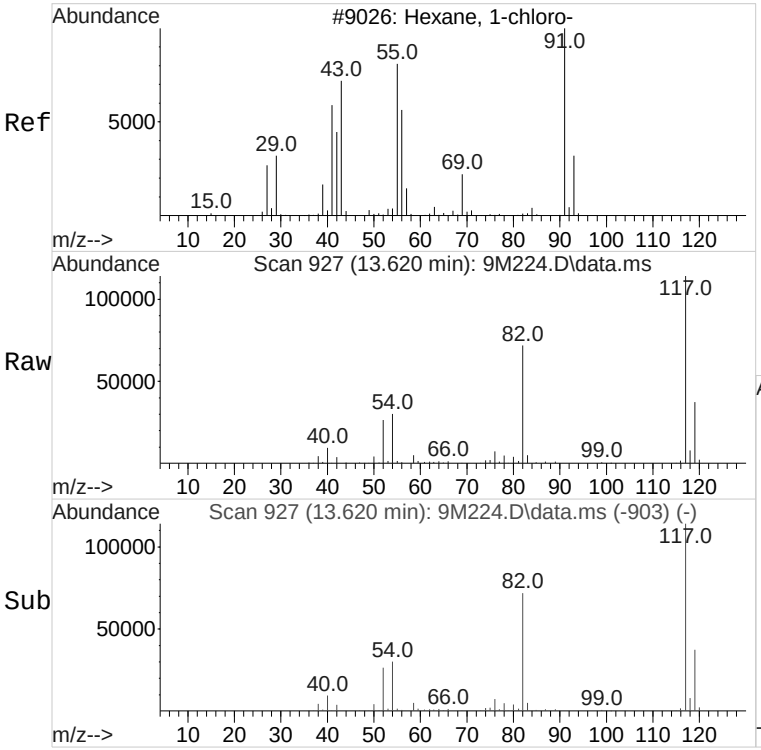


#104 BEFORE analyst DELETION
Ethyl methacrylate
Concen: 1.16 ug/L
RT: 12.339 min Scan# 819
Delta R.T. 0.035 min
Lab File: 9M224.D
Acq: 03 Oct 2017 20:39

Tgt Ion: 69 Resp: 2213

Ion	Ratio	Lower	Upper
69	100		
41	0.0	38.7	98.7#
99	0.0	0.0	51.3

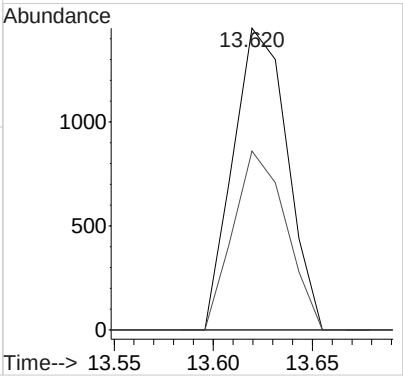




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 5.52 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M224.D
Acq: 03 Oct 2017 20:39

Tgt Ion: 55 Resp: 2763

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	57.9	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 02:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:51**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M236.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	108	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane	U	108	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane	U	108	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane	U	108	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene	U	108	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane	U	108	ug/kg	35.9	108
78-93-3	2-Butanone	U	539	ug/kg	180	539
591-78-6	2-Hexanone	U	539	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone	U	539	ug/kg	180	539
67-64-1	Acetone	U	539	ug/kg	180	539
71-43-2	Benzene	U	108	ug/kg	35.9	108
75-15-0	Carbon disulfide	U	539	ug/kg	180	539
56-23-5	Carbon tetrachloride	U	108	ug/kg	35.9	108
108-90-7	Chlorobenzene	U	108	ug/kg	35.9	108
75-00-3	Chloroethane	U	108	ug/kg	35.9	108
67-66-3	Chloroform	U	108	ug/kg	35.9	108
74-87-3	Chloromethane	U	108	ug/kg	35.9	108
100-41-4	Ethylbenzene	U	108	ug/kg	35.9	108
75-09-2	Methylene chloride	U	539	ug/kg	180	539
100-42-5	Styrene	U	108	ug/kg	35.9	108
127-18-4	Tetrachloroethylene	J	46.4	ug/kg	35.9	108
108-88-3	Toluene	U	108	ug/kg	35.9	108
79-01-6	Trichloroethylene	U	108	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate	U	539	ug/kg	180	539
75-01-4	Vinyl chloride	U	108	ug/kg	35.9	108
1330-20-7	Xylenes (total)	U	324	ug/kg	108	324
156-59-2	cis-1,2-Dichloroethylene	U	108	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene	U	108	ug/kg	35.9	108

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M236.D
Acq On : 04 Oct 2017 02:09
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 04 10:15:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1154774	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	853492	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	477793	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1154774	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	853492	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	477793	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	288027	51.76	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	953653	49.75	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	414467	49.17	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	100%
63) Bromofluorobenzene	50.000	70 - 130	98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	185	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		0.000	7.512	0.000	0	N.D.		
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	460	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	6143	Below Cal		92
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.355	8.354	0.799	731	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		0.000	10.204	0.000	0	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene	95	10.845	10.833	1.037	585	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M236.D
Acq On : 04 Oct 2017 02:09
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 04 10:15:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.161	12.173	0.893	888	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene	164	12.766	12.766	0.937	1886	0.43	ug/L	85
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.003	501	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene	91	13.715	13.714	1.007	223	N.D.		
57)	m,p-Xylenes	106	13.821	13.821	1.015	206	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene		0.000	14.260	0.000	0	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene	105	14.616	14.616	0.911	196	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene	91	15.043	15.043	0.938	795	N.D.		
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	433	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.304	15.292	0.954	654	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	537	N.D.		
73)	sec-Butylbenzene	105	15.790	15.790	0.984	628	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	921	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	639	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	830	N.D.		
77)	n-Butylbenzene	91	16.359	16.359	1.020	1078	Below Cal	#	70
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	704	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	1129	Below Cal		96
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	788	Below Cal	#	67
82)	Naphthalene	128	18.909	18.908	1.179	2957	Below Cal	#	69
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	1497	Below Cal	#	74
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.299	7.228	0.698	441	N.D.		
88)	Allyl chloride		0.000	7.596	0.000	0	N.D.		
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M236.D
Acq On : 04 Oct 2017 02:09
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 04 10:15:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

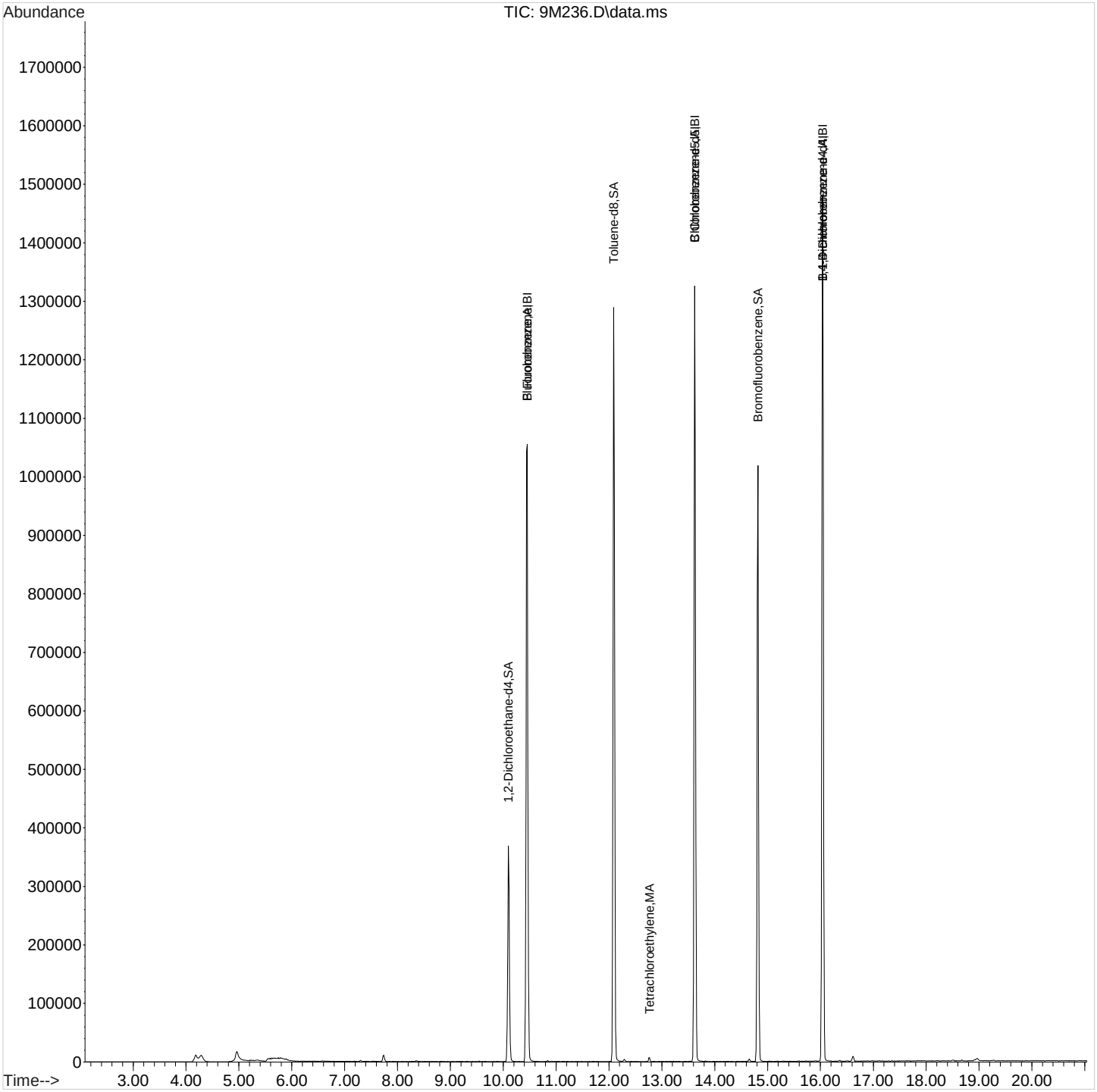
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	569	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	231	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	186	N.D.	

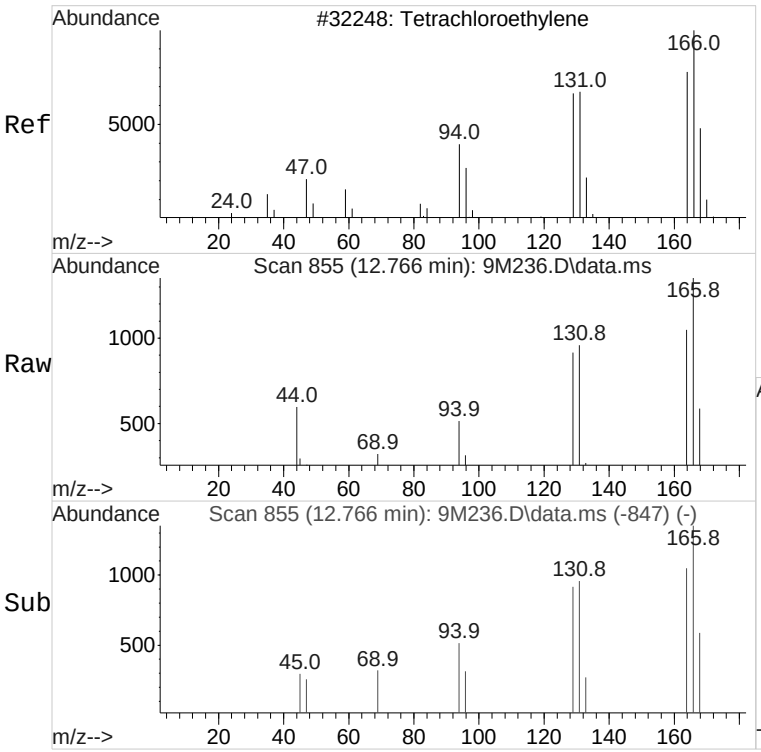
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M236.D
Acq On : 04 Oct 2017 02:09
Operator : RXY1
InstName : VOA9
Sample : |433718019|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 04 10:15:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

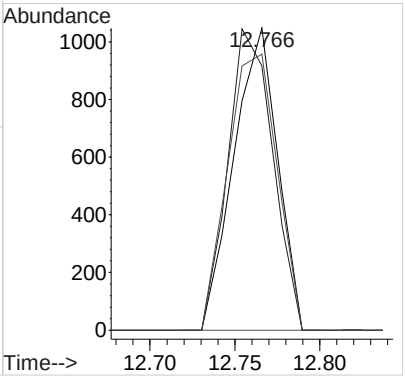


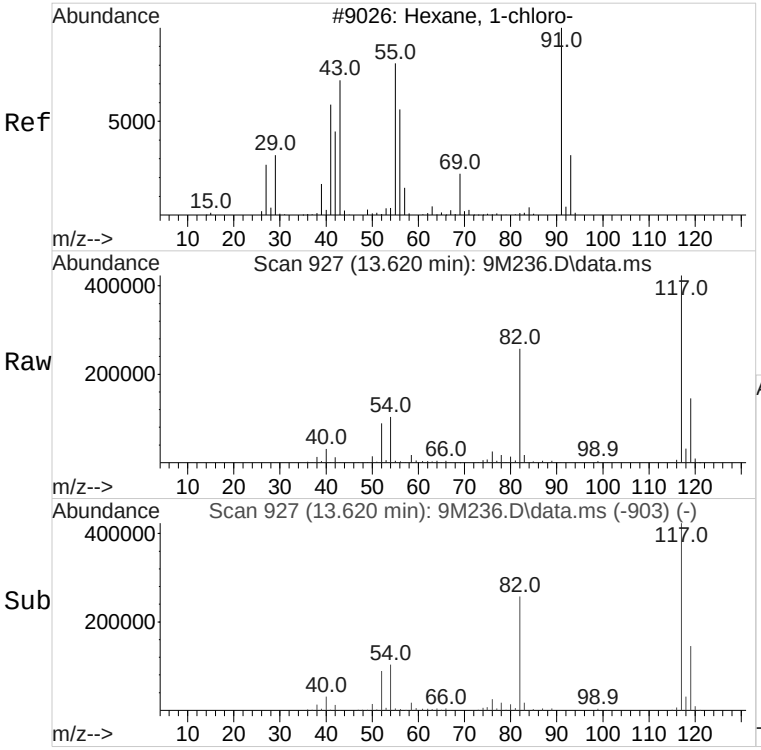


#51
Tetrachloroethylene
Concen: 0.43 ug/L
RT: 12.766 min Scan# 855
Delta R.T. -0.000 min
Lab File: 9M236.D
Acq: 04 Oct 2017 02:09

Tgt Ion:164 Resp: 1886

Ion	Ratio	Lower	Upper
164	100		
129	102.5	59.8	119.8
131	103.4	57.2	117.2

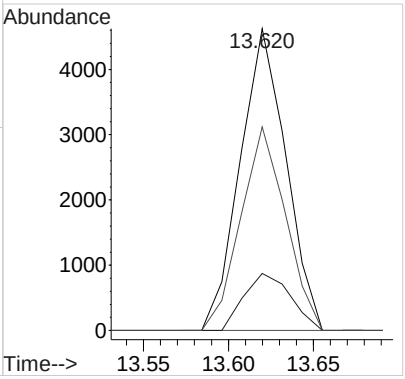




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.48 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M236.D
Acq: 04 Oct 2017 02:09

Tgt Ion: 55 Resp: 8731

Ion	Ratio	Lower	Upper
55	100		
91	19.2	114.6	174.6#
56	66.0	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 21:07**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:47**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M225.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.07	ug/kg	0.355	1.07
79-34-5	1,1,2,2-Tetrachloroethane	U	1.07	ug/kg	0.355	1.07
79-00-5	1,1,2-Trichloroethane	U	1.07	ug/kg	0.355	1.07
75-34-3	1,1-Dichloroethane	U	1.07	ug/kg	0.355	1.07
75-35-4	1,1-Dichloroethylene	U	1.07	ug/kg	0.355	1.07
107-06-2	1,2-Dichloroethane	U	1.07	ug/kg	0.355	1.07
78-93-3	2-Butanone	U	5.33	ug/kg	1.78	5.33
591-78-6	2-Hexanone	U	5.33	ug/kg	1.78	5.33
108-10-1	4-Methyl-2-pentanone	U	5.33	ug/kg	1.78	5.33
67-64-1	Acetone	U	5.33	ug/kg	1.78	5.33
71-43-2	Benzene	U	1.07	ug/kg	0.355	1.07
75-15-0	Carbon disulfide	U	5.33	ug/kg	1.78	5.33
56-23-5	Carbon tetrachloride	U	1.07	ug/kg	0.355	1.07
108-90-7	Chlorobenzene	U	1.07	ug/kg	0.355	1.07
75-00-3	Chloroethane	U	1.07	ug/kg	0.355	1.07
67-66-3	Chloroform	U	1.07	ug/kg	0.355	1.07
74-87-3	Chloromethane	U	1.07	ug/kg	0.355	1.07
100-41-4	Ethylbenzene	U	1.07	ug/kg	0.355	1.07
75-09-2	Methylene chloride		5.55	ug/kg	1.78	5.33
100-42-5	Styrene	U	1.07	ug/kg	0.355	1.07
127-18-4	Tetrachloroethylene	U	1.07	ug/kg	0.355	1.07
108-88-3	Toluene	J	0.543	ug/kg	0.355	1.07
79-01-6	Trichloroethylene	U	1.07	ug/kg	0.355	1.07
76-13-1	Trichlorotrifluoroethane	U	5.33	ug/kg	1.78	5.33
108-05-4	Vinyl acetate	U	5.33	ug/kg	1.78	5.33
75-01-4	Vinyl chloride	U	1.07	ug/kg	0.355	1.07
1330-20-7	Xylenes (total)	U	3.20	ug/kg	1.07	3.20
156-59-2	cis-1,2-Dichloroethylene	U	1.07	ug/kg	0.355	1.07
156-60-5	trans-1,2-Dichloroethylene	U	1.07	ug/kg	0.355	1.07

RY 10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M225.D
Acq On : 03 Oct 2017 21:07
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

EM 10/10/2017

Quant Time: Oct 10 12:57:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	686369	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	187625	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	29667	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	686369	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	187625	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	29667	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	211107	63.82	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	365499	86.74	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	35002	66.88	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	128%#
45) Toluene-d8	50.000	81 - 120	173%#
63) Bromofluorobenzene	50.000	70 - 130	134%#

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane	101	6.421	6.445	0.614	6124	1.26	ug/L	92
8) Ethyl ether	59	6.765	6.754	0.647	938	0.32	ug/L	97
9) Acetone	43	7.157	7.145	0.685	5098	Below Cal		86
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.536	7.512	0.721	777	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	19117	Below Cal		92
15) Methylene chloride	84	7.750	7.738	0.741	23296	5.21	ug/L	92
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	4927	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	728	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M225.D
Acq On : 03 Oct 2017 21:07
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 10 12:57:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.893	2479	0.51	ug/L	83
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		0.000	12.718	0.000	0	N.D.		
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene		0.000	13.655	0.000	0	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		0.000	13.714	0.000	0	N.D.		
57)	m,p-Xylenes		0.000	13.821	0.000	0	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene		0.000	14.260	0.000	0	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		0.000	14.616	0.000	0	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		0.000	15.031	0.000	0	N.D.		
67)	n-Propylbenzene		0.000	15.043	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		0.000	15.185	0.000	0	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene		0.000	15.292	0.000	0	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene		0.000	15.600	0.000	0	N.D.		
73)	sec-Butylbenzene		0.000	15.790	0.000	0	N.D.		
74)	4-Isopropyltoluene		0.000	15.908	0.000	0	N.D.		
75)	1,3-Dichlorobenzene		0.000	15.991	0.000	0	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.001	205	N.D.		
77)	n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		0.000	16.513	0.000	0	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		0.000	18.505	0.000	0	N.D.		
81)	Hexachlorobutadiene		0.000	18.683	0.000	0	N.D.		
82)	Naphthalene		0.000	18.908	0.000	0	N.D.		
83)	1,2,3-Trichlorobenzene		0.000	19.276	0.000	0	N.D.		
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	440	N.D.		
88)	Allyl chloride	41	7.536	7.596	0.721	777	Below Cal	#	1
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M225.D
Acq On : 03 Oct 2017 21:07
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 10 12:57:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

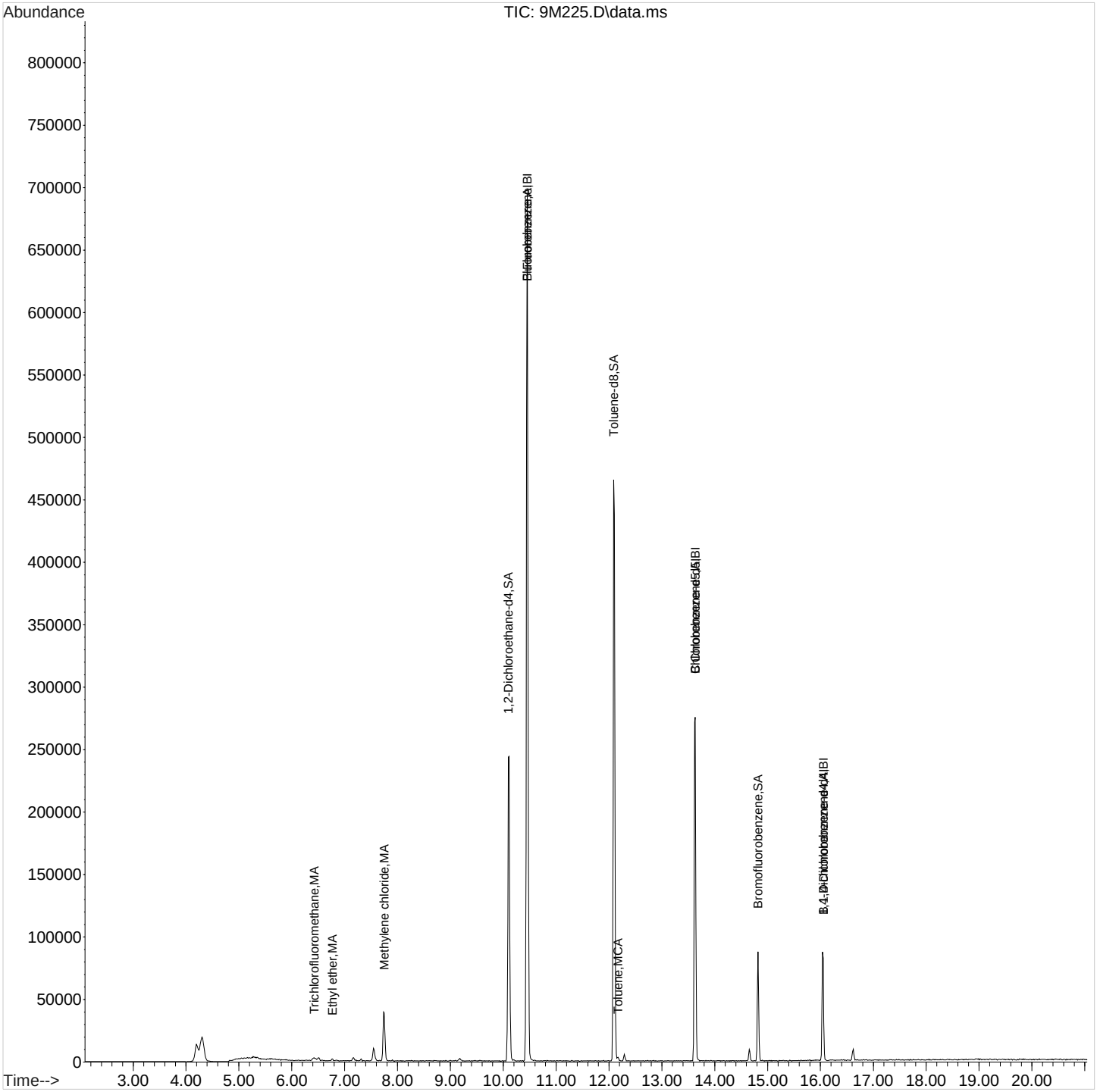
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0m	N.D.	d
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	205	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

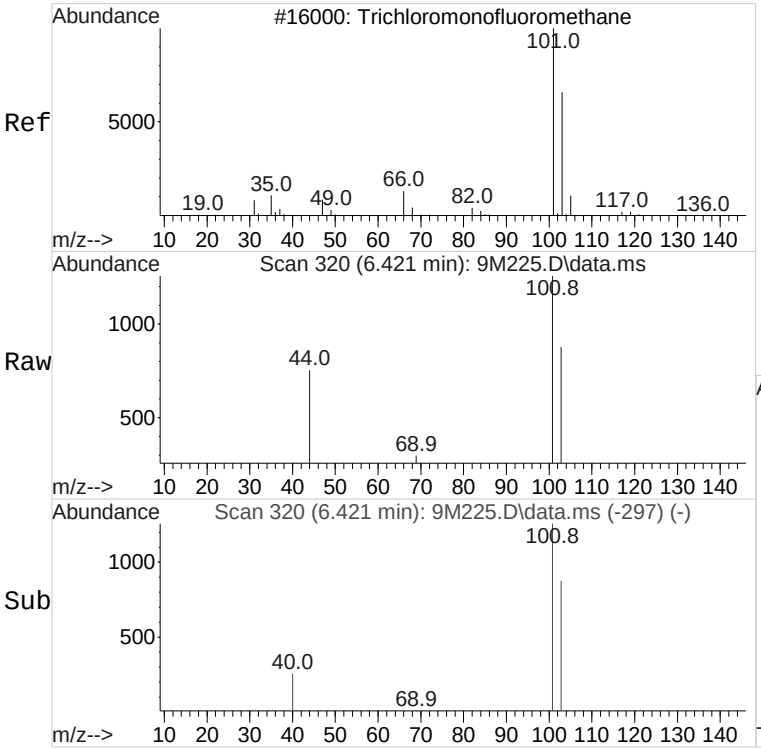
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M225.D
Acq On : 03 Oct 2017 21:07
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 10 12:57:19 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

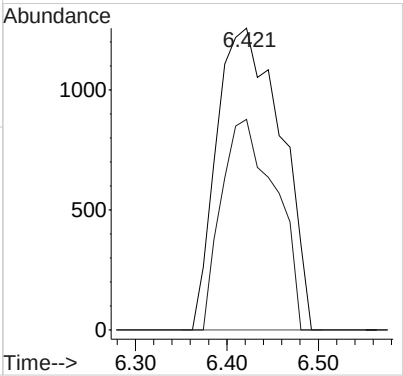


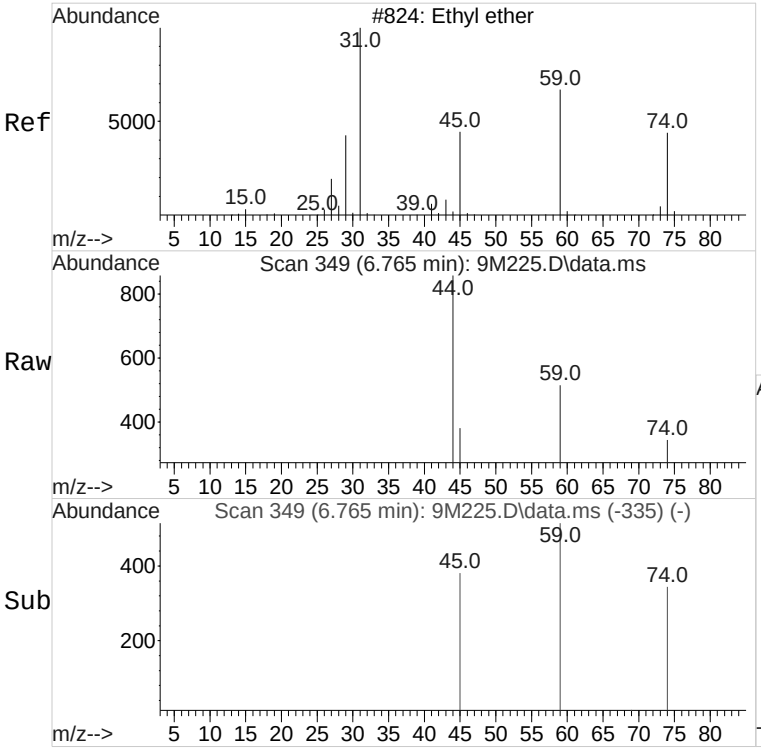


#7
Trichlorofluoromethane
Concen: 1.26 ug/L
RT: 6.421 min Scan# 320
Delta R.T. -0.024 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion:101 Resp: 6124

Ion	Ratio	Lower	Upper
101	100		
103	58.9	35.2	95.2

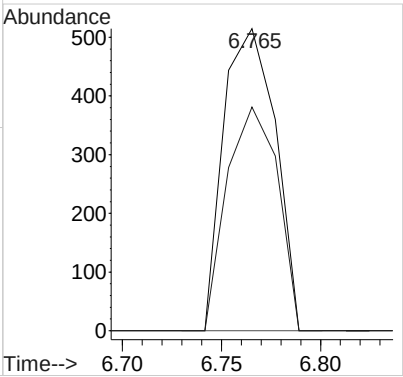


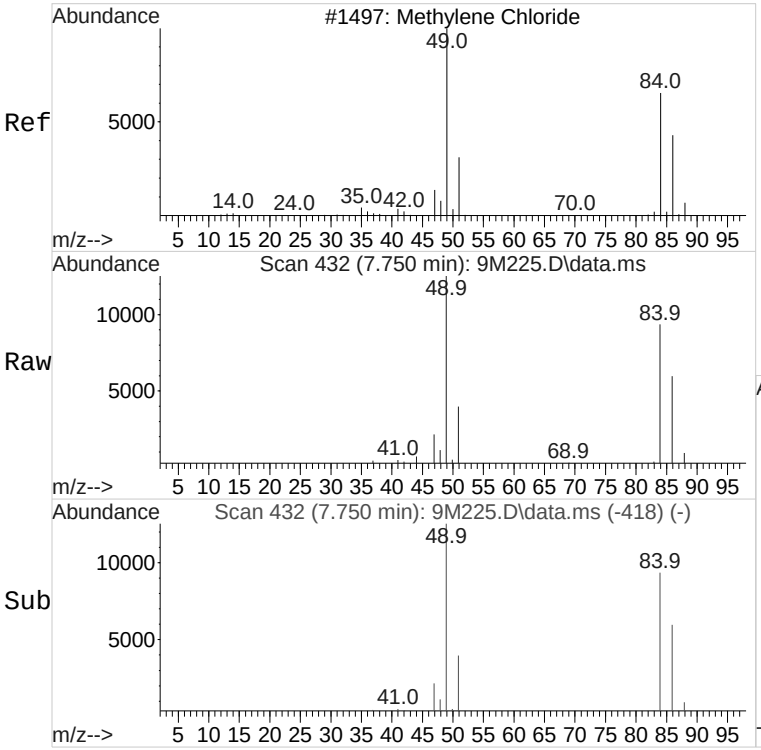


#8
Ethyl ether
Concen: 0.32 ug/L
RT: 6.765 min Scan# 349
Delta R.T. 0.011 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion: 59 Resp: 938

Ion	Ratio	Lower	Upper
59	100		
45	72.6	45.5	105.5

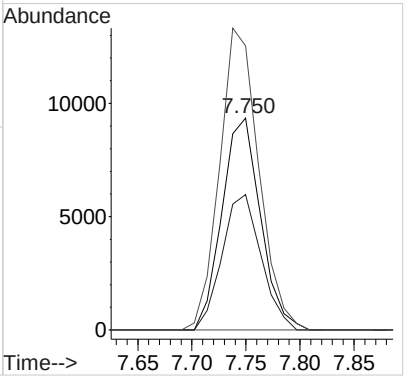


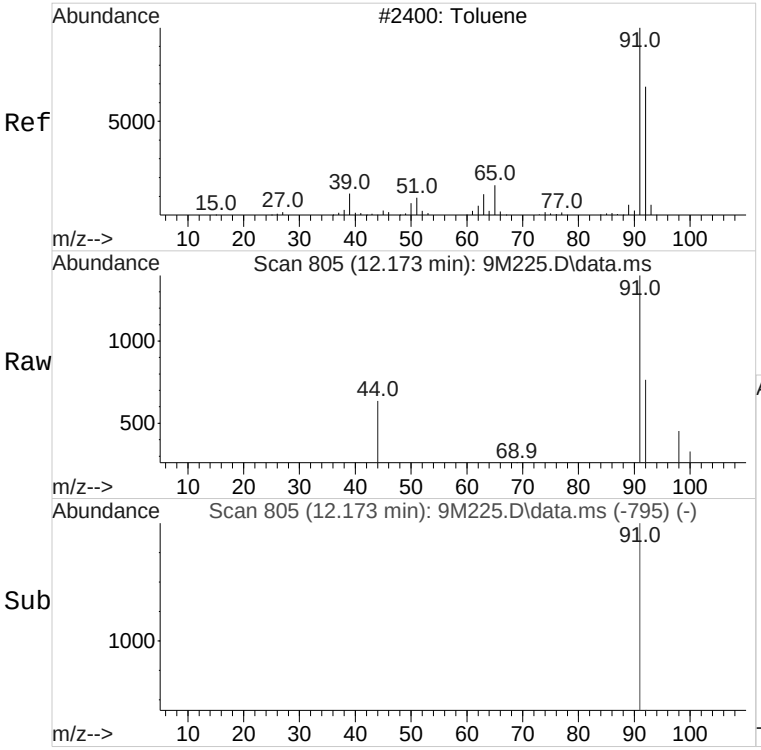


#15
Methylene chloride
Concen: 5.21 ug/L
RT: 7.750 min Scan# 432
Delta R.T. 0.012 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion: 84 Resp: 23296

Ion	Ratio	Lower	Upper
84	100		
86	64.6	34.7	94.7
49	144.7	101.5	161.5

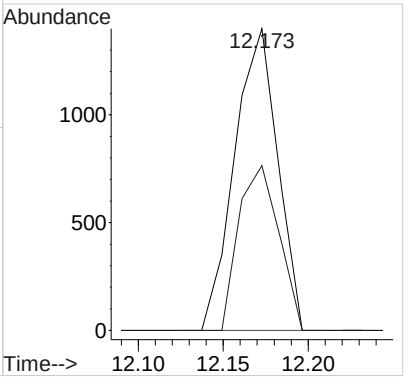


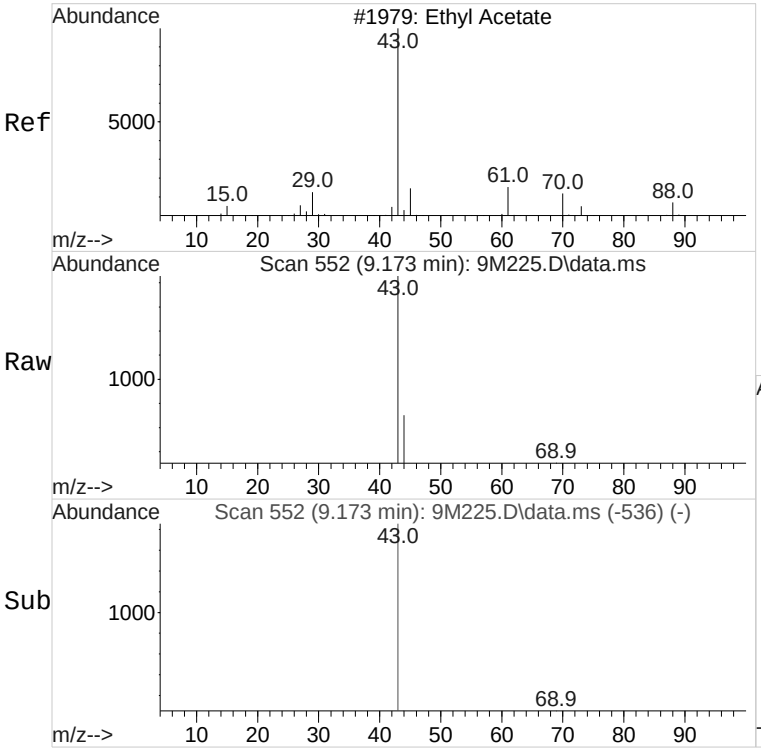


#46
Toluene
Concen: 0.51 ug/L
RT: 12.173 min Scan# 805
Delta R.T. -0.000 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion: 91 Resp: 2479

Ion	Ratio	Lower	Upper
91	100		
92	51.0	34.6	94.6

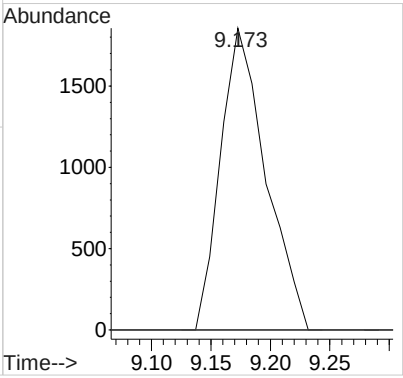


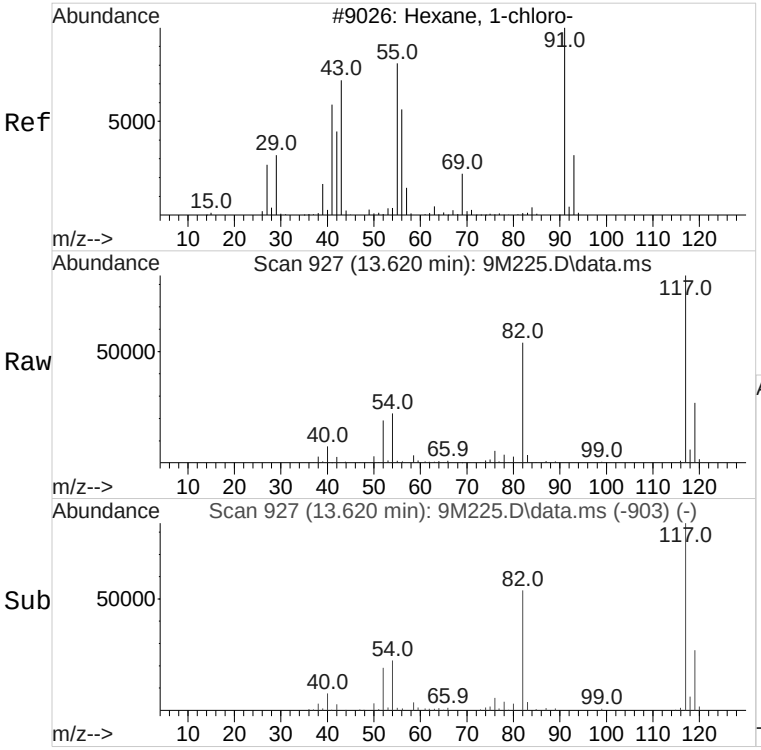


#94 BEFORE analyst DELETION
Ethyl acetate
Concen: 1.73 ug/L
RT: 9.173 min Scan# 552
Delta R.T. 0.012 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion: 43 Resp: 4927

Ion	Ratio	Lower	Upper
43	100		
61	0.0	0.0	45.7
70	0.0	0.0	42.7

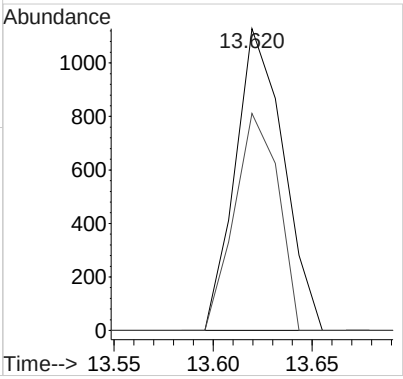




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 5.24 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M225.D
Acq: 03 Oct 2017 21:07

Tgt Ion: 55 Resp: 1914

Ion	Ratio	Lower	Upper
55	100		
91	0.0	114.6	174.6#
56	65.7	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03REDL**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 02:36**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:52**	**Aliquot:**	**5.1 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M237.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	104	ug/kg	34.8	104
79-34-5	1,1,2,2-Tetrachloroethane	U	104	ug/kg	34.8	104
79-00-5	1,1,2-Trichloroethane	U	104	ug/kg	34.8	104
75-34-3	1,1-Dichloroethane	U	104	ug/kg	34.8	104
75-35-4	1,1-Dichloroethylene	U	104	ug/kg	34.8	104
107-06-2	1,2-Dichloroethane	U	104	ug/kg	34.8	104
78-93-3	2-Butanone	U	522	ug/kg	174	522
591-78-6	2-Hexanone	U	522	ug/kg	174	522
108-10-1	4-Methyl-2-pentanone	U	522	ug/kg	174	522
67-64-1	Acetone	U	522	ug/kg	174	522
71-43-2	Benzene	U	104	ug/kg	34.8	104
75-15-0	Carbon disulfide	U	522	ug/kg	174	522
56-23-5	Carbon tetrachloride	U	104	ug/kg	34.8	104
108-90-7	Chlorobenzene	U	104	ug/kg	34.8	104
75-00-3	Chloroethane	U	104	ug/kg	34.8	104
67-66-3	Chloroform	U	104	ug/kg	34.8	104
74-87-3	Chloromethane	U	104	ug/kg	34.8	104
100-41-4	Ethylbenzene	U	104	ug/kg	34.8	104
75-09-2	Methylene chloride	U	522	ug/kg	174	522
100-42-5	Styrene	U	104	ug/kg	34.8	104
127-18-4	Tetrachloroethylene	U	104	ug/kg	34.8	104
108-88-3	Toluene	U	104	ug/kg	34.8	104
79-01-6	Trichloroethylene	U	104	ug/kg	34.8	104
76-13-1	Trichlorotrifluoroethane	U	522	ug/kg	174	522
108-05-4	Vinyl acetate	U	522	ug/kg	174	522
75-01-4	Vinyl chloride	U	104	ug/kg	34.8	104
1330-20-7	Xylenes (total)	U	313	ug/kg	104	313
156-59-2	cis-1,2-Dichloroethylene	U	104	ug/kg	34.8	104
156-60-5	trans-1,2-Dichloroethylene	U	104	ug/kg	34.8	104

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M237.D
Acq On : 04 Oct 2017 02:36
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 04 10:15:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.442	10.454	1.000	1119554	50.00	ug/L	-0.01
43) Chlorobenzene-d5	117	13.620	13.632	1.000	859232	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	488946	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.442	10.454	1.000	1119554	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	859232	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	488946	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.967	278046	51.53	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	941455	48.79	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	422646	49.00	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	103%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.687	202	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.738	7.512	0.741	186	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.524	7.548	0.721	809	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.741	5756	Below Cal		84
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.878	447	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.205	10.204	0.977	218	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M237.D
Acq On : 04 Oct 2017 02:36
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 04 10:15:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.	
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.	
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.	
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.	
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.	
46) Toluene	91	12.173	12.173	0.894	697	N.D.	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.	
49) 2-Hexanone		0.000	12.718	0.000	0	N.D.	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.	
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.	
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.	
54) Chlorobenzene	112	13.655	13.655	1.003	442	N.D.	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.	
56) Ethylbenzene	91	13.715	13.714	1.007	202	N.D.	
57) m,p-Xylenes		0.000	13.821	0.000	0	N.D.	
58) o-Xylene		0.000	14.260	0.000	0	N.D.	
59) Styrene		0.000	14.260	0.000	0	N.D.	
61) Bromoform		0.000	14.533	0.000	0	N.D.	
62) Isopropylbenzene		0.000	14.616	0.000	0	N.D.	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.	
66) Bromobenzene		0.000	15.031	0.000	0	N.D.	
67) n-Propylbenzene	91	15.043	15.043	0.938	456	N.D.	
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	180	N.D.	
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.	
70) 4-Chlorotoluene	91	15.304	15.292	0.954	516	N.D.	
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.	
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	393	N.D.	
73) sec-Butylbenzene	105	15.790	15.790	0.984	610	N.D.	
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	725	N.D.	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	531	N.D.	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	716	N.D.	
77) n-Butylbenzene	91	16.359	16.359	1.020	887	Below Cal #	50
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	183	N.D.	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.	
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	1197	Below Cal	83
81) Hexachlorobutadiene	225	18.683	18.683	1.165	505	Below Cal #	42
82) Naphthalene	128	18.921	18.908	1.180	2354	Below Cal #	69
83) 1,2,3-Trichlorobenzene	180	19.264	19.276	1.201	953	Below Cal #	76
85) Acrolein		0.000	6.979	0.000	0	N.D.	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.	
87) Isopropyl Alcohol	45	7.299	7.228	0.699	657	N.D.	
88) Allyl chloride	41	7.738	7.596	0.741	186	Below Cal #	27
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.	
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.	
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M237.D
Acq On : 04 Oct 2017 02:36
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 04 10:15:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

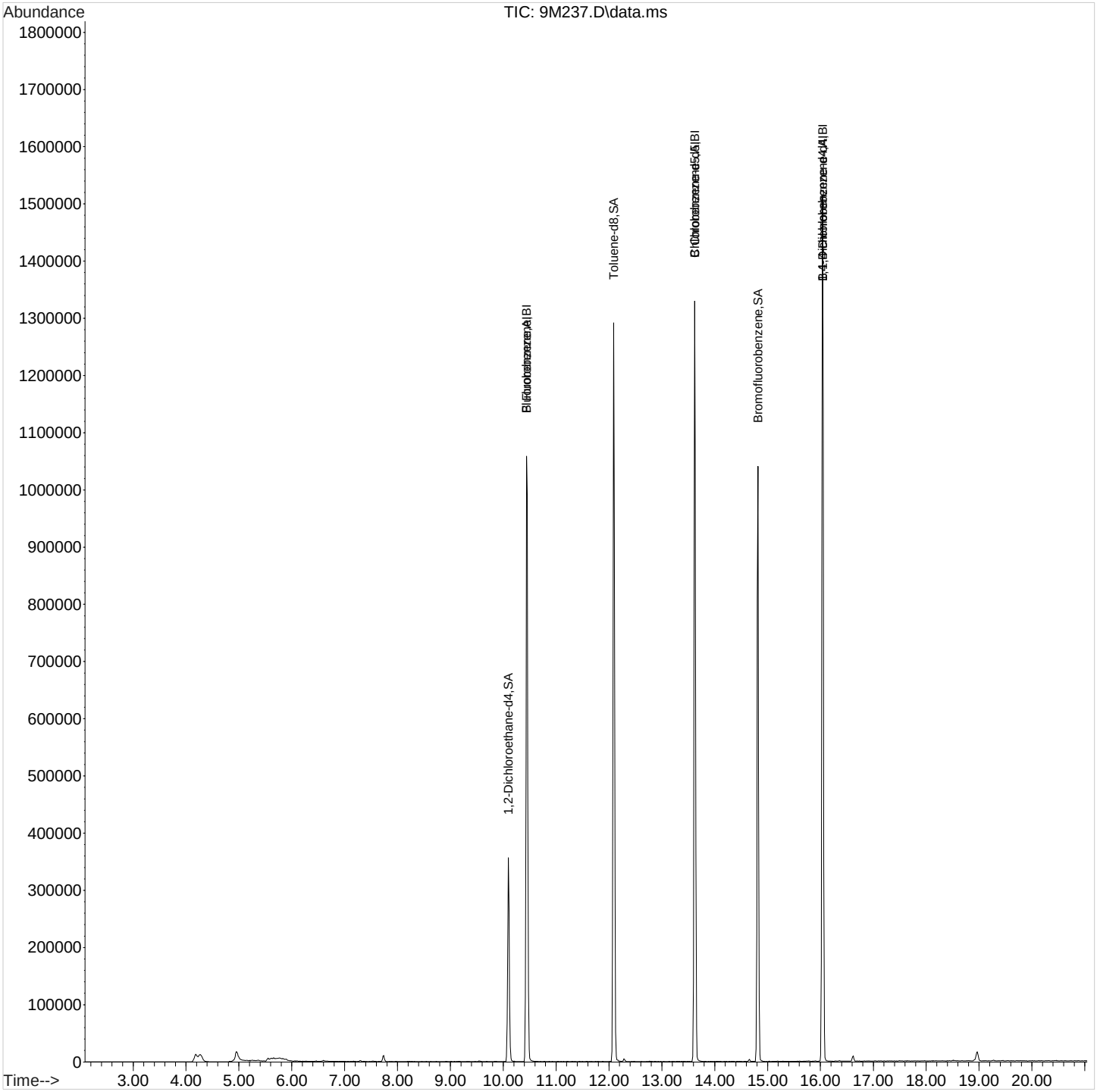
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.878	447	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.914	707	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate	69	12.256	12.304	0.900	1657	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.039	16.193	1.000	1203	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.608	16.584	1.035	216	N.D.	

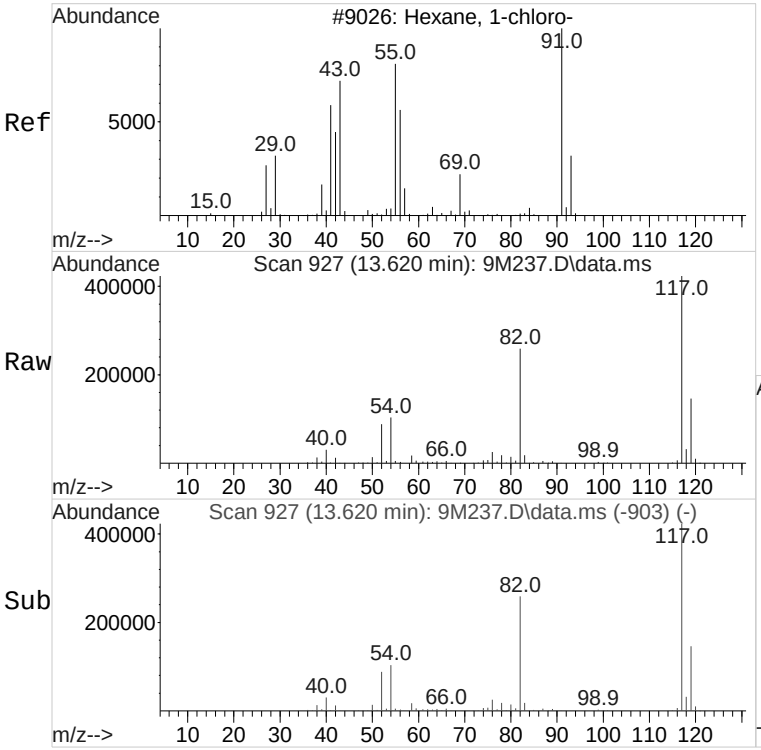
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M237.D
Acq On : 04 Oct 2017 02:36
Operator : RXY1
InstName : VOA9
Sample : |433718020|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 04 10:15:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

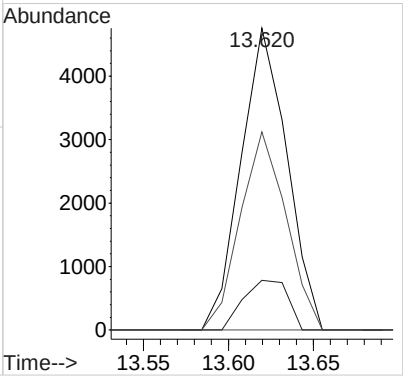




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.50 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M237.D
Acq: 04 Oct 2017 02:36

Tgt Ion: 55 Resp: 9017

Ion	Ratio	Lower	Upper
55	100		
91	15.9	114.6	174.6#
56	65.4	31.6	91.6



Standards

Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4	Level 5	Level 6 #	Level 7 !	Level 7a
Fluorobenzene (IS)	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
1,2-Dichloroethane-d4(surr)		20/50	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol		50	100	200	500	1000	2000	5000	10000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane		2	5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	150	200
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	150	200
Tetrahydrofuran			5	10	25	50	100	250	500
tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Toluene-d8 (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)	20	20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromofluorobenzene (surr)		20	20/50	20/50	20/50	20/50	20/50	20/50	20/50
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
Cyclohexanone			25	50	125	250	500	1250	2500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range		
SW 846 8260B low level	Level 1 &1a	Levels 1-> 7a	IS/SS @ 20 ppb	
EPA 524.2	Level 1a	Levels 1a-> 7a	IS/SS @ 20 ppb	
SW846 8260B/624	Level 2	Levels 1a-> 7a	IS/SS @ 50 ppb	n-butyl alchol only in 1a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

JP 09/21/2017

Method File : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Last Update : Wed Sep 20 08:48:03 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:0.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z202.D

GEL 09/21/2017

Injection Date	Mix	Calibration File
19 Sep 2017 13:49	A	C:\msdchem\1\data\091917V6\6Z202.D

Cal Lvl:1 Amt:1.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z213.D

Injection Date	Mix	Calibration File
19 Sep 2017 14:17	A	C:\msdchem\1\data\091917V6\6Z203.D
19 Sep 2017 18:58	B	C:\msdchem\1\data\091917V6\6Z213.D

Cal Lvl:2 Amt:2.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z214.D

Injection Date	Mix	Calibration File
19 Sep 2017 14:45	A	C:\msdchem\1\data\091917V6\6Z204.D
19 Sep 2017 19:25	B	C:\msdchem\1\data\091917V6\6Z214.D

Cal Lvl:3 Amt:5.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z215.D

Injection Date	Mix	Calibration File
19 Sep 2017 15:14	A	C:\msdchem\1\data\091917V6\6Z205.D
19 Sep 2017 19:53	B	C:\msdchem\1\data\091917V6\6Z215.D

Cal Lvl:4 Amt:10.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z216.D

Injection Date	Mix	Calibration File
19 Sep 2017 15:42	A	C:\msdchem\1\data\091917V6\6Z206.D
19 Sep 2017 20:22	B	C:\msdchem\1\data\091917V6\6Z216.D

Cal Lvl:5 Amt:20.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z217.D

Injection Date	Mix	Calibration File
19 Sep 2017 16:10	A	C:\msdchem\1\data\091917V6\6Z207.D
19 Sep 2017 20:50	B	C:\msdchem\1\data\091917V6\6Z217.D

Cal Lvl:6 Amt:50.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z218.D

Injection Date	Mix	Calibration File
19 Sep 2017 16:37	A	C:\msdchem\1\data\091917V6\6Z208.D
19 Sep 2017 21:18	B	C:\msdchem\1\data\091917V6\6Z218.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z220.D

Injection Date	Mix	Calibration File
19 Sep 2017 17:33	A	C:\msdchem\1\data\091917V6\6Z210.D
19 Sep 2017 22:14	B	C:\msdchem\1\data\091917V6\6Z220.D

Cal Lvl:9 Amt:80.00 Last Updated with: C:\msdchem\1\data\091917V6\6Z219.D

Injection Date	Mix	Calibration File
19 Sep 2017 17:05	A	C:\msdchem\1\data\091917V6\6Z209.D

Calibration History Report VOA6
GEL Laboratories, LLC
Method File : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Last Update : Wed Sep 20 08:48:03 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

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|19 Sep 2017 21:46   |B  |C:\msdchem\1\data\091917V6\6Z219.D                          |
+--------------------+---+-------------------------------------------------------------+
```

VOA6-8260-091917.M Wed Sep 20 09:01:27 2017

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Last Update : Wed Sep 20 08:48:03 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

JP 09/21/2017
EM 09/21/2017

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
2)MA Dichlorodifluoromethane		0.2186509	0.2863580	0.2751435	0.2343058	0.2567692				
	0.2032309	0.1973337	0.2340039				0.2382	AVRG		13.5898
3)MPA Chloromethane		0.3258157	0.3531019	0.3548335	0.3196971	0.3473605				
	0.2955346	0.2892764	0.3004877				0.3233	AVRG		8.2092
4)MCA Vinyl chloride		0.2976167	0.3130114	0.3294265	0.3003351	0.3000308				
	0.2764771	0.2607824	0.2774074				0.2944	AVRG		7.4761
5)MA Bromomethane		0.2047261	0.2291836	0.2260879	0.2242684	0.2300883				
	0.2206714	0.2131520	0.2299824				0.2223	AVRG		4.0969
6)MA Chloroethane		0.2642232	0.2823799	0.2941988	0.2687616	0.2798326				
	0.2654935	0.2511577	0.2646617				0.2713	AVRG		4.9444
7)MA Trichlorofluoromethane		0.4257778	0.4580578	0.4684348	0.4359844	0.4527971				
	0.4403063	0.4114035	0.4452334				0.4422	AVRG		4.1179
8)MA Ethyl ether		0.3021565	0.3308687	0.3145993	0.2842318	0.2915432				
	0.2758533	0.2771217	0.2782277				0.2943	AVRG		6.8118
9)MA Acetone		22126	37477	90164	155175	322704		1/x		
0.0079 | 0.1318 | 0.00	757874	1584804	1266110					LINR	#	0.9988
10)MCA 1,1-Dichloroethylene		0.5118588	0.5560300	0.5527374	0.5256661	0.5098648				
	0.5021144	0.4826631	0.4967839				0.5172	AVRG		5.0428
11)MA Iodomethane		0.4604809	0.4858781	0.4794414	0.4657372	0.4527876				
	0.4313623	0.4037080	0.4162628				0.4495	AVRG		6.5923
12)MA Acetonitrile		0.0401874	0.0383809	0.0416191	0.0347810	0.0359729				
	0.0318296	0.0310848	0.0315575				0.0357	AVRG		11.4454
13)MA Methyl acetate		0.2348020	0.2244232	0.2399542	0.2033992	0.2058914				
	0.1877830	0.1819639	0.1841944				0.2078	AVRG		11.0454
14)MA Carbon disulfide	1.0319715	0.9074734	1.0125761	1.0085590	0.9770144	0.9169637				
	0.8653269	0.7627492	0.8118708				0.9216	AVRG		10.2761
15)MA Methylene chloride		10493	18649	36325	72915	149852		1/x		
0.0035 | 0.3071 | 0.00	364937	729967	590445					LINR	#	0.9999
16)MA tert-Butyl methyl ether		0.8320871	0.8605105	0.8558824	0.7956985	0.8220869				
	0.7965427	0.8171915	0.8175790				0.8247	AVRG		2.9192

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Last Update : Wed Sep 20 08:48:03 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
17)MA trans-1,2-Dichloroethyle		0.4774177	0.5342609	0.5292522	0.5057285	0.4953817				
	0.4792153	0.4707901	0.4749574				0.4959	AVRG		5.0386
18)MA Hexane				0.5931445	0.5843809	0.6031725				
	0.5252331	0.5377790	0.5663675				0.5683	AVRG		5.4979
19)MA Vinyl acetate		0.6123798	0.6164089	0.6755809	0.5987875	0.6323473				
	0.5882986	0.5315463	0.5664239				0.6027	AVRG		7.1702
20)MPA 1,1-Dichloroethane		0.5964120	0.6097124	0.6054829	0.5943564	0.5888468				
	0.5743437	0.5580389	0.5628021				0.5862	AVRG		3.2770
21)MA 2-Butanone		0.2246050	0.2072819	0.2272968	0.1793518	0.1828232				
	0.1705791	0.1815639	0.1816115				0.1944	AVRG		11.3653
22)MA cis-1,2-Dichloroethylene		0.5545501	0.5901313	0.5857357	0.5620612	0.5609780				
	0.5453783	0.5353493	0.5400838				0.5593	AVRG		3.5882
23)MA 2,2-Dichloropropane		0.4696041	0.4885346	0.4919681	0.4705996	0.4695071				
	0.4622880	0.4514417	0.4585239				0.4703	AVRG		2.9656
24)MA Bromochloromethane		0.1325263	0.1446487	0.1403825	0.1399353	0.1386260				
	0.1384756	0.1403272	0.1391577				0.1393	AVRG		2.4011
25)MCA Chloroform		0.4749296	0.5248460	0.5091591	0.4940971	0.5042531				
	0.4970396	0.4900340	0.4916841				0.4983	AVRG		2.9726
26)MA 1,1,1-Trichloroethane		0.4688620	0.4795397	0.4716251	0.4618816	0.4631452				
	0.4635628	0.4514413	0.4607888				0.4651	AVRG		1.7932
27)MA Cyclohexane		0.6947591	0.7784287	0.7147120	0.7058043	0.6857311				
	0.6861849	0.6318538	0.6595474				0.6946	AVRG		6.1735
28)MA 1,1-Dichloropropene		0.3978845	0.4251721	0.4059839	0.3934570	0.3962899				
	0.3901575	0.3734376	0.3810371				0.3954	AVRG		3.9702
29)MA Carbon tetrachloride		0.3485145	0.3996901	0.3950485	0.3903134	0.3974993				
	0.4042278	0.3897883	0.3977921				0.3904	AVRG		4.4989
30)SA 1,2-Dichloroethane-d4		0.2545195	0.2517837	0.2754174	0.2523918	0.2539584				
	0.2500496	0.2524589	0.2506493				0.2552	AVRG		3.2624
31)MA 1,2-Dichloroethane		0.4325875	0.4365539	0.4434218	0.4154978	0.4229169				
	0.4026108	0.3993160	0.4015861				0.4193	AVRG		4.1064

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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
32)MA Benzene		1.2569482	1.3035620	1.2519399	1.2032176	1.1888976				
	1.1594479	1.1071678	1.1223315				1.1992	AVRG		5.7333
33)MA Cyclohexene		0.5938366	0.6300008	0.6157552	0.5834201	0.5805166				
	0.5707420	0.5448376	0.5590659				0.5848	AVRG		4.8195
34)MA n-Butyl alcohol	0.0083350	0.0092808	0.0089616	0.0115017	0.0093702	0.0101972				
	0.0095322	0.0100589	0.0100859				0.0097	AVRG	#	9.2845
35)MA Trichloroethylene		0.3115416	0.3124809	0.3146186	0.3018361	0.3063108				
	0.2995209	0.2903651	0.2925450				0.3037	AVRG		3.0178
36)MA 2-Pentanone			0.2052840	0.2443014	0.2075045	0.2182953				
	0.2064850	0.2178877	0.2184257				0.2169	AVRG		6.2082
37)MCA 1,2-Dichloropropane		0.3437128	0.3529251	0.3461467	0.3252936	0.3429388				
	0.3254217	0.3159911	0.3191765				0.3340	AVRG		4.1943
38)MA Methylcyclohexane		0.6033090	0.6266636	0.5675453	0.5509302	0.5476527				
	0.5503569	0.4963448	0.5240250				0.5584	AVRG		7.4243
39)MA Dibromomethane		0.1518640	0.1574892	0.1613596	0.1553833	0.1619179				
	0.1568608	0.1628492	0.1626962				0.1588	AVRG		2.5313
40)MA Bromodichloromethane		0.3369905	0.3481956	0.3605126	0.3584522	0.3744230				
	0.3795134	0.3832609	0.3813860				0.3653	AVRG		4.6617
41)MA 2-Chloroethylvinyl ether		0.1464250	0.1459173	0.1980576	0.1464253	0.1559104				
	0.1485615	0.1407166	0.1462060				0.1535	AVRG		12.0350
42)MA cis-1,3-Dichloropropylen		0.4260834	0.4434051	0.4579991	0.4499182	0.4745604				
	0.4702921	0.4721366	0.4742244				0.4586	AVRG		3.8507
44)MA 4-Methyl-2-pentanone		0.1530693	0.1557736	0.1752583	0.1494866	0.1589289				
	0.1505377	0.1544657	0.1533753				0.1564	AVRG		5.2324
45)SA Toluene-d8		1.2253174	1.2360749	1.2716657	1.2297257	1.2403186				
	1.2463785	1.2474989	1.2275100				1.2406	AVRG		1.2148
46)MCA Toluene		1.7226483	1.8223545	1.7128316	1.6617590	1.6665875				
	1.6225401	1.5306694	1.5445024				1.6605	AVRG		5.7849
47)MA trans-1,3-Dichloropropyl		0.4456900	0.4973033	0.5035629	0.5053506	0.5439665				
	0.5451154	0.5530854	0.5463035				0.5175	AVRG		7.1051

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
48)MA 1,1,2-Trichloroethane		0.2536775	0.2553569	0.2655839	0.2497980	0.2611840				
	0.2583020	0.2613364	0.2597212				0.2581	AVRG		1.9352
49)MA 2-Hexanone		0.3766391	0.3477062	0.3857403	0.3090913	0.3191413				
	0.2779762	0.2614389	0.2768656				0.3193	AVRG		14.7216
50)MA 1,3-Dichloropropane		0.5468734	0.5798706	0.5640050	0.5269637	0.5404703				
	0.5120274	0.4907504	0.4925472				0.5317	AVRG		6.0697
51)MA Tetrachloroethylene		0.3335772	0.3527373	0.3346462	0.3226751	0.3223944				
	0.3127591	0.2820929	0.2949293				0.3195	AVRG		7.0977
52)MA Dibromochloromethane		0.2618458	0.2790520	0.3034151	0.3089298	0.3364596				
	0.3486333	0.3653139	0.3587366				0.3203	AVRG		11.8594
53)MA 1,2-Dibromoethane		0.2713371	0.2927255	0.3097015	0.2882474	0.3008389				
	0.3065838	0.3127505	0.3084718				0.2988	AVRG		4.6887
54)MPA Chlorobenzene		1.1217606	1.2052322	1.1468566	1.0963283	1.1076002				
	1.0848663	1.0401068	1.0444307				1.1059	AVRG		4.8863
55)MA 1,1,1,2-Tetrachloroethan		0.3342100	0.3596618	0.3621507	0.3613996	0.3742633				
	0.3796763	0.3671881	0.3711501				0.3637	AVRG		3.7872
56)MCA Ethylbenzene		1.9368073	2.0372459	2.0080656	1.9171360	1.9056495				
	1.8456336	1.6778362	1.7255960				1.8817	AVRG		6.7298
57)MA m,p-Xylenes		0.7643112	0.7969240	0.7722586	0.7528070	0.7432478				
	0.7120675	0.6417021	0.6662946				0.7312	AVRG		7.3653
58)MA o-Xylene		1.5707869	1.6906441	1.6093134	1.5719814	1.5723515				
	1.4953412	1.3657899	1.4038695				1.5350	AVRG		7.0161
59)MA Styrene		1.0826448	1.1874682	1.1950898	1.1910644	1.2209684				
	1.1823332	1.0910836	1.1166601				1.1584	AVRG		4.5863
61)MPA Bromoform		2541	5263	14265	30047	71495		1/x		
-0.0060 | 0.4412 | 0.00	196221	432272	337439					LINR	#	0.9969
62)MA Isopropylbenzene		3.6720888	3.9978193	3.9046662	3.7655104	3.7701578				
	3.6160426	3.2871437	3.4081152				3.6777	AVRG		6.4941
63)SA Bromofluorobenzene		0.9967180	1.0042045	1.0335053	0.9987920	1.0085914				
	0.9967778	0.9954868	0.9764848				1.0013	AVRG		1.5997

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
64)MPA 1,1,2,2-Tetrachloroethan		0.7403770	0.7650380	0.8191551	0.7297809	0.7885950				
	0.7643945	0.8006276	0.7866772				0.7743	AVRG		3.8986
65)MA 1,2,3-Trichloropropane		0.2169595	0.2376246	0.2491759	0.2250722	0.2290206				
	0.2244510	0.2337910	0.2304039				0.2308	AVRG		4.2107
66)MA Bromobenzene		0.8728039	0.9222030	0.8636135	0.8425808	0.8638551				
	0.8343343	0.8052167	0.8138490				0.8523	AVRG		4.3633
67)MA n-Propylbenzene		4.4100380	4.7342258	4.5991859	4.4469918	4.4402883				
	4.2823400	3.8451877	4.0082689				4.3458	AVRG		6.7757
68)MA 1,3,5-Trimethylbenzene		3.0481372	3.3519578	3.2643184	3.1702990	3.1829375				
	3.0609341	2.7385087	2.8790268				3.0870	AVRG		6.5326
69)MA 2-Chlorotoluene		0.8988479	0.9308317	0.8835627	0.8815393	0.8860916				
	0.8536976	0.7907494	0.8024911				0.8660	AVRG		5.5352
70)MA 4-Chlorotoluene		2.7559151	3.0029450	2.8833110	2.7811410	2.7685179				
	2.7067409	2.5273061	2.5860996				2.7515	AVRG		5.5188
71)MA tert-Butylbenzene		0.6519820	0.7008272	0.6915273	0.6774508	0.6880504				
	0.6750633	0.6189750	0.6411579				0.6681	AVRG		4.2155
72)MA 1,2,4-Trimethylbenzene		3.1337733	3.4408219	3.2907036	3.2453643	3.2819279				
	3.1526474	2.8922069	3.0146046				3.1815	AVRG		5.4180
73)MA sec-Butylbenzene		4.0574512	4.3865016	4.3191599	4.1636952	4.1644388				
	4.0193827	3.5935103	3.7950849				4.0624	AVRG		6.4783
74)MA 4-Isopropyltoluene		2.5975545	2.9104389	2.7820447	2.7336386	2.7498347				
	2.6794236	2.4394590	2.5495057				2.6802	AVRG		5.5152
75)MA 1,3-Dichlorobenzene		1.8007857	1.8467033	1.7215984	1.7226381	1.7197471				
	1.6780220	1.5741767	1.6077576				1.7089	AVRG		5.2912
76)MA 1,4-Dichlorobenzene		1.8184427	1.8656415	1.7619007	1.6922685	1.6951052				
	1.6477180	1.5555851	1.5894625				1.7033	AVRG		6.3196
77)MA n-Butylbenzene		3.0991216	3.4224440	3.3772455	3.3041500	3.3270049				
	3.2416201	2.8896446	3.0504649				3.2140	AVRG		5.7240
78)MA 1,2-Dichlorobenzene		1.6275271	1.6577691	1.6068901	1.5563180	1.6059617				
	1.5563654	1.4997376	1.5232653				1.5792	AVRG		3.4250

Response Factor Report VOA6
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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
79)MA 1,2-Dibromo-3-chloroprop		870	2038	5451	10329	23511		1/x		
-0.0020 | 0.1538 | 0.00	65859	154183	117953					LINR	#	0.9943
80)MA 1,2,4-Trichlorobenzene		1.0591948	1.1531600	1.0843617	1.0456477	1.0949077				
	1.0639317	1.0179518	1.0555532				1.0718	AVRG		3.7617
81)MA Hexachlorobutadiene		0.6707425	0.7317560	0.7195750	0.6900141	0.7156744				
	0.6942085	0.6522974	0.6770129				0.6939	AVRG		3.9027
82)MA Naphthalene		2.0747992	2.1967247	2.3029772	2.1322073	2.2686289				
	2.1964707	2.2626739	2.2660282				2.2126	AVRG		3.5272
83)MA 1,2,3-Trichlorobenzene		0.9562329	0.9838924	0.9775381	0.9251234	0.9618131				
	0.9227369	0.9019217	0.9318511				0.9451	AVRG		3.0716
85)B Acrolein		0.0418975	0.0441969	0.0481689	0.0454204	0.0472811				
	0.0488786	0.0469459	0.0500377				0.0466	AVRG		5.6965
86)B Trichlorotrifluoroethane		0.1176727	0.1302238	0.1230258	0.1219562	0.1209882				
	0.1174360	0.1172118	0.1130232				0.1202	AVRG		4.2960
87)B Isopropyl Alcohol		0.0196883	0.0209762	0.0223752	0.0224380	0.0234216				
	0.0227974	0.0220744	0.0228508				0.0221	AVRG		5.4306
88)B Allyl chloride		0.5879801	0.5710635	0.5780018	0.5524130	0.5630058				
	0.5133860	0.4677095	0.5093735				0.5429	AVRG		7.6905
89)B tert-Butyl Alcohol		0.0324297	0.0339809	0.0374029	0.0375112	0.0395068				
	0.0375086	0.0355884	0.0376814				0.0365	AVRG		6.3087
90)B Acrylonitrile		0.1018205	0.1109989	0.1123013	0.1069221	0.1129524				
	0.1100922	0.1073569	0.1105973				0.1091	AVRG		3.3344
91)B Isopropyl ether		1.1933465	1.2315512	1.2401582	1.2380956	1.2529289				
	1.1965966	1.1701915	1.1926456				1.2144	AVRG		2.4489
92)B 2-Chloro-1,3-butadiene		0.5127674	0.5484843	0.5623783	0.5719715	0.5807599				
	0.5632005	0.5688268	0.5652861				0.5592	AVRG		3.7355
93)B Ethyl tert-butyl ether		1.0620545	1.1051388	1.1359691	1.1474713	1.1618203				
	1.1237939	1.1054805	1.1249729				1.1208	AVRG		2.7357
94)B Ethyl acetate		0.2748481	0.2689110	0.2795835	0.2739891	0.2843514				
	0.2672710	0.2501414	0.2630961				0.2703	AVRG		3.9238

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Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	6	7	9							
95)B Propionitrile		0.0366987	0.0405968	0.0423486	0.0410244	0.0438014				
	0.0432019	0.0418298	0.0429771				0.0416	AVRG		5.4010
96)B Methacrylonitrile		0.1481413	0.1569635	0.1683938	0.1646403	0.1706044				
	0.1606907	0.1520720	0.1607879				0.1603	AVRG		4.8186
97)B Tetrahydrofuran		0.0961274	0.0933952	0.0950782	0.0882262	0.0942442				
	0.0883470	0.0844448	0.0888555				0.0911	AVRG		4.5722
98)B Isobutyl alcohol		0.0109551	0.0100854	0.0107915	0.0106409	0.0110854				
	0.0105255	0.0098574	0.0105527				0.0106	AVRG	$	3.9403
99)B Methyl tert-amyl ether		0.8078228	0.8424837	0.8537362	0.8529971	0.8749245				
	0.8465598	0.8299524	0.8446685				0.8441	AVRG		2.3038
100)B Methyl methacrylate		0.1577805	0.1653839	0.1778359	0.1796218	0.1845035				
	0.1747645	0.1628976	0.1723350				0.1719	AVRG		5.3182
101)B 1,4-Dioxane		0.0025883	0.0027835	0.0029410	0.0027499	0.0029563				
	0.0029307	0.0029502	0.0028877				0.0028	AVRG	#	4.6047
102)B 2-Nitropropane		0.0742411	0.0733209	0.0795058	0.0840183	0.0891065				
	0.0897985	0.0874379	0.0902116				0.0835	AVRG		8.3166
104)B Ethyl methacrylate		0.3930169	0.4285202	0.4626853	0.4762647	0.4725421				
	0.4363542	0.3945501	0.4249928				0.4361	AVRG		7.4611
106)B 1-Chlorohexane		0.8678091	0.9275388	0.8940049	0.9353821	0.9228536				
	0.8733307	0.8804655	0.8692037				0.8963	AVRG		3.1380
107)B cis-1,4-Dichloro-2-buten		0.2222411	0.2514895	0.2756061	0.2969022	0.3046517				
	0.2939991	0.2804013	0.2947347				0.2775	AVRG		10.0319
108)B Cyclohexanone		0.0179538	0.0181516	0.0191274	0.0184294	0.0199131				
	0.0205239	0.0199263	0.0203920				0.0193	AVRG		5.3186
109)B trans-1,4-Dichloro-2-but		0.2166578	0.2353020	0.2585965	0.2742030	0.2846346				
	0.2670021	0.2539778	0.2680169				0.2573	AVRG		8.5533
110)B Pentachloroethane		0.4129236	0.4406373	0.4757515	0.5091662	0.4973232				
	0.4668292	0.4330127	0.4574933				0.4616	AVRG		7.0474
111)B Benzyl chloride		1.1021982	1.2158682	1.3244896	1.4056265	1.4169195				
	1.3150409	1.1618665	1.2690868				1.2764	AVRG		8.7560

Response Factor Report VOA6
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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b m1 m2	6	7	9							
112)B bis(2-Chloroisopropyl)et		0.3692169	0.3882478	0.4131062	0.4290289	0.4446836				
	0.4234918	0.3996088	0.4211502				0.4111	AVRG		5.8992

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z202.D
Acq On : 19 Sep 2017 13:49
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-01|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD0005 N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:21 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	1158249	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	863636	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	446196	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	289580	48.99	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1052608	49.12	ug/L	0.00
63) Bromofluorobenzene	95	13.836	13.829	0.919	443694	49.65	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	2915	0.53	ug/L	78
3) Chloromethane	50	4.250	4.274	0.450	4359	0.58	ug/L	97
4) Vinyl chloride	62	4.474	4.498	0.474	3396	0.50	ug/L	98
5) Bromomethane	94	4.996	5.012	0.529	2541	0.49	ug/L	95
6) Chloroethane	64	5.148	5.148	0.545	3178	0.51	ug/L	94
7) Trichlorofluoromethane	101	5.501	5.549	0.583	4951	0.48	ug/L	99
8) Ethyl ether	59	5.822	5.822	0.617	3430	0.50	ug/L	95
9) Acetone	43	6.197	6.191	0.656	11435	N.D.		
10) 1,1-Dichloroethylene	61	6.185	6.191	0.655	6399	0.53	ug/L	93
11) Iodomethane	142	6.416	6.422	0.680	28675	2.75	ug/L	99
12) Acetonitrile	41	6.556	6.544	0.695	11959	14.47	ug/L	91
13) Methyl acetate	43	6.575	6.569	0.696	13145	2.73	ug/L	89
14) Carbon disulfide	76	6.544	6.544	0.693	59764	2.80	ug/L	99
15) Methylene chloride	84	6.752	6.752	0.715	6024	N.D.		
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	9664	0.51	ug/L	88
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	6346	0.55	ug/L	87
18) Hexane	57	7.361	7.361	0.780	8082	N.D.		
19) Vinyl acetate	43	7.538	7.526	0.799	36970	2.65	ug/L	93
20) 1,1-Dichloroethane	63	7.562	7.562	0.801	6945	0.51	ug/L	97
21) 2-Butanone	43	8.166	8.154	0.865	13717	3.05	ug/L	89
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	6534	0.50	ug/L	95
23) 2,2-Dichloropropane	77	8.221	8.227	0.871	5951	0.55	ug/L	78
24) Bromochloromethane	128	8.477	8.477	0.898	1650	0.51	ug/L	88
25) Chloroform	83	8.519	8.513	0.902	6015	0.52	ug/L	99
26) 1,1,1-Trichloroethane	97	8.788	8.782	0.931	5604	0.52	ug/L	94
27) Cyclohexane	56	8.867	8.867	0.939	9401	0.58	ug/L	93
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	5141	0.56	ug/L	90
29) Carbon tetrachloride	117	8.964	8.971	0.950	4473	0.49	ug/L	99
31) 1,2-Dichloroethane	62	9.172	9.166	0.972	5493	0.57	ug/L #	44
32) Benzene	78	9.184	9.178	0.973	15285	0.55	ug/L #	78
33) Cyclohexene	67	9.288	9.288	0.984	7092	0.52	ug/L	95
34) n-Butyl alcohol	56	9.574	9.562	1.014	9654	42.95	ug/L	87
35) Trichloroethylene	95	9.830	9.824	1.041	3521	0.50	ug/L	91
36) 2-Pentanone	43	9.934	9.922	1.052	12507	N.D.		
37) 1,2-Dichloropropane	63	10.080	10.074	1.068	4086	0.53	ug/L	100
38) Methylcyclohexane	83	10.068	10.062	1.067	6788	0.52	ug/L	84
39) Dibromomethane	93	10.214	10.208	1.082	1845	0.50	ug/L	96
40) Bromodichloromethane	83	10.336	10.330	1.095	4081	0.48	ug/L	93
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.119	7379	2.07	ug/L	96
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	5007	0.47	ug/L	86

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z202.D
Acq On : 19 Sep 2017 13:49
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-01|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD0005 N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 20 10:49:21 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	10.891	10.885	0.862	6361	2.36	ug/L #	83
46) Toluene	91	11.165	11.165	0.884	16395	0.57	ug/L	98
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	4209	0.47	ug/L	92
48) 1,1,2-Trichloroethane	83	11.555	11.549	0.915	2350	0.53	ug/L	92
49) 2-Hexanone	43	11.751	11.744	0.930	15838	2.87	ug/L	88
50) 1,3-Dichloropropane	76	11.751	11.744	0.930	4889	0.53	ug/L	83
51) Tetrachloroethylene	164	11.763	11.757	0.931	3200	0.58	ug/L	94
52) Dibromochloromethane	129	12.013	12.007	0.951	2377	0.43	ug/L	100
53) 1,2-Dibromoethane	107	12.177	12.171	0.964	2167	0.42	ug/L	94
54) Chlorobenzene	112	12.659	12.659	1.002	10495	0.55	ug/L #	36
55) 1,1,1,2-Tetrachloroethane	131	12.714	12.720	1.007	2954	0.47	ug/L #	64
56) Ethylbenzene	91	12.726	12.726	1.008	18062	0.56	ug/L	94
57) m,p-Xylenes	106	12.842	12.842	1.017	14040	1.11	ug/L	95
58) o-Xylene	91	13.275	13.275	1.051	14549	0.55	ug/L	95
59) Styrene	104	13.281	13.281	1.052	9342	0.47	ug/L	96
61) Bromoform	173	13.531	13.531	0.899	1309	1.01	ug/L	82
62) Isopropylbenzene	105	13.640	13.634	0.906	18036	0.55	ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	3349	0.48	ug/L	100
65) 1,2,3-Trichloropropane	110	14.012	14.006	0.931	1047	0.51	ug/L #	74
66) Bromobenzene	156	14.037	14.037	0.932	3953	0.52	ug/L	93
67) n-Propylbenzene	91	14.067	14.067	0.934	22362	0.58	ug/L	92
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	13973	0.51	ug/L	98
69) 2-Chlorotoluene	126	14.213	14.207	0.944	4063	0.53	ug/L	93
70) 4-Chlorotoluene	91	14.317	14.311	0.951	13691	0.56	ug/L	98
71) tert-Butylbenzene	134	14.591	14.592	0.969	2752	0.46	ug/L #	59
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	14721	0.52	ug/L	95
73) sec-Butylbenzene	105	14.817	14.817	0.984	18552	0.51	ug/L	98
74) 4-Isopropyltoluene	119	14.591	14.592	0.969	14110	0.59	ug/L	94
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	8510	0.56	ug/L	99
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	8514	0.56	ug/L #	44
77) n-Butylbenzene	91	15.372	15.372	1.021	14774	0.52	ug/L	96
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	8071	0.57	ug/L	95
79) 1,2-Dibromo-3-chloropr...	157	16.317	16.305	1.084	361	0.90	ug/L #	62
80) 1,2,4-Trichlorobenzene	180	17.286	17.280	1.148	5097	0.53	ug/L	100
81) Hexachlorobutadiene	225	17.438	17.439	1.158	3506	0.57	ug/L	94
82) Naphthalene	128	17.627	17.627	1.171	9718	0.49	ug/L	96
83) 1,2,3-Trichlorobenzene	180	17.944	17.938	1.192	4402	0.52	ug/L	98
85) Acrolein		0.000	6.020	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.		
88) Allyl chloride		6.556	6.605	0.695	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.007	0.000	0	N.D.		
91) Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate		8.166	8.172	0.865	0m	N.D.	d	
95) Propionitrile		0.000	8.239	0.000	0	N.D.		
96) Methacrylonitrile		0.000	8.410	0.000	0	N.D.		
97) Tetrahydrofuran		8.526	8.519	0.903	0m	N.D.	d	
98) Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d	
99) Methyl tert-amyl ether		9.178	9.208	0.972	0m	N.D.	d	
100) Methyl methacrylate		10.062	10.062	1.066	0m	N.D.	d	
101) 1,4-Dioxane		0.000	10.165	0.000	0	N.D.		
102) 2-Nitropropane		10.568	10.543	1.119	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z202.D
Acq On : 19 Sep 2017 13:49
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-01|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD0005 N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 20 10:49:21 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

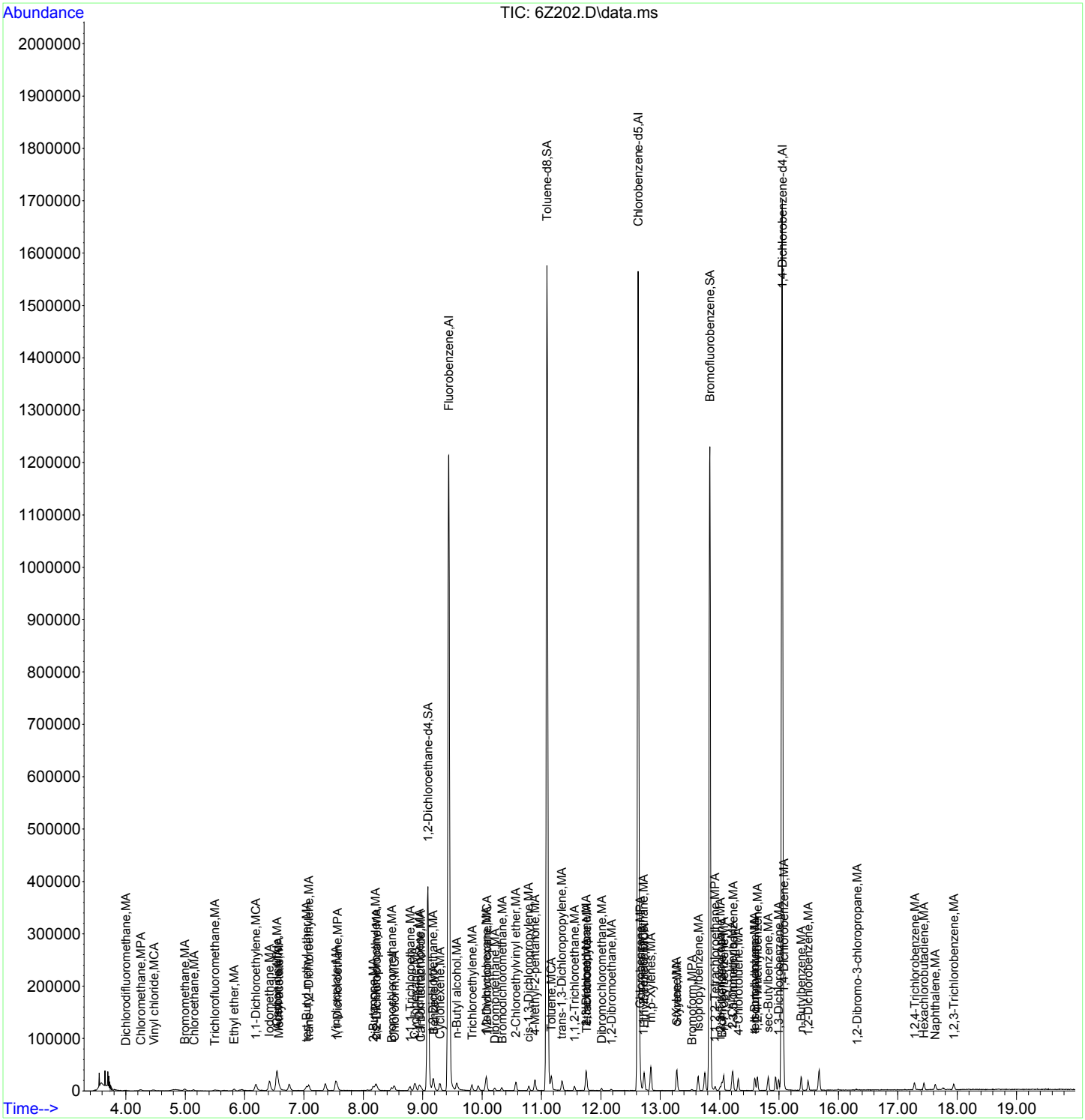
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.640	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		0.000	14.652	0.000	0	N.D.	
111) Benzyl chloride		15.183	15.195	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.671	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z202.D
Acq On : 19 Sep 2017 13:49
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-01|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD0005 N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 20 10:49:21 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z203.D
Acq On : 19 Sep 2017 14:17
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-02|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD001 N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:24 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1145433	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	869214	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	453080	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	291535	49.88	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1065063	49.39	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	451593	49.77	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.009	4.001	0.425	5009	0.92	ug/L	93
3) Chloromethane	50	4.249	4.274	0.450	7464	1.01	ug/L	96
4) Vinyl chloride	62	4.474	4.498	0.474	6818	1.01	ug/L	95
5) Bromomethane	94	4.996	5.012	0.530	4690	0.92	ug/L	97
6) Chloroethane	64	5.140	5.148	0.545	6053	0.97	ug/L	94
7) Trichlorofluoromethane	101	5.509	5.549	0.584	9754	0.96	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	6922	1.03	ug/L	88
9) Acetone	43	6.197	6.191	0.657	22126	4.33	ug/L	93
10) 1,1-Dichloroethylene	61	6.184	6.191	0.656	11726	0.99	ug/L	94
11) Iodomethane	142	6.422	6.422	0.681	52745	5.12	ug/L	99
12) Acetonitrile	41	6.544	6.544	0.694	23016	28.16	ug/L #	47
13) Methyl acetate	43	6.569	6.569	0.696	26895	5.65	ug/L	91
14) Carbon disulfide	76	6.544	6.544	0.694	103945	4.92	ug/L	98
15) Methylene chloride	84	6.751	6.752	0.716	10493	N.D.		
16) tert-Butyl methyl ether	73	7.050	7.044	0.747	19062	1.01	ug/L	93
17) trans-1,2-Dichloroethy...	61	7.087	7.081	0.751	10937	0.96	ug/L	98
18) Hexane	57	7.361	7.361	0.780	13859	N.D.		
19) Vinyl acetate	43	7.532	7.526	0.798	70144	5.08	ug/L	94
20) 1,1-Dichloroethane	63	7.568	7.562	0.802	13663	1.02	ug/L	98
21) 2-Butanone	43	8.160	8.154	0.865	25727	5.78	ug/L	92
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	12704	0.99	ug/L	97
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	10758	1.00	ug/L	73
24) Bromochloromethane	128	8.477	8.477	0.899	3036	0.95	ug/L #	81
25) Chloroform	83	8.513	8.513	0.902	10880	0.95	ug/L	95
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	10741	1.01	ug/L	97
27) Cyclohexane	56	8.873	8.867	0.941	15916	1.00	ug/L	98
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	9115	1.01	ug/L	89
29) Carbon tetrachloride	117	8.970	8.971	0.951	7984	0.89	ug/L	97
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	9910	1.03	ug/L	93
32) Benzene	78	9.178	9.178	0.973	28795	1.05	ug/L #	78
33) Cyclohexene	67	9.294	9.288	0.985	13604	1.02	ug/L	97
34) n-Butyl alcohol	56	9.568	9.562	1.014	21261	95.65	ug/L	92
35) Trichloroethylene	95	9.830	9.824	1.042	7137	1.03	ug/L	93
36) 2-Pentanone	43	9.928	9.922	1.052	25721	5.18	ug/L	92
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	7874	1.03	ug/L	97
38) Methylcyclohexane	83	10.068	10.062	1.067	13821	1.08	ug/L	97
39) Dibromomethane	93	10.208	10.208	1.082	3479	0.96	ug/L	97
40) Bromodichloromethane	83	10.330	10.330	1.095	7720	0.92	ug/L	92
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.120	16772	4.77	ug/L	98
42) cis-1,3-Dichloropropylene	75	10.787	10.781	1.143	9761	0.93	ug/L	90

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z203.D
Acq On : 19 Sep 2017 14:17
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-02|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD001 N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 20 10:49:24 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	13305	4.89	ug/L		86
46) Toluene	91	11.165	11.165	0.884	29947	1.04	ug/L		99
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	7748	0.86	ug/L		83
48) 1,1,2-Trichloroethane	83	11.549	11.549	0.915	4410	0.98	ug/L		97
49) 2-Hexanone	43	11.744	11.744	0.930	32738	5.90	ug/L		93
50) 1,3-Dichloropropane	76	11.744	11.744	0.930	9507	1.03	ug/L	#	71
51) Tetrachloroethylene	164	11.757	11.757	0.931	5799	1.04	ug/L		92
52) Dibromochloromethane	129	12.006	12.007	0.951	4552	0.82	ug/L		100
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	4717	0.91	ug/L		97
54) Chlorobenzene	112	12.659	12.659	1.002	19501	1.01	ug/L		86
55) 1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	5810	0.92	ug/L	#	66
56) Ethylbenzene	91	12.726	12.726	1.008	33670	1.03	ug/L		99
57) m,p-Xylenes	106	12.842	12.842	1.017	26574	2.09	ug/L		93
58) o-Xylene	91	13.275	13.275	1.051	27307	1.02	ug/L		99
59) Styrene	104	13.281	13.281	1.052	18821	0.93	ug/L		97
61) Bromoform	173	13.531	13.531	0.899	2541	1.31	ug/L		99
62) Isopropylbenzene	105	13.640	13.634	0.906	33275	1.00	ug/L		99
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	6709	0.96	ug/L		97
65) 1,2,3-Trichloropropane	110	14.006	14.006	0.930	1966	0.94	ug/L	#	67
66) Bromobenzene	156	14.037	14.037	0.932	7909	1.02	ug/L		95
67) n-Propylbenzene	91	14.067	14.067	0.934	39962	1.01	ug/L		97
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	27621	0.99	ug/L		100
69) 2-Chlorotoluene	126	14.213	14.207	0.944	8145	1.04	ug/L		92
70) 4-Chlorotoluene	91	14.311	14.311	0.951	24973	1.00	ug/L		99
71) tert-Butylbenzene	134	14.591	14.592	0.969	5908	0.98	ug/L		96
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	28397	0.98	ug/L		95
73) sec-Butylbenzene	105	14.817	14.817	0.984	36767	1.00	ug/L		98
74) 4-Isopropyltoluene	119	14.591	14.592	0.969	23538	0.97	ug/L		96
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	16318	1.05	ug/L		96
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	16478	1.07	ug/L	#	71
77) n-Butylbenzene	91	15.372	15.372	1.021	28083	0.96	ug/L		98
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	14748	1.03	ug/L		94
79) 1,2-Dibromo-3-chloropr...	157	16.317	16.305	1.084	870	1.26	ug/L		86
80) 1,2,4-Trichlorobenzene	180	17.286	17.280	1.148	9598	0.99	ug/L		96
81) Hexachlorobutadiene	225	17.438	17.439	1.158	6078	0.97	ug/L		99
82) Naphthalene	128	17.633	17.627	1.171	18801	0.94	ug/L		99
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	8665	1.01	ug/L		98
85) Acrolein		0.000	6.020	0.000	0	N.D.			
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.			
87) Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.			
88) Allyl chloride		6.544	6.605	0.694	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.			
90) Acrylonitrile		0.000	7.007	0.000	0	N.D.			
91) Isopropyl ether		7.526	7.550	0.798	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.			
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.			
94) Ethyl acetate		8.160	8.172	0.865	0m	N.D.	d		
95) Propionitrile		0.000	8.239	0.000	0	N.D.			
96) Methacrylonitrile		8.397	8.410	0.890	0m	N.D.	d		
97) Tetrahydrofuran		8.525	8.519	0.904	0m	N.D.	d		
98) Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d		
99) Methyl tert-amyl ether		9.184	9.208	0.974	0m	N.D.	d		
100) Methyl methacrylate		10.062	10.062	1.067	0m	N.D.	d		
101) 1,4-Dioxane		0.000	10.165	0.000	0	N.D.			
102) 2-Nitropropane		10.635	10.543	1.127	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z203.D
Acq On : 19 Sep 2017 14:17
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-02|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD001 N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 20 10:49:24 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

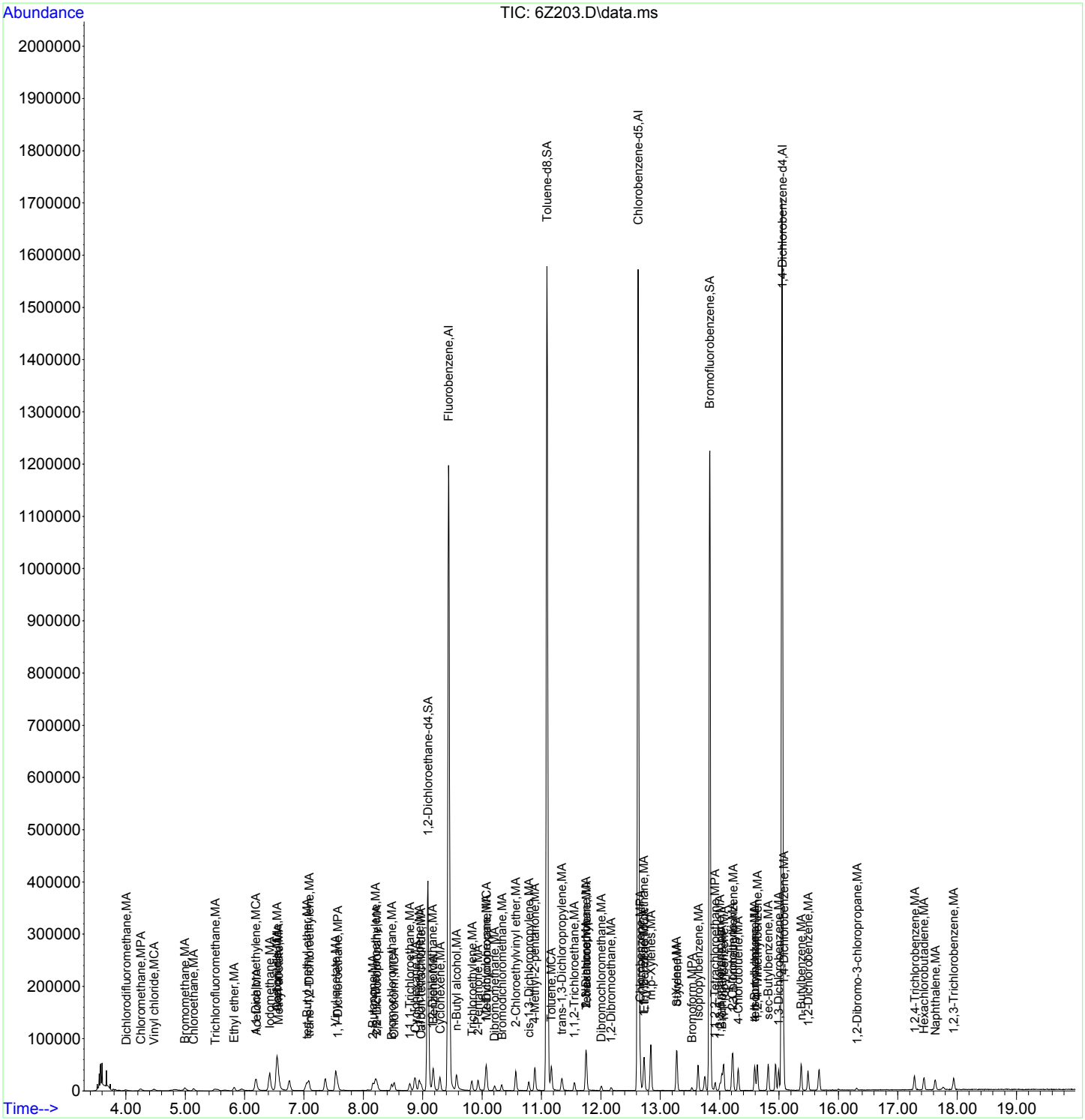
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		0.000	14.652	0.000	0	N.D.	
111) Benzyl chloride		15.207	15.195	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.677	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z203.D
Acq On : 19 Sep 2017 14:17
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-02|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD001 N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 20 10:49:24 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z204.D
Acq On : 19 Sep 2017 14:45
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-03|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD002 N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:26 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
Internal Standards									Dev(Min)
1) Fluorobenzene	96	9.434	9.440	1.000	1131189	50.00	ug/L		0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	855665	50.00	ug/L		0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	446187	50.00	ug/L		0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L		0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L		0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L		0.00
System Monitoring Compounds									Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	284815	49.34	ug/L		0.00
45) Toluene-d8	98	11.092	11.092	0.878	1057666	49.82	ug/L		0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	448063	50.14	ug/L		0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	12957	2.40	ug/L		99
3) Chloromethane	50	4.242	4.274	0.450	15977	2.18	ug/L		96
4) Vinyl chloride	62	4.474	4.498	0.474	14163	2.13	ug/L		98
5) Bromomethane	94	4.996	5.012	0.530	10370	2.06	ug/L		99
6) Chloroethane	64	5.140	5.148	0.545	12777	2.08	ug/L		95
7) Trichlorofluoromethane	101	5.549	5.549	0.588	20726	2.07	ug/L		100
8) Ethyl ether	59	5.822	5.822	0.617	14971	2.25	ug/L		90
9) Acetone	43	6.191	6.191	0.656	37477	9.57	ug/L		97
10) 1,1-Dichloroethylene	61	6.191	6.191	0.656	25159	2.15	ug/L		96
11) Iodomethane	142	6.422	6.422	0.681	109924	10.81	ug/L		97
12) Acetonitrile	41	6.556	6.544	0.695	43416	53.79	ug/L		94
13) Methyl acetate	43	6.569	6.569	0.696	50773	10.80	ug/L		93
14) Carbon disulfide	76	6.544	6.544	0.694	229083	10.99	ug/L		99
15) Methylene chloride	84	6.758	6.752	0.716	18649	2.11	ug/L		93
16) tert-Butyl methyl ether	73	7.044	7.044	0.747	38936	2.09	ug/L		96
17) trans-1,2-Dichloroethy...	61	7.087	7.081	0.751	24174	2.15	ug/L		95
18) Hexane	57	7.355	7.361	0.780	29917	2.33	ug/L		90
19) Vinyl acetate	43	7.532	7.526	0.798	139455	10.23	ug/L		94
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	27588	2.08	ug/L		99
21) 2-Butanone	43	8.160	8.154	0.865	46895	10.66	ug/L		92
22) cis-1,2-Dichloroethylene	61	8.203	8.203	0.869	26702	2.11	ug/L		97
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	22105	2.08	ug/L		82
24) Bromochloromethane	128	8.471	8.477	0.898	6545	2.08	ug/L	#	83
25) Chloroform	83	8.520	8.513	0.903	23748	2.11	ug/L		98
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	21698	2.06	ug/L		99
27) Cyclohexane	56	8.867	8.867	0.940	35222	2.24	ug/L		93
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	19238	2.15	ug/L		87
29) Carbon tetrachloride	117	8.965	8.971	0.950	18085	2.05	ug/L		97
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	19753	2.08	ug/L		91
32) Benzene	78	9.178	9.178	0.973	58983	2.17	ug/L		97
33) Cyclohexene	67	9.288	9.288	0.984	28506	2.15	ug/L		95
34) n-Butyl alcohol	56	9.568	9.562	1.014	40549	184.73	ug/L		88
35) Trichloroethylene	95	9.824	9.824	1.041	14139	2.06	ug/L		100
36) 2-Pentanone	43	9.928	9.922	1.052	46443	9.47	ug/L		93
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	15969	2.11	ug/L		95
38) Methylcyclohexane	83	10.062	10.062	1.067	28355	2.24	ug/L		95
39) Dibromomethane	93	10.214	10.208	1.083	7126	1.98	ug/L		97
40) Bromodichloromethane	83	10.330	10.330	1.095	15755	1.91	ug/L		98
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.120	33012	9.50	ug/L		98
42) cis-1,3-Dichloropropylene	75	10.787	10.781	1.143	20063	1.93	ug/L		87

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z204.D
Acq On : 19 Sep 2017 14:45
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-03|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD002 N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 20 10:49:26 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	26658	9.96	ug/L	86
46) Toluene	91	11.165	11.165	0.884	62373	2.19	ug/L	97
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	17021	1.92	ug/L	89
48) 1,1,2-Trichloroethane	83	11.556	11.549	0.915	8740	1.98	ug/L	97
49) 2-Hexanone	43	11.745	11.744	0.930	59504	10.89	ug/L	93
50) 1,3-Dichloropropane	76	11.745	11.744	0.930	19847	2.18	ug/L	83
51) Tetrachloroethylene	164	11.757	11.757	0.931	12073	2.21	ug/L	93
52) Dibromochloromethane	129	12.007	12.007	0.951	9551	1.74	ug/L	98
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	10019	1.96	ug/L	100
54) Chlorobenzene	112	12.659	12.659	1.002	41251	2.18	ug/L	82
55) 1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	12310	1.98	ug/L	95
56) Ethylbenzene	91	12.726	12.726	1.008	69728	2.17	ug/L	97
57) m,p-Xylenes	106	12.842	12.842	1.017	54552	4.36	ug/L	89
58) o-Xylene	91	13.275	13.275	1.051	57865	2.20	ug/L	96
59) Styrene	104	13.281	13.281	1.052	40643	2.05	ug/L	98
61) Bromoform	173	13.531	13.531	0.899	5263	2.01	ug/L	99
62) Isopropylbenzene	105	13.640	13.634	0.906	71351	2.17	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	13654	1.98	ug/L	100
65) 1,2,3-Trichloropropane	110	14.012	14.006	0.931	4241	2.06	ug/L #	84
66) Bromobenzene	156	14.037	14.037	0.932	16459	2.16	ug/L	97
67) n-Propylbenzene	91	14.067	14.067	0.934	84494	2.18	ug/L	98
68) 1,3,5-Trimethylbenzene	105	14.220	14.226	0.945	59824	2.17	ug/L	99
69) 2-Chlorotoluene	126	14.207	14.207	0.944	16613	2.15	ug/L	93
70) 4-Chlorotoluene	91	14.311	14.311	0.951	53595	2.18	ug/L	100
71) tert-Butylbenzene	134	14.592	14.592	0.969	12508	2.10	ug/L	93
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	61410	2.16	ug/L	96
73) sec-Butylbenzene	105	14.817	14.817	0.984	78288	2.16	ug/L	99
74) 4-Isopropyltoluene	119	14.592	14.592	0.969	51944	2.17	ug/L	98
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	32959	2.16	ug/L	99
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	33297	2.19	ug/L	87
77) n-Butylbenzene	91	15.372	15.372	1.021	61082	2.13	ug/L	99
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	29587	2.10	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	16.311	16.305	1.083	2038	2.13	ug/L	96
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	20581	2.15	ug/L	99
81) Hexachlorobutadiene	225	17.445	17.439	1.159	13060	2.11	ug/L	99
82) Naphthalene	128	17.628	17.627	1.171	39206	1.99	ug/L	98
83) 1,2,3-Trichlorobenzene	180	17.945	17.938	1.192	17560	2.08	ug/L	97
85) Acrolein		0.000	6.020	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.		
88) Allyl chloride		6.556	6.605	0.695	0m	N.D.	d	
89) tert-Butyl Alcohol		6.770	6.770	0.718	0m	N.D.	d	
90) Acrylonitrile		7.056	7.007	0.748	0m	N.D.	d	
91) Isopropyl ether		7.526	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate		8.160	8.172	0.865	0m	N.D.	d	
95) Propionitrile		0.000	8.239	0.000	0	N.D.		
96) Methacrylonitrile		8.440	8.410	0.895	0m	N.D.	d	
97) Tetrahydrofuran		8.520	8.519	0.903	0m	N.D.	d	
98) Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d	
99) Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d	
100) Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d	
101) 1,4-Dioxane		0.000	10.165	0.000	0	N.D.		
102) 2-Nitropropane		10.568	10.543	1.120	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z204.D
Acq On : 19 Sep 2017 14:45
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-03|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD002 N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 20 10:49:26 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

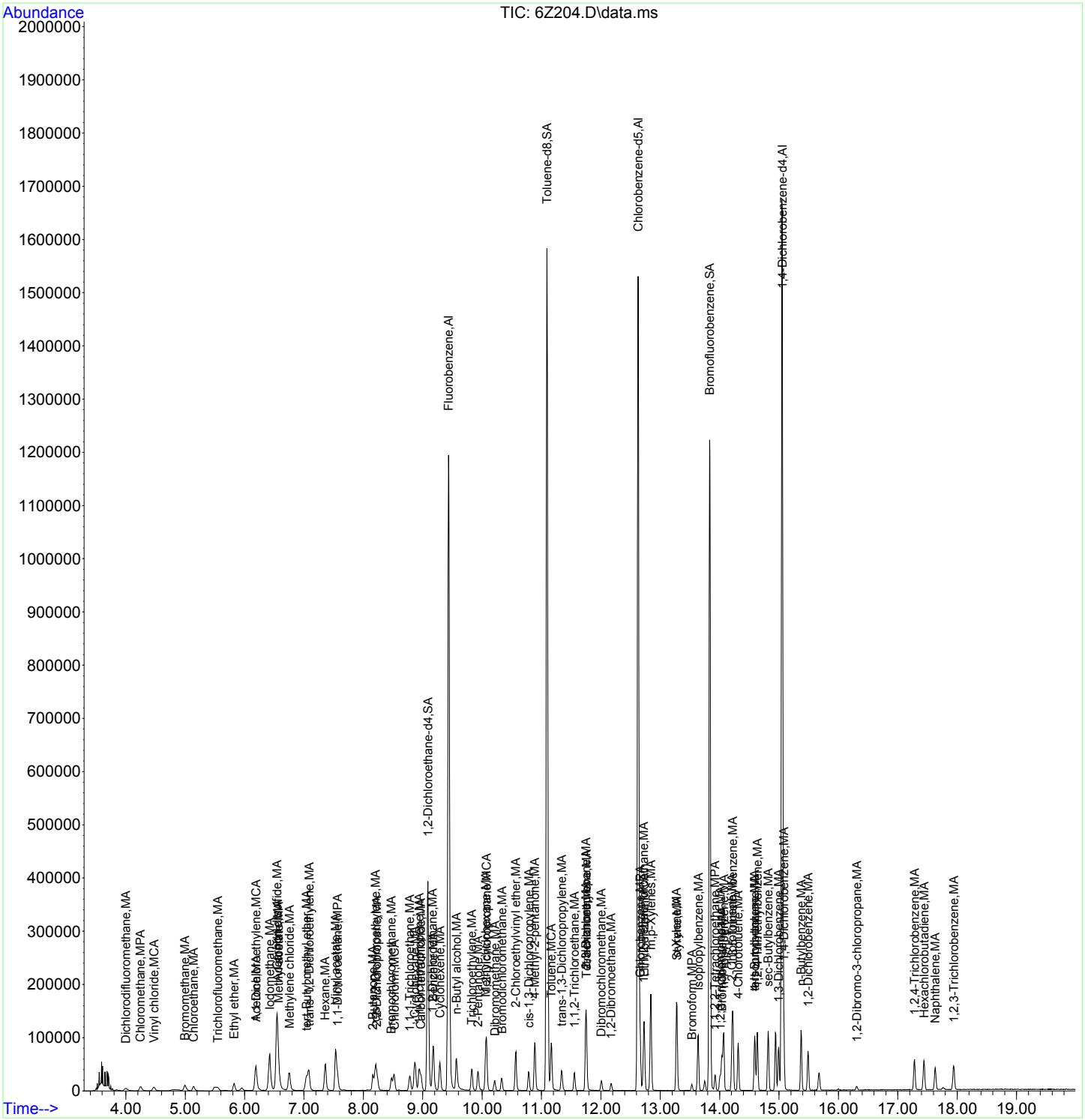
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.640	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		14.061	13.976	0.934	0m	N.D.	d
110) Pentachloroethane		0.000	14.652	0.000	0	N.D.	
111) Benzyl chloride		15.201	15.195	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.664	15.591	1.040	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z204.D
Acq On : 19 Sep 2017 14:45
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-03|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD002 N/A MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 20 10:49:26 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z205.D
Acq On : 19 Sep 2017 15:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-04|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

09/21/2017

Quant Time: Sep 20 10:49:28 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1040657	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	796961	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	421068	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	286615	53.97	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1013468	51.25	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	435176	51.61	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	3.993	4.001	0.423	28633	5.77	ug/L	98
3) Chloromethane	50	4.249	4.274	0.450	36926	5.49	ug/L	99
4) Vinyl chloride	62	4.474	4.498	0.474	34282	5.60	ug/L	100
5) Bromomethane	94	4.996	5.012	0.530	23528	5.09	ug/L	97
6) Chloroethane	64	5.140	5.148	0.545	30616	5.42	ug/L	97
7) Trichlorofluoromethane	101	5.541	5.549	0.587	48748	5.30	ug/L	99
8) Ethyl ether	59	5.822	5.822	0.617	32739	5.34	ug/L	90
9) Acetone	43	6.191	6.191	0.656	90164	29.87	ug/L	97
10) 1,1-Dichloroethylene	61	6.185	6.191	0.656	57521	5.34	ug/L	95
11) Iodomethane	142	6.422	6.422	0.681	249467	26.67	ug/L	98
12) Acetonitrile	41	6.544	6.544	0.694	108278	145.82	ug/L	98
13) Methyl acetate	43	6.569	6.569	0.696	124855	28.87	ug/L	94
14) Carbon disulfide	76	6.544	6.544	0.694	524782	27.36	ug/L	98
15) Methylene chloride	84	6.758	6.752	0.716	36325	5.11	ug/L	91
16) tert-Butyl methyl ether	73	7.044	7.044	0.747	89068	5.19	ug/L	96
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	55077	5.34	ug/L	94
18) Hexane	57	7.361	7.361	0.780	61726	5.22	ug/L	91
19) Vinyl acetate	43	7.532	7.526	0.798	351524	28.02	ug/L	94
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	63010	5.16	ug/L	99
21) 2-Butanone	43	8.160	8.154	0.865	118269	29.23	ug/L	93
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	60955	5.24	ug/L	95
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	51197	5.23	ug/L	84
24) Bromochloromethane	128	8.477	8.477	0.899	14609	5.04	ug/L #	84
25) Chloroform	83	8.513	8.513	0.902	52986	5.11	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	49080	5.07	ug/L	97
27) Cyclohexane	56	8.867	8.867	0.940	74377	5.14	ug/L	94
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	42249	5.13	ug/L	90
29) Carbon tetrachloride	117	8.971	8.971	0.951	41111	5.06	ug/L	98
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	46145	5.29	ug/L	100
32) Benzene	78	9.178	9.178	0.973	130284	5.22	ug/L	96
33) Cyclohexene	67	9.288	9.288	0.984	64079	5.26	ug/L	99
34) n-Butyl alcohol	56	9.562	9.562	1.014	119693	592.71	ug/L	95
35) Trichloroethylene	95	9.824	9.824	1.041	32741	5.18	ug/L	98
36) 2-Pentanone	43	9.928	9.922	1.052	127117	28.16	ug/L	94
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	36022	5.18	ug/L	98
38) Methylcyclohexane	83	10.062	10.062	1.067	59062	5.08	ug/L	94
39) Dibromomethane	93	10.208	10.208	1.082	16792	5.08	ug/L	92
40) Bromodichloromethane	83	10.324	10.330	1.094	37517	4.93	ug/L	99
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.120	82444	25.80	ug/L	98
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.143	47662	4.99	ug/L	91

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z205.D
Acq On : 19 Sep 2017 15:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-04|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 20 10:49:28 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	69837	28.02	ug/L	89
46) Toluene	91	11.165	11.165	0.884	136506	5.16	ug/L	98
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	40132	4.86	ug/L	90
48) 1,1,2-Trichloroethane	83	11.555	11.549	0.915	21166	5.14	ug/L	98
49) 2-Hexanone	43	11.744	11.744	0.930	153710	30.20	ug/L	94
50) 1,3-Dichloropropane	76	11.744	11.744	0.930	44949	5.30	ug/L	79
51) Tetrachloroethylene	164	11.757	11.757	0.931	26670	5.24	ug/L	95
52) Dibromochloromethane	129	12.007	12.007	0.951	24181	4.74	ug/L	100
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	24682	5.18	ug/L	97
54) Chlorobenzene	112	12.659	12.659	1.002	91400	5.19	ug/L	93
55) 1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	28862	4.98	ug/L	98
56) Ethylbenzene	91	12.726	12.726	1.008	160035	5.34	ug/L	96
57) m,p-Xylenes	106	12.842	12.842	1.017	123092	10.56	ug/L	92
58) o-Xylene	91	13.275	13.275	1.051	128256	5.24	ug/L	97
59) Styrene	104	13.281	13.281	1.052	95244	5.16	ug/L	97
61) Bromoform	173	13.531	13.531	0.899	14265	4.52	ug/L	100
62) Isopropylbenzene	105	13.634	13.634	0.906	164413	5.31	ug/L	96
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	34492	5.29	ug/L	99
65) 1,2,3-Trichloropropane	110	14.006	14.006	0.931	10492	5.40	ug/L	98
66) Bromobenzene	156	14.037	14.037	0.933	36364	5.07	ug/L	96
67) n-Propylbenzene	91	14.067	14.067	0.935	193657	5.29	ug/L	95
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	137450	5.29	ug/L	99
69) 2-Chlorotoluene	126	14.207	14.207	0.944	37204	5.10	ug/L	92
70) 4-Chlorotoluene	91	14.311	14.311	0.951	121407	5.24	ug/L	98
71) tert-Butylbenzene	134	14.591	14.592	0.970	29118	5.18	ug/L	97
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	138561	5.17	ug/L	97
73) sec-Butylbenzene	105	14.817	14.817	0.985	181866	5.32	ug/L	98
74) 4-Isopropyltoluene	119	14.591	14.592	0.970	117143	5.19	ug/L	98
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	72491	5.04	ug/L	99
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	74188	5.17	ug/L	95
77) n-Butylbenzene	91	15.372	15.372	1.021	142205	5.25	ug/L	98
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	67661	5.09	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	16.305	16.305	1.083	5451	4.85	ug/L	92
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	45659	5.06	ug/L	99
81) Hexachlorobutadiene	225	17.438	17.439	1.159	30299	5.18	ug/L	98
82) Naphthalene	128	17.627	17.627	1.171	96971	5.20	ug/L	99
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	41161	5.17	ug/L	97
85) Acrolein		0.000	6.020	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.		
88) Allyl chloride		6.544	6.605	0.694	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.		
90) Acrylonitrile		7.038	7.007	0.746	0m	N.D.	d	
91) Isopropyl ether		7.526	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate		8.160	8.172	0.865	0m	N.D.	d	
95) Propionitrile		8.154	8.239	0.864	0m	N.D.	d	
96) Methacrylonitrile		8.398	8.410	0.890	0m	N.D.	d	
97) Tetrahydrofuran		8.526	8.519	0.904	0m	N.D.	d	
98) Isobutyl alcohol		8.873	8.867	0.941	0m	N.D.	d	
99) Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d	
100) Methyl methacrylate		10.062	10.062	1.067	0m	N.D.	d	
101) 1,4-Dioxane		0.000	10.165	0.000	0	N.D.		
102) 2-Nitropropane		10.562	10.543	1.120	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z205.D
Acq On : 19 Sep 2017 15:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-04|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 20 10:49:28 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

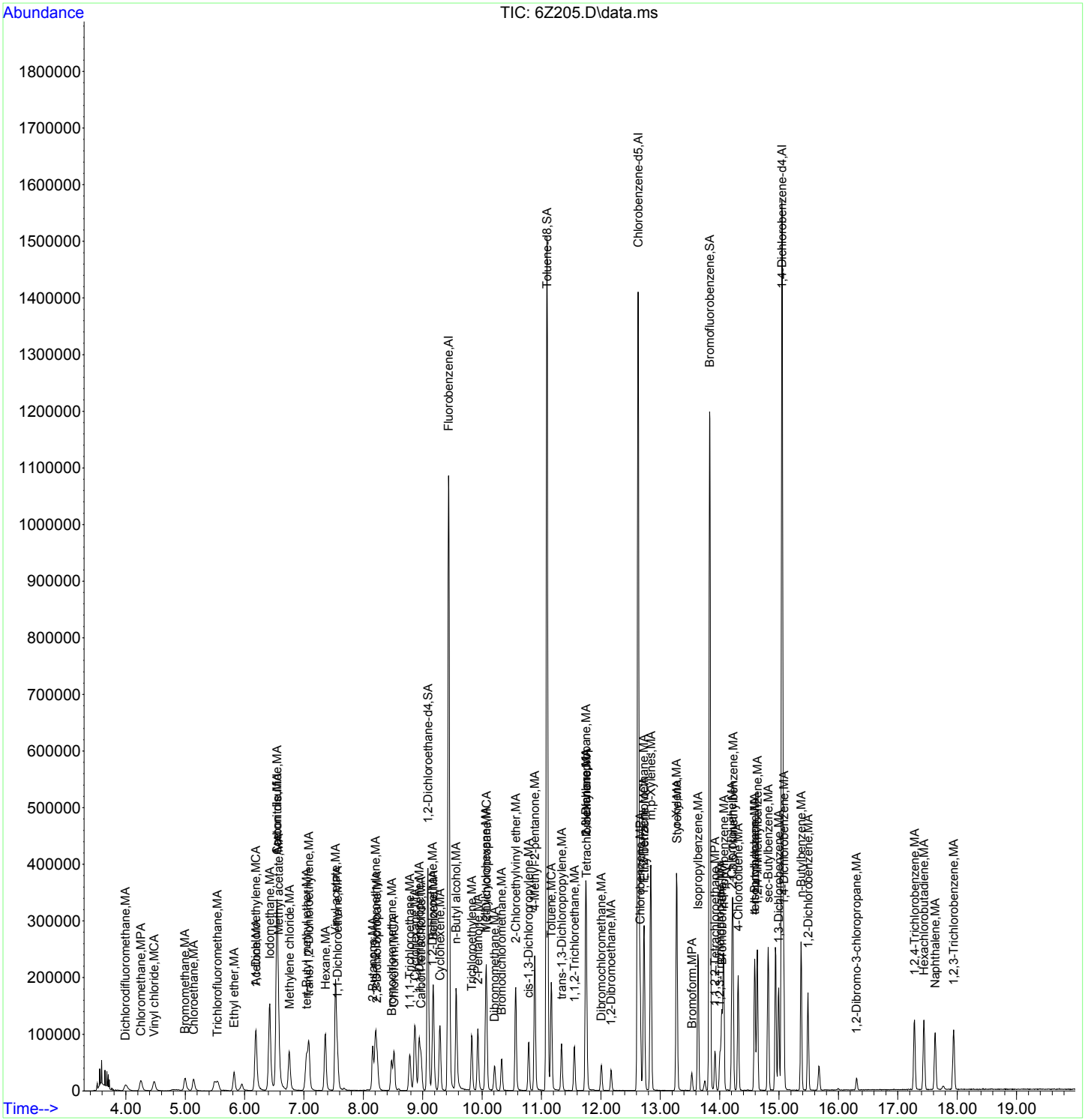
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		0.000	14.652	0.000	0	N.D.	
111) Benzyl chloride		15.201	15.195	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.671	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z205.D
Acq On : 19 Sep 2017 15:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-04|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 20 10:49:28 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z206.D
Acq On : 19 Sep 2017 15:42
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-05|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:30 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1129272	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	854110	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	445346	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	285019	49.46	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1050321	49.56	ug/L	0.00
63) Bromofluorobenzene	95	13.835	13.829	0.919	444808	49.87	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	52919	9.84	ug/L	96
3) Chloromethane	50	4.257	4.274	0.451	72205	9.89	ug/L	98
4) Vinyl chloride	62	4.482	4.498	0.475	67832	10.20	ug/L	99
5) Bromomethane	94	5.004	5.012	0.530	50652	10.09	ug/L	100
6) Chloroethane	64	5.140	5.148	0.545	60701	9.91	ug/L	100
7) Trichlorofluoromethane	101	5.549	5.549	0.588	98469	9.86	ug/L	99
8) Ethyl ether	59	5.822	5.822	0.617	64195	9.66	ug/L	90
9) Acetone	43	6.191	6.191	0.656	155175	49.14	ug/L	96
10) 1,1-Dichloroethylene	61	6.191	6.191	0.656	118724	10.16	ug/L	96
11) Iodomethane	142	6.422	6.422	0.681	525944	51.81	ug/L	98
12) Acetonitrile	41	6.544	6.544	0.694	196386	243.72	ug/L	99
13) Methyl acetate	43	6.569	6.569	0.696	229693	48.94	ug/L	94
14) Carbon disulfide	76	6.544	6.544	0.694	1103315	53.01	ug/L	99
15) Methylene chloride	84	6.758	6.752	0.716	72915	9.94	ug/L	91
16) tert-Butyl methyl ether	73	7.050	7.044	0.747	179712	9.65	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	114221	10.20	ug/L	95
18) Hexane	57	7.361	7.361	0.780	131985	10.28	ug/L	94
19) Vinyl acetate	43	7.532	7.526	0.798	676194	49.67	ug/L	95
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	134238	10.14	ug/L	99
21) 2-Butanone	43	8.154	8.154	0.864	202537	46.13	ug/L	94
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	126944	10.05	ug/L	97
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	106287	10.01	ug/L	87
24) Bromochloromethane	128	8.477	8.477	0.899	31605	10.05	ug/L	89
25) Chloroform	83	8.513	8.513	0.902	111594	9.92	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	104318	9.93	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.940	159409	10.16	ug/L	92
28) 1,1-Dichloropropene	75	8.934	8.940	0.947	88864	9.95	ug/L	91
29) Carbon tetrachloride	117	8.970	8.971	0.951	88154	10.00	ug/L	97
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	93842	9.91	ug/L	100
32) Benzene	78	9.178	9.178	0.973	271752	10.03	ug/L	97
33) Cyclohexene	67	9.288	9.288	0.984	131768	9.98	ug/L	97
34) n-Butyl alcohol	56	9.562	9.562	1.014	211631	965.74	ug/L	95
35) Trichloroethylene	95	9.824	9.824	1.041	68171	9.94	ug/L	99
36) 2-Pentanone	43	9.928	9.922	1.052	234329	47.84	ug/L	94
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	73469	9.74	ug/L	95
38) Methylcyclohexane	83	10.068	10.062	1.067	124430	9.87	ug/L	93
39) Dibromomethane	93	10.208	10.208	1.082	35094	9.78	ug/L	98
40) Bromodichloromethane	83	10.330	10.330	1.095	80958	9.81	ug/L	99
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.120	165354	47.69	ug/L	97
42) cis-1,3-Dichloropropylene	75	10.787	10.781	1.143	101616	9.81	ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z206.D
Acq On : 19 Sep 2017 15:42
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-05|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 20 10:49:30 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	127678	47.80	ug/L	91
46) Toluene	91	11.165	11.165	0.884	283865	10.01	ug/L	99
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	86325	9.76	ug/L	92
48) 1,1,2-Trichloroethane	83	11.555	11.549	0.915	42671	9.68	ug/L	98
49) 2-Hexanone	43	11.744	11.744	0.930	263998	48.40	ug/L	94
50) 1,3-Dichloropropane	76	11.744	11.744	0.930	90017	9.91	ug/L	84
51) Tetrachloroethylene	164	11.757	11.757	0.931	55120	10.10	ug/L	93
52) Dibromochloromethane	129	12.007	12.007	0.951	52772	9.65	ug/L	99
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	49239	9.65	ug/L	100
54) Chlorobenzene	112	12.659	12.659	1.002	187277	9.91	ug/L	96
55) 1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	61735	9.94	ug/L	97
56) Ethylbenzene	91	12.726	12.726	1.008	327489	10.19	ug/L	97
57) m,p-Xylenes	106	12.842	12.842	1.017	257192	20.59	ug/L	95
58) o-Xylene	91	13.275	13.275	1.051	268529	10.24	ug/L	96
59) Styrene	104	13.281	13.281	1.052	203460	10.28	ug/L	97
61) Bromoform	173	13.531	13.531	0.899	30047	8.32	ug/L	97
62) Isopropylbenzene	105	13.634	13.634	0.906	335391	10.24	ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	65001	9.42	ug/L	98
65) 1,2,3-Trichloropropane	110	14.006	14.006	0.930	20047	9.75	ug/L #	87
66) Bromobenzene	156	14.037	14.037	0.932	75048	9.89	ug/L	96
67) n-Propylbenzene	91	14.067	14.067	0.934	396090	10.23	ug/L	97
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	282376	10.27	ug/L	99
69) 2-Chlorotoluene	126	14.207	14.207	0.944	78518	10.18	ug/L	94
70) 4-Chlorotoluene	91	14.311	14.311	0.951	247714	10.11	ug/L	98
71) tert-Butylbenzene	134	14.591	14.592	0.969	60340	10.14	ug/L	97
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	289062	10.20	ug/L	98
73) sec-Butylbenzene	105	14.817	14.817	0.984	370857	10.25	ug/L	99
74) 4-Isopropyltoluene	119	14.591	14.592	0.969	243483	10.20	ug/L	98
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	153434	10.08	ug/L	100
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	150729	9.94	ug/L	98
77) n-Butylbenzene	91	15.372	15.372	1.021	294298	10.28	ug/L	97
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	138620	9.85	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	16.304	16.305	1.083	10329	8.18	ug/L	94
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	93135	9.76	ug/L	99
81) Hexachlorobutadiene	225	17.444	17.439	1.159	61459	9.94	ug/L	99
82) Naphthalene	128	17.627	17.627	1.171	189914	9.64	ug/L	99
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	82400	9.79	ug/L	100
85) Acrolein		0.000	6.020	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol		6.191	6.276	0.656	0m	N.D.	d	
88) Allyl chloride		6.544	6.605	0.694	0m	N.D.	d	
89) tert-Butyl Alcohol		6.770	6.770	0.718	0m	N.D.	d	
90) Acrylonitrile		7.050	7.007	0.747	0m	N.D.	d	
91) Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	7.666	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d	
95) Propionitrile		8.154	8.239	0.864	0m	N.D.	d	
96) Methacrylonitrile		8.404	8.410	0.891	0m	N.D.	d	
97) Tetrahydrofuran		8.525	8.519	0.904	0m	N.D.	d	
98) Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d	
99) Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d	
100) Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d	
101) 1,4-Dioxane		0.000	10.165	0.000	0	N.D.		
102) 2-Nitropropane		10.562	10.543	1.120	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z206.D
Acq On : 19 Sep 2017 15:42
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-05|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 20 10:49:30 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

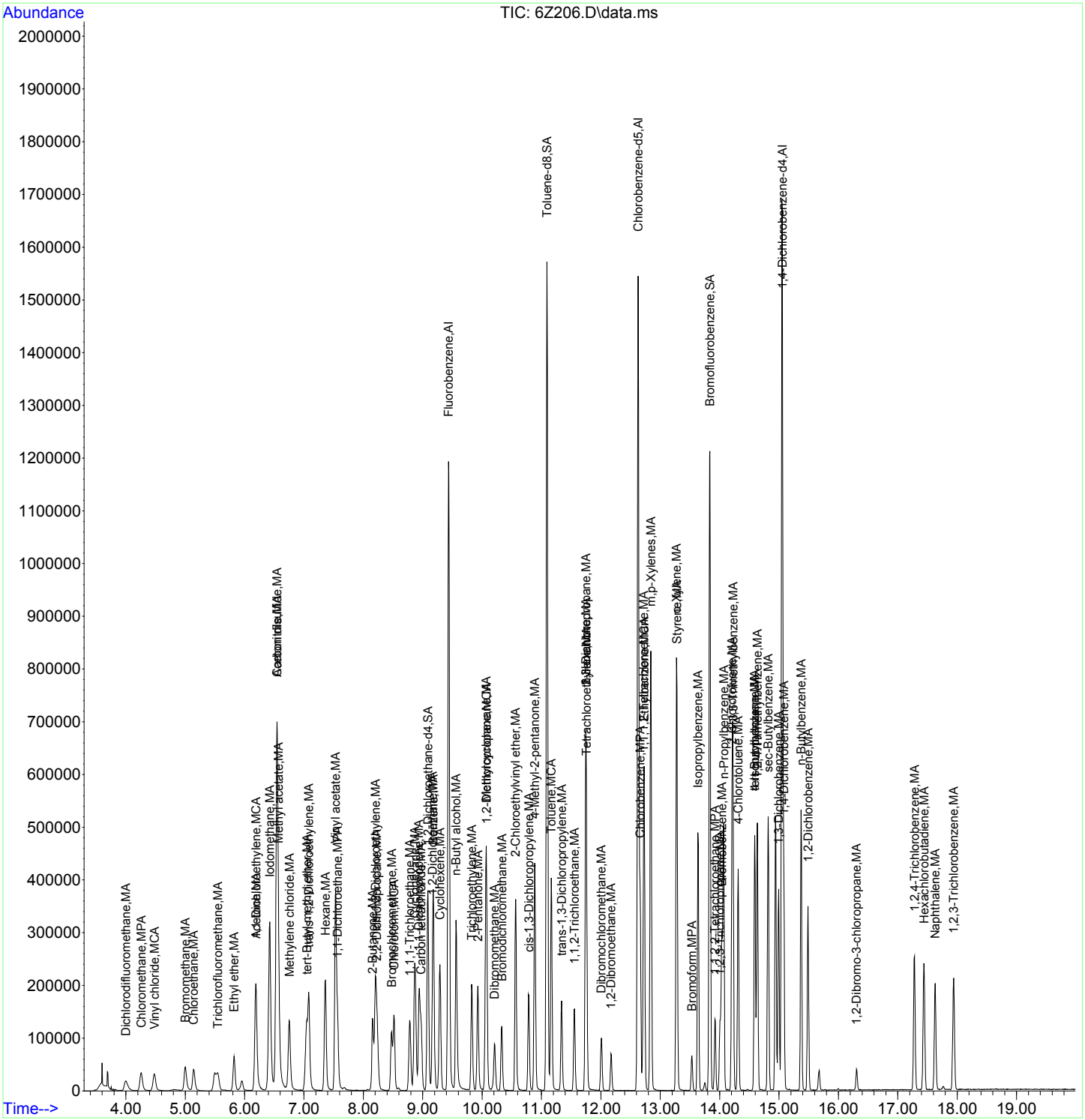
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		14.061	13.976	0.934	0m	N.D.	d
110) Pentachloroethane		14.646	14.652	0.973	0m	N.D.	d
111) Benzyl chloride		15.171	15.195	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.670	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z206.D
Acq On : 19 Sep 2017 15:42
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-05|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 20 10:49:30 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z207.D
Acq On : 19 Sep 2017 16:10
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-06|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD020 N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:32 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	1159631	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	873790	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	455221	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	294498	49.77	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1083778	49.99	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	459132	50.36	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	119103	21.56	ug/L	99
3) Chloromethane	50	4.265	4.274	0.452	161124	21.49	ug/L	98
4) Vinyl chloride	62	4.490	4.498	0.476	139170	20.38	ug/L	97
5) Bromomethane	94	5.004	5.012	0.530	106727	20.70	ug/L	99
6) Chloroethane	64	5.148	5.148	0.545	129801	20.63	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	210031	20.48	ug/L	99
8) Ethyl ether	59	5.822	5.822	0.617	135233	19.81	ug/L	89
9) Acetone	43	6.191	6.191	0.656	322704	102.58	ug/L	97
10) 1,1-Dichloroethylene	61	6.191	6.191	0.656	236502	19.72	ug/L	97
11) Iodomethane	142	6.422	6.422	0.680	1050133	100.74	ug/L	98
12) Acetonitrile	41	6.544	6.544	0.693	417153	504.15	ug/L	99
13) Methyl acetate	43	6.569	6.569	0.696	477516	99.08	ug/L	95
14) Carbon disulfide	76	6.544	6.544	0.693	2126679	99.50	ug/L	99
15) Methylene chloride	84	6.751	6.752	0.715	149852	20.46	ug/L	93
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	381327	19.94	ug/L	99
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	229784	19.98	ug/L	96
18) Hexane	57	7.361	7.361	0.780	279783	21.23	ug/L	95
19) Vinyl acetate	43	7.532	7.526	0.798	1466579	104.92	ug/L	96
20) 1,1-Dichloroethane	63	7.562	7.562	0.801	273138	20.09	ug/L	100
21) 2-Butanone	43	8.154	8.154	0.864	424015	94.05	ug/L	95
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	260211	20.06	ug/L	96
23) 2,2-Dichloropropane	77	8.227	8.227	0.871	217782	19.97	ug/L	89
24) Bromochloromethane	128	8.477	8.477	0.898	64302	19.91	ug/L #	86
25) Chloroform	83	8.513	8.513	0.902	233899	20.24	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.930	214831	19.92	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.939	318078	19.74	ug/L	93
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	183820	20.04	ug/L	92
29) Carbon tetrachloride	117	8.971	8.971	0.950	184381	20.37	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.971	196171	20.17	ug/L	99
32) Benzene	78	9.178	9.178	0.972	551473	19.83	ug/L	98
33) Cyclohexene	67	9.288	9.288	0.984	269274	19.85	ug/L	97
34) n-Butyl alcohol	56	9.562	9.562	1.013	473001	2101.96	ug/L	95
35) Trichloroethylene	95	9.824	9.824	1.041	142083	20.18	ug/L	98
36) 2-Pentanone	43	9.922	9.922	1.051	506284	100.65	ug/L	96
37) 1,2-Dichloropropane	63	10.074	10.074	1.067	159073	20.54	ug/L	98
38) Methylcyclohexane	83	10.062	10.062	1.066	254030	19.62	ug/L	93
39) Dibromomethane	93	10.208	10.208	1.081	75106	20.39	ug/L	97
40) Bromodichloromethane	83	10.330	10.330	1.094	173677	20.50	ug/L	100
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.119	361597	101.55	ug/L	99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	220126	20.70	ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z207.D
Acq On : 19 Sep 2017 16:10
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-06|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD020 N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 20 10:49:32 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	277741	101.64	ug/L		93
46)	Toluene	91	11.165	11.165	0.884	582499	20.07	ug/L		98
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	190125	21.02	ug/L		93
48)	1,1,2-Trichloroethane	83	11.549	11.549	0.915	91288	20.24	ug/L		98
49)	2-Hexanone	43	11.744	11.744	0.930	557725	99.94	ug/L		94
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	188903	20.33	ug/L		86
51)	Tetrachloroethylene	164	11.757	11.757	0.931	112682	20.18	ug/L		93
52)	Dibromochloromethane	129	12.007	12.007	0.951	117598	21.01	ug/L		99
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	105148	20.13	ug/L		98
54)	Chlorobenzene	112	12.659	12.659	1.002	387124	20.03	ug/L		97
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	130811	20.58	ug/L		98
56)	Ethylbenzene	91	12.726	12.726	1.008	666055	20.25	ug/L		97
57)	m,p-Xylenes	106	12.842	12.842	1.017	519554	40.66	ug/L		93
58)	o-Xylene	91	13.275	13.275	1.051	549562	20.49	ug/L		97
59)	Styrene	104	13.281	13.281	1.052	426748	21.08	ug/L		97
61)	Bromoform	173	13.531	13.531	0.899	71495	18.48	ug/L		96
62)	Isopropylbenzene	105	13.634	13.634	0.906	686502	20.50	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	143594	20.37	ug/L		99
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.930	41702	19.84	ug/L	#	87
66)	Bromobenzene	156	14.037	14.037	0.932	157298	20.27	ug/L		97
67)	n-Propylbenzene	91	14.067	14.067	0.934	808525	20.43	ug/L		97
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	579576	20.62	ug/L		99
69)	2-Chlorotoluene	126	14.207	14.207	0.944	161347	20.46	ug/L		95
70)	4-Chlorotoluene	91	14.311	14.311	0.951	504115	20.12	ug/L		98
71)	tert-Butylbenzene	134	14.591	14.592	0.969	125286	20.60	ug/L		98
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	597601	20.63	ug/L		98
73)	sec-Butylbenzene	105	14.817	14.817	0.984	758296	20.50	ug/L		99
74)	4-Isopropyltoluene	119	14.591	14.592	0.969	500713	20.52	ug/L		98
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	313146	20.13	ug/L		100
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	308659	19.90	ug/L		99
77)	n-Butylbenzene	91	15.372	15.372	1.021	605809	20.70	ug/L		99
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	292427	20.34	ug/L		100
79)	1,2-Dibromo-3-chloropr...	157	16.311	16.305	1.083	23511	17.44	ug/L		96
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	199370	20.43	ug/L		99
81)	Hexachlorobutadiene	225	17.438	17.439	1.158	130316	20.63	ug/L		98
82)	Naphthalene	128	17.627	17.627	1.171	413091	20.51	ug/L		99
83)	1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	175135	20.35	ug/L		100
85)	Acrolein		5.947	6.020	0.630	0m	N.D.	d		
86)	Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.			
87)	Isopropyl Alcohol		6.191	6.276	0.656	0m	N.D.	d		
88)	Allyl chloride		6.544	6.605	0.693	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.			
90)	Acrylonitrile		7.050	7.007	0.747	0m	N.D.	d		
91)	Isopropyl ether		7.526	7.550	0.797	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.678	7.666	0.813	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.			
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.154	8.239	0.864	0m	N.D.	d		
96)	Methacrylonitrile		0.000	8.410	0.000	0	N.D.			
97)	Tetrahydrofuran		8.519	8.519	0.902	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d		
99)	Methyl tert-amyl ether		9.178	9.208	0.972	0m	N.D.	d		
100)	Methyl methacrylate		10.062	10.062	1.066	0m	N.D.	d		
101)	1,4-Dioxane		10.202	10.165	1.081	0m	N.D.	d		
102)	2-Nitropropane		10.476	10.543	1.110	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z207.D
Acq On : 19 Sep 2017 16:10
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-06|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD020 N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 20 10:49:32 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

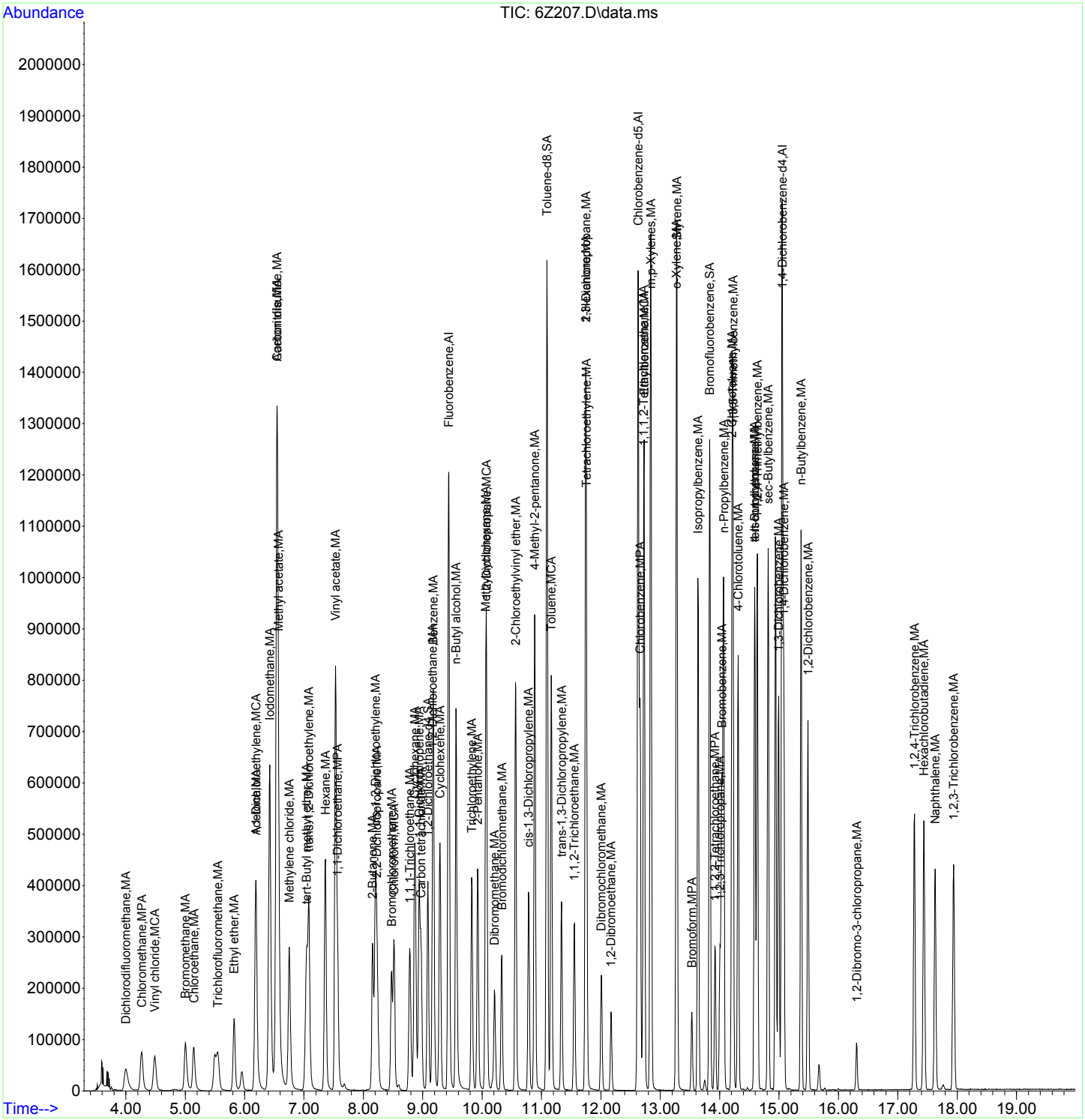
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		14.665	14.652	0.974	0m	N.D.	d
111) Benzyl chloride		15.171	15.195	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.677	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z207.D
Acq On : 19 Sep 2017 16:10
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-06|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD020 N/A MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 20 10:49:32 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z208.D
Acq On : 19 Sep 2017 16:37
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-07|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:34 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	9.440	9.440	1.000	1175023	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	875754	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	463041	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	293814	49.00	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1091521	50.23	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	461549	49.77	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	238801	42.66	ug/L	99
3) Chloromethane	50	4.274	4.274	0.453	347260	45.71	ug/L	99
4) Vinyl chloride	62	4.498	4.498	0.477	324867	46.96	ug/L	100
5) Bromomethane	94	5.012	5.012	0.531	259294	49.64	ug/L	99
6) Chloroethane	64	5.148	5.148	0.545	311961	48.92	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	517370	49.78	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	324134	46.86	ug/L	95
9) Acetone	43	6.191	6.191	0.656	757874	241.71	ug/L	97
10) 1,1-Dichloroethylene	61	6.191	6.191	0.656	589996	48.54	ug/L	98
11) Iodomethane	142	6.422	6.422	0.680	2534303	239.94	ug/L	98
12) Acetonitrile	41	6.544	6.544	0.693	935012	1115.21	ug/L	99
13) Methyl acetate	43	6.569	6.569	0.696	1103247	225.92	ug/L	96
14) Carbon disulfide	76	6.544	6.544	0.693	5083895	234.73	ug/L	100
15) Methylene chloride	84	6.752	6.752	0.715	364937	49.99	ug/L	93
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	935956	48.29	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	563089	48.32	ug/L	97
18) Hexane	57	7.361	7.361	0.780	617161	46.21	ug/L	94
19) Vinyl acetate	43	7.526	7.526	0.797	3456322	244.02	ug/L	97
20) 1,1-Dichloroethane	63	7.562	7.562	0.801	674867	48.98	ug/L	100
21) 2-Butanone	43	8.154	8.154	0.864	1002172	219.38	ug/L	95
22) cis-1,2-Dichloroethylene	61	8.203	8.203	0.869	640832	48.76	ug/L	97
23) 2,2-Dichloropropane	77	8.227	8.227	0.871	543199	49.15	ug/L	90
24) Bromochloromethane	128	8.477	8.477	0.898	162712	49.72	ug/L	90
25) Chloroform	83	8.513	8.513	0.902	584033	49.88	ug/L	100
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.930	544697	49.83	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.939	806283	49.39	ug/L	94
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	458444	49.33	ug/L	93
29) Carbon tetrachloride	117	8.971	8.971	0.950	474977	51.78	ug/L	98
31) 1,2-Dichloroethane	62	9.166	9.166	0.971	473077	48.01	ug/L	100
32) Benzene	78	9.178	9.178	0.972	1362378	48.34	ug/L	98
33) Cyclohexene	67	9.288	9.288	0.984	670635	48.80	ug/L	97
34) n-Butyl alcohol	56	9.562	9.562	1.013	1120051	4912.16	ug/L	97
35) Trichloroethylene	95	9.824	9.824	1.041	351944	49.32	ug/L	99
36) 2-Pentanone	43	9.922	9.922	1.051	1213123	238.01	ug/L	96
37) 1,2-Dichloropropane	63	10.074	10.074	1.067	382378	48.72	ug/L	95
38) Methylcyclohexane	83	10.062	10.062	1.066	646682	49.28	ug/L	94
39) Dibromomethane	93	10.208	10.208	1.081	184315	49.39	ug/L	95
40) Bromodichloromethane	83	10.330	10.330	1.094	445937	51.94	ug/L	100
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.119	872816	241.91	ug/L	99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	552604	51.28	ug/L	93

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z208.D
Acq On : 19 Sep 2017 16:37
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-07|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 10:49:34 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	659170	240.69	ug/L		95
46)	Toluene	91	11.165	11.165	0.884	1420946	48.86	ug/L		99
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	477387	52.66	ug/L		94
48)	1,1,2-Trichloroethane	83	11.549	11.549	0.915	226209	50.04	ug/L		99
49)	2-Hexanone	43	11.744	11.744	0.930	1217194	217.63	ug/L		96
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	448410	48.15	ug/L		91
51)	Tetrachloroethylene	164	11.757	11.757	0.931	273900	48.95	ug/L		94
52)	Dibromochloromethane	129	12.007	12.007	0.951	305317	54.42	ug/L		99
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	268492	51.30	ug/L		100
54)	Chlorobenzene	112	12.659	12.659	1.002	950076	49.05	ug/L		98
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	332503	52.19	ug/L		100
56)	Ethylbenzene	91	12.726	12.726	1.008	1616321	49.04	ug/L		98
57)	m,p-Xylenes	106	12.842	12.842	1.017	1247192	97.38	ug/L		95
58)	o-Xylene	91	13.275	13.275	1.051	1309551	48.71	ug/L		97
59)	Styrene	104	13.281	13.281	1.052	1035433	51.03	ug/L		96
61)	Bromoform	173	13.531	13.531	0.899	196221	48.70	ug/L		96
62)	Isopropylbenzene	105	13.634	13.634	0.906	1674376	49.16	ug/L		99
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	353946	49.36	ug/L		99
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.931	103930	48.62	ug/L	#	88
66)	Bromobenzene	156	14.037	14.037	0.933	386331	48.95	ug/L		96
67)	n-Propylbenzene	91	14.067	14.067	0.935	1982899	49.27	ug/L		98
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1417338	49.58	ug/L		99
69)	2-Chlorotoluene	126	14.207	14.207	0.944	395297	49.29	ug/L		96
70)	4-Chlorotoluene	91	14.311	14.311	0.951	1253332	49.19	ug/L		99
71)	tert-Butylbenzene	134	14.592	14.592	0.970	312582	50.52	ug/L		98
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1459805	49.55	ug/L		99
73)	sec-Butylbenzene	105	14.817	14.817	0.985	1861139	49.47	ug/L		100
74)	4-Isopropyltoluene	119	14.592	14.592	0.970	1240683	49.98	ug/L		98
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	776993	49.10	ug/L		100
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	762961	48.37	ug/L		99
77)	n-Butylbenzene	91	15.372	15.372	1.021	1501003	50.43	ug/L		98
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	720661	49.28	ug/L		99
79)	1,2-Dibromo-3-chloropr...	157	16.305	16.305	1.083	65859	46.89	ug/L		99
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	492644	49.63	ug/L		99
81)	Hexachlorobutadiene	225	17.439	17.439	1.159	321447	50.02	ug/L		100
82)	Naphthalene	128	17.627	17.627	1.171	1017056	49.64	ug/L		100
83)	1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	427265	48.81	ug/L		99
85)	Acrolein		5.929	6.020	0.628	0m	N.D.	d		
86)	Trichlorotrifluoroethane		6.172	6.178	0.654	0m	N.D.	d		
87)	Isopropyl Alcohol		6.264	6.276	0.664	0m	N.D.	d		
88)	Allyl chloride		6.544	6.605	0.693	0m	N.D.	d		
89)	tert-Butyl Alcohol		6.764	6.770	0.716	0m	N.D.	d		
90)	Acrylonitrile		7.044	7.007	0.746	0m	N.D.	d		
91)	Isopropyl ether		7.526	7.550	0.797	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.678	7.666	0.813	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.			
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.154	8.239	0.864	0m	N.D.	d		
96)	Methacrylonitrile		0.000	8.410	0.000	0	N.D.			
97)	Tetrahydrofuran		8.520	8.519	0.902	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d		
99)	Methyl tert-amyl ether		9.184	9.208	0.973	0m	N.D.	d		
100)	Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d		
101)	1,4-Dioxane		10.208	10.165	1.081	0m	N.D.	d		
102)	2-Nitropropane		10.562	10.543	1.119	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z208.D
Acq On : 19 Sep 2017 16:37
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-07|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 10:49:34 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

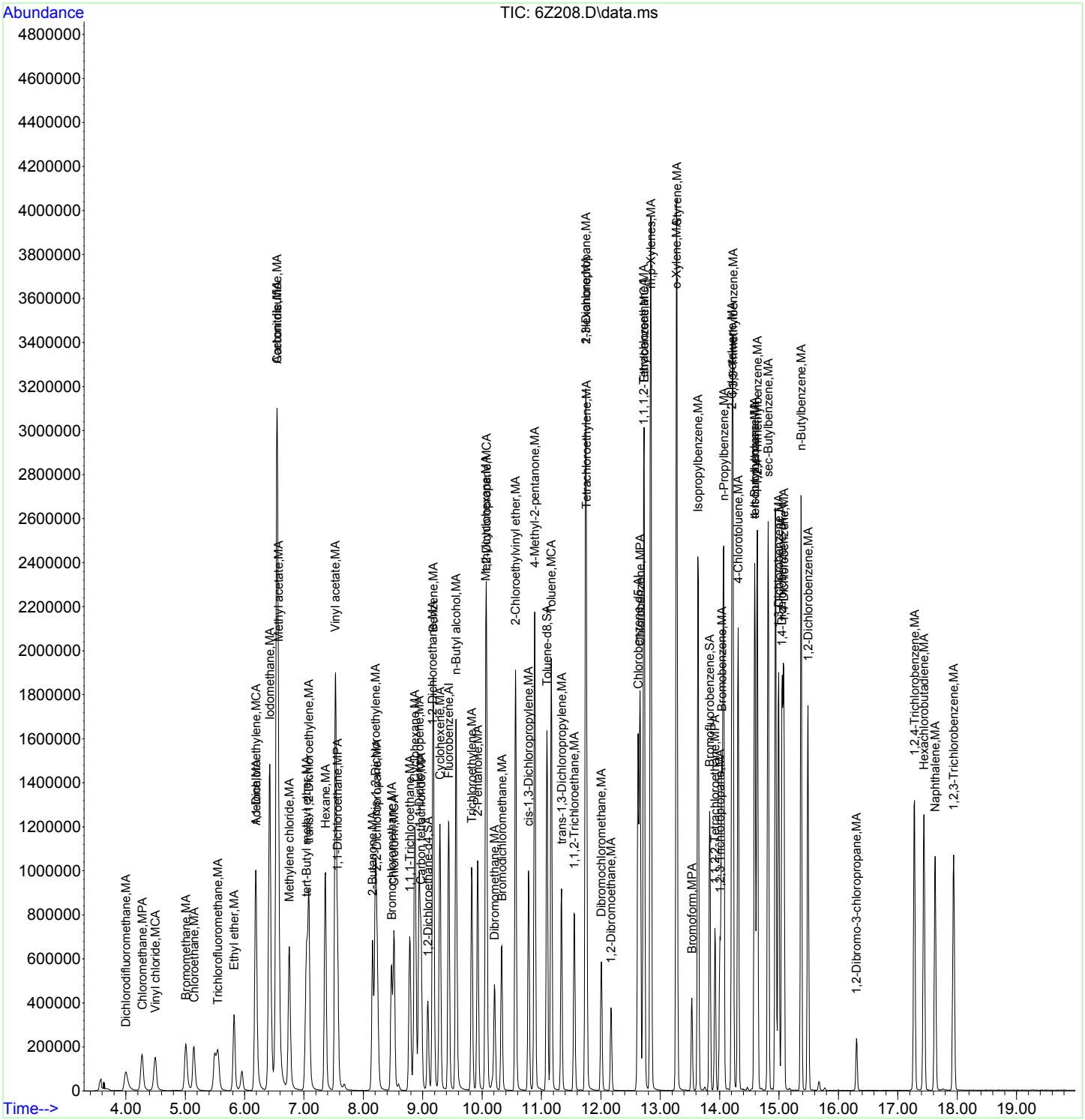
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		0.000	11.348	0.000	0	N.D.	
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		14.646	14.652	0.973	0m	N.D.	d
111) Benzyl chloride		15.189	15.195	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.664	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z208.D
Acq On : 19 Sep 2017 16:37
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-07|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 20 10:49:34 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z209.D
Acq On : 19 Sep 2017 17:05
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-08|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD080 N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:36 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1189379	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	898976	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	477862	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	298117	49.12	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1103502	49.47	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	466625	48.76	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	445311	78.58	ug/L	99
3) Chloromethane	50	4.282	4.274	0.454	571830	74.36	ug/L	99
4) Vinyl chloride	62	4.506	4.498	0.478	527908	75.39	ug/L	98
5) Bromomethane	94	5.020	5.012	0.532	437658	82.78	ug/L	99
6) Chloroethane	64	5.148	5.148	0.546	503653	78.03	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	847282	80.54	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	529469	75.62	ug/L	96
9) Acetone	43	6.185	6.191	0.656	1266110	400.88	ug/L	98
10) 1,1-Dichloroethylene	61	6.185	6.191	0.656	945383	76.84	ug/L	97
11) Iodomethane	142	6.422	6.422	0.681	3960754	370.46	ug/L	97
12) Acetonitrile	41	6.538	6.544	0.693	1501353	1769.08	ug/L	99
13) Methyl acetate	43	6.569	6.569	0.696	1752616	354.56	ug/L	97
14) Carbon disulfide	76	6.544	6.544	0.694	7724977	352.37	ug/L	100
15) Methylene chloride	84	6.752	6.752	0.716	590445	80.25	ug/L	94
16) tert-Butyl methyl ether	73	7.044	7.044	0.747	1555858	79.31	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	903847	76.63	ug/L	96
18) Hexane	57	7.361	7.361	0.780	1077801	79.72	ug/L	95
19) Vinyl acetate	43	7.526	7.526	0.798	5389542	375.91	ug/L	98
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	1071016	76.80	ug/L	99
21) 2-Butanone	43	8.154	8.154	0.864	1728039	373.71	ug/L	96
22) cis-1,2-Dichloroethylene	61	8.203	8.203	0.869	1027783	77.25	ug/L	96
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	872574	78.00	ug/L	92
24) Bromochloromethane	128	8.477	8.477	0.899	264818	79.94	ug/L	91
25) Chloroform	83	8.513	8.513	0.902	935678	78.94	ug/L	100
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	876884	79.26	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.940	1255123	75.96	ug/L	94
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	725116	77.09	ug/L	93
29) Carbon tetrachloride	117	8.971	8.971	0.951	757001	81.52	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	764221	76.62	ug/L	99
32) Benzene	78	9.178	9.178	0.973	2135804	74.87	ug/L	98
33) Cyclohexene	67	9.288	9.288	0.984	1063906	76.48	ug/L	97
34) n-Butyl alcohol	56	9.562	9.562	1.014	1919352	8316.03	ug/L	97
35) Trichloroethylene	95	9.824	9.824	1.041	556715	77.07	ug/L	99
36) 2-Pentanone	43	9.922	9.922	1.052	2078328	402.84	ug/L	97
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	607395	76.46	ug/L	97
38) Methylcyclohexane	83	10.068	10.062	1.067	997223	75.08	ug/L	95
39) Dibromomethane	93	10.208	10.208	1.082	309612	81.96	ug/L	97
40) Bromodichloromethane	83	10.330	10.330	1.095	725780	83.51	ug/L	100
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.120	1391155	380.92	ug/L	99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.143	902452	82.73	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z209.D
Acq On : 19 Sep 2017 17:05
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-08|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD080 N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 20 10:49:36 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	1103046	392.36	ug/L	98
46) Toluene	91	11.165	11.165	0.884	2221553	74.41	ug/L	99
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	785782	84.45	ug/L	94
48) 1,1,2-Trichloroethane	83	11.549	11.549	0.915	373573	80.50	ug/L	99
49) 2-Hexanone	43	11.745	11.744	0.930	1991164	346.81	ug/L	98
50) 1,3-Dichloropropane	76	11.745	11.744	0.930	708461	74.11	ug/L	90
51) Tetrachloroethylene	164	11.757	11.757	0.931	424215	73.85	ug/L	94
52) Dibromochloromethane	129	12.007	12.007	0.951	515993	89.60	ug/L	100
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	443694	82.58	ug/L	99
54) Chlorobenzene	112	12.659	12.659	1.002	1502269	75.55	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	12.714	12.720	1.007	533848	81.64	ug/L	100
56) Ethylbenzene	91	12.726	12.726	1.008	2482031	73.36	ug/L	98
57) m,p-Xylenes	106	12.842	12.842	1.017	1916745	145.80	ug/L	96
58) o-Xylene	91	13.275	13.275	1.051	2019272	73.17	ug/L	97
59) Styrene	104	13.281	13.281	1.052	1606161	77.12	ug/L	96
61) Bromoform	173	13.531	13.531	0.899	337439	80.71	ug/L	97
62) Isopropylbenzene	105	13.634	13.634	0.906	2605774	74.14	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	601477	81.28	ug/L	99
65) 1,2,3-Trichloropropane	110	14.006	14.006	0.930	176162	79.86	ug/L	98
66) Bromobenzene	156	14.037	14.037	0.932	622252	76.39	ug/L	97
67) n-Propylbenzene	91	14.067	14.067	0.934	3064639	73.79	ug/L	99
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	2201244	74.61	ug/L	100
69) 2-Chlorotoluene	126	14.207	14.207	0.944	613568	74.14	ug/L	96
70) 4-Chlorotoluene	91	14.311	14.311	0.951	1977278	75.19	ug/L	100
71) tert-Butylbenzene	134	14.592	14.592	0.969	490216	76.77	ug/L	98
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	2304904	75.80	ug/L	99
73) sec-Butylbenzene	105	14.817	14.817	0.984	2901643	74.74	ug/L	99
74) 4-Isopropyltoluene	119	14.592	14.592	0.969	1949299	76.10	ug/L	98
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	1229258	75.26	ug/L	99
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	1215270	74.65	ug/L	99
77) n-Butylbenzene	91	15.372	15.372	1.021	2332322	75.93	ug/L	100
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	1164657	77.16	ug/L	99
79) 1,2-Dibromo-3-chloropr...	157	16.305	16.305	1.083	117953	80.91	ug/L	98
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	807054	78.78	ug/L	99
81) Hexachlorobutadiene	225	17.439	17.439	1.158	517630	78.05	ug/L	100
82) Naphthalene	128	17.628	17.627	1.171	1732558	81.93	ug/L	100
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	712474	78.88	ug/L	100
85) Acrolein		5.947	6.020	0.630	0m	N.D.	d	
86) Trichlorotrifluoroethane		6.179	6.178	0.655	0m	N.D.	d	
87) Isopropyl Alcohol		6.185	6.276	0.656	0m	N.D.	d	
88) Allyl chloride		6.538	6.605	0.693	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.		
90) Acrylonitrile		7.044	7.007	0.747	0m	N.D.	d	
91) Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		7.678	7.666	0.814	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.		
94) Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d	
95) Propionitrile		8.160	8.239	0.865	0m	N.D.	d	
96) Methacrylonitrile		0.000	8.410	0.000	0	N.D.		
97) Tetrahydrofuran		8.532	8.519	0.904	0m	N.D.	d	
98) Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d	
99) Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d	
100) Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d	
101) 1,4-Dioxane		10.202	10.165	1.081	0m	N.D.	d	
102) 2-Nitropropane		10.562	10.543	1.120	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z209.D
Acq On : 19 Sep 2017 17:05
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-08|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD080 N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 20 10:49:36 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

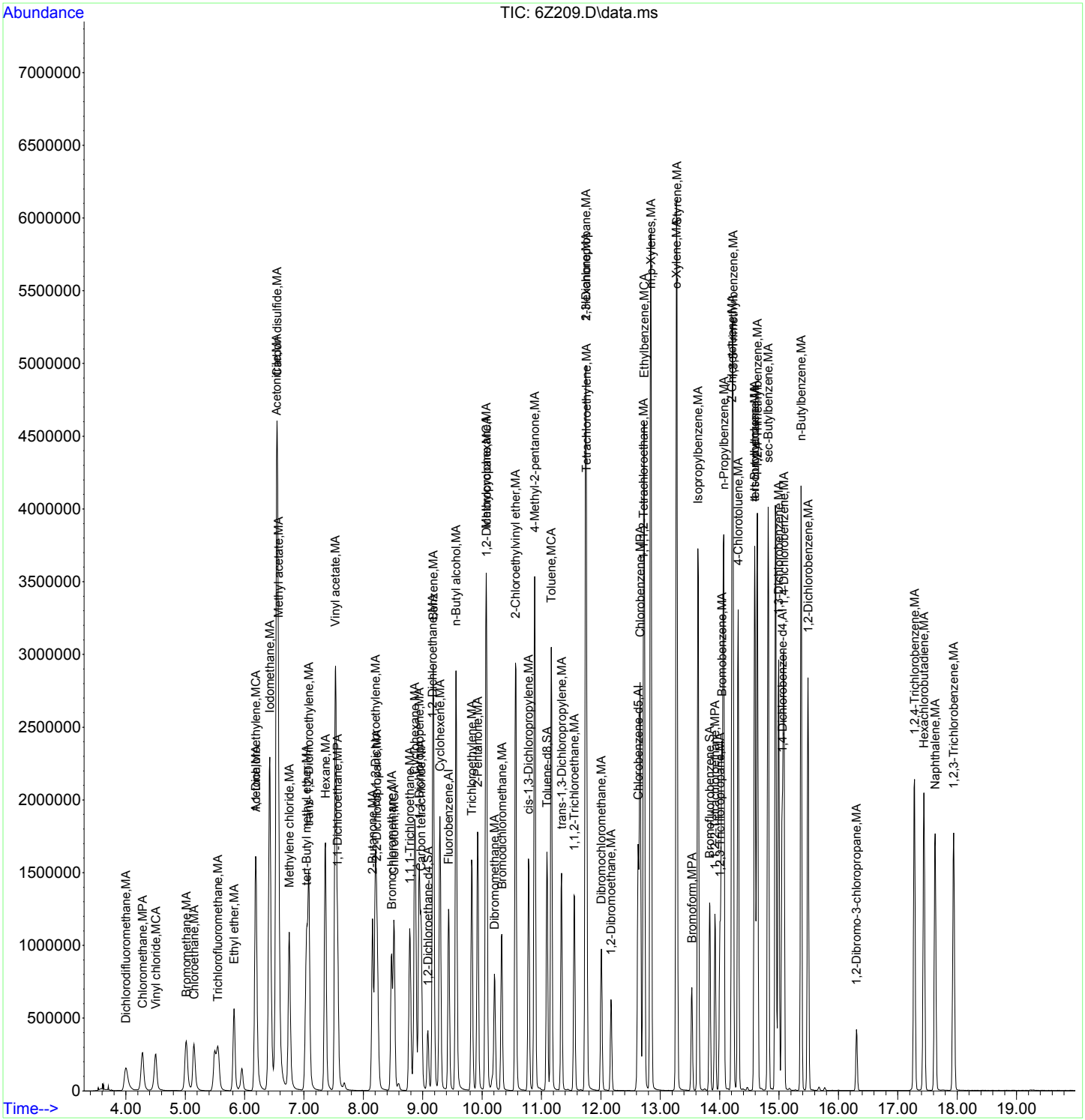
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		11.446	11.348	0.906	0m	N.D.	d
106) 1-Chlorohexane		0.000	12.537	0.000	0	N.D.	
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		0.000	13.787	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		14.652	14.652	0.973	0m	N.D.	d
111) Benzyl chloride		15.177	15.195	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.671	15.591	1.041	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z209.D
Acq On : 19 Sep 2017 17:05
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-08|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD080 N/A MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 20 10:49:36 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z210.D
Acq On : 19 Sep 2017 17:33
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-09|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:38 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	1190899	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	891818	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	474381	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	300653	49.47	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1112542	50.28	ug/L	0.00
63) Bromofluorobenzene	95	13.835	13.829	0.919	472240	49.71	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	470009	82.84	ug/L	99
3) Chloromethane	50	4.282	4.274	0.454	688998	89.49	ug/L	100
4) Vinyl chloride	62	4.506	4.498	0.477	621131	88.59	ug/L	100
5) Bromomethane	94	5.020	5.012	0.532	507685	95.90	ug/L	99
6) Chloroethane	64	5.148	5.148	0.545	598207	92.56	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	979880	93.03	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	660048	94.15	ug/L	99
9) Acetone	43	6.184	6.191	0.655	1584804	501.90	ug/L	99 A
10) 1,1-Dichloroethylene	61	6.191	6.191	0.656	1149606	93.32	ug/L	97
11) Iodomethane	142	6.422	6.422	0.680	4807754	449.11	ug/L	97
12) Acetonitrile	41	6.538	6.544	0.693	1850945	2178.23	ug/L	100
13) Methyl acetate	43	6.569	6.569	0.696	2167006	437.83	ug/L	98
14) Carbon disulfide	76	6.544	6.544	0.693	9083573	413.81	ug/L	99
15) Methylene chloride	84	6.751	6.752	0.715	729967	99.23	ug/L	94
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	1946385	99.09	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	1121327	94.94	ug/L	96
18) Hexane	57	7.361	7.361	0.780	1280881	94.62	ug/L	95
19) Vinyl acetate	43	7.532	7.526	0.798	6330179	440.95	ug/L	99
20) 1,1-Dichloroethane	63	7.562	7.562	0.801	1329136	95.19	ug/L	99
21) 2-Butanone	43	8.154	8.154	0.864	2162243	467.01	ug/L	96
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	1275094	95.72	ug/L	97
23) 2,2-Dichloropropane	77	8.227	8.227	0.871	1075243	95.99	ug/L	92
24) Bromochloromethane	128	8.477	8.477	0.898	334231	100.77	ug/L	92 A
25) Chloroform	83	8.513	8.513	0.902	1167162	98.35	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.930	1075242	97.06	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.939	1504948	90.96	ug/L	94
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	889453	94.44	ug/L	92
29) Carbon tetrachloride	117	8.971	8.971	0.950	928397	99.85	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.971	951090	95.23	ug/L	98
32) Benzene	78	9.178	9.178	0.972	2637050	92.33	ug/L	98
33) Cyclohexene	67	9.288	9.288	0.984	1297693	93.17	ug/L	98
34) n-Butyl alcohol	56	9.562	9.562	1.013	2395834	10367.24	ug/L	98 A
35) Trichloroethylene	95	9.824	9.824	1.041	691591	95.62	ug/L	99
36) 2-Pentanone	43	9.928	9.922	1.052	2594823	502.32	ug/L	97 A
37) 1,2-Dichloropropane	63	10.074	10.074	1.067	752627	94.62	ug/L	97
38) Methylcyclohexane	83	10.068	10.062	1.067	1182193	88.89	ug/L	96
39) Dibromomethane	93	10.208	10.208	1.081	387874	102.55	ug/L	97 A
40) Bromodichloromethane	83	10.330	10.330	1.094	912850	104.90	ug/L	99 A
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.119	1675793	458.28	ug/L	100
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	1124534	102.96	ug/L	94 A

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z210.D
Acq On : 19 Sep 2017 17:33
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-09|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 20 10:49:38 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	1377553	493.94	ug/L	99	
46)	Toluene	91	11.165	11.165	0.884	2730157	92.18	ug/L	100	
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	986503	106.87	ug/L	94	A
48)	1,1,2-Trichloroethane	83	11.555	11.549	0.915	466129	101.25	ug/L	99	A
49)	2-Hexanone	43	11.744	11.744	0.930	2331559	409.36	ug/L	99	
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	875320	92.30	ug/L	93	
51)	Tetrachloroethylene	164	11.757	11.757	0.931	503151	88.30	ug/L	95	
52)	Dibromochloromethane	129	12.007	12.007	0.951	651587	114.05	ug/L	99	A
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	557833	104.66	ug/L	99	A
54)	Chlorobenzene	112	12.659	12.659	1.002	1855172	94.05	ug/L	99	
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	654930	100.96	ug/L	100	A
56)	Ethylbenzene	91	12.732	12.726	1.008	2992649	89.16	ug/L	98	
57)	m,p-Xylenes	106	12.842	12.842	1.017	2289126	175.52	ug/L	96	
58)	o-Xylene	91	13.275	13.275	1.051	2436072	88.98	ug/L	97	
59)	Styrene	104	13.281	13.281	1.052	1946096	94.19	ug/L	95	
61)	Bromoform	173	13.531	13.531	0.899	432272	103.95	ug/L	96	A
62)	Isopropylbenzene	105	13.640	13.634	0.906	3118717	89.38	ug/L	100	
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	759605	103.40	ug/L	100	A
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.930	221812	101.29	ug/L	97	A
66)	Bromobenzene	156	14.037	14.037	0.932	763959	94.47	ug/L	97	
67)	n-Propylbenzene	91	14.067	14.067	0.934	3648168	88.48	ug/L	99	
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	2598193	88.71	ug/L	100	
69)	2-Chlorotoluene	126	14.207	14.207	0.944	750233	91.31	ug/L	100	
70)	4-Chlorotoluene	91	14.311	14.311	0.951	2397812	91.85	ug/L	100	
71)	tert-Butylbenzene	134	14.591	14.592	0.969	587260	92.64	ug/L	97	
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	2744016	90.91	ug/L	100	
73)	sec-Butylbenzene	105	14.817	14.817	0.984	3409386	88.46	ug/L	99	
74)	4-Isopropyltoluene	119	14.591	14.592	0.969	2314466	91.02	ug/L	97	
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	1493519	92.11	ug/L	99	
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	1475880	91.33	ug/L	99	
77)	n-Butylbenzene	91	15.372	15.372	1.021	2741585	89.91	ug/L	100	
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	1422894	94.97	ug/L	99	
79)	1,2-Dibromo-3-chloropr...	157	16.304	16.305	1.083	154183	106.34	ug/L	99	A
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	965794	94.97	ug/L	99	
81)	Hexachlorobutadiene	225	17.445	17.439	1.159	618875	94.00	ug/L	99	
82)	Naphthalene	128	17.627	17.627	1.171	2146739	102.26	ug/L	100	A
83)	1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	855709	95.43	ug/L	100	
85)	Acrolein		5.959	6.020	0.631	0m	N.D.	d		
86)	Trichlorotrifluoroethane		6.178	6.178	0.654	0m	N.D.	d		
87)	Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.			
88)	Allyl chloride		6.538	6.605	0.693	0m	N.D.	d		
89)	tert-Butyl Alcohol		6.873	6.770	0.728	0m	N.D.	d		
90)	Acrylonitrile		7.050	7.007	0.747	0m	N.D.	d		
91)	Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.684	7.666	0.814	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.			
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.154	8.239	0.864	0m	N.D.	d		
96)	Methacrylonitrile		0.000	8.410	0.000	0	N.D.			
97)	Tetrahydrofuran		8.519	8.519	0.902	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d		
99)	Methyl tert-amyl ether		9.178	9.208	0.972	0m	N.D.	d		
100)	Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d		
101)	1,4-Dioxane		10.202	10.165	1.081	0m	N.D.	d		
102)	2-Nitropropane		10.562	10.543	1.119	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z210.D
Acq On : 19 Sep 2017 17:33
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-09|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 20 10:49:38 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

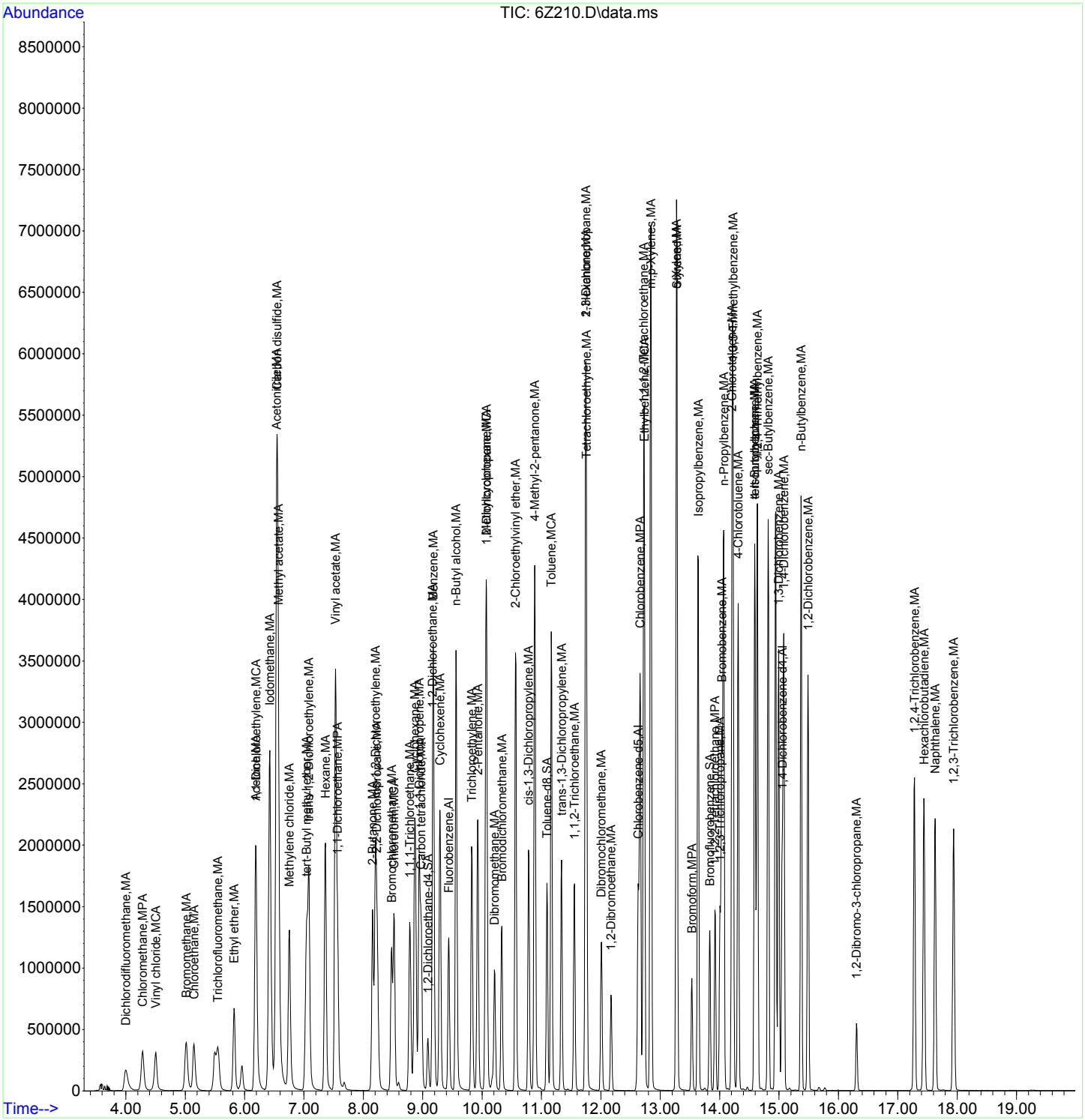
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		11.348	11.348	0.899	0m	N.D.	d
106) 1-Chlorohexane		12.513	12.537	0.831	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		13.640	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		13.811	13.787	0.917	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		0.000	13.976	0.000	0	N.D.	
110) Pentachloroethane		14.652	14.652	0.973	0m	N.D.	d
111) Benzyl chloride		15.177	15.195	1.008	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.664	15.591	1.040	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z210.D
Acq On : 19 Sep 2017 17:33
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-09|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 20 10:49:38 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA6.I **Injection Date:** 19-SEP-17 18:30

Data File: 091917V6\6Z212.D **Init. Cal. Date(s)** 19-SEP-17 13:49 - 19-SEP-17 22:14

Lab Sample ID W6VM170919-10 **Method:** 091917V6\VOA6-8260-091917.M

Quant Type ISTD **Method Update:** 20-SEP-17 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2552	0.24672		.01		-3.32288	60		Averaged	
S	Toluene-d8	1.2406	1.23659		.01		-0.32323	60		Averaged	
S	Bromofluorobenzene	1.0013	0.99101		.01		-1.02766	60		Averaged	
	Dichlorodifluoromethane	0.2382	0.29928		.01		25.64232	60		Averaged	
	Chloromethane	0.3233	0.35224		.1		8.95144	60		Averaged	SPCC
	Vinyl chloride	0.2944	0.31402		.01		6.6644	20		Averaged	CCC
	Bromomethane	0.2223	0.22323		.01		0.41835	60		Averaged	
	Chloroethane	0.2713	0.27389		.01		0.95466	60		Averaged	
	Trichlorofluoromethane	0.4422	0.46183		.01		4.43917	60		Averaged	
	1,1-Dichloroethylene	0.5172	0.50241		.01		-2.85963	20		Averaged	CCC
	Acetone	250	213.65	250			-14.54	60		Linear	
	Carbon disulfide	0.9216	0.88967		.01		-3.46463	60		Averaged	
	Methyl acetate	0.2078	0.17785		.01		-14.4129	60		Averaged	
	Methylene chloride	50	49.32	50			-1.36	60		Linear	
	tert-Butyl methyl ether	0.8247	0.77801		.01		-5.66145	60		Averaged	
	trans-1,2-Dichloroethylene	0.4959	0.49509		.01		-0.16334	60		Averaged	
	Vinyl acetate	0.6027	0.5945		.01		-1.36054	60		Averaged	
	1,1-Dichloroethane	0.5862	0.57863		.1		-1.29137	60		Averaged	SPCC
	2-Butanone	0.1944	0.15818		.01		-18.63169	60		Averaged	
	cis-1,2-Dichloroethylene	0.5593	0.54951		.01		-1.7504	60		Averaged	
	Bromochloromethane	0.1393	0.13768		.01		-1.16296	60		Averaged	
	Chloroform	0.4983	0.49035		.01		-1.59542	20		Averaged	CCC
	1,1,1-Trichloroethane	0.4651	0.44512		.01		-4.29585	60		Averaged	
	Cyclohexane	0.6946	0.67574		.01		-2.71523	60		Averaged	
	Carbon tetrachloride	0.3904	0.39161		.01		0.30994	60		Averaged	
	1,2-Dichloroethane	0.4193	0.40297		.01		-3.89459	60		Averaged	
	Benzene	1.1992	1.13932		.01		-4.99333	60		Averaged	
	Trichloroethylene	0.3037	0.29788		.01		-1.91636	60		Averaged	
	1,2-Dichloropropane	0.334	0.32385		.01		-3.03892	20		Averaged	CCC
	Methylcyclohexane	0.5584	0.54156		.01		-3.01576	60		Averaged	
	Bromodichloromethane	0.3653	0.37299		.01		2.10512	60		Averaged	
	cis-1,3-Dichloropropylene	0.4586	0.45542		.01		-0.69341	60		Averaged	
	4-Methyl-2-pentanone	0.1564	0.13906		.01		-11.08696	60		Averaged	
	Toluene	1.6605	1.5922		.01		-4.11322	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.5175	0.53201		.01		2.80386	60		Averaged	
	1,1,2-Trichloroethane	0.2581	0.25511		.01		-1.15847	60		Averaged	
	2-Hexanone	0.3193	0.25936		.01		-18.77231	60		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date:** 19-SEP-17 18:30

Data File: 091917V6\6Z212.D **Init. Cal. Date(s)** 19-SEP-17 13:49 19-SEP-17 22:14

Lab Sample ID W6VM170919-10 **Method:** 091917V6\VOA6-8260-091917.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.3195	0.31198		.01		-2.35368	60		Averaged	
Dibromochloromethane	0.3203	0.3487		.01		8.86669	60		Averaged	
1,2-Dibromoethane	0.2988	0.30567		.01		2.2992	60		Averaged	
Chlorobenzene	1.1059	1.07474		.3		-2.81761	60		Averaged	SPCC
Ethylbenzene	1.8817	1.81392		.01		-3.60206	20		Averaged	CCC
m,p-Xylenes	0.7312	0.70312		.01		-3.84026	60		Averaged	
Styrene	1.1584	1.16972		.01		0.97721	60		Averaged	
o-Xylene	1.535	1.46797		.01		-4.36678	60		Averaged	
Bromoform	50	46.97	50			-6.06	60		Linear	SPCC
Isopropylbenzene	3.6777	3.58396		.01		-2.54888	60		Averaged	
1,1,2,2-Tetrachloroethane	0.7743	0.74563		.3		-3.7027	60		Averaged	SPCC
1,3-Dichlorobenzene	1.7089	1.62824		.01		-4.72	60		Averaged	
1,4-Dichlorobenzene	1.7033	1.59841		.01		-6.15805	60		Averaged	
1,2-Dichlorobenzene	1.5792	1.53024		.01		-3.1003	60		Averaged	
1,2-Dibromo-3-chloropropane	50	44.06	50			-11.88	60		Linear	
1,2,4-Trichlorobenzene	1.0718	1.05881		.01		-1.21198	60		Averaged	
1,2,3-Trichlorobenzene	0.9451	0.94722		.01		0.22431	60		Averaged	

Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z212.D
Acq On : 19 Sep 2017 18:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-10|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 50 N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:42 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	9.440	9.440	1.000	1182688	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	888718	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	468620	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1182688	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	888718	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	468620	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	291787	48.35	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1098979	49.84	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	464407	49.49	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	353959	62.82	ug/L	99
3) Chloromethane	50	4.274	4.274	0.453	416585	54.48	ug/L	99
4) Vinyl chloride	62	4.498	4.498	0.477	371387	53.33	ug/L	100
5) Bromomethane	94	5.012	5.012	0.531	264016	50.22	ug/L	100
6) Chloroethane	64	5.140	5.148	0.544	323929	50.47	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	546196	52.21	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	336638	48.35	ug/L	95
9) Acetone	43	6.185	6.191	0.655	675342	213.65	ug/L	98
10) 1,1-Dichloroethylene	61	6.185	6.191	0.655	594195	48.57	ug/L	98
11) Iodomethane	142	6.422	6.422	0.680	2512237	236.30	ug/L	98
12) Acetonitrile	41	6.544	6.544	0.693	892049	1057.07	ug/L	99
13) Methyl acetate	43	6.569	6.569	0.696	1051684	213.96	ug/L	96
14) Carbon disulfide	76	6.544	6.544	0.693	5261023	241.34	ug/L	100
15) Methylene chloride	84	6.751	6.752	0.715	362448	49.32	ug/L	94
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	920146	47.17	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	585541	49.92	ug/L	96
18) Hexane	57	7.361	7.361	0.780	616884	45.89	ug/L	95
19) Vinyl acetate	43	7.532	7.526	0.798	3515511	246.59	ug/L	97
20) 1,1-Dichloroethane	63	7.562	7.562	0.801	684343	49.35	ug/L	100
21) 2-Butanone	43	8.154	8.154	0.864	935388	203.43	ug/L	96
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	649897	49.13	ug/L	97
23) 2,2-Dichloropropane	77	8.227	8.227	0.871	526649	47.34	ug/L	90
24) Bromochloromethane	128	8.477	8.477	0.898	162832	49.43	ug/L	91
25) Chloroform	83	8.513	8.513	0.902	579935	49.21	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.930	526435	47.85	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.939	799186	48.64	ug/L	94
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	442207	47.28	ug/L	92
29) Carbon tetrachloride	117	8.971	8.971	0.950	463155	50.16	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.971	476582	48.05	ug/L	99
32) Benzene	78	9.178	9.178	0.972	1347456	47.50	ug/L	98
33) Cyclohexene	67	9.288	9.288	0.984	659368	47.67	ug/L	97
34) n-Butyl alcohol	56	9.562	9.562	1.013	1080041	4706.00	ug/L	98
35) Trichloroethylene	95	9.824	9.824	1.041	352301	49.05	ug/L	99
36) 2-Pentanone	43	9.922	9.922	1.051	1134447	221.14	ug/L	96
37) 1,2-Dichloropropane	63	10.074	10.074	1.067	383010	48.49	ug/L	97
38) Methylcyclohexane	83	10.068	10.062	1.067	640494	48.50	ug/L	95
39) Dibromomethane	93	10.208	10.208	1.081	182880	48.69	ug/L	96
40) Bromodichloromethane	83	10.330	10.330	1.094	441125	51.05	ug/L	100
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.119	771345	212.40	ug/L	99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	538618	49.66	ug/L	93

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z212.D
Acq On : 19 Sep 2017 18:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-10|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 50 N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 20 10:49:42 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	617942	222.34	ug/L		95
46)	Toluene	91	11.165	11.165	0.884	1415015	47.94	ug/L		100
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	472809	51.40	ug/L		94
48)	1,1,2-Trichloroethane	83	11.549	11.549	0.915	226723	49.42	ug/L		99
49)	2-Hexanone	43	11.744	11.744	0.930	1152502	203.06	ug/L		97
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	446935	47.29	ug/L		92
51)	Tetrachloroethylene	164	11.757	11.757	0.931	277260	48.83	ug/L		94
52)	Dibromochloromethane	129	12.007	12.007	0.951	309898	54.43	ug/L		100
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	271655	51.14	ug/L		100
54)	Chlorobenzene	112	12.659	12.659	1.002	955143	48.59	ug/L		98
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	337565	52.22	ug/L		100
56)	Ethylbenzene	91	12.726	12.726	1.008	1612061	48.20	ug/L		98
57)	m,p-Xylenes	106	12.842	12.842	1.017	1249758	96.16	ug/L		94
58)	o-Xylene	91	13.275	13.275	1.051	1304615	47.82	ug/L		98
59)	Styrene	104	13.281	13.281	1.052	1039551	50.49	ug/L		96
61)	Bromoform	173	13.531	13.531	0.899	191404	46.97	ug/L		96
62)	Isopropylbenzene	105	13.634	13.634	0.906	1679514	48.73	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	349417	48.15	ug/L		100
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.931	103494	47.84	ug/L	#	90
66)	Bromobenzene	156	14.037	14.037	0.933	386186	48.34	ug/L		97
67)	n-Propylbenzene	91	14.067	14.067	0.935	1961454	48.16	ug/L		97
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1437342	49.68	ug/L		99
69)	2-Chlorotoluene	126	14.207	14.207	0.944	392641	48.38	ug/L		95
70)	4-Chlorotoluene	91	14.311	14.311	0.951	1237808	48.00	ug/L		99
71)	tert-Butylbenzene	134	14.591	14.592	0.970	315159	50.33	ug/L		98
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1477351	49.55	ug/L		98
73)	sec-Butylbenzene	105	14.817	14.817	0.985	1898735	49.87	ug/L		100
74)	4-Isopropyltoluene	119	14.591	14.592	0.970	1257240	50.05	ug/L		98
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	763027	47.64	ug/L		99
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	749045	46.92	ug/L		99
77)	n-Butylbenzene	91	15.372	15.372	1.021	1473147	48.91	ug/L		99
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	717101	48.45	ug/L		99
79)	1,2-Dibromo-3-chloropr...	157	16.304	16.305	1.083	62574	44.06	ug/L		97
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	496180	49.39	ug/L		99
81)	Hexachlorobutadiene	225	17.438	17.439	1.159	330232	50.78	ug/L		100
82)	Naphthalene	128	17.627	17.627	1.171	1050982	50.68	ug/L		100
83)	1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	443887	50.11	ug/L		100
85)	Acrolein		5.965	6.020	0.632	0m	N.D.	d		
86)	Trichlorotrifluoroethane		6.166	6.178	0.653	0m	N.D.	d		
87)	Isopropyl Alcohol		0.000	6.276	0.000	0	N.D.			
88)	Allyl chloride		6.544	6.605	0.693	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.			
90)	Acrylonitrile		7.044	7.007	0.746	0m	N.D.	d		
91)	Isopropyl ether		7.526	7.550	0.797	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.672	7.666	0.813	0m	N.D.	d		
93)	Ethyl tert-butyl ether		0.000	7.958	0.000	0	N.D.			
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.239	8.239	0.873	0m	N.D.	d		
96)	Methacrylonitrile		8.410	8.410	0.891	0m	N.D.	d		
97)	Tetrahydrofuran		8.526	8.519	0.903	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d		
99)	Methyl tert-amyl ether		9.184	9.208	0.973	0m	N.D.	d		
100)	Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d		
101)	1,4-Dioxane		10.208	10.165	1.081	0m	N.D.	d		
102)	2-Nitropropane		10.562	10.543	1.119	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z212.D
Acq On : 19 Sep 2017 18:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-10|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 50 N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 20 10:49:42 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

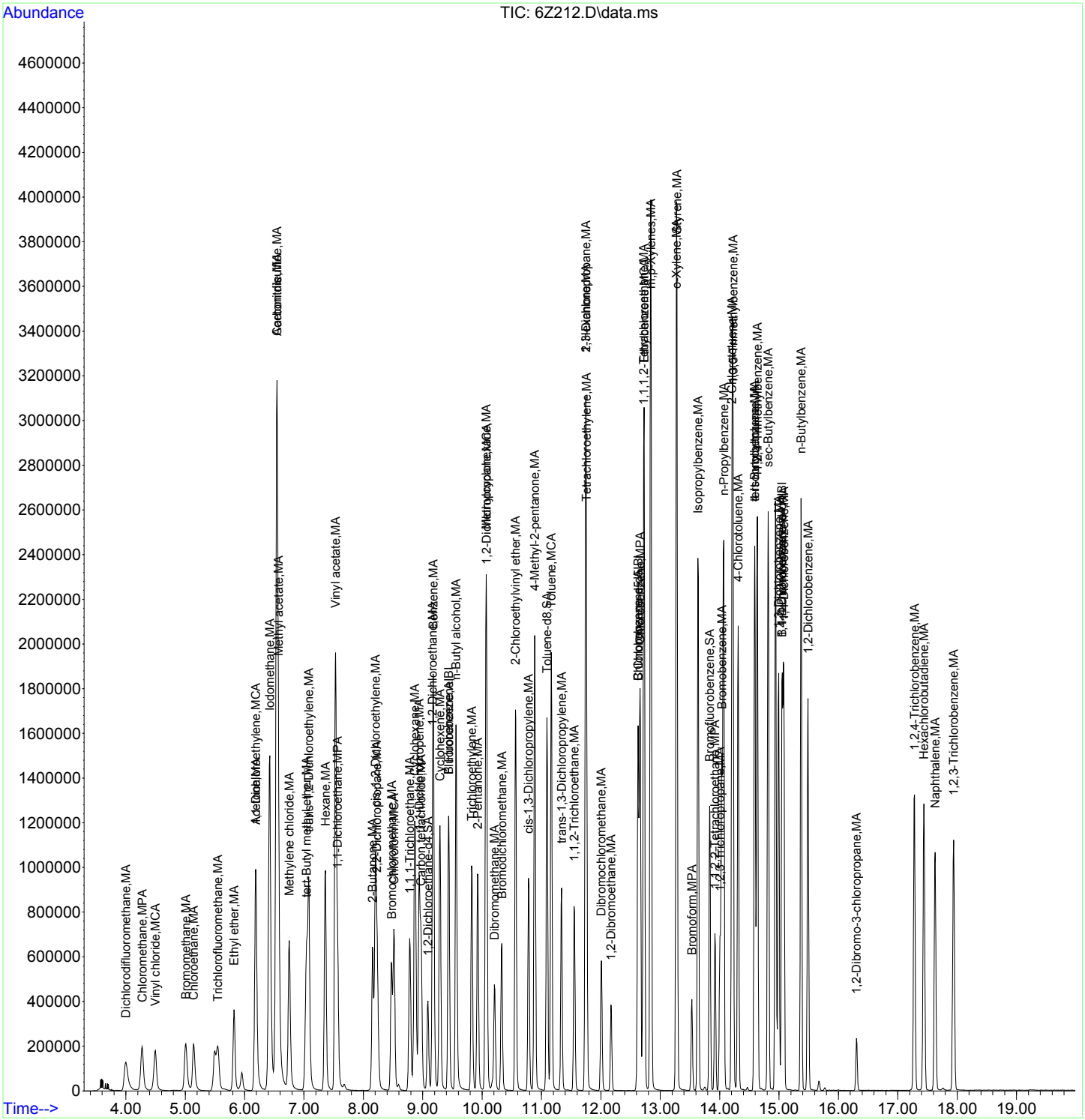
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		11.354	11.348	0.899	0m	N.D.	d
106) 1-Chlorohexane		12.531	12.537	0.833	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		13.787	13.787	0.916	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		13.976	13.976	0.929	0m	N.D.	d
110) Pentachloroethane		14.652	14.652	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	15.195	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		15.585	15.591	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z212.D
Acq On : 19 Sep 2017 18:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-10|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 50 N/A MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 20 10:49:42 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z213.D
Acq On : 19 Sep 2017 18:58
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-11|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:44 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1173339	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	883728	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	458511	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.829	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.225	4.274	0.448	0m	N.D.	d	
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.197	6.191	0.656	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.185	6.191	0.655	0m	N.D.	d	
11) Iodomethane		6.416	6.422	0.680	0m	N.D.	d	
12) Acetonitrile		6.611	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		6.575	6.569	0.696	0m	N.D.	d	
14) Carbon disulfide		6.544	6.544	0.693	0m	N.D.	d	
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	7.044	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		7.075	7.081	0.749	0m	N.D.	d	
18) Hexane		7.361	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.544	7.562	0.799	0m	N.D.	d	
21) 2-Butanone		8.178	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.184	8.203	0.867	0m	N.D.	d	
23) 2,2-Dichloropropane		8.221	8.227	0.871	0m	N.D.	d	
24) Bromochloromethane		8.483	8.477	0.899	0m	N.D.	d	
25) Chloroform		8.507	8.513	0.901	0m	N.D.	d	
26) 1,1,1-Trichloroethane		8.776	8.782	0.930	0m	N.D.	d	
27) Cyclohexane		8.873	8.867	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		8.934	8.940	0.946	0m	N.D.	d	
29) Carbon tetrachloride		8.977	8.971	0.951	0m	N.D.	d	
31) 1,2-Dichloroethane		9.166	9.166	0.971	0m	N.D.	d	
32) Benzene		9.178	9.178	0.972	0m	N.D.	d	
33) Cyclohexene		9.288	9.288	0.984	0m	N.D.	d	
34) n-Butyl alcohol		9.574	9.562	1.014	0m	N.D.	d	
35) Trichloroethylene		9.830	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		9.940	9.922	1.053	0m	N.D.	d	
37) 1,2-Dichloropropane		10.062	10.074	1.066	0m	N.D.	d	
38) Methylcyclohexane		10.068	10.062	1.067	0m	N.D.	d	
39) Dibromomethane		10.208	10.208	1.081	0m	N.D.	d	
40) Bromodichloromethane		10.330	10.330	1.094	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		10.574	10.562	1.120	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		10.787	10.781	1.143	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z213.D
Acq On : 19 Sep 2017 18:58
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-11|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 20 10:49:44 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44) 4-Methyl-2-pentanone		10.897	10.885	0.863	0m	N.D.	d	
46) Toluene		11.165	11.165	0.884	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		11.342	11.336	0.898	0m	N.D.	d	
48) 1,1,2-Trichloroethane		11.549	11.549	0.915	0m	N.D.	d	
49) 2-Hexanone		11.757	11.744	0.931	0m	N.D.	d	
50) 1,3-Dichloropropane		11.745	11.744	0.930	0m	N.D.	d	
51) Tetrachloroethylene		11.763	11.757	0.931	0m	N.D.	d	
52) Dibromochloromethane		12.007	12.007	0.951	0m	N.D.	d	
53) 1,2-Dibromoethane		12.177	12.171	0.964	0m	N.D.	d	
54) Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		12.714	12.720	1.007	0m	N.D.	d	
56) Ethylbenzene		12.726	12.726	1.008	0m	N.D.	d	
57) m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58) o-Xylene		13.275	13.275	1.051	0m	N.D.	d	
59) Styrene		13.287	13.281	1.052	0m	N.D.	d	
61) Bromoform		13.537	13.531	0.900	0m	N.D.	d	
62) Isopropylbenzene		13.634	13.634	0.906	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		13.921	13.921	0.925	0m	N.D.	d	
65) 1,2,3-Trichloropropane		14.000	14.006	0.930	0m	N.D.	d	
66) Bromobenzene		14.037	14.037	0.933	0m	N.D.	d	
67) n-Propylbenzene		14.067	14.067	0.935	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69) 2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d	
70) 4-Chlorotoluene		14.317	14.311	0.951	0m	N.D.	d	
71) tert-Butylbenzene		14.592	14.592	0.970	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73) sec-Butylbenzene		14.817	14.817	0.985	0m	N.D.	d	
74) 4-Isopropyltoluene		14.592	14.592	0.970	0m	N.D.	d	
75) 1,3-Dichlorobenzene		14.994	14.994	0.996	0m	N.D.	d	
76) 1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77) n-Butylbenzene		15.372	15.372	1.021	0m	N.D.	d	
78) 1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		16.305	16.305	1.083	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81) Hexachlorobutadiene		17.439	17.439	1.159	0m	N.D.	d	
82) Naphthalene		17.628	17.627	1.171	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d	
85) Acrolein	56	6.020	6.020	0.638	4916	4.50	ug/L	89
86) Trichlorotrifluoroethane	85	6.178	6.178	0.654	13807	4.90	ug/L	98
87) Isopropyl Alcohol	45	6.288	6.276	0.666	23101	44.59	ug/L #	61
88) Allyl chloride	41	6.611	6.605	0.700	68990	5.42	ug/L #	78
89) tert-Butyl Alcohol	59	6.770	6.770	0.717	38051	44.48	ug/L #	100
90) Acrylonitrile	53	7.020	7.007	0.744	11947	4.67	ug/L	97
91) Isopropyl ether	45	7.550	7.550	0.800	28004	0.98	ug/L	77
92) 2-Chloro-1,3-butadiene	53	7.672	7.666	0.813	12033	0.92	ug/L	88
93) Ethyl tert-butyl ether	59	7.953	7.958	0.842	24923	0.95	ug/L	95
94) Ethyl acetate	43	8.178	8.172	0.866	32249	5.08	ug/L	97
95) Propionitrile	54	8.251	8.239	0.874	4306	4.42	ug/L	100
96) Methacrylonitrile	41	8.410	8.410	0.891	17382	4.62	ug/L	100
97) Tetrahydrofuran	42	8.526	8.519	0.903	11279	5.28	ug/L	91
98) Isobutyl alcohol	41	8.873	8.867	0.940	12854	51.86	ug/L	78
99) Methyl tert-amyl ether	73	9.208	9.208	0.975	18957	0.96	ug/L	95
100) Methyl methacrylate	69	10.068	10.062	1.067	18513	4.59	ug/L #	77
101) 1,4-Dioxane	88	10.178	10.165	1.078	3037	45.43	ug/L	97
102) 2-Nitropropane	43	10.544	10.543	1.117	8711	4.45	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z213.D
Acq On : 19 Sep 2017 18:58
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-11|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 20 10:49:44 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

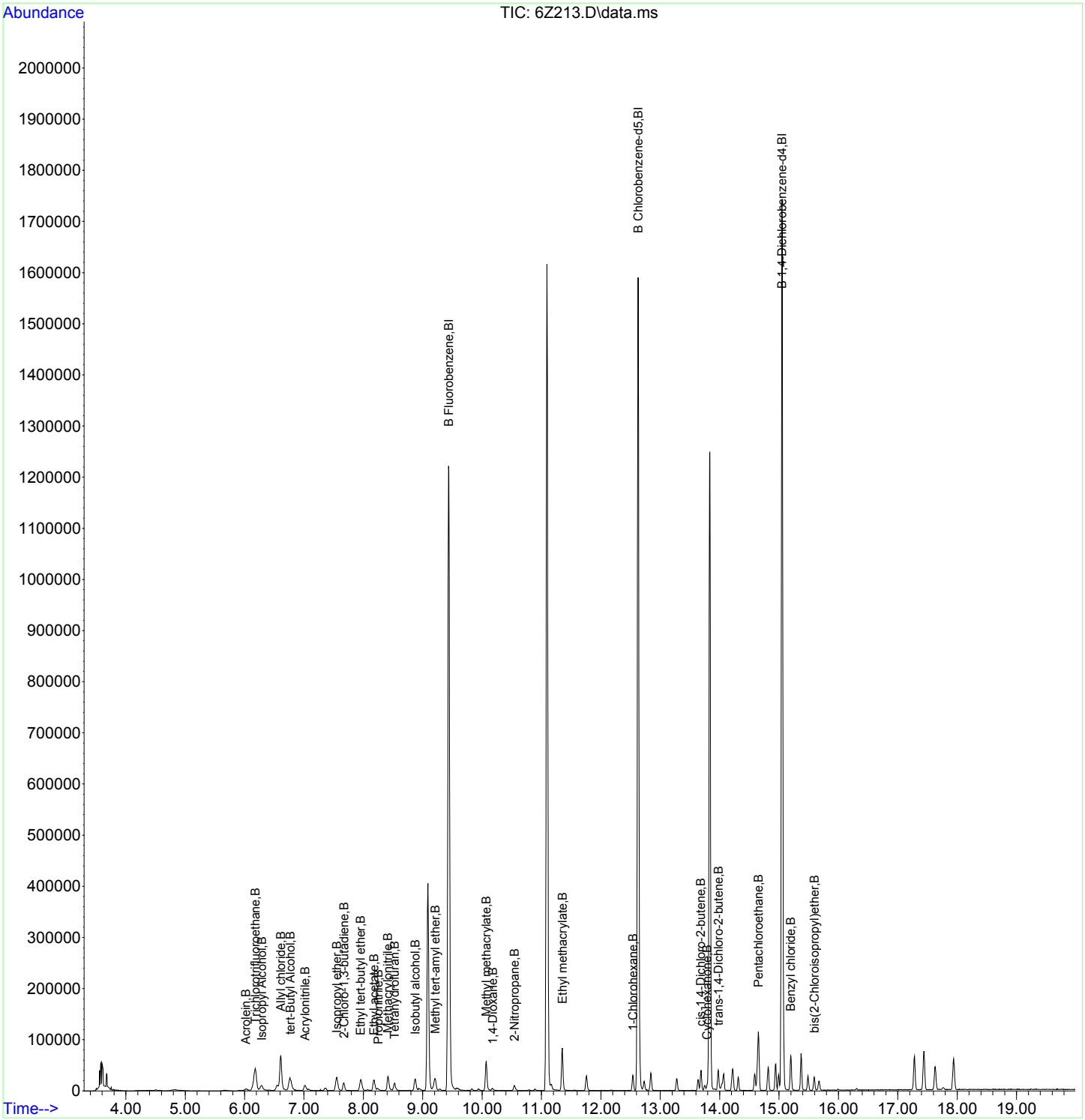
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	34732	4.51	ug/L	86
106) 1-Chlorohexane	55	12.537	12.537	0.833	7958	0.97	ug/L	93
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	10190	4.00	ug/L	82
108) Cyclohexanone	42	13.787	13.787	0.916	4116	23.25	ug/L	85
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.929	9934	4.21	ug/L	91
110) Pentachloroethane	167	14.652	14.652	0.974	18933	4.47	ug/L	79
111) Benzyl chloride	91	15.195	15.195	1.010	50537	4.32	ug/L	95
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	16929	4.49	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z213.D
Acq On : 19 Sep 2017 18:58
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-11|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD005 N/A MIX[B]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 20 10:49:44 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z214.D
Acq On : 19 Sep 2017 19:25
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-12|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.629	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1159696	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.629	12.628	1.000	874813	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	454671	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.087	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.830	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.197	6.191	0.657	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.172	6.191	0.654	0m	N.D.	d	
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		6.575	6.569	0.697	0m	N.D.	d	
14) Carbon disulfide		6.611	6.544	0.701	0m	N.D.	d	
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	7.044	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		7.069	7.081	0.749	0m	N.D.	d	
18) Hexane		7.355	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.678	7.562	0.814	0m	N.D.	d	
21) 2-Butanone		8.178	8.154	0.867	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.520	8.513	0.903	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.873	8.867	0.941	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	8.940	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.172	9.166	0.972	0m	N.D.	d	
32) Benzene		9.184	9.178	0.974	0m	N.D.	d	
33) Cyclohexene		0.000	9.288	0.000	0	N.D.		
34) n-Butyl alcohol		9.574	9.562	1.015	0m	N.D.	d	
35) Trichloroethylene		9.824	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		9.934	9.922	1.053	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.074	10.062	1.068	0m	N.D.	d	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		10.781	10.781	1.143	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z214.D
Acq On : 19 Sep 2017 19:25
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-12|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 20 10:49:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		10.897	10.885	0.863	0m	N.D.	d	
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.336	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.757	11.744	0.931	0m	N.D.	d	
50)	1,3-Dichloropropane		11.745	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.184	12.171	0.965	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.726	12.720	1.008	0m	N.D.	d	
56)	Ethylbenzene		12.732	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.275	13.275	1.051	0m	N.D.	d	
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.634	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.933	13.921	0.926	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.037	14.037	0.933	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.935	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.214	14.207	0.945	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.592	14.592	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.811	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.592	14.592	0.970	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.000	14.994	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		15.372	15.372	1.021	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		16.317	16.305	1.084	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.445	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.628	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.945	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.026	6.020	0.639	10251	9.48	ug/L	100
86)	Trichlorotrifluoroethane	85	6.179	6.178	0.655	30204	10.83	ug/L	96
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	48652	95.01	ug/L #	61
88)	Allyl chloride	41	6.605	6.605	0.700	132452	10.52	ug/L	95
89)	tert-Butyl Alcohol	59	6.770	6.770	0.718	78815	93.22	ug/L #	100
90)	Acrylonitrile	53	7.014	7.007	0.743	25745	10.17	ug/L	97
91)	Isopropyl ether	45	7.544	7.550	0.800	57129	2.03	ug/L	95
92)	2-Chloro-1,3-butadiene	53	7.672	7.666	0.813	25443	1.96	ug/L	91
93)	Ethyl tert-butyl ether	59	7.953	7.958	0.843	51265	1.97	ug/L	97
94)	Ethyl acetate	43	8.178	8.172	0.867	62371	9.95	ug/L	95
95)	Propionitrile	54	8.245	8.239	0.874	9416	9.77	ug/L	100
96)	Methacrylonitrile	41	8.416	8.410	0.892	36406	9.79	ug/L	99
97)	Tetrahydrofuran	42	8.526	8.519	0.904	21662	10.25	ug/L	91
98)	Isobutyl alcohol	41	8.873	8.867	0.941	23392	95.49	ug/L	94
99)	Methyl tert-amyl ether	73	9.208	9.208	0.976	39081	2.00	ug/L	94
100)	Methyl methacrylate	69	10.068	10.062	1.067	38359	9.62	ug/L	87
101)	1,4-Dioxane	88	10.166	10.165	1.078	6456	97.72	ug/L	98
102)	2-Nitropropane	43	10.544	10.543	1.118	17006	8.79	ug/L	91

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z214.D
Acq On : 19 Sep 2017 19:25
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-12|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 20 10:49:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

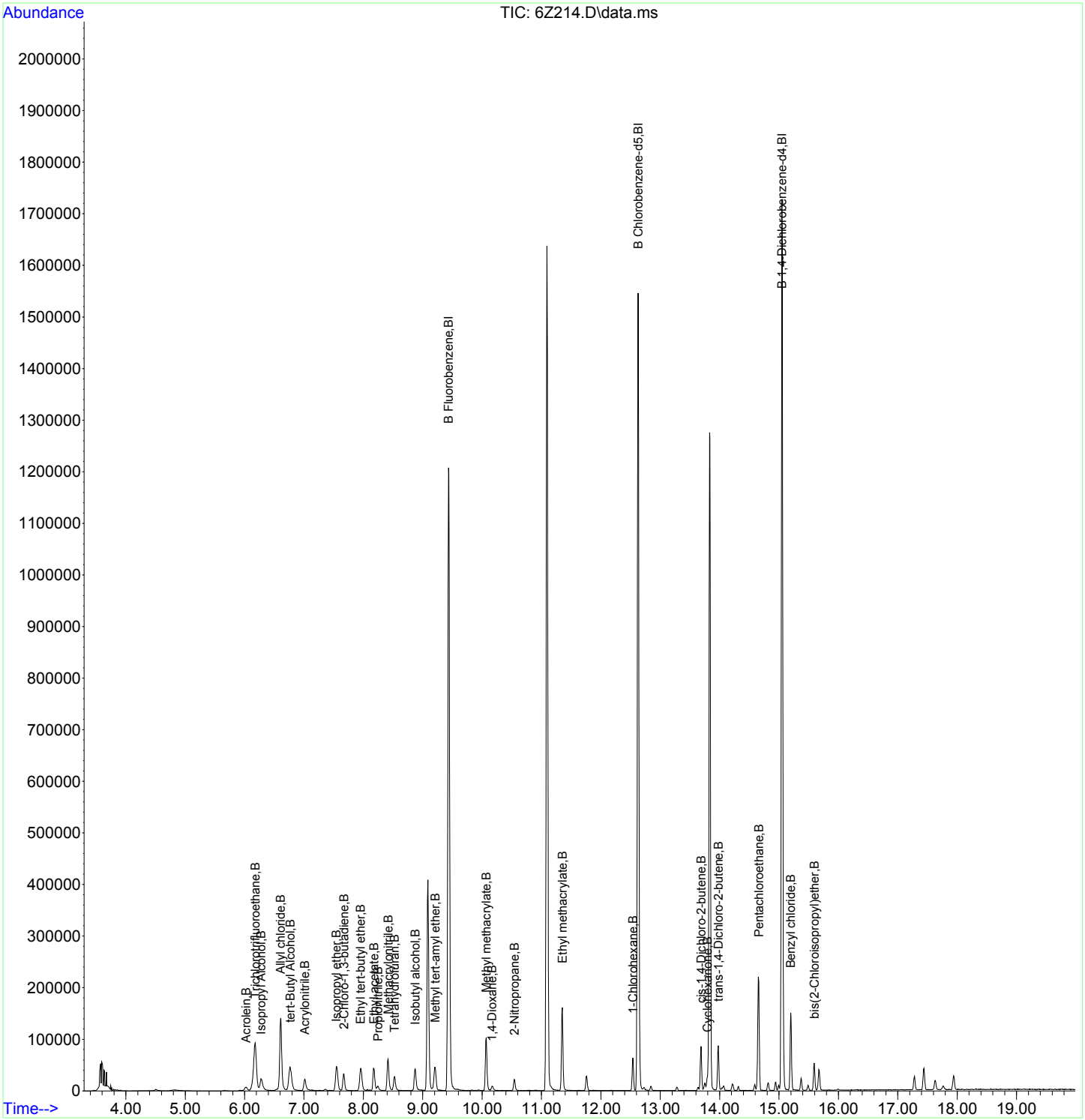
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	74975	9.83	ug/L	87
106) 1-Chlorohexane	55	12.537	12.537	0.833	16869	2.07	ug/L	91
107) cis-1,4-Dichloro-2-butene	53	13.689	13.683	0.910	22869	9.06	ug/L	80
108) Cyclohexanone	42	13.793	13.787	0.917	8253	47.02	ug/L	93
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.929	21397	9.15	ug/L	84
110) Pentachloroethane	167	14.659	14.652	0.974	40069	9.54	ug/L	82
111) Benzyl chloride	91	15.195	15.195	1.010	110564	9.53	ug/L	95
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	35305	9.44	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z214.D
Acq On : 19 Sep 2017 19:25
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-12|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD010 N/A MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 20 10:49:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z215.D
Acq On : 19 Sep 2017 19:53
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-13|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD025 N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:48 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1135339	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	868746	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	455389	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.835	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.191	6.191	0.656	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.166	6.191	0.653	0m	N.D.	d	
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		6.562	6.569	0.695	0m	N.D.	d	
14) Carbon disulfide		6.611	6.544	0.700	0m	N.D.	d	
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		7.032	7.044	0.745	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane		7.367	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.666	7.562	0.812	0m	N.D.	d	
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.519	8.513	0.902	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		8.879	8.940	0.941	0m	N.D.	d	
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	9.166	0.000	0	N.D.		
32) Benzene		9.178	9.178	0.972	0m	N.D.	d	
33) Cyclohexene		9.269	9.288	0.982	0m	N.D.	d	
34) n-Butyl alcohol		9.592	9.562	1.016	0m	N.D.	d	
35) Trichloroethylene		9.836	9.824	1.042	0m	N.D.	d	
36) 2-Pentanone		10.062	9.922	1.066	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.068	10.062	1.067	0m	N.D.	d	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		10.793	10.781	1.143	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z215.D
Acq On : 19 Sep 2017 19:53
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-13|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD025 N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 20 10:49:48 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.348	11.336	0.899	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.763	11.744	0.931	0m	N.D.	d	
50)	1,3-Dichloropropane		0.000	11.744	0.000	0	N.D.		
51)	Tetrachloroethylene		11.763	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.171	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	12.720	0.000	0	N.D.		
56)	Ethylbenzene		12.732	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.281	13.275	1.052	0m	N.D.	d	
59)	Styrene		13.281	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		0.000	13.921	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.037	14.037	0.932	0m	N.D.	d	
67)	n-Propylbenzene		14.061	14.067	0.934	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.219	14.207	0.945	0m	N.D.	d	
70)	4-Chlorotoluene		14.317	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.591	14.592	0.969	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.591	14.592	0.969	0m	N.D.	d	
75)	1,3-Dichlorobenzene		14.994	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		15.372	15.372	1.021	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.274	17.280	1.147	0m	N.D.	d	
81)	Hexachlorobutadiene		17.444	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.633	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.026	6.020	0.638	27344	25.84	ug/L	100
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.654	69838	25.59	ug/L	98
87)	Isopropyl Alcohol	45	6.282	6.276	0.665	127017	253.37	ug/L	95
88)	Allyl chloride	41	6.605	6.605	0.700	328114	26.62	ug/L	96
89)	tert-Butyl Alcohol	59	6.770	6.770	0.717	212325	256.53	ug/L	100
90)	Acrylonitrile	53	7.007	7.007	0.742	63750	25.73	ug/L	98
91)	Isopropyl ether	45	7.550	7.550	0.800	140800	5.11	ug/L	96
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.812	63849	5.03	ug/L	93
93)	Ethyl tert-butyl ether	59	7.958	7.958	0.843	128971	5.07	ug/L	97
94)	Ethyl acetate	43	8.172	8.172	0.866	158711	25.86	ug/L	96
95)	Propionitrile	54	8.239	8.239	0.873	24040	25.47	ug/L	100
96)	Methacrylonitrile	41	8.416	8.410	0.892	95592	26.26	ug/L	99
97)	Tetrahydrofuran	42	8.525	8.519	0.903	53973	26.09	ug/L	92
98)	Isobutyl alcohol	41	8.867	8.867	0.939	61260	255.44	ug/L	94
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	96928	5.06	ug/L	95
100)	Methyl methacrylate	69	10.068	10.062	1.067	100952	25.86	ug/L	86
101)	1,4-Dioxane	88	10.171	10.165	1.077	16695	258.12	ug/L	88
102)	2-Nitropropane	43	10.543	10.543	1.117	45133	23.82	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z215.D
Acq On : 19 Sep 2017 19:53
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-13|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD025 N/A MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 20 10:49:48 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	200978	26.52	ug/L	89
106) 1-Chlorohexane	55	12.537	12.537	0.833	40712	4.99	ug/L	92
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	62754	24.83	ug/L	85
108) Cyclohexanone	42	13.793	13.787	0.916	21776	123.87	ug/L	96
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	58881	25.13	ug/L	84
110) Pentachloroethane	167	14.658	14.652	0.974	108326	25.76	ug/L	93
111) Benzyl chloride	91	15.195	15.195	1.009	301579	25.94	ug/L	97
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	94062	25.12	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z215.D
Acq On    : 19 Sep 2017  19:53
Operator  : JP1
InstName  : VOA6
Sample    : |W6VM170919-13|ICAL|1|VOAF|1|VOA8260BL|
Misc      : VSTD025 N/A MIX[B]
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Sep 20 10:49:48 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE
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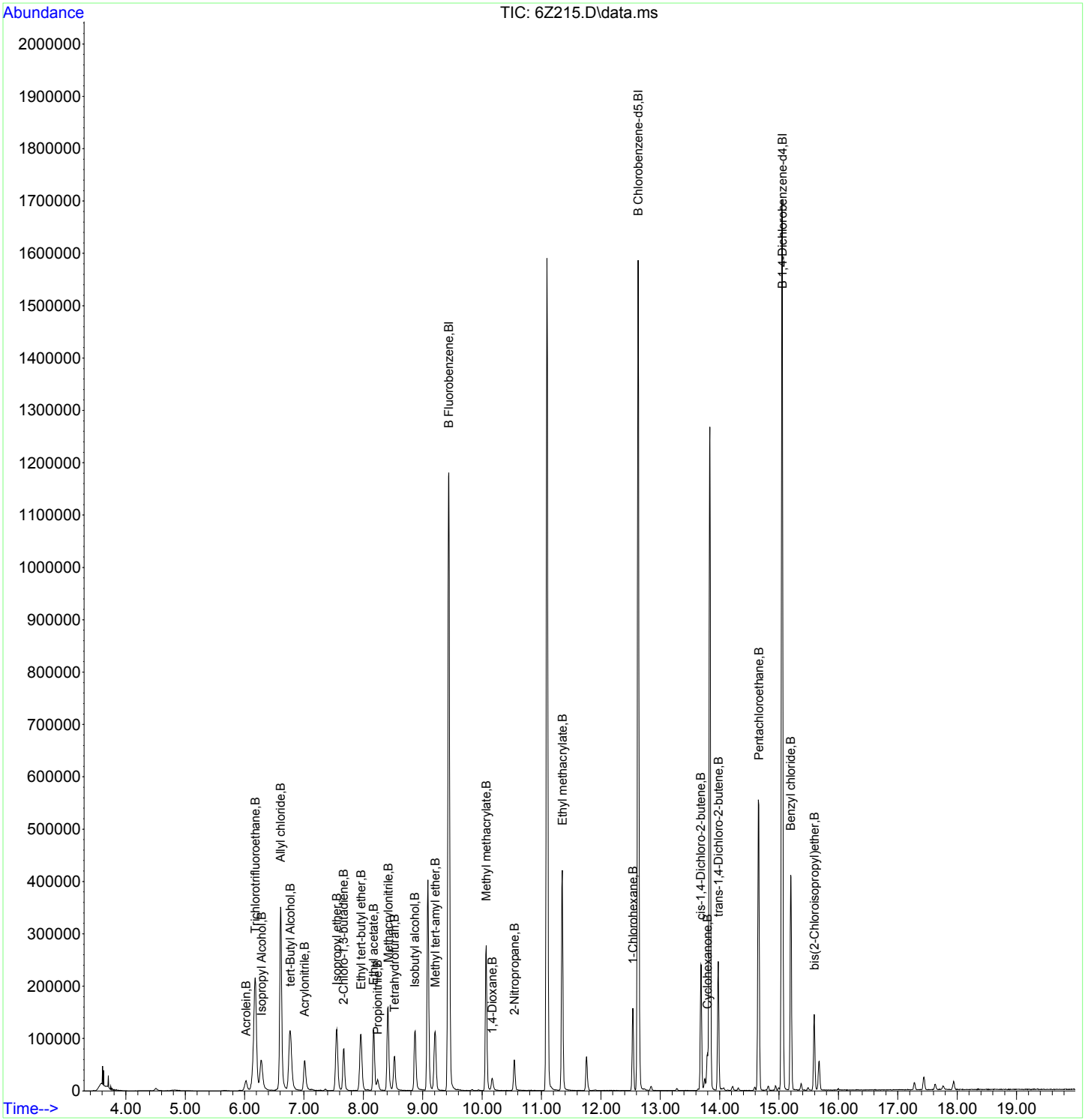


Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z216.D
Acq On : 19 Sep 2017 20:22
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-14|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:50 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.049	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1159236	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	879366	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.049	15.055	1.000	462132	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.829	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.178	6.191	0.654	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.184	6.191	0.655	0m	N.D.	d	
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		6.666	6.569	0.706	0m	N.D.	d	
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.	d	
15) Methylene chloride		6.751	6.752	0.715	0m	N.D.	d	
16) tert-Butyl methyl ether		7.038	7.044	0.746	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane		7.367	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.672	7.562	0.813	0m	N.D.	d	
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.507	8.513	0.901	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		8.873	8.940	0.940	0m	N.D.	d	
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.166	9.166	0.971	0m	N.D.	d	
32) Benzene		9.178	9.178	0.972	0m	N.D.	d	
33) Cyclohexene		9.281	9.288	0.983	0m	N.D.	d	
34) n-Butyl alcohol		9.580	9.562	1.015	0m	N.D.	d	
35) Trichloroethylene		9.830	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		10.062	9.922	1.066	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.068	10.062	1.067	0m	N.D.	d	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	10.781	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z216.D
Acq On : 19 Sep 2017 20:22
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-14|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 20 10:49:50 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.342	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.757	11.744	0.931	0m	N.D.	d	
50)	1,3-Dichloropropane		11.750	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.177	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.665	12.659	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	12.720	0.000	0	N.D.		
56)	Ethylbenzene		12.732	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.848	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.275	13.275	1.051	0m	N.D.	d	
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.970	13.921	0.928	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.037	14.037	0.933	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.935	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.317	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.591	14.592	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.640	14.634	0.973	0m	N.D.	d	
73)	sec-Butylbenzene		14.823	14.817	0.985	0m	N.D.	d	
74)	4-Isopropyltoluene		14.591	14.592	0.970	0m	N.D.	d	
75)	1,3-Dichlorobenzene		14.994	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.073	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		15.378	15.372	1.022	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.445	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.633	17.627	1.172	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.944	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.026	6.020	0.638	52653	48.73	ug/L	99
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.654	141376	50.73	ug/L	97
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	260109	508.16	ug/L	97
88)	Allyl chloride	41	6.605	6.605	0.700	640377	50.88	ug/L	94
89)	tert-Butyl Alcohol	59	6.770	6.770	0.717	434843	514.54	ug/L	100
90)	Acrylonitrile	53	7.008	7.007	0.742	123948	48.99	ug/L	98
91)	Isopropyl ether	45	7.550	7.550	0.800	287049	10.19	ug/L	96
92)	2-Chloro-1,3-butadiene	53	7.672	7.666	0.813	132610	10.23	ug/L	92
93)	Ethyl tert-butyl ether	59	7.959	7.958	0.843	266038	10.24	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	317618	50.69	ug/L	96
95)	Propionitrile	54	8.239	8.239	0.873	47557	49.36	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	190857	51.36	ug/L	99
97)	Tetrahydrofuran	42	8.519	8.519	0.902	102275	48.43	ug/L	94
98)	Isobutyl alcohol	41	8.867	8.867	0.939	123353	503.75	ug/L	96
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	197765	10.10	ug/L	97
100)	Methyl methacrylate	69	10.068	10.062	1.067	208224	52.25	ug/L	87
101)	1,4-Dioxane	88	10.172	10.165	1.077	31878	482.71	ug/L	91
102)	2-Nitropropane	43	10.543	10.543	1.117	97397	50.34	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z216.D
Acq On : 19 Sep 2017 20:22
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-14|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 20 10:49:50 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

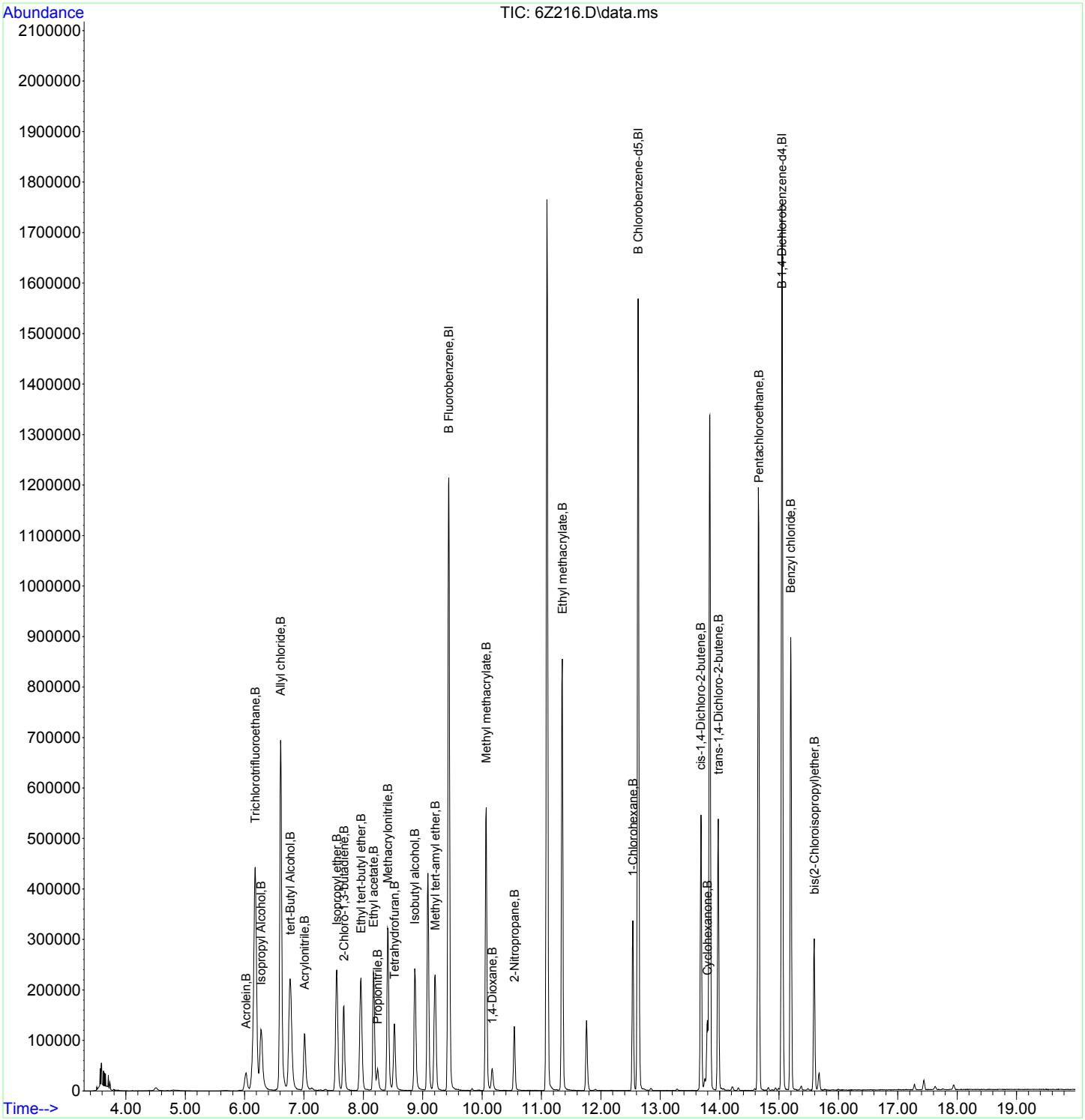
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	418811	54.60	ug/L	89
106) 1-Chlorohexane	55	12.537	12.537	0.833	86454	10.44	ug/L	94
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	137208	53.50	ug/L	87
108) Cyclohexanone	42	13.793	13.787	0.917	42584	238.70	ug/L	95
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.929	126718	53.28	ug/L	86
110) Pentachloroethane	167	14.658	14.652	0.974	235302	55.15	ug/L	97
111) Benzyl chloride	91	15.195	15.195	1.010	649585	55.06	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	198268	52.18	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z216.D
Acq On : 19 Sep 2017 20:22
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-14|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD050 N/A MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 20 10:49:50 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z217.D
Acq On : 19 Sep 2017 20:50
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-15|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:49:52 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1172804	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	900634	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	469400	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.829	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.517	5.549	0.584	0m	N.D.	d	
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.276	6.191	0.665	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.197	6.191	0.656	0m	N.D.	d	
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		6.575	6.569	0.696	0m	N.D.	d	
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.	d	
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		7.044	7.044	0.746	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane		7.367	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.666	7.562	0.812	0m	N.D.	d	
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.507	8.513	0.901	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		8.867	8.940	0.939	0m	N.D.	d	
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.172	9.166	0.972	0m	N.D.	d	
32) Benzene		9.178	9.178	0.972	0m	N.D.	d	
33) Cyclohexene		9.275	9.288	0.983	0m	N.D.	d	
34) n-Butyl alcohol		9.574	9.562	1.014	0m	N.D.	d	
35) Trichloroethylene		9.824	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		10.062	9.922	1.066	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.068	10.062	1.067	0m	N.D.	d	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	10.781	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z217.D
Acq On : 19 Sep 2017 20:50
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-15|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 20 10:49:52 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.336	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.751	11.744	0.930	0m	N.D.	d	
50)	1,3-Dichloropropane		11.738	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.171	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.714	12.720	1.007	0m	N.D.	d	
56)	Ethylbenzene		12.726	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.281	13.275	1.052	0m	N.D.	d	
59)	Styrene		13.281	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.982	13.921	0.929	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.037	14.037	0.932	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.934	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.598	14.592	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.628	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.585	14.592	0.969	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.000	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.073	15.079	1.001	0m	N.D.	d	
77)	n-Butylbenzene		15.372	15.372	1.021	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.494	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.445	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.634	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.944	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.020	6.020	0.638	110903	101.45	ug/L	98
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.654	283791	100.66	ug/L	96
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	549378	1060.87	ug/L	96
88)	Allyl chloride	41	6.605	6.605	0.700	1320591	103.71	ug/L	95
89)	tert-Butyl Alcohol	59	6.770	6.770	0.717	926675	1083.83	ug/L	100
90)	Acrylonitrile	53	7.008	7.007	0.742	264942	103.50	ug/L	98
91)	Isopropyl ether	45	7.550	7.550	0.800	587776	20.63	ug/L	97
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.812	272447	20.77	ug/L	92
93)	Ethyl tert-butyl ether	59	7.959	7.958	0.843	545035	20.73	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	666977	105.21	ug/L	96
95)	Propionitrile	54	8.239	8.239	0.873	102741	105.39	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	400171	106.44	ug/L	100
97)	Tetrahydrofuran	42	8.519	8.519	0.902	221060	103.46	ug/L	94
98)	Isobutyl alcohol	41	8.867	8.867	0.939	260019	1049.58	ug/L	99
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	410446	20.73	ug/L	97
100)	Methyl methacrylate	69	10.068	10.062	1.067	432773	107.34	ug/L	87
101)	1,4-Dioxane	88	10.165	10.165	1.077	69343	1037.86	ug/L	93
102)	2-Nitropropane	43	10.543	10.543	1.117	209009	106.77	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z217.D
Acq On : 19 Sep 2017 20:50
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-15|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 20 10:49:52 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

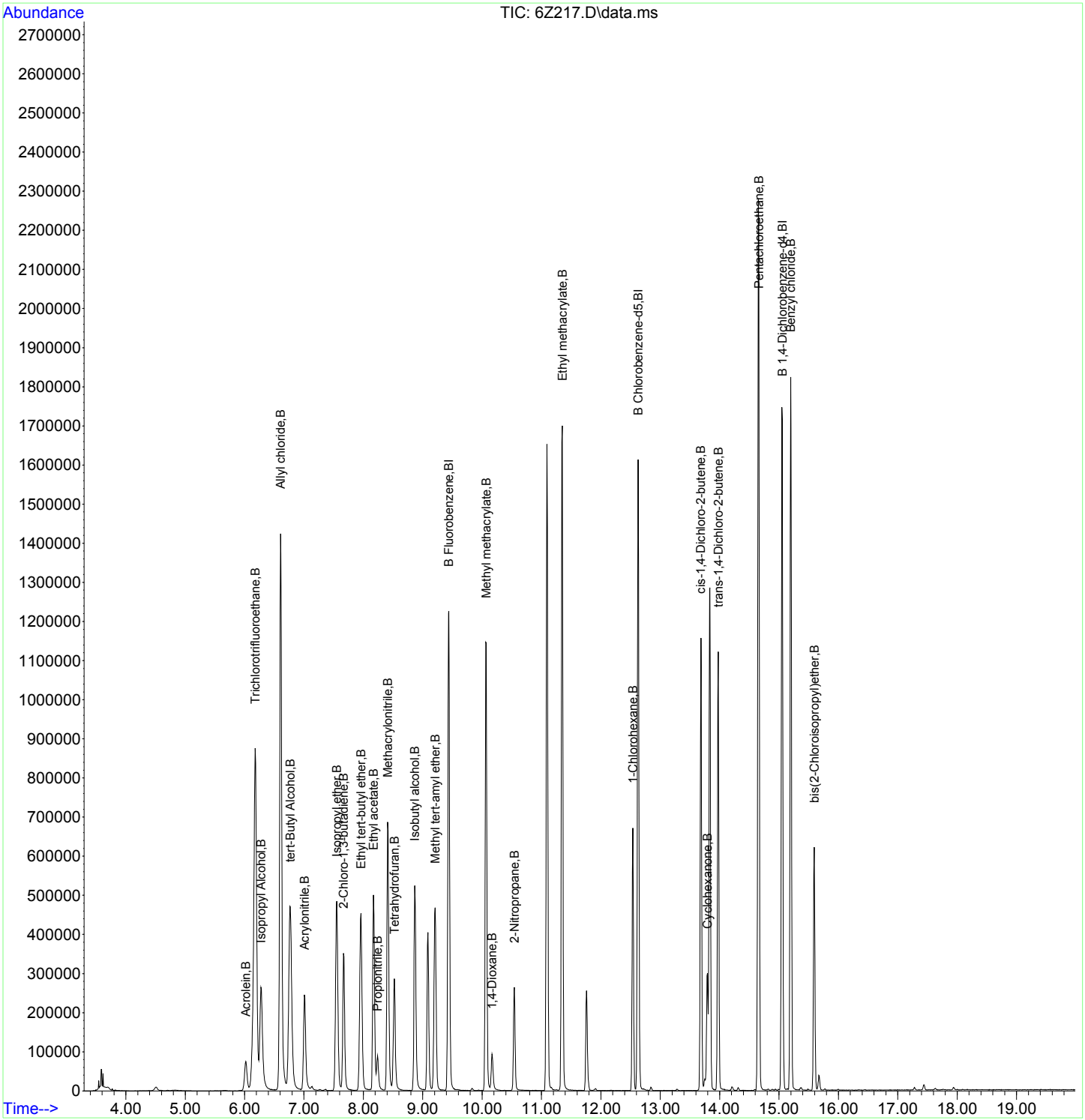
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	851175	108.35	ug/L	90
106) 1-Chlorohexane	55	12.537	12.537	0.833	173275	20.59	ug/L	94
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	286007	109.78	ug/L	91
108) Cyclohexanone	42	13.793	13.787	0.916	93472	515.82	ug/L	96
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	267215	110.62	ug/L	87
110) Pentachloroethane	167	14.658	14.652	0.974	466887	107.73	ug/L	99
111) Benzyl chloride	91	15.195	15.195	1.009	1330204	111.01	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	417469	108.18	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z217.D
Acq On : 19 Sep 2017 20:50
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-15|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD100 N/A MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 20 10:49:52 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z218.D
Acq On : 19 Sep 2017 21:18
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-16|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD250 N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:54 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1159944	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	885219	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	463830	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.829	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.249	4.274	0.450	0m	N.D.		d
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.533	5.549	0.586	0m	N.D.		d
8) Ethyl ether		5.830	5.822	0.618	0m	N.D.		d
9) Acetone		6.276	6.191	0.665	0m	N.D.		d
10) 1,1-Dichloroethylene		6.184	6.191	0.655	0m	N.D.		d
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.		d
13) Methyl acetate		6.569	6.569	0.696	0m	N.D.		d
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.		d
15) Methylene chloride		6.751	6.752	0.715	0m	N.D.		d
16) tert-Butyl methyl ether		7.044	7.044	0.746	0m	N.D.		d
17) trans-1,2-Dichloroethy...		7.075	7.081	0.749	0m	N.D.		d
18) Hexane		7.355	7.361	0.779	0m	N.D.		d
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.		d
20) 1,1-Dichloroethane		7.672	7.562	0.813	0m	N.D.		d
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.		d
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.525	8.513	0.903	0m	N.D.		d
26) 1,1,1-Trichloroethane		8.788	8.782	0.931	0m	N.D.		d
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.		d
28) 1,1-Dichloropropene		8.867	8.940	0.939	0m	N.D.		d
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.208	9.166	0.975	0m	N.D.		d
32) Benzene		9.172	9.178	0.972	0m	N.D.		d
33) Cyclohexene		0.000	9.288	0.000	0	N.D.		
34) n-Butyl alcohol		9.592	9.562	1.016	0m	N.D.		d
35) Trichloroethylene		9.830	9.824	1.041	0m	N.D.		d
36) 2-Pentanone		10.062	9.922	1.066	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.068	10.062	1.067	0m	N.D.		d
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		10.562	10.562	1.119	0m	N.D.		d
42) cis-1,3-Dichloropropylene		10.781	10.781	1.142	0m	N.D.		d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z218.D
Acq On : 19 Sep 2017 21:18
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-16|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD250 N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 20 10:49:54 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.342	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.750	11.744	0.930	0m	N.D.	d	
50)	1,3-Dichloropropane		11.750	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.177	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.714	12.720	1.007	0m	N.D.	d	
56)	Ethylbenzene		12.726	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.281	13.275	1.052	0m	N.D.	d	
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.921	13.921	0.925	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.037	14.037	0.932	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.934	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.591	14.592	0.969	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.585	14.592	0.969	0m	N.D.	d	
75)	1,3-Dichlorobenzene		14.994	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		0.000	15.372	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		15.481	15.488	1.028	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.444	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.633	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.020	6.020	0.638	283482	262.21	ug/L	97
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.654	681096	244.27	ug/L	97
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	1322183	2581.49	ug/L	97
88)	Allyl chloride	41	6.605	6.605	0.700	2977495	236.42	ug/L	96
89)	tert-Butyl Alcohol	59	6.770	6.770	0.717	2175396	2572.52	ug/L	100
90)	Acrylonitrile	53	7.007	7.007	0.742	638504	252.20	ug/L	99
91)	Isopropyl ether	45	7.550	7.550	0.800	1387985	49.27	ug/L	97
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.812	653281	50.36	ug/L	93
93)	Ethyl tert-butyl ether	59	7.958	7.958	0.843	1303538	50.13	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	1550097	247.22	ug/L	97
95)	Propionitrile	54	8.239	8.239	0.873	250559	259.88	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	931961	250.63	ug/L	99
97)	Tetrahydrofuran	42	8.519	8.519	0.902	512388	242.47	ug/L	95
98)	Isobutyl alcohol	41	8.867	8.867	0.939	610450	2491.43	ug/L	98
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	981962	50.14	ug/L	98
100)	Methyl methacrylate	69	10.062	10.062	1.066	1013585	254.18	ug/L	91
101)	1,4-Dioxane	88	10.165	10.165	1.077	169971	2572.18	ug/L	93
102)	2-Nitropropane	43	10.543	10.543	1.117	520806	269.00	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z218.D
Acq On : 19 Sep 2017 21:18
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-16|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD250 N/A MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 20 10:49:54 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	1931345	250.14	ug/L	93
106) 1-Chlorohexane	55	12.537	12.537	0.833	405077	48.72	ug/L	95
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	681828	264.86	ug/L	93
108) Cyclohexanone	42	13.787	13.787	0.916	237990	1329.12	ug/L	92
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	619218	259.43	ug/L	90
110) Pentachloroethane	167	14.652	14.652	0.973	1082647	252.81	ug/L	98
111) Benzyl chloride	91	15.195	15.195	1.009	3049777	257.57	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	982141	257.56	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z218.D
Acq On    : 19 Sep 2017  21:18
Operator  : JP1
InstName  : VOA6
Sample    : |W6VM170919-16|ICAL|1|VOAF|1|VOA8260BL|
Misc      : VSTD250 N/A MIX[B]
ALS Vial  : 18   Sample Multiplier: 1

Quant Time: Sep 20 10:49:54 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE
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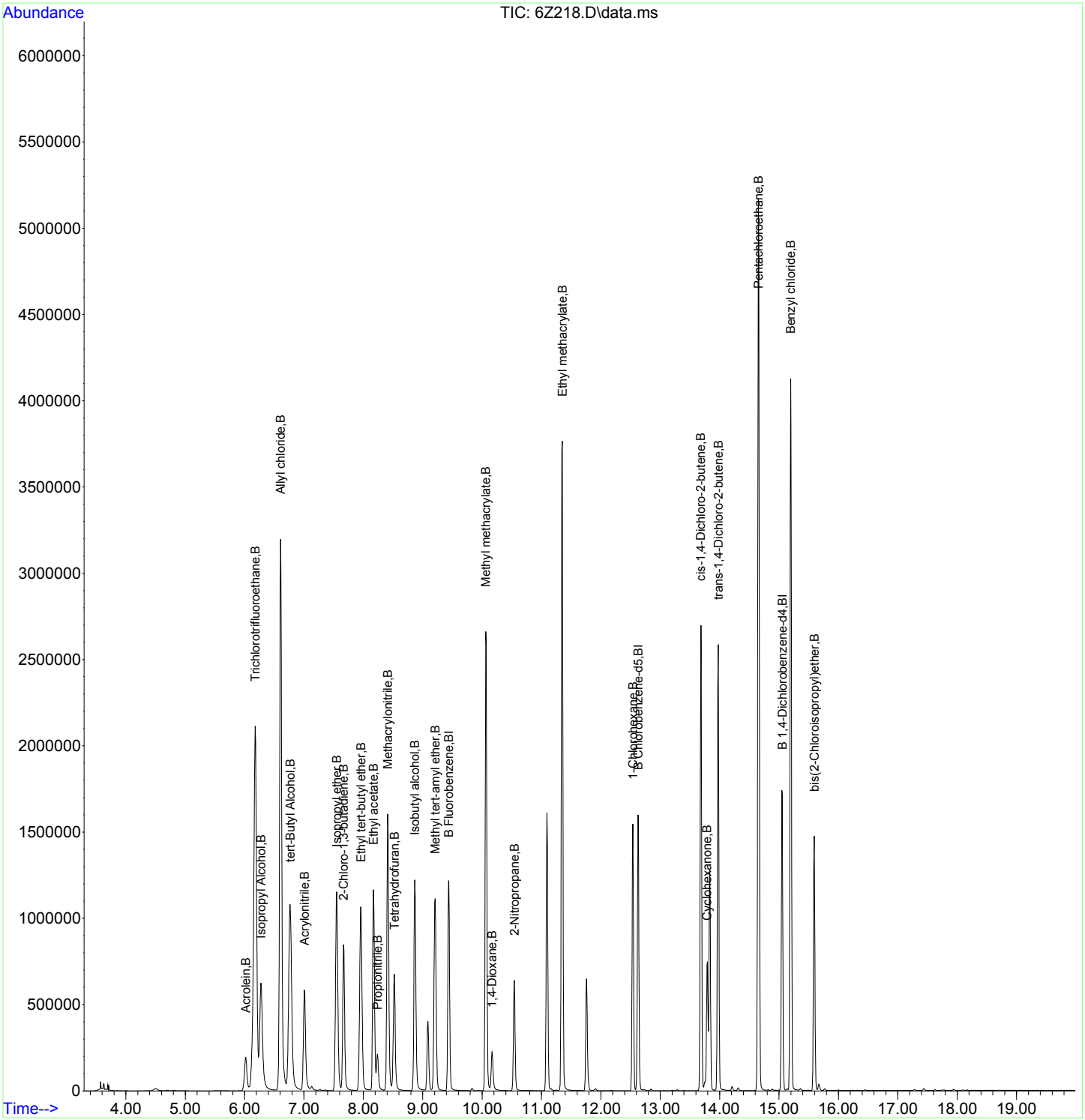

Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z219.D
Acq On : 19 Sep 2017 21:46
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-17|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD300 N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:56 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1171423	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	904935	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	474184	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.829	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.242	4.274	0.449	0m	N.D.		d
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.557	5.549	0.589	0m	N.D.		d
8) Ethyl ether		5.822	5.822	0.617	0m	N.D.		d
9) Acetone		6.276	6.191	0.665	0m	N.D.		d
10) 1,1-Dichloroethylene		6.179	6.191	0.654	0m	N.D.		d
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.		d
13) Methyl acetate		6.575	6.569	0.696	0m	N.D.		d
14) Carbon disulfide		6.611	6.544	0.700	0m	N.D.		d
15) Methylene chloride		6.752	6.752	0.715	0m	N.D.		d
16) tert-Butyl methyl ether		7.044	7.044	0.746	0m	N.D.		d
17) trans-1,2-Dichloroethy...		7.087	7.081	0.751	0m	N.D.		d
18) Hexane		7.361	7.361	0.780	0m	N.D.		d
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.		d
20) 1,1-Dichloroethane		7.666	7.562	0.812	0m	N.D.		d
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.		d
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.513	8.513	0.902	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.		d
28) 1,1-Dichloropropene		8.867	8.940	0.939	0m	N.D.		d
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.172	9.166	0.972	0m	N.D.		d
32) Benzene		9.178	9.178	0.972	0m	N.D.		d
33) Cyclohexene		9.282	9.288	0.983	0m	N.D.		d
34) n-Butyl alcohol		9.586	9.562	1.015	0m	N.D.		d
35) Trichloroethylene		9.830	9.824	1.041	0m	N.D.		d
36) 2-Pentanone		10.068	9.922	1.067	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.062	10.062	1.066	0m	N.D.		d
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		10.781	10.781	1.142	0m	N.D.		d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z219.D
Acq On : 19 Sep 2017 21:46
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-17|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD300 N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 20 10:49:56 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.171	11.165	0.885	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.342	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.763	11.744	0.931	0m	N.D.	d	
50)	1,3-Dichloropropane		11.738	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.171	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.714	12.720	1.007	0m	N.D.	d	
56)	Ethylbenzene		12.732	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.281	13.275	1.052	0m	N.D.	d	
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.927	13.921	0.925	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.043	14.037	0.933	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.934	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.652	14.592	0.973	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.592	14.592	0.969	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.000	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		0.000	15.372	0.000	0	N.D.		
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.445	17.439	1.159	0m	N.D.	d	
82)	Naphthalene		17.628	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.020	6.020	0.638	351692	322.11	ug/L	97
86)	Trichlorotrifluoroethane	85	6.185	6.178	0.655	794388	282.11	ug/L	96
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	1606074	3105.04	ug/L	98
88)	Allyl chloride	41	6.605	6.605	0.700	3580151	281.49	ug/L	95
89)	tert-Butyl Alcohol	59	6.764	6.770	0.716	2648452	3101.24	ug/L #	100
90)	Acrylonitrile	53	7.008	7.007	0.742	777337	304.03	ug/L	99
91)	Isopropyl ether	45	7.550	7.550	0.800	1676511	58.92	ug/L	98
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.812	794627	60.65	ug/L	93
93)	Ethyl tert-butyl ether	59	7.959	7.958	0.843	1581383	60.22	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	1849181	292.03	ug/L	97
95)	Propionitrile	54	8.239	8.239	0.873	302066	310.23	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	1130104	300.94	ug/L	98
97)	Tetrahydrofuran	42	8.520	8.519	0.902	624524	292.64	ug/L	95
98)	Isobutyl alcohol	41	8.867	8.867	0.939	741700	2997.44	ug/L	96
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	1187357	60.04	ug/L	98
100)	Methyl methacrylate	69	10.062	10.062	1.066	1211263	300.78	ug/L	91
101)	1,4-Dioxane	88	10.166	10.165	1.077	202960	3041.30	ug/L	93
102)	2-Nitropropane	43	10.544	10.543	1.117	634056	324.29	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z219.D
Acq On : 19 Sep 2017 21:46
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-17|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD300 N/A MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 20 10:49:56 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	2307545	292.35	ug/L	93
106) 1-Chlorohexane	55	12.537	12.537	0.833	494595	58.18	ug/L	95
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	838551	318.63	ug/L	95
108) Cyclohexanone	42	13.793	13.787	0.916	290087	1584.69	ug/L	93
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	762536	312.50	ug/L	91
110) Pentachloroethane	167	14.659	14.652	0.974	1301616	297.30	ug/L	98
111) Benzyl chloride	91	15.195	15.195	1.009	3610684	298.28	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	1198216	307.36	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z219.D
Acq On    : 19 Sep 2017  21:46
Operator  : JP1
InstName  : VOA6
Sample    : |W6VM170919-17|ICAL|1|VOAF|1|VOA8260BL|
Misc      : VSTD300 N/A MIX[B]
ALS Vial  : 19   Sample Multiplier: 1

Quant Time: Sep 20 10:49:56 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE
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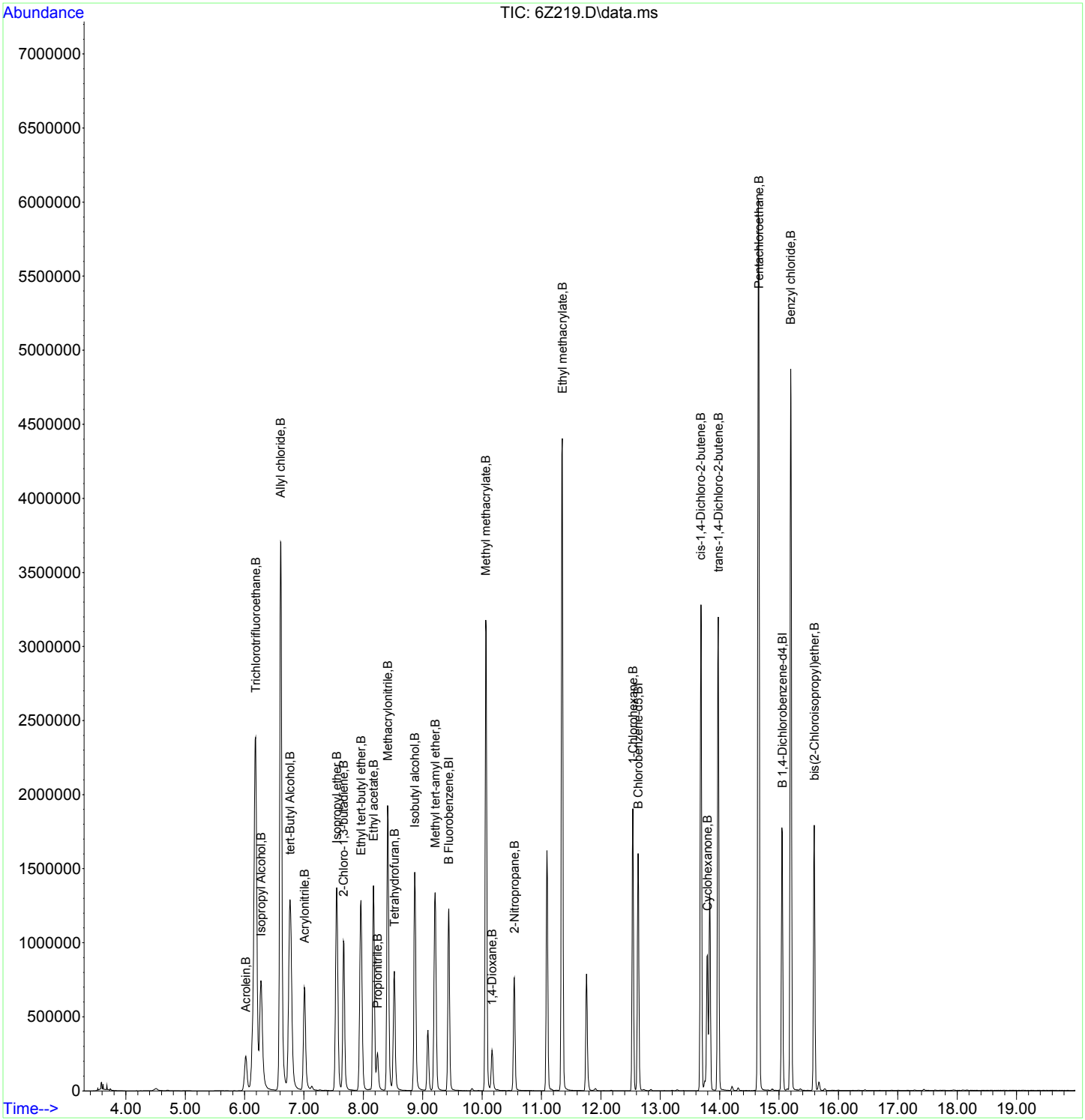


Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z220.D
Acq On : 19 Sep 2017 22:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-18|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD500 N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

GEL
09/21/2017

Quant Time: Sep 20 10:49:58 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	0m	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1143159	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	873289	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	456245	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	0d	0.00	ug/L	
45) Toluene-d8	98	11.092	11.092	0.878	0d	0.00	ug/L	
63) Bromofluorobenzene	95	13.835	13.829	0.919	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.233	4.274	0.449	0m	N.D.		d
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.541	5.549	0.587	0m	N.D.		d
8) Ethyl ether		5.822	5.822	0.617	0m	N.D.		d
9) Acetone		6.178	6.191	0.655	0m	N.D.		d
10) 1,1-Dichloroethylene		6.178	6.191	0.655	0m	N.D.		d
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.514	6.544	0.690	0m	N.D.		d
13) Methyl acetate		6.569	6.569	0.696	0m	N.D.		d
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.		d
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.		d
16) tert-Butyl methyl ether		7.056	7.044	0.748	0m	N.D.		d
17) trans-1,2-Dichloroethy...		7.075	7.081	0.750	0m	N.D.		d
18) Hexane		7.361	7.361	0.780	0m	N.D.		d
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.		d
20) 1,1-Dichloroethane		7.556	7.562	0.801	0m	N.D.		d
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.		d
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.		d
23) 2,2-Dichloropropane		8.227	8.227	0.872	0m	N.D.		d
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.519	8.513	0.903	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.940	0m	N.D.		d
28) 1,1-Dichloropropene		8.867	8.940	0.940	0m	N.D.		d
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.208	9.166	0.976	0m	N.D.		d
32) Benzene		9.184	9.178	0.974	0m	N.D.		d
33) Cyclohexene		9.281	9.288	0.984	0m	N.D.		d
34) n-Butyl alcohol		9.574	9.562	1.015	0m	N.D.		d
35) Trichloroethylene		9.824	9.824	1.041	0m	N.D.		d
36) 2-Pentanone		10.062	9.922	1.067	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.062	10.062	1.067	0m	N.D.		d
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		10.787	10.781	1.143	0m	N.D.		d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z220.D
Acq On : 19 Sep 2017 22:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-18|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD500 N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 20 10:49:58 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.			
46)	Toluene		11.165	11.165	0.884	0m	N.D.	d		
47)	trans-1,3-Dichloroprop...		11.348	11.336	0.899	0m	N.D.	d		
48)	1,1,2-Trichloroethane		11.543	11.549	0.914	0m	N.D.	d		
49)	2-Hexanone		11.744	11.744	0.930	0m	N.D.	d		
50)	1,3-Dichloropropane		11.744	11.744	0.930	0m	N.D.	d		
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d		
52)	Dibromochloromethane		11.903	12.007	0.943	0m	N.D.	d		
53)	1,2-Dibromoethane		12.177	12.171	0.964	0m	N.D.	d		
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d		
55)	1,1,1,2-Tetrachloroethane		12.720	12.720	1.007	0m	N.D.	d		
56)	Ethylbenzene		12.732	12.726	1.008	0m	N.D.	d		
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d		
58)	o-Xylene		13.275	13.275	1.051	0m	N.D.	d		
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d		
61)	Bromoform		0.000	13.531	0.000	0	N.D.			
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d		
64)	1,1,2,2-Tetrachloroethane		13.921	13.921	0.925	0m	N.D.	d		
65)	1,2,3-Trichloropropane		14.012	14.006	0.931	0m	N.D.	d		
66)	Bromobenzene		14.043	14.037	0.933	0m	N.D.	d		
67)	n-Propylbenzene		14.067	14.067	0.934	0m	N.D.	d		
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d		
69)	2-Chlorotoluene		14.207	14.207	0.944	0m	N.D.	d		
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d		
71)	tert-Butylbenzene		14.591	14.592	0.969	0m	N.D.	d		
72)	1,2,4-Trimethylbenzene		14.640	14.634	0.972	0m	N.D.	d		
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d		
74)	4-Isopropyltoluene		14.652	14.592	0.973	0m	N.D.	d		
75)	1,3-Dichlorobenzene		14.988	14.994	0.996	0m	N.D.	d		
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d		
77)	n-Butylbenzene		0.000	15.372	0.000	0	N.D.			
78)	1,2-Dichlorobenzene		15.494	15.488	1.029	0m	N.D.	d		
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.			
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d		
81)	Hexachlorobutadiene		17.444	17.439	1.159	0m	N.D.	d		
82)	Naphthalene		17.627	17.627	1.171	0m	N.D.	d		
83)	1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d		
85)	Acrolein	56	6.020	6.020	0.638	536666	503.67	ug/L	98	A
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.655	1339917	487.60	ug/L	96	
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	2523453	4999.25	ug/L	97	
88)	Allyl chloride	41	6.605	6.605	0.700	5346663	430.78	ug/L	95	
89)	tert-Butyl Alcohol	59	6.770	6.770	0.718	4068322	4881.65	ug/L #	100	
90)	Acrylonitrile	53	7.007	7.007	0.743	1227260	491.88	ug/L	99	
91)	Isopropyl ether	45	7.550	7.550	0.800	2675430	96.36	ug/L	98	
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.813	1300519	101.72	ug/L	93	A
93)	Ethyl tert-butyl ether	59	7.959	7.958	0.844	2527480	98.63	ug/L	98	
94)	Ethyl acetate	43	8.172	8.172	0.866	2859514	462.76	ug/L	98	
95)	Propionitrile	54	8.233	8.239	0.873	478181	503.25	ug/L	100	A
96)	Methacrylonitrile	41	8.410	8.410	0.891	1738425	474.37	ug/L	98	
97)	Tetrahydrofuran	42	8.519	8.519	0.903	965338	463.52	ug/L	96	
98)	Isobutyl alcohol	41	8.867	8.867	0.940	1126853	4666.55	ug/L	97	
99)	Methyl tert-amyl ether	73	9.208	9.208	0.976	1897535	98.32	ug/L	98	
100)	Methyl methacrylate	69	10.062	10.062	1.067	1862179	473.84	ug/L	94	
101)	1,4-Dioxane	88	10.165	10.165	1.078	337254	5178.61	ug/L	95	A
102)	2-Nitropropane	43	10.543	10.543	1.118	999554	523.86	ug/L	99	A

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z220.D
Acq On : 19 Sep 2017 22:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-18|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD500 N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 20 10:49:58 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

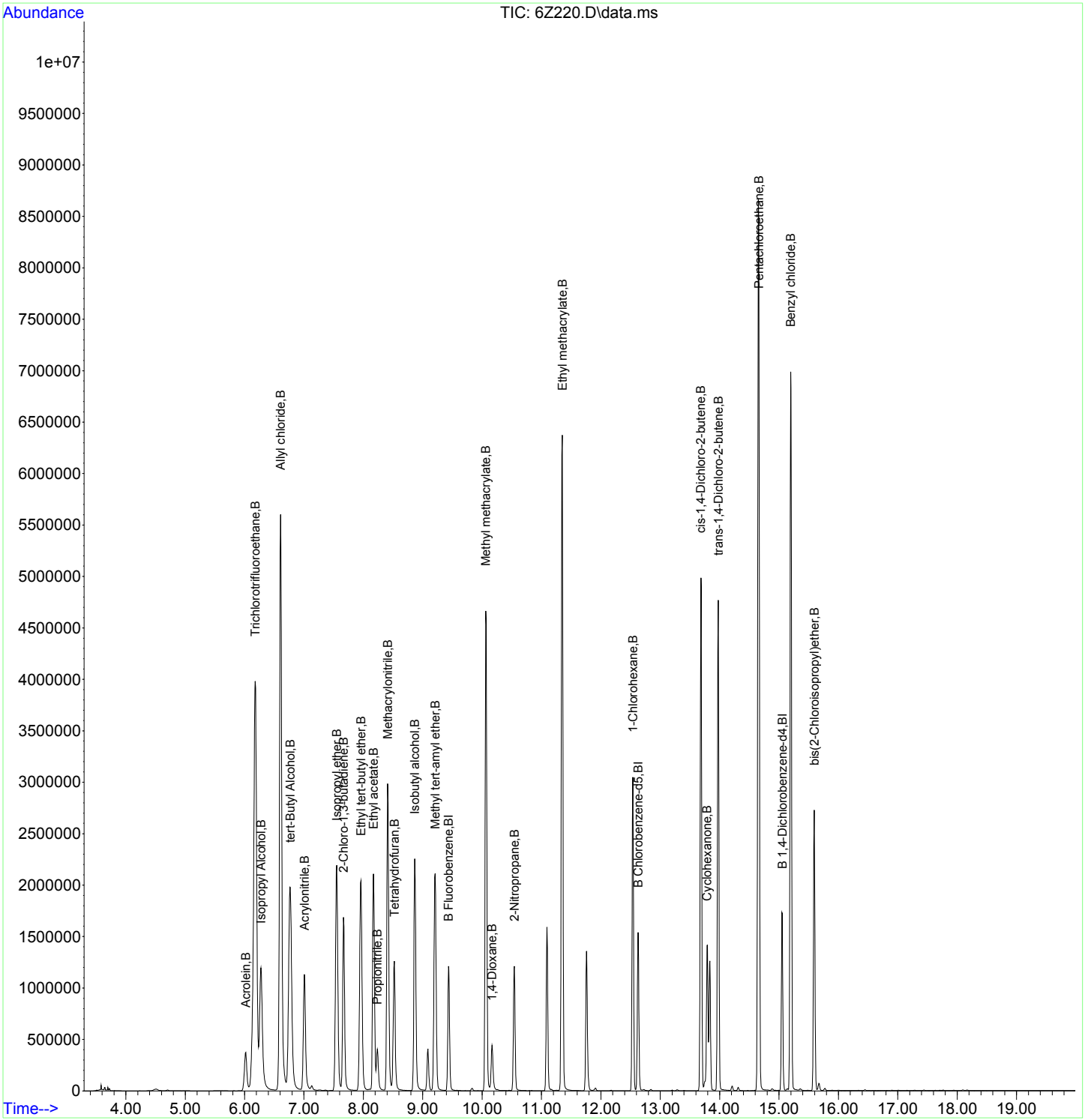
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
104) Ethyl methacrylate	69	11.348	11.348	0.899	3445563	452.35	ug/L	96	
106) 1-Chlorohexane	55	12.537	12.537	0.833	803416	98.23	ug/L	95	
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	1279317	505.22	ug/L	96	A
108) Cyclohexanone	42	13.787	13.787	0.916	454564	2580.84	ug/L	92	A
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	1158761	493.55	ug/L	92	
110) Pentachloroethane	167	14.658	14.652	0.974	1975599	468.99	ug/L	97	
111) Benzyl chloride	91	15.195	15.195	1.009	5300958	455.14	ug/L	99	
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	1823195	486.06	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z220.D
Acq On : 19 Sep 2017 22:14
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-18|ICAL|1|VOAF|1|VOA8260BL|
Misc : VSTD500 N/A MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 20 10:49:58 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA6.I

Injection Date: 19-SEP-17 23:09

Data File: 091917V6\6Z222.D

Init. Cal. Date(s) 19-SEP-17 13:49 - 19-SEP-17 22:14

Lab Sample ID W6VM170919-19

Method: 091917V6\VOA6-8260-091917.M

Quant Type ISTD

Method Update: 20-SEP-17 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2552	0.27082		.01		6.12069	60		Averaged
S	Toluene-d8	1.2406	1.27298		.01		2.61003	60		Averaged
S	Bromofluorobenzene	1.0013	1.04948		.01		4.81174	60		Averaged
	Trichlorotrifluoroethane	0.1202	0.12778		.01		6.30616	60		Averaged
	1,4-Dioxane	0.0028	0.003		.01		7.14286	60		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
09/21/2017

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z222.D
Acq On : 19 Sep 2017 23:09
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-19|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 250 N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

EM
09/21/2017

Quant Time: Sep 20 10:50:02 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	1109341	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	850847	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	448886	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1109341	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	850847	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	448886	50.00	ug/L	0.00
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	300435	53.07	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1083114	51.31	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	471095	52.40	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.241	4.274	0.449	0m	N.D.	d	
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.533	5.549	0.586	0m	N.D.	d	
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone		6.172	6.191	0.654	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.184	6.191	0.655	0m	N.D.	d	
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile		6.605	6.544	0.700	0m	N.D.	d	
13) Methyl acetate		0.000	6.569	0.000	0	N.D.		
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.	d	
15) Methylene chloride		6.758	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		7.050	7.044	0.747	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane		7.367	7.361	0.780	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.672	7.562	0.813	0m	N.D.	d	
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.513	8.513	0.902	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		8.867	8.867	0.939	0m	N.D.	d	
28) 1,1-Dichloropropene		8.867	8.940	0.939	0m	N.D.	d	
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane		9.220	9.166	0.977	0m	N.D.	d	
32) Benzene		9.178	9.178	0.972	0m	N.D.	d	
33) Cyclohexene		0.000	9.288	0.000	0	N.D.		
34) n-Butyl alcohol		9.580	9.562	1.015	0m	N.D.	d	
35) Trichloroethylene		9.824	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		10.068	9.922	1.067	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		10.062	10.062	1.066	0m	N.D.	d	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		10.787	10.781	1.143	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z222.D
Acq On : 19 Sep 2017 23:09
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-19|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 250 N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 20 10:50:02 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46)	Toluene		11.159	11.165	0.884	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.336	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49)	2-Hexanone		11.744	11.744	0.930	0m	N.D.	d	
50)	1,3-Dichloropropane		11.750	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53)	1,2-Dibromoethane		12.171	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.659	12.659	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.720	12.720	1.007	0m	N.D.	d	
56)	Ethylbenzene		12.775	12.726	1.012	0m	N.D.	d	
57)	m,p-Xylenes		12.842	12.842	1.017	0m	N.D.	d	
58)	o-Xylene		13.268	13.275	1.051	0m	N.D.	d	
59)	Styrene		13.287	13.281	1.052	0m	N.D.	d	
61)	Bromoform		0.000	13.531	0.000	0	N.D.		
62)	Isopropylbenzene		13.640	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.933	13.921	0.925	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66)	Bromobenzene		14.049	14.037	0.933	0m	N.D.	d	
67)	n-Propylbenzene		0.000	14.067	0.000	0	N.D.		
68)	1,3,5-Trimethylbenzene		14.220	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.213	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.652	14.592	0.973	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.652	14.592	0.973	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.000	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		15.475	15.372	1.028	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		17.286	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.438	17.439	1.158	0m	N.D.	d	
82)	Naphthalene		17.640	17.627	1.172	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.938	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.020	6.020	0.638	276315	267.23	ug/L	97
86)	Trichlorotrifluoroethane	85	6.178	6.178	0.654	708776	265.79	ug/L	96
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	1310891	2676.19	ug/L	96
88)	Allyl chloride	41	6.605	6.605	0.700	2901471	240.90	ug/L	96
89)	tert-Butyl Alcohol	59	6.764	6.770	0.716	2190310	2708.31	ug/L	100
90)	Acrylonitrile	53	7.008	7.007	0.742	624240	257.82	ug/L	99
91)	Isopropyl ether	45	7.550	7.550	0.800	1169673	43.41	ug/L	98
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.812	577641	46.56	ug/L	92
93)	Ethyl tert-butyl ether	59	7.952	7.958	0.842	1120929	45.08	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	1547250	258.02	ug/L	97
95)	Propionitrile	54	8.233	8.239	0.872	235746	255.67	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	921306	259.07	ug/L	99
97)	Tetrahydrofuran	42	8.519	8.519	0.902	501228	248.01	ug/L	96
98)	Isobutyl alcohol	41	8.867	8.867	0.939	616823	2632.27	ug/L	97
99)	Methyl tert-amyl ether	73	9.208	9.208	0.975	856744	45.74	ug/L	97
100)	Methyl methacrylate	69	10.062	10.062	1.066	972317	254.95	ug/L	91
101)	1,4-Dioxane	88	10.165	10.165	1.077	166534	2635.12	ug/L	94
102)	2-Nitropropane	43	10.543	10.543	1.117	497247	268.55	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z222.D
Acq On : 19 Sep 2017 23:09
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-19|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 250 N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 20 10:50:02 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

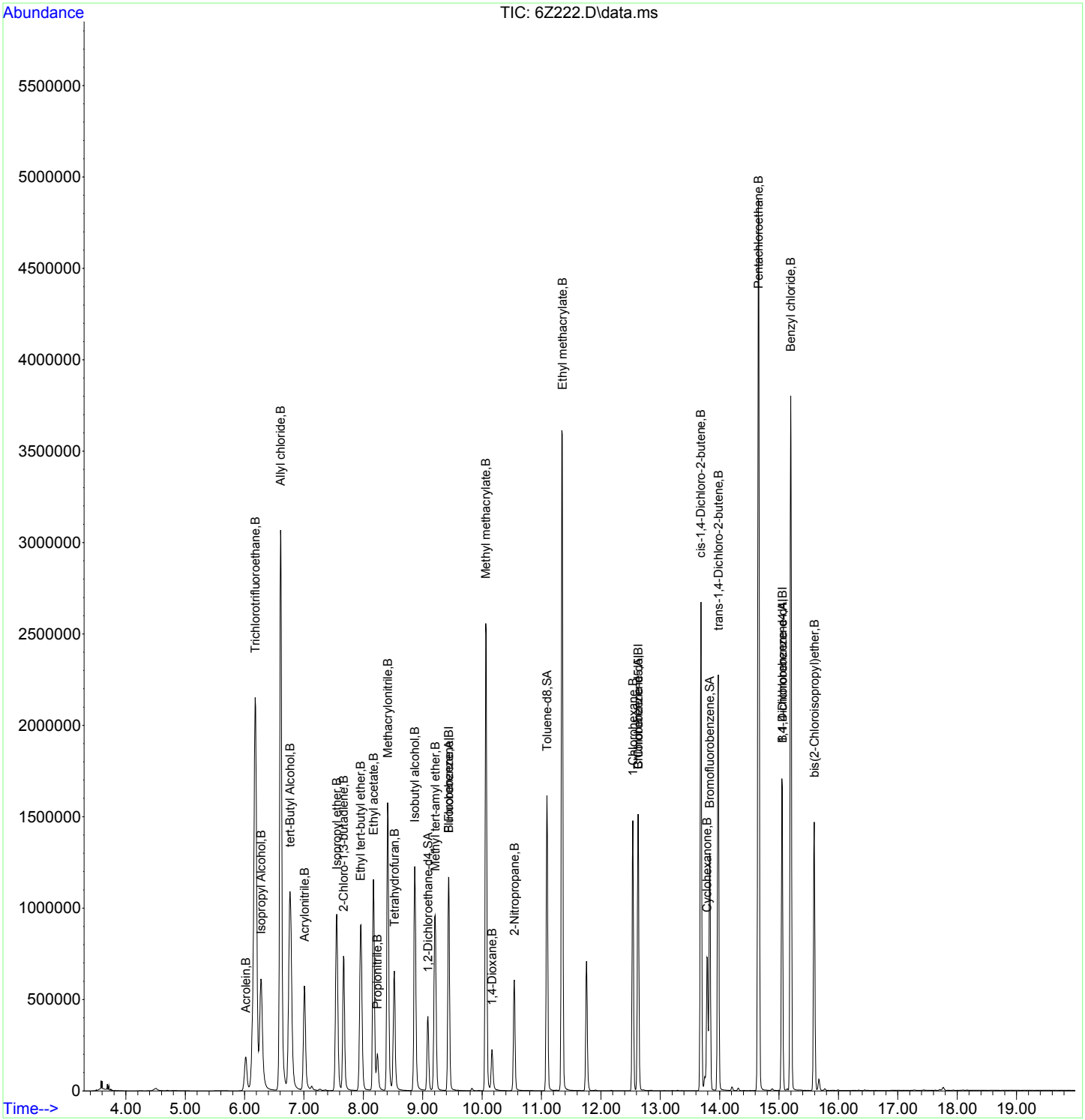
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	1853954	249.81	ug/L	92
106) 1-Chlorohexane	55	12.537	12.537	0.833	385153	47.86	ug/L	94
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	664443	266.70	ug/L	93
108) Cyclohexanone	42	13.787	13.787	0.916	230616	1330.81	ug/L	96
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	543941	235.48	ug/L	90
110) Pentachloroethane	167	14.652	14.652	0.973	1023230	246.89	ug/L	98
111) Benzyl chloride	91	15.195	15.195	1.009	2804454	244.74	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	984776	266.84	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z222.D
Acq On : 19 Sep 2017 23:09
Operator : JP1
InstName : VOA6
Sample : |W6VM170919-19|ICV|1|VOAF|1|VOA8260BL|
Misc : ICV 250 N/A MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 20 10:50:02 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA6.I **Injection Date:** 29-SEP-17 09:30

Data File: 092917V6\6A502.D **Init. Cal. Date(s)** 19-SEP-17 13:49 - 19-SEP-17 22:14

Lab Sample ID W6VM170929-01 **Method:** 091917V6\VOA6-8260-091917.M

Quant Type ISTD **Method Update:** 20-SEP-17 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2552	0.2606		.01		2.11599	60		Averaged	
S	Toluene-d8	1.2406	1.22192		.01		-1.50572	60		Averaged	
S	Bromofluorobenzene	1.0013	0.99367		.01		-0.76201	60		Averaged	
	Dichlorodifluoromethane	0.2382	0.3257		.01		36.73384	60		Averaged	
	Chloromethane	0.3233	0.35835		.1		10.84132	60		Averaged	SPCC
	Vinyl chloride	0.2944	0.32394		.01		10.03397	20		Averaged	CCC
	Bromomethane	0.2223	0.24766		.01		11.40801	60		Averaged	
	Chloroethane	0.2713	0.30011		.01		10.61924	60		Averaged	
	Trichlorofluoromethane	0.4422	0.52614		.01		18.98236	60		Averaged	
	1,1-Dichloroethylene	0.5172	0.51123		.01		-1.15429	20		Averaged	CCC
	Acetone	250	319.06	250			27.624	60		Linear	
	Carbon disulfide	0.9216	0.87196		.01		-5.38628	60		Averaged	
	Methyl acetate	0.2078	0.18813		.01		-9.46583	60		Averaged	
	Methylene chloride	50	49.54	50			-0.92	60		Linear	
	tert-Butyl methyl ether	0.8247	0.77479		.01		-6.0519	60		Averaged	
	trans-1,2-Dichloroethylene	0.4959	0.48215		.01		-2.77274	60		Averaged	
	Vinyl acetate	0.6027	0.6333		.01		5.07715	60		Averaged	
	1,1-Dichloroethane	0.5862	0.56696		.1		-3.28216	60		Averaged	SPCC
	2-Butanone	0.1944	0.21859		.01		12.44342	60		Averaged	
	cis-1,2-Dichloroethylene	0.5593	0.54516		.01		-2.52816	60		Averaged	
	Bromochloromethane	0.1393	0.13396		.01		-3.83345	60		Averaged	
	Chloroform	0.4983	0.49659		.01		-0.34317	20		Averaged	CCC
	1,1,1-Trichloroethane	0.4651	0.4756		.01		2.25758	60		Averaged	
	Cyclohexane	0.6946	0.682		.01		-1.81399	60		Averaged	
	Carbon tetrachloride	0.3904	0.41225		.01		5.59682	60		Averaged	
	1,2-Dichloroethane	0.4193	0.40277		.01		-3.94228	60		Averaged	
	Benzene	1.1992	1.12537		.01		-6.1566	60		Averaged	
	Trichloroethylene	0.3037	0.2984		.01		-1.74514	60		Averaged	
	1,2-Dichloropropane	0.334	0.3196		.01		-4.31138	20		Averaged	CCC
	Methylcyclohexane	0.5584	0.55051		.01		-1.41297	60		Averaged	
	Bromodichloromethane	0.3653	0.37111		.01		1.59047	60		Averaged	
	cis-1,3-Dichloropropylene	0.4586	0.46523		.01		1.4457	60		Averaged	
	4-Methyl-2-pentanone	0.1564	0.1569		.01		0.31969	60		Averaged	
	Toluene	1.6605	1.55837		.01		-6.15056	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.5175	0.52687		.01		1.81063	60		Averaged	
	1,1,2-Trichloroethane	0.2581	0.24901		.01		-3.52189	60		Averaged	
	2-Hexanone	0.3193	0.36908		.01		15.59035	60		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date:** 29-SEP-17 09:30

Data File: 092917V6\6A502.D **Init. Cal. Date(s)** 19-SEP-17 13:49 19-SEP-17 22:14

Lab Sample ID W6VM170929-01 **Method:** 091917V6\VOA6-8260-091917.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.3195	0.30992		.01		-2.99844	60		Averaged	
Dibromochloromethane	0.3203	0.33292		.01		3.94006	60		Averaged	
1,2-Dibromoethane	0.2988	0.2969		.01		-0.63588	60		Averaged	
Chlorobenzene	1.1059	1.04557		.3		-5.45529	60		Averaged	SPCC
Ethylbenzene	1.8817	1.81457		.01		-3.56752	20		Averaged	CCC
m,p-Xylenes	0.7312	0.70221		.01		-3.96472	60		Averaged	
Styrene	1.1584	1.14871		.01		-0.8365	60		Averaged	
o-Xylene	1.535	1.46306		.01		-4.68664	60		Averaged	
Bromoform	50	45.46	50			-9.08	60		Linear	SPCC
Isopropylbenzene	3.6777	3.53837		.01		-3.78851	60		Averaged	
1,1,2,2-Tetrachloroethane	0.7743	0.74658		.3		-3.58001	60		Averaged	SPCC
1,3-Dichlorobenzene	1.7089	1.64126		.01		-3.9581	60		Averaged	
1,4-Dichlorobenzene	1.7033	1.63162		.01		-4.2083	60		Averaged	
1,2-Dichlorobenzene	1.5792	1.50694		.01		-4.57573	60		Averaged	
1,2-Dibromo-3-chloropropane	50	43.13	50			-13.74	60		Linear	
1,2,4-Trichlorobenzene	1.0718	1.07843		.01		0.61859	60		Averaged	
1,2,3-Trichlorobenzene	0.9451	0.92662		.01		-1.95535	60		Averaged	

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A502.D
Acq On : 29 Sep 2017 09:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-01|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Sep 29 09:51:12 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		Dev(Min)
Internal Standards									
1) Fluorobenzene	96	9.440	9.440	1.000	1212561	50.00	ug/L		0.00
43) Chlorobenzene-d5	117	12.629	12.628	1.000	931118	50.00	ug/L		0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	496546	50.00	ug/L		0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1212268	50.00	ug/L		0.00
103) B Chlorobenzene-d5	117	12.629	12.628	1.000	931118	50.00	ug/L		0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	496546	50.00	ug/L		0.00
System Monitoring Compounds									Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.087	9.086	0.963	315988	51.07	ug/L		0.00
45) Toluene-d8	98	11.092	11.092	0.878	1137752	49.25	ug/L		0.00
63) Bromofluorobenzene	95	13.830	13.829	0.919	493402	49.62	ug/L		0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	394930	68.36	ug/L		99
3) Chloromethane	50	4.274	4.274	0.453	434526	55.43	ug/L		99
4) Vinyl chloride	62	4.498	4.498	0.477	392791	55.02	ug/L		99
5) Bromomethane	94	5.012	5.012	0.531	300304	55.71	ug/L		100
6) Chloroethane	64	5.140	5.148	0.545	363902	55.30	ug/L		99
7) Trichlorofluoromethane	101	5.501	5.549	0.583	637981	59.48	ug/L		99
8) Ethyl ether	59	5.822	5.822	0.617	354622	49.68	ug/L		95
9) Acetone	43	6.191	6.191	0.656	1029266	319.06	ug/L		97
10) 1,1-Dichloroethylene	61	6.185	6.191	0.655	619898	49.42	ug/L		96
11) Iodomethane	142	6.423	6.422	0.680	2610866	239.53	ug/L		97
12) Acetonitrile	41	6.544	6.544	0.693	972853	1124.42	ug/L		100
13) Methyl acetate	43	6.569	6.569	0.696	1140576	226.33	ug/L		96
14) Carbon disulfide	76	6.544	6.544	0.693	5286495	236.53	ug/L		100
15) Methylene chloride	84	6.752	6.752	0.715	373234	49.54	ug/L		91
16) tert-Butyl methyl ether	73	7.044	7.044	0.746	939481	46.97	ug/L		99
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.750	584632	48.62	ug/L		96
18) Hexane	57	7.361	7.361	0.780	578792	41.99	ug/L		93
19) Vinyl acetate	43	7.532	7.526	0.798	3839559	262.68	ug/L		97
20) 1,1-Dichloroethane	63	7.563	7.562	0.801	687472	48.35	ug/L		99
21) 2-Butanone	43	8.154	8.154	0.864	1325241	281.12	ug/L		94
22) cis-1,2-Dichloroethylene	61	8.203	8.203	0.869	661043	48.74	ug/L		95
23) 2,2-Dichloropropane	77	8.227	8.227	0.871	587340	51.50	ug/L		88
24) Bromochloromethane	128	8.477	8.477	0.898	162434	48.10	ug/L	#	88
25) Chloroform	83	8.514	8.513	0.902	602149	49.83	ug/L		100
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.930	576689	51.13	ug/L		98
27) Cyclohexane	56	8.867	8.867	0.939	826961	49.09	ug/L		93
28) 1,1-Dichloropropene	75	8.940	8.940	0.947	476922	49.73	ug/L		91
29) Carbon tetrachloride	117	8.971	8.971	0.950	499882	52.80	ug/L		98
31) 1,2-Dichloroethane	62	9.166	9.166	0.971	488379	48.03	ug/L		99
32) Benzene	78	9.178	9.178	0.972	1364585	46.92	ug/L		97
33) Cyclohexene	67	9.288	9.288	0.984	689953	48.65	ug/L		96
34) n-Butyl alcohol	56	9.562	9.562	1.013	1208180	5134.63	ug/L		96
35) Trichloroethylene	95	9.824	9.824	1.041	361824	49.13	ug/L		99
36) 2-Pentanone	43	9.922	9.922	1.051	1250868	237.82	ug/L		96
37) 1,2-Dichloropropane	63	10.074	10.074	1.067	387536	47.85	ug/L		96
38) Methylcyclohexane	83	10.068	10.062	1.067	667527	49.30	ug/L		94
39) Dibromomethane	93	10.208	10.208	1.081	189544	49.22	ug/L		95
40) Bromodichloromethane	83	10.330	10.330	1.094	449997	50.79	ug/L		100
41) 2-Chloroethylvinyl ether	63	10.562	10.562	1.119	942476	253.13	ug/L		99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.142	564117	50.73	ug/L		92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A502.D
Acq On : 29 Sep 2017 09:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-01|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:51:12 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	730445	250.85	ug/L		93
46)	Toluene	91	11.165	11.165	0.884	1451022	46.92	ug/L		99
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	490579	50.90	ug/L		93
48)	1,1,2-Trichloroethane	83	11.556	11.549	0.915	231862	48.24	ug/L		99
49)	2-Hexanone	43	11.745	11.744	0.930	1718290	288.95	ug/L		96
50)	1,3-Dichloropropane	76	11.745	11.744	0.930	454570	45.91	ug/L	#	75
51)	Tetrachloroethylene	164	11.757	11.757	0.931	288574	48.50	ug/L		93
52)	Dibromochloromethane	129	12.007	12.007	0.951	309986	51.97	ug/L		100
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	276451	49.68	ug/L		99
54)	Chlorobenzene	112	12.659	12.659	1.002	973552	47.27	ug/L		98
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	336055	49.62	ug/L		100
56)	Ethylbenzene	91	12.726	12.726	1.008	1689580	48.22	ug/L		98
57)	m,p-Xylenes	106	12.842	12.842	1.017	1307672	96.03	ug/L		94
58)	o-Xylene	91	13.275	13.275	1.051	1362286	47.66	ug/L		97
59)	Styrene	104	13.281	13.281	1.052	1069580	49.58	ug/L		96
61)	Bromoform	173	13.531	13.531	0.899	196213	45.46	ug/L		96
62)	Isopropylbenzene	105	13.635	13.634	0.906	1756961	48.11	ug/L		99
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	370709	48.21	ug/L		100
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.930	109946	47.97	ug/L	#	92
66)	Bromobenzene	156	14.037	14.037	0.932	402404	47.54	ug/L		97
67)	n-Propylbenzene	91	14.067	14.067	0.934	2108721	48.86	ug/L		97
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1493477	48.72	ug/L		99
69)	2-Chlorotoluene	126	14.208	14.207	0.944	408325	47.48	ug/L		93
70)	4-Chlorotoluene	91	14.311	14.311	0.951	1321143	48.35	ug/L		99
71)	tert-Butylbenzene	134	14.592	14.592	0.969	323384	48.74	ug/L		97
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1540180	48.75	ug/L		98
73)	sec-Butylbenzene	105	14.817	14.817	0.984	1974280	48.94	ug/L		99
74)	4-Isopropyltoluene	119	14.592	14.592	0.969	1291178	48.51	ug/L		97
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	814959	48.02	ug/L		99
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	810176	47.90	ug/L		99
77)	n-Butylbenzene	91	15.372	15.372	1.021	1617703	50.68	ug/L		99
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	748265	47.71	ug/L		99
79)	1,2-Dibromo-3-chloropr...	157	16.305	16.305	1.083	64876	43.13	ug/L		96
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	535488	50.31	ug/L		99
81)	Hexachlorobutadiene	225	17.439	17.439	1.158	350443	50.85	ug/L		100
82)	Naphthalene	128	17.628	17.627	1.171	1063781	48.41	ug/L		100
83)	1,2,3-Trichlorobenzene	180	17.939	17.938	1.192	460109	49.02	ug/L		99
85)	Acrolein		5.959	6.020	0.631	0m	N.D.	d		
86)	Trichlorotrifluoroethane		6.185	6.178	0.655	0m	N.D.	d		
87)	Isopropyl Alcohol		6.191	6.276	0.656	0m	N.D.	d		
88)	Allyl chloride		6.544	6.605	0.693	0m	N.D.	d		
89)	tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.			
90)	Acrylonitrile		7.044	7.007	0.746	0m	N.D.	d		
91)	Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.672	7.666	0.813	0m	N.D.	d		
93)	Ethyl tert-butyl ether		7.965	7.958	0.844	0m	N.D.	d		
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.245	8.239	0.873	0m	N.D.	d		
96)	Methacrylonitrile		8.422	8.410	0.892	0m	N.D.	d		
97)	Tetrahydrofuran		8.520	8.519	0.902	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.939	0m	N.D.	d		
99)	Methyl tert-amyl ether		9.178	9.208	0.972	0m	N.D.	d		
100)	Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d		
101)	1,4-Dioxane		10.172	10.165	1.077	0m	N.D.	d		
102)	2-Nitropropane		10.562	10.543	1.119	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A502.D
Acq On : 29 Sep 2017 09:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-01|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:51:12 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

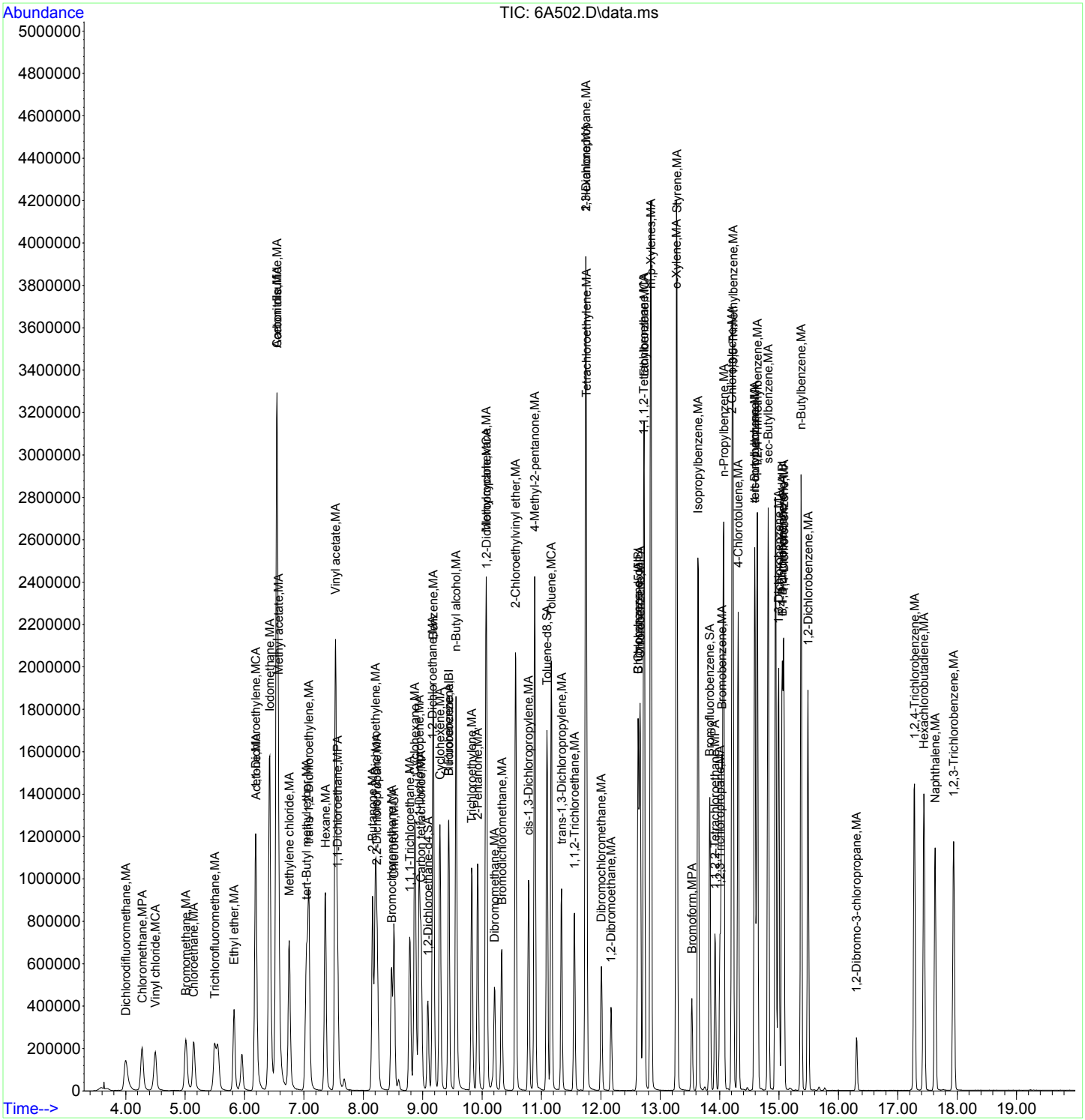
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
104) Ethyl methacrylate		11.348	11.348	0.899	0m	N.D.	d
106) 1-Chlorohexane		12.531	12.537	0.832	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		13.635	13.683	0.906	0m	N.D.	d
108) Cyclohexanone		13.787	13.787	0.916	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		13.976	13.976	0.928	0m	N.D.	d
110) Pentachloroethane		14.653	14.652	0.973	0m	N.D.	d
111) Benzyl chloride		15.195	15.195	1.009	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		15.591	15.591	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A502.D
Acq On : 29 Sep 2017 09:30
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-01|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 29 09:51:12 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA6.I

Injection Date: 29-SEP-17 10:27

Data File: 092917V6\6A504.D

Init. Cal. Date(s) 19-SEP-17 13:49 - 19-SEP-17 22:14

Lab Sample ID W6VM170929-03

Method: 091917V6\VOA6-8260-091917.M

Quant Type ISTD

Method Update: 20-SEP-17 08:48

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2552	0.26458		.01		3.67555	60		Averaged
S	Toluene-d8	1.2406	1.21431		.01		-2.11914	60		Averaged
S	Bromofluorobenzene	1.0013	0.99617		.01		-0.51233	60		Averaged
	Trichlorotrifluoroethane	0.1202	0.13068		.01		8.7188	60		Averaged
	1,4-Dioxane	0.0028	0.00287		.01		2.5	60		Averaged

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A504.D
Acq On : 29 Sep 2017 10:27
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-03|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[B]
ALS Vial : 4 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Sep 29 11:13:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1198307	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.629	12.628	1.000	927676	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	492257	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1198021	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.629	12.628	1.000	927676	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	492257	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.087	9.086	0.963	317046	51.85	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1126489	48.94	ug/L	0.00
63) Bromofluorobenzene	95	13.836	13.829	0.919	490374	49.74	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		4.242	4.274	0.450	0m	N.D.	d	
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		5.501	5.549	0.583	0m	N.D.	d	
8) Ethyl ether		5.822	5.822	0.617	0m	N.D.	d	
9) Acetone		6.185	6.191	0.656	0m	N.D.	d	
10) 1,1-Dichloroethylene		6.173	6.191	0.654	0m	N.D.	d	
11) Iodomethane		6.422	6.422	0.681	0m	N.D.	d	
12) Acetonitrile		6.490	6.544	0.688	0m	N.D.	d	
13) Methyl acetate		6.575	6.569	0.697	0m	N.D.	d	
14) Carbon disulfide		6.605	6.544	0.700	0m	N.D.	d	
15) Methylene chloride		6.752	6.752	0.716	0m	N.D.	d	
16) tert-Butyl methyl ether		7.044	7.044	0.747	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		7.087	7.081	0.751	0m	N.D.	d	
18) Hexane		7.367	7.361	0.781	0m	N.D.	d	
19) Vinyl acetate		7.550	7.526	0.800	0m	N.D.	d	
20) 1,1-Dichloroethane		7.569	7.562	0.802	0m	N.D.	d	
21) 2-Butanone		8.172	8.154	0.866	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		8.172	8.203	0.866	0m	N.D.	d	
23) 2,2-Dichloropropane		8.233	8.227	0.873	0m	N.D.	d	
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		8.514	8.513	0.902	0m	N.D.	d	
26) 1,1,1-Trichloroethane		8.782	8.782	0.931	0m	N.D.	d	
27) Cyclohexane		8.867	8.867	0.940	0m	N.D.	d	
28) 1,1-Dichloropropene		8.867	8.940	0.940	0m	N.D.	d	
29) Carbon tetrachloride		8.952	8.971	0.949	0m	N.D.	d	
31) 1,2-Dichloroethane		9.166	9.166	0.972	0m	N.D.	d	
32) Benzene		9.178	9.178	0.973	0m	N.D.	d	
33) Cyclohexene		9.294	9.288	0.985	0m	N.D.	d	
34) n-Butyl alcohol		9.574	9.562	1.015	0m	N.D.	d	
35) Trichloroethylene		9.824	9.824	1.041	0m	N.D.	d	
36) 2-Pentanone		9.934	9.922	1.053	0m	N.D.	d	
37) 1,2-Dichloropropane		10.074	10.074	1.068	0m	N.D.	d	
38) Methylcyclohexane		10.062	10.062	1.067	0m	N.D.	d	
39) Dibromomethane		10.208	10.208	1.082	0m	N.D.	d	
40) Bromodichloromethane		10.324	10.330	1.094	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		10.568	10.562	1.120	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		10.787	10.781	1.143	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A504.D
Acq On : 29 Sep 2017 10:27
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-03|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 29 11:13:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
44)	4-Methyl-2-pentanone		10.897	10.885	0.863	0m	N.D.	d	
46)	Toluene		11.172	11.165	0.885	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		11.336	11.336	0.898	0m	N.D.	d	
48)	1,1,2-Trichloroethane		11.556	11.549	0.915	0m	N.D.	d	
49)	2-Hexanone		11.751	11.744	0.930	0m	N.D.	d	
50)	1,3-Dichloropropane		11.745	11.744	0.930	0m	N.D.	d	
51)	Tetrachloroethylene		11.757	11.757	0.931	0m	N.D.	d	
52)	Dibromochloromethane		12.013	12.007	0.951	0m	N.D.	d	
53)	1,2-Dibromoethane		12.171	12.171	0.964	0m	N.D.	d	
54)	Chlorobenzene		12.665	12.659	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		12.708	12.720	1.006	0m	N.D.	d	
56)	Ethylbenzene		12.726	12.726	1.008	0m	N.D.	d	
57)	m,p-Xylenes		12.836	12.842	1.016	0m	N.D.	d	
58)	o-Xylene		13.269	13.275	1.051	0m	N.D.	d	
59)	Styrene		13.281	13.281	1.052	0m	N.D.	d	
61)	Bromoform		13.537	13.531	0.899	0m	N.D.	d	
62)	Isopropylbenzene		13.634	13.634	0.906	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		13.927	13.921	0.925	0m	N.D.	d	
65)	1,2,3-Trichloropropane		14.000	14.006	0.930	0m	N.D.	d	
66)	Bromobenzene		14.037	14.037	0.932	0m	N.D.	d	
67)	n-Propylbenzene		14.067	14.067	0.934	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		14.226	14.226	0.945	0m	N.D.	d	
69)	2-Chlorotoluene		14.208	14.207	0.944	0m	N.D.	d	
70)	4-Chlorotoluene		14.311	14.311	0.951	0m	N.D.	d	
71)	tert-Butylbenzene		14.598	14.592	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		14.634	14.634	0.972	0m	N.D.	d	
73)	sec-Butylbenzene		14.817	14.817	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		14.592	14.592	0.969	0m	N.D.	d	
75)	1,3-Dichlorobenzene		14.994	14.994	0.996	0m	N.D.	d	
76)	1,4-Dichlorobenzene		15.079	15.079	1.002	0m	N.D.	d	
77)	n-Butylbenzene		15.372	15.372	1.021	0m	N.D.	d	
78)	1,2-Dichlorobenzene		15.488	15.488	1.029	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		16.305	16.305	1.083	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		17.280	17.280	1.148	0m	N.D.	d	
81)	Hexachlorobutadiene		17.439	17.439	1.158	0m	N.D.	d	
82)	Naphthalene		17.628	17.627	1.171	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		17.945	17.938	1.192	0m	N.D.	d	
85)	Acrolein	56	6.020	6.020	0.638	298660	267.46	ug/L	96
86)	Trichlorotrifluoroethane	85	6.179	6.178	0.655	782781	271.81	ug/L	98
87)	Isopropyl Alcohol	45	6.276	6.276	0.665	1398340	2643.41	ug/L	97
88)	Allyl chloride	41	6.605	6.605	0.700	3258716	250.53	ug/L	95
89)	tert-Butyl Alcohol	59	6.764	6.770	0.717	2300855	2634.40	ug/L	100
90)	Acrylonitrile	53	7.008	7.007	0.743	664256	254.04	ug/L	99
91)	Isopropyl ether	45	7.550	7.550	0.800	1447944	49.76	ug/L	97
92)	2-Chloro-1,3-butadiene	53	7.666	7.666	0.813	717014	53.51	ug/L	92
93)	Ethyl tert-butyl ether	59	7.959	7.958	0.844	1344710	50.07	ug/L	98
94)	Ethyl acetate	43	8.172	8.172	0.866	1644054	253.87	ug/L	97
95)	Propionitrile	54	8.233	8.239	0.873	255871	256.95	ug/L	100
96)	Methacrylonitrile	41	8.410	8.410	0.891	975913	254.11	ug/L	99
97)	Tetrahydrofuran	42	8.520	8.519	0.903	540382	247.59	ug/L	95
98)	Isobutyl alcohol	41	8.867	8.867	0.940	645588	2551.09	ug/L	97
99)	Methyl tert-amyl ether	73	9.209	9.208	0.976	1011434	50.01	ug/L	97
100)	Methyl methacrylate	69	10.062	10.062	1.067	1039213	252.32	ug/L	89
101)	1,4-Dioxane	88	10.166	10.165	1.078	171746	2516.43	ug/L	92
102)	2-Nitropropane	43	10.544	10.543	1.118	540935	270.52	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A504.D
Acq On : 29 Sep 2017 10:27
Operator : JP1
InstName : VOA6
Sample : |W6VM170929-03|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML N/A MIX[B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 29 11:13:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
104) Ethyl methacrylate	69	11.348	11.348	0.899	1992219	246.21	ug/L	92
106) 1-Chlorohexane	55	12.537	12.537	0.833	450855	51.09	ug/L	94
107) cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	759232	277.90	ug/L	93
108) Cyclohexanone	42	13.787	13.787	0.916	251654	1324.27	ug/L	90
109) trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	689970	272.38	ug/L	89
110) Pentachloroethane	167	14.659	14.652	0.974	1219608	268.34	ug/L	100
111) Benzyl chloride	91	15.195	15.195	1.009	3798272	302.26	ug/L	98
112) bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	1041704	257.40	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A504.D
Acq On    : 29 Sep 2017  10:27
Operator  : JP1
InstName  : VOA6
Sample    : |W6VM170929-03|CCV|1|VOAF|1|VOA8260BL|
Misc      : CCV 5ML N/A MIX[B]
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Sep 29 11:13:46 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE
```

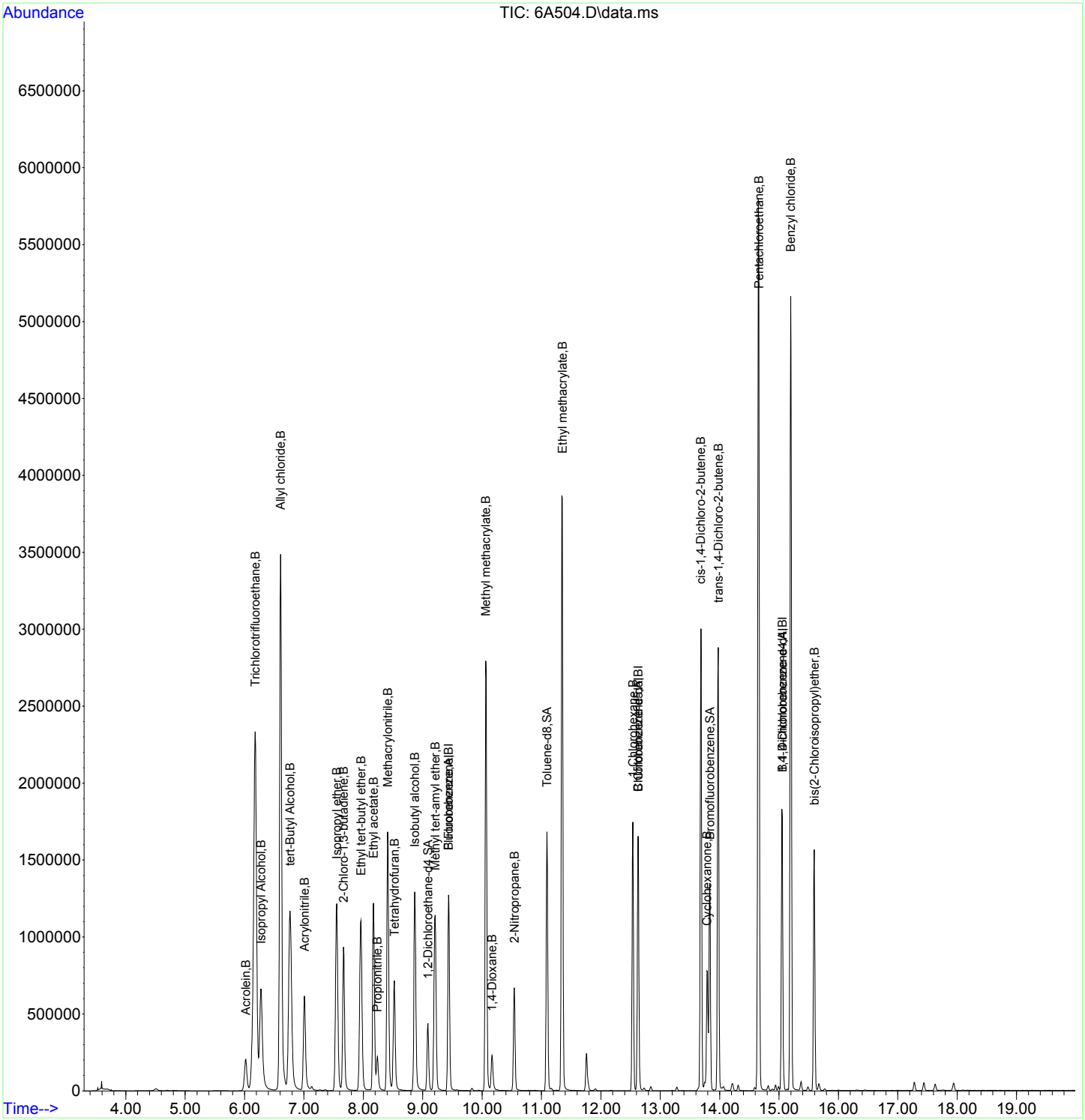

RY
09/07/2017

Calibration History Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

EH
09/09/2017

Cal Lvl:8 Amt:0.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I310.D

Injection Date	Mix	Calibration File
06 Sep 2017 16:17	A	C:\msdchem\1\DATA\090617V9\9I310.D

Cal Lvl:1 Amt:1.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I317.D

Injection Date	Mix	Calibration File
06 Sep 2017 16:45	A	C:\msdchem\1\DATA\090617V9\9I311.D
06 Sep 2017 19:37	B	C:\msdchem\1\DATA\090617V9\9I317.D

Cal Lvl:2 Amt:2.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I318.D

Injection Date	Mix	Calibration File
06 Sep 2017 17:13	A	C:\msdchem\1\DATA\090617V9\9I312.D
06 Sep 2017 20:05	B	C:\msdchem\1\DATA\090617V9\9I318.D

Cal Lvl:3 Amt:5.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I319.D

Injection Date	Mix	Calibration File
06 Sep 2017 17:42	A	C:\msdchem\1\DATA\090617V9\9I313.D
06 Sep 2017 20:34	B	C:\msdchem\1\DATA\090617V9\9I319.D

Cal Lvl:4 Amt:10.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I320.D

Injection Date	Mix	Calibration File
06 Sep 2017 18:10	A	C:\msdchem\1\DATA\090617V9\9I314.D
06 Sep 2017 21:02	B	C:\msdchem\1\DATA\090617V9\9I320.D

Cal Lvl:5 Amt:20.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I321.D

Injection Date	Mix	Calibration File
06 Sep 2017 18:39	A	C:\msdchem\1\DATA\090617V9\9I315.D
06 Sep 2017 21:30	B	C:\msdchem\1\DATA\090617V9\9I321.D

Cal Lvl:6 Amt:50.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I322.D

Injection Date	Mix	Calibration File
06 Sep 2017 14:21	A	C:\msdchem\1\DATA\090617V9\9I306.D
06 Sep 2017 21:58	B	C:\msdchem\1\DATA\090617V9\9I322.D

Cal Lvl:7 Amt:100.00 Last Updated with: C:\msdchem\1\DATA\090617V9\9I324.D

Injection Date	Mix	Calibration File
06 Sep 2017 15:18	A	C:\msdchem\1\DATA\090617V9\9I308.D
06 Sep 2017 22:53	B	C:\msdchem\1\DATA\090617V9\9I324.D

```
+--------------------+---+-------------------------------------------------------------+

 Cal Lvl:9 Amt:80.00  Last Updated with: C:\msdchem\1\DATA\090617V9\9I323.D
+--------------------+---+-------------------------------------------------------------+
|   Injection Date   |Mix| Calibration File                                            |
+--------------------+---+-------------------------------------------------------------+
|06 Sep 2017 14:50   |A  |C:\msdchem\1\DATA\090617V9\9I307.D                           |
|06 Sep 2017 22:26   |B  |C:\msdchem\1\DATA\090617V9\9I323.D                           |
+--------------------+---+-------------------------------------------------------------+


VOA9-8260-090617.M Thu Sep 07 10:05:46 2017
```

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

RY 09/07/2017
EH 09/09/2017

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
2)MA Dichlorodifluoromethane		0.2364453	0.2307865	0.2145219	0.2284599	0.2057011				
	0.2200513	0.2084922	0.1919739				0.2171	AVRG		6.8364
3)MPA Chloromethane		0.3189642	0.2930119	0.2984675	0.2941989	0.2714921				
	0.2889855	0.2948998	0.2711754				0.2914	AVRG		5.2585
4)MCA Vinyl chloride		0.2831211	0.2647378	0.2684858	0.2818733	0.2583186				
	0.2826348	0.2812510	0.2612610				0.2727	AVRG		3.8792
5)MA Bromomethane		0.2456451	0.2197869	0.2215351	0.2222620	0.2125814				
	0.2252266	0.2262048	0.2173807				0.2238	AVRG		4.3894
6)MA Chloroethane		0.2501454	0.2267527	0.2363011	0.2395997	0.2183622				
	0.2365301	0.2331175	0.2216367				0.2328	AVRG		4.4254
7)MA Trichlorofluoromethane		0.3662772	0.3328645	0.3411341	0.3655156	0.3376404				
	0.3779928	0.3718702	0.3466665				0.3550	AVRG		4.8838
8)MA Ethyl ether		0.2207142	0.2121675	0.2133936	0.2235843	0.2131631				
	0.2181552	0.2163966	0.2017307				0.2149	AVRG		3.0877
9)MA Acetone		17382	27877	62098	121302	248438				
0.0078 | 0.0907 | 0.00	616531	1123293	901623					LINR	#	0.9973
10)MCA 1,1-Dichloroethylene		0.4517432	0.4302550	0.4462033	0.4461154	0.4135921				
	0.4073544	0.3789652	0.3928893				0.4209	AVRG		6.4099
11)MA Iodomethane		0.4583065	0.4384907	0.4460921	0.4296818	0.4016461				
	0.3797464	0.3381726	0.3542753				0.4058	AVRG		10.9983
12)MA Acetonitrile		27047	45313	105403	205292	410658		1/x		
0.0107 | 0.0264 | 0.00	884126	1599018	1261924					LINR	#	0.9947
13)MA Methyl acetate		25667	45006	103584	204125	407682		1/x		
0.0109 | 0.1276 | 0.00	846553	1531627	1227947					LINR	#	0.9938
14)MA Carbon disulfide		129446	254821	623867	1165490	2130874		1/x		
0.0582 | 0.7068 | 0.00	4486952		6650837					LINR	#	0.9911
15)MA Methylene chloride		14995	21746	44390	79617	155185		1/x		
0.0070 | 0.2584 | 0.00	332962	633801	521861					LINR	#	0.9989
16)MA tert-Butyl methyl ether		0.7832923	0.7438094	0.7467367	0.7327044	0.7382328				
	0.6997455	0.6590016	0.6551358				0.7198	AVRG		6.2392

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
17)MA trans-1,2-Dichloroethyle		0.4341004	0.4224675	0.4127150	0.4049730	0.3789919				
	0.3634848	0.3388556	0.3536699				0.3887	AVRG		8.9578
18)MA Hexane				0.4563040	0.4199626	0.4045760				
	0.4056381	0.4085673	0.4085378				0.4173	AVRG		4.7683
19)MA Vinyl acetate		72402	129391	302672	594408	1124769		1/x		
0.0302 | 0.3686 | 0.00	2464076	4479619	3500584					LINR	#	0.9943
20)MPA 1,1-Dichloroethane		0.5173760	0.5001558	0.4941374	0.4868288	0.4578200				
	0.4388517	0.4141769	0.4274307				0.4671	AVRG		8.0914
21)MA 2-Butanone		22797	38035	79149	156494	331480				
0.0076 | 0.1194 | 0.00	785368	1497688	1166129					LINR	#	0.9983
22)MA cis-1,2-Dichloroethylene		0.4771918	0.4498078	0.4577066	0.4482763	0.4229224				
	0.4012516	0.3760021	0.3841781				0.4272	AVRG		8.6463
23)MA 2,2-Dichloropropane		0.4121564	0.3898421	0.3996795	0.3937161	0.3733122				
	0.3829071	0.3618210	0.3636695				0.3846	AVRG		4.5928
24)MA Bromochloromethane		0.1184417	0.1236290	0.1254077	0.1218827	0.1213971				
	0.1150355	0.1117323	0.1106717				0.1185	AVRG		4.6535
25)MCA Chloroform		0.4676336	0.4400967	0.4392663	0.4354788	0.4132349				
	0.3890460	0.3682944	0.3711088				0.4155	AVRG		8.7204
26)MA 1,1,1-Trichloroethane		0.3947924	0.3854721	0.3971487	0.3902369	0.3765457				
	0.3706908	0.3458387	0.3522444				0.3766	AVRG		5.1096
27)MA Cyclohexane		0.6297243	0.5809254	0.5700179	0.5736617	0.5184269				
	0.5068091	0.4772539	0.4806378				0.5422	AVRG		10.0417
28)MA 1,1-Dichloropropene		0.3811322	0.3557975	0.3535064	0.3504479	0.3279323				
	0.3187805	0.3063516	0.3107687				0.3381	AVRG		7.7343
29)MA Carbon tetrachloride		0.3170128	0.3036753	0.3168773	0.3112791	0.3018040				
	0.3019175	0.2886691	0.2939154				0.3044	AVRG		3.3615
30)SA 1,2-Dichloroethane-d4		0.2473958	0.2405932	0.2388685	0.2393571	0.2381128				
	0.2408944	0.2434439	0.2389952				0.2410	AVRG		1.2805
31)MA 1,2-Dichloroethane		0.3223096	0.2962613	0.2915076	0.2917806	0.2860178				
	0.2639808	0.2535008	0.2512329				0.2821	AVRG		8.5944

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
32)MA Benzene		1.1617960	1.1012503	1.0902949	1.0659005	1.0084121				
	0.9364077	0.8783770	0.8979493				1.0175	AVRG		10.2255
33)MA Cyclohexene		0.5834867	0.5570027	0.5431007	0.5445484	0.5007612				
	0.4891500	0.4591634	0.4702704				0.5184	AVRG		8.6300
34)MA n-Butyl alcohol	11396	19477	30979	66346	134089	277572		1/x		
0.0053 | 0.0043 | 0.00	587313	1052614	821180					LINR	# #	0.9948
35)MA Trichloroethylene		0.2733239	0.2560539	0.2590713	0.2581310	0.2457304				
	0.2322389	0.2217692	0.2259362				0.2465	AVRG		7.4203
36)MA 2-Pentanone			0.1653976	0.1650022	0.1592666	0.1660102				
	0.1664373	0.1475424	0.1383220				0.1583	AVRG		7.0008
37)MCA 1,2-Dichloropropane		0.2742399	0.2795098	0.2759184	0.2633810	0.2535889				
	0.2296623	0.2129475	0.2154932				0.2506	AVRG		10.9769
38)MA Methylcyclohexane		0.5745657	0.5341444	0.5343646	0.5368410	0.4936189				
	0.4882192	0.4554540	0.4658972				0.5104	AVRG		8.0196
39)MA Dibromomethane		0.1336551	0.1366455	0.1330537	0.1330654	0.1363511				
	0.1272781	0.1238233	0.1222214				0.1308	AVRG		4.2678
40)MA Bromodichloromethane		0.3020781	0.3042729	0.3037732	0.3019102	0.3111025				
	0.2904777	0.2815077	0.2817341				0.2971	AVRG		3.7373
41)MA 2-Chloroethylvinyl ether		0.1629111	0.1468869	0.1470787	0.1515273	0.1454753				
	0.1399447	0.1255774	0.1188458				0.1423	AVRG		9.9368
42)MA cis-1,3-Dichloropropylen		0.3982971	0.3949404	0.3985513	0.4047819	0.4126346				
	0.3900786	0.3633221	0.3661556				0.3911	AVRG		4.4997
44)MA 4-Methyl-2-pentanone		0.1505005	0.1302239	0.1206055	0.1219143	0.1203576				
	0.1126159	0.1061070	0.1021795				0.1206	AVRG		12.5460
45)SA Toluene-d8		1.1220967	1.1337518	1.1152551	1.1224277	1.0998037				
	1.1164848	1.1458147	1.1278850				1.1229	AVRG		1.2143
46)MCA Toluene		1.5302540	1.4843097	1.4093491	1.3810579	1.2835934				
	1.1767210	1.0835529	1.1127696				1.3077	AVRG		13.0035
47)MA trans-1,3-Dichloropropyl		0.4535784	0.4358488	0.4243530	0.4355828	0.4351984				
	0.4260076	0.4075526	0.4114188				0.4287	AVRG		3.4505

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
48)MA 1,1,2-Trichloroethane		0.2404150	0.2393132	0.2268377	0.2315809	0.2300549				
	0.2101605	0.2010757	0.2021658				0.2227	AVRG		7.1733
49)MA 2-Hexanone		31895	54721	120597	223924	471059		1/x		
0.0176 | 0.1956 | 0.00	1040312	1755133	1432531					LINR	#	0.9953
50)MA 1,3-Dichloropropane		0.4860484	0.4938319	0.4585476	0.4549541	0.4406007				
	0.4019296	0.3814406	0.3827523				0.4375	AVRG		10.1089
51)MA Tetrachloroethylene		0.2951818	0.2760680	0.2657948	0.2645806	0.2451808				
	0.2409178	0.2328672	0.2384208				0.2574	AVRG		8.4118
52)MA Dibromochloromethane		0.2544889	0.2477552	0.2469440	0.2625607	0.2787159				
	0.2734221	0.2739846	0.2712164				0.2636	AVRG		4.7622
53)MA 1,2-Dibromoethane		0.2785251	0.2677741	0.2593385	0.2616760	0.2684803				
	0.2553340	0.2434983	0.2410679				0.2595	AVRG		4.8946
54)MPA Chlorobenzene		0.9405757	0.9105504	0.8624058	0.8710276	0.8431427				
	0.7952760	0.7532166	0.7699787				0.8433	AVRG		7.8809
55)MA 1,1,1,2-Tetrachloroethan		0.2888565	0.2945318	0.2962431	0.2942410	0.2926608				
	0.2803420	0.2806418	0.2817610				0.2887	AVRG		2.3432
56)MCA Ethylbenzene		1.8471000	1.7404823	1.6193984	1.5676420	1.4572518				
	1.3196605		1.2325965				1.5406	AVRG		14.3064
57)MA m,p-Xylenes		0.7034815	0.6677567	0.6329527	0.6282089	0.4779419				
	0.5562407	0.5116905	0.5306721				0.5886	AVRG		13.7063
58)MA o-Xylene		0.7178716	0.6825179	0.6660762	0.6418502	0.6122711				
	0.5736681	0.5407438	0.5542463				0.6237	AVRG		10.2836
59)MA Styrene		1.1984908	1.1426065	1.1114023	1.0723140	1.0167416				
	0.9043649	0.8083237	0.8379035				1.0115	AVRG		14.4116
61)MPA Bromoform		0.2828270	0.2665116	0.2712544	0.2920825	0.3283367				
	0.3427076	0.3422946	0.3386528				0.3081	AVRG		10.7601
62)MA Isopropylbenzene		3.4117921	3.2391037	3.0742160	3.0223606	2.8037336				
	2.5928035	2.3116311	2.4674003				2.8654	AVRG		13.5140
63)SA Bromofluorobenzene		0.8718850	0.8900852	0.8775679	0.8799867	0.8906530				
	0.8960256	0.8706662	0.8792938				0.8820	AVRG		1.0486

Response Factor Report VOA9
GEL Laboratories, LLC

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Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
64)MPA 1,1,2,2-Tetrachloroethan		0.7521898	0.6653015	0.6621254	0.6842535	0.6974762				
	0.6604307	0.6154064	0.6207329				0.6697	AVRG		6.5074
65)MA 1,2,3-Trichloropropane		0.1982677	0.1748941	0.1693902	0.1731432	0.1806501				
	0.1724844	0.1677081	0.1654387				0.1752	AVRG		5.9405
66)MA Bromobenzene		0.8214075	0.7735568	0.7277875	0.7234933	0.7017953				
	0.6616438	0.6118368	0.6370196				0.7073	AVRG		9.8907
67)MA n-Propylbenzene		4.2624389	3.9381155	3.6666376	3.5483712	3.2552820				
	3.0182011		2.8052293				3.4992	AVRG		14.6563
68)MA 1,3,5-Trimethylbenzene		2.9177925	2.7326231	2.5816725	2.5118785	2.3318330				
	2.1621792	1.9140876	2.0450285				2.3996	AVRG		14.5010
69)MA 2-Chlorotoluene		0.8076903	0.7493167	0.7088850	0.7052797	0.6811952				
	0.6579740	0.6116042	0.6416660				0.6955	AVRG		8.9809
70)MA 4-Chlorotoluene		2.5880382	2.3873527	2.2698955	2.2190951	2.0873363				
	1.9609892	1.7543578	1.8557254				2.1403	AVRG		13.0891
71)MA tert-Butylbenzene		0.5976908	0.5592181	0.5294948	0.5295696	0.5044455				
	0.5010157	0.4930924	0.5096641				0.5280	AVRG		6.6666
72)MA 1,2,4-Trimethylbenzene		3.0788793	2.8256306	2.6579791	2.5431538	2.3731186				
	2.1930871		2.0765239				2.5355	AVRG		13.9328
73)MA sec-Butylbenzene		4.0865519	3.7664360	3.4843554	3.4511409	3.1636412				
	2.9538033		2.8014813				3.3868	AVRG		13.3542
74)MA 4-Isopropyltoluene		3.5248687	3.1485723	2.9617422	2.9174206	2.6736054				
	2.5479130	2.2754573	2.4152621				2.8081	AVRG		14.6770
75)MA 1,3-Dichlorobenzene		1.8251996	1.6122320	1.4937631	1.4384760	1.3719600				
	1.2888181	1.1831363	1.2312372				1.4306	AVRG		14.8816
76)MA 1,4-Dichlorobenzene		1.7010228	1.4825167	1.3727875	1.3394889	1.2911275				
	1.2498244	1.1601046	1.1972248				1.3493	AVRG		12.9679
77)MA n-Butylbenzene		41749	73773	165921	315611	596617		1/x		
0.0441 | 2.2375 | 0.00	1271268	2251274	1871256					LINR	#	0.9948
78)MA 1,2-Dichlorobenzene		1.6859520	1.5192679	1.4299652	1.3864657	1.3362238				
	1.2432194	1.1611884	1.1962902				1.3698	AVRG		12.8523

Response Factor Report VOA9
GEL Laboratories, LLC

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Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
79)MA 1,2-Dibromo-3-chloroprop		0.1402403	0.1232426	0.1236237	0.1307540	0.1433205				
	0.1529296	0.1618372	0.1485150				0.1406	AVRG		9.9153
80)MA 1,2,4-Trichlorobenzene		19585	29096	61677	117117	237925				
0.0184 | 0.9645 | 0.00	529278	1026225	812836					LINR	#	0.9998
81)MA Hexachlorobutadiene		12995	18692	37835	71870	140992				
0.0090 | 0.5989 | 0.00	322960	634959	508409					LINR	#	0.9997
82)MA Naphthalene		43566	64663	135586	260599	542916				
0.0483 | 2.1130 | 0.00	1176366	2273723	1747712					LINR		0.9994
83)MA 1,2,3-Trichlorobenzene		18600	27329	57026	107510	216991				
0.0172 | 0.8807 | 0.00	482693	940945	738511					LINR	#	0.9999
85)B Acrolein		0.0402616	0.0423747	0.0378037	0.0427657	0.0426910				
	0.0405333	0.0365652	0.0395428				0.0403	AVRG		5.6953
86)B Trichlorotrifluoroethane		0.1196043	0.1264738	0.1227268	0.1152551	0.1091714				
	0.0978493	0.0917762	0.0955852				0.1098	AVRG		12.1265
87)B Isopropyl Alcohol		0.0173837	0.0198617	0.0171931	0.0177013	0.0180110				
	0.0156348	0.0155034	0.0151157				0.0171	AVRG		9.2789
88)B Allyl chloride		67418	134739	324504	589765	1070946				
0.1172 | 0.3004 | 0.00	2338652	4019941	2696994					LINR	#	0.9916
89)B tert-Butyl Alcohol		0.0266052	0.0307774	0.0270701	0.0277475	0.0278908				
	0.0235561	0.0236210	0.0227895				0.0263	AVRG		10.4174
90)B Acrylonitrile		0.0836386	0.0943906	0.0890542	0.0889743	0.0901732				
	0.0786286	0.0774618	0.0763844				0.0848	AVRG		7.9754
91)B Isopropyl ether		0.9333230	0.9898886	0.9719332	0.9511496	0.8912185				
	0.8040043	0.7540366	0.7805170				0.8845	AVRG		10.4614
92)B 2-Chloro-1,3-butadiene		0.4128138	0.4386829	0.4432020	0.4327449	0.4168635				
	0.3754524	0.3520403	0.3696837				0.4052	AVRG		8.5952
93)B Ethyl tert-butyl ether		0.8355641	0.9231648	0.9025349	0.8770789	0.8252200				
	0.7481499	0.7202177	0.7295610				0.8202	AVRG		9.6971
94)B Ethyl acetate		0.2418608	0.2331436	0.2167282	0.2149257	0.2086945				
	0.1730929		0.1627056				0.2073	AVRG		14.1599

Response Factor Report VOA9
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2 9	3	4	5	Avg	Curve	Exp	%RSD/r2
95)B Propionitrile		0.0274487	0.0329614	0.0317578	0.0324106	0.0337137				
	0.0293988	0.0298191	0.0285516				0.0308	AVRG		7.3598
96)B Methacrylonitrile		0.1300713	0.1523476	0.1364141	0.1353648	0.1303516				
	0.1077370	0.1019840	0.1032736				0.1247	AVRG		14.6596
97)B Tetrahydrofuran		0.0822191	0.0841064	0.0744912	0.0729343	0.0724521				
	0.0597691	0.0589373	0.0574176				0.0703	AVRG		14.8995
98)B Isobutyl alcohol		13421	28497	57970	112946	218042		1/x		
0.0067 | 0.0066 | 0.00	451979	854921	519052					LINR	# #	0.9912
99)B Methyl tert-amyl ether		0.7082945	0.7817994	0.7549879	0.7451375	0.7057112				
	0.6428641	0.6341448	0.6313906				0.7005	AVRG		8.3862
100)B Methyl methacrylate		0.1555327	0.1698773	0.1577225	0.1591684	0.1495817				
	0.1305309	0.1199068	0.1231960				0.1457	AVRG		12.7730
101)B 1,4-Dioxane		0.0022690	0.0025411	0.0024602	0.0025208	0.0025520				
	0.0023177	0.0023032	0.0022078				0.0024	AVRG	#	5.7168
102)B 2-Nitropropane		0.0570939	0.0552271	0.0516498	0.0558993	0.0589285				
	0.0548866	0.0551946	0.0534038				0.0553	AVRG		3.9775
104)B Ethyl methacrylate		0.4089340	0.4434882	0.4239870	0.4084459	0.3850531				
	0.3200907		0.2998965				0.3843	AVRG		14.0604
106)B 1-Chlorohexane		0.6891137	0.7041581	0.6705398	0.6692567	0.6214615				
	0.5577004	0.4801515	0.5304273				0.6154	AVRG		13.4754
107)B cis-1,4-Dichloro-2-buten		0.1693310	0.1994248	0.1917106	0.1961572	0.1910395				
	0.1652036	0.1527037	0.1584406				0.1780	AVRG		10.4199
108)B Cyclohexanone		0.0140895	0.0152050	0.0138491	0.0152377	0.0158937				
	0.0137119	0.0118201	0.0129296				0.0141	AVRG		9.4879
109)B trans-1,4-Dichloro-2-but		0.1594289	0.1760332	0.1721621	0.1752340	0.1698530				
	0.1467951	0.1370834	0.1412443				0.1597	AVRG		9.9979
110)B Pentachloroethane		0.3539184	0.3877160	0.3954343	0.3945066	0.3751367				
	0.3367363	0.3037864	0.3298514				0.3596	AVRG		9.4526
111)B Benzyl chloride		1.0232622	1.1692685	1.1419344	1.1236494	1.0479790				
	0.8724564		0.8191392				1.0282	AVRG		13.1876

Response Factor Report VOA9
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Last Update : Thu Sep 07 09:55:18 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r2
b m1 m2	6	7	9							
112)B bis(2-Chloroisopropyl)et		0.3632370	0.3986298	0.3612353	0.3636612	0.3606682				
	0.2901241	0.2797618	0.2776680				0.3369	AVRG		13.8956

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I306.D
Acq On : 06 Sep 2017 14:21
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[A]0726-07+0829-07B+0608-07C
ALS Vial : 6 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1218293	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	955936	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	526726	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	293480	49.99	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1067288	49.71	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	471960	50.79	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	268087	50.69	ug/L	100
3) Chloromethane	50	4.998	4.998	0.478	352069	49.59	ug/L	100
4) Vinyl chloride	62	5.259	5.259	0.503	344332	51.82	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	274392	50.31	ug/L	100
6) Chloroethane	64	6.006	6.006	0.575	288163	50.80	ug/L	100
7) Trichlorofluoromethane	101	6.445	6.445	0.617	460506	53.24	ug/L	100
8) Ethyl ether	59	6.754	6.754	0.646	265777	50.75	ug/L	100
9) Acetone	43	7.145	7.145	0.683	616531	274.54	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	496277	48.39	ug/L	100
11) Iodomethane	142	7.418	7.418	0.710	2313212	233.95	ug/L	100
12) Acetonitrile	41	7.512	7.512	0.719	884126	1353.09	ug/L	100
13) Methyl acetate	43	7.548	7.548	0.722	846553	267.93	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	4486952	256.42	ug/L	100
15) Methylene chloride	84	7.738	7.738	0.740	332962	51.52	ug/L	100
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	852495	48.60	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	442831	46.76	ug/L	100
18) Hexane	57	8.354	8.354	0.799	494186	48.61	ug/L	100
19) Vinyl acetate	43	8.520	8.520	0.815	2464076	270.25	ug/L	100
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	534650	46.98	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	785368	266.79	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	488842	46.97	ug/L	100
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	466493	49.77	ug/L	100
24) Bromochloromethane	128	9.493	9.493	0.908	140147	48.53	ug/L	100
25) Chloroform	83	9.528	9.528	0.912	473972	46.81	ug/L	100
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	451610	49.21	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	617442	46.74	ug/L	100
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	388368	47.14	ug/L	100
29) Carbon tetrachloride	117	9.991	9.991	0.956	367824	49.59	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	321606	46.79	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1140819	46.01	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	595928	47.18	ug/L	100
34) n-Butyl alcohol	41	10.536	10.536	1.008	587313	5561.30	ug/L	100
35) Trichloroethylene	95	10.833	10.833	1.036	282935	47.10	ug/L	100
36) 2-Pentanone	43	10.916	10.916	1.044	1013847	262.88	ug/L	100
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	279796	45.82	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	594794	47.83	ug/L	100
39) Dibromomethane	93	11.224	11.224	1.074	155062	48.67	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I306.D
Acq On : 06 Sep 2017 14:21
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[A]0726-07+0829-07B+0608-07C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 09:55:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	353887	48.88	ug/L	100
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	852468	245.90	ug/L	100
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	475230	49.87	ug/L	100
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	538268	233.52	ug/L	100
46) Toluene	91	12.173	12.173	0.893	1124870	44.99	ug/L	100
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.903	407236	49.69	ug/L	100
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.920	200900	47.18	ug/L	100
49) 2-Hexanone	43	12.718	12.718	0.933	1040312	273.77	ug/L	100
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	384219	45.93	ug/L	100
51) Tetrachloroethylene	164	12.766	12.766	0.936	230302	46.80	ug/L	100
52) Dibromochloromethane	129	13.003	13.003	0.954	261374	51.86	ug/L	100
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	244083	49.20	ug/L	100
54) Chlorobenzene	112	13.655	13.655	1.002	760233	47.15	ug/L	100
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	267989	48.56	ug/L	100
56) Ethylbenzene	91	13.714	13.714	1.006	1261511	42.83	ug/L	100
57) m,p-Xylenes	106	13.821	13.821	1.014	1063461	94.50	ug/L	100
58) o-Xylene	106	14.260	14.260	1.046	548390	45.99	ug/L	100
59) Styrene	104	14.260	14.260	1.046	864515	44.70	ug/L	100
61) Bromoform	173	14.533	14.533	0.905	180513	55.62	ug/L	100
62) Isopropylbenzene	105	14.616	14.616	0.911	1365697	45.24	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	347866	49.31	ug/L	100
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	90852	49.21	ug/L	100
66) Bromobenzene	156	15.031	15.031	0.936	348505	46.77	ug/L	100
67) n-Propylbenzene	91	15.043	15.043	0.937	1589765	43.13	ug/L	100
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.946	1138876	45.05	ug/L	100
69) 2-Chlorotoluene	126	15.197	15.197	0.947	346572	47.31	ug/L	100
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1032904	45.81	ug/L	100
71) tert-Butylbenzene	134	15.564	15.564	0.970	263898	47.44	ug/L	100
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.972	1155156	43.25	ug/L	100
73) sec-Butylbenzene	105	15.790	15.790	0.984	1555845	43.61	ug/L	100
74) 4-Isopropyltoluene	119	15.908	15.908	0.991	1342052	45.37	ug/L	100
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.996	678854	45.04	ug/L	100
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	658315	46.32	ug/L	100
77) n-Butylbenzene	91	16.359	16.359	1.019	1271268	52.95	ug/L	100
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.029	654836	45.38	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.085	80552	54.40	ug/L	100
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.153	529278	51.14	ug/L	100
81) Hexachlorobutadiene	225	18.683	18.683	1.164	322960	50.44	ug/L	100
82) Naphthalene	128	18.908	18.908	1.178	1176366	51.70	ug/L	100
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.201	482693	51.05	ug/L	100
85) Acrolein		6.979	6.979	0.668	0m	N.D.	d	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d	
88) Allyl chloride		7.512	7.596	0.719	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d	
96) Methacrylonitrile		9.505	9.422	0.909	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I306.D
Acq On : 06 Sep 2017 14:21
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[A]0726-07+0829-07B+0608-07C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 09:55:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

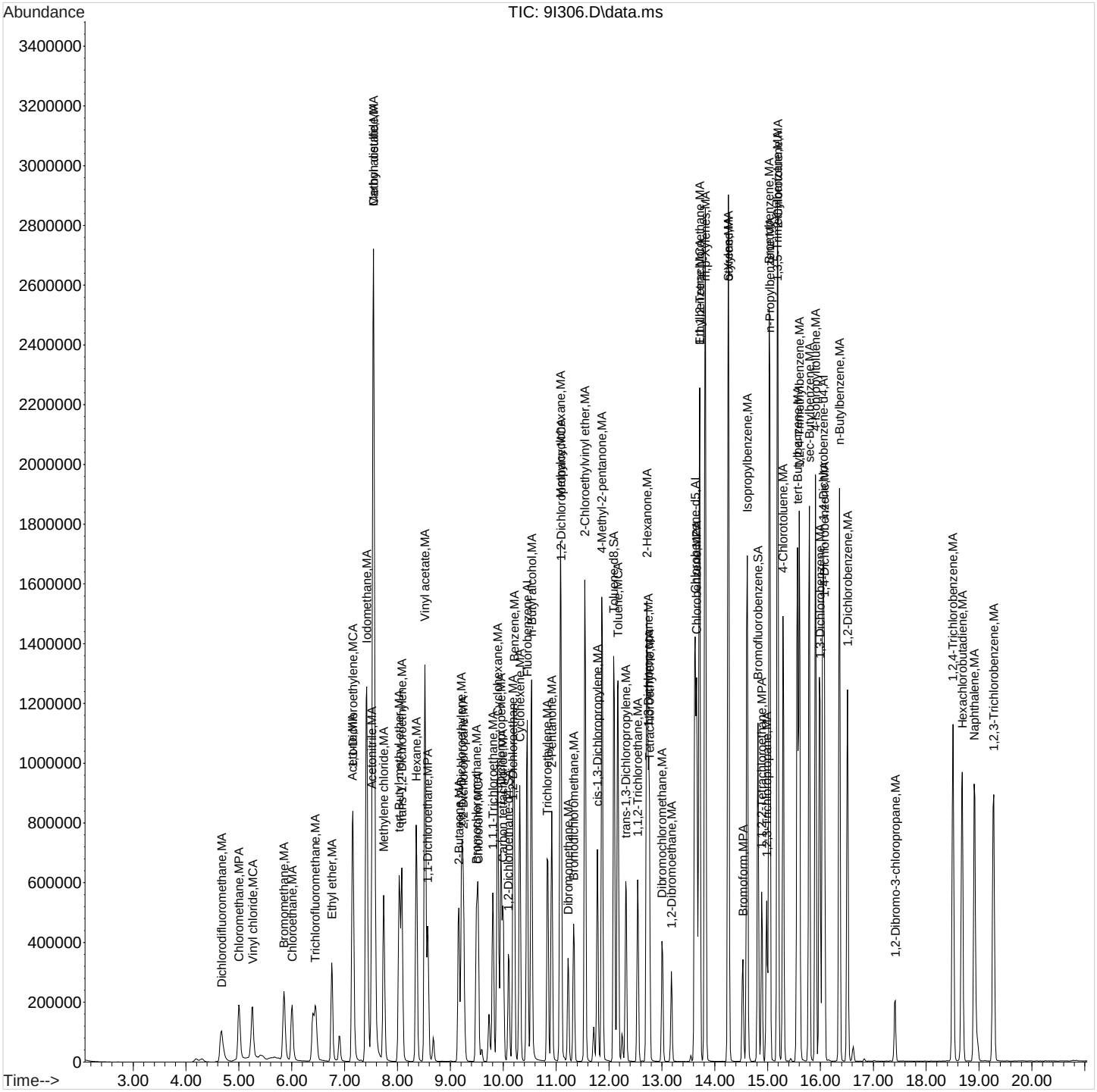
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		12.256	12.304	0.899	0m	N.D.	d
106) 1-Chlorohexane		13.489	13.513	0.840	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.910	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		14.936	14.936	0.931	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.974	0m	N.D.	d
111) Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112) bis(2-Chloroisopropyl)...		16.620	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I306.D
Acq On : 06 Sep 2017 14:21
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-01|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[A]0726-07+0829-07B+0608-07C
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 07 09:55:36 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



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09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I307.D
Acq On : 06 Sep 2017 14:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-02|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5mL n/a MIX[A]0726-08+0829-08B+0608-08C
ALS Vial : 7 Sample Multiplier: 1

GEL
09/09/2017

Quant Time: Sep 07 09:55:41 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1248682	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	938750	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	518946	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	298429	49.59	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1058802	50.22	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	456306	49.85	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	383543	70.76	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	541779	74.45	ug/L	100
4) Vinyl chloride	62	5.260	5.259	0.503	521971	76.64	ug/L	100
5) Bromomethane	94	5.864	5.852	0.561	434303	77.70	ug/L	100
6) Chloroethane	64	6.018	6.006	0.576	442806	76.16	ug/L	100
7) Trichlorofluoromethane	101	6.457	6.445	0.618	692602	78.12	ug/L	99
8) Ethyl ether	59	6.766	6.754	0.647	403036	75.09	ug/L	100
9) Acetone	43	7.157	7.145	0.685	901623	393.55	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	784950	74.68	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	3539018	349.21	ug/L	99
12) Acetonitrile	41	7.524	7.512	0.720	1261924	1892.22	ug/L	100
13) Methyl acetate	43	7.548	7.548	0.722	1227947	380.95	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	6650837	372.67	ug/L	98
15) Methylene chloride	84	7.750	7.738	0.741	521861	79.50	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	1308890	72.81	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	706594	72.80	ug/L	99
18) Hexane	57	8.366	8.354	0.800	816214	78.33	ug/L	98
19) Vinyl acetate	43	8.521	8.520	0.815	3500584	376.17	ug/L	99
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	853960	73.21	ug/L	99
21) 2-Butanone	43	9.161	9.161	0.876	1166129	387.93	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	767546	71.95	ug/L	98
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	726572	75.64	ug/L	99
24) Bromochloromethane	128	9.493	9.493	0.908	221110	74.70	ug/L	98
25) Chloroform	83	9.529	9.528	0.912	741435	71.45	ug/L	99
26) 1,1,1-Trichloroethane	97	9.813	9.801	0.939	703746	74.82	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	960262	70.92	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	620882	73.54	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	587211	77.25	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	501936	71.25	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1794005	70.60	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	939549	72.57	ug/L	100
34) n-Butyl alcohol	41	10.537	10.536	1.008	821180	7609.15	ug/L	97
35) Trichloroethylene	95	10.845	10.833	1.037	451396	73.32	ug/L	100
36) 2-Pentanone	43	10.916	10.916	1.044	1381762	349.56	ug/L	99
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	430532	68.79	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	930812	73.03	ug/L	98
39) Dibromomethane	93	11.224	11.224	1.074	244185	74.78	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I307.D
Acq On : 06 Sep 2017 14:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-02|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5mL n/a MIX[A]0726-08+0829-08B+0608-08C
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 07 09:55:41 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	562874	75.86	ug/L	99
41) 2-Chloroethylvinyl ether	63	11.545	11.544	1.104	1187205	334.12	ug/L	99
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	731539	74.90	ug/L	99
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	767368	339.01	ug/L	97
46) Toluene	91	12.173	12.173	0.893	1671380	68.07	ug/L	98
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.903	617951	76.78	ug/L	99
48) 1,1,2-Trichloroethane	83	12.541	12.540	0.920	303653	72.62	ug/L	99
49) 2-Hexanone	43	12.719	12.718	0.933	1432531	385.69	ug/L	99
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	574894	69.99	ug/L	96
51) Tetrachloroethylene	164	12.766	12.766	0.936	358108	74.11	ug/L	99
52) Dibromochloromethane	129	13.003	13.003	0.954	407367	82.30	ug/L	99
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	362084	74.33	ug/L	98
54) Chlorobenzene	112	13.655	13.655	1.002	1156508	73.05	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.006	423205	78.09	ug/L	100
56) Ethylbenzene	91	13.715	13.714	1.006	1851360	64.01	ug/L	99
57) m,p-Xylenes	106	13.821	13.821	1.014	1594139	144.25	ug/L	95
58) o-Xylene	106	14.260	14.260	1.046	832478	71.10	ug/L	97
59) Styrene	104	14.260	14.260	1.046	1258531	66.27	ug/L	98
61) Bromoform	173	14.533	14.533	0.906	281188	87.94	ug/L	99
62) Isopropylbenzene	105	14.616	14.616	0.911	2048716	68.89	ug/L	97
64) 1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	515403	74.15	ug/L	99
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	137366	75.52	ug/L	96
66) Bromobenzene	156	15.031	15.031	0.937	528926	72.05	ug/L	98
67) n-Propylbenzene	91	15.043	15.043	0.938	2329220	64.13	ug/L	98
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1698015	68.18	ug/L	99
69) 2-Chlorotoluene	126	15.197	15.197	0.948	532784	73.81	ug/L	95
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1540834	69.36	ug/L	98
71) tert-Butylbenzene	134	15.565	15.564	0.970	423181	77.22	ug/L	94
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1724166	65.52	ug/L	98
73) sec-Butylbenzene	105	15.790	15.790	0.984	2326108	66.17	ug/L	98
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	2005425	68.81	ug/L	98
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	1022313	68.85	ug/L	99
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	994072	70.99	ug/L	99
77) n-Butylbenzene	91	16.359	16.359	1.020	1871256	79.59	ug/L	98
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	993296	69.87	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	123314	84.53	ug/L	99
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	812836	80.24	ug/L	98
81) Hexachlorobutadiene	225	18.683	18.683	1.165	508409	81.04	ug/L	100
82) Naphthalene	128	18.909	18.908	1.179	1747712	78.55	ug/L	100
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	738511	79.81	ug/L	99
85) Acrolein		6.908	6.979	0.661	0m	N.D.	d	
86) Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87) Isopropyl Alcohol		7.157	7.228	0.685	0m	N.D.	d	
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.687	8.675	0.831	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d	
96) Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I307.D
Acq On : 06 Sep 2017 14:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-02|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5mL n/a MIX[A]0726-08+0829-08B+0608-08C
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 07 09:55:41 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

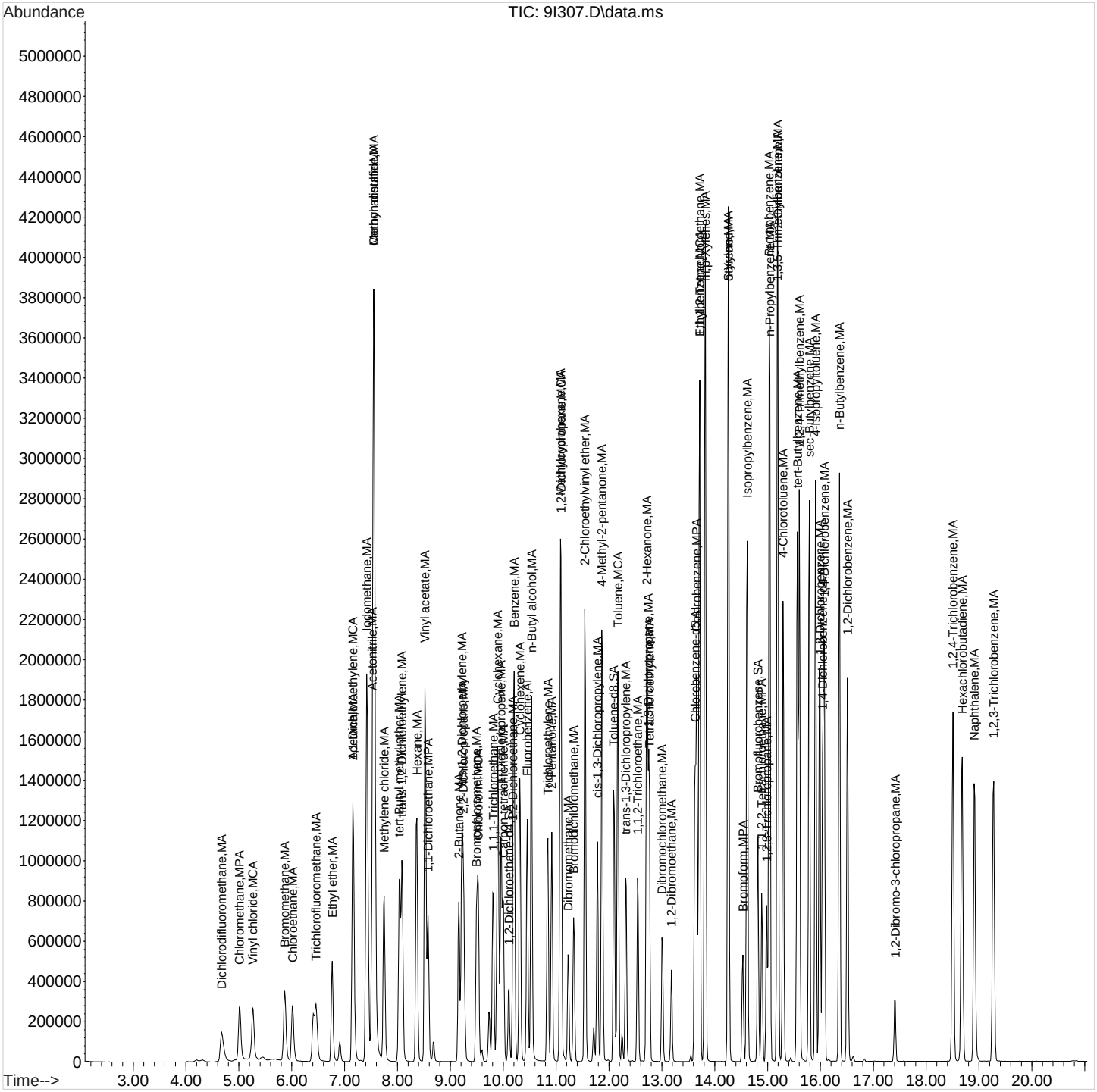
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.529	9.540	0.912	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.545	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		12.244	12.304	0.898	0m	N.D.	d
106) 1-Chlorohexane		13.549	13.513	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		15.648	15.636	0.976	0m	N.D.	d
111) Benzyl chloride		16.157	16.193	1.007	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I307.D
Acq On : 06 Sep 2017 14:50
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-02|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL80 5mL n/a MIX[A]0726-08+0829-08B+0608-08C
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 07 09:55:41 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I308.D
Acq On : 06 Sep 2017 15:18
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[A]0726-08+0829-08B+0608-0C
ALS Vial : 8 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:43 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1242783	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	932828	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	531006	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	302548	50.52	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1068848	51.02	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	462329	49.36	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	518221	96.06	ug/L	100	
3) Chloromethane	50	5.010	4.998	0.479	732993	101.20	ug/L	99	A
4) Vinyl chloride	62	5.259	5.259	0.503	699068	103.13	ug/L	99	A
5) Bromomethane	94	5.864	5.852	0.561	562247	101.06	ug/L	99	A
6) Chloroethane	64	6.006	6.006	0.575	579429	100.13	ug/L	100	A
7) Trichlorofluoromethane	101	6.457	6.445	0.618	924308	104.75	ug/L	99	A
8) Ethyl ether	59	6.765	6.754	0.647	537868	100.69	ug/L	100	A
9) Acetone	43	7.145	7.145	0.683	1123293	493.72	ug/L	99	
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	941943	90.04	ug/L	98	
11) Iodomethane	142	7.418	7.418	0.710	4202751	416.67	ug/L	98	
12) Acetonitrile	41	7.512	7.512	0.719	1599018	2414.60	ug/L	100	
13) Methyl acetate	43	7.548	7.548	0.722	1531627	478.50	ug/L	98	
14) Carbon disulfide	76	7.548	7.548	0.722	7659934	431.90	ug/L	97	A
15) Methylene chloride	84	7.738	7.738	0.740	633801	97.31	ug/L	98	
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	1637992	91.55	ug/L	100	
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	842248	87.19	ug/L	98	
18) Hexane	57	8.354	8.354	0.799	1015521	97.92	ug/L	97	
19) Vinyl acetate	43	8.520	8.520	0.815	4479619	484.83	ug/L	97	
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	1029464	88.67	ug/L	99	
21) 2-Butanone	43	9.161	9.161	0.876	1497688	501.52	ug/L	97	A
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	934578	88.02	ug/L	98	
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	899330	94.07	ug/L	99	
24) Bromochloromethane	128	9.493	9.493	0.908	277718	94.27	ug/L	98	
25) Chloroform	83	9.528	9.528	0.912	915420	88.63	ug/L	99	
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	859605	91.83	ug/L	98	
27) Cyclohexane	56	9.896	9.896	0.947	1186246	88.02	ug/L	98	
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	761457	90.61	ug/L	99	
29) Carbon tetrachloride	117	10.003	9.991	0.957	717506	94.83	ug/L	98	
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	630093	89.87	ug/L	100	
32) Benzene	78	10.204	10.204	0.976	2183264	86.32	ug/L	100	
33) Cyclohexene	67	10.311	10.311	0.986	1141281	88.57	ug/L	100	
34) n-Butyl alcohol	41	10.536	10.536	1.008	1052614	9817.80	ug/L	96	
35) Trichloroethylene	95	10.845	10.833	1.037	551222	89.96	ug/L	100	
36) 2-Pentanone	43	10.916	10.916	1.044	1833632	466.07	ug/L	98	
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	529295	84.98	ug/L	100	
38) Methylcyclohexane	83	11.082	11.082	1.060	1132061	89.24	ug/L	98	
39) Dibromomethane	93	11.224	11.224	1.074	307771	94.69	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I308.D
Acq On : 06 Sep 2017 15:18
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[A]0726-08+0829-08B+0608-0C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 07 09:55:43 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) Bromodichloromethane	83	11.331	11.331	1.084	699706	94.75	ug/L	98	
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	1560655	441.30	ug/L	97	
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	903061	92.90	ug/L	99	
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	989796	440.05	ug/L	95	
46) Toluene	91	12.173	12.173	0.893	2021537	82.86	ug/L	97	
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.903	760353	95.07	ug/L	99	
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.920	375138	90.29	ug/L	99	
49) 2-Hexanone	43	12.718	12.718	0.933	1755133	476.59	ug/L	98	
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	711637	87.18	ug/L	96	
51) Tetrachloroethylene	164	12.766	12.766	0.936	434450	90.48	ug/L	99	
52) Dibromochloromethane	129	13.003	13.003	0.954	511161	103.93	ug/L	99	A
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	454284	93.85	ug/L	98	
54) Chlorobenzene	112	13.655	13.655	1.002	1405243	89.32	ug/L	99	
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	523581	97.22	ug/L	99	
56) Ethylbenzene	91	13.714	13.714	1.006	2205899	76.75	ug/L	98	
57) m,p-Xylenes	106	13.821	13.821	1.014	1909277	173.86	ug/L	94	
58) o-Xylene	106	14.260	14.260	1.046	1008842	86.71	ug/L	95	
59) Styrene	104	14.260	14.260	1.046	1508054	79.91	ug/L	97	
61) Bromoform	173	14.533	14.533	0.905	363521	111.10	ug/L	98	A
62) Isopropylbenzene	105	14.616	14.616	0.911	2454980	80.67	ug/L	96	
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	653569	91.89	ug/L	99	
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	178108	95.70	ug/L #	88	
66) Bromobenzene	156	15.031	15.031	0.936	649778	86.50	ug/L	98	
67) n-Propylbenzene	91	15.043	15.043	0.937	2754568	74.12	ug/L	97	
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.946	2032784	79.77	ug/L	98	
69) 2-Chlorotoluene	126	15.197	15.197	0.947	649531	87.94	ug/L	93	
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1863149	81.97	ug/L	97	
71) tert-Butylbenzene	134	15.564	15.564	0.970	523670	93.38	ug/L	91	
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.972	2072236	76.96	ug/L	97	
73) sec-Butylbenzene	105	15.790	15.790	0.984	2781614	77.34	ug/L	97	
74) 4-Isopropyltoluene	119	15.908	15.908	0.991	2416563	81.03	ug/L	97	
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.996	1256505	82.70	ug/L	97	
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	1232045	85.98	ug/L	98	
77) n-Butylbenzene	91	16.359	16.359	1.019	2251274	93.76	ug/L	97	
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.029	1233196	84.77	ug/L	97	
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.085	171873	115.14	ug/L	99	A
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.153	1026225	99.23	ug/L	98	
81) Hexachlorobutadiene	225	18.683	18.683	1.164	634959	99.07	ug/L	100	
82) Naphthalene	128	18.908	18.908	1.178	2273723	100.18	ug/L	99	A
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.201	940945	99.62	ug/L	98	
85) Acrolein		6.991	6.979	0.669	0m	N.D.	d		
86) Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d		
88) Allyl chloride		7.512	7.596	0.719	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.			
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d		
91) Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.			
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d		
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d		
96) Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I308.D
Acq On : 06 Sep 2017 15:18
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[A]0726-08+0829-08B+0608-0C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 07 09:55:43 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

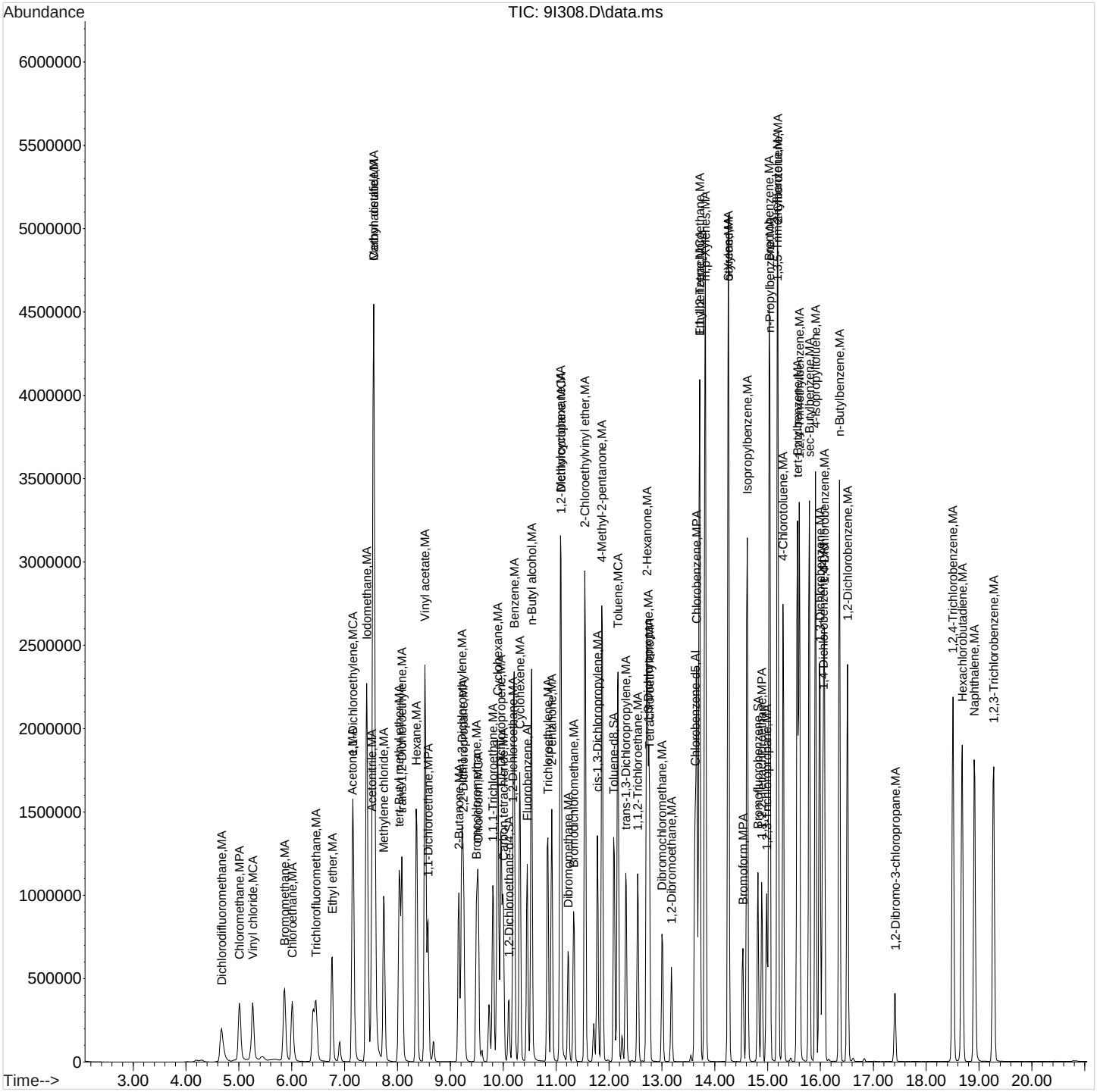
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		12.315	12.304	0.903	0m	N.D.	d
106) 1-Chlorohexane		13.548	13.513	0.844	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.910	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.936	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.974	0m	N.D.	d
111) Benzyl chloride		16.157	16.193	1.007	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I308.D
Acq On : 06 Sep 2017 15:18
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-03|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[A]0726-08+0829-08B+0608-0C
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 07 09:55:43 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I310.D
Acq On : 06 Sep 2017 16:17
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5mL n/a MIX[A]0726-01+0829-01B
ALS Vial : 10 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:47 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1318316	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1028639	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	576566	50.00	ug/L	0.00
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.051	16.051	1.000	0m	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	316360	49.80	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1145511	49.58	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.923	514188	50.56	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	2362	0.41	ug/L #	41
3) Chloromethane	50	4.987	4.998	0.477	4325	0.56	ug/L	99
4) Vinyl chloride	62	5.236	5.259	0.501	3701	0.51	ug/L #	21
5) Bromomethane	94	5.840	5.852	0.559	2916	0.49	ug/L	96
6) Chloroethane	64	6.006	6.006	0.575	2863	0.47	ug/L	98
7) Trichlorofluoromethane	101	6.445	6.445	0.617	4184	0.45	ug/L	93
8) Ethyl ether	59	6.765	6.754	0.647	2837	0.50	ug/L	94
9) Acetone	43	7.157	7.145	0.685	12421	N.D.		
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	5914	0.53	ug/L	97
11) Iodomethane	142	7.418	7.418	0.710	29675	2.77	ug/L	96
12) Acetonitrile	41	7.524	7.512	0.720	15047	N.D.		
13) Methyl acetate	43	7.548	7.548	0.722	12642	Below Cal		90
14) Carbon disulfide	76	7.548	7.548	0.722	73418	Below Cal		97
15) Methylene chloride	84	7.738	7.738	0.740	11608	N.D.		
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	10162	0.54	ug/L	78
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	5986	0.58	ug/L	96
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.532	8.520	0.816	38473	Below Cal		91
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	6911	0.56	ug/L	92
21) 2-Butanone	43	9.161	9.161	0.876	13377	N.D.		
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	6705	0.60	ug/L	97
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	5796	0.57	ug/L #	57
24) Bromochloromethane	128	9.493	9.493	0.908	1704	0.55	ug/L	95
25) Chloroform	83	9.528	9.528	0.912	6297	0.57	ug/L	93
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	5484	0.55	ug/L	98
27) Cyclohexane	56	9.896	9.896	0.947	9172	0.64	ug/L	92
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	5223	0.59	ug/L #	50
29) Carbon tetrachloride	117	10.003	9.991	0.957	4342	0.54	ug/L	95
31) 1,2-Dichloroethane	62	10.192	10.181	0.975	4277	0.58	ug/L	92
32) Benzene	78	10.204	10.204	0.976	16475	0.61	ug/L #	81
33) Cyclohexene	67	10.311	10.311	0.986	8331	0.61	ug/L	97
34) n-Butyl alcohol	41	10.548	10.536	1.009	11396	38.80	ug/L #	76
35) Trichloroethylene	95	10.845	10.833	1.037	3922	0.60	ug/L	94
36) 2-Pentanone		0.000	10.916	0.000	0m	N.D.	d	
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	3816	0.58	ug/L	98
38) Methylcyclohexane	83	11.082	11.082	1.060	7980	0.59	ug/L	87
39) Dibromomethane	93	11.224	11.224	1.074	1974	0.57	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I310.D
Acq On : 06 Sep 2017 16:17
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5mL n/a MIX[A]0726-01+0829-01B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 09:55:47 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	4170	0.53	ug/L #	92
41) 2-Chloroethylvinyl ether	63	11.556	11.544	1.106	9965	2.66	ug/L	94
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	5803	0.56	ug/L	84
44) 4-Methyl-2-pentanone	58	11.876	11.865	0.871	6822	2.75	ug/L #	64
46) Toluene	91	12.173	12.173	0.893	17788	0.66	ug/L	91
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.904	5539	0.63	ug/L	83
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.920	2421	0.53	ug/L	92
49) 2-Hexanone	43	12.718	12.718	0.933	19172	N.D.		
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	5523	0.61	ug/L	91
51) Tetrachloroethylene	164	12.766	12.766	0.936	3441	0.65	ug/L	93
52) Dibromochloromethane	129	13.015	13.003	0.955	2694	0.50	ug/L	96
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	3179	0.60	ug/L	98
54) Chlorobenzene	112	13.655	13.655	1.002	11680	0.67	ug/L #	37
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	3084	0.52	ug/L #	63
56) Ethylbenzene	91	13.714	13.714	1.006	21742	0.69	ug/L	93
57) m,p-Xylenes	106	13.821	13.821	1.014	16598	1.37	ug/L #	71
58) o-Xylene	106	14.260	14.260	1.046	8201	0.64	ug/L #	73
59) Styrene	104	14.260	14.260	1.046	14908	0.72	ug/L	98
61) Bromoform	173	14.533	14.533	0.905	1506	0.42	ug/L	96
62) Isopropylbenzene	105	14.616	14.616	0.911	24718	0.75	ug/L	93
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	4198	0.54	ug/L	96
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	1073	0.53	ug/L #	1
66) Bromobenzene	156	15.031	15.031	0.936	5750	0.70	ug/L #	82
67) n-Propylbenzene	91	15.043	15.043	0.937	32503	0.81	ug/L	92
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.946	21846	0.79	ug/L	95
69) 2-Chlorotoluene	126	15.197	15.197	0.947	6006	0.75	ug/L #	75
70) 4-Chlorotoluene	91	15.304	15.292	0.953	21457	0.87	ug/L	91
71) tert-Butylbenzene	134	15.564	15.564	0.970	4391	0.72	ug/L #	76
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.972	23830	0.82	ug/L	95
73) sec-Butylbenzene	105	15.790	15.790	0.984	32576	0.83	ug/L	93
74) 4-Isopropyltoluene	119	15.908	15.908	0.991	28375	0.88	ug/L	96
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.996	14722	0.89	ug/L	96
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.001	14016	0.90	ug/L #	67
77) n-Butylbenzene	91	16.359	16.359	1.019	33757	0.32	ug/L	91
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.029	13565	0.86	ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.085	1042	0.64	ug/L	93
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.153	19469	0.80	ug/L	96
81) Hexachlorobutadiene	225	18.683	18.683	1.164	14162	1.30	ug/L	95
82) Naphthalene	128	18.920	18.908	1.179	42920	0.62	ug/L	98
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.201	19731	0.97	ug/L	96
85) Acrolein		6.789	6.979	0.649	0m	N.D.	d	
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d	
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		0.000	9.244	0.000	0	N.D.		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I310.D
Acq On : 06 Sep 2017 16:17
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5mL n/a MIX[A]0726-01+0829-01B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 09:55:47 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

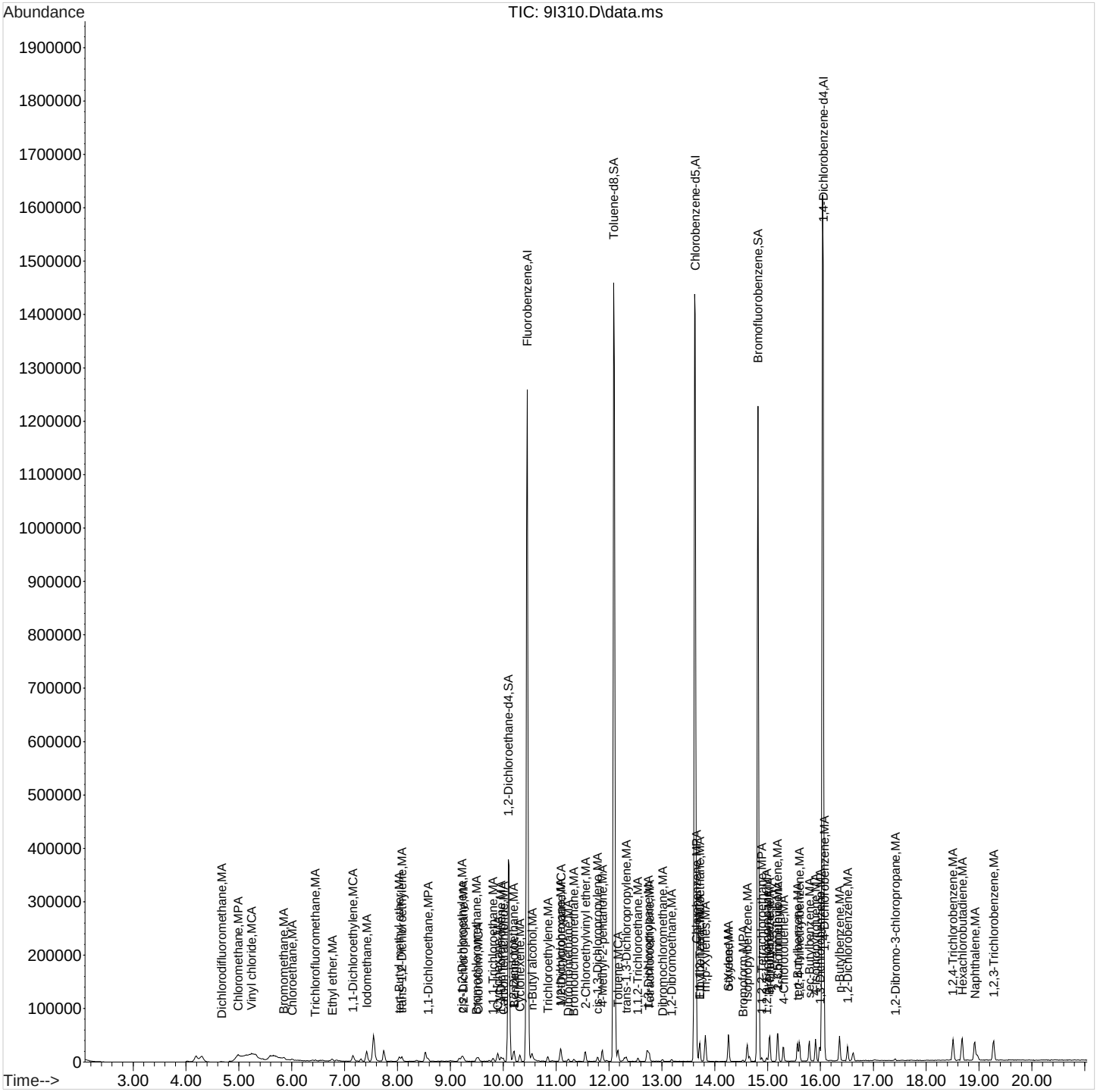
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.552	9.540	0.914	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		11.556	11.533	1.106	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.620	13.513	0.849	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		16.193	16.193	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I310.D
Acq On : 06 Sep 2017 16:17
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-04|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL.5 5mL n/a MIX[A]0726-01+0829-01B
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 07 09:55:47 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I311.D
Acq On : 06 Sep 2017 16:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5mL n/a MIX[A]0726-02+0829-02B
ALS Vial : 11 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:49 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1255470	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	948568	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	554049	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	310598	51.34	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1064385	49.96	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	483067	49.43	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	5937	1.09	ug/L	81
3) Chloromethane	50	4.998	4.998	0.478	8009	1.09	ug/L	99
4) Vinyl chloride	62	5.247	5.259	0.502	7109	1.04	ug/L	67
5) Bromomethane	94	5.852	5.852	0.560	6168	1.10	ug/L	91
6) Chloroethane	64	6.006	6.006	0.575	6281	1.07	ug/L	90
7) Trichlorofluoromethane	101	6.457	6.445	0.618	9197	1.03	ug/L	97
8) Ethyl ether	59	6.765	6.754	0.647	5542	1.03	ug/L	87
9) Acetone	43	7.157	7.145	0.685	17382	3.32	ug/L	95
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	11343	1.07	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	57539	5.65	ug/L	100
12) Acetonitrile	41	7.536	7.512	0.721	27047	20.53	ug/L	82
13) Methyl acetate	43	7.548	7.548	0.722	25667	3.74	ug/L	97
14) Carbon disulfide	76	7.548	7.548	0.722	129446	3.18	ug/L	95
15) Methylene chloride	84	7.750	7.738	0.741	14995	N.D.		
16) tert-Butyl methyl ether	73	8.046	8.034	0.770	19668	1.09	ug/L	87
17) trans-1,2-Dichloroethy...	61	8.093	8.082	0.774	10900	1.12	ug/L	96
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.532	8.520	0.816	72402	3.72	ug/L	92
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	12991	1.11	ug/L	96
21) 2-Butanone	43	9.161	9.161	0.876	22797	4.41	ug/L	87
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	11982	1.12	ug/L	97
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	10349	1.07	ug/L	61
24) Bromochloromethane	128	9.493	9.493	0.908	2974	1.00	ug/L	88
25) Chloroform	83	9.528	9.528	0.912	11742	1.13	ug/L	98
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	9913	1.05	ug/L	98
27) Cyclohexane	56	9.896	9.896	0.947	15812	1.16	ug/L	92
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	9570	1.13	ug/L	95
29) Carbon tetrachloride	117	9.991	9.991	0.956	7960	1.04	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	8093	1.14	ug/L	99
32) Benzene	78	10.204	10.204	0.976	29172	1.14	ug/L	98
33) Cyclohexene	67	10.311	10.311	0.986	14651	1.13	ug/L	100
34) n-Butyl alcohol	41	10.536	10.536	1.008	19477	118.93	ug/L	86
35) Trichloroethylene	95	10.845	10.833	1.037	6863	1.11	ug/L	96
36) 2-Pentanone		0.000	10.916	0.000	0m	N.D.	d	
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	6886	1.09	ug/L	99
38) Methylcyclohexane	83	11.082	11.082	1.060	14427	1.13	ug/L	90
39) Dibromomethane	93	11.236	11.224	1.075	3356	1.02	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I311.D
Acq On : 06 Sep 2017 16:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5mL n/a MIX[A]0726-02+0829-02B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 09:55:49 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.343	11.331	1.085	7585	1.02	ug/L	97
41) 2-Chloroethylvinyl ether	63	11.556	11.544	1.106	20453	5.72	ug/L	96
42) cis-1,3-Dichloropropylene	75	11.781	11.782	1.127	10001	1.02	ug/L	91
44) 4-Methyl-2-pentanone	58	11.876	11.865	0.871	14276	6.24	ug/L #	79
46) Toluene	91	12.173	12.173	0.893	29031	1.17	ug/L	94
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.904	8605	1.06	ug/L	87
48) 1,1,2-Trichloroethane	83	12.552	12.540	0.921	4561	1.08	ug/L	98
49) 2-Hexanone	43	12.718	12.718	0.933	31895	4.11	ug/L	89
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	9221	1.11	ug/L #	62
51) Tetrachloroethylene	164	12.766	12.766	0.936	5600	1.15	ug/L	100
52) Dibromochloromethane	129	13.015	13.003	0.955	4828	0.97	ug/L	97
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	5284	1.07	ug/L	99
54) Chlorobenzene	112	13.655	13.655	1.002	17844	1.12	ug/L #	60
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	5480	1.00	ug/L #	66
56) Ethylbenzene	91	13.714	13.714	1.006	35042	1.20	ug/L	93
57) m,p-Xylenes	106	13.821	13.821	1.014	26692	2.39	ug/L #	78
58) o-Xylene	106	14.260	14.260	1.046	13619	1.15	ug/L	82
59) Styrene	104	14.260	14.260	1.046	22737	1.18	ug/L	97
61) Bromoform	173	14.533	14.533	0.906	3134	0.92	ug/L	86
62) Isopropylbenzene	105	14.616	14.616	0.911	37806	1.19	ug/L	94
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	8335	1.12	ug/L	92
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	2197	1.13	ug/L #	60
66) Bromobenzene	156	15.031	15.031	0.937	9102	1.16	ug/L	88
67) n-Propylbenzene	91	15.043	15.043	0.938	47232	1.22	ug/L	95
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	32332	1.22	ug/L	96
69) 2-Chlorotoluene	126	15.197	15.197	0.948	8950	1.16	ug/L #	69
70) 4-Chlorotoluene	91	15.292	15.292	0.953	28678	1.21	ug/L	97
71) tert-Butylbenzene	134	15.564	15.564	0.970	6623	1.13	ug/L #	80
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	34117	1.21	ug/L	94
73) sec-Butylbenzene	105	15.790	15.790	0.984	45283	1.21	ug/L	94
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	39059	1.26	ug/L	96
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	20225	1.28	ug/L	97
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	18849	1.26	ug/L #	78
77) n-Butylbenzene	91	16.359	16.359	1.020	41749	0.70	ug/L	93
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	18682	1.23	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	1554	1.00	ug/L	88
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	19585	0.88	ug/L	96
81) Hexachlorobutadiene	225	18.683	18.683	1.165	12995	1.21	ug/L	98
82) Naphthalene	128	18.920	18.908	1.180	43566	0.72	ug/L	98
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	18600	0.93	ug/L	98
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d	
88) Allyl chloride		7.536	7.596	0.721	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		0.000	9.244	0.000	0	N.D.		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I311.D
Acq On : 06 Sep 2017 16:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5mL n/a MIX[A]0726-02+0829-02B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 09:55:49 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

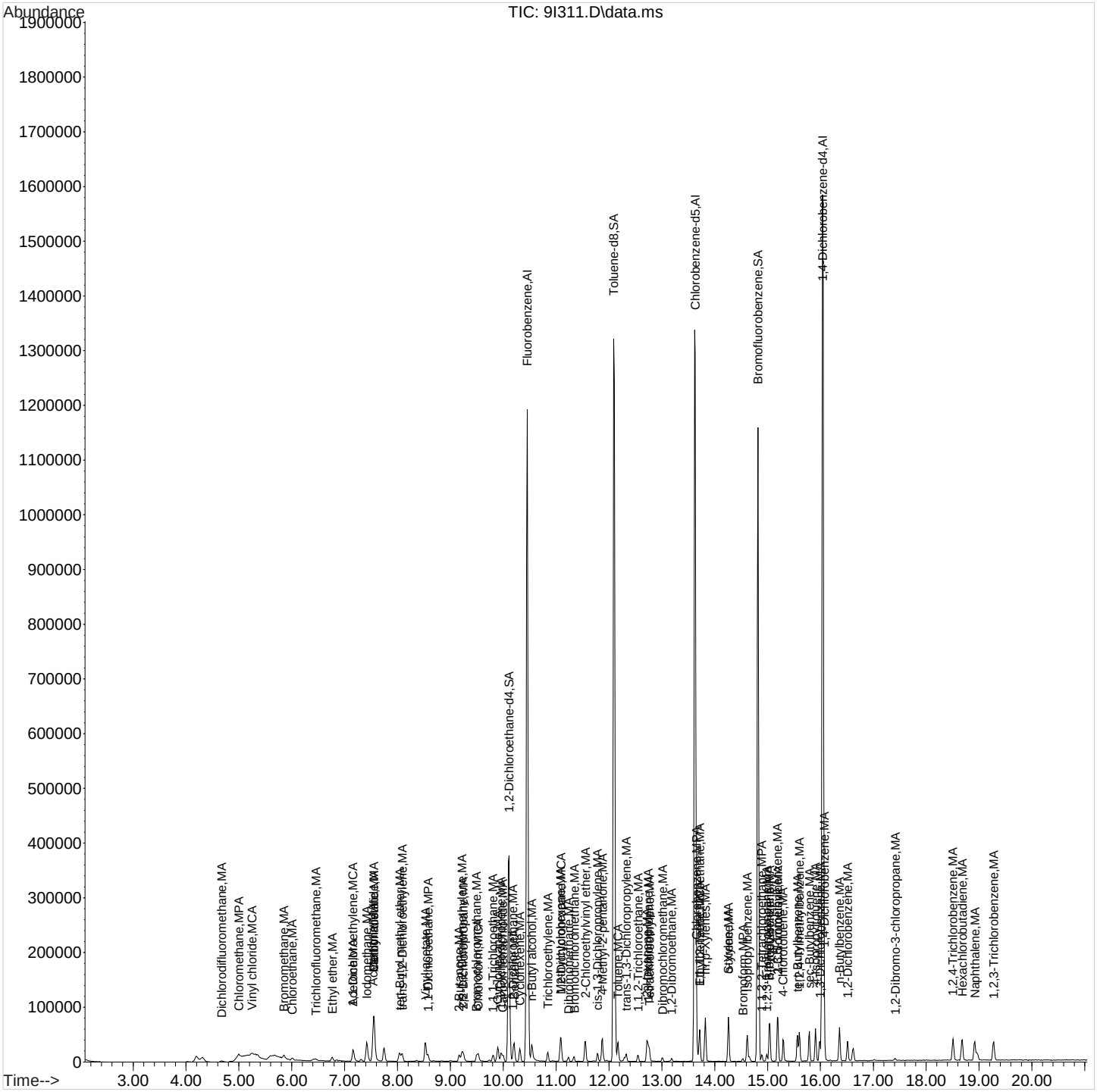
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.620	13.513	0.849	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I311.D
Acq On : 06 Sep 2017 16:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-05|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL1 5mL n/a MIX[A]0726-02+0829-02B
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 07 09:55:49 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I312.D
Acq On : 06 Sep 2017 17:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5mL n/a MIX[A]0726-03+0829-03B+0608-03C
ALS Vial : 12 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:51 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.454	10.454	1.000	1338683	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	1012794	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	575491	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	0m	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	322078	49.92	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1148257	50.48	ug/L	0.00
63) Bromofluorobenzene	95	14.818	14.817	0.924	512236	50.46	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	12358	2.13	ug/L	88
3) Chloromethane	50	4.987	4.998	0.477	15690	2.01	ug/L	99
4) Vinyl chloride	62	5.236	5.259	0.501	14176	1.94	ug/L	81
5) Bromomethane	94	5.841	5.852	0.559	11769	1.96	ug/L	93
6) Chloroethane	64	6.007	6.006	0.575	12142	1.95	ug/L	95
7) Trichlorofluoromethane	101	6.445	6.445	0.617	17824	1.88	ug/L	99
8) Ethyl ether	59	6.766	6.754	0.647	11361	1.97	ug/L	93
9) Acetone	43	7.157	7.145	0.685	27877	7.17	ug/L	96
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	23039	2.04	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	117400	10.81	ug/L	100
12) Acetonitrile	41	7.525	7.512	0.720	45313	43.82	ug/L	84
13) Methyl acetate	43	7.548	7.548	0.722	45006	8.90	ug/L	97
14) Carbon disulfide	76	7.548	7.548	0.722	254821	9.35	ug/L	95
15) Methylene chloride	84	7.738	7.738	0.740	21746	1.78	ug/L	97
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	39829	2.07	ug/L	93
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	22622	2.17	ug/L	96
18) Hexane	57	8.355	8.354	0.799	23710	2.12	ug/L	97
19) Vinyl acetate	43	8.521	8.520	0.815	129391	9.01	ug/L	95
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	26782	2.14	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	38035	8.70	ug/L	92
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	24086	2.11	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	20875	2.03	ug/L	78
24) Bromochloromethane	128	9.493	9.493	0.908	6620	2.09	ug/L	95
25) Chloroform	83	9.529	9.528	0.912	23566	2.12	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	20641	2.05	ug/L	98
27) Cyclohexane	56	9.896	9.896	0.947	31107	2.14	ug/L	99
28) 1,1-Dichloropropene	75	9.956	9.955	0.952	19052	2.10	ug/L	94
29) Carbon tetrachloride	117	9.991	9.991	0.956	16261	2.00	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	15864	2.10	ug/L	99
32) Benzene	78	10.205	10.204	0.976	58969	2.16	ug/L	96
33) Cyclohexene	67	10.311	10.311	0.986	29826	2.15	ug/L	98
34) n-Butyl alcohol	41	10.537	10.536	1.008	30979	207.90	ug/L #	83
35) Trichloroethylene	95	10.845	10.833	1.037	13711	2.08	ug/L	97
36) 2-Pentanone	43	10.916	10.916	1.044	44283	10.45	ug/L	95
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	14967	2.23	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	28602	2.09	ug/L	91
39) Dibromomethane	93	11.224	11.224	1.074	7317	2.09	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I312.D
Acq On : 06 Sep 2017 17:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5mL n/a MIX[A]0726-03+0829-03B+0608-03C
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 07 09:55:51 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	16293	2.05	ug/L	96
41) 2-Chloroethylvinyl ether	63	11.545	11.544	1.104	39327	10.32	ug/L	98
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	21148	2.02	ug/L	91
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.871	26378	10.80	ug/L	87
46) Toluene	91	12.173	12.173	0.894	60132	2.27	ug/L	94
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.905	17657	2.03	ug/L	92
48) 1,1,2-Trichloroethane	83	12.541	12.540	0.921	9695	2.15	ug/L	98
49) 2-Hexanone	43	12.719	12.718	0.934	54721	9.33	ug/L	91
50) 1,3-Dichloropropane	76	12.742	12.742	0.936	20006	2.26	ug/L	100
51) Tetrachloroethylene	164	12.766	12.766	0.937	11184	2.15	ug/L	96
52) Dibromochloromethane	129	13.015	13.003	0.956	10037	1.88	ug/L	96
53) 1,2-Dibromoethane	107	13.181	13.181	0.968	10848	2.06	ug/L	99
54) Chlorobenzene	112	13.655	13.655	1.003	36888	2.16	ug/L	80
55) 1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.007	11932	2.04	ug/L	96
56) Ethylbenzene	91	13.715	13.714	1.007	70510	2.26	ug/L	94
57) m,p-Xylenes	106	13.821	13.821	1.015	54104	4.54	ug/L	83
58) o-Xylene	106	14.260	14.260	1.047	27650	2.19	ug/L	82
59) Styrene	104	14.260	14.260	1.047	46289	2.26	ug/L	99
61) Bromoform	173	14.533	14.533	0.906	6135	1.73	ug/L	94
62) Isopropylbenzene	105	14.616	14.616	0.911	74563	2.26	ug/L	96
64) 1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	15315	1.99	ug/L	99
65) 1,2,3-Trichloropropane	110	14.984	14.983	0.934	4026	2.00	ug/L #	57
66) Bromobenzene	156	15.031	15.031	0.937	17807	2.19	ug/L	90
67) n-Propylbenzene	91	15.043	15.043	0.938	90654	2.25	ug/L	94
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	62904	2.28	ug/L	96
69) 2-Chlorotoluene	126	15.197	15.197	0.948	17249	2.15	ug/L #	73
70) 4-Chlorotoluene	91	15.292	15.292	0.953	54956	2.23	ug/L	96
71) tert-Butylbenzene	134	15.565	15.564	0.970	12873	2.12	ug/L #	83
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	65045	2.23	ug/L	94
73) sec-Butylbenzene	105	15.790	15.790	0.984	86702	2.22	ug/L	94
74) 4-Isopropyltoluene	119	15.909	15.908	0.992	72479	2.24	ug/L	97
75) 1,3-Dichlorobenzene	146	15.992	15.991	0.997	37113	2.25	ug/L	96
76) 1,4-Dichlorobenzene	146	16.075	16.074	1.002	34127	2.20	ug/L	91
77) n-Butylbenzene	91	16.359	16.359	1.020	73773	1.88	ug/L	93
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	34973	2.22	ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	17.415	17.414	1.086	2837	1.75	ug/L	98
80) 1,2,4-Trichlorobenzene	180	18.506	18.505	1.154	29096	1.67	ug/L	97
81) Hexachlorobutadiene	225	18.683	18.683	1.165	18692	1.96	ug/L	96
82) Naphthalene	128	18.921	18.908	1.180	64663	1.51	ug/L	98
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	27329	1.72	ug/L	97
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D. d		
88) Allyl chloride		7.525	7.596	0.720	0m	N.D. d		
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		8.521	8.544	0.815	0m	N.D. d		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D. d		
95) Propionitrile		0.000	9.244	0.000	0	N.D.		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I312.D
Acq On : 06 Sep 2017 17:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5mL n/a MIX[A]0726-03+0829-03B+0608-03C
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 07 09:55:51 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

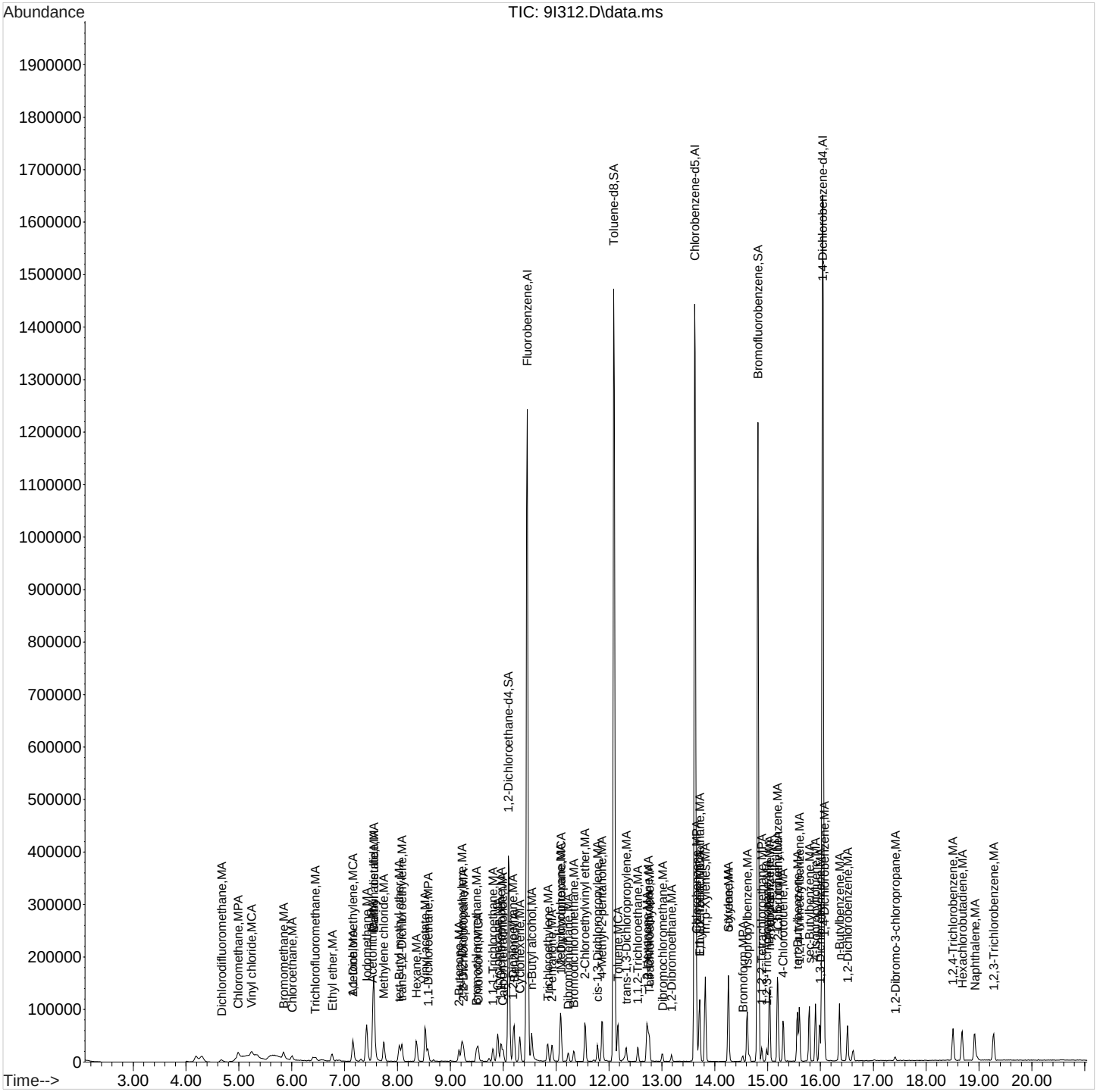
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.552	9.540	0.914	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.205	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		11.545	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.406	13.513	0.836	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		15.043	14.936	0.938	0m	N.D.	d
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I312.D
Acq On : 06 Sep 2017 17:13
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-06|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL2 5mL n/a MIX[A]0726-03+0829-03B+0608-03C
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 07 09:55:51 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



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09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I313.D
Acq On : 06 Sep 2017 17:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[A]0726-04+0829-04B+0608-04B
ALS Vial : 13 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1311801	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1003669	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	574000	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	313348	49.57	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1119347	49.66	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	503724	49.75	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	28141	4.94	ug/L	94
3) Chloromethane	50	4.998	4.998	0.478	39153	5.12	ug/L	98
4) Vinyl chloride	62	5.247	5.259	0.502	35220	4.92	ug/L	91
5) Bromomethane	94	5.852	5.852	0.560	29061	4.95	ug/L	99
6) Chloroethane	64	6.006	6.006	0.575	30998	5.08	ug/L	99
7) Trichlorofluoromethane	101	6.410	6.445	0.613	44750	4.80	ug/L	100
8) Ethyl ether	59	6.765	6.754	0.647	27993	4.96	ug/L	97
9) Acetone	43	7.157	7.145	0.685	62098	21.78	ug/L	97
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	58533	5.30	ug/L	100
11) Iodomethane	142	7.418	7.418	0.710	292592	27.48	ug/L	99
12) Acetonitrile	41	7.524	7.512	0.720	105403	131.82	ug/L	98
13) Methyl acetate	43	7.548	7.548	0.722	103584	26.66	ug/L	98
14) Carbon disulfide	76	7.548	7.548	0.722	623867	29.53	ug/L	96
15) Methylene chloride	84	7.750	7.738	0.741	44390	5.19	ug/L	98
16) tert-Butyl methyl ether	73	8.046	8.034	0.770	97957	5.19	ug/L	97
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	54140	5.31	ug/L	97
18) Hexane	57	8.366	8.354	0.800	59858	5.47	ug/L	98
19) Vinyl acetate	43	8.520	8.520	0.815	302672	27.20	ug/L	95
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	64821	5.29	ug/L	98
21) 2-Butanone	43	9.161	9.161	0.876	79149	22.07	ug/L	97
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	60042	5.36	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	52430	5.20	ug/L	89
24) Bromochloromethane	128	9.493	9.493	0.908	16451	5.29	ug/L	97
25) Chloroform	83	9.528	9.528	0.912	57623	5.29	ug/L	98
26) 1,1,1-Trichloroethane	97	9.813	9.801	0.939	52098	5.27	ug/L	98
27) Cyclohexane	56	9.896	9.896	0.947	74775	5.26	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	46373	5.23	ug/L	96
29) Carbon tetrachloride	117	10.003	9.991	0.957	41568	5.21	ug/L	98
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	38240	5.17	ug/L	94
32) Benzene	78	10.204	10.204	0.976	143025	5.36	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	71244	5.24	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	66346	527.92	ug/L	91
35) Trichloroethylene	95	10.845	10.833	1.037	33985	5.25	ug/L	97
36) 2-Pentanone	43	10.916	10.916	1.044	108225	26.06	ug/L	98
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	36195	5.51	ug/L	99
38) Methylcyclohexane	83	11.082	11.082	1.060	70098	5.23	ug/L	94
39) Dibromomethane	93	11.224	11.224	1.074	17454	5.09	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I313.D
Acq On : 06 Sep 2017 17:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[A]0726-04+0829-04B+0608-04B
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 07 09:55:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	39849	5.11	ug/L	97
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	96469	25.84	ug/L	97
42) cis-1,3-Dichloropropylene	75	11.781	11.782	1.127	52282	5.10	ug/L	98
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	60524	25.01	ug/L	89
46) Toluene	91	12.173	12.173	0.893	141452	5.39	ug/L	94
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.904	42591	4.95	ug/L	97
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.920	22767	5.09	ug/L	98
49) 2-Hexanone	43	12.718	12.718	0.933	120597	26.23	ug/L	94
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	46023	5.24	ug/L	100
51) Tetrachloroethylene	164	12.766	12.766	0.936	26677	5.16	ug/L	99
52) Dibromochloromethane	129	13.015	13.003	0.955	24785	4.68	ug/L	97
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	26029	5.00	ug/L	99
54) Chlorobenzene	112	13.655	13.655	1.002	86557	5.11	ug/L	91
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	29733	5.13	ug/L	98
56) Ethylbenzene	91	13.714	13.714	1.006	162534	5.26	ug/L	96
57) m,p-Xylenes	106	13.821	13.821	1.014	127055	10.75	ug/L	85
58) o-Xylene	106	14.260	14.260	1.046	66852	5.34	ug/L	86
59) Styrene	104	14.260	14.260	1.046	111548	5.49	ug/L	99
61) Bromoform	173	14.533	14.533	0.906	15570	4.40	ug/L	98
62) Isopropylbenzene	105	14.616	14.616	0.911	176460	5.36	ug/L	95
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	38006	4.94	ug/L	98
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	9723	4.83	ug/L #	65
66) Bromobenzene	156	15.031	15.031	0.937	41775	5.14	ug/L	91
67) n-Propylbenzene	91	15.043	15.043	0.938	210465	5.24	ug/L	95
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	148188	5.38	ug/L	95
69) 2-Chlorotoluene	126	15.197	15.197	0.948	40690	5.10	ug/L #	80
70) 4-Chlorotoluene	91	15.292	15.292	0.953	130292	5.30	ug/L	96
71) tert-Butylbenzene	134	15.564	15.564	0.970	30393	5.01	ug/L #	85
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	152568	5.24	ug/L	94
73) sec-Butylbenzene	105	15.790	15.790	0.984	200002	5.14	ug/L	95
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	170004	5.27	ug/L	97
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	85742	5.22	ug/L	98
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	78798	5.09	ug/L	96
77) n-Butylbenzene	91	16.359	16.359	1.020	165921	5.47	ug/L	93
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	82080	5.22	ug/L	97
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	7096	4.40	ug/L	97
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	61677	4.62	ug/L	98
81) Hexachlorobutadiene	225	18.683	18.683	1.165	37835	4.75	ug/L	98
82) Naphthalene	128	18.920	18.908	1.180	135586	4.45	ug/L	99
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	57026	4.66	ug/L	98
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d	
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		0.000	9.244	0.000	0	N.D.		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I313.D
Acq On : 06 Sep 2017 17:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[A]0726-04+0829-04B+0608-04B
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 07 09:55:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

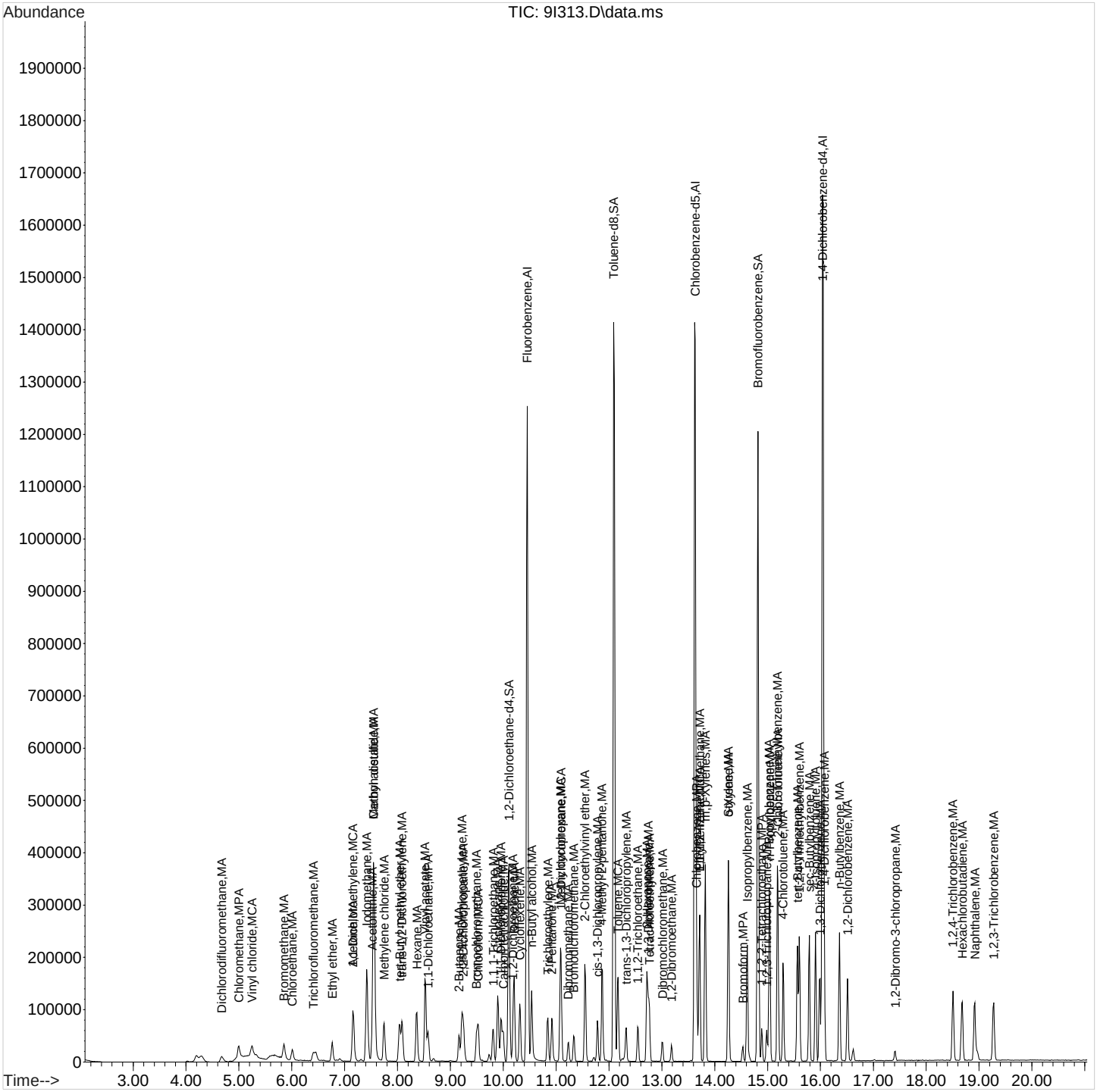
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.552	9.540	0.914	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		13.620	13.513	0.849	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.545	14.782	0.907	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.620	16.584	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I313.D
Acq On : 06 Sep 2017 17:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-07|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[A]0726-04+0829-04B+0608-04B
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 07 09:55:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I314.D
Acq On : 06 Sep 2017 18:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[A]0726-05+0829-05B+0608-05C
ALS Vial : 14 Sample Multiplier: 1

GEL
09/09/2017

Quant Time: Sep 07 09:55:55 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1281888	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	977736	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	549314	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	306829	49.67	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1097438	49.98	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	483389	49.88	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	58572	10.53	ug/L	98
3) Chloromethane	50	4.999	4.998	0.478	75426	10.10	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	72266	10.34	ug/L	98
5) Bromomethane	94	5.852	5.852	0.560	56983	9.93	ug/L	100
6) Chloroethane	64	6.007	6.006	0.575	61428	10.29	ug/L	97
7) Trichlorofluoromethane	101	6.445	6.445	0.617	93710	10.30	ug/L	100
8) Ethyl ether	59	6.765	6.754	0.647	57322	10.40	ug/L	97
9) Acetone	43	7.157	7.145	0.685	121302	47.83	ug/L	98
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	114374	10.60	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	550804	52.94	ug/L	100
12) Acetonitrile	41	7.524	7.512	0.720	205292	282.82	ug/L	97
13) Methyl acetate	43	7.548	7.548	0.722	204125	58.11	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	1165490	60.20	ug/L	97
15) Methylene chloride	84	7.738	7.738	0.740	79617	10.66	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	187849	10.18	ug/L	98
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	103826	10.42	ug/L	98
18) Hexane	57	8.355	8.354	0.799	107669	10.06	ug/L	98
19) Vinyl acetate	43	8.521	8.520	0.815	594408	58.80	ug/L	96
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	124812	10.42	ug/L	99
21) 2-Butanone	43	9.161	9.161	0.876	156494	47.93	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	114928	10.49	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	100940	10.24	ug/L	97
24) Bromochloromethane	128	9.493	9.493	0.908	31248	10.28	ug/L	98
25) Chloroform	83	9.529	9.528	0.912	111647	10.48	ug/L	97
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	100048	10.36	ug/L	98
27) Cyclohexane	56	9.896	9.896	0.947	147074	10.58	ug/L	96
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	89847	10.37	ug/L	97
29) Carbon tetrachloride	117	10.003	9.991	0.957	79805	10.23	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	74806	10.34	ug/L	99
32) Benzene	78	10.204	10.204	0.976	273273	10.48	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	139610	10.50	ug/L	100
34) n-Butyl alcohol	41	10.537	10.536	1.008	134089	1158.13	ug/L	94
35) Trichloroethylene	95	10.845	10.833	1.037	66179	10.47	ug/L	98
36) 2-Pentanone	43	10.916	10.916	1.044	204162	50.31	ug/L	97
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	67525	10.51	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	137634	10.52	ug/L	95
39) Dibromomethane	93	11.224	11.224	1.074	34115	10.18	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I314.D
Acq On : 06 Sep 2017 18:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[A]0726-05+0829-05B+0608-05C
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 09:55:55 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	77403	10.16	ug/L	99
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	194241	53.25	ug/L	97
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	103777	10.35	ug/L	99
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	119200	50.56	ug/L	91
46) Toluene	91	12.173	12.173	0.893	270062	10.56	ug/L	95
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.904	85177	10.16	ug/L	98
48) 1,1,2-Trichloroethane	83	12.541	12.540	0.920	45285	10.40	ug/L	97
49) 2-Hexanone	43	12.718	12.718	0.933	223924	54.07	ug/L	96
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	88965	10.40	ug/L	99
51) Tetrachloroethylene	164	12.766	12.766	0.936	51738	10.28	ug/L	99
52) Dibromochloromethane	129	13.003	13.003	0.954	51343	9.96	ug/L	99
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	51170	10.09	ug/L	99
54) Chlorobenzene	112	13.655	13.655	1.002	170327	10.33	ug/L	96
55) 1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.006	57538	10.19	ug/L	98
56) Ethylbenzene	91	13.715	13.714	1.006	306548	10.18	ug/L	96
57) m,p-Xylenes	106	13.821	13.821	1.014	245689	21.35	ug/L	91
58) o-Xylene	106	14.260	14.260	1.046	125512	10.29	ug/L	89
59) Styrene	104	14.260	14.260	1.046	209688	10.60	ug/L	99
61) Bromoform	173	14.533	14.533	0.906	32089	9.48	ug/L	99
62) Isopropylbenzene	105	14.616	14.616	0.911	332045	10.55	ug/L	97
64) 1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	75174	10.22	ug/L	97
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	19022	9.88	ug/L #	81
66) Bromobenzene	156	15.031	15.031	0.937	79485	10.23	ug/L	96
67) n-Propylbenzene	91	15.043	15.043	0.938	389834	10.14	ug/L	95
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	275962	10.47	ug/L	96
69) 2-Chlorotoluene	126	15.197	15.197	0.948	77484	10.14	ug/L	85
70) 4-Chlorotoluene	91	15.292	15.292	0.953	243796	10.37	ug/L	97
71) tert-Butylbenzene	134	15.565	15.564	0.970	58180	10.03	ug/L	89
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	279398	10.03	ug/L	95
73) sec-Butylbenzene	105	15.790	15.790	0.984	379152	10.19	ug/L	96
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	320516	10.39	ug/L	97
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	158035	10.06	ug/L	98
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	147160	9.93	ug/L	98
77) n-Butylbenzene	91	16.359	16.359	1.020	315611	11.85	ug/L	94
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	152321	10.12	ug/L	98
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	14365	9.30	ug/L	97
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	117117	10.10	ug/L	97
81) Hexachlorobutadiene	225	18.683	18.683	1.165	71870	10.17	ug/L	98
82) Naphthalene	128	18.920	18.908	1.180	260599	10.08	ug/L	99
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	107510	10.13	ug/L	98
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol		7.299	7.228	0.698	0m	N.D.	d	
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		0.000	9.244	0.000	0	N.D.		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I314.D
Acq On : 06 Sep 2017 18:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[A]0726-05+0829-05B+0608-05C
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 09:55:55 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

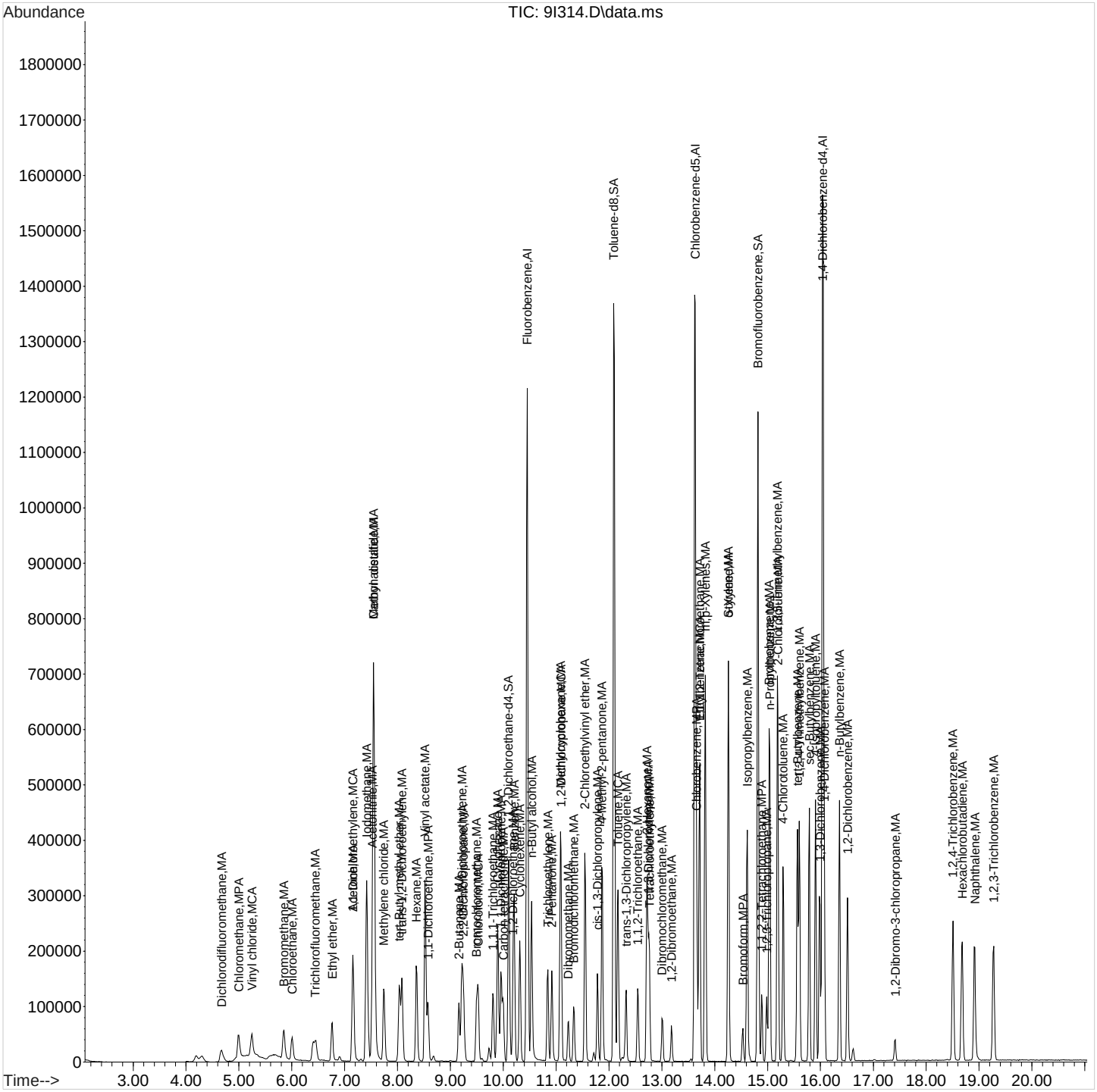
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		13.560	13.513	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111) Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I314.D
Acq On : 06 Sep 2017 18:10
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-08|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[A]0726-05+0829-05B+0608-05C
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 07 09:55:55 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I315.D
Acq On : 06 Sep 2017 18:39
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL20 5mL n/a MIX[A]0726-06+0829-06B+0608-06C
ALS Vial : 15 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:55:58 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1336770	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	1050021	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	585192	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	318302	49.41	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1154817	48.97	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	521203	50.49	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	109990	18.95	ug/L	99
3) Chloromethane	50	4.999	4.998	0.478	145169	18.63	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	138125	18.94	ug/L	98
5) Bromomethane	94	5.852	5.852	0.560	113669	19.00	ug/L	98
6) Chloroethane	64	6.007	6.006	0.575	116760	18.76	ug/L	100
7) Trichlorofluoromethane	101	6.445	6.445	0.617	180539	19.02	ug/L	100
8) Ethyl ether	59	6.765	6.754	0.647	113980	19.84	ug/L	98
9) Acetone	43	7.157	7.145	0.685	248438	98.10	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	221151	19.65	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	1073817	98.98	ug/L	100
12) Acetonitrile	41	7.524	7.512	0.720	410658	561.11	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	407682	115.20	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	2130874	108.65	ug/L	97
15) Methylene chloride	84	7.750	7.738	0.741	155185	21.10	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	394739	20.51	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	202650	19.50	ug/L	99
18) Hexane	57	8.355	8.354	0.799	216330	19.39	ug/L	99
19) Vinyl acetate	43	8.521	8.520	0.815	1124769	110.03	ug/L	97
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	244800	19.60	ug/L	99
21) 2-Butanone	43	9.161	9.161	0.876	331480	100.66	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	226140	19.80	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	199613	19.41	ug/L	99
24) Bromochloromethane	128	9.493	9.493	0.908	64912	20.48	ug/L	99
25) Chloroform	83	9.528	9.528	0.912	220960	19.89	ug/L	98
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	201342	20.00	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	277207	19.12	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	175348	19.40	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	161377	19.83	ug/L	98
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	152936	20.28	ug/L	95
32) Benzene	78	10.204	10.204	0.976	539206	19.82	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	267761	19.32	ug/L	100
34) n-Butyl alcohol	41	10.536	10.536	1.008	277572	2360.08	ug/L	97
35) Trichloroethylene	95	10.845	10.833	1.037	131394	19.93	ug/L	99
36) 2-Pentanone	43	10.916	10.916	1.044	443835	104.88	ug/L	98
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	135596	20.24	ug/L	99
38) Methylcyclohexane	83	11.082	11.082	1.060	263942	19.34	ug/L	98
39) Dibromomethane	93	11.224	11.224	1.074	72908	20.85	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I315.D
Acq On : 06 Sep 2017 18:39
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL20 5mL n/a MIX[A]0726-06+0829-06B+0608-06C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 07 09:55:58 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) Bromodichloromethane	83	11.331	11.331	1.084	166349	20.94	ug/L		98
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	388934	102.25	ug/L		98
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	220639	21.10	ug/L		98
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	252756	99.83	ug/L		96
46) Toluene	91	12.173	12.173	0.893	539120	19.63	ug/L		96
47) trans-1,3-Dichloroprop...	75	12.327	12.315	0.904	182787	20.30	ug/L		99
48) 1,1,2-Trichloroethane	83	12.541	12.540	0.920	96625	20.66	ug/L		98
49) 2-Hexanone	43	12.718	12.718	0.933	471059	110.22	ug/L		99
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	185056	20.14	ug/L		99
51) Tetrachloroethylene	164	12.766	12.766	0.936	102978	19.05	ug/L		100
52) Dibromochloromethane	129	13.003	13.003	0.954	117063	21.14	ug/L		99
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	112764	20.70	ug/L		100
54) Chlorobenzene	112	13.655	13.655	1.002	354127	20.00	ug/L		98
55) 1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.006	122920	20.28	ug/L		98
56) Ethylbenzene	91	13.715	13.714	1.006	612058	18.92	ug/L		98
57) m,p-Xylenes	106	13.821	13.821	1.014	501849	40.60	ug/L		96
58) o-Xylene	106	14.260	14.260	1.046	257159	19.63	ug/L		94
59) Styrene	104	14.260	14.260	1.046	427040	20.10	ug/L		98
61) Bromoform	173	14.533	14.533	0.906	76856	21.31	ug/L		99
62) Isopropylbenzene	105	14.616	14.616	0.911	656289	19.57	ug/L		97
64) 1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	163263	20.83	ug/L		98
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	42286	20.62	ug/L	#	94
66) Bromobenzene	156	15.031	15.031	0.937	164274	19.84	ug/L		97
67) n-Propylbenzene	91	15.043	15.043	0.938	761986	18.61	ug/L		97
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	545828	19.43	ug/L		97
69) 2-Chlorotoluene	126	15.197	15.197	0.948	159452	19.59	ug/L		93
70) 4-Chlorotoluene	91	15.292	15.292	0.953	488597	19.50	ug/L		99
71) tert-Butylbenzene	134	15.564	15.564	0.970	118079	19.11	ug/L		92
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	555492	18.72	ug/L		94
73) sec-Butylbenzene	105	15.790	15.790	0.984	740535	18.68	ug/L		97
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	625829	19.04	ug/L		98
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	321144	19.18	ug/L		99
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	302223	19.14	ug/L		99
77) n-Butylbenzene	91	16.359	16.359	1.020	596617	21.80	ug/L		96
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	312779	19.51	ug/L		98
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	33548	20.39	ug/L		99
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	237925	20.12	ug/L		98
81) Hexachlorobutadiene	225	18.683	18.683	1.165	140992	19.36	ug/L		99
82) Naphthalene	128	18.920	18.908	1.180	542916	20.81	ug/L		99
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	216991	20.07	ug/L		99
85) Acrolein		6.920	6.979	0.662	0m	N.D.	d		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.			
87) Isopropyl Alcohol		7.145	7.228	0.684	0m	N.D.	d		
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d		
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.			
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d		
91) Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d		
92) 2-Chloro-1,3-butadiene		8.687	8.675	0.831	0m	N.D.	d		
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.			
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d		
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d		
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I315.D
Acq On : 06 Sep 2017 18:39
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL20 5mL n/a MIX[A]0726-06+0829-06B+0608-06C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 07 09:55:58 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

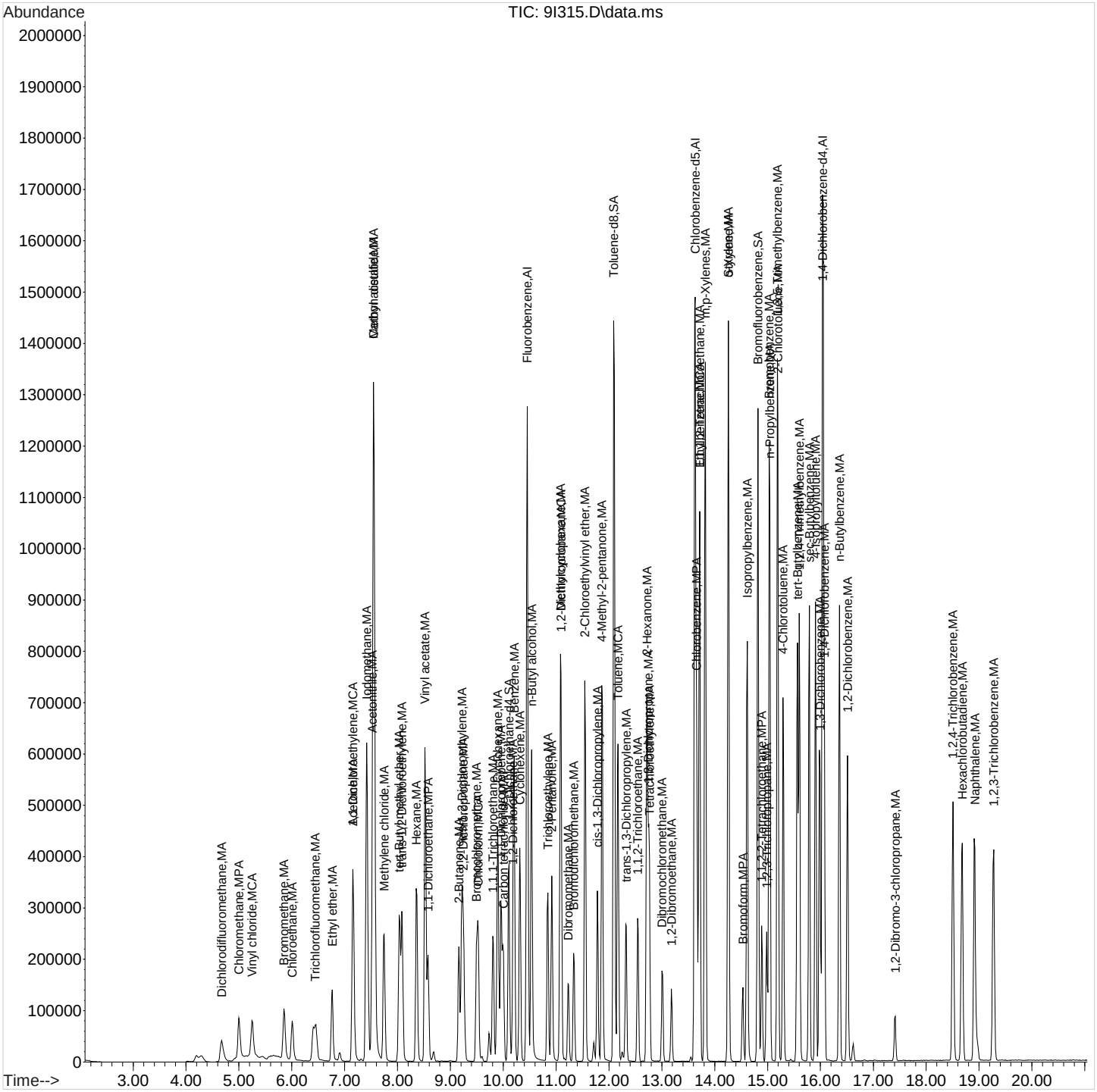
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		13.549	13.513	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		15.648	15.636	0.976	0m	N.D.	d
111) Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.620	16.584	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I315.D
Acq On : 06 Sep 2017 18:39
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-09|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL20 5mL n/a MIX[A]0726-06+0829-06B+0608-06C
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 07 09:55:58 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I **Injection Date:** 06-SEP-17 19:08

Data File: 090617V9\9I316.D **Init. Cal. Date(s)** 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM170906-10 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD **Method Update:** 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.241	0.23908		.01		-0.79668	60		Averaged	
S	Toluene-d8	1.1229	1.11422		.01		-0.773	60		Averaged	
S	Bromofluorobenzene	0.882	0.87903		.01		-0.33673	60		Averaged	
	Dichlorodifluoromethane	0.2171	0.2512		.01		15.70705	60		Averaged	
	Chloromethane	0.2914	0.33224		.1		14.0151	60		Averaged	SPCC
	Vinyl chloride	0.2727	0.3131		.01		14.81481	20		Averaged	CCC
	Bromomethane	0.2238	0.24126		.01		7.80161	60		Averaged	
	Chloroethane	0.2328	0.25681		.01		10.31357	60		Averaged	
	Trichlorofluoromethane	0.355	0.40341		.01		13.63662	60		Averaged	
	1,1-Dichloroethylene	0.4209	0.43881		.01		4.25517	20		Averaged	CCC
	Acetone	250	261.03	250			4.412	60		Linear	
	Carbon disulfide	250	269.03	250			7.612	60		Linear	
	Methyl acetate	250	267.44	250			6.976	60		Linear	
	Methylene chloride	50	54.24	50			8.48	60		Linear	
	tert-Butyl methyl ether	0.7198	0.71872		.01		-0.15004	60		Averaged	
	trans-1,2-Dichloroethylene	0.3887	0.40813		.01		4.99871	60		Averaged	
	Vinyl acetate	250	279	250			11.6	60		Linear	
	1,1-Dichloroethane	0.4671	0.48771		.1		4.41233	60		Averaged	SPCC
	2-Butanone	250	259.99	250			3.996	60		Linear	
	cis-1,2-Dichloroethylene	0.4272	0.43756		.01		2.42509	60		Averaged	
	Bromochloromethane	0.1185	0.12353		.01		4.24473	60		Averaged	
	Chloroform	0.4155	0.42195		.01		1.55235	20		Averaged	CCC
	1,1,1-Trichloroethane	0.3766	0.39398		.01		4.61498	60		Averaged	
	Cyclohexane	0.5422	0.5524		.01		1.88122	60		Averaged	
	Carbon tetrachloride	0.3044	0.3319		.01		9.03417	60		Averaged	
	1,2-Dichloroethane	0.2821	0.28655		.01		1.57745	60		Averaged	
	Benzene	1.0175	1.03013		.01		1.24128	60		Averaged	
	Trichloroethylene	0.2465	0.25945		.01		5.25355	60		Averaged	
	Methylcyclohexane	0.5104	0.53169		.01		4.17124	60		Averaged	
	1,2-Dichloropropane	0.2506	0.24727		.01		-1.32881	20		Averaged	CCC
	Bromodichloromethane	0.2971	0.31284		.01		5.29788	60		Averaged	
	cis-1,3-Dichloropropylene	0.3911	0.40012		.01		2.30632	60		Averaged	
	4-Methyl-2-pentanone	0.1206	0.11172		.01		-7.36318	60		Averaged	
	Toluene	1.3077	1.29107		.01		-1.2717	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.4287	0.45587		.01		6.33777	60		Averaged	
	1,1,2-Trichloroethane	0.2227	0.22407		.01		0.61518	60		Averaged	
	2-Hexanone	250	270.34	250			8.136	60		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 06-SEP-17 19:08

Data File: 090617V9\9I316.D **Init. Cal. Date(s)** 06-SEP-17 14:21 06-SEP-17 22:53

Lab Sample ID W9VM170906-10 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.2574	0.27242		.01		5.83528	60		Averaged	
Dibromochloromethane	0.2636	0.2974		.01		12.82246	60		Averaged	
1,2-Dibromoethane	0.2595	0.27429		.01		5.69942	60		Averaged	
Chlorobenzene	0.8433	0.87037		.3		3.21001	60		Averaged	SPCC
Ethylbenzene	1.5406	1.46021		.01		-5.2181	20		Averaged	CCC
m,p-Xylenes	0.5886	0.61784		.01		4.96772	60		Averaged	
o-Xylene	0.6237	0.6327		.01		1.443	60		Averaged	
Styrene	1.0115	0.98508		.01		-2.61196	60		Averaged	
Bromoform	0.3081	0.35583		.1		15.49172	60		Averaged	SPCC
Isopropylbenzene	2.8654	2.87674		.01		0.39576	60		Averaged	
1,1,2,2-Tetrachloroethane	0.6697	0.68885		.3		2.85949	60		Averaged	SPCC
1,3-Dichlorobenzene	1.4306	1.39988		.01		-2.14735	60		Averaged	
1,4-Dichlorobenzene	1.3493	1.35687		.01		0.56103	60		Averaged	
1,2-Dichlorobenzene	1.3698	1.35911		.01		-0.78041	60		Averaged	
1,2-Dibromo-3-chloropropane	0.1406	0.15682		.01		11.53627	60		Averaged	
1,2,4-Trichlorobenzene	50	56.44	50			12.88	60		Linear	
1,2,3-Trichlorobenzene	50	56.22	50			12.44	60		Linear	

RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I316.D
Acq On : 06 Sep 2017 19:08
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-10|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10D+0829-10B+0831-01+0
ALS Vial : 16 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:56:00 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1280624	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	975737	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	542331	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1280624	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	975737	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	542331	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	306173	49.61	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1087181	49.61	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	476725	49.83	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	321687	57.86	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	425478	57.01	ug/L	100
4) Vinyl chloride	62	5.259	5.259	0.503	400968	57.41	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	308958	53.89	ug/L	100
6) Chloroethane	64	6.007	6.006	0.575	328879	55.16	ug/L	100
7) Trichlorofluoromethane	101	6.445	6.445	0.617	516616	56.82	ug/L	100
8) Ethyl ether	59	6.765	6.754	0.647	297541	54.05	ug/L	100
9) Acetone	43	7.157	7.145	0.685	616674	261.03	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	561945	52.13	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	2500470	240.58	ug/L	100
12) Acetonitrile	41	7.524	7.512	0.720	920345	1339.77	ug/L	100
13) Methyl acetate	43	7.548	7.548	0.722	888262	267.44	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	4944712	269.03	ug/L	99
15) Methylene chloride	84	7.750	7.738	0.741	368037	54.24	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	920409	49.92	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	522655	52.50	ug/L	99
18) Hexane	57	8.354	8.354	0.799	467687	43.76	ug/L	100
19) Vinyl acetate	43	8.521	8.520	0.815	2672777	279.00	ug/L	100
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	624569	52.21	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	804759	259.99	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	560356	51.22	ug/L	98
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	521898	52.98	ug/L	99
24) Bromochloromethane	128	9.493	9.493	0.908	158194	52.11	ug/L	99
25) Chloroform	83	9.528	9.528	0.912	540360	50.77	ug/L	100
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	504541	52.30	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	707419	50.94	ug/L	100
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	445612	51.46	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	425041	54.52	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	366961	50.79	ug/L	99
32) Benzene	78	10.204	10.204	0.976	1319207	50.62	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	680971	51.28	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	588250	5296.13	ug/L	98
35) Trichloroethylene	95	10.845	10.833	1.037	332253	52.62	ug/L	99
36) 2-Pentanone	43	10.916	10.916	1.044	932138	229.93	ug/L	100
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	316657	49.34	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	680895	52.09	ug/L	100
39) Dibromomethane	93	11.224	11.224	1.074	170783	50.99	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I316.D
Acq On : 06 Sep 2017 19:08
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-10|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10D+0829-10B+0831-01+0
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 07 09:56:00 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	400632	52.65	ug/L	100
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	732663	201.05	ug/L	99
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	512402	51.15	ug/L	100
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.870	545058	231.67	ug/L	99
46) Toluene	91	12.173	12.173	0.893	1259741	49.36	ug/L	100
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.903	444811	53.17	ug/L	100
48) 1,1,2-Trichloroethane	83	12.541	12.540	0.920	218638	50.31	ug/L	100
49) 2-Hexanone	43	12.718	12.718	0.933	1048795	270.34	ug/L	99
50) 1,3-Dichloropropane	76	12.742	12.742	0.935	422199	49.45	ug/L	97
51) Tetrachloroethylene	164	12.766	12.766	0.936	265810	52.92	ug/L	100
52) Dibromochloromethane	129	13.003	13.003	0.954	290182	56.40	ug/L	100
53) 1,2-Dibromoethane	107	13.181	13.181	0.967	267632	52.86	ug/L	100
54) Chlorobenzene	112	13.655	13.655	1.002	849256	51.61	ug/L	100
55) 1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.006	310508	55.12	ug/L	100
56) Ethylbenzene	91	13.715	13.714	1.006	1424781	47.39	ug/L	100
57) m,p-Xylenes	106	13.821	13.821	1.014	1205703	104.96	ug/L	98
58) o-Xylene	106	14.260	14.260	1.046	617352	50.73	ug/L	98
59) Styrene	104	14.260	14.260	1.046	961178	48.69	ug/L	100
61) Bromoform	173	14.533	14.533	0.906	192979	57.75	ug/L	99
62) Isopropylbenzene	105	14.616	14.616	0.911	1560144	50.20	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	373587	51.43	ug/L	100
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	98385	51.76	ug/L	98
66) Bromobenzene	156	15.031	15.031	0.937	385230	50.21	ug/L	99
67) n-Propylbenzene	91	15.043	15.043	0.938	1769822	46.63	ug/L	99
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1294816	49.75	ug/L	100
69) 2-Chlorotoluene	126	15.197	15.197	0.948	392756	52.07	ug/L	98
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1144025	49.28	ug/L	99
71) tert-Butylbenzene	134	15.564	15.564	0.970	305575	53.35	ug/L	99
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1303388	47.39	ug/L	99
73) sec-Butylbenzene	105	15.790	15.790	0.984	1787056	48.65	ug/L	99
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	1531023	50.27	ug/L	99
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	759198	48.93	ug/L	100
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	735870	50.28	ug/L	100
77) n-Butylbenzene	91	16.359	16.359	1.020	1430392	57.95	ug/L	99
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	737089	49.61	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	85051	55.79	ug/L	100
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	600488	56.44	ug/L	99
81) Hexachlorobutadiene	225	18.683	18.683	1.165	379469	57.66	ug/L	100
82) Naphthalene	128	18.909	18.908	1.179	1310175	56.02	ug/L	100
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	546427	56.22	ug/L	99
85) Acrolein		6.908	6.979	0.661	0m	N.D.	d	
86) Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87) Isopropyl Alcohol		7.145	7.228	0.683	0m	N.D.	d	
88) Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d	
96) Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I316.D
Acq On : 06 Sep 2017 19:08
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-10|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10D+0829-10B+0831-01+0
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 07 09:56:00 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

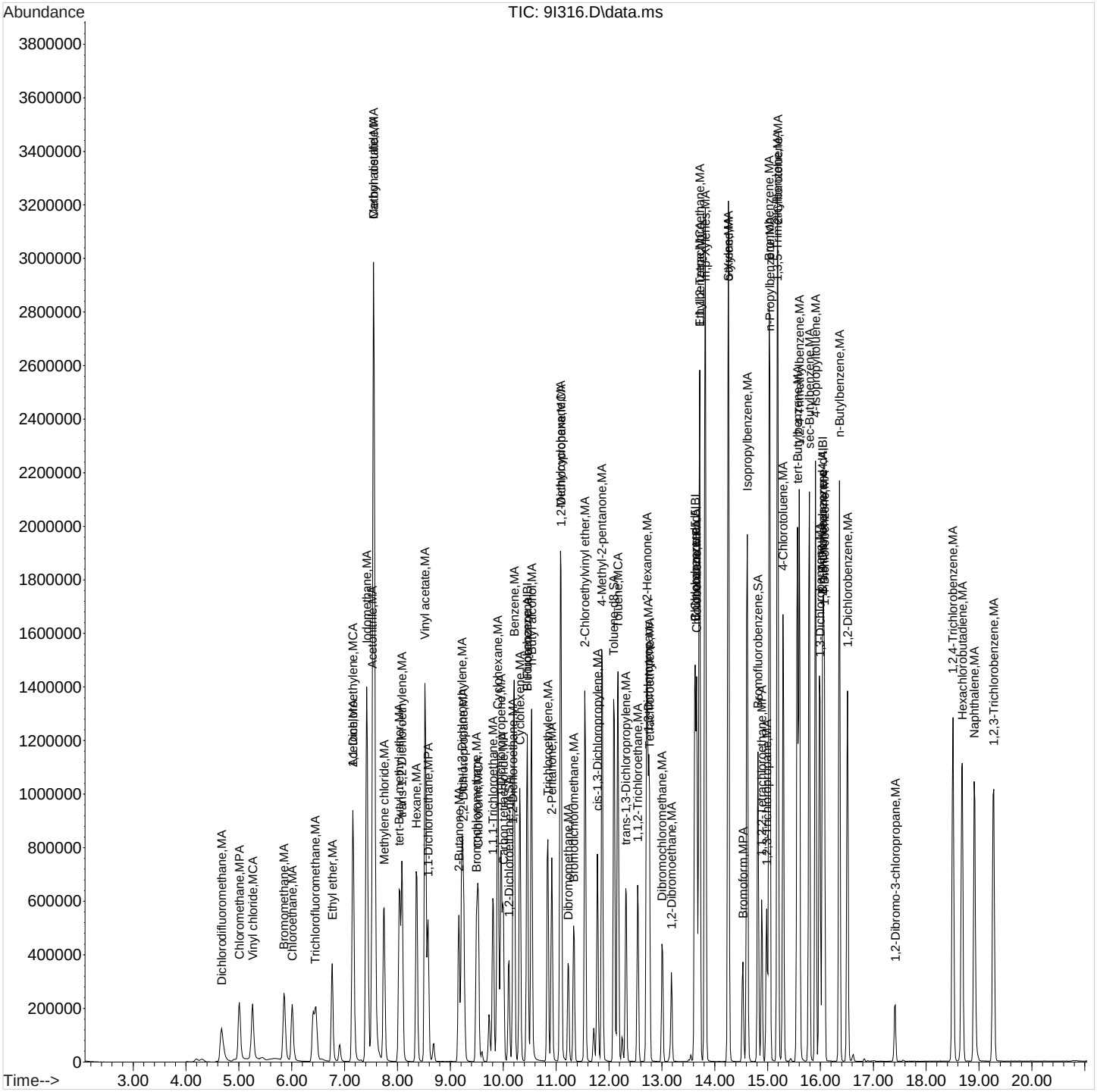
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		12.315	12.304	0.903	0m	N.D.	d
106)	1-Chlorohexane		13.513	13.513	0.843	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.616	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110)	Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I316.D
Acq On : 06 Sep 2017 19:08
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-10|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10D+0829-10B+0831-01+0
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 07 09:56:00 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



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09/07/2017

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09/09/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I317.D
Acq On : 06 Sep 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[B]0731-01A+0824-01A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 09:56:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1338497	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1017328	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	582705	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.		d
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.169	7.145	0.686	0m	N.D.		d
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		7.418	7.418	0.710	0m	N.D.		d
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.		d
13) Methyl acetate		7.560	7.548	0.723	0m	N.D.		d
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.		d
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.		d
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.082	8.082	0.773	0m	N.D.		d
18) Hexane		8.354	8.354	0.799	0m	N.D.		d
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.		d
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		9.173	9.161	0.877	0m	N.D.		d
22) cis-1,2-Dichloroethylene		9.173	9.208	0.877	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.517	9.528	0.910	0m	N.D.		d
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.		d
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.193	10.181	0.975	0m	N.D.		d
32) Benzene		10.204	10.204	0.976	0m	N.D.		d
33) Cyclohexene		10.311	10.311	0.986	0m	N.D.		d
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.		d
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.		d
36) 2-Pentanone		10.928	10.916	1.045	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.094	11.082	1.061	0m	N.D.		d
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I317.D
Acq On : 06 Sep 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[B]0731-01A+0824-01A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 09:56:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		11.556	11.544	1.105	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		11.782	11.782	1.127	0m	N.D.	d	
44) 4-Methyl-2-pentanone		11.876	11.865	0.871	0m	N.D.	d	
46) Toluene		12.173	12.173	0.893	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.327	12.315	0.904	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.934	0m	N.D.	d	
50) 1,3-Dichloropropane		12.742	12.742	0.935	0m	N.D.	d	
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54) Chlorobenzene		13.667	13.655	1.003	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		13.715	13.714	1.006	0m	N.D.	d	
56) Ethylbenzene		13.715	13.714	1.006	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59) Styrene		14.272	14.260	1.047	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.889	14.888	0.928	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.304	15.292	0.954	0m	N.D.	d	
71) tert-Butylbenzene		15.564	15.564	0.970	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		17.414	17.414	1.086	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	5389	4.99	ug/L	64
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	16009	5.45	ug/L	96
87) Isopropyl Alcohol	45	7.228	7.228	0.691	23268	50.98	ug/L #	60
88) Allyl chloride	41	7.596	7.596	0.727	67418	Below Cal		99
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	35611	50.66	ug/L	64
90) Acrylonitrile	53	8.011	7.999	0.766	11195	4.93	ug/L	98
91) Isopropyl ether	45	8.544	8.544	0.817	24985	1.06	ug/L #	62
92) 2-Chloro-1,3-butadiene	53	8.687	8.675	0.831	11051	1.02	ug/L	99
93) Ethyl tert-butyl ether	59	8.959	8.948	0.857	22368	1.02	ug/L	94
94) Ethyl acetate	43	9.173	9.161	0.877	32373	5.83	ug/L	94
95) Propionitrile	54	9.256	9.244	0.885	3674	4.46	ug/L	77
96) Methacrylonitrile	41	9.422	9.422	0.901	17410	5.22	ug/L	90

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I317.D
Acq On : 06 Sep 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[B]0731-01A+0824-01A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 09:56:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

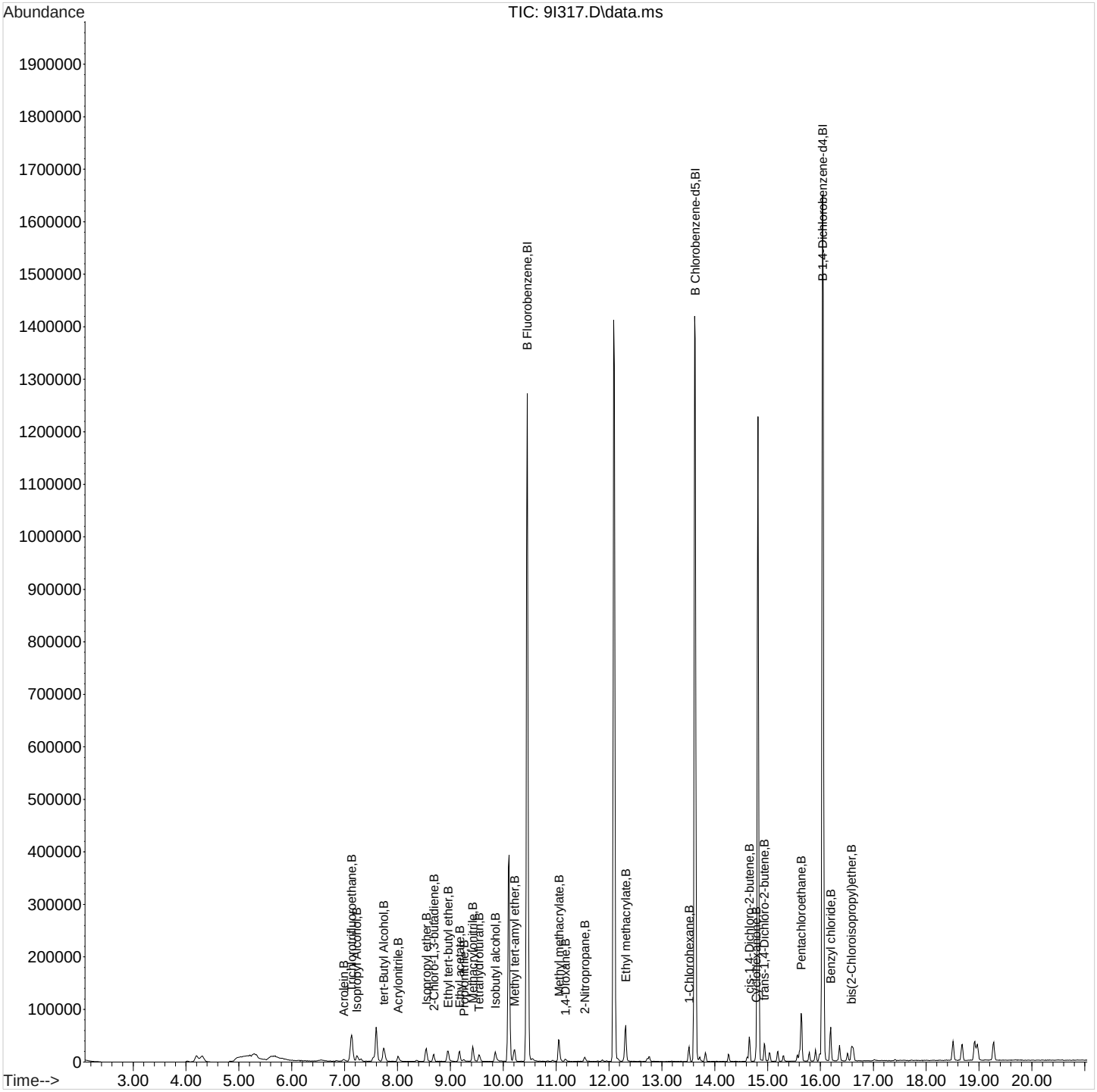
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	11005	5.85	ug/L	92
98)	Isobutyl alcohol	41	9.849	9.849	0.942	13421	25.17	ug/L	88
99)	Methyl tert-amyl ether	73	10.216	10.205	0.977	18961	1.01	ug/L	92
100)	Methyl methacrylate	69	11.058	11.047	1.058	20818	5.34	ug/L	90
101)	1,4-Dioxane	88	11.177	11.165	1.069	3037	47.34	ug/L	95
102)	2-Nitropropane	43	11.544	11.533	1.104	7642	5.16	ug/L #	66
104)	Ethyl methacrylate	69	12.315	12.304	0.903	41602	5.32	ug/L	89
106)	1-Chlorohexane	55	13.513	13.513	0.843	8031	1.12	ug/L	90
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	9867	4.76	ug/L	84
108)	Cyclohexanone	42	14.782	14.782	0.922	4105	25.00	ug/L #	82
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	9290	4.99	ug/L	86
110)	Pentachloroethane	167	15.636	15.636	0.975	20623	4.92	ug/L	81
111)	Benzyl chloride	91	16.193	16.193	1.010	59626	4.98	ug/L	92
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	21166	5.39	ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I317.D
Acq On : 06 Sep 2017 19:37
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-11|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL5 5mL n/a MIX[B]0731-01A+0824-01A
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 07 09:56:02 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

EM
09/09/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I318.D
Acq On : 06 Sep 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[B]0731-02A+0824-02A
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 09:56:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1360835	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1022079	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	591451	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.		d
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.228	7.145	0.691	0m	N.D.		d
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.465	7.512	0.714	0m	N.D.		d
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.		d
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.		d
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.		d
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.366	8.354	0.800	0m	N.D.		d
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.		d
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		9.173	9.161	0.877	0m	N.D.		d
22) cis-1,2-Dichloroethylene		9.173	9.208	0.877	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.		d
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		10.204	10.204	0.976	0m	N.D.		d
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		10.513	10.536	1.006	0m	N.D.		d
35) Trichloroethylene		10.833	10.833	1.036	0m	N.D.		d
36) 2-Pentanone		10.928	10.916	1.045	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I318.D
Acq On : 06 Sep 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[B]0731-02A+0824-02A
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 09:56:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene		12.173	12.173	0.893	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		12.327	12.315	0.904	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		12.730	12.718	0.934	0m	N.D.	d	
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54)	Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene		13.715	13.714	1.006	0m	N.D.	d	
57)	m,p-Xylenes		13.833	13.821	1.015	0m	N.D.	d	
58)	o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59)	Styrene		14.272	14.260	1.047	0m	N.D.	d	
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		14.889	14.888	0.928	0m	N.D.	d	
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67)	n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69)	2-Chlorotoluene		15.209	15.197	0.948	0m	N.D.	d	
70)	4-Chlorotoluene		15.304	15.292	0.954	0m	N.D.	d	
71)	tert-Butylbenzene		15.564	15.564	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73)	sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77)	n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78)	1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81)	Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82)	Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85)	Acrolein	56	6.979	6.979	0.668	11533	10.51	ug/L	85
86)	Trichlorotrifluoroethane	85	7.133	7.133	0.682	34422	11.52	ug/L	96
87)	Isopropyl Alcohol	45	7.228	7.228	0.691	54057	116.49	ug/L	68
88)	Allyl chloride	41	7.596	7.596	0.727	134739	Below Cal		97
89)	tert-Butyl Alcohol	59	7.738	7.738	0.740	83766	117.22	ug/L	91
90)	Acrylonitrile	53	8.011	7.999	0.766	25690	11.13	ug/L	99
91)	Isopropyl ether	45	8.544	8.544	0.817	53883	2.24	ug/L	87
92)	2-Chloro-1,3-butadiene	53	8.687	8.675	0.831	23879	2.17	ug/L	98
93)	Ethyl tert-butyl ether	59	8.959	8.948	0.857	50251	2.25	ug/L	95
94)	Ethyl acetate	43	9.173	9.161	0.877	63454	11.25	ug/L	96
95)	Propionitrile	54	9.256	9.244	0.885	8971	10.72	ug/L	86
96)	Methacrylonitrile	41	9.422	9.422	0.901	41464	12.22	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I318.D
Acq On : 06 Sep 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[B]0731-02A+0824-02A
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 09:56:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

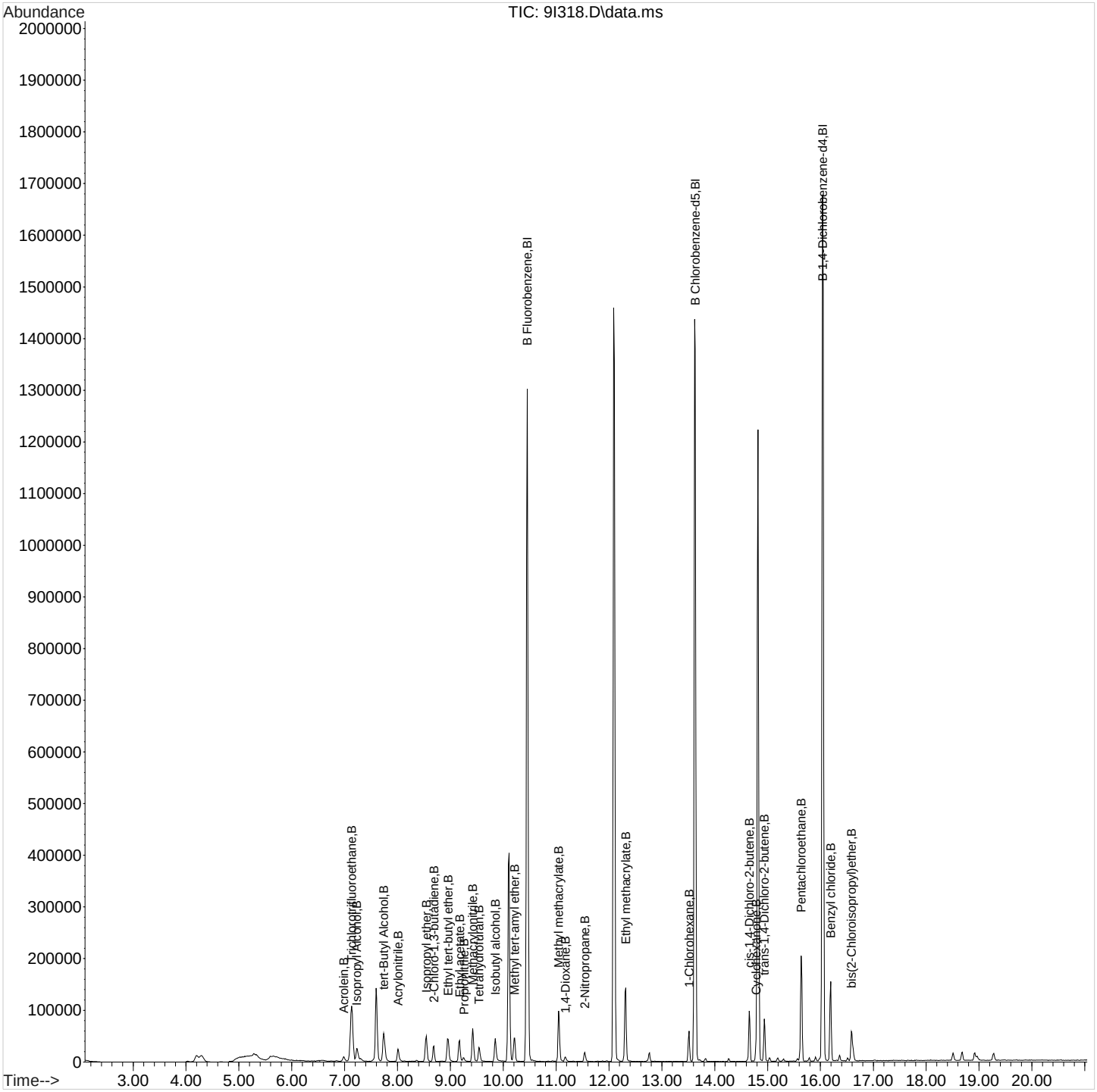
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	22891	11.97	ug/L	94
98)	Isobutyl alcohol	41	9.849	9.849	0.942	28497	108.21	ug/L	87
99)	Methyl tert-amyl ether	73	10.216	10.205	0.977	42556	2.23	ug/L	96
100)	Methyl methacrylate	69	11.046	11.047	1.057	46235	11.66	ug/L	92
101)	1,4-Dioxane	88	11.177	11.165	1.069	6916	106.04	ug/L	95
102)	2-Nitropropane	43	11.544	11.533	1.104	15031	9.99	ug/L	87
104)	Ethyl methacrylate	69	12.315	12.304	0.903	90656	11.54	ug/L	93
106)	1-Chlorohexane	55	13.513	13.513	0.843	16659	2.29	ug/L	91
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	23590	11.20	ug/L	85
108)	Cyclohexanone	42	14.782	14.782	0.922	8993	53.95	ug/L	84
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	20823	11.02	ug/L	90
110)	Pentachloroethane	167	15.636	15.636	0.975	45863	10.78	ug/L	83
111)	Benzyl chloride	91	16.193	16.193	1.010	138313	11.37	ug/L	93
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	47154	11.83	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I318.D
Acq On : 06 Sep 2017 20:05
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-12|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL10 5mL n/a MIX[B]0731-02A+0824-02A
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 07 09:56:05 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

EM
09/09/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I319.D
Acq On : 06 Sep 2017 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5mL n/a MIX[B]0731-03A+0824-03A
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 09:56:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	0m	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1372512	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	1019470	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	594521	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.888	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.975	4.998	0.476	0m	N.D.		d
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.145	7.145	0.683	0m	N.D.		d
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.		d
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.		d
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.		d
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.		d
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.366	8.354	0.800	0m	N.D.		d
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.		d
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.		d
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.		d
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.		d
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.		d
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		10.204	10.204	0.976	0m	N.D.		d
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		10.525	10.536	1.007	0m	N.D.		d
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.		d
36) 2-Pentanone		10.940	10.916	1.047	0m	N.D.		d
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I319.D
Acq On : 06 Sep 2017 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5mL n/a MIX[B]0731-03A+0824-03A
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 09:56:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		12.173	12.173	0.894	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.327	12.315	0.905	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.935	0m	N.D.	d	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		12.766	12.766	0.937	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene		13.655	13.655	1.003	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene		13.715	13.714	1.007	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.015	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.047	0m	N.D.	d	
59) Styrene		14.272	14.260	1.048	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.304	15.292	0.954	0m	N.D.	d	
71) tert-Butylbenzene		15.565	15.564	0.970	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	25943	23.44	ug/L	93
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	84222	27.94	ug/L	96
87) Isopropyl Alcohol	45	7.228	7.228	0.691	117989	252.09	ug/L	91
88) Allyl chloride	41	7.596	7.596	0.727	324504	19.85	ug/L	97
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	185770	257.74	ug/L	89
90) Acrylonitrile	53	8.011	7.999	0.766	61114	26.24	ug/L	99
91) Isopropyl ether	45	8.544	8.544	0.817	133399	5.49	ug/L	96
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	60830	5.47	ug/L	97
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	123874	5.50	ug/L	97
94) Ethyl acetate	43	9.161	9.161	0.876	148731	26.14	ug/L	97
95) Propionitrile	54	9.244	9.244	0.884	21794	25.81	ug/L	96
96) Methacrylonitrile	41	9.422	9.422	0.901	93615	27.35	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I319.D
Acq On : 06 Sep 2017 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5mL n/a MIX[B]0731-03A+0824-03A
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 09:56:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

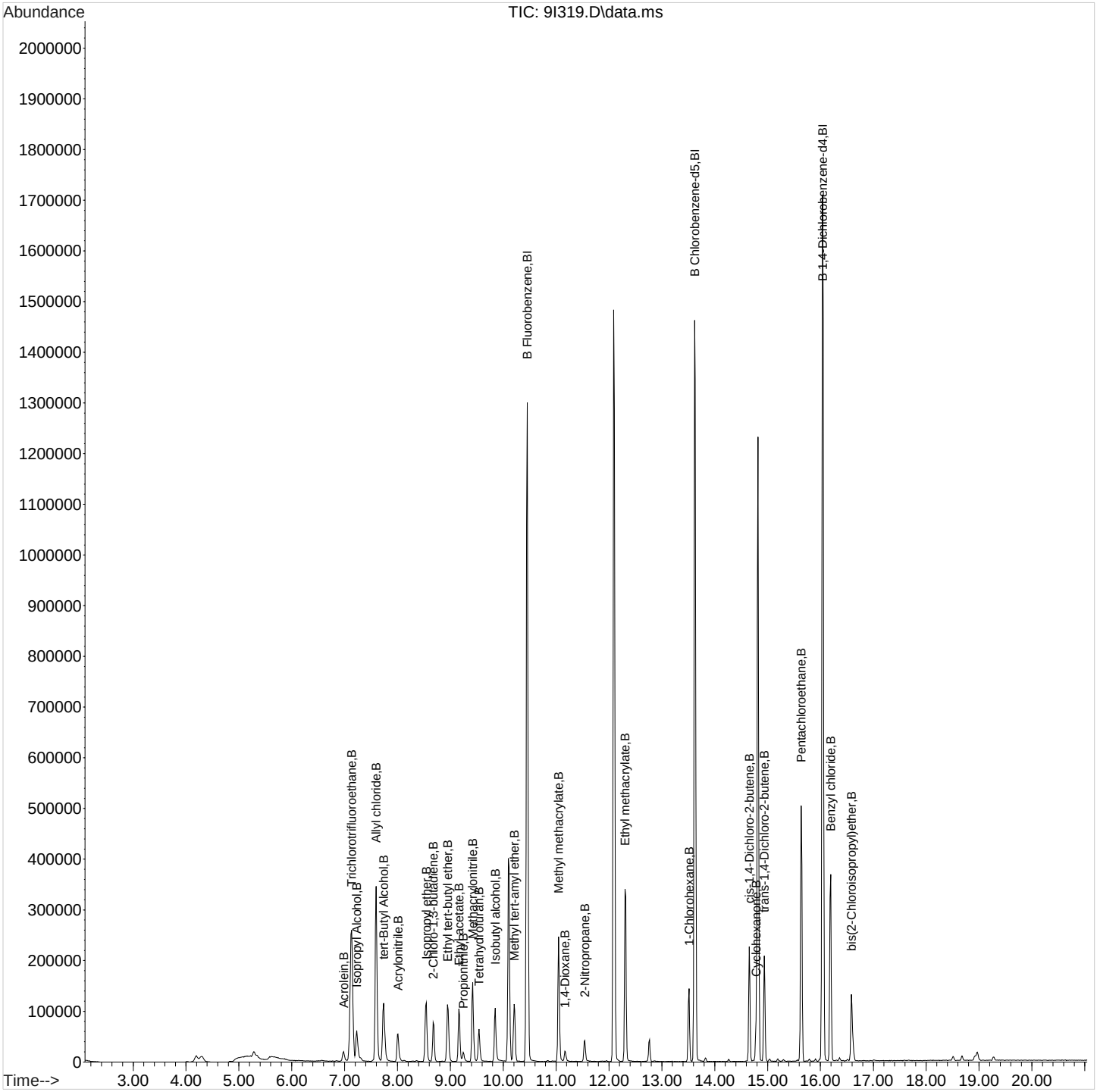
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	51120	26.49	ug/L	95
98)	Isobutyl alcohol	41	9.849	9.849	0.942	57970	270.23	ug/L	96
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	103623	5.39	ug/L	97
100)	Methyl methacrylate	69	11.046	11.047	1.057	108238	27.06	ug/L	93
101)	1,4-Dioxane	88	11.165	11.165	1.068	16883	256.65	ug/L	97
102)	2-Nitropropane	43	11.544	11.533	1.104	35445	23.36	ug/L	90
104)	Ethyl methacrylate	69	12.303	12.304	0.903	216121	27.58	ug/L	95
106)	1-Chlorohexane	55	13.513	13.513	0.843	39865	5.45	ug/L	96
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	56988	26.93	ug/L	87
108)	Cyclohexanone	42	14.782	14.782	0.922	20584	122.85	ug/L	93
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	51177	26.95	ug/L	90
110)	Pentachloroethane	167	15.636	15.636	0.975	117547	27.49	ug/L	90
111)	Benzyl chloride	91	16.193	16.193	1.010	339452	27.76	ug/L	94
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	107381	26.81	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I319.D
Acq On : 06 Sep 2017 20:34
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-13|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL25 5mL n/a MIX[B]0731-03A+0824-03A
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 07 09:56:08 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



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09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I320.D
Acq On : 06 Sep 2017 21:02
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[B]0731-04A+0824-04A
ALS Vial : 20 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:56:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1330553	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1006378	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	575676	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.228	7.145	0.691	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.145	7.157	0.683	0m	N.D.	d	
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		8.034	8.034	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.354	8.354	0.799	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.687	8.568	0.831	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.453	10.311	1.000	0m	N.D.	d	
34) n-Butyl alcohol		10.572	10.536	1.011	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		10.928	10.916	1.045	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I320.D
Acq On : 06 Sep 2017 21:02
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[B]0731-04A+0824-04A
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 09:56:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		12.173	12.173	0.893	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.934	0m	N.D.	d	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene		13.714	13.714	1.006	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59) Styrene		14.272	14.260	1.047	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.936	14.888	0.931	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71) tert-Butylbenzene		15.636	15.564	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		18.517	18.505	1.155	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	56902	53.04	ug/L	99
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	153353	52.48	ug/L	96
87) Isopropyl Alcohol	45	7.228	7.228	0.691	235525	519.08	ug/L	98
88) Allyl chloride	41	7.596	7.596	0.727	589765	54.27	ug/L	98
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	369195	528.38	ug/L	96
90) Acrylonitrile	53	8.011	7.999	0.766	118385	52.44	ug/L	99
91) Isopropyl ether	45	8.544	8.544	0.817	253111	10.75	ug/L	97
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	115158	10.68	ug/L	97
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	233400	10.69	ug/L	97
94) Ethyl acetate	43	9.161	9.161	0.876	285970	51.84	ug/L	97
95) Propionitrile	54	9.244	9.244	0.884	43124	52.69	ug/L	96
96) Methacrylonitrile	41	9.422	9.422	0.901	180110	54.28	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I320.D
Acq On : 06 Sep 2017 21:02
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[B]0731-04A+0824-04A
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 09:56:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

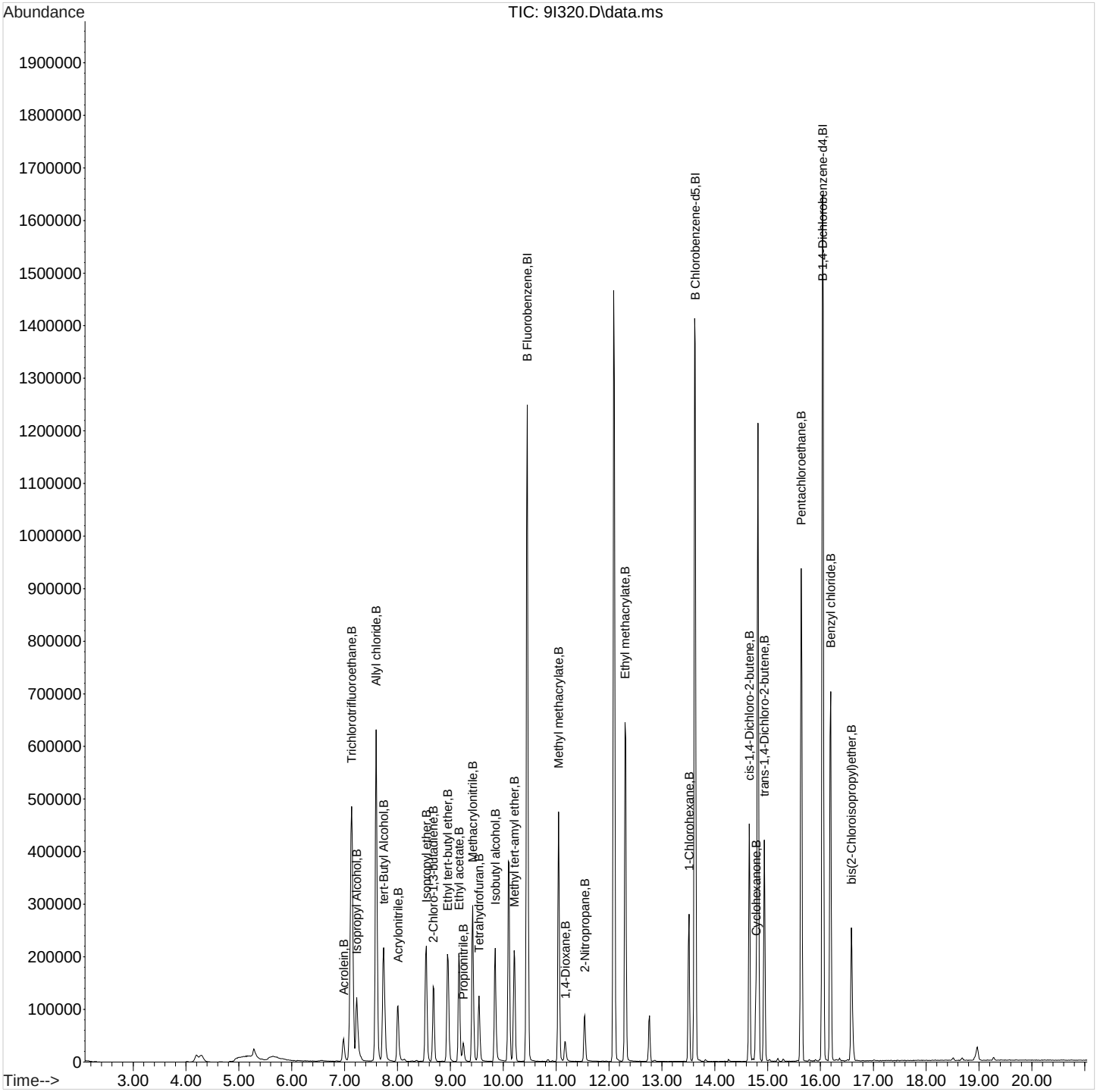
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	97043	51.88	ug/L	97
98)	Isobutyl alcohol	41	9.849	9.849	0.942	112946	594.72	ug/L	98
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	198289	10.64	ug/L	97
100)	Methyl methacrylate	69	11.046	11.047	1.057	211782	54.63	ug/L	93
101)	1,4-Dioxane	88	11.177	11.165	1.069	33540	525.94	ug/L	100
102)	2-Nitropropane	43	11.544	11.533	1.104	74377	50.56	ug/L	97
104)	Ethyl methacrylate	69	12.303	12.304	0.903	411051	53.15	ug/L	98
106)	1-Chlorohexane	55	13.513	13.513	0.843	77055	10.88	ug/L	96
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	112923	55.10	ug/L	91
108)	Cyclohexanone	42	14.782	14.782	0.922	43860	270.32	ug/L	96
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	100878	54.85	ug/L	94
110)	Pentachloroethane	167	15.636	15.636	0.975	227108	54.85	ug/L	95
111)	Benzyl chloride	91	16.193	16.193	1.010	646858	54.64	ug/L	95
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	209351	53.98	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I320.D
Acq On : 06 Sep 2017 21:02
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-14|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL50 5mL n/a MIX[B]0731-04A+0824-04A
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 07 09:56:11 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I321.D
Acq On : 06 Sep 2017 21:30
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[B]0731-05A+0824-05A
ALS Vial : 21 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:56:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	0m	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1304234	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	960652	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	555139	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.888	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		5.698	5.852	0.545	0m	N.D.	d	
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.133	7.157	0.682	0m	N.D.	d	
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		8.046	8.034	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.355	8.354	0.799	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.687	8.568	0.831	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.529	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.454	10.311	1.000	0m	N.D.	d	
34) n-Butyl alcohol		10.679	10.536	1.022	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		10.940	10.916	1.047	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I321.D
Acq On : 06 Sep 2017 21:30
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[B]0731-05A+0824-05A
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 09:56:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		12.173	12.173	0.894	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.935	0m	N.D.	d	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		12.766	12.766	0.937	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		13.181	13.181	0.968	0m	N.D.	d	
54) Chlorobenzene		13.667	13.655	1.003	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene		13.715	13.714	1.007	0m	N.D.	d	
57) m,p-Xylenes		13.833	13.821	1.016	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.047	0m	N.D.	d	
59) Styrene		14.272	14.260	1.048	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.936	14.888	0.931	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene		15.031	15.043	0.937	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.197	15.185	0.948	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.304	15.292	0.954	0m	N.D.	d	
71) tert-Butylbenzene		15.636	15.564	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.921	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	111358	105.89	ug/L	98
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	284770	99.42	ug/L	98
87) Isopropyl Alcohol	45	7.228	7.228	0.691	469812	1056.33	ug/L	98
88) Allyl chloride	41	7.596	7.596	0.727	1070946	117.18	ug/L	98
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	727523	1062.22	ug/L	98
90) Acrylonitrile	53	8.011	7.999	0.766	235214	106.29	ug/L	99
91) Isopropyl ether	45	8.544	8.544	0.817	464943	20.15	ug/L	98
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	217475	20.58	ug/L	98
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	430512	20.12	ug/L	99
94) Ethyl acetate	43	9.161	9.161	0.876	544373	100.67	ug/L	99
95) Propionitrile	54	9.244	9.244	0.884	87941	109.61	ug/L	98
96) Methacrylonitrile	41	9.422	9.422	0.901	340018	104.54	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I321.D
Acq On : 06 Sep 2017 21:30
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[B]0731-05A+0824-05A
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 09:56:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

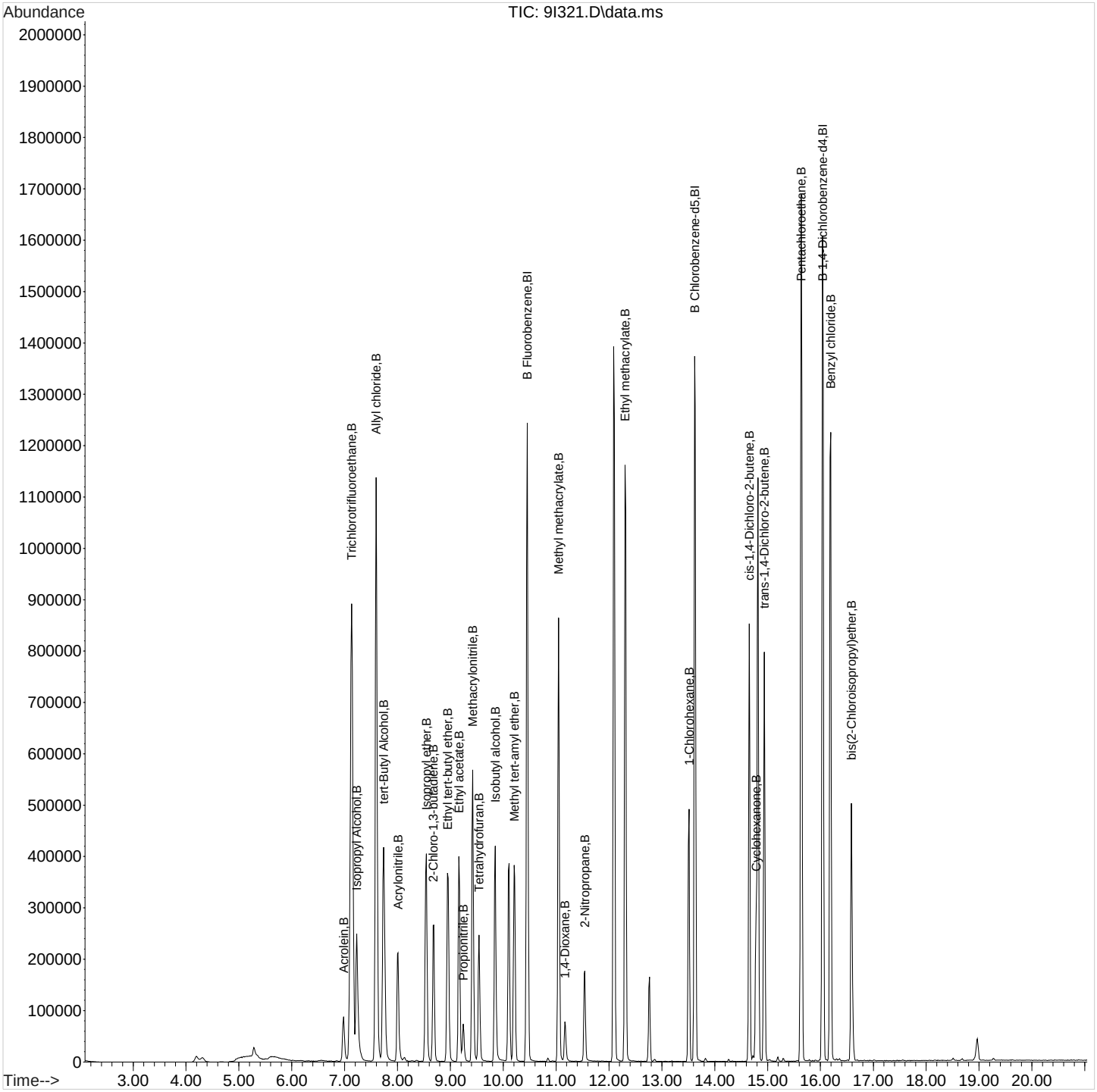
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	188989	103.07	ug/L	98
98)	Isobutyl alcohol	41	9.849	9.849	0.942	218042	1220.82	ug/L	99
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	368165	20.15	ug/L	99
100)	Methyl methacrylate	69	11.046	11.047	1.057	390179	102.67	ug/L	96
101)	1,4-Dioxane	88	11.165	11.165	1.068	66568	1064.91	ug/L	99
102)	2-Nitropropane	43	11.544	11.533	1.104	153713	106.59	ug/L	99
104)	Ethyl methacrylate	69	12.303	12.304	0.903	739804	100.20	ug/L	99
106)	1-Chlorohexane	55	13.513	13.513	0.843	137999	20.20	ug/L	97
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	212107	107.32	ug/L	95
108)	Cyclohexanone	42	14.782	14.782	0.922	88232	563.92	ug/L	98
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	188584	106.34	ug/L	97
110)	Pentachloroethane	167	15.636	15.636	0.975	416506	104.31	ug/L	97
111)	Benzyl chloride	91	16.193	16.193	1.010	1163548	101.92	ug/L	97
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	400442	107.06	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I321.D
Acq On : 06 Sep 2017 21:30
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-15|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL100 5mL n/a MIX[B]0731-05A+0824-05A
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 07 09:56:14 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I322.D
Acq On : 06 Sep 2017 21:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-16|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5mL n/a MIX[B]0731-06A+0824-06A
ALS Vial : 22 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:56:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1340218	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1006847	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	586946	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.818	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.445	6.445	0.617	0m	N.D.	d	
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.133	7.157	0.682	0m	N.D.	d	
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.738	7.738	0.740	0m	N.D.	d	
16) tert-Butyl methyl ether		8.034	8.034	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.529	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.205	10.181	0.976	0m	N.D.	d	
32) Benzene		10.205	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.454	10.311	1.000	0m	N.D.	d	
34) n-Butyl alcohol		10.572	10.536	1.011	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		10.940	10.916	1.047	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.047	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I322.D
Acq On : 06 Sep 2017 21:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-16|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5mL n/a MIX[B]0731-06A+0824-06A
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 09:56:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		12.173	12.173	0.893	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.315	12.315	0.903	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.934	0m	N.D.	d	
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54) Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		13.715	13.714	1.006	0m	N.D.	d	
56) Ethylbenzene		13.715	13.714	1.006	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59) Styrene		14.272	14.260	1.047	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.936	14.888	0.931	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71) tert-Butylbenzene		15.636	15.564	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.992	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.075	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		16.525	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		18.506	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.921	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	271617	251.34	ug/L	100
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	655697	222.78	ug/L	100
87) Isopropyl Alcohol	45	7.228	7.228	0.691	1047701	2292.41	ug/L	100
88) Allyl chloride	41	7.596	7.596	0.727	2338652	270.97	ug/L	100
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	1578516	2242.82	ug/L	100
90) Acrylonitrile	53	7.999	7.999	0.765	526897	231.70	ug/L	100
91) Isopropyl ether	45	8.544	8.544	0.817	1077541	45.45	ug/L	100
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	503188	46.33	ug/L	100
93) Ethyl tert-butyl ether	59	8.948	8.948	0.856	1002684	45.61	ug/L	100
94) Ethyl acetate	43	9.161	9.161	0.876	1159911	208.74	ug/L	100
95) Propionitrile	54	9.244	9.244	0.884	197004	238.95	ug/L	100
96) Methacrylonitrile	41	9.422	9.422	0.901	721955	216.00	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I322.D
Acq On : 06 Sep 2017 21:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-16|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5mL n/a MIX[B]0731-06A+0824-06A
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 09:56:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

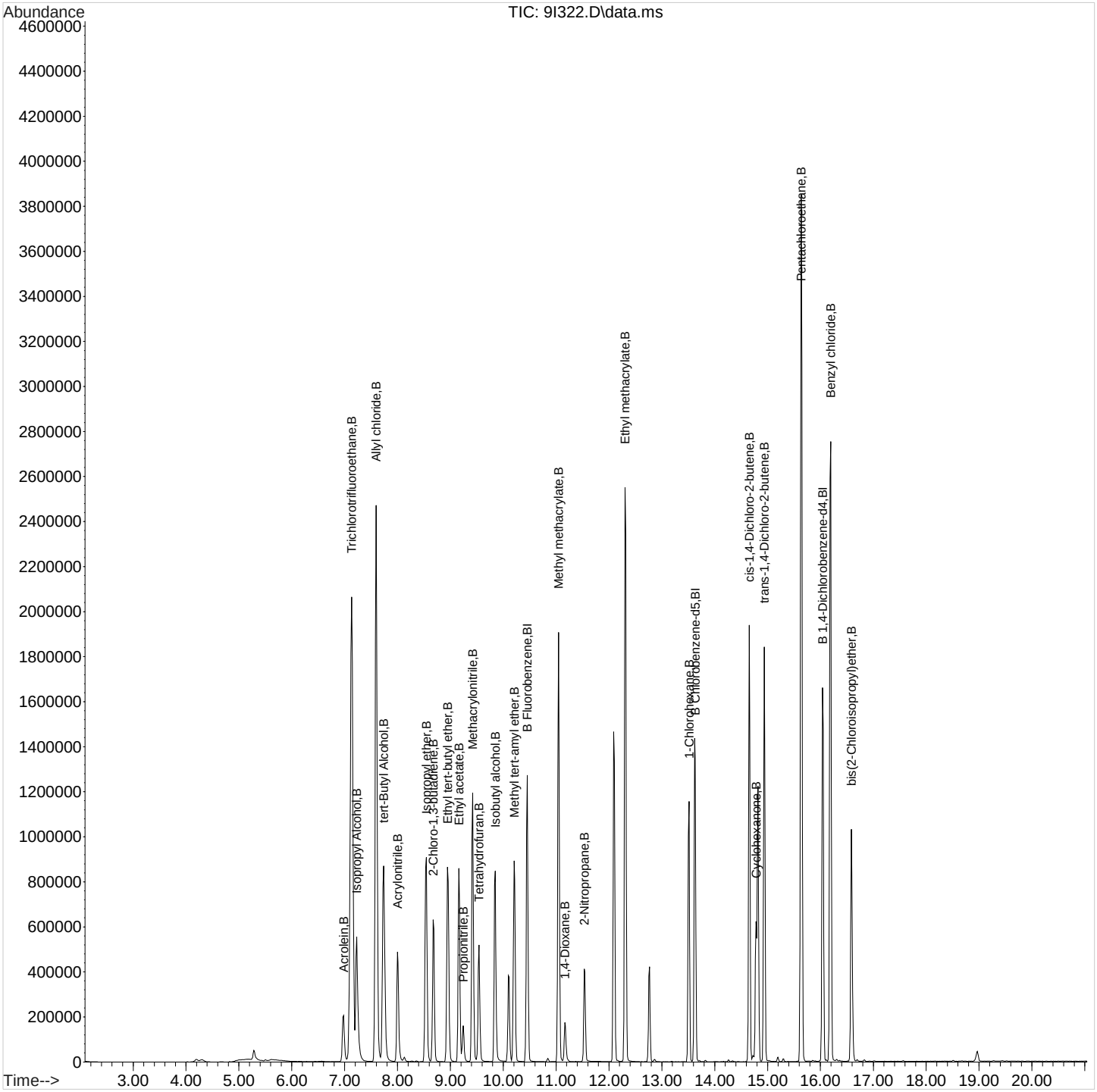
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	400518	212.58	ug/L	100
98)	Isobutyl alcohol	41	9.849	9.849	0.942	451979	2514.69	ug/L	100
99)	Methyl tert-amyl ether	73	10.205	10.205	0.976	861578	45.88	ug/L	100
100)	Methyl methacrylate	69	11.047	11.047	1.057	874699	223.99	ug/L	100
101)	1,4-Dioxane	88	11.165	11.165	1.068	155311	2417.85	ug/L	100
102)	2-Nitropropane	43	11.533	11.533	1.103	367800	248.20	ug/L	100
104)	Ethyl methacrylate	69	12.304	12.304	0.903	1611412	208.25	ug/L	100
106)	1-Chlorohexane	55	13.513	13.513	0.843	327340	45.32	ug/L	100
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	484828	232.03	ug/L	100
108)	Cyclohexanone	42	14.782	14.782	0.922	201204	1216.28	ug/L	100
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	430804	229.76	ug/L	100
110)	Pentachloroethane	167	15.636	15.636	0.975	988230	234.08	ug/L	100
111)	Benzyl chloride	91	16.193	16.193	1.010	2560424	212.12	ug/L	100
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	851436	215.31	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I322.D
Acq On : 06 Sep 2017 21:58
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-16|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL250 5mL n/a MIX[B]0731-06A+0824-06A
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 07 09:56:17 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



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09/07/2017

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09/09/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I323.D
Acq On : 06 Sep 2017 22:26
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-17|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 09:56:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1346570	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	1014155	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	595080	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.998	4.998	0.478	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.445	6.445	0.617	0m	N.D.	d	
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.133	7.157	0.682	0m	N.D.	d	
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		8.046	8.034	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.687	8.568	0.831	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.528	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.204	10.181	0.976	0m	N.D.	d	
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		11.046	10.916	1.057	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I323.D
Acq On : 06 Sep 2017 22:26
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-17|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 09:56:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene		12.173	12.173	0.893	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.327	12.315	0.904	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.730	12.718	0.934	0m	N.D.	d	
50) 1,3-Dichloropropane		12.766	12.742	0.936	0m	N.D.	d	
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54) Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		13.714	13.714	1.006	0m	N.D.	d	
56) Ethylbenzene		13.714	13.714	1.006	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59) Styrene		14.260	14.260	1.046	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.936	14.888	0.931	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		0.000	15.031	0.000	0	N.D.		
67) n-Propylbenzene		15.031	15.043	0.937	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71) tert-Butylbenzene		15.636	15.564	0.975	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.		
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	319483	294.24	ug/L	99
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	772273	261.15	ug/L	99
87) Isopropyl Alcohol	45	7.228	7.228	0.691	1221263	2659.57	ug/L	100
88) Allyl chloride	41	7.596	7.596	0.727	2696994	313.90	ug/L	99
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	1841261	2603.80	ug/L	100
90) Acrylonitrile	53	7.999	7.999	0.765	617142	270.11	ug/L	99
91) Isopropyl ether	45	8.544	8.544	0.817	1261225	52.95	ug/L	100
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	597366	54.74	ug/L	100
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	1178886	53.37	ug/L	99
94) Ethyl acetate	43	9.161	9.161	0.876	1314567	235.46	ug/L	99
95) Propionitrile	54	9.244	9.244	0.884	230680	278.48	ug/L	99
96) Methacrylonitrile	41	9.422	9.422	0.901	834391	248.47	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I323.D
Acq On : 06 Sep 2017 22:26
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-17|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 09:56:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

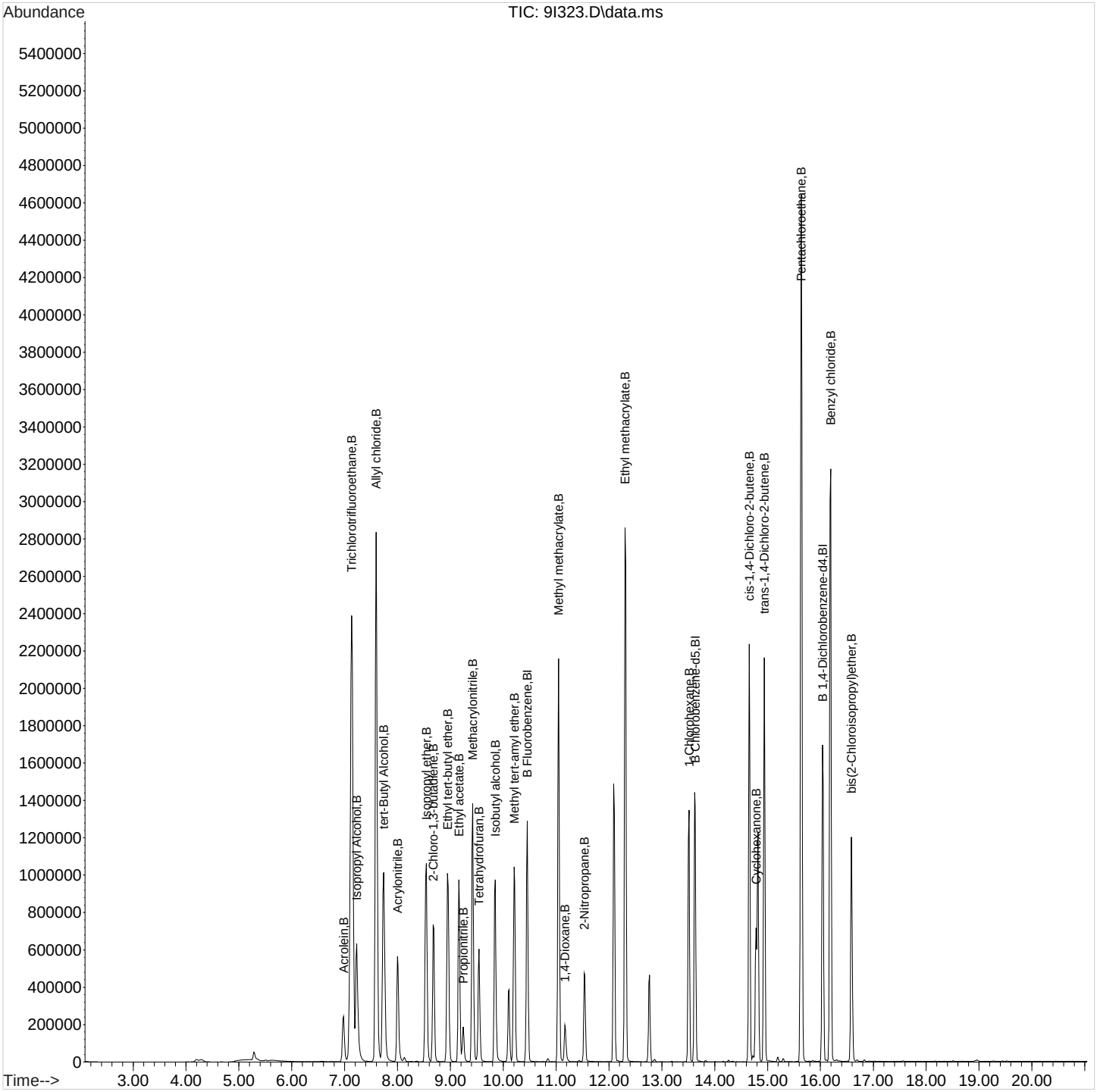
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	463901	245.06	ug/L	99
98)	Isobutyl alcohol	41	9.849	9.849	0.942	519052	2881.56	ug/L	100
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	1020254	54.08	ug/L	100
100)	Methyl methacrylate	69	11.046	11.047	1.057	995352	253.68	ug/L	99
101)	1,4-Dioxane	88	11.165	11.165	1.068	178374	2763.79	ug/L	100
102)	2-Nitropropane	43	11.533	11.533	1.103	431472	289.79	ug/L	99
104)	Ethyl methacrylate	69	12.303	12.304	0.903	1824849	234.13	ug/L	100
106)	1-Chlorohexane	55	13.513	13.513	0.843	378776	51.72	ug/L	99
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	565709	267.03	ug/L	100
108)	Cyclohexanone	42	14.782	14.782	0.922	230825	1376.27	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	504310	265.28	ug/L	99
110)	Pentachloroethane	167	15.636	15.636	0.975	1177728	275.15	ug/L	100
111)	Benzyl chloride	91	16.193	16.193	1.010	2924720	238.99	ug/L	99
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	991408	247.28	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I323.D
Acq On : 06 Sep 2017 22:26
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-17|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL300 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 07 09:56:20 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



RY
09/07/2017

EM
09/09/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I324.D
Acq On : 06 Sep 2017 22:53
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-18|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 07 09:56:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	0m	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	0m	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	0m	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1345076	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1005185	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	601709	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.110	10.098	0.967	0d	0.00	ug/L	
45) Toluene-d8	98	12.090	12.090	0.887	0d	0.00	ug/L	
63) Bromofluorobenzene	95	14.817	14.817	0.924	0d	0.00	ug/L	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.433	6.445	0.615	0m	N.D.	d	
8) Ethyl ether		6.765	6.754	0.647	0m	N.D.	d	
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.133	7.157	0.682	0m	N.D.	d	
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.738	7.738	0.740	0m	N.D.	d	
16) tert-Butyl methyl ether		8.046	8.034	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.529	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.204	10.181	0.976	0m	N.D.	d	
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		10.928	10.916	1.045	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I324.D
Acq On : 06 Sep 2017 22:53
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-18|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 07 09:56:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.			
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.			
42) cis-1,3-Dichloropropylene		11.782	11.782	1.127	0m	N.D.	d		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.			
46) Toluene		12.173	12.173	0.893	0m	N.D.	d		
47) trans-1,3-Dichloroprop...		12.315	12.315	0.903	0m	N.D.	d		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.			
49) 2-Hexanone		12.790	12.718	0.938	0m	N.D.	d		
50) 1,3-Dichloropropane		12.778	12.742	0.937	0m	N.D.	d		
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.			
53) 1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d		
54) Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d		
55) 1,1,1,2-Tetrachloroethane		13.715	13.714	1.006	0m	N.D.	d		
56) Ethylbenzene		13.715	13.714	1.006	0m	N.D.	d		
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d		
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d		
59) Styrene		14.260	14.260	1.046	0m	N.D.	d		
61) Bromoform		0.000	14.533	0.000	0	N.D.			
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d		
64) 1,1,2,2-Tetrachloroethane		14.936	14.888	0.931	0m	N.D.	d		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.			
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d		
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d		
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d		
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d		
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d		
71) tert-Butylbenzene		15.636	15.564	0.975	0m	N.D.	d		
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d		
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d		
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d		
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d		
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d		
77) n-Butylbenzene		0.000	16.359	0.000	0	N.D.			
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.			
80) 1,2,4-Trichlorobenzene		18.517	18.505	1.155	0m	N.D.	d		
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d		
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d		
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d		
85) Acrolein	56	6.979	6.979	0.668	491830	453.47	ug/L	98	
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	1234459	417.90	ug/L	96	
87) Isopropyl Alcohol	45	7.228	7.228	0.691	2085328	4546.30	ug/L	100	
88) Allyl chloride	41	7.596	7.596	0.727	4019941	477.99	ug/L	97	
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	3177210	4498.01	ug/L	99	
90) Acrylonitrile	53	7.999	7.999	0.765	1041920	456.53	ug/L	98	
91) Isopropyl ether	45	8.544	8.544	0.817	2028473	85.25	ug/L	99	
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	947042	86.88	ug/L	98	
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	1937495	87.81	ug/L	98	
94) Ethyl acetate	43	9.161	9.161	0.876	2144397	384.52	ug/L	97	A
95) Propionitrile	54	9.244	9.244	0.884	401089	484.74	ug/L	100	
96) Methacrylonitrile	41	9.422	9.422	0.901	1371762	408.94	ug/L	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I324.D
Acq On : 06 Sep 2017 22:53
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-18|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 07 09:56:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

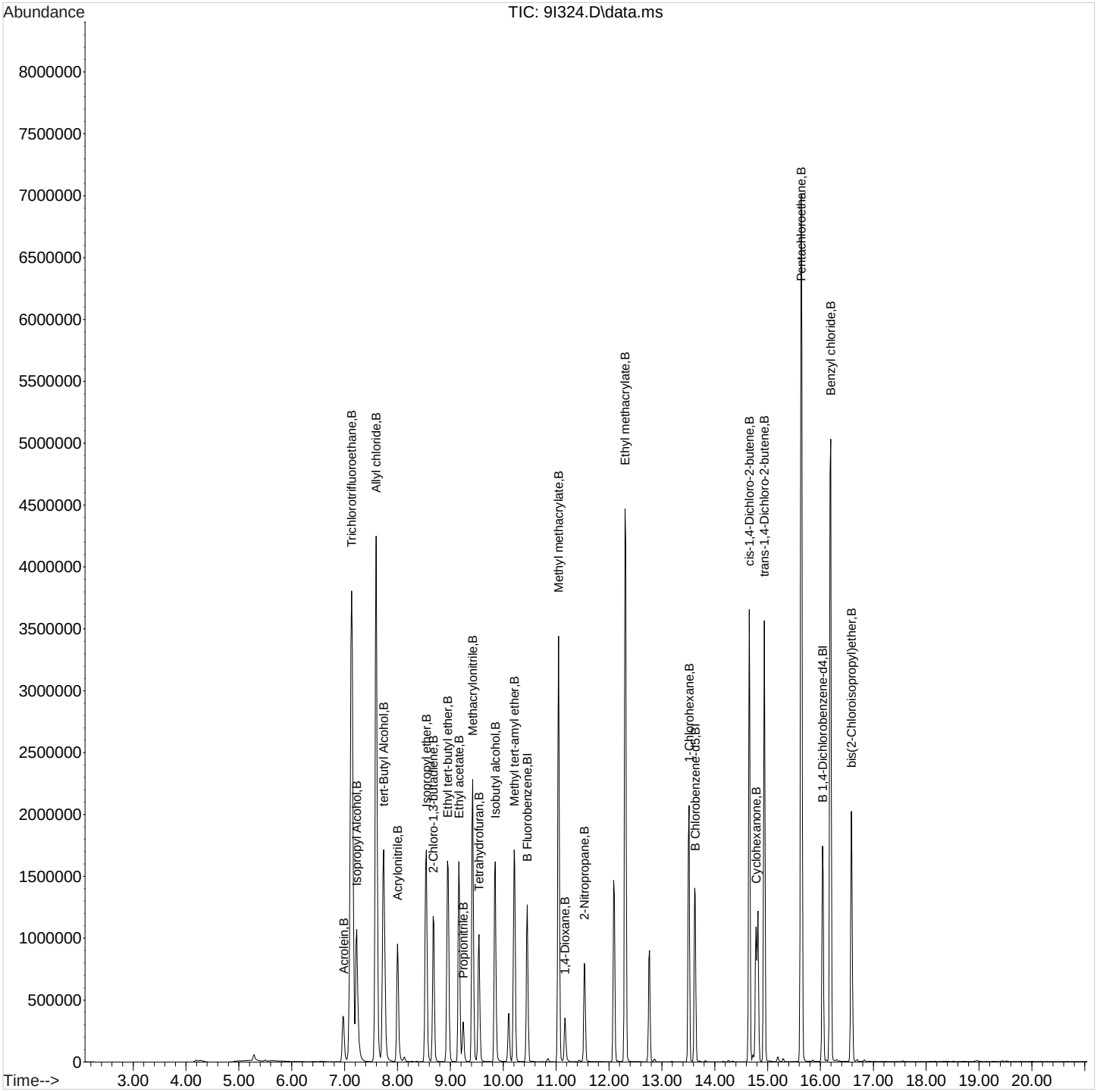
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
97)	Tetrahydrofuran	42	9.540	9.540	0.913	792751	419.24	ug/L	97	
98)	Isobutyl alcohol	41	9.849	9.849	0.942	854921	4784.60	ug/L	98	
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	1705946	90.52	ug/L	99	
100)	Methyl methacrylate	69	11.046	11.047	1.057	1612837	411.51	ug/L	97	
101)	1,4-Dioxane	88	11.165	11.165	1.068	309795	4805.40	ug/L	98	
102)	2-Nitropropane	43	11.533	11.533	1.103	742409	499.18	ug/L	97	
104)	Ethyl methacrylate	69	12.303	12.304	0.903	2816763	364.62	ug/L	98	A
106)	1-Chlorohexane	55	13.513	13.513	0.843	577823	78.03	ug/L	98	
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	918832	428.94	ug/L	98	
108)	Cyclohexanone	42	14.782	14.782	0.922	355612	2096.93	ug/L	98	
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	824843	429.11	ug/L	99	
110)	Pentachloroethane	167	15.636	15.636	0.975	1827910	422.35	ug/L	100	
111)	Benzyl chloride	91	16.193	16.193	1.010	4514194	364.81	ug/L	96	A
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	1683352	415.23	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I324.D
Acq On : 06 Sep 2017 22:53
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-18|ICAL|1|VOA|1|VOA8260BL|
Misc : GEL500 5mL n/a MIX[B]0731-07A+0824-07A
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 07 09:56:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I

Injection Date: 07-SEP-17 00:45

Data File: 090617V9\9I328.D

Init. Cal. Date(s) 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM170906-21

Method: 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Method Update: 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.241	0.24139		.01		0.16183	60		Averaged
S	Toluene-d8	1.1229	1.11516		.01		-0.68929	60		Averaged
S	Bromofluorobenzene	0.882	0.83234		.01		-5.63039	60		Averaged
	Trichlorotrifluoroethane	0.1098	0.11433		.01		4.12568	60		Averaged
	1,4-Dioxane	0.0024	0.00272		.01		13.33333	60		Averaged

RY
09/07/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I328.D
Acq On : 07 Sep 2017 00:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-08B+0824-08A
ALS Vial : 28 Sample Multiplier: 1

EM
09/09/2017

Quant Time: Sep 07 09:56:32 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1278787	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	983406	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	586077	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1278787	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	983406	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	586077	50.00	ug/L	-0.01
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	308684	50.09	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1096656	49.65	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	487817	47.18	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.398	6.445	0.612	0m	N.D.	d	
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.121	7.157	0.681	0m	N.D.	d	
11) Iodomethane		7.418	7.418	0.710	0m	N.D.	d	
12) Acetonitrile		7.595	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.595	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		8.082	8.082	0.773	0m	N.D.	d	
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.532	8.520	0.816	0m	N.D.	d	
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.528	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.192	10.181	0.975	0m	N.D.	d	
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.311	10.311	0.986	0m	N.D.	d	
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		10.928	10.916	1.045	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I328.D
Acq On : 07 Sep 2017 00:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-08B+0824-08A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 07 09:56:32 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		11.781	11.782	1.127	0m	N.D.	d	
44) 4-Methyl-2-pentanone		11.876	11.865	0.872	0m	N.D.	d	
46) Toluene		12.173	12.173	0.894	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.327	12.315	0.905	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.718	12.718	0.934	0m	N.D.	d	
50) 1,3-Dichloropropane		12.742	12.742	0.936	0m	N.D.	d	
51) Tetrachloroethylene		12.766	12.766	0.937	0m	N.D.	d	
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		13.181	13.181	0.968	0m	N.D.	d	
54) Chlorobenzene		13.655	13.655	1.003	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		13.714	13.714	1.007	0m	N.D.	d	
56) Ethylbenzene		13.714	13.714	1.007	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.015	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.047	0m	N.D.	d	
59) Styrene		14.260	14.260	1.047	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.888	14.888	0.928	0m	N.D.	d	
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71) tert-Butylbenzene		15.564	15.564	0.970	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		17.414	17.414	1.086	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.967	6.979	0.666	251290	243.70	ug/L	100
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	731031	260.31	ug/L	99
87) Isopropyl Alcohol	45	7.228	7.228	0.691	1229539	2819.52	ug/L	100
88) Allyl chloride	41	7.595	7.596	0.727	2423018	295.90	ug/L	100
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	1923341	2864.04	ug/L	99
90) Acrylonitrile	53	7.999	7.999	0.765	592096	272.88	ug/L	100
91) Isopropyl ether	45	8.532	8.544	0.816	1010191	44.66	ug/L	100
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	478855	46.21	ug/L	100
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	978088	46.63	ug/L	100
94) Ethyl acetate	43	9.161	9.161	0.876	1306336	246.38	ug/L	100
95) Propionitrile	54	9.244	9.244	0.884	218650	277.95	ug/L	100
96) Methacrylonitrile	41	9.422	9.422	0.901	801963	251.47	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I328.D
Acq On : 07 Sep 2017 00:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-08B+0824-08A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 07 09:56:32 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

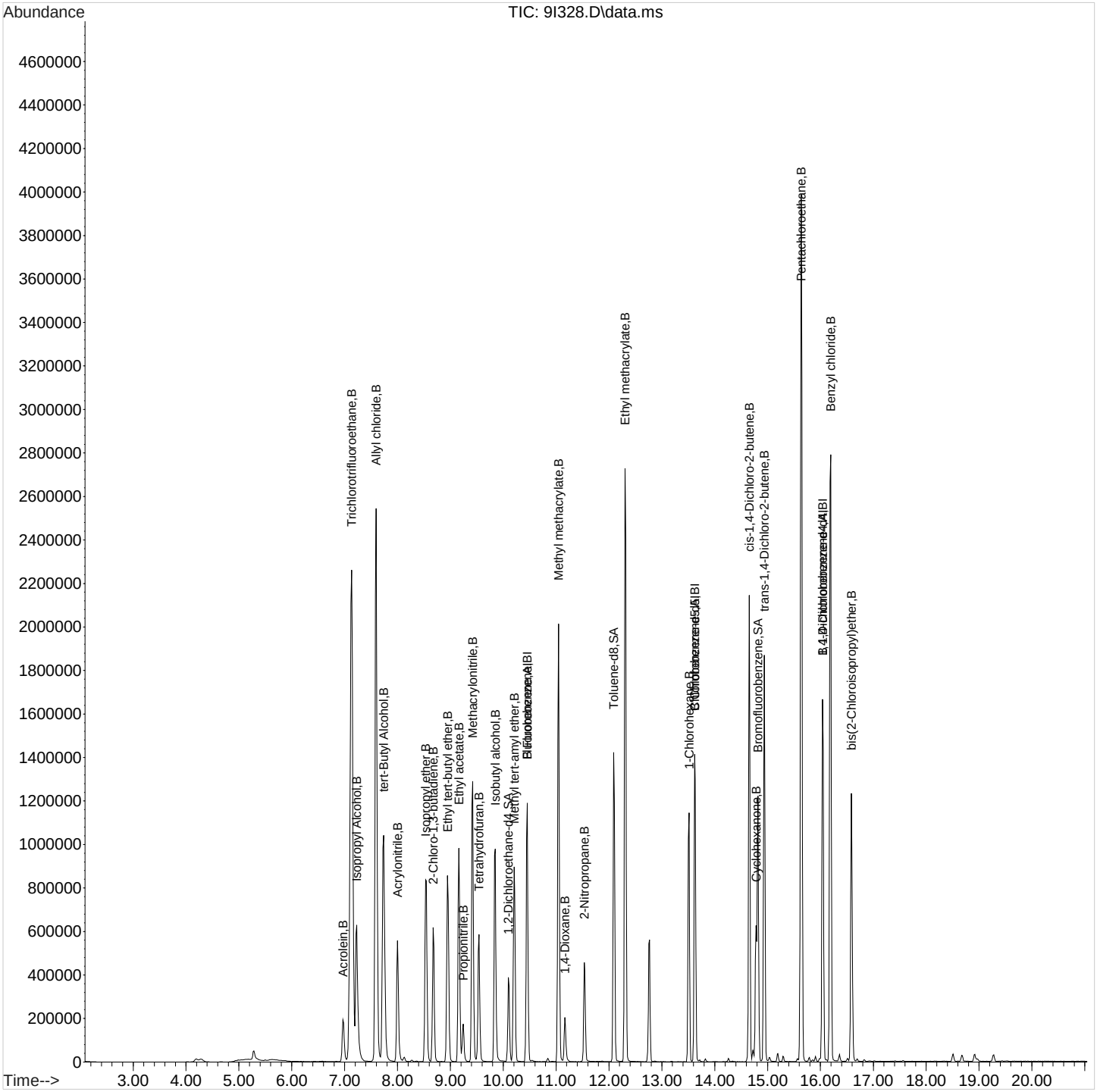
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	453636	252.34	ug/L	99
98)	Isobutyl alcohol	41	9.849	9.849	0.942	528435	3092.83	ug/L	99
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	860276	48.01	ug/L	100
100)	Methyl methacrylate	69	11.046	11.047	1.057	930814	249.81	ug/L	99
101)	1,4-Dioxane	88	11.165	11.165	1.068	174044	2839.64	ug/L	99
102)	2-Nitropropane	43	11.532	11.533	1.103	402536	284.69	ug/L	100
104)	Ethyl methacrylate	69	12.303	12.304	0.903	1697778	224.64	ug/L	100
106)	1-Chlorohexane	55	13.513	13.513	0.843	326087	45.21	ug/L	99
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	532508	255.22	ug/L	100
108)	Cyclohexanone	42	14.782	14.782	0.922	202297	1224.70	ug/L	96
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	437402	233.62	ug/L	100
110)	Pentachloroethane	167	15.635	15.636	0.975	1017736	241.43	ug/L	100
111)	Benzyl chloride	91	16.193	16.193	1.010	2608265	216.41	ug/L	100
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	1016805	257.51	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I328.D
Acq On : 07 Sep 2017 00:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM170906-21|ICV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-08B+0824-08A
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Sep 07 09:56:32 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I **Injection Date:** 02-OCT-17 12:45

Data File: 100217V9\9M107.D **Init. Cal. Date(s)** 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171002-03 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD **Method Update:** 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.241	0.24194		.01		0.39004	60		Averaged	
S	Toluene-d8	1.1229	1.15932		.01		3.24339	60		Averaged	
S	Bromofluorobenzene	0.882	0.8922		.01		1.15646	60		Averaged	
	Dichlorodifluoromethane	0.2171	0.24945		.01		14.90097	60		Averaged	
	Chloromethane	0.2914	0.30581		.1		4.94509	60		Averaged	SPCC
	Vinyl chloride	0.2727	0.29272		.01		7.3414	20		Averaged	CCC
	Bromomethane	0.2238	0.24092		.01		7.64969	60		Averaged	
	Chloroethane	0.2328	0.24727		.01		6.21564	60		Averaged	
	Trichlorofluoromethane	0.355	0.38748		.01		9.1493	60		Averaged	
	1,1-Dichloroethylene	0.4209	0.44532		.01		5.80185	20		Averaged	CCC
	Acetone	250	323.16	250			29.264	60		Linear	
	Carbon disulfide	250	280.1	250			12.04	60		Linear	
	Methyl acetate	250	271.38	250			8.552	60		Linear	
	Methylene chloride	50	54.96	50			9.92	60		Linear	
	tert-Butyl methyl ether	0.7198	0.72636		.01		0.91136	60		Averaged	
	trans-1,2-Dichloroethylene	0.3887	0.40549		.01		4.31953	60		Averaged	
	Vinyl acetate	250	263.69	250			5.476	60		Linear	
	1,1-Dichloroethane	0.4671	0.48561		.1		3.96275	60		Averaged	SPCC
	2-Butanone	250	298.59	250			19.436	60		Linear	
	cis-1,2-Dichloroethylene	0.4272	0.43915		.01		2.79728	60		Averaged	
	Bromochloromethane	0.1185	0.12084		.01		1.97468	60		Averaged	
	Chloroform	0.4155	0.41995		.01		1.071	20		Averaged	CCC
	1,1,1-Trichloroethane	0.3766	0.39493		.01		4.86723	60		Averaged	
	Cyclohexane	0.5422	0.54728		.01		0.93692	60		Averaged	
	Carbon tetrachloride	0.3044	0.32449		.01		6.59987	60		Averaged	
	1,2-Dichloroethane	0.2821	0.29212		.01		3.55193	60		Averaged	
	Benzene	1.0175	1.00704		.01		-1.02801	60		Averaged	
	Trichloroethylene	0.2465	0.25392		.01		3.01014	60		Averaged	
	Methylcyclohexane	0.5104	0.52114		.01		2.10423	60		Averaged	
	1,2-Dichloropropane	0.2506	0.24658		.01		-1.60415	20		Averaged	CCC
	Bromodichloromethane	0.2971	0.3057		.01		2.89465	60		Averaged	
	cis-1,3-Dichloropropylene	0.3911	0.38904		.01		-0.52672	60		Averaged	
	4-Methyl-2-pentanone	0.1206	0.11453		.01		-5.03317	60		Averaged	
	Toluene	1.3077	1.30228		.01		-0.41447	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.4287	0.45177		.01		5.38139	60		Averaged	
	1,1,2-Trichloroethane	0.2227	0.22531		.01		1.17198	60		Averaged	
	2-Hexanone	250	305.05	250			22.02	60		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 02-OCT-17 12:45

Data File: 100217V9\9M107.D **Init. Cal. Date(s)** 06-SEP-17 14:21 06-SEP-17 22:53

Lab Sample ID W9VM171002-03 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.2574	0.2639		.01		2.52525	60		Averaged	
Dibromochloromethane	0.2636	0.28325		.01		7.45448	60		Averaged	
1,2-Dibromoethane	0.2595	0.26776		.01		3.18304	60		Averaged	
Chlorobenzene	0.8433	0.8557		.3		1.47041	60		Averaged	SPCC
Ethylbenzene	1.5406	1.45083		.01		-5.82695	20		Averaged	CCC
m,p-Xylenes	0.5886	0.61305		.01		4.15392	60		Averaged	
o-Xylene	0.6237	0.6344		.01		1.71557	60		Averaged	
Styrene	1.0115	0.96645		.01		-4.45378	60		Averaged	
Bromoform	0.3081	0.31092		.1		0.91529	60		Averaged	SPCC
Isopropylbenzene	2.8654	2.79297		.01		-2.52774	60		Averaged	
1,1,2,2-Tetrachloroethane	0.6697	0.65814		.3		-1.72615	60		Averaged	SPCC
1,3-Dichlorobenzene	1.4306	1.3604		.01		-4.90703	60		Averaged	
1,4-Dichlorobenzene	1.3493	1.33733		.01		-0.88713	60		Averaged	
1,2-Dichlorobenzene	1.3698	1.32891		.01		-2.98511	60		Averaged	
1,2-Dibromo-3-chloropropane	0.1406	0.13542		.01		-3.68421	60		Averaged	
1,2,4-Trichlorobenzene	50	55.63	50			11.26	60		Linear	
1,2,3-Trichlorobenzene	50	55.49	50			10.98	60		Linear	

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M107.D
Acq On : 02 Oct 2017 12:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10G+0829-10F+1002-01+0
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 13:05:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1339754	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	994426	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	570228	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1339754	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	994426	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	570228	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	324144	50.20	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1152861	51.62	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	508757	50.58	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	334195	57.46	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	409716	52.47	ug/L	100
4) Vinyl chloride	62	5.259	5.259	0.503	392171	53.67	ug/L	100
5) Bromomethane	94	5.864	5.852	0.561	322776	53.82	ug/L	99
6) Chloroethane	64	6.006	6.006	0.575	331277	53.11	ug/L	100
7) Trichlorofluoromethane	101	6.457	6.445	0.618	519128	54.58	ug/L	99
8) Ethyl ether	59	6.765	6.754	0.647	293621	50.99	ug/L	99
9) Acetone	43	7.157	7.145	0.685	796236	323.16	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	596623	52.90	ug/L	98
11) Iodomethane	142	7.418	7.418	0.710	2621465	241.09	ug/L	97
12) Acetonitrile	41	7.512	7.512	0.719	987370	1374.41	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	942742	271.38	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	5382665	280.10	ug/L	100
15) Methylene chloride	84	7.738	7.738	0.740	389993	54.96	ug/L	98
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	973148	50.45	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	543251	52.16	ug/L	99
18) Hexane	57	8.354	8.354	0.799	409220	36.60	ug/L	98
19) Vinyl acetate	43	8.520	8.520	0.815	2644908	263.69	ug/L	99
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	650598	51.98	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	965394	298.59	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	588349	51.40	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	555810	53.93	ug/L	98
24) Bromochloromethane	128	9.493	9.493	0.908	161897	50.98	ug/L	97
25) Chloroform	83	9.528	9.528	0.912	562623	50.53	ug/L	100
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	529106	52.43	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	733226	50.47	ug/L	99
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	450740	49.76	ug/L	98
29) Carbon tetrachloride	117	10.003	9.991	0.957	434735	53.30	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	391369	51.78	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1349189	49.48	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	695366	50.06	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	606142	5215.43	ug/L	99
35) Trichloroethylene	95	10.833	10.833	1.036	340188	51.50	ug/L	98
36) 2-Pentanone	43	10.916	10.916	1.044	919610	216.83	ug/L	99
37) 1,2-Dichloropropane	63	11.094	11.094	1.061	330356	49.20	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	698194	51.05	ug/L	99
39) Dibromomethane	93	11.224	11.224	1.074	177915	50.78	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M107.D
Acq On : 02 Oct 2017 12:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10G+0829-10F+1002-01+0
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 13:05:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	409564	51.45	ug/L	100
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	805306	211.23	ug/L	98
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	521216	49.74	ug/L	99
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.871	569475	237.50	ug/L	99
46) Toluene	91	12.173	12.173	0.894	1295017	49.79	ug/L	100
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	449251	52.69	ug/L	100
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.921	224051	50.59	ug/L	100
49) 2-Hexanone	43	12.718	12.718	0.934	1203868	305.05	ug/L	99
50) 1,3-Dichloropropane	76	12.742	12.742	0.936	431665	49.61	ug/L	99
51) Tetrachloroethylene	164	12.766	12.766	0.937	262429	51.27	ug/L	99
52) Dibromochloromethane	129	13.003	13.003	0.955	281676	53.72	ug/L	100
53) 1,2-Dibromoethane	107	13.181	13.181	0.968	266266	51.60	ug/L	100
54) Chlorobenzene	112	13.655	13.655	1.003	850934	50.74	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.007	315202	54.90	ug/L	99
56) Ethylbenzene	91	13.714	13.714	1.007	1442743	47.09	ug/L	99
57) m,p-Xylenes	106	13.821	13.821	1.015	1219256	104.15	ug/L	100
58) o-Xylene	106	14.260	14.260	1.047	630861	50.86	ug/L	100
59) Styrene	104	14.260	14.260	1.047	961065	47.77	ug/L	100
61) Bromoform	173	14.533	14.533	0.906	177296	50.46	ug/L	99
62) Isopropylbenzene	105	14.616	14.616	0.911	1592627	48.74	ug/L	100
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	375289	49.13	ug/L	100
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	98993	49.53	ug/L	95
66) Bromobenzene	156	15.031	15.031	0.937	390446	48.40	ug/L	99
67) n-Propylbenzene	91	15.043	15.043	0.938	1826405	45.77	ug/L	99
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1335192	48.79	ug/L	99
69) 2-Chlorotoluene	126	15.197	15.197	0.948	396913	50.04	ug/L	97
70) 4-Chlorotoluene	91	15.292	15.292	0.953	1173681	48.08	ug/L	100
71) tert-Butylbenzene	134	15.564	15.564	0.970	310546	51.57	ug/L	99
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1342815	46.44	ug/L	99
73) sec-Butylbenzene	105	15.790	15.790	0.984	1847205	47.82	ug/L	100
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	1573658	49.14	ug/L	99
75) 1,3-Dichlorobenzene	146	15.979	15.991	0.996	775737	47.55	ug/L	100
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	762584	49.56	ug/L	100
77) n-Butylbenzene	91	16.359	16.359	1.020	1499099	57.76	ug/L	99
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	757779	48.51	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	77222	48.17	ug/L	96
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	622382	55.63	ug/L	100
81) Hexachlorobutadiene	225	18.683	18.683	1.165	379969	54.88	ug/L	99
82) Naphthalene	128	18.909	18.908	1.179	1339454	54.44	ug/L	100
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	567147	55.49	ug/L	99
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87) Isopropyl Alcohol		7.240	7.228	0.693	0m	N.D.	d	
88) Allyl chloride		7.512	7.596	0.719	0m	N.D.	d	
89) tert-Butyl Alcohol		7.738	7.738	0.740	0m	N.D.	d	
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	
93) Ethyl tert-butyl ether		8.959	8.948	0.857	0m	N.D.	d	
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		9.256	9.244	0.885	0m	N.D.	d	
96) Methacrylonitrile		9.422	9.422	0.901	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M107.D
Acq On : 02 Oct 2017 12:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10G+0829-10F+1002-01+0
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 13:05:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

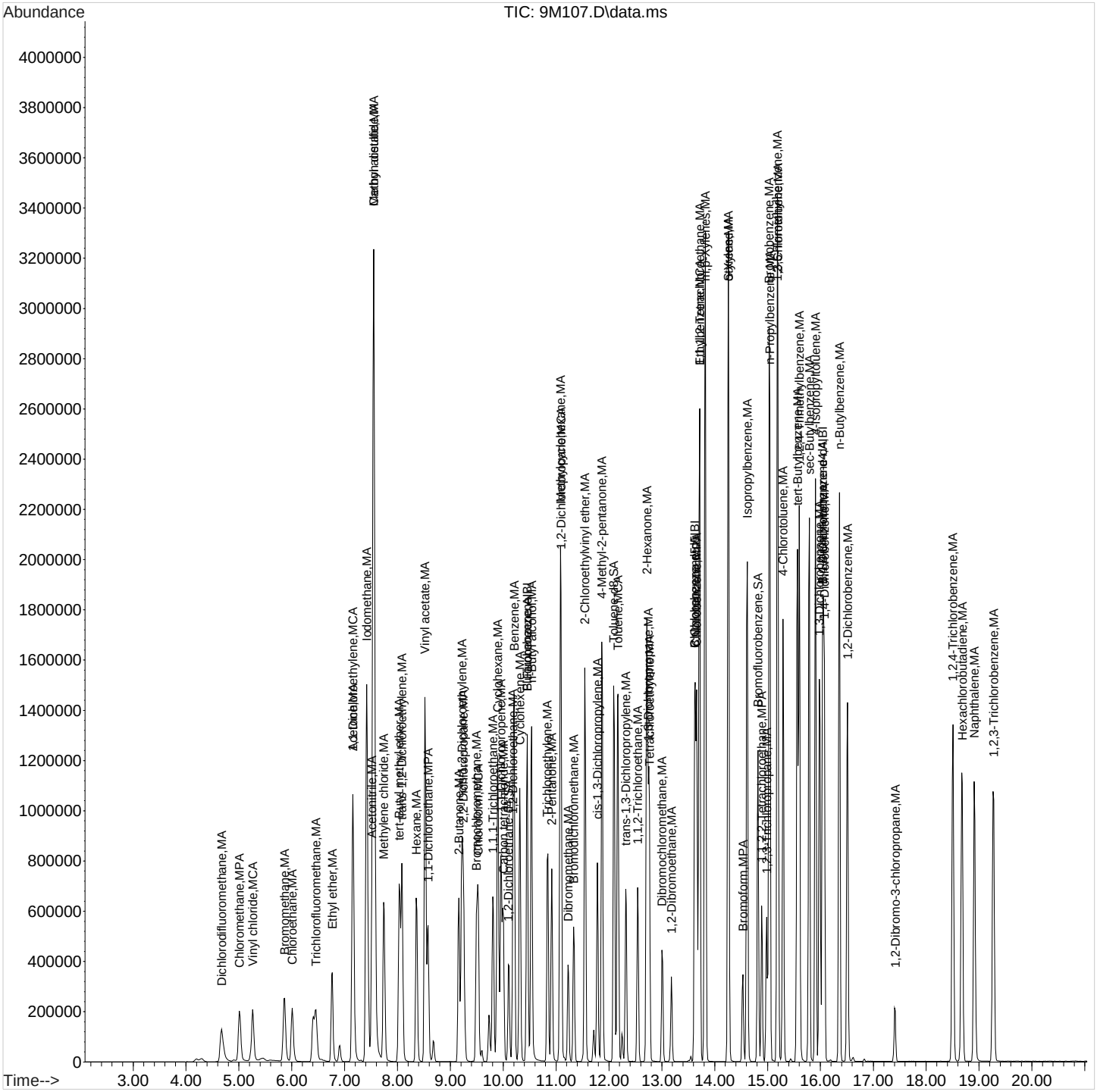
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		12.315	12.304	0.904	0m	N.D.	d
106) 1-Chlorohexane		13.513	13.513	0.843	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.616	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		14.936	14.936	0.931	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111) Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.596	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M107.D
Acq On : 02 Oct 2017 12:45
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-03|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0607-10G+0829-10F+1002-01+0
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 02 13:05:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I

Injection Date: 02-OCT-17 13:42

Data File: 100217V9\9M109.D

Init. Cal. Date(s) 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171002-05

Method: 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Method Update: 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.241	0.24143		.01		0.17842	60		Averaged
S	Toluene-d8	1.1229	1.14903		.01		2.32701	60		Averaged
S	Bromofluorobenzene	0.882	0.8674		.01		-1.65533	60		Averaged
	Trichlorotrifluoroethane	0.1098	0.09555		.01		-12.97814	60		Averaged
	1,4-Dioxane	0.0024	0.00214		.01		-10.83333	60		Averaged

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M109.D
Acq On : 02 Oct 2017 13:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0824-06F
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:58:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1404716	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.632	13.632	1.000	1038046	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	593508	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1404716	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.632	13.632	1.000	1038046	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	593508	50.00	ug/L	-0.01
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	339136	50.10	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1192748	51.16	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	514807	49.17	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		4.999	4.998	0.478	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.422	6.445	0.614	0m	N.D.	d	
8) Ethyl ether		6.765	6.754	0.647	0m	N.D.	d	
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.145	7.157	0.683	0m	N.D.	d	
11) Iodomethane		7.418	7.418	0.710	0m	N.D.	d	
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		8.034	8.034	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.082	8.082	0.773	0m	N.D.	d	
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.528	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		9.955	9.955	0.952	0m	N.D.	d	
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		10.193	10.181	0.975	0m	N.D.	d	
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.311	10.311	0.986	0m	N.D.	d	
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		11.046	10.916	1.057	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.046	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M109.D
Acq On : 02 Oct 2017 13:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0824-06F
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:58:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane		11.331	11.331	1.084	0m	N.D.	d	
41) 2-Chloroethylvinyl ether		11.556	11.544	1.106	0m	N.D.	d	
42) cis-1,3-Dichloropropylene		11.782	11.782	1.127	0m	N.D.	d	
44) 4-Methyl-2-pentanone		11.876	11.865	0.871	0m	N.D.	d	
46) Toluene		12.173	12.173	0.893	0m	N.D.	d	
47) trans-1,3-Dichloroprop...		12.327	12.315	0.904	0m	N.D.	d	
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone		12.718	12.718	0.933	0m	N.D.	d	
50) 1,3-Dichloropropane		12.730	12.742	0.934	0m	N.D.	d	
51) Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52) Dibromochloromethane		13.003	13.003	0.954	0m	N.D.	d	
53) 1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54) Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55) 1,1,1,2-Tetrachloroethane		13.715	13.714	1.006	0m	N.D.	d	
56) Ethylbenzene		13.715	13.714	1.006	0m	N.D.	d	
57) m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58) o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59) Styrene		14.260	14.260	1.046	0m	N.D.	d	
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64) 1,1,2,2-Tetrachloroethane		14.889	14.888	0.928	0m	N.D.	d	
65) 1,2,3-Trichloropropane		14.983	14.983	0.934	0m	N.D.	d	
66) Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67) n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68) 1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69) 2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70) 4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71) tert-Butylbenzene		15.564	15.564	0.970	0m	N.D.	d	
72) 1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73) sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74) 4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75) 1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76) 1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77) n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78) 1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79) 1,2-Dibromo-3-chloropr...		17.414	17.414	1.086	0m	N.D.	d	
80) 1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81) Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82) Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83) 1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85) Acrolein	56	6.979	6.979	0.668	248155	219.09	ug/L	99
86) Trichlorotrifluoroethane	85	7.133	7.133	0.682	671085	217.54	ug/L	97
87) Isopropyl Alcohol	45	7.228	7.228	0.691	1094948	2285.78	ug/L	97
88) Allyl chloride	41	7.596	7.596	0.727	2371880	261.57	ug/L	100
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	1705118	2311.46	ug/L	99
90) Acrylonitrile	53	7.999	7.999	0.765	544248	228.34	ug/L	100
91) Isopropyl ether	45	8.544	8.544	0.817	1081656	43.53	ug/L	99
92) 2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	496054	43.58	ug/L	98
93) Ethyl tert-butyl ether	59	8.947	8.948	0.856	1003892	43.57	ug/L	100
94) Ethyl acetate	43	9.161	9.161	0.876	1204108	206.74	ug/L	99
95) Propionitrile	54	9.244	9.244	0.884	203766	235.81	ug/L	99
96) Methacrylonitrile	41	9.422	9.422	0.901	750526	214.24	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M109.D
Acq On : 02 Oct 2017 13:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0824-06F
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:58:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

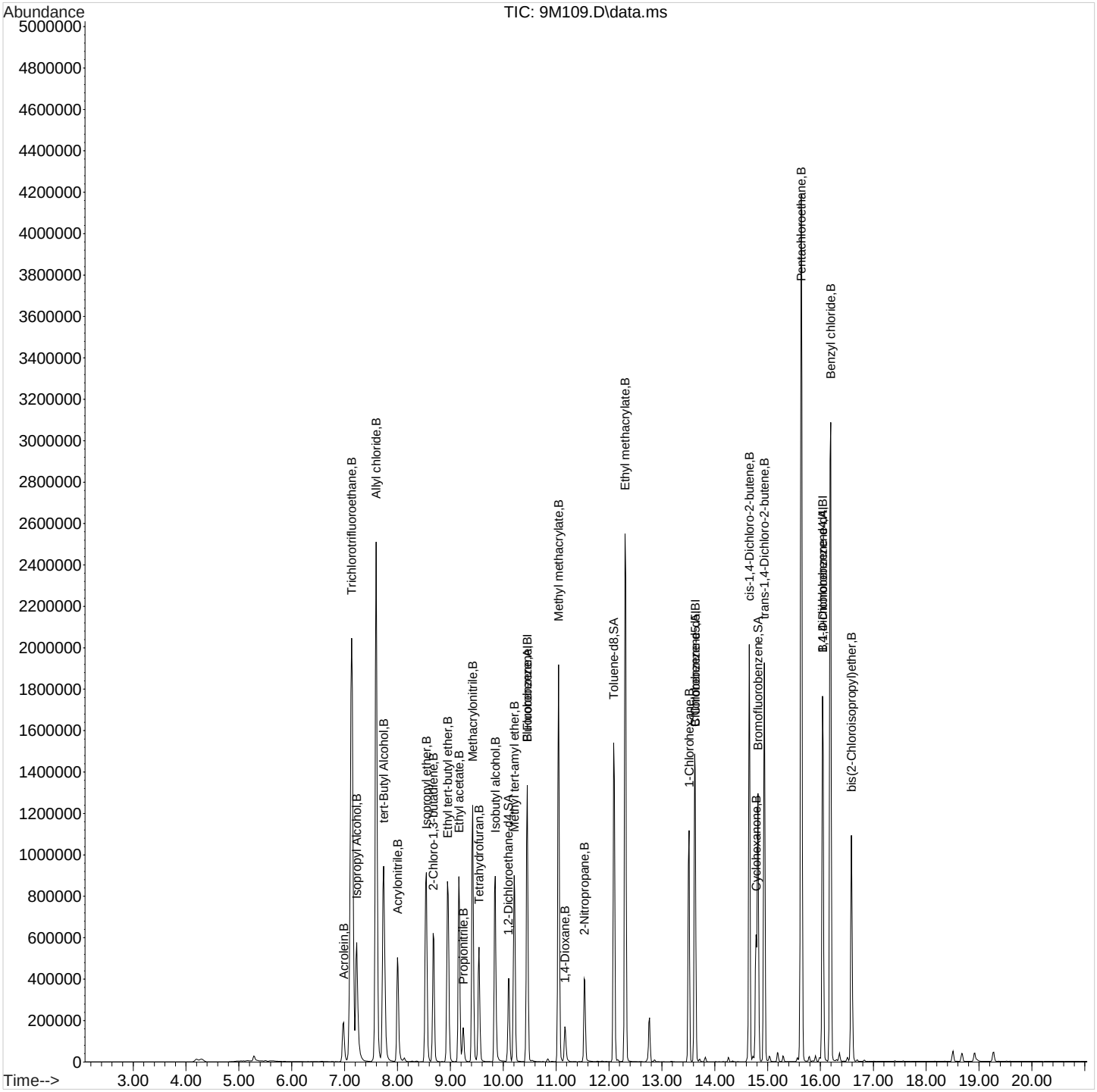
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	422605	214.00	ug/L	99
98)	Isobutyl alcohol	41	9.849	9.849	0.942	483374	2566.93	ug/L	98
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	867056	44.05	ug/L	99
100)	Methyl methacrylate	69	11.046	11.047	1.057	875798	213.97	ug/L	99
101)	1,4-Dioxane	88	11.165	11.165	1.068	150256	2231.75	ug/L	99
102)	2-Nitropropane	43	11.533	11.533	1.103	342271	220.36	ug/L	98
104)	Ethyl methacrylate	69	12.303	12.304	0.903	1610759	201.90	ug/L	99
106)	1-Chlorohexane	55	13.513	13.513	0.843	313743	42.95	ug/L	98
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	503868	238.47	ug/L	98
108)	Cyclohexanone	42	14.782	14.782	0.922	195261	1167.30	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	455644	240.32	ug/L	98
110)	Pentachloroethane	167	15.636	15.636	0.975	1029328	241.12	ug/L	96
111)	Benzyl chloride	91	16.193	16.193	1.010	2821074	231.13	ug/L	99
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	889085	222.34	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M109.D
Acq On : 02 Oct 2017 13:42
Operator : RXY1
InstName : VOA9
Sample : |W9VM171002-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0824-06F
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 02 14:58:09 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I **Injection Date:** 03-OCT-17 10:14

Data File: 100317V9\9M202.D **Init. Cal. Date(s)** 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171003-01 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD **Method Update:** 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.241	0.24796		.01		2.88797	60		Averaged	
S	Toluene-d8	1.1229	1.09493		.01		-2.49087	60		Averaged	
S	Bromofluorobenzene	0.882	0.86401		.01		-2.03968	60		Averaged	
	Dichlorodifluoromethane	0.2171	0.21243		.01		-2.15108	60		Averaged	
	Chloromethane	0.2914	0.27404		.1		-5.95745	60		Averaged	SPCC
	Vinyl chloride	0.2727	0.27013		.01		-0.94243	20		Averaged	CCC
	Bromomethane	0.2238	0.23833		.01		6.4924	60		Averaged	
	Chloroethane	0.2328	0.23774		.01		2.12199	60		Averaged	
	Trichlorofluoromethane	0.355	0.38531		.01		8.53803	60		Averaged	
	1,1-Dichloroethylene	0.4209	0.38938		.01		-7.48871	20		Averaged	CCC
	Acetone	250	308.43	250			23.372	60		Linear	
	Methyl acetate	250	245.25	250			-1.9	60		Linear	
	Carbon disulfide	250	245.24	250			-1.904	60		Linear	
	Methylene chloride	50	47.27	50			-5.46	60		Linear	
	tert-Butyl methyl ether	0.7198	0.62439		.01		-13.25507	60		Averaged	
	trans-1,2-Dichloroethylene	0.3887	0.34484		.01		-11.28377	60		Averaged	
	Vinyl acetate	250	257.07	250			2.828	60		Linear	
	1,1-Dichloroethane	0.4671	0.41628		.1		-10.8799	60		Averaged	SPCC
	2-Butanone	250	272.28	250			8.912	60		Linear	
	cis-1,2-Dichloroethylene	0.4272	0.3824		.01		-10.48689	60		Averaged	
	Bromochloromethane	0.1185	0.10374		.01		-12.4557	60		Averaged	
	Chloroform	0.4155	0.37424		.01		-9.9302	20		Averaged	CCC
	1,1,1-Trichloroethane	0.3766	0.3581		.01		-4.91237	60		Averaged	
	Cyclohexane	0.5422	0.46453		.01		-14.32497	60		Averaged	
	Carbon tetrachloride	0.3044	0.2846		.01		-6.5046	60		Averaged	
	1,2-Dichloroethane	0.2821	0.25945		.01		-8.02907	60		Averaged	
	Benzene	1.0175	0.89499		.01		-12.04029	60		Averaged	
	Trichloroethylene	0.2465	0.21917		.01		-11.08722	60		Averaged	
	1,2-Dichloropropane	0.2506	0.21844		.01		-12.8332	20		Averaged	CCC
	Methylcyclohexane	0.5104	0.41866		.01		-17.97414	60		Averaged	
	Bromodichloromethane	0.2971	0.26983		.01		-9.17873	60		Averaged	
	cis-1,3-Dichloropropylene	0.3911	0.35403		.01		-9.47839	60		Averaged	
	4-Methyl-2-pentanone	0.1206	0.10457		.01		-13.29187	60		Averaged	
	Toluene	1.3077	1.13834		.01		-12.95098	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.4287	0.39281		.01		-8.37182	60		Averaged	
	1,1,2-Trichloroethane	0.2227	0.19708		.01		-11.50427	60		Averaged	
	2-Hexanone	250	293.98	250			17.592	60		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 03-OCT-17 10:14

Data File: 100317V9\9M202.D **Init. Cal. Date(s)** 06-SEP-17 14:21 06-SEP-17 22:53

Lab Sample ID W9VM171003-01 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.2574	0.22147		.01		-13.95882	60		Averaged	
Dibromochloromethane	0.2636	0.24189		.01		-8.23596	60		Averaged	
1,2-Dibromoethane	0.2595	0.2297		.01		-11.48362	60		Averaged	
Chlorobenzene	0.8433	0.7446		.3		-11.70402	60		Averaged	SPCC
Ethylbenzene	1.5406	1.27483		.01		-17.25107	20		Averaged	CCC
m,p-Xylenes	0.5886	0.52343		.01		-11.07204	60		Averaged	
o-Xylene	0.6237	0.54991		.01		-11.83101	60		Averaged	
Styrene	1.0115	0.85823		.01		-15.15274	60		Averaged	
Bromoform	0.3081	0.26762		.1		-13.13859	60		Averaged	SPCC
Isopropylbenzene	2.8654	2.34814		.01		-18.05193	60		Averaged	
1,1,2,2-Tetrachloroethane	0.6697	0.58273		.3		-12.98641	60		Averaged	SPCC
1,3-Dichlorobenzene	1.4306	1.16415		.01		-18.62505	60		Averaged	
1,4-Dichlorobenzene	1.3493	1.13888		.01		-15.59475	60		Averaged	
1,2-Dichlorobenzene	1.3698	1.13861		.01		-16.87765	60		Averaged	
1,2-Dibromo-3-chloropropane	0.1406	0.11714		.01		-16.68563	60		Averaged	
1,2,4-Trichlorobenzene	50	43.6	50			-12.8	60		Linear	
1,2,3-Trichlorobenzene	50	43.52	50			-12.96	60		Linear	

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M202.D
Acq On : 03 Oct 2017 10:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I+0608-09A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 10:39:04 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1257262	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	956859	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	553345	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1257262	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	956859	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	553345	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	311754	51.45	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1047694	48.75	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	478094	48.98	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.657	4.672	0.446	267074	48.93	ug/L	100
3) Chloromethane	50	4.998	4.998	0.478	344539	47.02	ug/L	100
4) Vinyl chloride	62	5.247	5.259	0.502	339627	49.53	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	299643	53.24	ug/L	99
6) Chloroethane	64	6.006	6.006	0.575	298903	51.06	ug/L	100
7) Trichlorofluoromethane	101	6.445	6.445	0.617	484441	54.27	ug/L	100
8) Ethyl ether	59	6.753	6.754	0.646	261456	48.38	ug/L	97
9) Acetone	43	7.145	7.145	0.683	713593	308.43	ug/L	99
10) 1,1-Dichloroethylene	61	7.145	7.157	0.683	489547	46.26	ug/L	97
11) Iodomethane	142	7.406	7.418	0.708	2192792	214.90	ug/L	97
12) Acetonitrile	41	7.512	7.512	0.719	817406	1210.10	ug/L	100
13) Methyl acetate	43	7.536	7.548	0.721	800843	245.25	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	4431673	245.24	ug/L	100
15) Methylene chloride	84	7.738	7.738	0.740	316006	47.27	ug/L	97
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	785019	43.37	ug/L	99
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	433550	44.36	ug/L	98
18) Hexane	57	8.354	8.354	0.799	384210	36.62	ug/L	97
19) Vinyl acetate	43	8.520	8.520	0.815	2420722	257.07	ug/L	99
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	523371	44.56	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	826974	272.28	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	480782	44.76	ug/L	98
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	470568	48.65	ug/L	97
24) Bromochloromethane	128	9.493	9.493	0.908	130426	43.76	ug/L	96
25) Chloroform	83	9.517	9.528	0.910	470523	45.03	ug/L	100
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	450221	47.54	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	584036	42.84	ug/L	99
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	378104	44.48	ug/L	98
29) Carbon tetrachloride	117	9.991	9.991	0.956	357815	46.75	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	326193	45.99	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1125242	43.98	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	574384	44.06	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	512050	4688.72	ug/L	99
35) Trichloroethylene	95	10.833	10.833	1.036	275560	44.45	ug/L	99
36) 2-Pentanone	43	10.916	10.916	1.044	875748	220.03	ug/L	99
37) 1,2-Dichloropropane	63	11.082	11.094	1.060	274637	43.58	ug/L	99
38) Methylcyclohexane	83	11.082	11.082	1.060	526360	41.01	ug/L	98
39) Dibromomethane	93	11.224	11.224	1.074	146789	44.64	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M202.D
Acq On : 03 Oct 2017 10:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I+0608-09A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 10:39:04 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40) Bromodichloromethane	83	11.331	11.331	1.084	339252	45.41	ug/L	99
41) 2-Chloroethylvinyl ether	63	11.544	11.544	1.104	800060	223.62	ug/L	99
42) cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	445109	45.26	ug/L	98
44) 4-Methyl-2-pentanone	58	11.865	11.865	0.871	500293	216.84	ug/L	98
46) Toluene	91	12.161	12.173	0.893	1089235	43.52	ug/L	99
47) trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	375864	45.81	ug/L	98
48) 1,1,2-Trichloroethane	83	12.540	12.540	0.921	188576	44.25	ug/L	99
49) 2-Hexanone	43	12.706	12.718	0.933	1116956	293.98	ug/L	98
50) 1,3-Dichloropropane	76	12.730	12.742	0.935	364954	43.59	ug/L	95
51) Tetrachloroethylene	164	12.766	12.766	0.937	211912	43.02	ug/L	99
52) Dibromochloromethane	129	13.003	13.003	0.955	231452	45.88	ug/L	100
53) 1,2-Dibromoethane	107	13.181	13.181	0.968	219786	44.26	ug/L	100
54) Chlorobenzene	112	13.655	13.655	1.003	712473	44.15	ug/L	99
55) 1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.007	252175	45.65	ug/L	100
56) Ethylbenzene	91	13.714	13.714	1.007	1219830	41.37	ug/L	99
57) m,p-Xylenes	106	13.821	13.821	1.015	1001702	88.93	ug/L	98
58) o-Xylene	106	14.260	14.260	1.047	526185	44.09	ug/L	99
59) Styrene	104	14.260	14.260	1.047	821205	42.42	ug/L	100
61) Bromoform	173	14.533	14.533	0.906	148088	43.43	ug/L	100
62) Isopropylbenzene	105	14.616	14.616	0.911	1299332	40.97	ug/L	99
64) 1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	322448	43.50	ug/L	100
65) 1,2,3-Trichloropropane	110	14.983	14.983	0.934	85244	43.95	ug/L	96
66) Bromobenzene	156	15.031	15.031	0.937	329284	42.07	ug/L	98
67) n-Propylbenzene	91	15.031	15.043	0.937	1514366	39.11	ug/L	98
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1079371	40.64	ug/L	98
69) 2-Chlorotoluene	126	15.197	15.197	0.948	329346	42.79	ug/L	96
70) 4-Chlorotoluene	91	15.292	15.292	0.953	988545	41.73	ug/L	99
71) tert-Butylbenzene	134	15.564	15.564	0.970	241698	41.36	ug/L	95
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1097230	39.10	ug/L	93
73) sec-Butylbenzene	105	15.790	15.790	0.984	1442118	38.48	ug/L	98
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	1230073	39.58	ug/L	99
75) 1,3-Dichlorobenzene	146	15.979	15.991	0.996	644175	40.69	ug/L	100
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	630194	42.20	ug/L	100
77) n-Butylbenzene	91	16.359	16.359	1.020	1181208	46.72	ug/L	98
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	630044	41.56	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	64818	41.67	ug/L	96
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	475536	43.60	ug/L	99
81) Hexachlorobutadiene	225	18.683	18.683	1.165	271851	40.26	ug/L	99
82) Naphthalene	128	18.908	18.908	1.179	1066626	44.47	ug/L	100
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	433677	43.52	ug/L	100
85) Acrolein		6.908	6.979	0.661	0m	N.D.	d	
86) Trichlorotrifluoroethane		7.121	7.133	0.681	0m	N.D.	d	
87) Isopropyl Alcohol		7.240	7.228	0.693	0m	N.D.	d	
88) Allyl chloride		7.512	7.596	0.719	0m	N.D.	d	
89) tert-Butyl Alcohol		7.726	7.738	0.739	0m	N.D.	d	
90) Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91) Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	
93) Ethyl tert-butyl ether		8.947	8.948	0.856	0m	N.D.	d	
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d	
96) Methacrylonitrile		9.422	9.422	0.901	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M202.D
Acq On : 03 Oct 2017 10:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I+0608-09A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 10:39:04 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

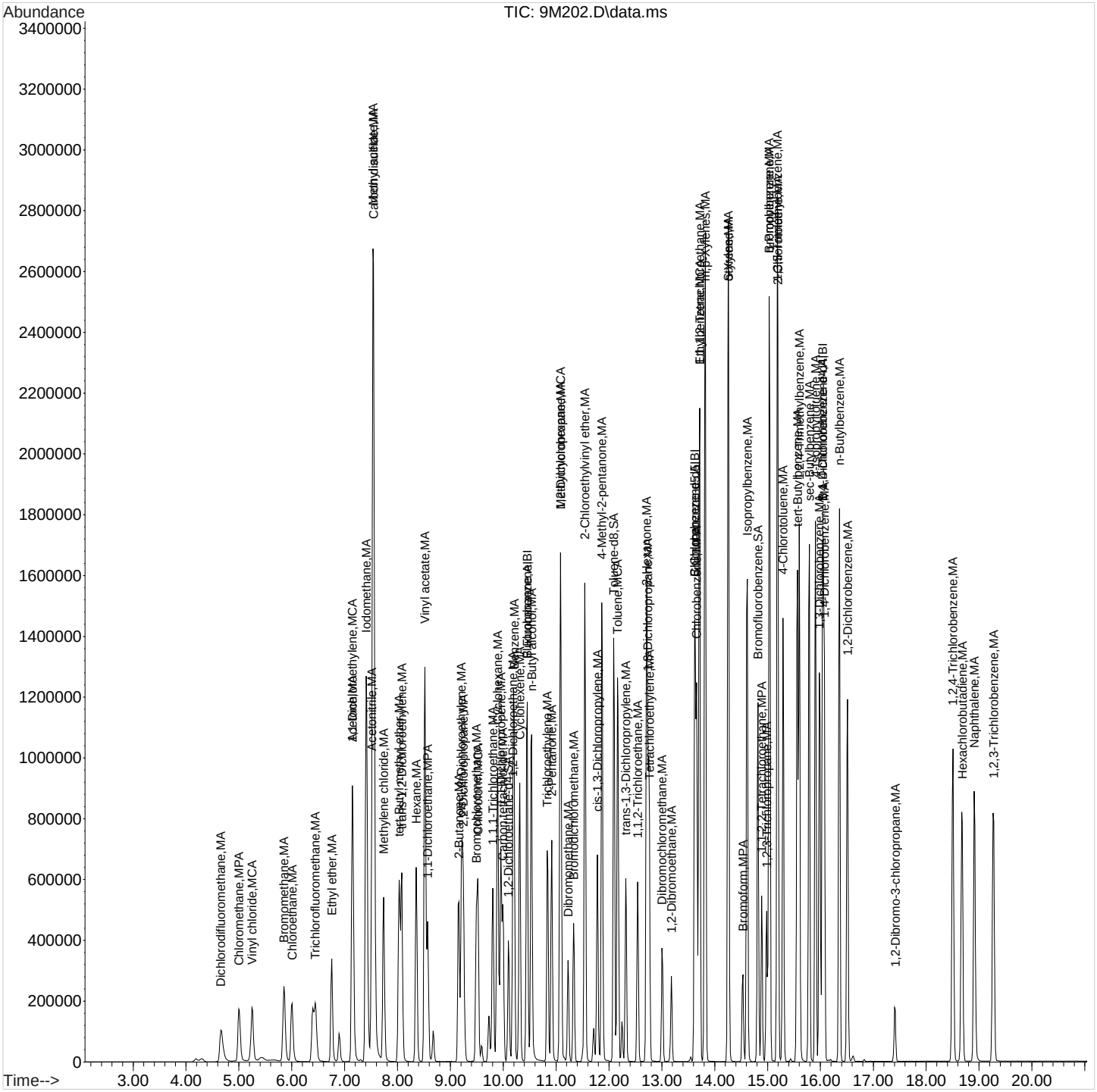
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97)	Tetrahydrofuran		9.517	9.540	0.910	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		12.303	12.304	0.903	0m	N.D.	d
106)	1-Chlorohexane		13.548	13.513	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		14.936	14.936	0.931	0m	N.D.	d
110)	Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.584	16.584	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M202.D
Acq On : 03 Oct 2017 10:14
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-01|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I+0608-09A
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 03 10:39:04 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I

Injection Date: 03-OCT-17 11:38

Data File: 100317V9\9M205.D

Init. Cal. Date(s) 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171003-04

Method: 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Method Update: 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.241	0.23614		.01		-2.0166	60		Averaged
S	Toluene-d8	1.1229	1.10988		.01		-1.1595	60		Averaged
S	Bromofluorobenzene	0.882	0.83534		.01		-5.29025	60		Averaged
	Trichlorotrifluoroethane	0.1098	0.10165		.01		-7.42259	60		Averaged
	1,4-Dioxane	0.0024	0.00222		.01		-7.5	60		Averaged

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M205.D
Acq On : 03 Oct 2017 11:38
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 12:36:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1333033	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1000488	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	594622	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1333033	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	1000488	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	594622	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	314777	49.00	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1110418	49.42	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	496713	47.35	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.672	4.672	0.447	0m	N.D.	d	
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		5.247	5.259	0.502	0m	N.D.	d	
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.457	6.445	0.618	0m	N.D.	d	
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.157	7.157	0.685	0m	N.D.	d	
11) Iodomethane		7.418	7.418	0.710	0m	N.D.	d	
12) Acetonitrile		7.595	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.595	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.750	7.738	0.741	0m	N.D.	d	
16) tert-Butyl methyl ether		8.046	8.034	0.770	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.082	8.082	0.773	0m	N.D.	d	
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.544	8.520	0.817	0m	N.D.	d	
20) 1,1-Dichloroethane		8.580	8.568	0.821	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		9.244	9.244	0.884	0m	N.D.	d	
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.528	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		9.813	9.801	0.939	0m	N.D.	d	
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		9.955	9.955	0.952	0m	N.D.	d	
29) Carbon tetrachloride		10.003	9.991	0.957	0m	N.D.	d	
31) 1,2-Dichloroethane		10.192	10.181	0.975	0m	N.D.	d	
32) Benzene		10.204	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.311	10.311	0.986	0m	N.D.	d	
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		11.046	10.916	1.057	0m	N.D.	d	
37) 1,2-Dichloropropane		11.082	11.094	1.060	0m	N.D.	d	
38) Methylcyclohexane		11.082	11.082	1.060	0m	N.D.	d	
39) Dibromomethane		11.224	11.224	1.074	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M205.D
Acq On : 03 Oct 2017 11:38
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 12:36:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	Bromodichloromethane		11.331	11.331	1.084	0m	N.D.	d	
41)	2-Chloroethylvinyl ether		11.556	11.544	1.106	0m	N.D.	d	
42)	cis-1,3-Dichloropropylene		11.781	11.782	1.127	0m	N.D.	d	
44)	4-Methyl-2-pentanone		11.876	11.865	0.871	0m	N.D.	d	
46)	Toluene		12.173	12.173	0.893	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		12.327	12.315	0.904	0m	N.D.	d	
48)	1,1,2-Trichloroethane		12.540	12.540	0.920	0m	N.D.	d	
49)	2-Hexanone		12.718	12.718	0.933	0m	N.D.	d	
50)	1,3-Dichloropropane		12.742	12.742	0.935	0m	N.D.	d	
51)	Tetrachloroethylene		12.766	12.766	0.936	0m	N.D.	d	
52)	Dibromochloromethane		13.015	13.003	0.955	0m	N.D.	d	
53)	1,2-Dibromoethane		13.181	13.181	0.967	0m	N.D.	d	
54)	Chlorobenzene		13.655	13.655	1.002	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		13.714	13.714	1.006	0m	N.D.	d	
56)	Ethylbenzene		13.714	13.714	1.006	0m	N.D.	d	
57)	m,p-Xylenes		13.821	13.821	1.014	0m	N.D.	d	
58)	o-Xylene		14.260	14.260	1.046	0m	N.D.	d	
59)	Styrene		14.260	14.260	1.046	0m	N.D.	d	
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		14.888	14.888	0.928	0m	N.D.	d	
65)	1,2,3-Trichloropropane		14.983	14.983	0.934	0m	N.D.	d	
66)	Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67)	n-Propylbenzene		15.043	15.043	0.938	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69)	2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70)	4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71)	tert-Butylbenzene		15.564	15.564	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73)	sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		15.908	15.908	0.992	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.991	15.991	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		16.074	16.074	1.002	0m	N.D.	d	
77)	n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78)	1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		17.414	17.414	1.086	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		18.505	18.505	1.154	0m	N.D.	d	
81)	Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82)	Naphthalene		18.920	18.908	1.180	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85)	Acrolein	56	6.979	6.979	0.668	335494	312.12	ug/L	99
86)	Trichlorotrifluoroethane	85	7.133	7.133	0.682	677515	231.43	ug/L	97
87)	Isopropyl Alcohol	45	7.228	7.228	0.691	1057889	2327.18	ug/L	97
88)	Allyl chloride	41	7.595	7.596	0.727	2370087	276.46	ug/L	99
89)	tert-Butyl Alcohol	59	7.738	7.738	0.740	1637330	2338.93	ug/L	99
90)	Acrylonitrile	53	7.999	7.999	0.765	527612	233.27	ug/L	100
91)	Isopropyl ether	45	8.544	8.544	0.817	1066231	45.21	ug/L	99
92)	2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	495244	45.85	ug/L	98
93)	Ethyl tert-butyl ether	59	8.947	8.948	0.856	996066	45.55	ug/L	99
94)	Ethyl acetate	43	9.161	9.161	0.876	1155862	209.13	ug/L	99
95)	Propionitrile	54	9.244	9.244	0.884	197176	240.45	ug/L	98
96)	Methacrylonitrile	41	9.422	9.422	0.901	715445	215.21	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M205.D
Acq On : 03 Oct 2017 11:38
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 12:36:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

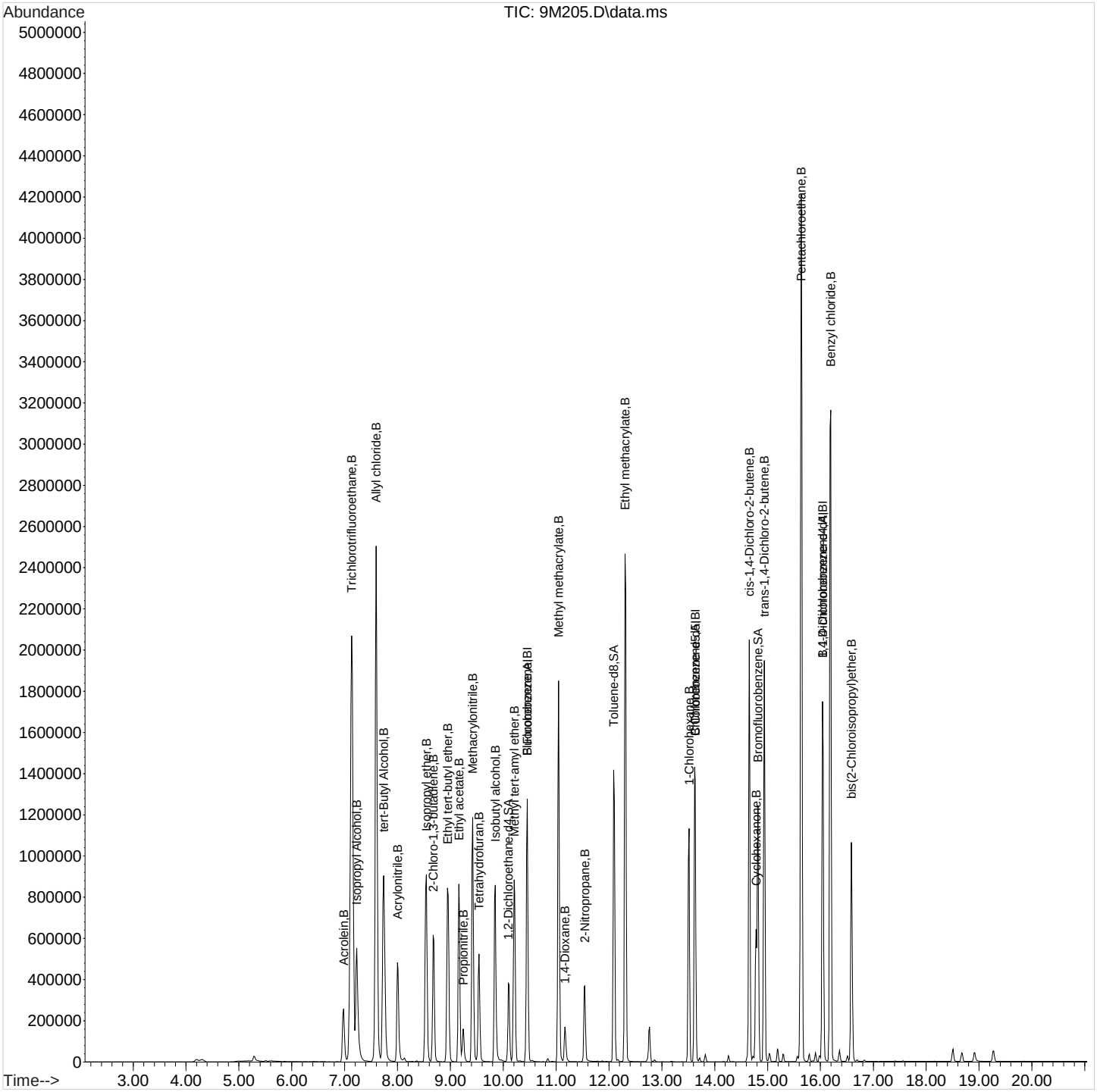
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	402136	214.59	ug/L	99
98)	Isobutyl alcohol	41	9.849	9.849	0.942	460216	2575.54	ug/L	98
99)	Methyl tert-amyl ether	73	10.204	10.205	0.976	848050	45.41	ug/L	99
100)	Methyl methacrylate	69	11.046	11.047	1.057	847789	218.27	ug/L	99
101)	1,4-Dioxane	88	11.165	11.165	1.068	147840	2313.94	ug/L	99
102)	2-Nitropropane	43	11.544	11.533	1.104	307037	208.31	ug/L	98
104)	Ethyl methacrylate	69	12.303	12.304	0.903	1575244	204.87	ug/L	99
106)	1-Chlorohexane	55	13.513	13.513	0.843	317265	43.35	ug/L	98
107)	cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	504451	238.30	ug/L	98
108)	Cyclohexanone	42	14.782	14.782	0.922	201067	1199.76	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	457946	241.08	ug/L	98
110)	Pentachloroethane	167	15.635	15.636	0.975	1041198	243.44	ug/L	96
111)	Benzyl chloride	91	16.193	16.193	1.010	2916543	238.51	ug/L	100
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	868471	216.78	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M205.D
Acq On : 03 Oct 2017 11:38
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-04|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Oct 03 12:36:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I **Injection Date:** 03-OCT-17 22:28

Data File: 100317V9\9M228.D **Init. Cal. Date(s)** 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171003-05 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD **Method Update:** 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.241	0.26361		.01		9.38174	60		Averaged	
S	Toluene-d8	1.1229	1.09619		.01		-2.37866	60		Averaged	
S	Bromofluorobenzene	0.882	0.86386		.01		-2.05669	60		Averaged	
	Dichlorodifluoromethane	0.2171	0.22717		.01		4.63842	60		Averaged	
	Chloromethane	0.2914	0.26621		.1		-8.64447	60		Averaged	SPCC
	Vinyl chloride	0.2727	0.27282		.01		0.044	20		Averaged	CCC
	Bromomethane	0.2238	0.24492		.01		9.437	60		Averaged	
	Chloroethane	0.2328	0.2378		.01		2.14777	60		Averaged	
	Trichlorofluoromethane	0.355	0.39918		.01		12.44507	60		Averaged	
	Acetone	250	283.78	250			13.512	60		Linear	
	1,1-Dichloroethylene	0.4209	0.4591		.01		9.07579	20		Averaged	CCC
	Methyl acetate	250	337.94	250			35.176	60		Linear	
	Carbon disulfide	250	286.5	250			14.6	60		Linear	
	Methylene chloride	50	56.91	50			13.82	60		Linear	
	tert-Butyl methyl ether	0.7198	0.75575		.01		4.99444	60		Averaged	
	trans-1,2-Dichloroethylene	0.3887	0.40946		.01		5.34088	60		Averaged	
	Vinyl acetate	250	280.2	250			12.08	60		Linear	
	1,1-Dichloroethane	0.4671	0.49345		.1		5.64119	60		Averaged	SPCC
	2-Butanone	250	281.12	250			12.448	60		Linear	
	cis-1,2-Dichloroethylene	0.4272	0.45003		.01		5.3441	60		Averaged	
	Bromochloromethane	0.1185	0.12593		.01		6.27004	60		Averaged	
	Chloroform	0.4155	0.45385		.01		9.22984	20		Averaged	CCC
	1,1,1-Trichloroethane	0.3766	0.42313		.01		12.35528	60		Averaged	
	Cyclohexane	0.5422	0.54478		.01		0.47584	60		Averaged	
	Carbon tetrachloride	0.3044	0.33894		.01		11.34691	60		Averaged	
	1,2-Dichloroethane	0.2821	0.3255		.01		15.38462	60		Averaged	
	Benzene	1.0175	1.04869		.01		3.06536	60		Averaged	
	Trichloroethylene	0.2465	0.25687		.01		4.2069	60		Averaged	
	1,2-Dichloropropane	0.2506	0.25942		.01		3.51955	20		Averaged	CCC
	Methylcyclohexane	0.5104	0.52196		.01		2.26489	60		Averaged	
	Bromodichloromethane	0.2971	0.32729		.01		10.16156	60		Averaged	
	cis-1,3-Dichloropropylene	0.3911	0.40484		.01		3.51317	60		Averaged	
	4-Methyl-2-pentanone	0.1206	0.12991		.01		7.71973	60		Averaged	
	Toluene	1.3077	1.30538		.01		-0.17741	20		Averaged	CCC
	trans-1,3-Dichloropropylene	0.4287	0.45507		.01		6.15115	60		Averaged	
	1,1,2-Trichloroethane	0.2227	0.23946		.01		7.52582	60		Averaged	
	2-Hexanone	250	293.64	250			17.456	60		Linear	

Continuing Calibration Summary

Instrument ID: VOA9.I **Injection Date:** 03-OCT-17 22:28

Data File: 100317V9\9M228.D **Init. Cal. Date(s)** 06-SEP-17 14:21 06-SEP-17 22:53

Lab Sample ID W9VM171003-05 **Method:** 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Tetrachloroethylene	0.2574	0.26025		.01		1.10723	60		Averaged	
Dibromochloromethane	0.2636	0.29107		.01		10.42109	60		Averaged	
1,2-Dibromoethane	0.2595	0.2801		.01		7.93834	60		Averaged	
Chlorobenzene	0.8433	0.87059		.3		3.2361	60		Averaged	SPCC
Ethylbenzene	1.5406	1.47528		.01		-4.23991	20		Averaged	CCC
m,p-Xylenes	0.5886	0.60953		.01		3.5559	60		Averaged	
o-Xylene	0.6237	0.64039		.01		2.67597	60		Averaged	
Styrene	1.0115	0.99449		.01		-1.68166	60		Averaged	
Bromoform	0.3081	0.34119		.1		10.74002	60		Averaged	SPCC
Isopropylbenzene	2.8654	2.86247		.01		-0.10225	60		Averaged	
1,1,2,2-Tetrachloroethane	0.6697	0.76027		.3		13.52397	60		Averaged	SPCC
1,3-Dichlorobenzene	1.4306	1.42192		.01		-0.60674	60		Averaged	
1,4-Dichlorobenzene	1.3493	1.39284		.01		3.22686	60		Averaged	
1,2-Dichlorobenzene	1.3698	1.41147		.01		3.04205	60		Averaged	
1,2-Dibromo-3-chloropropane	0.1406	0.1647		.01		17.14083	60		Averaged	
1,2,4-Trichlorobenzene	50	55.52	50			11.04	60		Linear	
1,2,3-Trichlorobenzene	50	58.08	50			16.16	60		Linear	

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M228.D
Acq On : 03 Oct 2017 22:28
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I
ALS Vial : 28 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 04 10:12:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1019248	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	785433	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	440138	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1019248	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	785433	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	440138	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	268679	54.70	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	860980	48.81	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	380217	48.97	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	231545	52.33	ug/L	99
3) Chloromethane	50	4.998	4.998	0.478	271337	45.68	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	278072	50.02	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	249633	54.71	ug/L	99
6) Chloroethane	64	6.006	6.006	0.575	242381	51.07	ug/L	99
7) Trichlorofluoromethane	101	6.445	6.445	0.617	406866	56.22	ug/L	100
8) Ethyl ether	59	6.754	6.754	0.646	225162	51.40	ug/L	97
9) Acetone	43	7.145	7.145	0.683	532907	283.78	ug/L	97
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	467932	54.54	ug/L	96
11) Iodomethane	142	7.406	7.418	0.708	2088563	252.48	ug/L	95
12) Acetonitrile	41	7.513	7.512	0.719	934069	1714.01	ug/L	99
13) Methyl acetate	43	7.536	7.548	0.721	890411	337.94	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	4187269	286.50	ug/L	99
15) Methylene chloride	84	7.738	7.738	0.740	306998	56.91	ug/L	96
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	770298	52.49	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	417345	52.68	ug/L	97
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.520	8.520	0.815	2136245	280.20	ug/L	98
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	502945	52.82	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	691927	281.12	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	458693	52.68	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	404266	51.56	ug/L	92
24) Bromochloromethane	128	9.493	9.493	0.908	128354	53.12	ug/L	95
25) Chloroform	83	9.517	9.528	0.910	462585	54.61	ug/L	98
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	431277	56.17	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	555265	50.24	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	356971	51.80	ug/L	96
29) Carbon tetrachloride	117	9.991	9.991	0.956	345464	55.67	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	331763	57.70	ug/L	99
32) Benzene	78	10.204	10.204	0.976	1068878	51.53	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	538839	50.99	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	607072	6885.59	ug/L	96
35) Trichloroethylene	95	10.833	10.833	1.036	261815	52.10	ug/L	98
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane	63	11.082	11.094	1.060	264418	51.76	ug/L	100
38) Methylcyclohexane	83	11.082	11.082	1.060	532011	51.13	ug/L	98
39) Dibromomethane	93	11.224	11.224	1.074	149707	56.16	ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M228.D
Acq On : 03 Oct 2017 22:28
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 04 10:12:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	Bromodichloromethane	83	11.331	11.331	1.084	333586	55.08	ug/L	99
41)	2-Chloroethylvinyl ether	63	11.544	11.544	1.104	721037	248.60	ug/L	98
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	412634	51.76	ug/L	97
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	510180	269.38	ug/L	96
46)	Toluene	91	12.161	12.173	0.893	1025292	49.91	ug/L	98
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	357428	53.08	ug/L	98
48)	1,1,2-Trichloroethane	83	12.541	12.540	0.921	188076	53.76	ug/L	100
49)	2-Hexanone	43	12.718	12.718	0.934	915806	293.64	ug/L	98
50)	1,3-Dichloropropane	76	12.730	12.742	0.935	366541	53.33	ug/L	99
51)	Tetrachloroethylene	164	12.766	12.766	0.937	204406	50.56	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	228619	55.20	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	219997	53.98	ug/L	99
54)	Chlorobenzene	112	13.655	13.655	1.003	683790	51.62	ug/L	99
55)	1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.007	248557	54.82	ug/L	100
56)	Ethylbenzene	91	13.714	13.714	1.007	1158733	47.88	ug/L	98
57)	m,p-Xylenes	106	13.821	13.821	1.015	957485	103.55	ug/L	97
58)	o-Xylene	106	14.260	14.260	1.047	502983	51.34	ug/L	97
59)	Styrene	104	14.260	14.260	1.047	781108	49.16	ug/L	99
61)	Bromoform	173	14.533	14.533	0.906	150169	55.37	ug/L	100
62)	Isopropylbenzene	105	14.616	14.616	0.911	1259882	49.95	ug/L	98
64)	1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	334622	56.76	ug/L	100
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	90656	58.77	ug/L #	92
66)	Bromobenzene	156	15.031	15.031	0.937	319662	51.34	ug/L	97
67)	n-Propylbenzene	91	15.043	15.043	0.938	1483958	48.18	ug/L	98
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1068155	50.57	ug/L	98
69)	2-Chlorotoluene	126	15.197	15.197	0.948	318828	52.08	ug/L	94
70)	4-Chlorotoluene	91	15.292	15.292	0.953	953124	50.59	ug/L	99
71)	tert-Butylbenzene	134	15.564	15.564	0.970	240150	51.67	ug/L	94
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1080715	48.42	ug/L	93
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1463068	49.07	ug/L	98
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1242524	50.27	ug/L	99
75)	1,3-Dichlorobenzene	146	15.979	15.991	0.996	625839	49.70	ug/L	99
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	613042	51.61	ug/L	99
77)	n-Butylbenzene	91	16.359	16.359	1.020	1193512	59.61	ug/L	97
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	621241	51.52	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	72490	58.59	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	479484	55.52	ug/L	99
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	295064	55.21	ug/L	100
82)	Naphthalene	128	18.909	18.908	1.179	1152262	60.80	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	457860	58.08	ug/L	99
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.299	7.228	0.698	0m	N.D.	d	
88)	Allyl chloride		7.513	7.596	0.719	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d	
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d	
96)	Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M228.D
Acq On : 03 Oct 2017 22:28
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 04 10:12:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

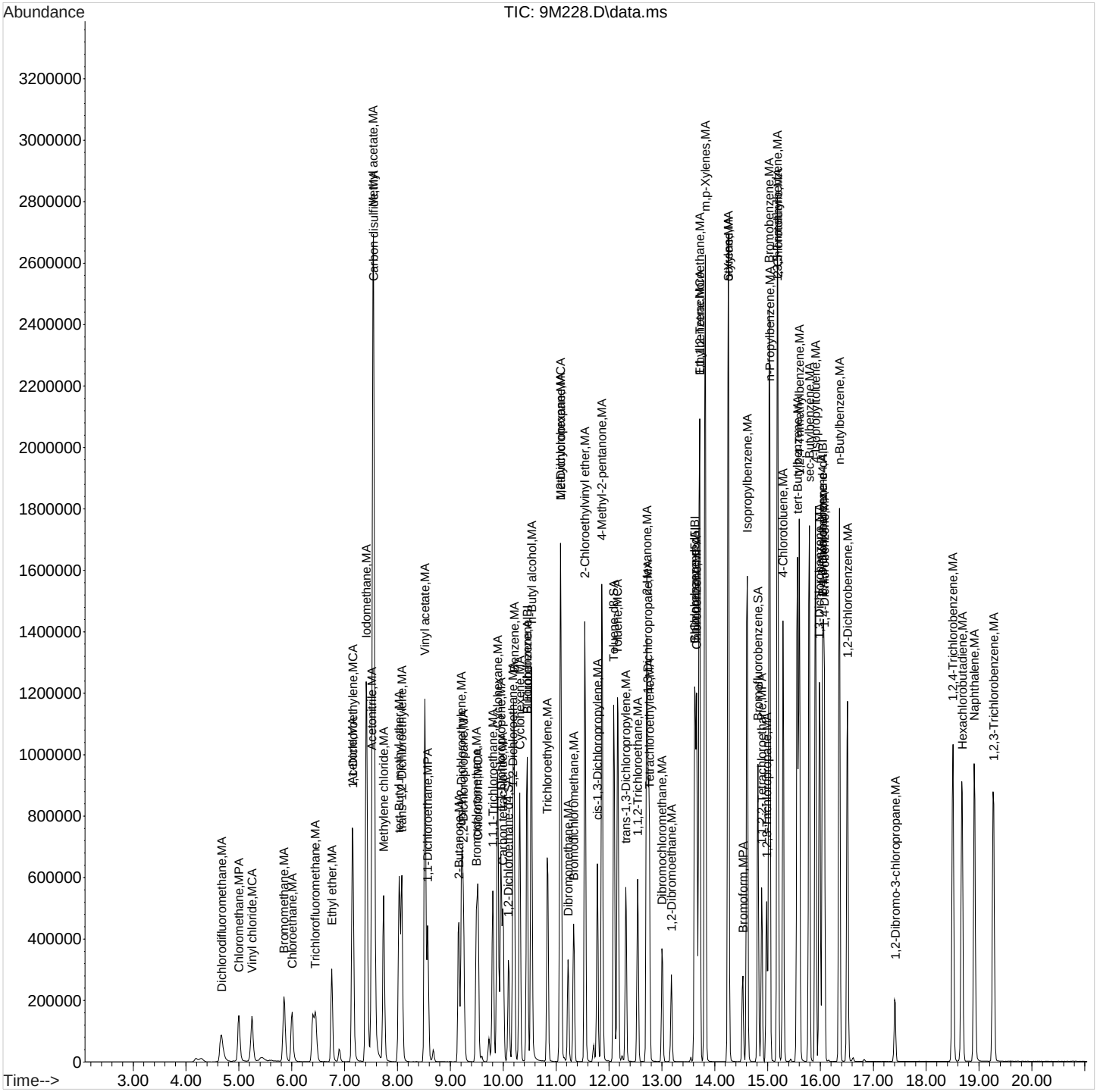
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
97) Tetrahydrofuran		9.505	9.540	0.909	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		12.315	12.304	0.904	0m	N.D.	d
106) 1-Chlorohexane		13.548	13.513	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111) Benzyl chloride		16.157	16.193	1.007	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M228.D
Acq On : 03 Oct 2017 22:28
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-05|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[A]0314-07E+0829-07I
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 04 10:12:57 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: VOA9.I

Injection Date: 03-OCT-17 23:51

Data File: 100317V9\9M231.D

Init. Cal. Date(s) 06-SEP-17 14:21 - 06-SEP-17 22:53

Lab Sample ID W9VM171003-08

Method: 090617V9\VOA9-8260-090617.M

Quant Type ISTD

Method Update: 07-SEP-17 09:55

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.241	0.23845		.01		-1.05809	60		Averaged
S	Toluene-d8	1.1229	1.12197		.01		-0.08282	60		Averaged
S	Bromofluorobenzene	0.882	0.84125		.01		-4.62018	60		Averaged
	Trichlorotrifluoroethane	0.1098	0.08917		.01		-18.78871	60		Averaged
	1,4-Dioxane	0.0024	0.00189		.01		-21.25	60		Averaged

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M231.D
Acq On : 03 Oct 2017 23:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-08|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 10:14:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1252422	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	926477	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	541276	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1252422	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	926477	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	541276	50.00	ug/L	-0.01
System Monitoring Compounds								
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	298640	49.48	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1039478	49.96	ug/L	0.00
63) Bromofluorobenzene	95	14.818	14.817	0.924	455349	47.69	ug/L	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		4.672	4.672	0.447	0m	N.D.	d	
3) Chloromethane		4.987	4.998	0.477	0m	N.D.	d	
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		5.852	5.852	0.560	0m	N.D.	d	
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		6.410	6.445	0.613	0m	N.D.	d	
8) Ethyl ether		6.766	6.754	0.647	0m	N.D.	d	
9) Acetone		7.133	7.145	0.682	0m	N.D.	d	
10) 1,1-Dichloroethylene		7.145	7.157	0.684	0m	N.D.	d	
11) Iodomethane		7.406	7.418	0.708	0m	N.D.	d	
12) Acetonitrile		7.596	7.512	0.727	0m	N.D.	d	
13) Methyl acetate		7.548	7.548	0.722	0m	N.D.	d	
14) Carbon disulfide		7.596	7.548	0.727	0m	N.D.	d	
15) Methylene chloride		7.738	7.738	0.740	0m	N.D.	d	
16) tert-Butyl methyl ether		8.034	8.034	0.769	0m	N.D.	d	
17) trans-1,2-Dichloroethy...		8.082	8.082	0.773	0m	N.D.	d	
18) Hexane		8.366	8.354	0.800	0m	N.D.	d	
19) Vinyl acetate		8.533	8.520	0.816	0m	N.D.	d	
20) 1,1-Dichloroethane		8.675	8.568	0.830	0m	N.D.	d	
21) 2-Butanone		9.161	9.161	0.876	0m	N.D.	d	
22) cis-1,2-Dichloroethylene		9.161	9.208	0.876	0m	N.D.	d	
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		9.529	9.528	0.912	0m	N.D.	d	
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		9.849	9.896	0.942	0m	N.D.	d	
28) 1,1-Dichloropropene		9.956	9.955	0.952	0m	N.D.	d	
29) Carbon tetrachloride		10.003	9.991	0.957	0m	N.D.	d	
31) 1,2-Dichloroethane		10.193	10.181	0.975	0m	N.D.	d	
32) Benzene		10.205	10.204	0.976	0m	N.D.	d	
33) Cyclohexene		10.311	10.311	0.986	0m	N.D.	d	
34) n-Butyl alcohol		10.548	10.536	1.009	0m	N.D.	d	
35) Trichloroethylene		10.845	10.833	1.037	0m	N.D.	d	
36) 2-Pentanone		11.047	10.916	1.057	0m	N.D.	d	
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		11.047	11.082	1.057	0m	N.D.	d	
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M231.D
Acq On : 03 Oct 2017 23:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-08|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 10:14:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		11.545	11.544	1.104	0m	N.D.	d	
42)	cis-1,3-Dichloropropylene		11.782	11.782	1.127	0m	N.D.	d	
44)	4-Methyl-2-pentanone		11.877	11.865	0.872	0m	N.D.	d	
46)	Toluene		12.173	12.173	0.894	0m	N.D.	d	
47)	trans-1,3-Dichloroprop...		12.327	12.315	0.905	0m	N.D.	d	
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone		12.719	12.718	0.934	0m	N.D.	d	
50)	1,3-Dichloropropane		12.742	12.742	0.936	0m	N.D.	d	
51)	Tetrachloroethylene		12.766	12.766	0.937	0m	N.D.	d	
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		13.181	13.181	0.968	0m	N.D.	d	
54)	Chlorobenzene		13.655	13.655	1.003	0m	N.D.	d	
55)	1,1,1,2-Tetrachloroethane		13.703	13.714	1.006	0m	N.D.	d	
56)	Ethylbenzene		13.715	13.714	1.007	0m	N.D.	d	
57)	m,p-Xylenes		13.821	13.821	1.015	0m	N.D.	d	
58)	o-Xylene		14.260	14.260	1.047	0m	N.D.	d	
59)	Styrene		14.260	14.260	1.047	0m	N.D.	d	
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene		14.616	14.616	0.911	0m	N.D.	d	
64)	1,1,2,2-Tetrachloroethane		14.889	14.888	0.928	0m	N.D.	d	
65)	1,2,3-Trichloropropane		14.984	14.983	0.934	0m	N.D.	d	
66)	Bromobenzene		15.031	15.031	0.937	0m	N.D.	d	
67)	n-Propylbenzene		15.031	15.043	0.937	0m	N.D.	d	
68)	1,3,5-Trimethylbenzene		15.185	15.185	0.947	0m	N.D.	d	
69)	2-Chlorotoluene		15.197	15.197	0.948	0m	N.D.	d	
70)	4-Chlorotoluene		15.292	15.292	0.953	0m	N.D.	d	
71)	tert-Butylbenzene		15.565	15.564	0.970	0m	N.D.	d	
72)	1,2,4-Trimethylbenzene		15.600	15.600	0.973	0m	N.D.	d	
73)	sec-Butylbenzene		15.790	15.790	0.984	0m	N.D.	d	
74)	4-Isopropyltoluene		15.909	15.908	0.992	0m	N.D.	d	
75)	1,3-Dichlorobenzene		15.992	15.991	0.997	0m	N.D.	d	
76)	1,4-Dichlorobenzene		16.075	16.074	1.002	0m	N.D.	d	
77)	n-Butylbenzene		16.359	16.359	1.020	0m	N.D.	d	
78)	1,2-Dichlorobenzene		16.513	16.513	1.030	0m	N.D.	d	
79)	1,2-Dibromo-3-chloropr...		17.415	17.414	1.086	0m	N.D.	d	
80)	1,2,4-Trichlorobenzene		18.506	18.505	1.154	0m	N.D.	d	
81)	Hexachlorobutadiene		18.683	18.683	1.165	0m	N.D.	d	
82)	Naphthalene		18.909	18.908	1.179	0m	N.D.	d	
83)	1,2,3-Trichlorobenzene		19.276	19.276	1.202	0m	N.D.	d	
85)	Acrolein	56	6.967	6.979	0.666	265057	262.46	ug/L	99
86)	Trichlorotrifluoroethane	85	7.133	7.133	0.682	558369	203.01	ug/L	97
87)	Isopropyl Alcohol	45	7.228	7.228	0.691	838642	1963.61	ug/L	95
88)	Allyl chloride	41	7.596	7.596	0.727	2004472	246.91	ug/L	99
89)	tert-Butyl Alcohol	59	7.738	7.738	0.740	1294739	1968.58	ug/L	96
90)	Acrylonitrile	53	7.999	7.999	0.765	440436	207.26	ug/L	100
91)	Isopropyl ether	45	8.533	8.544	0.816	904415	40.82	ug/L	98
92)	2-Chloro-1,3-butadiene	53	8.675	8.675	0.830	404809	39.89	ug/L	97
93)	Ethyl tert-butyl ether	59	8.948	8.948	0.856	831978	40.50	ug/L	99
94)	Ethyl acetate	43	9.161	9.161	0.876	960007	184.88	ug/L	99
95)	Propionitrile	54	9.244	9.244	0.884	160445	208.25	ug/L	98
96)	Methacrylonitrile	41	9.422	9.422	0.901	602490	192.90	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M231.D
Acq On : 03 Oct 2017 23:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-08|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 10:14:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

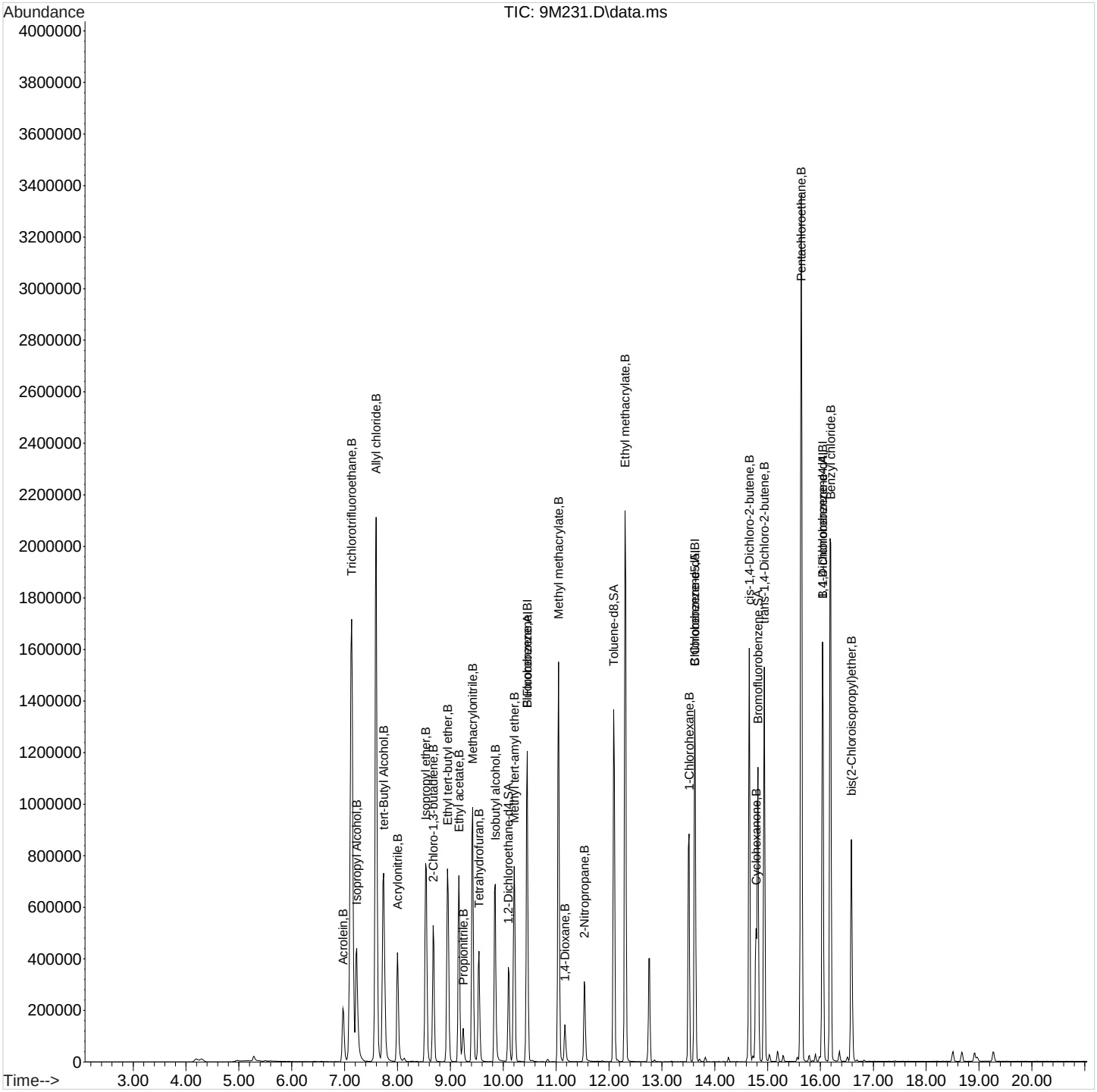
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	329760	187.29	ug/L	98
98)	Isobutyl alcohol	41	9.849	9.849	0.942	377107	2239.73	ug/L	96
99)	Methyl tert-amyl ether	73	10.205	10.205	0.976	703174	40.07	ug/L	98
100)	Methyl methacrylate	69	11.047	11.047	1.057	705345	193.28	ug/L	99
101)	1,4-Dioxane	88	11.165	11.165	1.068	118451	1973.28	ug/L	100
102)	2-Nitropropane	43	11.533	11.533	1.103	250956	181.22	ug/L	96
104)	Ethyl methacrylate	69	12.304	12.304	0.903	1319743	185.35	ug/L	99
106)	1-Chlorohexane	55	13.513	13.513	0.843	254773	38.25	ug/L	96
107)	cis-1,4-Dichloro-2-butene	53	14.652	14.651	0.913	392431	203.65	ug/L	96
108)	Cyclohexanone	42	14.782	14.782	0.922	162122	1062.72	ug/L	99
109)	trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	354671	205.11	ug/L	95
110)	Pentachloroethane	167	15.636	15.636	0.975	792607	203.59	ug/L	94
111)	Benzyl chloride	91	16.193	16.193	1.010	1932293	173.59	ug/L	97
112)	bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	690960	189.47	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M231.D
Acq On : 03 Oct 2017 23:51
Operator : RXY1
InstName : VOA9
Sample : |W9VM171003-08|CCV|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a MIX[B]0731-06F+0922-06E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 04 10:14:13 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Quality Control Data

Tune Report
GEL Laboratories, LLC

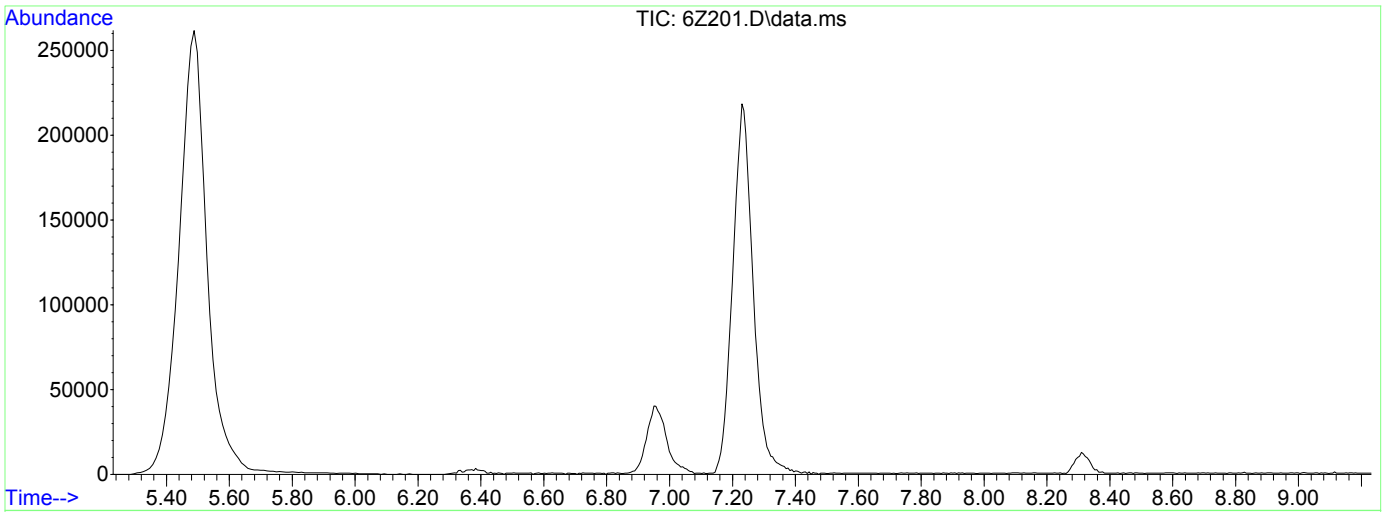
JP
09/21/2017

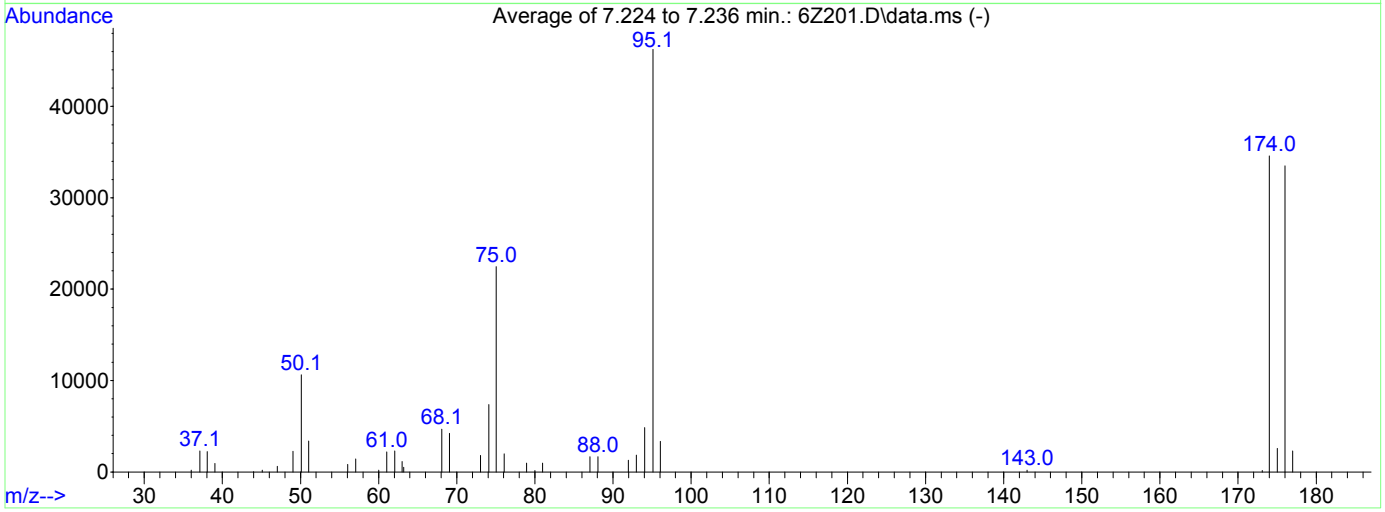
Data Path : C:\msdchem\1\data\091917V6\
Data File : 6Z201.D
Acq On : 19 Sep 2017 13:21
Operator : JP1
Sample : |IVM170821-01|BFB|1|VOAF|1|VOA8260BL|
Misc : BFB 1uL N/A
ALS Vial : 1 Sample Multiplier: 1

09/20/2017

Integration File:

Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 20 08:48:03 2017





Spectrum Information: Average of 7.224 to 7.236 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.0	10626	PASS
75	95	30	60	48.6	22480	PASS
95	95	100	100	100.0	46264	PASS
96	95	5	9	7.3	3357	PASS
173	174	0.00	2	0.5	168	PASS
174	95	50	100	74.8	34600	PASS
175	174	5	9	7.4	2560	PASS
176	174	95	101	96.8	33493	PASS
177	176	5	9	6.9	2305	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Tune Report
GEL Laboratories, LLC

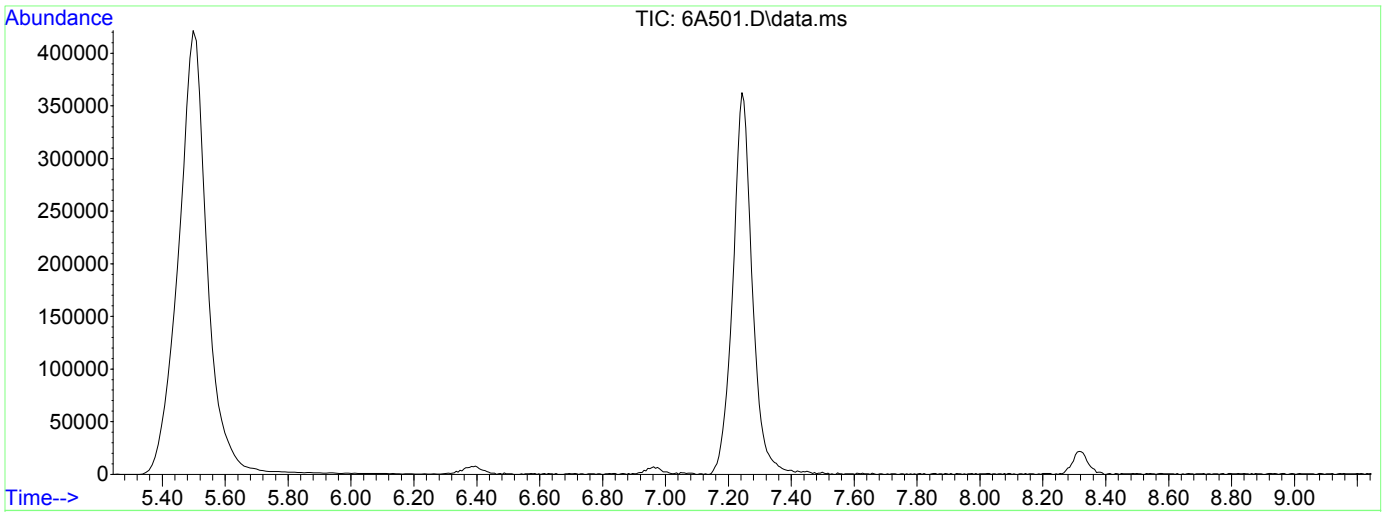
JP
09/29/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A501.D
Acq On : 29 Sep 2017 09:02
Operator : JP1
Sample : |IVM170920-01|BFB|1|VOAF|1|VOA8260BL|
Misc : BFB 1uL N/A
ALS Vial : 1 Sample Multiplier: 1

10/05/2017

Integration File:

Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Title : Volatile Organics 8260B SubList :
Last Update : Wed Sep 20 08:48:03 2017



Spectrum Information: Average of 7.237 to 7.249 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	23.1	16947	PASS
75	95	30	60	51.7	38005	PASS
95	95	100	100	100.0	73480	PASS
96	95	5	9	7.5	5504	PASS
173	174	0.00	2	0.6	375	PASS
174	95	50	100	79.2	58163	PASS
175	174	5	9	7.4	4300	PASS
176	174	95	101	97.5	56720	PASS
177	176	5	9	6.4	3623	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

RY
09/07/2017

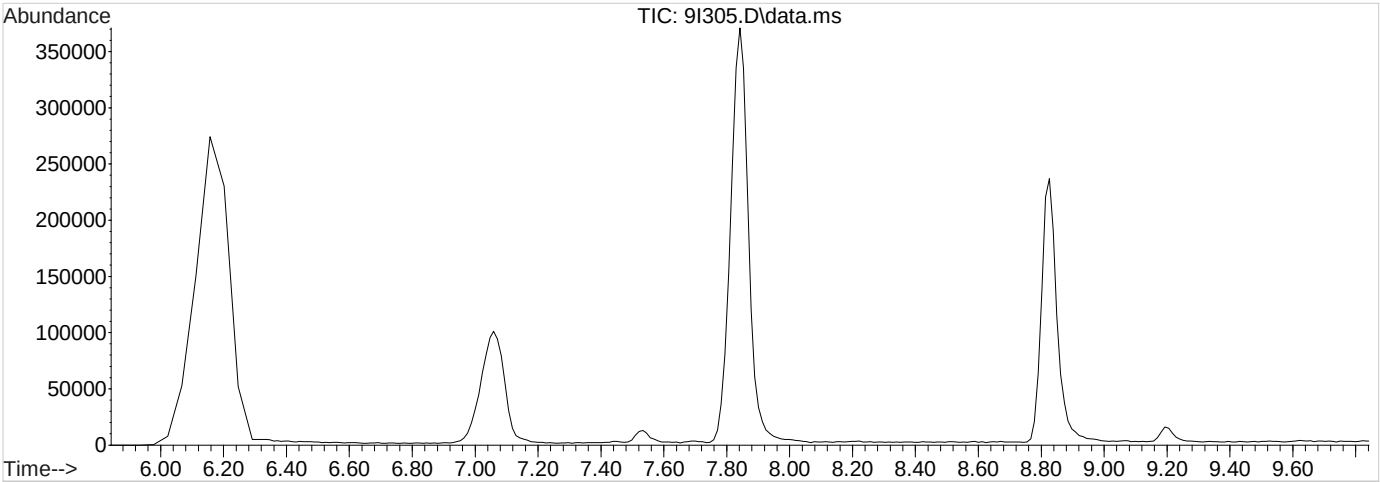
EM
09/09/2017

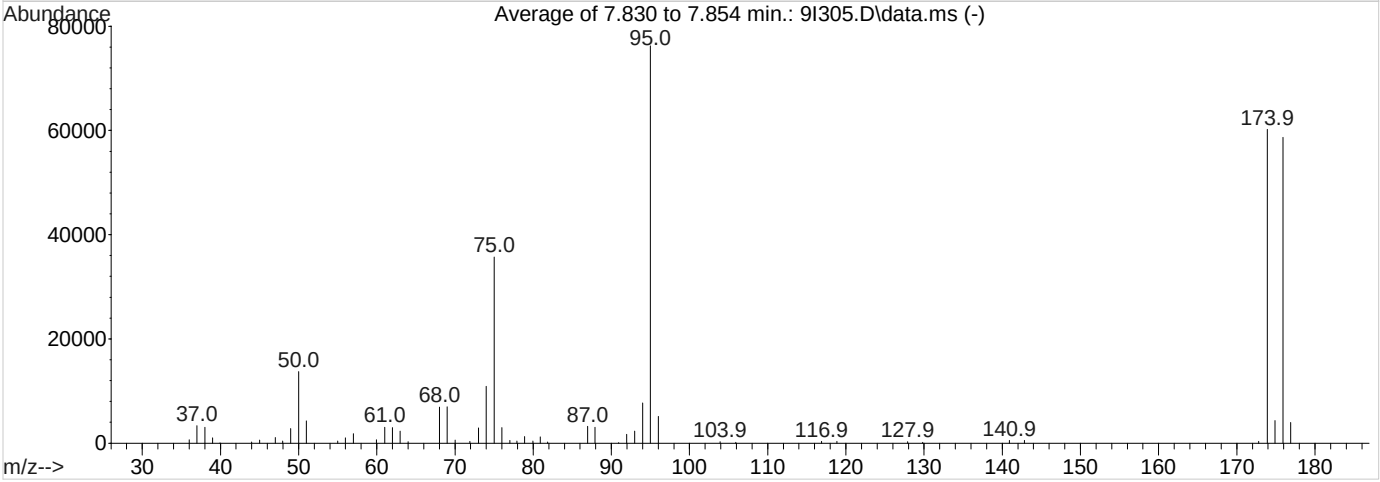
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\090617V9\
Data File : 9I305.D
Acq On : 06 Sep 2017 13:54
Operator : RXY1
Sample : |IVM170821-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a
ALS Vial : 5 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Sep 07 09:55:18 2017





AutoFind: Scans 222, 223, 224; Background Corrected with Scan 213

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	13754	PASS
75	95	30	60	46.8	35685	PASS
95	95	100	100	100.0	76259	PASS
96	95	5	9	6.7	5123	PASS
173	174	0.00	2	0.6	338	PASS
174	95	50	100	78.9	60200	PASS
175	174	5	9	7.2	4350	PASS
176	174	95	101	97.5	58693	PASS
177	176	5	9	6.8	3967	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

RY
10/04/2017

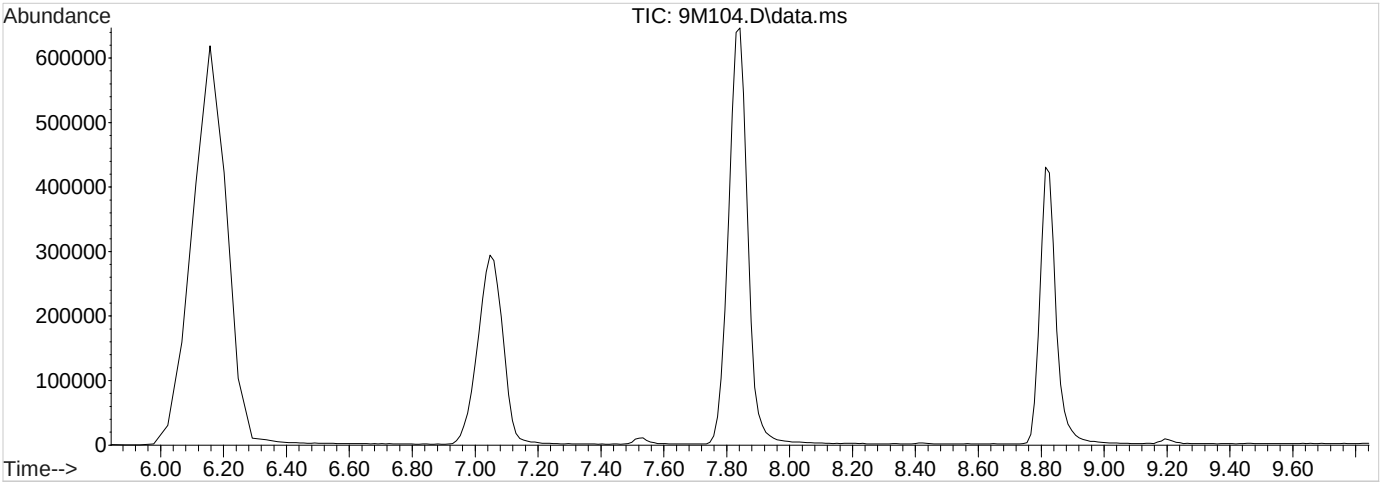
Tune Report
GEL Laboratories, LLC

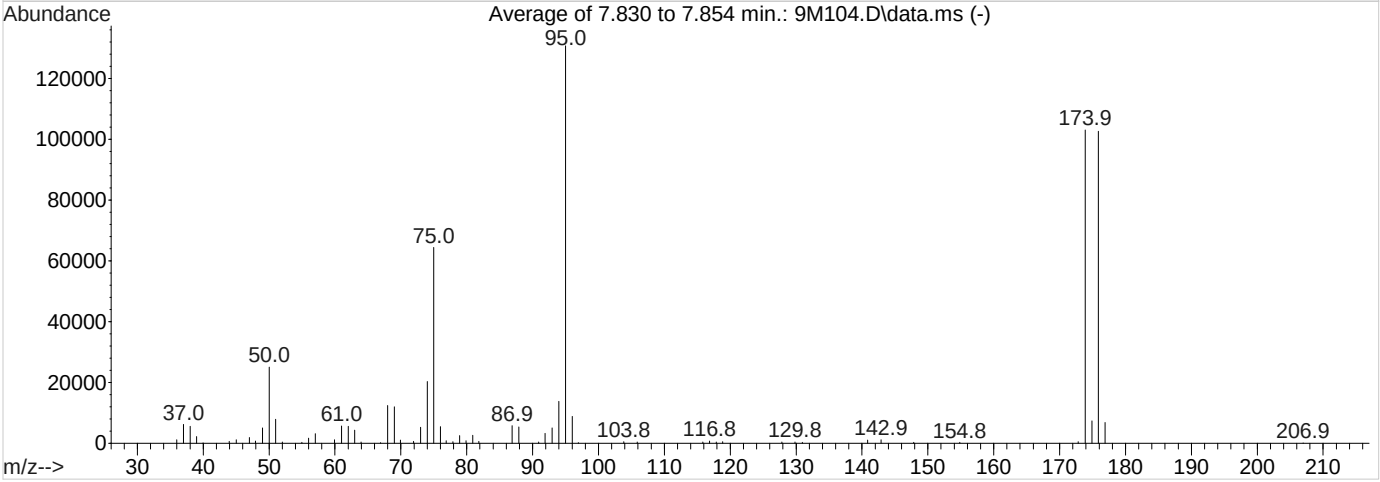
Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M104.D
Acq On : 02 Oct 2017 11:22
Operator : RXY1
Sample : |IVM170920-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a
ALS Vial : 4 Sample Multiplier: 1

EGL
10/10/2017

Integration File:

Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Sep 07 09:55:18 2017





AutoFind: Scans 222, 223, 224; Background Corrected with Scan 212

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	24989	PASS
75	95	30	60	49.2	64371	PASS
95	95	100	100	100.0	130795	PASS
96	95	5	9	6.7	8761	PASS
173	174	0.00	2	0.5	535	PASS
174	95	50	100	78.8	103043	PASS
175	174	5	9	7.1	7319	PASS
176	174	95	101	99.6	102603	PASS
177	176	5	9	6.6	6747	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

RY
10/04/2017

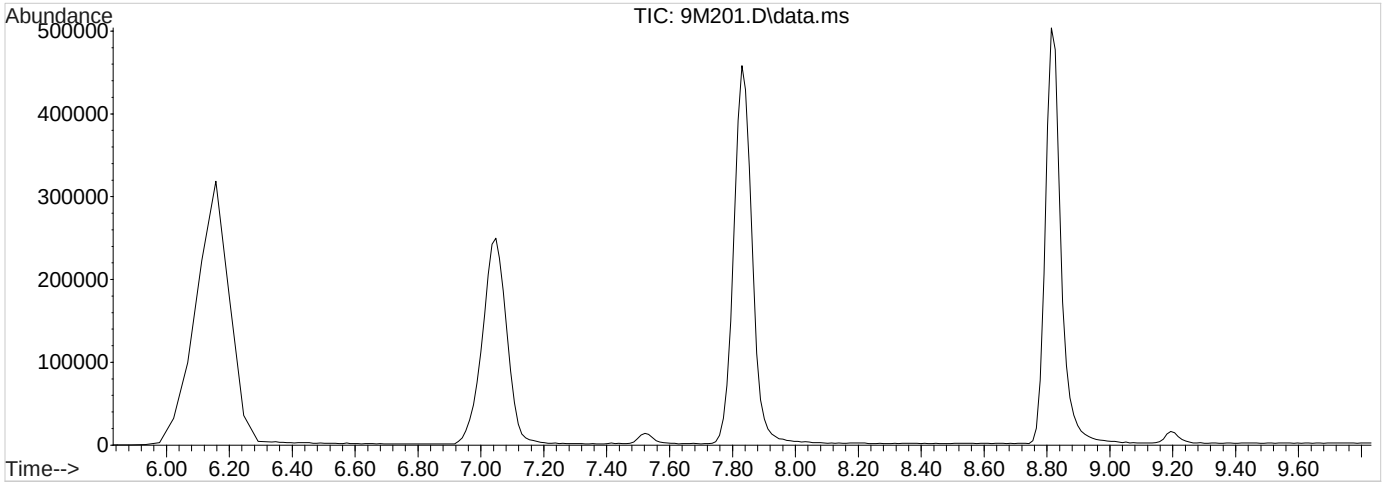
Tune Report
GEL Laboratories, LLC

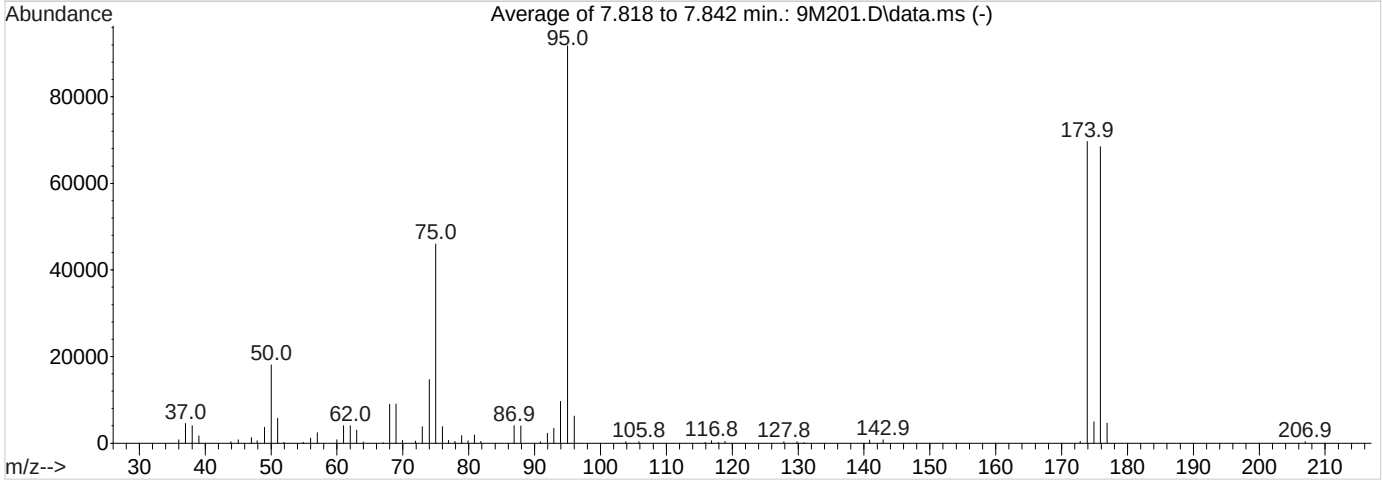
Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M201.D
Acq On : 03 Oct 2017 09:47
Operator : RXY1
Sample : |IVM170920-01|BFB|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a
ALS Vial : 1 Sample Multiplier: 1

EM
10/10/2017

Integration File:

Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Sep 07 09:55:18 2017





AutoFind: Scans 221, 222, 223; Background Corrected with Scan 211

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.7	18091	PASS
75	95	30	60	50.1	46011	PASS
95	95	100	100	100.0	91789	PASS
96	95	5	9	6.8	6217	PASS
173	174	0.00	2	0.6	405	PASS
174	95	50	100	75.9	69645	PASS
175	174	5	9	7.1	4912	PASS
176	174	95	101	98.4	68496	PASS
177	176	5	9	6.7	4596	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

RY
10/04/2017

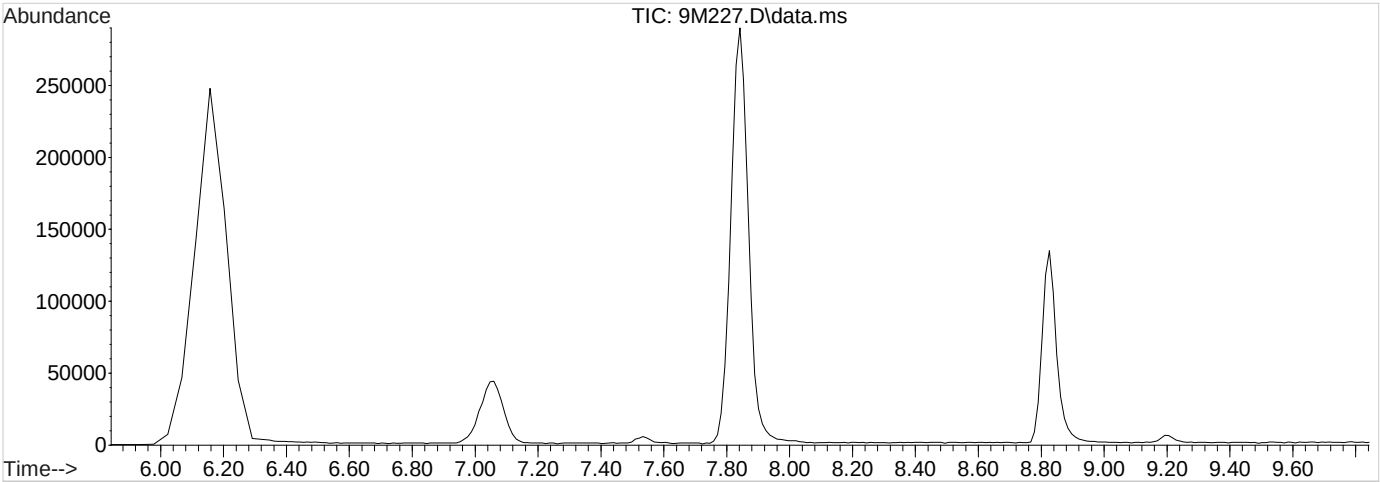
EM
10/10/2017

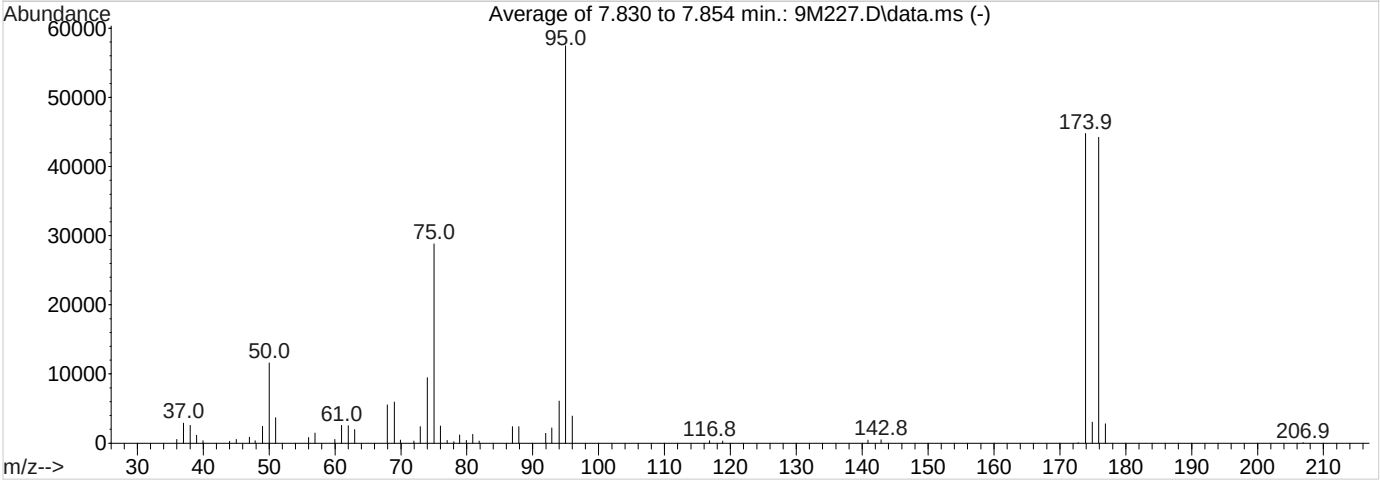
Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M227.D
Acq On : 03 Oct 2017 22:01
Operator : RXY1
Sample : |IVM170920-01|BFB2|1|VOA|1|VOA8260BL|
Misc : GEL 5mL n/a
ALS Vial : 27 Sample Multiplier: 1

Integration File:

Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Sep 07 09:55:18 2017





AutoFind: Scans 222, 223, 224; Background Corrected with Scan 213

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	11595	PASS
75	95	30	60	50.1	28821	PASS
95	95	100	100	100.0	57472	PASS
96	95	5	9	6.8	3925	PASS
173	174	0.00	2	0.2	84	PASS
174	95	50	100	77.9	44768	PASS
175	174	5	9	6.8	3030	PASS
176	174	95	101	98.8	44216	PASS
177	176	5	9	6.4	2810	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**WATER**
Lab Sample ID:	**1203885589**				
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1705051**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:23**				
Data File:	**092917V6\6A506BC.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	J	0.460	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	J	0.400	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.333	1.00
71-43-2	Benzene	U	1.00	ug/L	0.333	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.333	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.333	1.00
75-15-0	Carbon disulfide	U	5.00	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.333	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.333	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.333	1.00
75-09-2	Methylene chloride	J	1.77	ug/L	1.67	5.00
100-42-5	Styrene	U	1.00	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.333	1.00
108-88-3	Toluene	U	1.00	ug/L	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.667	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.333	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.337	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**WATER**
Lab Sample ID:	**1203885589**				
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1705051**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 11:23**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 11:23**				
Data File:	**092917V6\6A506BC.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.355	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone	U	5.00	ug/L	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.67	5.00
67-64-1	Acetone	U	5.00	ug/L	1.74	5.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.333	1.00
110-82-7	Cyclohexane	U	1.00	ug/L	0.333	1.00
79-20-9	Methyl acetate	U	5.00	ug/L	1.67	5.00
108-87-2	Methylcyclohexane	U	1.00	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A506BC.D
Acq On : 29 Sep 2017 11:23
Operator : JP1
InstName : VOA6
Sample : |1203885589|1705051|1|VOAF|1|VOA8260BL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

10/05/2017

Quant Time: Oct 02 08:44:59 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.440	9.440	1.000	1170975	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	890191	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	460745	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.440	9.440	1.000	1170975	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	890191	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	460745	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	311287	52.09	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1112982	50.39	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	469133	50.84	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	104%
45) Toluene-d8	50.000	74 - 124	101%
63) Bromofluorobenzene	50.000	70 - 131	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.001	0.000	0	N.D.		
3) Chloromethane		0.000	4.274	0.000	0	N.D.		
4) Vinyl chloride		0.000	4.498	0.000	0	N.D.		
5) Bromomethane		0.000	5.012	0.000	0	N.D.		
6) Chloroethane		0.000	5.148	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	5.549	0.000	0	N.D.		
8) Ethyl ether		0.000	5.822	0.000	0	N.D.		
9) Acetone	43	6.203	6.191	0.657	2105	Below Cal		70
10) 1,1-Dichloroethylene		0.000	6.191	0.000	0	N.D.		
11) Iodomethane		0.000	6.422	0.000	0	N.D.		
12) Acetonitrile	41	6.599	6.544	0.699	3303	N.D.		
13) Methyl acetate	43	6.587	6.569	0.698	331	N.D.		
14) Carbon disulfide	76	6.538	6.544	0.693	961	N.D.		
15) Methylene chloride	84	6.758	6.752	0.716	16890	1.77	ug/L	85
16) tert-Butyl methyl ether		0.000	7.044	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	7.081	0.000	0	N.D.		
18) Hexane	57	7.373	7.361	0.781	1482	N.D.		
19) Vinyl acetate	43	7.544	7.526	0.799	890	N.D.		
20) 1,1-Dichloroethane		0.000	7.562	0.000	0	N.D.		
21) 2-Butanone	43	8.184	8.154	0.867	2857	N.D.		
22) cis-1,2-Dichloroethylene	61	8.190	8.203	0.868	132	N.D.		
23) 2,2-Dichloropropane		0.000	8.227	0.000	0	N.D.		
24) Bromochloromethane		0.000	8.477	0.000	0	N.D.		
25) Chloroform		0.000	8.513	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	8.782	0.000	0	N.D.		
27) Cyclohexane		0.000	8.867	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	8.940	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	8.971	0.000	0	N.D.		
31) 1,2-Dichloroethane	62	9.172	9.166	0.972	146	N.D.		
32) Benzene	78	9.178	9.178	0.972	590	N.D.		
33) Cyclohexene	67	9.251	9.288	0.980	212	N.D.		
34) n-Butyl alcohol	56	9.617	9.562	1.019	114	N.D.		
35) Trichloroethylene		0.000	9.824	0.000	0	N.D.		
36) 2-Pentanone	43	9.934	9.922	1.052	546	N.D.		
37) 1,2-Dichloropropane		0.000	10.074	0.000	0	N.D.		
38) Methylcyclohexane		0.000	10.062	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A506BC.D
Acq On : 29 Sep 2017 11:23
Operator : JP1
InstName : VOA6
Sample : |1203885589|1705051|1|VOAF|1|VOA8260BL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 08:44:59 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane		0.000	10.208	0.000	0	N.D.		
40) Bromodichloromethane		0.000	10.330	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	10.781	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	10.885	0.000	0	N.D.		
46) Toluene	91	11.171	11.165	0.885	1454	N.D.		
47) trans-1,3-Dichloroprop...	75	11.342	11.336	0.898	134	N.D.		
48) 1,1,2-Trichloroethane		0.000	11.549	0.000	0	N.D.		
49) 2-Hexanone	43	11.757	11.744	0.931	1271	N.D.		
50) 1,3-Dichloropropane	76	11.744	11.744	0.930	137	N.D.		
51) Tetrachloroethylene		0.000	11.757	0.000	0	N.D.		
52) Dibromochloromethane		0.000	12.007	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	12.171	0.000	0	N.D.		
54) Chlorobenzene	112	12.665	12.659	1.003	984	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	12.720	0.000	0	N.D.		
56) Ethylbenzene	91	12.732	12.726	1.008	1175	N.D.		
57) m,p-Xylenes	106	12.836	12.842	1.016	915	N.D.		
58) o-Xylene	91	13.281	13.275	1.052	1085	N.D.		
59) Styrene	104	13.287	13.281	1.052	939	N.D.		
61) Bromoform		0.000	13.531	0.000	0	N.D.		
62) Isopropylbenzene	105	13.640	13.634	0.906	1656	N.D.		
64) 1,1,2,2-Tetrachloroethane	83	13.835	13.921	0.919	229	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.006	0.000	0	N.D.		
66) Bromobenzene	156	14.031	14.037	0.932	346	N.D.		
67) n-Propylbenzene	91	14.073	14.067	0.935	2391	N.D.		
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1547	N.D.		
69) 2-Chlorotoluene	126	14.207	14.207	0.944	340	N.D.		
70) 4-Chlorotoluene	91	14.311	14.311	0.951	2026	N.D.		
71) tert-Butylbenzene	134	14.591	14.592	0.969	372	N.D.		
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	2034	N.D.		
73) sec-Butylbenzene	105	14.817	14.817	0.984	3227	N.D.		
74) 4-Isopropyltoluene	119	14.598	14.592	0.970	1934	N.D.		
75) 1,3-Dichlorobenzene	146	15.000	14.994	0.996	1459	N.D.		
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	2487	N.D.		
77) n-Butylbenzene	91	15.372	15.372	1.021	4737	N.D.		
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	1669	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	16.305	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	3943	0.40	ug/L	93
81) Hexachlorobutadiene	225	17.432	17.439	1.158	3216	0.50	ug/L	96
82) Naphthalene	128	17.627	17.627	1.171	7024	N.D.		
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	3991	0.46	ug/L	94
85) Acrolein	56	6.032	6.020	0.639	261	N.D.		
86) Trichlorotrifluoroethane		0.000	6.178	0.000	0	N.D.		
87) Isopropyl Alcohol	45	6.300	6.276	0.667	716	N.D.		
88) Allyl chloride	41	6.599	6.605	0.699	3303	N.D.		
89) tert-Butyl Alcohol	59	6.758	6.770	0.716	478	N.D.		
90) Acrylonitrile	53	7.026	7.007	0.744	1755	N.D.		
91) Isopropyl ether	45	7.556	7.550	0.800	343	N.D.		
92) 2-Chloro-1,3-butadiene	53	7.660	7.666	0.811	144	N.D.		
93) Ethyl tert-butyl ether	59	7.959	7.958	0.843	164	N.D.		
94) Ethyl acetate	43	8.184	8.172	0.867	2857	N.D.		
95) Propionitrile	54	8.257	8.239	0.875	382	N.D.		
96) Methacrylonitrile	41	8.428	8.410	0.893	1248	N.D.		
97) Tetrahydrofuran	42	8.526	8.519	0.903	2342	N.D.		
98) Isobutyl alcohol	41	8.879	8.867	0.941	624	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A506BC.D
Acq On : 29 Sep 2017 11:23
Operator : JP1
InstName : VOA6
Sample : |1203885589|1705051|1|VOAF|1|VOA8260BL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 08:44:59 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

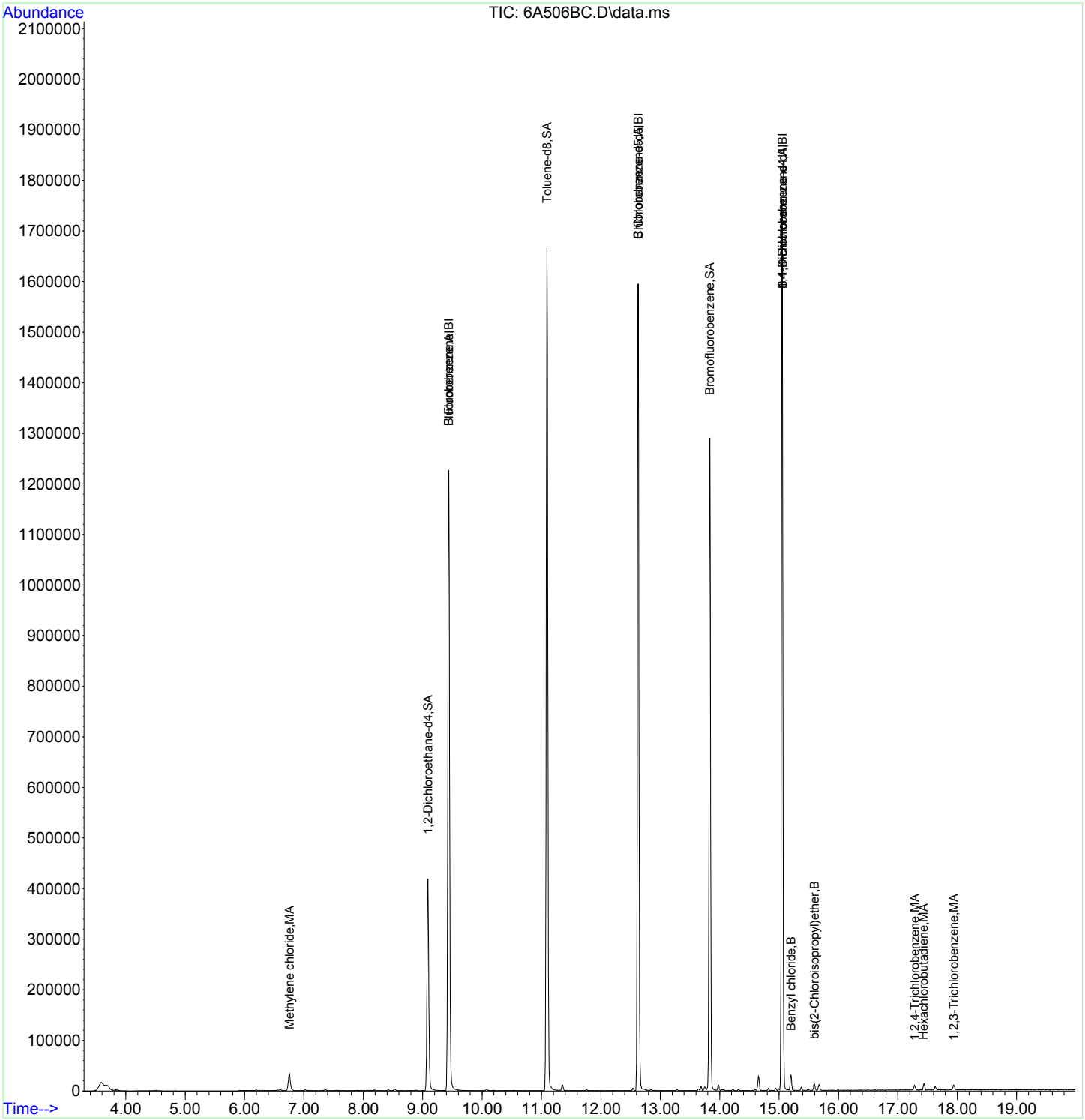
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
99)	Methyl tert-amyl ether	73	9.202	9.208	0.975	238	N.D.		
100)	Methyl methacrylate	69	10.080	10.062	1.068	1012	N.D.		
101)	1,4-Dioxane		0.000	10.165	0.000	0	N.D.		
102)	2-Nitropropane	43	10.550	10.543	1.118	335	N.D.		
104)	Ethyl methacrylate	69	11.354	11.348	0.899	3035	N.D.		
106)	1-Chlorohexane	55	12.537	12.537	0.833	1335	N.D.		
107)	cis-1,4-Dichloro-2-butene	53	13.683	13.683	0.909	2409	N.D.		
108)	Cyclohexanone	42	13.793	13.787	0.916	1896	N.D.		
109)	trans-1,4-Dichloro-2-b...	53	13.976	13.976	0.928	3066	N.D.		
110)	Pentachloroethane	167	14.652	14.652	0.973	4291	N.D.		
111)	Benzyl chloride	91	15.201	15.195	1.010	24393	2.07	ug/L	94
112)	bis(2-Chloroisopropyl)...	45	15.591	15.591	1.036	9691	2.56	ug/L	92

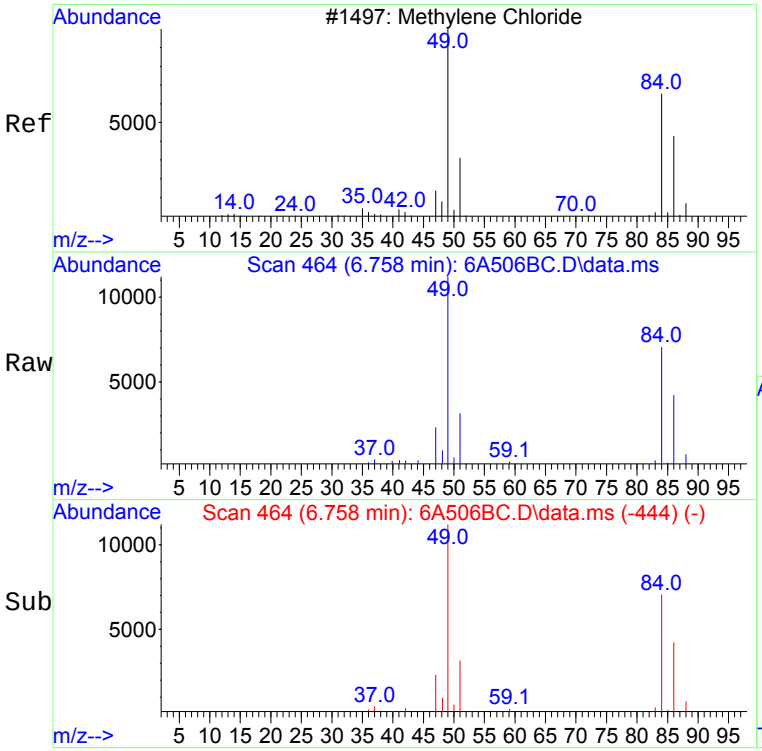
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A506BC.D
Acq On : 29 Sep 2017 11:23
Operator : JP1
InstName : VOA6
Sample : |1203885589|1705051|1|VOAF|1|VOA8260BL|
Misc : BLANK 5ML N/A
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Oct 02 08:44:59 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

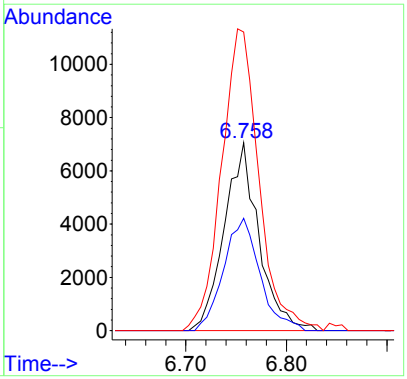


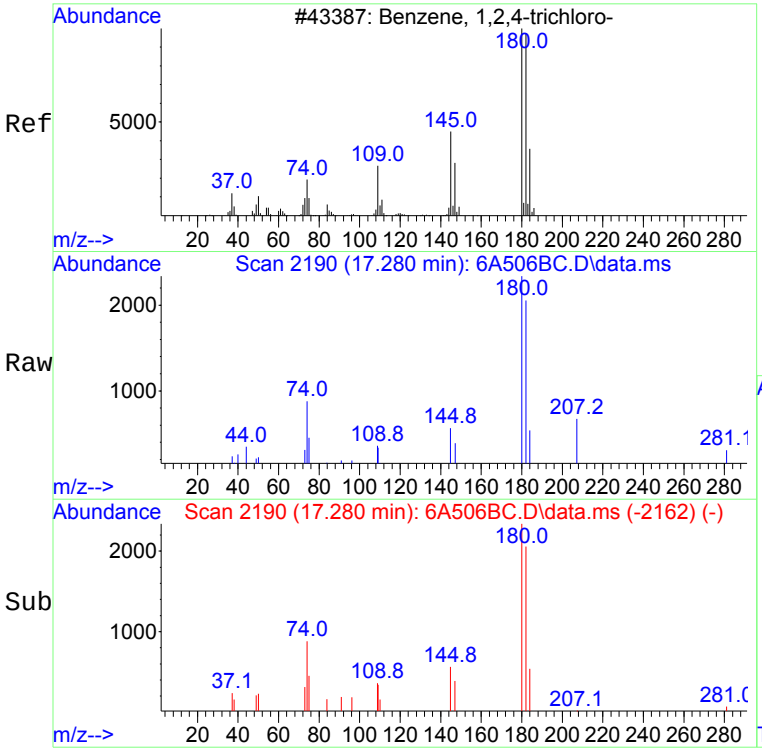


#15
Methylene chloride
Concen: 1.77 ug/L
RT: 6.758 min Scan# 464
Delta R.T. 0.006 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion: 84 Resp: 16890

Ion	Ratio	Lower	Upper
84	100		
86	62.7	34.3	94.3
49	173.3	118.2	178.2

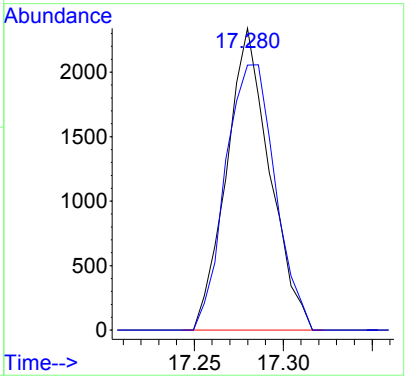


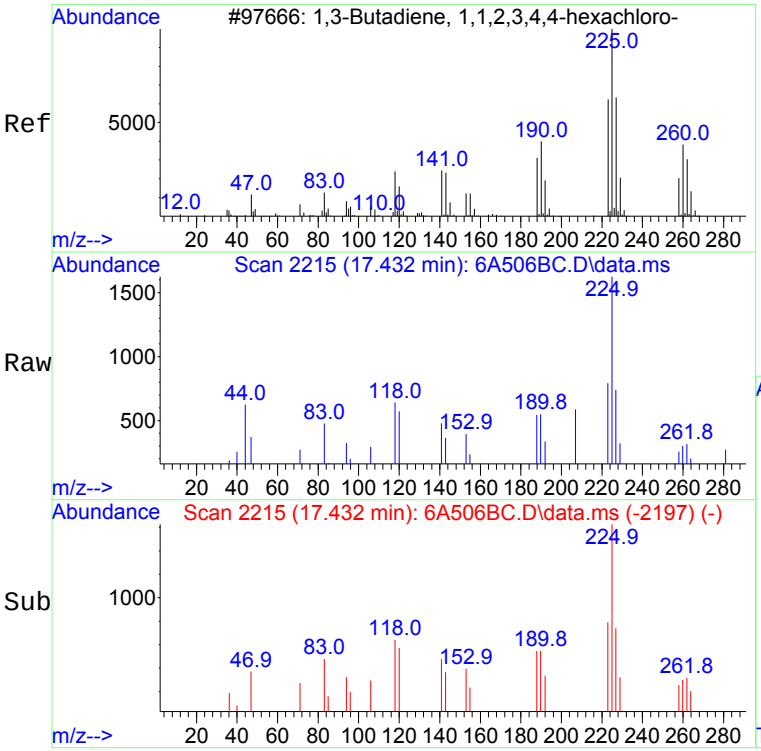


#80
1,2,4-Trichlorobenzene
Concen: 0.40 ug/L
RT: 17.280 min Scan# 2190
Delta R.T. -0.000 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion:180 Resp: 3943

Ion	Ratio	Lower	Upper
180	100		
182	101.3	64.6	124.6

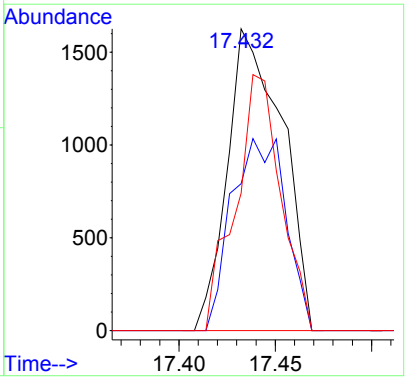


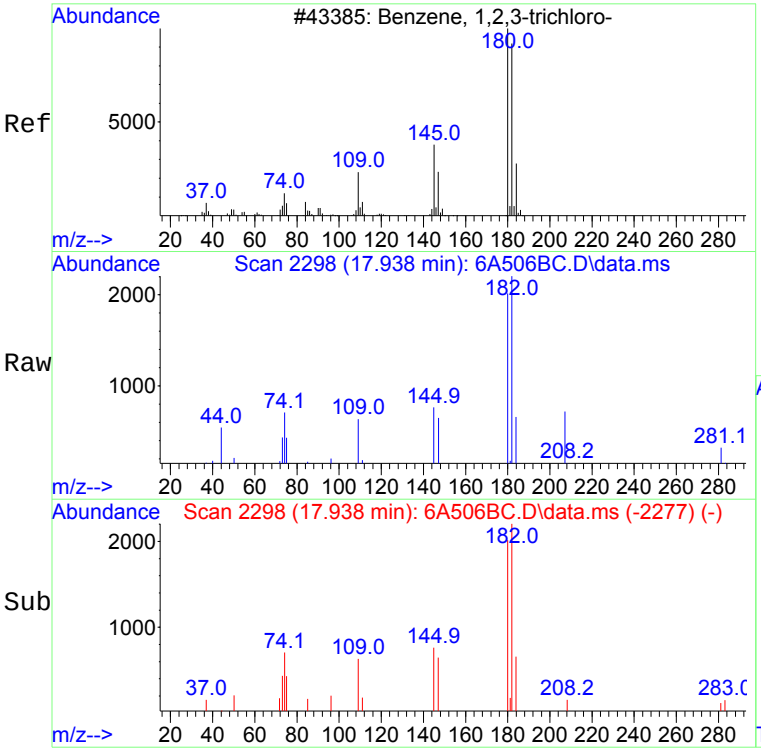


#81
Hexachlorobutadiene
Concen: 0.50 ug/L
RT: 17.432 min Scan# 2215
Delta R.T. -0.006 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion:225 Resp: 3216

Ion	Ratio	Lower	Upper
225	100		
223	62.8	32.8	92.8
227	69.9	34.1	94.1

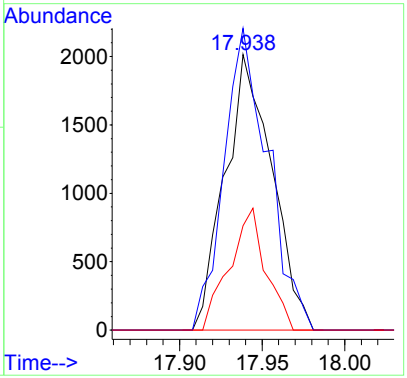


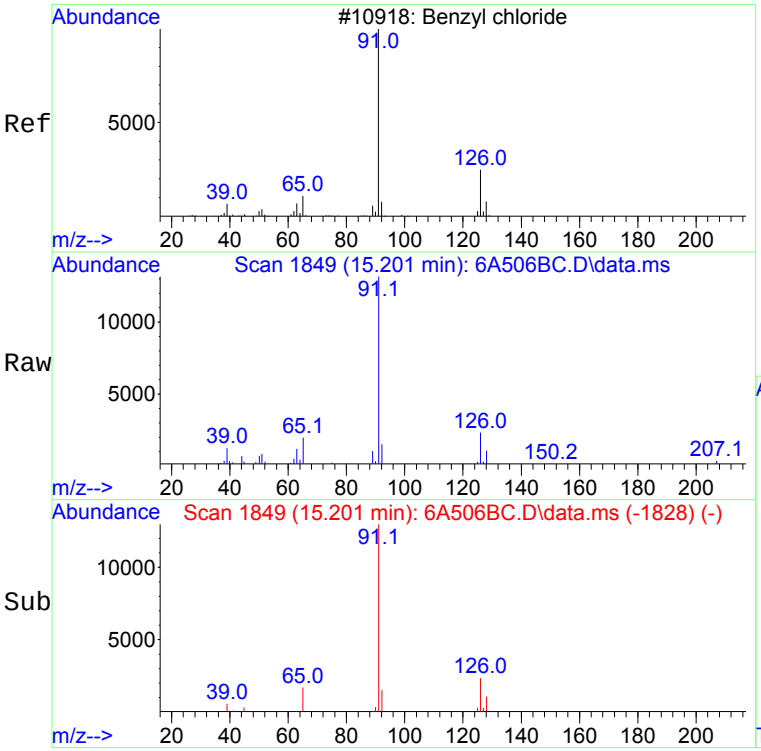


#83
1,2,3-Trichlorobenzene
Concen: 0.46 ug/L
RT: 17.938 min Scan# 2298
Delta R.T. -0.000 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion:180 Resp: 3991

Ion	Ratio	Lower	Upper
180	100		
182	102.4	65.4	125.4
145	34.3	2.0	62.0

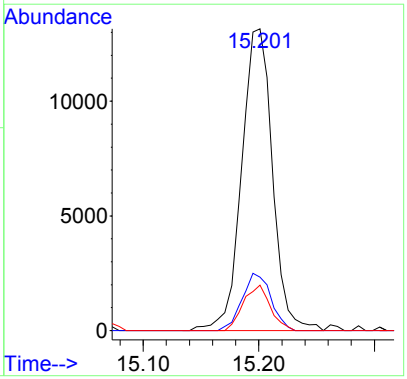


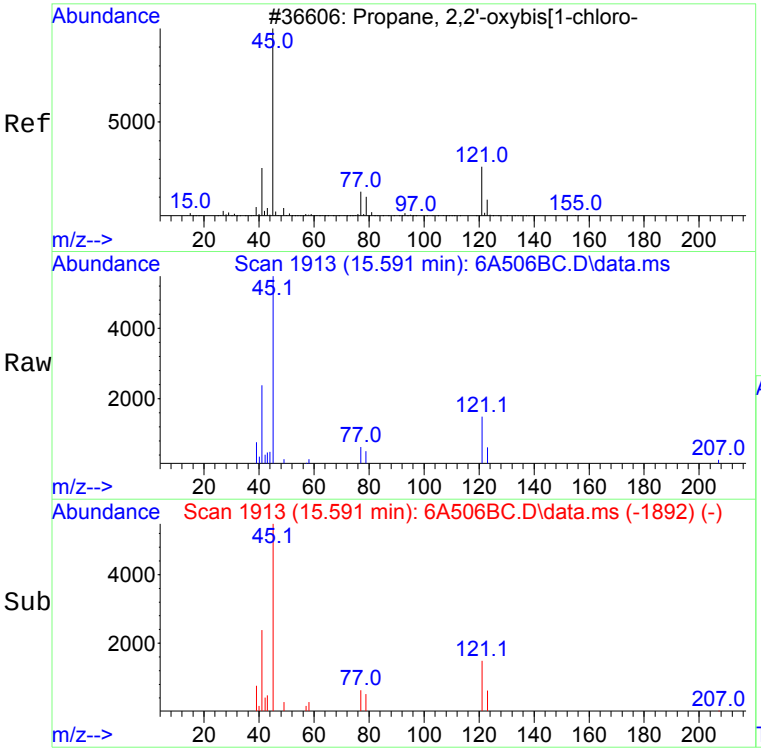


#111
Benzyl chloride
Concen: 2.07 ug/L
RT: 15.201 min Scan# 1849
Delta R.T. 0.006 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion: 91 Resp: 24393

Ion	Ratio	Lower	Upper
91	100		
126	17.8	0.0	52.6
65	13.2	0.0	43.1

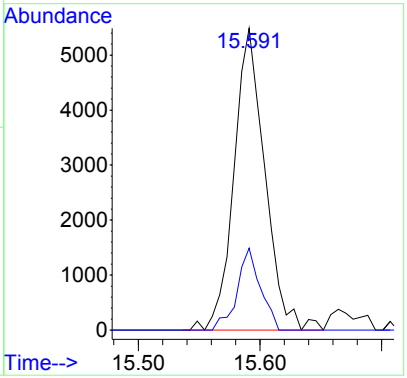




#112
bis(2-Chloroisopropyl)ether
Concen: 2.56 ug/L
RT: 15.591 min Scan# 1913
Delta R.T. 0.000 min
Lab File: 6A506BC.D
Acq: 29 Sep 2017 11:23

Tgt Ion: 45 Resp: 9691

Ion	Ratio	Lower	Upper
45	100		
121	20.4	0.0	54.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887113**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/02/2017 14:39**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 10:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100217V9\9M111B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M111B.D
Acq On : 02 Oct 2017 14:39
Operator : RXY1
InstName : VOA9
Sample : |1203887113|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 02 14:58:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1456328	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1111816	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	626240	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1456328	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	1111816	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	626240	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	365347	52.06	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1237594	49.56	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	565867	51.22	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	1422	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.548	7.512	0.722	1545	Below Cal	#	1
13) Methyl acetate	43	7.560	7.548	0.723	689	Below Cal	#	61
14) Carbon disulfide	76	7.548	7.548	0.722	2554	Below Cal	#	71
15) Methylene chloride	84	7.750	7.738	0.741	4517	Below Cal		90
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.366	8.354	0.800	418	N.D.		
19) Vinyl acetate	43	8.532	8.520	0.816	1509	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	2270	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	729	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M111B.D
Acq On : 02 Oct 2017 14:39
Operator : RXY1
InstName : VOA9
Sample : |1203887113|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 02 14:58:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone		0.000	10.916	0.000	0	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.173	12.173	0.893	1594	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone	43	12.730	12.718	0.934	1046	Below Cal	#	70
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene	112	13.655	13.655	1.002	1334	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.714	13.714	1.006	1162	N.D.		
57) m,p-Xylenes	106	13.833	13.821	1.015	1069	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene	104	14.272	14.260	1.047	1120	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene	105	14.616	14.616	0.911	1299	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene	156	15.031	15.031	0.937	508	N.D.		
67) n-Propylbenzene	91	15.043	15.043	0.938	2612	N.D.		
68) 1,3,5-Trimethylbenzene	105	15.197	15.185	0.948	1533	N.D.		
69) 2-Chlorotoluene	126	15.197	15.197	0.948	230	N.D.		
70) 4-Chlorotoluene	91	15.303	15.292	0.954	2618	N.D.		
71) tert-Butylbenzene	134	15.564	15.564	0.970	179	N.D.		
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	2398	N.D.		
73) sec-Butylbenzene	105	15.790	15.790	0.984	3354	N.D.		
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	3231	N.D.		
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	2336	N.D.		
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	2802	N.D.		
77) n-Butylbenzene	91	16.359	16.359	1.020	4672	Below Cal		89
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	2210	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	5100	Below Cal		96
81) Hexachlorobutadiene	225	18.683	18.683	1.165	3474	Below Cal		93
82) Naphthalene	128	18.920	18.908	1.180	9417	Below Cal		91
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	5067	Below Cal		94
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.252	7.228	0.694	718	N.D.		
88) Allyl chloride	41	7.548	7.596	0.722	1545	Below Cal	#	18
89) tert-Butyl Alcohol	59	7.738	7.738	0.740	921	N.D.		
90) Acrylonitrile	53	8.022	7.999	0.767	1723	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M111B.D
Acq On : 02 Oct 2017 14:39
Operator : RXY1
InstName : VOA9
Sample : |1203887113|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 02 14:58:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

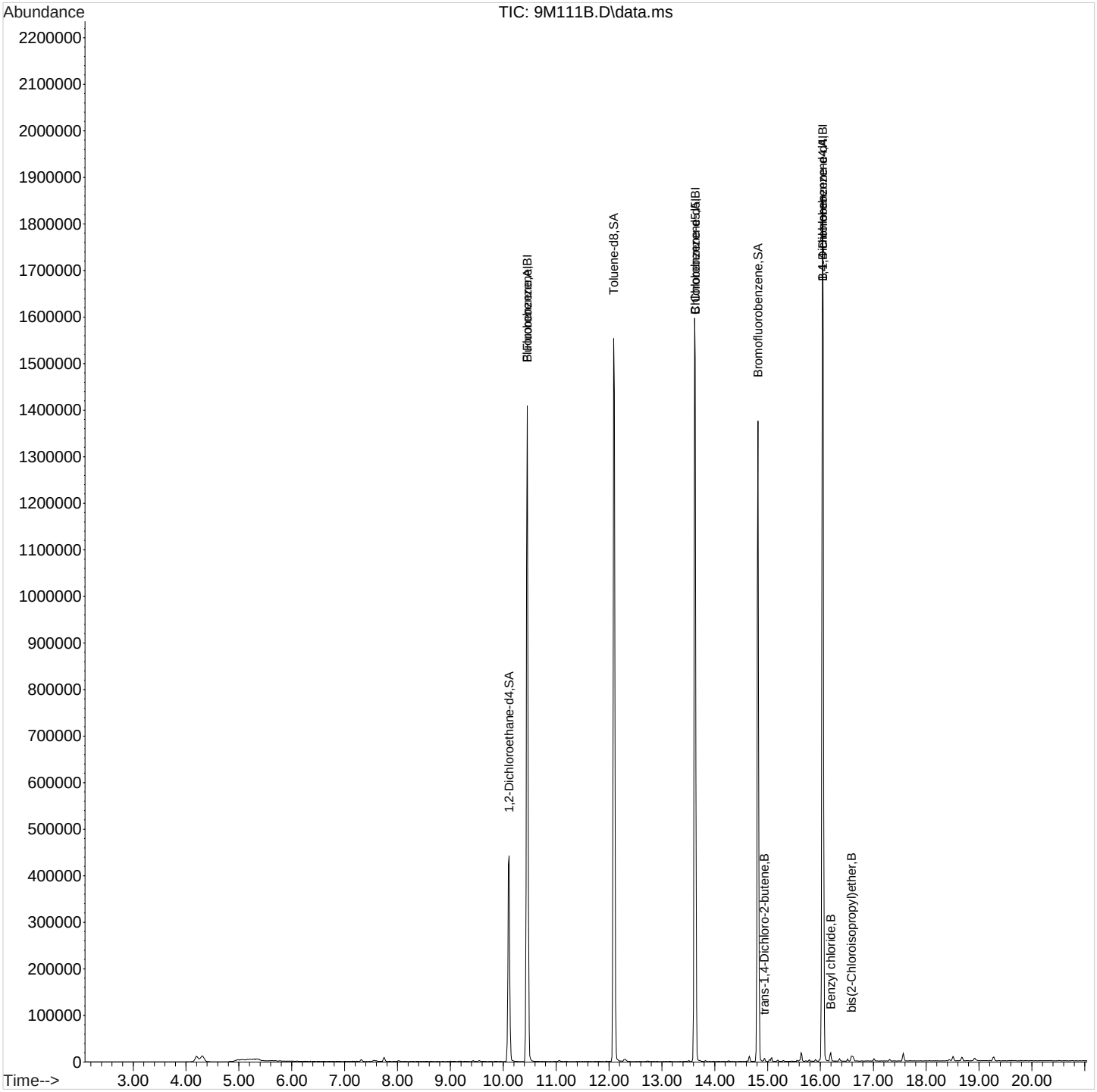
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.		
94) Ethyl acetate	43	9.173	9.161	0.877	2270	N.D.		
95) Propionitrile	54	9.256	9.244	0.885	198	N.D.		
96) Methacrylonitrile	41	9.434	9.422	0.902	1391	N.D.		
97) Tetrahydrofuran	42	9.552	9.540	0.914	1521	N.D.		
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.		
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.		
100) Methyl methacrylate	69	11.058	11.047	1.058	1821	N.D.		
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.		
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.		
104) Ethyl methacrylate	69	12.315	12.304	0.903	3653	N.D.		
106) 1-Chlorohexane	55	13.513	13.513	0.843	502	N.D.		
107) cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	1989	N.D.		
108) Cyclohexanone	42	14.782	14.782	0.922	900	N.D.		
109) trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	2309	1.15	ug/L #	72
110) Pentachloroethane	167	15.647	15.636	0.976	3039	N.D.		
111) Benzyl chloride	91	16.193	16.193	1.010	16861	1.31	ug/L	90
112) bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	8776	2.08	ug/L	90

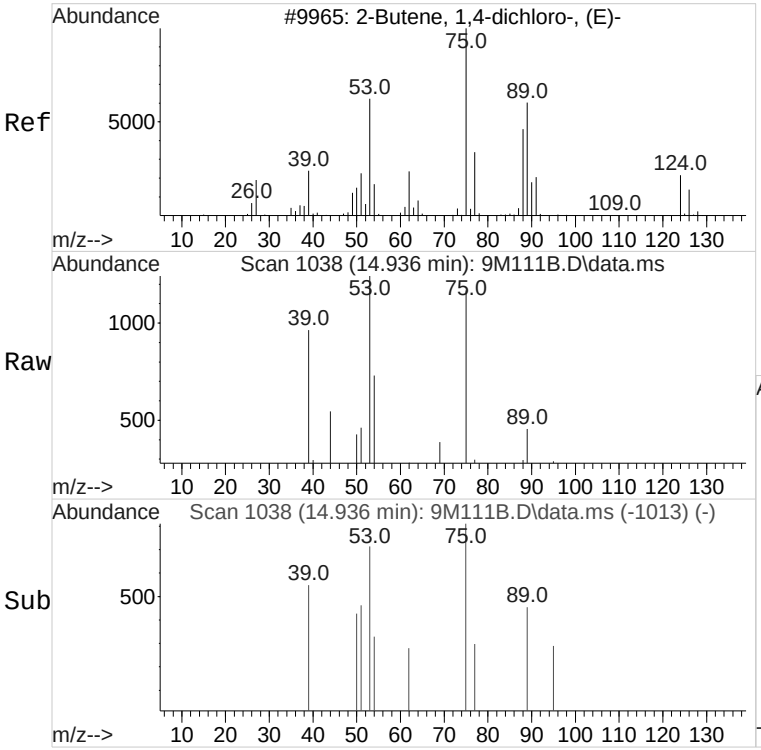
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M111B.D
Acq On : 02 Oct 2017 14:39
Operator : RXY1
InstName : VOA9
Sample : |1203887113|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Oct 02 14:58:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

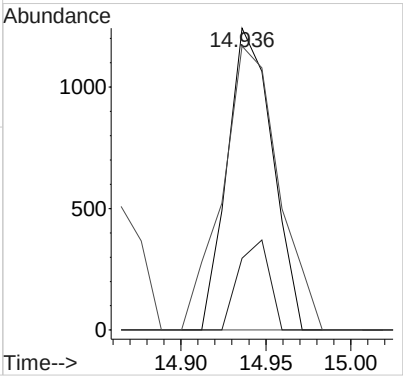


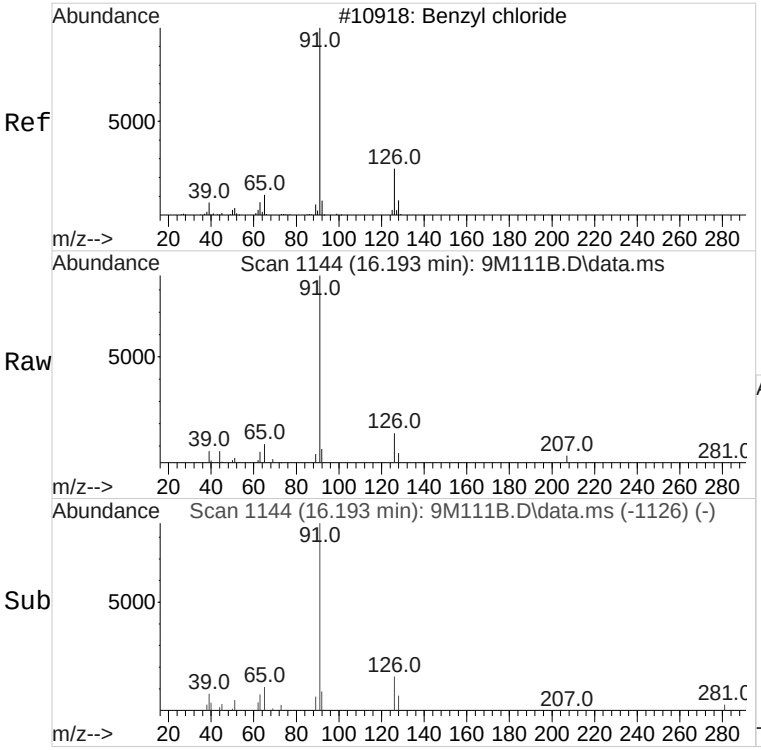


#109
trans-1,4-Dichloro-2-butene
Concen: 1.15 ug/L
RT: 14.936 min Scan# 1038
Delta R.T. -0.000 min
Lab File: 9M111B.D
Acq: 02 Oct 2017 14:39

Tgt Ion: 53 Resp: 2309

Ion	Ratio	Lower	Upper
53	100		
88	20.6	20.6	80.6#
75	117.2	115.9	175.9

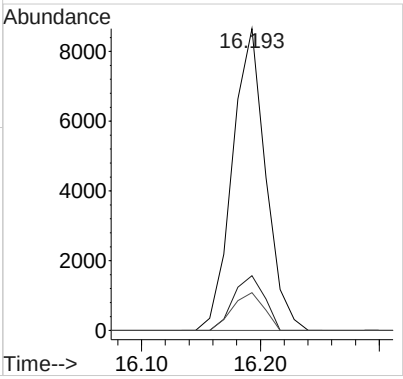


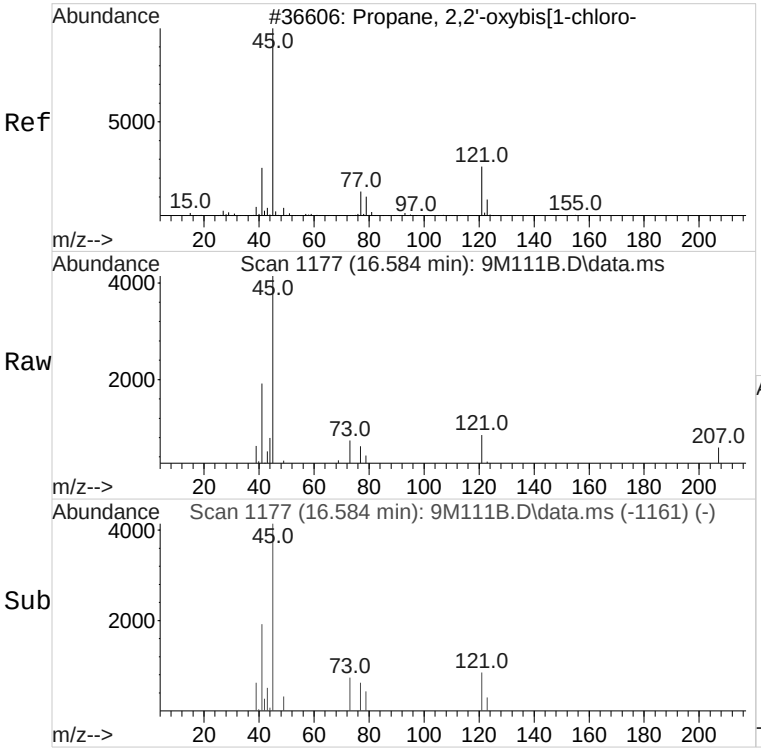


#111
Benzyl chloride
Concen: 1.31 ug/L
RT: 16.193 min Scan# 1144
Delta R.T. -0.000 min
Lab File: 9M111B.D
Acq: 02 Oct 2017 14:39

Tgt Ion: 91 Resp: 16861

Ion	Ratio	Lower	Upper
91	100		
126	17.0	0.0	53.7
65	12.0	0.0	43.5

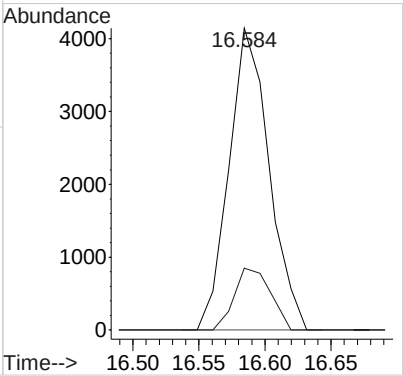




#112
bis(2-Chloroisopropyl)ether
Concen: 2.08 ug/L
RT: 16.584 min Scan# 1177
Delta R.T. 0.000 min
Lab File: 9M111B.D
Acq: 02 Oct 2017 14:39

Tgt Ion: 45 Resp: 8776

Ion	Ratio	Lower	Upper
45	100		
121	18.5	0.0	53.4



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887685**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 12:34**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 09:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M207B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M207B.D
Acq On : 03 Oct 2017 12:34
Operator : RXY1
InstName : VOA9
Sample : |1203887685|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 03 14:24:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1391615	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1033597	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	596419	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1391615	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	1033597	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	596419	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	347174	51.77	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.887	1138392	49.04	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	521853	49.60	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	104%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	1022	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.548	7.512	0.722	2082	Below Cal	#	3
13) Methyl acetate	43	7.548	7.548	0.722	419	Below Cal	#	61
14) Carbon disulfide	76	7.548	7.548	0.722	1950	Below Cal	#	71
15) Methylene chloride	84	7.750	7.738	0.741	2634	Below Cal		94
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	373	N.D.		
19) Vinyl acetate	43	8.532	8.520	0.816	862	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.184	9.161	0.879	896	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	540	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M207B.D
Acq On : 03 Oct 2017 12:34
Operator : RXY1
InstName : VOA9
Sample : |1203887685|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 03 14:24:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.893	1287	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone	43	12.730	12.718	0.934	1123	Below Cal	#	50
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.002	1082	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene	91	13.714	13.714	1.006	998	N.D.		
57)	m,p-Xylenes	106	13.821	13.821	1.014	758	N.D.		
58)	o-Xylene	106	14.260	14.260	1.046	192	N.D.		
59)	Styrene	104	14.272	14.260	1.047	1022	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene	105	14.616	14.616	0.911	1142	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene	156	15.031	15.031	0.937	513	N.D.		
67)	n-Propylbenzene	91	15.043	15.043	0.938	2535	N.D.		
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1289	N.D.		
69)	2-Chlorotoluene	126	15.197	15.197	0.948	243	N.D.		
70)	4-Chlorotoluene	91	15.303	15.292	0.954	2222	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	2073	N.D.		
73)	sec-Butylbenzene	105	15.790	15.790	0.984	2869	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	2797	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	2128	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	2610	N.D.		
77)	n-Butylbenzene	91	16.359	16.359	1.020	4141	Below Cal		87
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	1903	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	4445	Below Cal		96
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	3069	Below Cal		97
82)	Naphthalene	128	18.920	18.908	1.180	8958	Below Cal		88
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	4785	Below Cal		93
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.323	7.228	0.701	1181	N.D.		
88)	Allyl chloride	41	7.548	7.596	0.722	2082	Below Cal	#	16
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M207B.D
Acq On : 03 Oct 2017 12:34
Operator : RXY1
InstName : VOA9
Sample : |1203887685|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 03 14:24:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

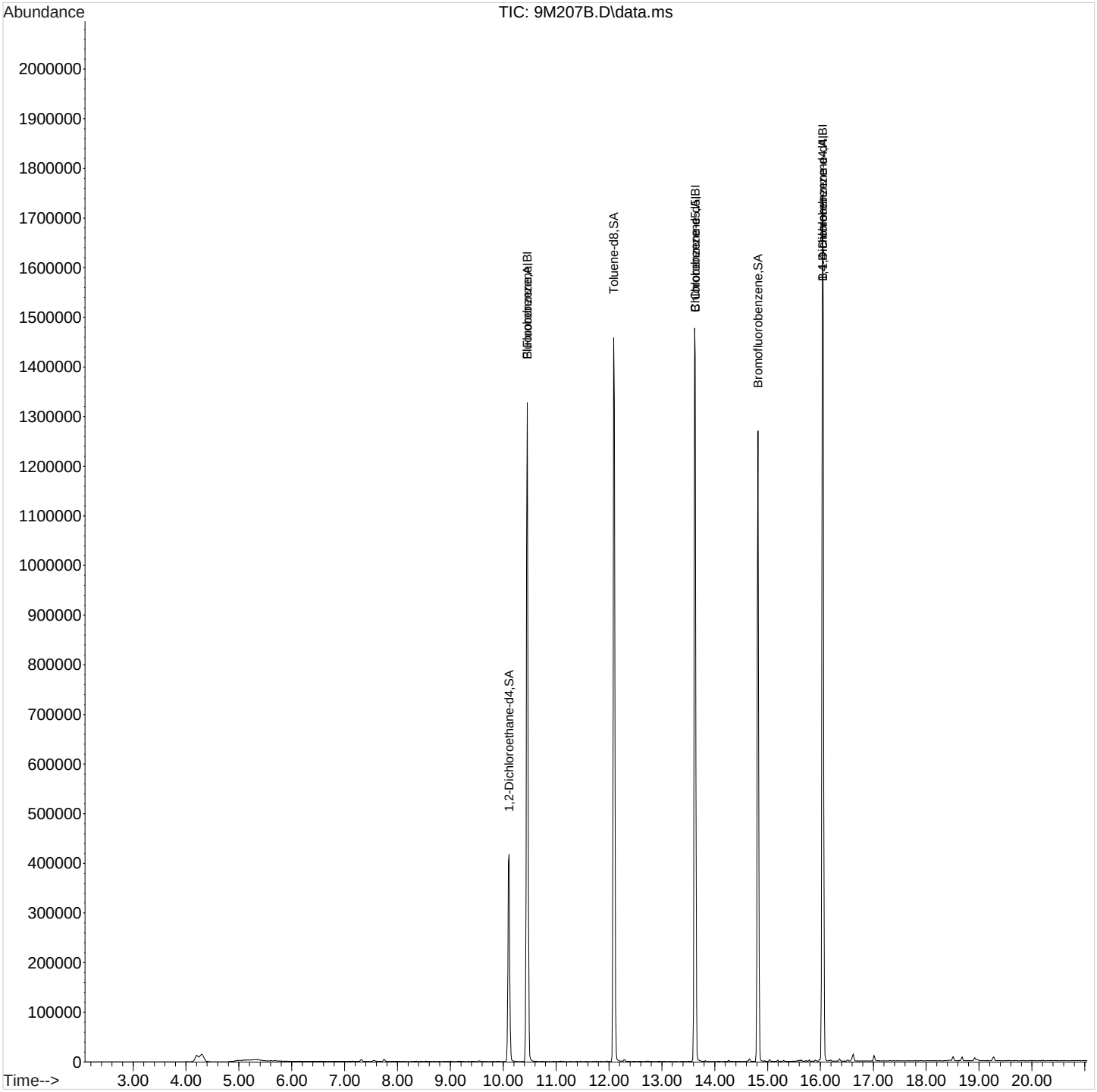
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate	43	9.184	9.161	0.879	896	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	1335	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.327	12.304	0.904	1188	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	53	14.651	14.651	0.913	217	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...	53	14.948	14.936	0.932	449	N.D.	
110) Pentachloroethane	167	15.636	15.636	0.975	483	N.D.	
111) Benzyl chloride	91	16.193	16.193	1.010	3516	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.596	16.584	1.035	2464	N.D.	

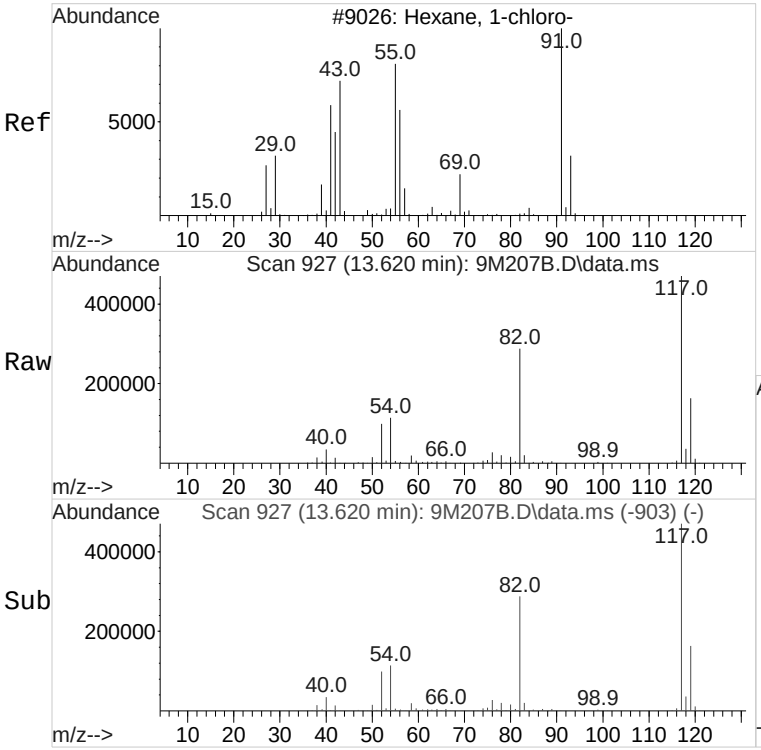
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M207B.D
Acq On : 03 Oct 2017 12:34
Operator : RXY1
InstName : VOA9
Sample : |1203887685|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Oct 03 14:24:23 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

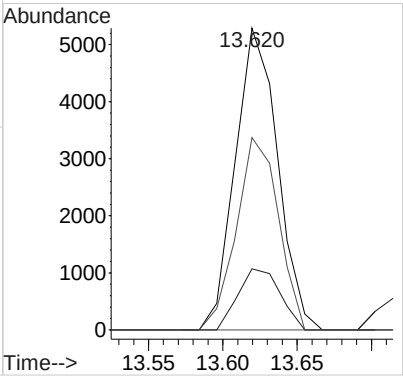




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.43 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M207B.D
Acq: 03 Oct 2017 12:34

Tgt Ion: 55 Resp: 10507

Ion	Ratio	Lower	Upper
55	100		
91	20.1	114.6	174.6#
56	63.2	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887686**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/04/2017 00:47**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 15:00**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M233B.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.333	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.67	5.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.67	5.00
67-64-1	Acetone	U	5.00	ug/kg	1.67	5.00
71-43-2	Benzene	U	1.00	ug/kg	0.333	1.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.333	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.333	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.333	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.333	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.333	1.00
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.333	1.00
75-09-2	Methylene chloride	U	5.00	ug/kg	1.67	5.00
100-42-5	Styrene	U	1.00	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.333	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.333	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate	U	5.00	ug/kg	1.67	5.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)	U	3.00	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.333	1.00

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M233B.D
Acq On : 04 Oct 2017 00:47
Operator : RXY1
InstName : VOA9
Sample : |1203887686|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 33 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 04 10:14:34 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1256634	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	964435	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	540783	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1256634	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	964435	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	540783	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	311783	51.48	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1043745	48.19	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	473862	49.67	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	103%
45) Toluene-d8	50.000	81 - 120	96%
63) Bromofluorobenzene	50.000	70 - 130	99%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	668	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.536	7.512	0.721	1626	Below Cal	#	1
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.548	7.548	0.722	1818	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	6538	Below Cal		96
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate	43	8.544	8.520	0.817	671	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone		0.000	9.161	0.000	0	N.D.		
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.204	10.204	0.976	459	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M233B.D
Acq On : 04 Oct 2017 00:47
Operator : RXY1
InstName : VOA9
Sample : |1203887686|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 10:14:34 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.173	12.173	0.894	911	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone	43	12.730	12.718	0.935	178	Below Cal	#	35
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.003	909	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene	91	13.715	13.714	1.007	970	N.D.		
57)	m,p-Xylenes	106	13.821	13.821	1.015	559	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene	104	14.272	14.260	1.048	968	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene	105	14.616	14.616	0.911	1150	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene	156	15.031	15.031	0.937	203	N.D.		
67)	n-Propylbenzene	91	15.043	15.043	0.938	2181	N.D.		
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1245	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.304	15.292	0.954	1955	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1556	N.D.		
73)	sec-Butylbenzene	105	15.790	15.790	0.984	2794	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	2509	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	1972	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	2305	N.D.		
77)	n-Butylbenzene	91	16.359	16.359	1.020	3613	Below Cal		90
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	1654	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	3775	Below Cal		94
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	2756	Below Cal		95
82)	Naphthalene	128	18.921	18.908	1.180	6715	Below Cal		85
83)	1,2,3-Trichlorobenzene	180	19.264	19.276	1.201	3694	Below Cal		98
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.311	7.228	0.699	505	N.D.		
88)	Allyl chloride	41	7.536	7.596	0.721	1626	Below Cal	#	4
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M233B.D
Acq On : 04 Oct 2017 00:47
Operator : RXY1
InstName : VOA9
Sample : |1203887686|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 10:14:34 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

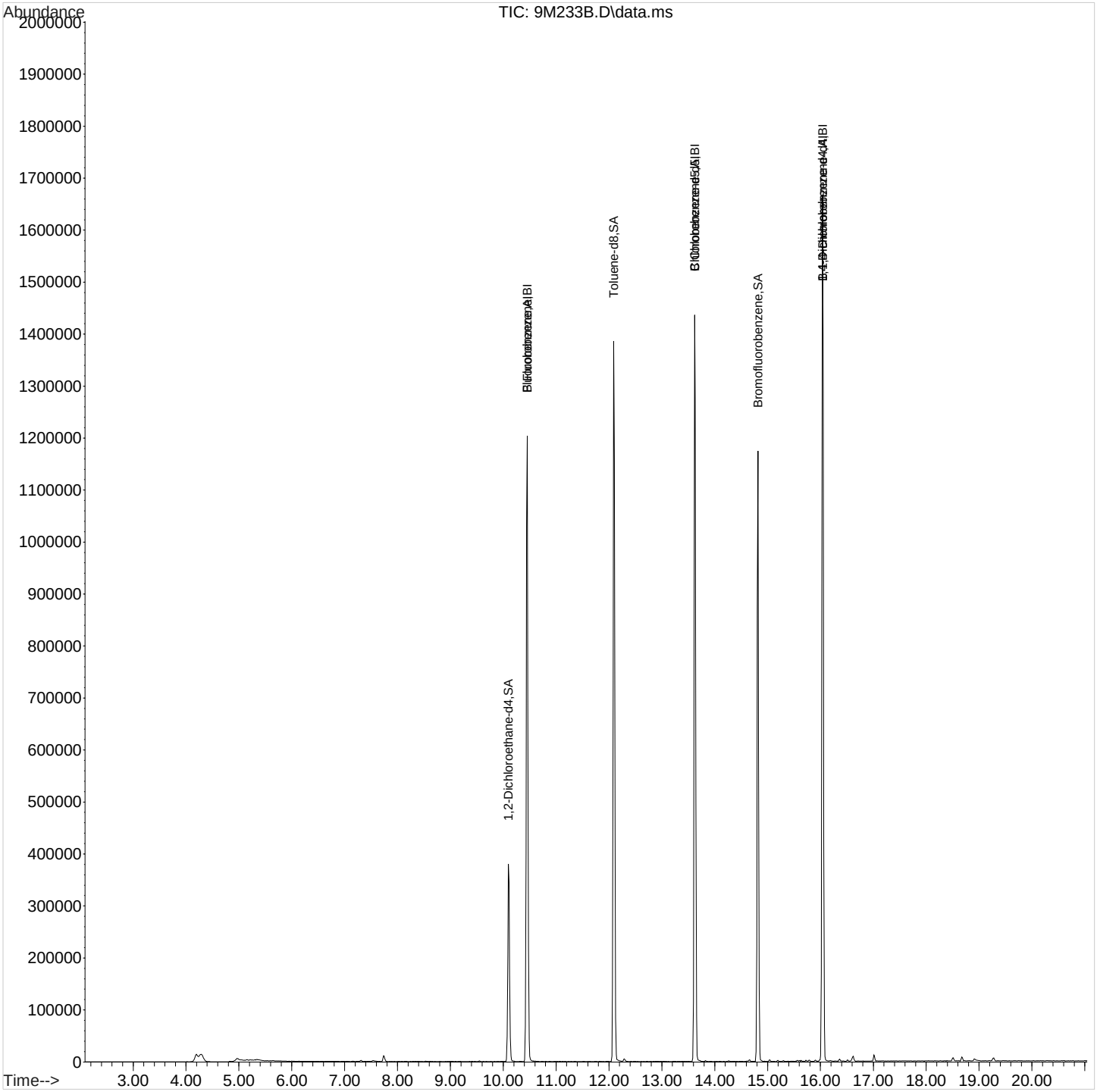
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		0.000	9.161	0.000	0	N.D.	
95) Propionitrile		0.000	9.244	0.000	0	N.D.	
96) Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97) Tetrahydrofuran	42	9.552	9.540	0.914	1098	N.D.	
98) Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99) Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100) Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101) 1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102) 2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104) Ethyl methacrylate	69	12.315	12.304	0.904	537	N.D.	
106) 1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108) Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109) trans-1,4-Dichloro-2-b...	53	14.936	14.936	0.931	180	N.D.	
110) Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111) Benzyl chloride	91	16.193	16.193	1.010	2052	N.D.	
112) bis(2-Chloroisopropyl)...	45	16.584	16.584	1.034	1837	N.D.	

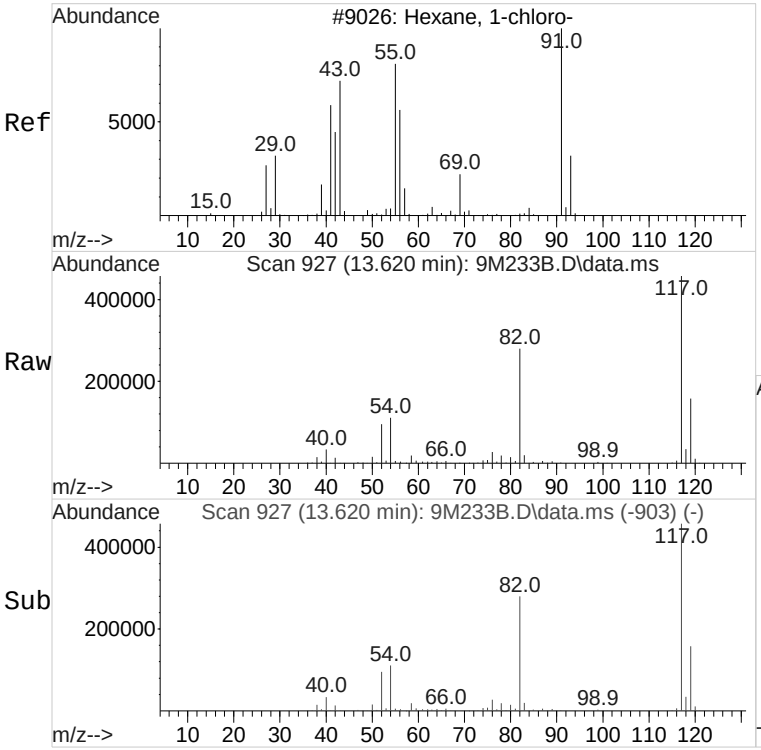
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M233B.D
Acq On : 04 Oct 2017 00:47
Operator : RXY1
InstName : VOA9
Sample : |1203887686|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 04 10:14:34 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

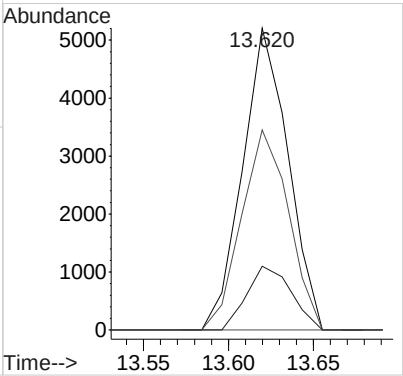




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.47 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M233B.D
Acq: 04 Oct 2017 00:47

Tgt Ion: 55 Resp: 9759

Ion	Ratio	Lower	Upper
55	100		
91	20.7	114.6	174.6#
56	68.6	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887114**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**HB for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/02/2017 15:56**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:05**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100217V9\9M113.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	33.3	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	33.3	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	33.3	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	33.3	100
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	33.3	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	33.3	100
78-93-3	2-Butanone	U	500	ug/kg	167	500
591-78-6	2-Hexanone	U	500	ug/kg	167	500
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	167	500
67-64-1	Acetone	U	500	ug/kg	167	500
71-43-2	Benzene	U	100	ug/kg	33.3	100
75-15-0	Carbon disulfide	U	500	ug/kg	167	500
56-23-5	Carbon tetrachloride	U	100	ug/kg	33.3	100
108-90-7	Chlorobenzene	U	100	ug/kg	33.3	100
75-00-3	Chloroethane	U	100	ug/kg	33.3	100
67-66-3	Chloroform	U	100	ug/kg	33.3	100
74-87-3	Chloromethane	U	100	ug/kg	33.3	100
100-41-4	Ethylbenzene	U	100	ug/kg	33.3	100
75-09-2	Methylene chloride	U	500	ug/kg	167	500
100-42-5	Styrene	U	100	ug/kg	33.3	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	33.3	100
108-88-3	Toluene	U	100	ug/kg	33.3	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.3	100
76-13-1	Trichlorotrifluoroethane	U	500	ug/kg	167	500
108-05-4	Vinyl acetate	U	500	ug/kg	167	500
75-01-4	Vinyl chloride	U	100	ug/kg	33.3	100
1330-20-7	Xylenes (total)	U	300	ug/kg	100	300
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	33.3	100
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	33.3	100

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M113.D
Acq On : 02 Oct 2017 15:56
Operator : RXY1
InstName : VOA9
Sample : |1203887114|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 09:54:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	1349216	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	1038096	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	590339	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1349216	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	1038096	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	590339	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	330522	50.83	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	1145039	49.11	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	530535	50.95	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	1368	Below Cal	#	42
10) 1,1-Dichloroethylene	61	7.299	7.157	0.698	876	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.560	7.512	0.723	1671	Below Cal	#	1
13) Methyl acetate	43	7.560	7.548	0.723	186	Below Cal	#	61
14) Carbon disulfide	76	7.536	7.548	0.721	932	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	2931	Below Cal		88
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.343	8.354	0.798	767	N.D.		
19) Vinyl acetate	43	8.532	8.520	0.816	499	Below Cal	#	73
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.173	9.161	0.877	1156	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.193	10.204	0.975	560	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M113.D
Acq On : 02 Oct 2017 15:56
Operator : RXY1
InstName : VOA9
Sample : |1203887114|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 09:54:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36) 2-Pentanone	43	10.928	10.916	1.045	200	N.D.		
37) 1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38) Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39) Dibromomethane		0.000	11.224	0.000	0	N.D.		
40) Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41) 2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42) cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44) 4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46) Toluene	91	12.173	12.173	0.894	917	N.D.		
47) trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48) 1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49) 2-Hexanone	43	12.730	12.718	0.935	442	Below Cal	#	35
50) 1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51) Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52) Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53) 1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54) Chlorobenzene	112	13.655	13.655	1.003	1044	N.D.		
55) 1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56) Ethylbenzene	91	13.715	13.714	1.007	485	N.D.		
57) m,p-Xylenes	106	13.833	13.821	1.016	418	N.D.		
58) o-Xylene		0.000	14.260	0.000	0	N.D.		
59) Styrene	104	14.272	14.260	1.048	542	N.D.		
61) Bromoform		0.000	14.533	0.000	0	N.D.		
62) Isopropylbenzene	105	14.616	14.616	0.911	220	N.D.		
64) 1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65) 1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66) Bromobenzene	156	15.031	15.031	0.937	183	N.D.		
67) n-Propylbenzene	91	15.043	15.043	0.938	1031	N.D.		
68) 1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	522	N.D.		
69) 2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70) 4-Chlorotoluene	91	15.304	15.292	0.954	1152	N.D.		
71) tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72) 1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	737	N.D.		
73) sec-Butylbenzene	105	15.790	15.790	0.984	1155	N.D.		
74) 4-Isopropyltoluene	119	15.908	15.908	0.992	1084	N.D.		
75) 1,3-Dichlorobenzene	146	15.991	15.991	0.997	1462	N.D.		
76) 1,4-Dichlorobenzene	146	16.074	16.074	1.002	1646	N.D.		
77) n-Butylbenzene	91	16.359	16.359	1.020	1739	Below Cal		65
78) 1,2-Dichlorobenzene	146	16.513	16.513	1.030	967	N.D.		
79) 1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80) 1,2,4-Trichlorobenzene	180	18.517	18.505	1.155	2162	Below Cal		99
81) Hexachlorobutadiene	225	18.683	18.683	1.165	1341	Below Cal		72
82) Naphthalene	128	18.920	18.908	1.180	5278	Below Cal		84
83) 1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	2308	Below Cal		94
85) Acrolein		0.000	6.979	0.000	0	N.D.		
86) Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87) Isopropyl Alcohol	45	7.299	7.228	0.698	2024	N.D.		
88) Allyl chloride	41	7.560	7.596	0.723	1671	Below Cal	#	40
89) tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90) Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91) Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92) 2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M113.D
Acq On : 02 Oct 2017 15:56
Operator : RXY1
InstName : VOA9
Sample : |1203887114|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 09:54:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

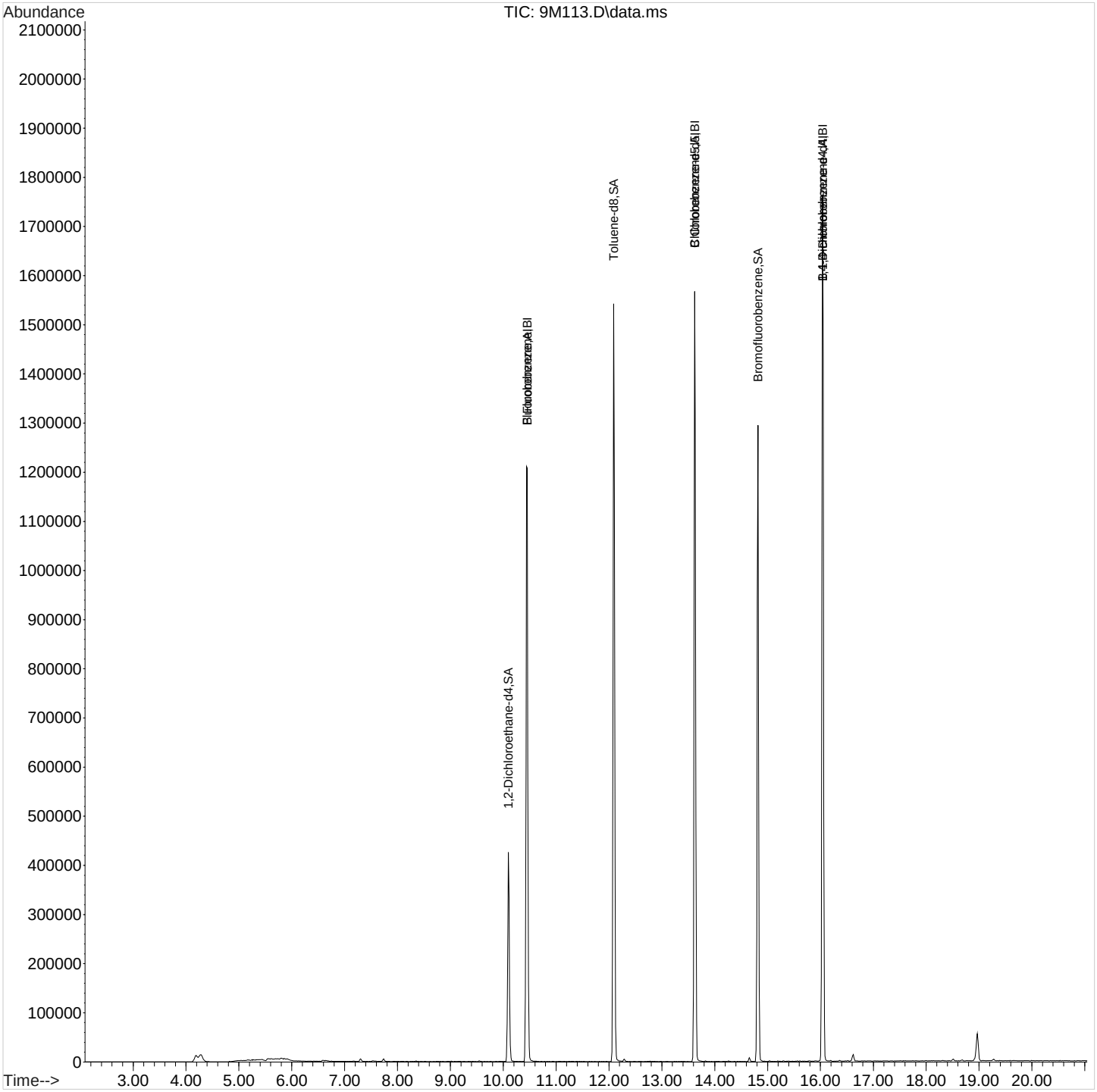
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.173	9.161	0.877	1156	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.552	9.540	0.914	1161	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	2202	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.596	16.584	1.035	1672	N.D.	

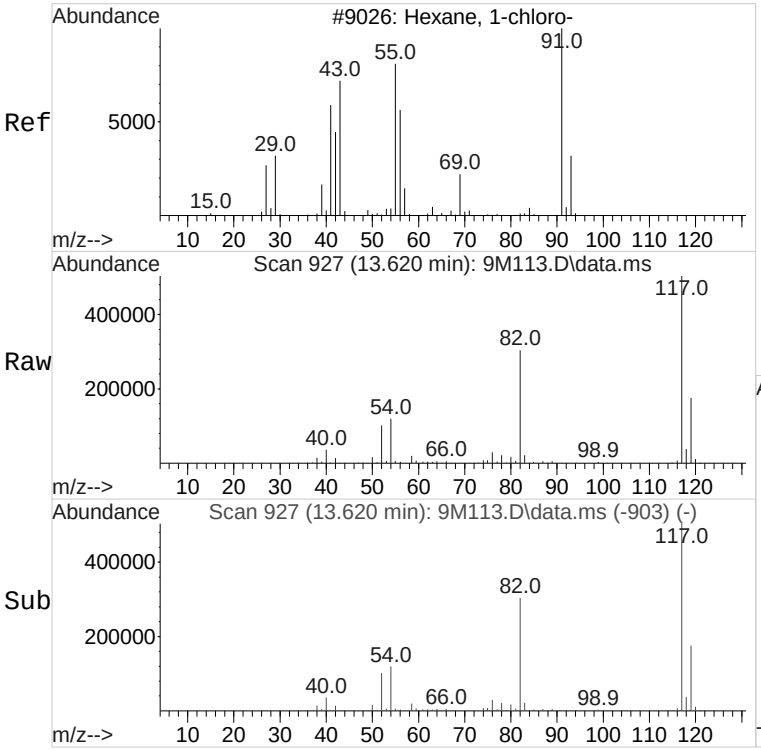
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M113.D
Acq On : 02 Oct 2017 15:56
Operator : RXY1
InstName : VOA9
Sample : |1203887114|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Oct 03 09:54:16 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

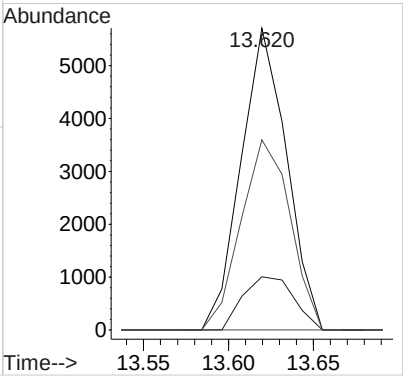




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.47 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M113.D
Acq: 02 Oct 2017 15:56

Tgt Ion: 55 Resp: 10713

Ion	Ratio	Lower	Upper
55	100		
91	19.7	114.6	174.6#
56	68.0	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203888700**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**HB for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 01:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:53**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M234.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane	U	100	ug/kg	33.3	100
79-34-5	1,1,2,2-Tetrachloroethane	U	100	ug/kg	33.3	100
79-00-5	1,1,2-Trichloroethane	U	100	ug/kg	33.3	100
75-34-3	1,1-Dichloroethane	U	100	ug/kg	33.3	100
75-35-4	1,1-Dichloroethylene	U	100	ug/kg	33.3	100
107-06-2	1,2-Dichloroethane	U	100	ug/kg	33.3	100
78-93-3	2-Butanone	U	500	ug/kg	167	500
591-78-6	2-Hexanone	U	500	ug/kg	167	500
108-10-1	4-Methyl-2-pentanone	U	500	ug/kg	167	500
67-64-1	Acetone	U	500	ug/kg	167	500
71-43-2	Benzene	U	100	ug/kg	33.3	100
75-15-0	Carbon disulfide	U	500	ug/kg	167	500
56-23-5	Carbon tetrachloride	U	100	ug/kg	33.3	100
108-90-7	Chlorobenzene	U	100	ug/kg	33.3	100
75-00-3	Chloroethane	U	100	ug/kg	33.3	100
67-66-3	Chloroform	U	100	ug/kg	33.3	100
74-87-3	Chloromethane	U	100	ug/kg	33.3	100
100-41-4	Ethylbenzene	U	100	ug/kg	33.3	100
75-09-2	Methylene chloride	U	500	ug/kg	167	500
100-42-5	Styrene	U	100	ug/kg	33.3	100
127-18-4	Tetrachloroethylene	U	100	ug/kg	33.3	100
108-88-3	Toluene	U	100	ug/kg	33.3	100
79-01-6	Trichloroethylene	U	100	ug/kg	33.3	100
76-13-1	Trichlorotrifluoroethane	U	500	ug/kg	167	500
108-05-4	Vinyl acetate	U	500	ug/kg	167	500
75-01-4	Vinyl chloride	U	100	ug/kg	33.3	100
1330-20-7	Xylenes (total)	U	300	ug/kg	100	300
156-59-2	cis-1,2-Dichloroethylene	U	100	ug/kg	33.3	100
156-60-5	trans-1,2-Dichloroethylene	U	100	ug/kg	33.3	100

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M234.D
Acq On : 04 Oct 2017 01:14
Operator : RXY1
InstName : VOA9
Sample : |1203888700|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 10:15:06 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1176854	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	918330	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	510468	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1176854	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	918330	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	510468	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	285101	50.27	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	994843	48.24	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	448888	49.85	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	101%
45) Toluene-d8	50.000	81 - 120	96%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane		0.000	4.672	0.000	0	N.D.		
3) Chloromethane		0.000	4.998	0.000	0	N.D.		
4) Vinyl chloride		0.000	5.259	0.000	0	N.D.		
5) Bromomethane		0.000	5.852	0.000	0	N.D.		
6) Chloroethane		0.000	6.006	0.000	0	N.D.		
7) Trichlorofluoromethane		0.000	6.445	0.000	0	N.D.		
8) Ethyl ether		0.000	6.754	0.000	0	N.D.		
9) Acetone	43	7.169	7.145	0.686	454	Below Cal	#	42
10) 1,1-Dichloroethylene		0.000	7.157	0.000	0	N.D.		
11) Iodomethane		0.000	7.418	0.000	0	N.D.		
12) Acetonitrile	41	7.548	7.512	0.722	1007	Below Cal	#	34
13) Methyl acetate		0.000	7.548	0.000	0	N.D.		
14) Carbon disulfide	76	7.536	7.548	0.721	844	Below Cal	#	71
15) Methylene chloride	84	7.738	7.738	0.740	6023	Below Cal		94
16) tert-Butyl methyl ether		0.000	8.034	0.000	0	N.D.		
17) trans-1,2-Dichloroethy...		0.000	8.082	0.000	0	N.D.		
18) Hexane	57	8.354	8.354	0.799	204	N.D.		
19) Vinyl acetate		0.000	8.520	0.000	0	N.D.		
20) 1,1-Dichloroethane		0.000	8.568	0.000	0	N.D.		
21) 2-Butanone	43	9.185	9.161	0.879	371	Below Cal	#	49
22) cis-1,2-Dichloroethylene		0.000	9.208	0.000	0	N.D.		
23) 2,2-Dichloropropane		0.000	9.244	0.000	0	N.D.		
24) Bromochloromethane		0.000	9.493	0.000	0	N.D.		
25) Chloroform		0.000	9.528	0.000	0	N.D.		
26) 1,1,1-Trichloroethane		0.000	9.801	0.000	0	N.D.		
27) Cyclohexane		0.000	9.896	0.000	0	N.D.		
28) 1,1-Dichloropropene		0.000	9.955	0.000	0	N.D.		
29) Carbon tetrachloride		0.000	9.991	0.000	0	N.D.		
31) 1,2-Dichloroethane		0.000	10.181	0.000	0	N.D.		
32) Benzene	78	10.193	10.204	0.975	202	N.D.		
33) Cyclohexene		0.000	10.311	0.000	0	N.D.		
34) n-Butyl alcohol		0.000	10.536	0.000	0	N.D.		
35) Trichloroethylene		0.000	10.833	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M234.D
Acq On : 04 Oct 2017 01:14
Operator : RXY1
InstName : VOA9
Sample : |1203888700|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 10:15:06 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane		0.000	11.094	0.000	0	N.D.		
38)	Methylcyclohexane		0.000	11.082	0.000	0	N.D.		
39)	Dibromomethane		0.000	11.224	0.000	0	N.D.		
40)	Bromodichloromethane		0.000	11.331	0.000	0	N.D.		
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene		0.000	11.782	0.000	0	N.D.		
44)	4-Methyl-2-pentanone		0.000	11.865	0.000	0	N.D.		
46)	Toluene	91	12.161	12.173	0.893	650	N.D.		
47)	trans-1,3-Dichloroprop...		0.000	12.315	0.000	0	N.D.		
48)	1,1,2-Trichloroethane		0.000	12.540	0.000	0	N.D.		
49)	2-Hexanone	43	12.742	12.718	0.936	195	Below Cal	#	35
50)	1,3-Dichloropropane		0.000	12.742	0.000	0	N.D.		
51)	Tetrachloroethylene		0.000	12.766	0.000	0	N.D.		
52)	Dibromochloromethane		0.000	13.003	0.000	0	N.D.		
53)	1,2-Dibromoethane		0.000	13.181	0.000	0	N.D.		
54)	Chlorobenzene	112	13.655	13.655	1.003	831	N.D.		
55)	1,1,1,2-Tetrachloroethane		0.000	13.714	0.000	0	N.D.		
56)	Ethylbenzene	91	13.715	13.714	1.007	743	N.D.		
57)	m,p-Xylenes	106	13.821	13.821	1.015	195	N.D.		
58)	o-Xylene		0.000	14.260	0.000	0	N.D.		
59)	Styrene	104	14.272	14.260	1.048	578	N.D.		
61)	Bromoform		0.000	14.533	0.000	0	N.D.		
62)	Isopropylbenzene	105	14.616	14.616	0.911	812	N.D.		
64)	1,1,2,2-Tetrachloroethane		0.000	14.888	0.000	0	N.D.		
65)	1,2,3-Trichloropropane		0.000	14.983	0.000	0	N.D.		
66)	Bromobenzene	156	15.031	15.031	0.937	193	N.D.		
67)	n-Propylbenzene	91	15.043	15.043	0.938	1375	N.D.		
68)	1,3,5-Trimethylbenzene	105	15.197	15.185	0.948	943	N.D.		
69)	2-Chlorotoluene		0.000	15.197	0.000	0	N.D.		
70)	4-Chlorotoluene	91	15.292	15.292	0.953	1277	N.D.		
71)	tert-Butylbenzene		0.000	15.564	0.000	0	N.D.		
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1120	N.D.		
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1665	N.D.		
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1625	N.D.		
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	1256	N.D.		
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	1510	N.D.		
77)	n-Butylbenzene	91	16.359	16.359	1.020	2417	Below Cal		79
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	979	N.D.		
79)	1,2-Dibromo-3-chloropr...		0.000	17.414	0.000	0	N.D.		
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	2479	Below Cal		89
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	1931	Below Cal		92
82)	Naphthalene	128	18.920	18.908	1.180	4777	Below Cal		79
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	2544	Below Cal		93
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol	45	7.299	7.228	0.698	712	N.D.		
88)	Allyl chloride	41	7.548	7.596	0.722	1007	Below Cal	#	22
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		0.000	7.999	0.000	0	N.D.		
91)	Isopropyl ether		0.000	8.544	0.000	0	N.D.		
92)	2-Chloro-1,3-butadiene		0.000	8.675	0.000	0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M234.D
Acq On : 04 Oct 2017 01:14
Operator : RXY1
InstName : VOA9
Sample : |1203888700|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 10:15:06 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

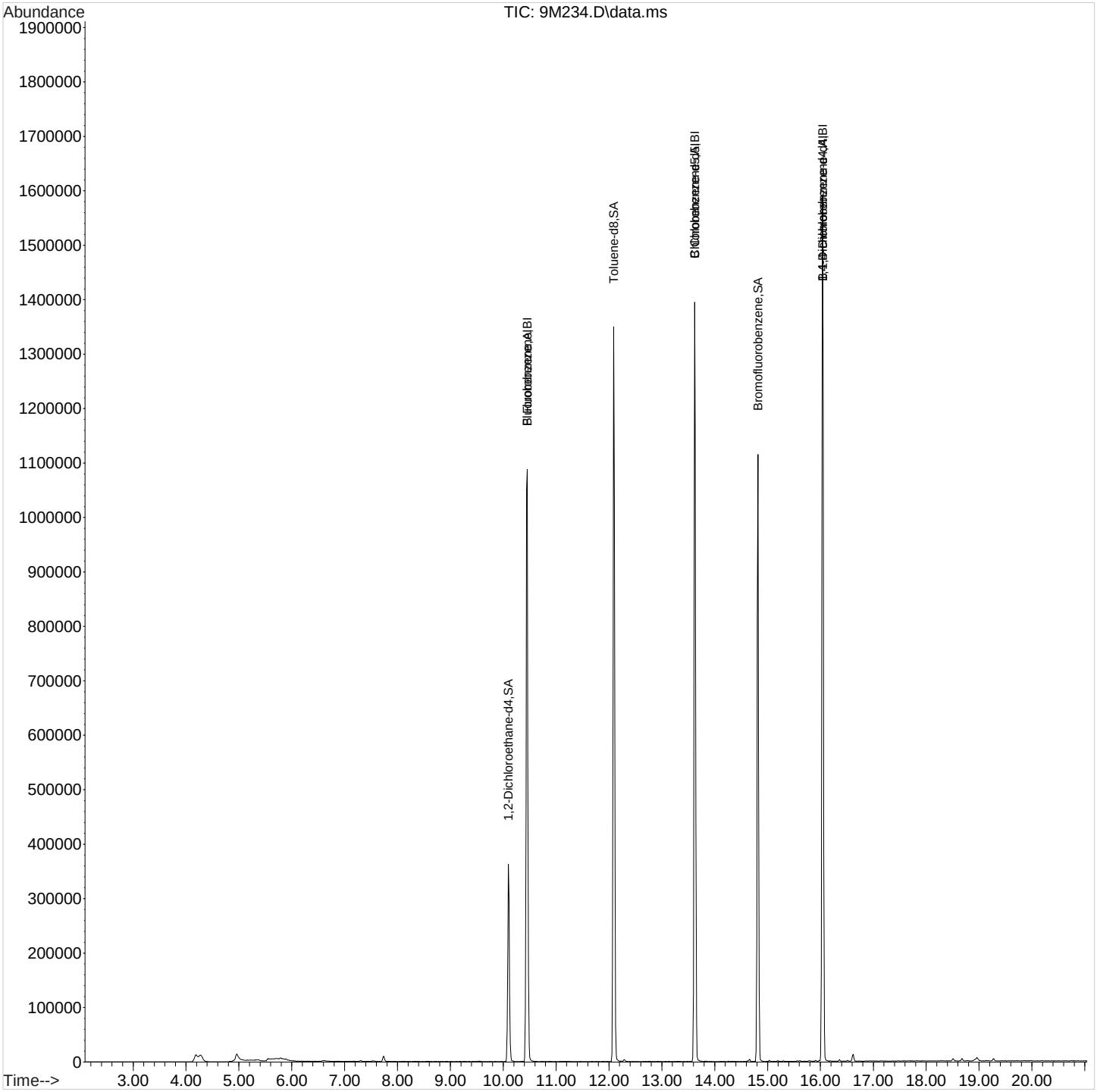
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate	43	9.185	9.161	0.879	371	N.D.	
95)	Propionitrile		0.000	9.244	0.000	0	N.D.	
96)	Methacrylonitrile		0.000	9.422	0.000	0	N.D.	
97)	Tetrahydrofuran	42	9.540	9.540	0.913	736	N.D.	
98)	Isobutyl alcohol		0.000	9.849	0.000	0	N.D.	
99)	Methyl tert-amyl ether		0.000	10.205	0.000	0	N.D.	
100)	Methyl methacrylate		0.000	11.047	0.000	0	N.D.	
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		0.000	13.513	0.000	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		0.000	14.651	0.000	0	N.D.	
108)	Cyclohexanone		0.000	14.782	0.000	0	N.D.	
109)	trans-1,4-Dichloro-2-b...		0.000	14.936	0.000	0	N.D.	
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride	91	16.193	16.193	1.010	959	N.D.	
112)	bis(2-Chloroisopropyl)...	45	16.596	16.584	1.035	1145	N.D.	

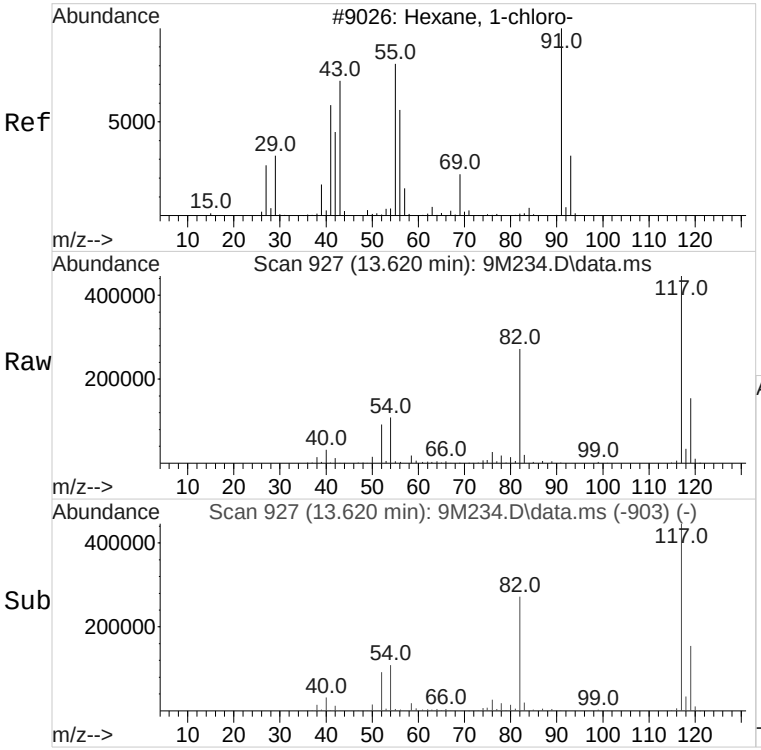
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M234.D
Acq On : 04 Oct 2017 01:14
Operator : RXY1
InstName : VOA9
Sample : |1203888700|1705693|50|VOA|1|VOA8260BS|
Misc : GEL 100uL n/a SOIL
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 04 10:15:06 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

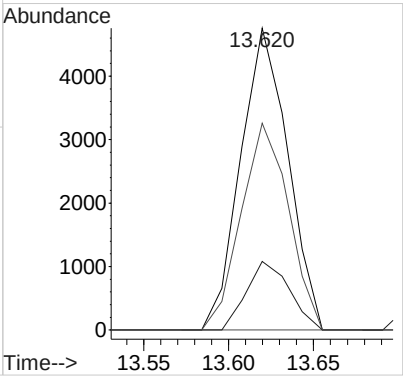




#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.47 ug/L
RT: 13.620 min Scan# 927
Delta R.T. 0.107 min
Lab File: 9M234.D
Acq: 04 Oct 2017 01:14

Tgt Ion: 55 Resp: 9254

Ion	Ratio	Lower	Upper
55	100		
91	20.7	114.6	174.6#
56	68.7	31.6	91.6



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**WATER**
Lab Sample ID:	**1203885590**				
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1705051**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 09:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 09:59**				
Data File:	**092917V6\6A503LC.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		46.1	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.3	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane		45.8	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane		45.6	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene		45.3	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	B	48.0	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	B	48.9	ug/L	0.333	1.00
96-12-8	1,2-Dibromo-3-chloropropane		40.5	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene		45.9	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane		45.3	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane		44.8	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene		45.3	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene		44.9	ug/L	0.333	1.00
71-43-2	Benzene		43.4	ug/L	0.333	1.00
75-27-4	Bromodichloromethane		46.1	ug/L	0.333	1.00
75-25-2	Bromoform		42.5	ug/L	0.333	1.00
75-15-0	Carbon disulfide		218	ug/L	1.67	5.00
56-23-5	Carbon tetrachloride		47.9	ug/L	0.333	1.00
108-90-7	Chlorobenzene		44.0	ug/L	0.333	1.00
67-66-3	Chloroform		45.6	ug/L	0.333	1.00
124-48-1	Dibromochloromethane		48.6	ug/L	0.333	1.00
100-41-4	Ethylbenzene		45.1	ug/L	0.333	1.00
98-82-8	Isopropylbenzene		45.6	ug/L	0.333	1.00
75-09-2	Methylene chloride	B	45.9	ug/L	1.67	5.00
100-42-5	Styrene		46.4	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene		45.5	ug/L	0.333	1.00
108-88-3	Toluene		44.3	ug/L	0.333	1.00
79-01-6	Trichloroethylene		45.9	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene		45.8	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		46.4	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes		89.7	ug/L	0.667	2.00
95-47-6	o-Xylene		44.5	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		46.3	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.9	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane		47.4	ug/L	0.333	1.00
74-83-9	Bromomethane		51.0	ug/L	0.337	1.00
75-00-3	Chloroethane		53.9	ug/L	0.333	1.00
74-87-3	Chloromethane		57.4	ug/L	0.333	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**WATER**
Lab Sample ID:	**1203885590**				
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1705051**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 09:59**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 09:59**				
Data File:	**092917V6\6A503LC.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		72.9	ug/L	0.355	1.00
75-69-4	Trichlorofluoromethane		58.2	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride		55.8	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone		256	ug/L	1.67	5.00
591-78-6	2-Hexanone		260	ug/L	1.67	5.00
108-10-1	4-Methyl-2-pentanone		231	ug/L	1.67	5.00
67-64-1	Acetone		280	ug/L	1.74	5.00
74-97-5	Bromochloromethane		44.7	ug/L	0.333	1.00
110-82-7	Cyclohexane		44.8	ug/L	0.333	1.00
79-20-9	Methyl acetate		214	ug/L	1.67	5.00
108-87-2	Methylcyclohexane		44.4	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether		44.1	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A503LC.D
Acq On : 29 Sep 2017 09:59
Operator : JP1
InstName : VOA6
Sample : |1203885590|1705051|1|VOAF|1|VOA8260BL|
Misc : LCS 5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Sep 29 10:27:43 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1223825	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	932400	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	492127	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1223825	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	932400	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	492127	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	315157	50.46	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1137174	49.16	ug/L	0.00
63) Bromofluorobenzene	95	13.835	13.829	0.919	484821	49.19	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	101%
45) Toluene-d8	50.000	74 - 124	98%
63) Bromofluorobenzene	50.000	70 - 131	98%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	425081	72.90	ug/L	99
3) Chloromethane	50	4.274	4.274	0.453	454099	57.39	ug/L	99
4) Vinyl chloride	62	4.498	4.498	0.477	402041	55.80	ug/L	99
5) Bromomethane	94	5.012	5.012	0.531	277609	51.03	ug/L	100
6) Chloroethane	64	5.140	5.148	0.545	358194	53.93	ug/L	99
7) Trichlorofluoromethane	101	5.541	5.549	0.587	629744	58.18	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	359782	49.94	ug/L	97
9) Acetone	43	6.191	6.191	0.656	912354	279.85	ug/L	97
10) 1,1-Dichloroethylene	61	6.184	6.191	0.656	572974	45.26	ug/L	96
11) Iodomethane	142	6.422	6.422	0.681	2357382	214.29	ug/L	97
12) Acetonitrile	41	6.544	6.544	0.694	941484	1078.15	ug/L	100
13) Methyl acetate	43	6.569	6.569	0.696	1088260	213.96	ug/L	96
14) Carbon disulfide	76	6.544	6.544	0.694	4909970	217.66	ug/L	100
15) Methylene chloride	84	6.751	6.752	0.716	349101	45.87	ug/L	92
16) tert-Butyl methyl ether	73	7.050	7.044	0.747	890339	44.11	ug/L	98
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	561651	46.27	ug/L	97
18) Hexane	57	7.361	7.361	0.780	546566	39.29	ug/L	94
19) Vinyl acetate	43	7.532	7.526	0.798	3881688	263.12	ug/L	97
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	654629	45.62	ug/L	99
21) 2-Butanone	43	8.154	8.154	0.864	1218392	256.07	ug/L	95
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	626640	45.78	ug/L	96
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	537516	46.69	ug/L	89
24) Bromochloromethane	128	8.477	8.477	0.899	152452	44.73	ug/L	88
25) Chloroform	83	8.513	8.513	0.902	556662	45.64	ug/L	100
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	525057	46.12	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.940	761672	44.80	ug/L	93
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	434909	44.93	ug/L	92
29) Carbon tetrachloride	117	8.971	8.971	0.951	457199	47.85	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	464832	45.29	ug/L	100
32) Benzene	78	9.178	9.178	0.973	1274186	43.41	ug/L	97
33) Cyclohexene	67	9.288	9.288	0.984	630103	44.02	ug/L	95
34) n-Butyl alcohol	56	9.562	9.562	1.014	1159761	4883.49	ug/L	96
35) Trichloroethylene	95	9.824	9.824	1.041	341414	45.94	ug/L	99
36) 2-Pentanone	43	9.928	9.922	1.052	1285420	242.14	ug/L	96
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	365816	44.75	ug/L	97
38) Methylcyclohexane	83	10.068	10.062	1.067	606518	44.38	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A503LC.D
Acq On : 29 Sep 2017 09:59
Operator : JP1
InstName : VOA6
Sample : |1203885590|1705051|1|VOAF|1|VOA8260BL|
Misc : LCS 5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 10:27:43 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39) Dibromomethane	93	10.208	10.208	1.082	175238	45.08	ug/L	96
40) Bromodichloromethane	83	10.330	10.330	1.095	411987	46.07	ug/L	99
41) 2-Chloroethylvinyl ether	63	10.568	10.562	1.120	808920	215.26	ug/L	99
42) cis-1,3-Dichloropropylene	75	10.781	10.781	1.143	520942	46.41	ug/L	93
44) 4-Methyl-2-pentanone	58	10.885	10.885	0.862	672184	230.53	ug/L	94
46) Toluene	91	11.165	11.165	0.884	1373103	44.34	ug/L	99
47) trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	462538	47.93	ug/L	93
48) 1,1,2-Trichloroethane	83	11.555	11.549	0.915	220464	45.80	ug/L	99
49) 2-Hexanone	43	11.744	11.744	0.930	1546537	259.71	ug/L	96
50) 1,3-Dichloropropane	76	11.744	11.744	0.930	430702	43.44	ug/L #	78
51) Tetrachloroethylene	164	11.757	11.757	0.931	271163	45.52	ug/L	93
52) Dibromochloromethane	129	12.007	12.007	0.951	290174	48.58	ug/L	100
53) 1,2-Dibromoethane	107	12.171	12.171	0.964	264246	47.42	ug/L	99
54) Chlorobenzene	112	12.659	12.659	1.002	907071	43.98	ug/L	98
55) 1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	323655	47.72	ug/L	99
56) Ethylbenzene	91	12.726	12.726	1.008	1581287	45.06	ug/L	98
57) m,p-Xylenes	106	12.842	12.842	1.017	1223611	89.74	ug/L	94
58) o-Xylene	91	13.275	13.275	1.051	1274941	44.54	ug/L	97
59) Styrene	104	13.281	13.281	1.052	1002223	46.39	ug/L	96
61) Bromoform	173	13.531	13.531	0.899	181626	42.50	ug/L	96
62) Isopropylbenzene	105	13.634	13.634	0.906	1651746	45.63	ug/L	98
64) 1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	353100	46.33	ug/L	99
65) 1,2,3-Trichloropropane	110	14.006	14.006	0.930	106724	46.98	ug/L	98
66) Bromobenzene	156	14.037	14.037	0.932	375474	44.76	ug/L	96
67) n-Propylbenzene	91	14.067	14.067	0.934	1952944	45.66	ug/L	97
68) 1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1416803	46.63	ug/L	99
69) 2-Chlorotoluene	126	14.207	14.207	0.944	384111	45.07	ug/L	94
70) 4-Chlorotoluene	91	14.311	14.311	0.951	1230383	45.43	ug/L	99
71) tert-Butylbenzene	134	14.591	14.592	0.969	305158	46.40	ug/L	98
72) 1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1455161	46.47	ug/L	98
73) sec-Butylbenzene	105	14.817	14.817	0.984	1869338	46.75	ug/L	99
74) 4-Isopropyltoluene	119	14.591	14.592	0.969	1221881	46.32	ug/L	97
75) 1,3-Dichlorobenzene	146	14.994	14.994	0.996	762216	45.32	ug/L	100
76) 1,4-Dichlorobenzene	146	15.079	15.079	1.002	752243	44.87	ug/L	99
77) n-Butylbenzene	91	15.372	15.372	1.021	1501341	47.46	ug/L	98
78) 1,2-Dichlorobenzene	146	15.488	15.488	1.029	712616	45.85	ug/L	100
79) 1,2-Dibromo-3-chloropr...	157	16.304	16.305	1.083	60243	40.45	ug/L	96
80) 1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	515395	48.85	ug/L	100
81) Hexachlorobutadiene	225	17.445	17.439	1.159	334102	48.92	ug/L	100
82) Naphthalene	128	17.627	17.627	1.171	1061057	48.72	ug/L	100
83) 1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	446286	47.97	ug/L	100
85) Acrolein		5.965	6.020	0.632	0m	N.D.	d	
86) Trichlorotrifluoroethane		6.166	6.178	0.654	0m	N.D.	d	
87) Isopropyl Alcohol		6.191	6.276	0.656	0m	N.D.	d	
88) Allyl chloride		6.544	6.605	0.694	0m	N.D.	d	
89) tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.		
90) Acrylonitrile		7.044	7.007	0.747	0m	N.D.	d	
91) Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d	
92) 2-Chloro-1,3-butadiene		7.684	7.666	0.815	0m	N.D.	d	
93) Ethyl tert-butyl ether		7.952	7.958	0.843	0m	N.D.	d	
94) Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d	
95) Propionitrile		8.239	8.239	0.873	0m	N.D.	d	
96) Methacrylonitrile		0.000	8.410	0.000	0	N.D.		
97) Tetrahydrofuran		8.507	8.519	0.902	0m	N.D.	d	
98) Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A503LC.D
Acq On : 29 Sep 2017 09:59
Operator : JP1
InstName : VOA6
Sample : |1203885590|1705051|1|VOAF|1|VOA8260BL|
Misc : LCS 5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 10:27:43 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

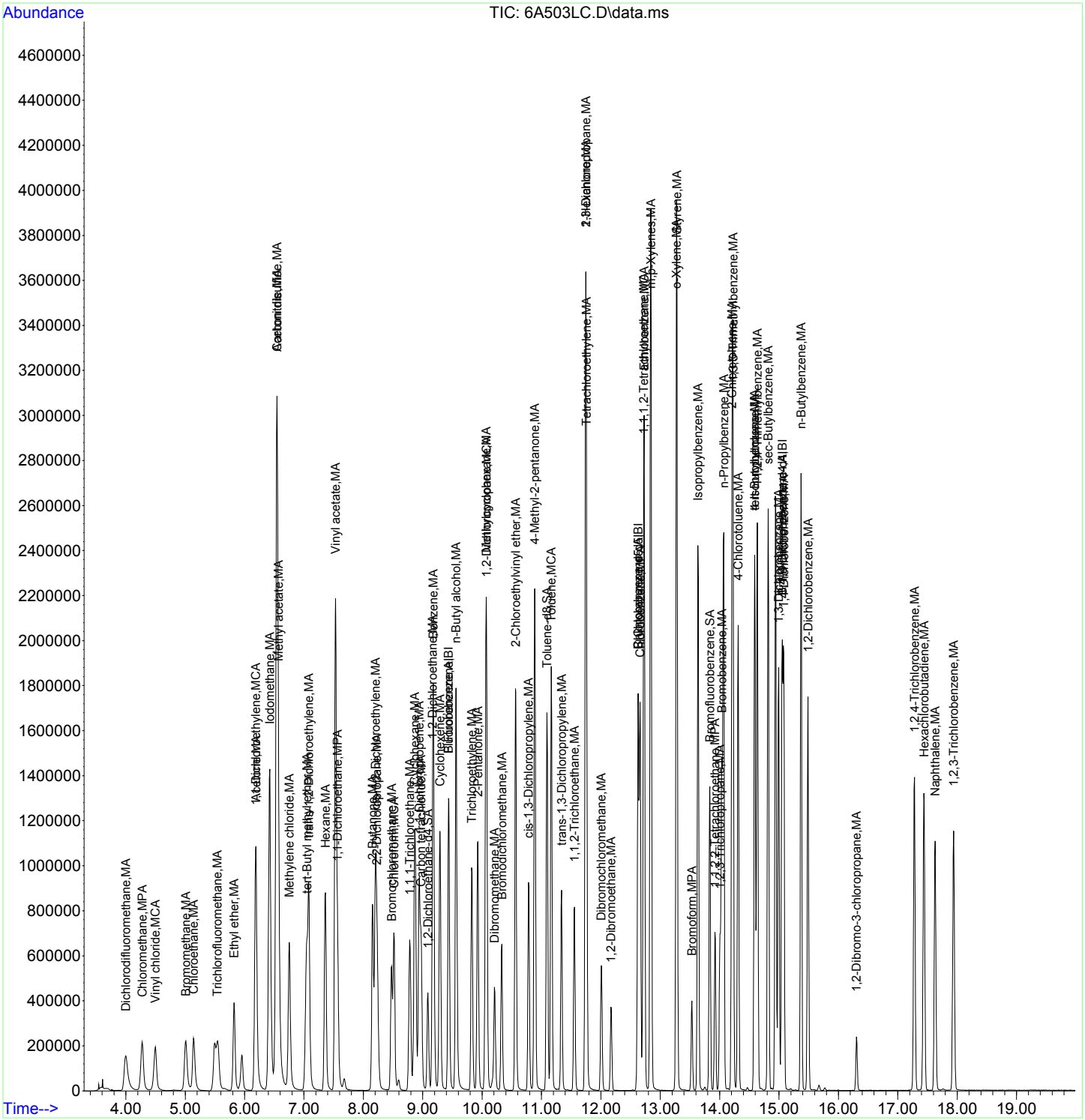
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		9.184	9.208	0.974	0m	N.D.	d
100)	Methyl methacrylate		10.062	10.062	1.067	0m	N.D.	d
101)	1,4-Dioxane		10.172	10.165	1.078	0m	N.D.	d
102)	2-Nitropropane		10.562	10.543	1.120	0m	N.D.	d
104)	Ethyl methacrylate		11.348	11.348	0.899	0m	N.D.	d
106)	1-Chlorohexane		12.531	12.537	0.832	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108)	Cyclohexanone		13.805	13.787	0.917	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		13.976	13.976	0.928	0m	N.D.	d
110)	Pentachloroethane		14.658	14.652	0.974	0m	N.D.	d
111)	Benzyl chloride		15.195	15.195	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		15.585	15.591	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A503LC.D
Acq On : 29 Sep 2017 09:59
Operator : JP1
InstName : VOA6
Sample : |1203885590|1705051|1|VOAF|1|VOA8260BL|
Misc : LCS 5ML N/A MIX[A]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 29 10:27:43 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887115**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/02/2017 13:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 10:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100217V9\9M108L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		48.9	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.7	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		48.0	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane		48.9	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene		49.3	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		48.5	ug/kg	0.333	1.00
78-93-3	2-Butanone		266	ug/kg	1.67	5.00
591-78-6	2-Hexanone		269	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone		228	ug/kg	1.67	5.00
67-64-1	Acetone		280	ug/kg	1.67	5.00
71-43-2	Benzene		46.7	ug/kg	0.333	1.00
75-15-0	Carbon disulfide		262	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride		49.5	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		47.5	ug/kg	0.333	1.00
75-00-3	Chloroethane		50.7	ug/kg	0.333	1.00
67-66-3	Chloroform		47.2	ug/kg	0.333	1.00
74-87-3	Chloromethane		51.2	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		43.9	ug/kg	0.333	1.00
75-09-2	Methylene chloride		51.9	ug/kg	1.67	5.00
100-42-5	Styrene		44.5	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene		47.2	ug/kg	0.333	1.00
108-88-3	Toluene		46.4	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		48.3	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate		262	ug/kg	1.67	5.00
75-01-4	Vinyl chloride		52.2	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)		143	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene		48.1	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		49.0	ug/kg	0.333	1.00

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M108L.D
Acq On : 02 Oct 2017 13:14
Operator : RXY1
InstName : VOA9
Sample : |1203887115|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 13:35:01 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1379173	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.631	13.632	1.000	1056306	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	588489	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1379173	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.631	13.632	1.000	1056306	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	588489	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	329748	49.61	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.887	1195278	50.38	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	535592	51.59	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	99%
45) Toluene-d8	50.000	81 - 120	101%
63) Bromofluorobenzene	50.000	70 - 130	103%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	319329	53.34	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	411154	51.15	ug/L	100
4) Vinyl chloride	62	5.259	5.259	0.503	392726	52.21	ug/L	100
5) Bromomethane	94	5.864	5.852	0.561	316496	51.26	ug/L	99
6) Chloroethane	64	6.006	6.006	0.575	325817	50.74	ug/L	99
7) Trichlorofluoromethane	101	6.457	6.445	0.618	506858	51.76	ug/L	99
8) Ethyl ether	59	6.765	6.754	0.647	297359	50.16	ug/L	100
9) Acetone	43	7.157	7.145	0.685	710416	279.52	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	572396	49.30	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	2523837	225.48	ug/L	98
12) Acetonitrile	41	7.524	7.512	0.720	997250	1348.11	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	963321	269.34	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	5192258	262.21	ug/L	100
15) Methylene chloride	84	7.750	7.738	0.741	379782	51.92	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	954320	48.06	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	525702	49.04	ug/L	99
18) Hexane	57	8.354	8.354	0.799	365112	31.72	ug/L	99
19) Vinyl acetate	43	8.520	8.520	0.815	2706962	262.13	ug/L	99
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	629669	48.87	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	885897	265.82	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	566694	48.10	ug/L	100
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	520776	49.09	ug/L	98
24) Bromochloromethane	128	9.493	9.493	0.908	158127	48.37	ug/L	99
25) Chloroform	83	9.528	9.528	0.912	540673	47.17	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	507756	48.88	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	706300	47.23	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	432858	46.42	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	415633	49.50	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	377363	48.50	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1311294	46.72	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	674420	47.16	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	628166	5250.86	ug/L	99
35) Trichloroethylene	95	10.845	10.833	1.037	328221	48.27	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M108L.D
Acq On : 02 Oct 2017 13:14
Operator : RXY1
InstName : VOA9
Sample : |1203887115|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 13:35:01 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone	43	10.916	10.916	1.044	933343	213.78	ug/L	99
37)	1,2-Dichloropropane	63	11.094	11.094	1.061	321099	46.45	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	653380	46.41	ug/L	100
39)	Dibromomethane	93	11.224	11.224	1.074	175180	48.57	ug/L	98
40)	Bromodichloromethane	83	11.331	11.331	1.084	395961	48.32	ug/L	100
41)	2-Chloroethylvinyl ether	63	11.544	11.544	1.104	744741	189.76	ug/L	98
42)	cis-1,3-Dichloropropylene	75	11.781	11.782	1.127	515624	47.80	ug/L	100
44)	4-Methyl-2-pentanone	58	11.864	11.865	0.870	580066	227.74	ug/L	100
46)	Toluene	91	12.173	12.173	0.893	1281896	46.40	ug/L	100
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.903	445419	49.18	ug/L	100
48)	1,1,2-Trichloroethane	83	12.540	12.540	0.920	226017	48.04	ug/L	99
49)	2-Hexanone	43	12.718	12.718	0.933	1131854	269.48	ug/L	100
50)	1,3-Dichloropropane	76	12.742	12.742	0.935	436954	47.27	ug/L	98
51)	Tetrachloroethylene	164	12.766	12.766	0.936	256511	47.18	ug/L	98
52)	Dibromochloromethane	129	13.003	13.003	0.954	279952	50.26	ug/L	100
53)	1,2-Dibromoethane	107	13.181	13.181	0.967	272203	49.66	ug/L	100
54)	Chlorobenzene	112	13.655	13.655	1.002	846803	47.53	ug/L	100
55)	1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.006	302124	49.54	ug/L	99
56)	Ethylbenzene	91	13.714	13.714	1.006	1430066	43.94	ug/L	99
57)	m,p-Xylenes	106	13.821	13.821	1.014	1195419	96.13	ug/L	100
58)	o-Xylene	106	14.260	14.260	1.046	614581	46.65	ug/L	99
59)	Styrene	104	14.260	14.260	1.046	951630	44.53	ug/L	99
61)	Bromoform	173	14.533	14.533	0.906	180923	49.90	ug/L	99
62)	Isopropylbenzene	105	14.616	14.616	0.911	1539364	45.64	ug/L	100
64)	1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	384234	48.74	ug/L	99
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	103833	50.34	ug/L	97
66)	Bromobenzene	156	15.031	15.031	0.937	386880	46.47	ug/L	99
67)	n-Propylbenzene	91	15.043	15.043	0.938	1785042	43.34	ug/L	99
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1288103	45.61	ug/L	99
69)	2-Chlorotoluene	126	15.197	15.197	0.948	388485	47.46	ug/L	98
70)	4-Chlorotoluene	91	15.292	15.292	0.953	1146281	45.50	ug/L	100
71)	tert-Butylbenzene	134	15.564	15.564	0.970	293290	47.19	ug/L	97
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1294931	43.39	ug/L	99
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1761167	44.18	ug/L	99
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1491290	45.12	ug/L	99
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	749649	44.52	ug/L	100
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	729788	45.95	ug/L	100
77)	n-Butylbenzene	91	16.359	16.359	1.020	1404777	52.36	ug/L	99
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	725880	45.02	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	79140	47.84	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	570598	49.31	ug/L	100
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	320627	44.73	ug/L	100
82)	Naphthalene	128	18.908	18.908	1.179	1288078	50.65	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	518882	49.08	ug/L	100
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87)	Isopropyl Alcohol		7.240	7.228	0.693	0m	N.D.	d	
88)	Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89)	tert-Butyl Alcohol		7.750	7.738	0.741	0m	N.D.	d	
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M108L.D
Acq On : 02 Oct 2017 13:14
Operator : RXY1
InstName : VOA9
Sample : |1203887115|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 13:35:01 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

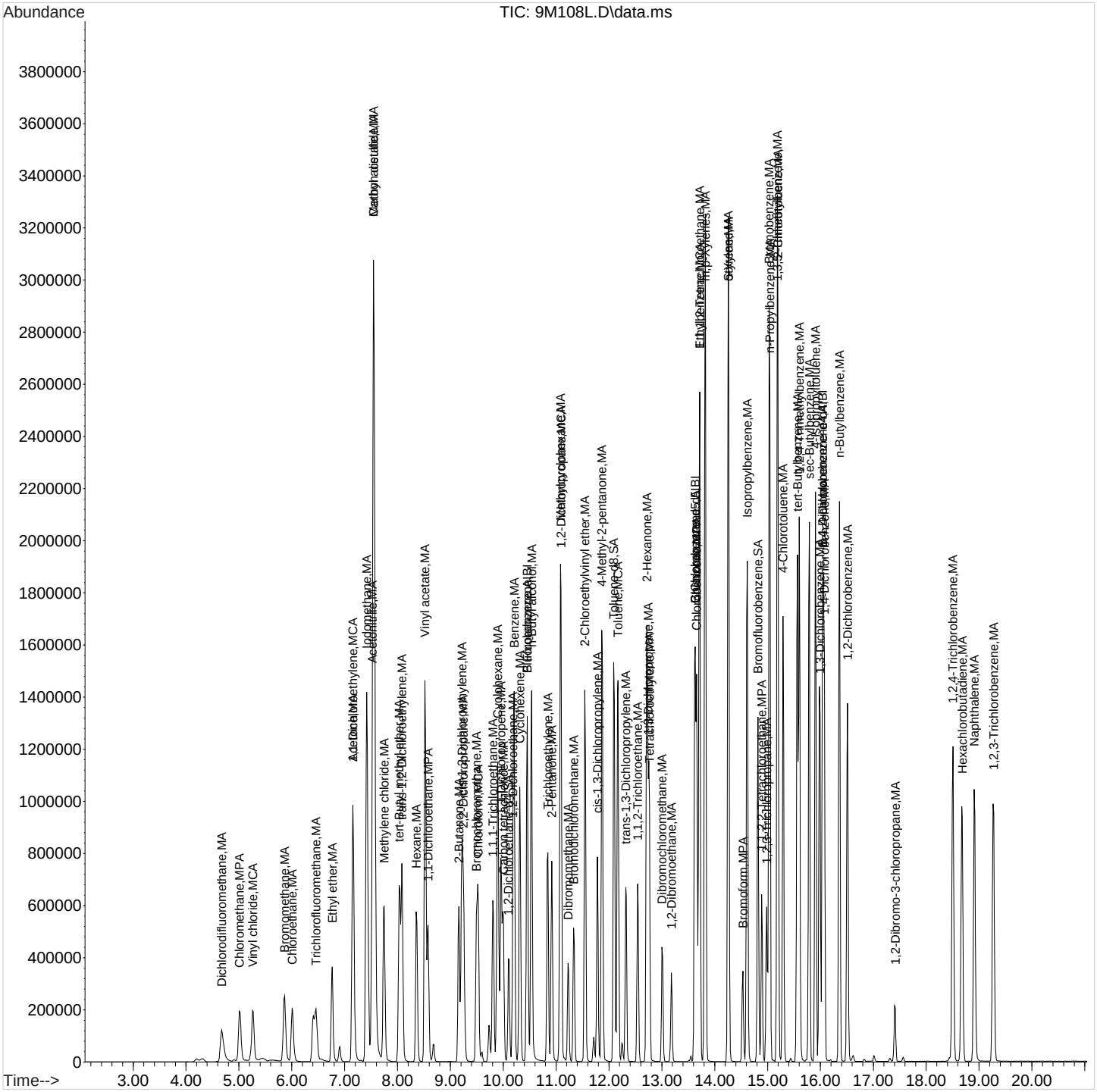
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		8.959	8.948	0.857	0m	N.D.	d
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.433	9.422	0.902	0m	N.D.	d
97)	Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		12.315	12.304	0.903	0m	N.D.	d
106)	1-Chlorohexane		13.513	13.513	0.843	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		14.936	14.936	0.931	0m	N.D.	d
110)	Pentachloroethane		15.647	15.636	0.976	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.596	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100217V9\
Data File : 9M108L.D
Acq On : 02 Oct 2017 13:14
Operator : RXY1
InstName : VOA9
Sample : |1203887115|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 02 13:35:01 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887687**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 11:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 09:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M204L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		53.3	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		50.3	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		51.4	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane		52.6	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene		52.8	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		52.1	ug/kg	0.333	1.00
78-93-3	2-Butanone		290	ug/kg	1.67	5.00
591-78-6	2-Hexanone		296	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone		239	ug/kg	1.67	5.00
67-64-1	Acetone		307	ug/kg	1.67	5.00
71-43-2	Benzene		50.8	ug/kg	0.333	1.00
75-15-0	Carbon disulfide		279	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride		53.8	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		51.6	ug/kg	0.333	1.00
75-00-3	Chloroethane		49.1	ug/kg	0.333	1.00
67-66-3	Chloroform		51.0	ug/kg	0.333	1.00
74-87-3	Chloromethane		48.5	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		47.4	ug/kg	0.333	1.00
75-09-2	Methylene chloride		55.3	ug/kg	1.67	5.00
100-42-5	Styrene		48.3	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene		51.6	ug/kg	0.333	1.00
108-88-3	Toluene		49.7	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		52.6	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate		251	ug/kg	1.67	5.00
75-01-4	Vinyl chloride		51.1	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)		155	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene		52.1	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		53.2	ug/kg	0.333	1.00

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M204L.D
Acq On : 03 Oct 2017 11:10
Operator : RXY1
InstName : VOA9
Sample : |1203887687|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:31:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1334856	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	1032570	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	584399	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1334856	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	1032570	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	584399	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.109	10.098	0.967	320522	49.83	ug/L	0.01
45) Toluene-d8	98	12.090	12.090	0.888	1122420	48.40	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	515713	50.03	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	100%
45) Toluene-d8	50.000	81 - 120	97%
63) Bromofluorobenzene	50.000	70 - 130	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	310246	53.54	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	377295	48.50	ug/L	99
4) Vinyl chloride	62	5.259	5.259	0.503	372126	51.11	ug/L	99
5) Bromomethane	94	5.864	5.852	0.561	302103	50.56	ug/L	100
6) Chloroethane	64	6.006	6.006	0.575	304878	49.05	ug/L	100
7) Trichlorofluoromethane	101	6.457	6.445	0.618	485869	51.27	ug/L	99
8) Ethyl ether	59	6.765	6.754	0.647	278523	48.54	ug/L	99
9) Acetone	43	7.157	7.145	0.685	754009	306.94	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	593576	52.83	ug/L	99
11) Iodomethane	142	7.418	7.418	0.710	2624415	242.24	ug/L	98
12) Acetonitrile	41	7.524	7.512	0.720	999186	1396.28	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	977027	282.45	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	5350146	279.42	ug/L	100
15) Methylene chloride	84	7.750	7.738	0.741	390631	55.26	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	972270	50.59	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	552131	53.21	ug/L	99
18) Hexane	57	8.354	8.354	0.799	356130	31.97	ug/L	99
19) Vinyl acetate	43	8.520	8.520	0.815	2515046	251.47	ug/L	99
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	656344	52.63	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	933029	289.54	ug/L	100
22) cis-1,2-Dichloroethylene	61	9.220	9.208	0.882	594591	52.14	ug/L	100
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	556678	54.21	ug/L	99
24) Bromochloromethane	128	9.493	9.493	0.908	164632	52.03	ug/L	99
25) Chloroform	83	9.528	9.528	0.912	566069	51.03	ug/L	100
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	535681	53.28	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	731570	50.54	ug/L	99
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	460455	51.01	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	436866	53.76	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	392347	52.10	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1380250	50.81	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	713484	51.55	ug/L	100
34) n-Butyl alcohol	41	10.536	10.536	1.008	624637	5396.41	ug/L	98
35) Trichloroethylene	95	10.845	10.833	1.037	346138	52.59	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M204L.D
Acq On : 03 Oct 2017 11:10
Operator : RXY1
InstName : VOA9
Sample : |1203887687|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:31:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone	43	10.916	10.916	1.044	908483	214.99	ug/L	99
37)	1,2-Dichloropropane	63	11.094	11.094	1.061	336624	50.32	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	679141	49.84	ug/L	100
39)	Dibromomethane	93	11.224	11.224	1.074	181036	51.86	ug/L	98
40)	Bromodichloromethane	83	11.331	11.331	1.084	414680	52.28	ug/L	99
41)	2-Chloroethylvinyl ether	63	11.544	11.544	1.104	807024	212.46	ug/L	99
42)	cis-1,3-Dichloropropylene	75	11.781	11.782	1.127	538869	51.61	ug/L	100
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	594170	238.64	ug/L	99
46)	Toluene	91	12.173	12.173	0.894	1341642	49.68	ug/L	100
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	469812	53.07	ug/L	100
48)	1,1,2-Trichloroethane	83	12.540	12.540	0.921	236253	51.37	ug/L	100
49)	2-Hexanone	43	12.718	12.718	0.934	1211854	295.59	ug/L	100
50)	1,3-Dichloropropane	76	12.742	12.742	0.936	453557	50.20	ug/L	99
51)	Tetrachloroethylene	164	12.766	12.766	0.937	274206	51.59	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	295053	54.19	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	284401	53.08	ug/L	100
54)	Chlorobenzene	112	13.655	13.655	1.003	898076	51.57	ug/L	100
55)	1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.007	317174	53.21	ug/L	99
56)	Ethylbenzene	91	13.714	13.714	1.007	1506665	47.36	ug/L	100
57)	m,p-Xylenes	106	13.821	13.821	1.015	1270059	104.48	ug/L	100
58)	o-Xylene	106	14.260	14.260	1.047	649831	50.46	ug/L	100
59)	Styrene	104	14.260	14.260	1.047	1008808	48.29	ug/L	100
61)	Bromoform	173	14.533	14.533	0.906	189354	52.59	ug/L	100
62)	Isopropylbenzene	105	14.616	14.616	0.911	1617880	48.31	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	394022	50.34	ug/L	99
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	107781	52.62	ug/L	98
66)	Bromobenzene	156	15.031	15.031	0.937	407398	49.28	ug/L	100
67)	n-Propylbenzene	91	15.043	15.043	0.938	1882278	46.02	ug/L	99
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1354349	48.29	ug/L	99
69)	2-Chlorotoluene	126	15.197	15.197	0.948	410109	50.45	ug/L	98
70)	4-Chlorotoluene	91	15.292	15.292	0.953	1212575	48.47	ug/L	100
71)	tert-Butylbenzene	134	15.564	15.564	0.970	308978	50.07	ug/L	98
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1375584	46.42	ug/L	91
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1840239	46.49	ug/L	99
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1573266	47.93	ug/L	99
75)	1,3-Dichlorobenzene	146	15.979	15.991	0.996	791210	47.32	ug/L	100
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	775174	49.15	ug/L	100
77)	n-Butylbenzene	91	16.359	16.359	1.020	1469803	55.22	ug/L	99
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	765486	47.81	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	80526	49.02	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	600646	52.33	ug/L	100
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	328905	46.23	ug/L	100
82)	Naphthalene	128	18.908	18.908	1.179	1331300	52.76	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	539126	51.40	ug/L	99
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87)	Isopropyl Alcohol		7.240	7.228	0.693	0m	N.D.	d	
88)	Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89)	tert-Butyl Alcohol		7.750	7.738	0.741	0m	N.D.	d	
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M204L.D
Acq On : 03 Oct 2017 11:10
Operator : RXY1
InstName : VOA9
Sample : |1203887687|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:31:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

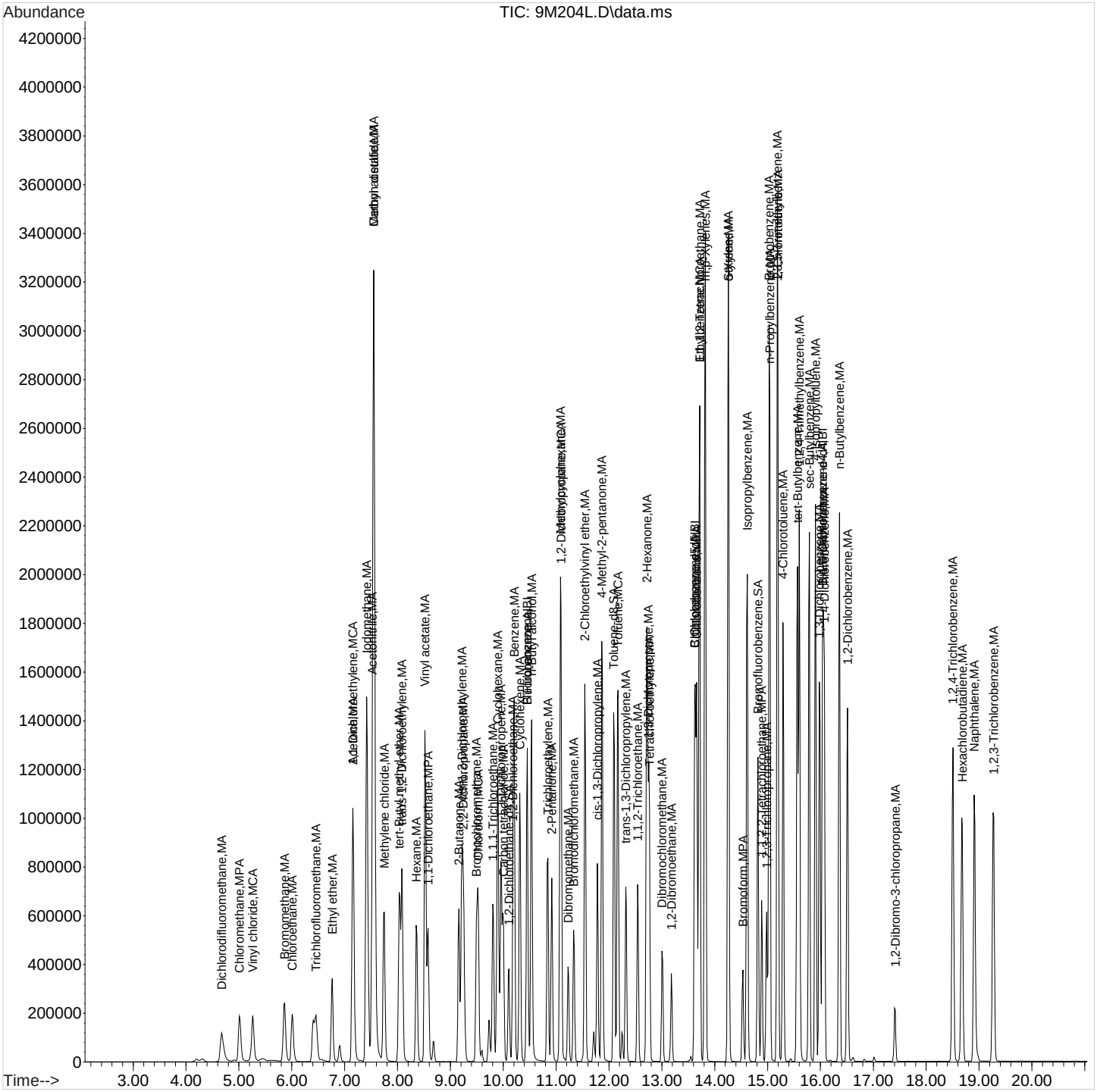
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		8.959	8.948	0.857	0m	N.D.	d
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.422	9.422	0.901	0m	N.D.	d
97)	Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		12.315	12.304	0.904	0m	N.D.	d
106)	1-Chlorohexane		13.513	13.513	0.843	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		14.936	14.936	0.931	0m	N.D.	d
110)	Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.584	16.584	1.034	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M204L.D
Acq On : 03 Oct 2017 11:10
Operator : RXY1
InstName : VOA9
Sample : |1203887687|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 03 11:31:44 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203887688**				
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1705692**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/03/2017 23:23**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 15:01**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M230L.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		48.3	ug/kg	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.1	ug/kg	0.333	1.00
79-00-5	1,1,2-Trichloroethane		48.9	ug/kg	0.333	1.00
75-34-3	1,1-Dichloroethane		48.8	ug/kg	0.333	1.00
75-35-4	1,1-Dichloroethylene		48.0	ug/kg	0.333	1.00
107-06-2	1,2-Dichloroethane		49.9	ug/kg	0.333	1.00
78-93-3	2-Butanone		207	ug/kg	1.67	5.00
591-78-6	2-Hexanone		225	ug/kg	1.67	5.00
108-10-1	4-Methyl-2-pentanone		219	ug/kg	1.67	5.00
67-64-1	Acetone		192	ug/kg	1.67	5.00
71-43-2	Benzene		46.5	ug/kg	0.333	1.00
75-15-0	Carbon disulfide		258	ug/kg	1.67	5.00
56-23-5	Carbon tetrachloride		48.1	ug/kg	0.333	1.00
108-90-7	Chlorobenzene		46.6	ug/kg	0.333	1.00
75-00-3	Chloroethane		47.1	ug/kg	0.333	1.00
67-66-3	Chloroform		48.0	ug/kg	0.333	1.00
74-87-3	Chloromethane		45.5	ug/kg	0.333	1.00
100-41-4	Ethylbenzene		42.9	ug/kg	0.333	1.00
75-09-2	Methylene chloride		52.0	ug/kg	1.67	5.00
100-42-5	Styrene		43.5	ug/kg	0.333	1.00
127-18-4	Tetrachloroethylene		45.2	ug/kg	0.333	1.00
108-88-3	Toluene		46.4	ug/kg	0.333	1.00
79-01-6	Trichloroethylene		47.1	ug/kg	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/kg	1.67	5.00
108-05-4	Vinyl acetate		244	ug/kg	1.67	5.00
75-01-4	Vinyl chloride		47.1	ug/kg	0.333	1.00
1330-20-7	Xylenes (total)		138	ug/kg	1.00	3.00
156-59-2	cis-1,2-Dichloroethylene		47.9	ug/kg	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		47.9	ug/kg	0.333	1.00

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M230L.D
Acq On : 03 Oct 2017 23:23
Operator : RXY1
InstName : VOA9
Sample : |1203887688|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 10:13:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.453	10.454	1.000	1221297	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	905021	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	507490	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1221297	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	905021	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	507490	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	294141	49.98	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	996683	49.04	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	431143	48.16	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	100%
45) Toluene-d8	50.000	81 - 120	98%
63) Bromofluorobenzene	50.000	70 - 130	96%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	254352	47.98	ug/L	99
3) Chloromethane	50	5.010	4.998	0.479	323795	45.49	ug/L	100
4) Vinyl chloride	62	5.259	5.259	0.503	313550	47.07	ug/L	100
5) Bromomethane	94	5.864	5.852	0.561	270038	49.39	ug/L	100
6) Chloroethane	64	6.006	6.006	0.575	267541	47.05	ug/L	100
7) Trichlorofluoromethane	101	6.457	6.445	0.618	405200	46.73	ug/L	100
8) Ethyl ether	59	6.765	6.754	0.647	247000	47.05	ug/L	99
9) Acetone	43	7.145	7.145	0.683	434129	191.56	ug/L	98
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	493142	47.97	ug/L	98
11) Iodomethane	142	7.418	7.418	0.710	2246333	226.63	ug/L	97
12) Acetonitrile	41	7.513	7.512	0.719	860699	1313.41	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	845675	266.98	ug/L	100
14) Carbon disulfide	76	7.548	7.548	0.722	4525818	258.03	ug/L	100
15) Methylene chloride	84	7.738	7.738	0.740	337116	52.04	ug/L	99
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	814506	46.32	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	454782	47.91	ug/L	99
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.520	8.520	0.815	2229690	243.54	ug/L	98
20) 1,1-Dichloroethane	63	8.580	8.568	0.821	557068	48.83	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	612239	206.75	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	499513	47.87	ug/L	100
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	419173	44.62	ug/L	97
24) Bromochloromethane	128	9.493	9.493	0.908	140564	48.55	ug/L	98
25) Chloroform	83	9.528	9.528	0.912	486965	47.98	ug/L	98
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	443846	48.25	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	589480	44.51	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	371412	44.98	ug/L	99
29) Carbon tetrachloride	117	10.003	9.991	0.957	357676	48.11	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	343466	49.85	ug/L	97
32) Benzene	78	10.204	10.204	0.976	1156383	46.53	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	570354	45.04	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	527379	4975.03	ug/L	98
35) Trichloroethylene	95	10.833	10.833	1.036	283776	47.12	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M230L.D
Acq On : 03 Oct 2017 23:23
Operator : RXY1
InstName : VOA9
Sample : |1203887688|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 10:13:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane	63	11.094	11.094	1.061	289289	47.26	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	543761	43.62	ug/L	99
39)	Dibromomethane	93	11.224	11.224	1.074	154042	48.23	ug/L	97
40)	Bromodichloromethane	83	11.331	11.331	1.084	351475	48.43	ug/L	99
41)	2-Chloroethylvinyl ether	63	11.544	11.544	1.104	694414	199.81	ug/L	98
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	435717	45.61	ug/L	99
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	477672	218.89	ug/L	98
46)	Toluene	91	12.173	12.173	0.894	1098022	46.39	ug/L	98
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	372771	48.04	ug/L	99
48)	1,1,2-Trichloroethane	83	12.541	12.540	0.921	197033	48.88	ug/L	98
49)	2-Hexanone	43	12.707	12.718	0.933	810529	224.50	ug/L	98
50)	1,3-Dichloropropane	76	12.730	12.742	0.935	379150	47.88	ug/L	93
51)	Tetrachloroethylene	164	12.766	12.766	0.937	210724	45.23	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	237533	49.78	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	229213	48.81	ug/L	100
54)	Chlorobenzene	112	13.655	13.655	1.003	710728	46.56	ug/L	99
55)	1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.007	264022	50.53	ug/L	100
56)	Ethylbenzene	91	13.715	13.714	1.007	1196472	42.91	ug/L	99
57)	m,p-Xylenes	106	13.821	13.821	1.015	985975	92.54	ug/L	98
58)	o-Xylene	106	14.260	14.260	1.047	516840	45.78	ug/L	98
59)	Styrene	104	14.260	14.260	1.047	796632	43.51	ug/L	100
61)	Bromoform	173	14.533	14.533	0.906	144195	46.11	ug/L	99
62)	Isopropylbenzene	105	14.616	14.616	0.911	1297394	44.61	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	320387	47.13	ug/L	100
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	86848	48.83	ug/L	96
66)	Bromobenzene	156	15.031	15.031	0.937	320798	44.68	ug/L	98
67)	n-Propylbenzene	91	15.031	15.043	0.937	1460168	41.11	ug/L	98
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1084634	44.53	ug/L	98
69)	2-Chlorotoluene	126	15.197	15.197	0.948	318960	45.19	ug/L	95
70)	4-Chlorotoluene	91	15.292	15.292	0.953	936469	43.11	ug/L	99
71)	tert-Butylbenzene	134	15.564	15.564	0.970	248485	46.36	ug/L	97
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1081336	42.02	ug/L	93
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1475890	42.93	ug/L	98
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1227721	43.08	ug/L	99
75)	1,3-Dichlorobenzene	146	15.979	15.991	0.996	609627	41.98	ug/L	99
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	594756	43.43	ug/L	100
77)	n-Butylbenzene	91	16.359	16.359	1.020	1141400	49.27	ug/L	98
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	609432	43.83	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	64440	45.17	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	450221	45.04	ug/L	100
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	271062	43.84	ug/L	99
82)	Naphthalene	128	18.909	18.908	1.179	1085035	49.45	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	429912	47.12	ug/L	100
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.311	7.228	0.699	0m	N.D.	d	
88)	Allyl chloride		7.513	7.596	0.719	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M230L.D
Acq On : 03 Oct 2017 23:23
Operator : RXY1
InstName : VOA9
Sample : |1203887688|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 10:13:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

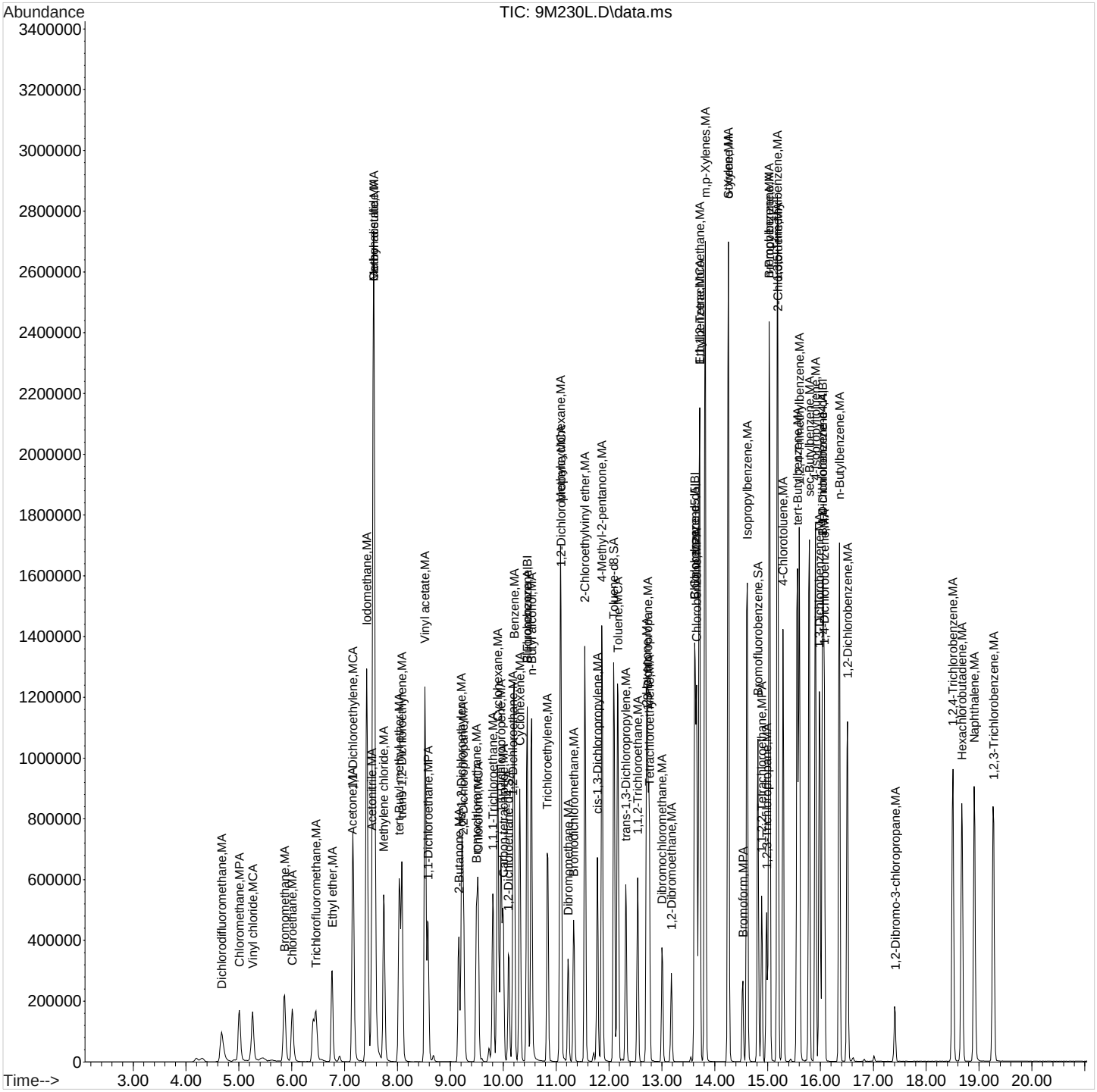
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93) Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94) Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95) Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96) Methacrylonitrile		9.244	9.422	0.884	0m	N.D.	d
97) Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98) Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99) Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100) Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101) 1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102) 2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104) Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106) 1-Chlorohexane		13.549	13.513	0.845	0m	N.D.	d
107) cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108) Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109) trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110) Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111) Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112) bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M230L.D
Acq On : 03 Oct 2017 23:23
Operator : RXY1
InstName : VOA9
Sample : |1203887688|1705693|1|VOA|1|VOA8260BS|
Misc : GEL 5g n/a SOIL MIX[A]0607-10G+0829-10F+1002-
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Oct 04 10:13:53 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/18/2017 09:30**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1203885591**	**Date Received:**	**09/28/2017 10:00**		
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**AA-98PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 20:17**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 20:17**				
Data File:	**092917V6\6A525.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
96-12-8	1,2-Dibromo-3-chloropropane		37.2	ug/L	0.333	1.00
75-15-0	Carbon disulfide		218	ug/L	1.67	5.00
98-82-8	Isopropylbenzene		39.1	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes		80.8	ug/L	0.667	2.00
95-47-6	o-Xylene		41.2	ug/L	0.333	1.00
75-00-3	Chloroethane		52.1	ug/L	0.333	1.00
74-87-3	Chloromethane		52.5	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride		49.9	ug/L	0.333	1.00
108-10-1	4-Methyl-2-pentanone		215	ug/L	1.67	5.00
71-55-6	1,1,1-Trichloroethane		45.6	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.9	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane		46.7	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane		47.5	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene		46.1	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	B	39.8	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	B	37.4	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane		47.9	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene		40.3	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane		48.0	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane		46.2	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene		38.5	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene		37.8	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone		141	ug/L	1.67	5.00
591-78-6	2-Hexanone		171	ug/L	1.67	5.00
67-64-1	Acetone		125	ug/L	1.74	5.00
71-43-2	Benzene		44.0	ug/L	0.333	1.00
74-97-5	Bromochloromethane		46.4	ug/L	0.333	1.00
75-27-4	Bromodichloromethane		47.7	ug/L	0.333	1.00
75-25-2	Bromoform		40.5	ug/L	0.333	1.00
74-83-9	Bromomethane		53.4	ug/L	0.337	1.00
56-23-5	Carbon tetrachloride		47.0	ug/L	0.333	1.00
108-90-7	Chlorobenzene		41.2	ug/L	0.333	1.00
67-66-3	Chloroform		47.1	ug/L	0.333	1.00
110-82-7	Cyclohexane		44.5	ug/L	0.333	1.00
124-48-1	Dibromochloromethane		49.0	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane		69.5	ug/L	0.355	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/18/2017 09:30**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1203885591**	**Date Received:**	**09/28/2017 10:00**		
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**AA-98PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 20:17**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 20:17**				
Data File:	**092917V6\6A525.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		40.9	ug/L	0.333	1.00
79-20-9	Methyl acetate		185	ug/L	1.67	5.00
108-87-2	Methylcyclohexane		44.0	ug/L	0.333	1.00
75-09-2	Methylene chloride	B	48.3	ug/L	1.67	5.00
100-42-5	Styrene		42.9	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene		41.9	ug/L	0.333	1.00
108-88-3	Toluene		42.2	ug/L	0.333	1.00
79-01-6	Trichloroethylene		44.3	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane		53.7	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene		47.2	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		44.4	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether		45.0	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		47.4	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.7	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A525.D
Acq On : 29 Sep 2017 20:17
Operator : JP1
InstName : VOA6
Sample : |1203885591|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MS
ALS Vial : 25 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Oct 02 08:45:37 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1101534	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	841241	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	447691	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1101534	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	841241	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	447691	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	288118	51.26	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1041436	49.90	ug/L	0.00
63) Bromofluorobenzene	95	13.835	13.829	0.919	449402	50.12	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	103%
45) Toluene-d8	50.000	74 - 124	100%
63) Bromofluorobenzene	50.000	70 - 131	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	364962	69.54	ug/L	99
3) Chloromethane	50	4.282	4.274	0.454	373978	52.51	ug/L	98
4) Vinyl chloride	62	4.506	4.498	0.478	323633	49.90	ug/L	98
5) Bromomethane	94	5.012	5.012	0.531	261508	53.40	ug/L	100
6) Chloroethane	64	5.148	5.148	0.546	311541	52.12	ug/L	98
7) Trichlorofluoromethane	101	5.549	5.549	0.588	523325	53.71	ug/L	100
8) Ethyl ether	59	5.822	5.822	0.617	310982	47.96	ug/L	95
9) Acetone	43	6.191	6.191	0.656	372156	125.19	ug/L	94
10) 1,1-Dichloroethylene	61	6.184	6.191	0.656	525716	46.14	ug/L	95
11) Iodomethane	142	6.422	6.422	0.681	2202854	222.47	ug/L	97
12) Acetonitrile	41	6.544	6.544	0.694	868205	1104.61	ug/L	100
13) Methyl acetate	43	6.569	6.569	0.696	845021	184.58	ug/L	95
14) Carbon disulfide	76	6.544	6.544	0.694	4420826	217.73	ug/L	100
15) Methylene chloride	84	6.751	6.752	0.716	330677	48.30	ug/L	90
16) tert-Butyl methyl ether	73	7.044	7.044	0.747	817968	45.02	ug/L	99
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	517968	47.41	ug/L	95
18) Hexane	57	7.361	7.361	0.780	503797	40.24	ug/L	93
19) Vinyl acetate	43	7.532	7.526	0.798	2817914	212.22	ug/L	96
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	613213	47.48	ug/L	100
21) 2-Butanone	43	8.154	8.154	0.864	602740	140.74	ug/L	93
22) cis-1,2-Dichloroethylene	61	8.202	8.203	0.869	581745	47.21	ug/L	96
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	470400	45.40	ug/L	85
24) Bromochloromethane	128	8.477	8.477	0.899	142289	46.38	ug/L #	85
25) Chloroform	83	8.513	8.513	0.902	517495	47.14	ug/L	100
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	467581	45.63	ug/L	97
27) Cyclohexane	56	8.867	8.867	0.940	681130	44.51	ug/L	93
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	375787	43.14	ug/L	90
29) Carbon tetrachloride	117	8.970	8.971	0.951	404396	47.02	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	443164	47.97	ug/L	99
32) Benzene	78	9.178	9.178	0.973	1162288	43.99	ug/L	97
33) Cyclohexene	67	9.288	9.288	0.984	555184	43.09	ug/L	96
34) n-Butyl alcohol	56	9.562	9.562	1.014	987785	4621.11	ug/L	94
35) Trichloroethylene	95	9.824	9.824	1.041	296203	44.28	ug/L	99
36) 2-Pentanone	43	9.922	9.922	1.052	1048699	219.48	ug/L	95
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	339577	46.16	ug/L	96
38) Methylcyclohexane	83	10.068	10.062	1.067	540882	43.97	ug/L	94

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A525.D
Acq On : 29 Sep 2017 20:17
Operator : JP1
InstName : VOA6
Sample : |1203885591|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 02 08:45:37 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
39)	Dibromomethane	93	10.208	10.208	1.082	161845	46.26	ug/L		97
40)	Bromodichloromethane	83	10.330	10.330	1.095	383905	47.70	ug/L		99
41)	2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.			
42)	cis-1,3-Dichloropropylene	75	10.781	10.781	1.143	448639	44.41	ug/L		91
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	565626	215.00	ug/L		91
46)	Toluene	91	11.165	11.165	0.884	1179765	42.23	ug/L		99
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	397639	45.67	ug/L		91
48)	1,1,2-Trichloroethane	83	11.555	11.549	0.915	202776	46.69	ug/L		99
49)	2-Hexanone	43	11.744	11.744	0.930	918163	170.90	ug/L		94
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	403481	45.10	ug/L		93
51)	Tetrachloroethylene	164	11.757	11.757	0.931	225136	41.88	ug/L		91
52)	Dibromochloromethane	129	12.006	12.007	0.951	263965	48.98	ug/L		99
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	240628	47.86	ug/L		98
54)	Chlorobenzene	112	12.659	12.659	1.002	766091	41.17	ug/L		97
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	289164	47.25	ug/L		99
56)	Ethylbenzene	91	12.726	12.726	1.008	1294512	40.89	ug/L		98
57)	m,p-Xylenes	106	12.842	12.842	1.017	993571	80.76	ug/L		94
58)	o-Xylene	91	13.275	13.275	1.051	1063245	41.17	ug/L		97
59)	Styrene	104	13.281	13.281	1.052	835334	42.86	ug/L		96
61)	Bromoform	173	13.531	13.531	0.899	157442	40.53	ug/L		98
62)	Isopropylbenzene	105	13.640	13.634	0.906	1288623	39.13	ug/L		98
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	318514	45.94	ug/L		99
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.930	95331	46.13	ug/L	#	93
66)	Bromobenzene	156	14.037	14.037	0.932	317057	41.55	ug/L		96
67)	n-Propylbenzene	91	14.067	14.067	0.934	1453313	37.35	ug/L		97
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1075279	38.90	ug/L		98
69)	2-Chlorotoluene	126	14.207	14.207	0.944	303112	39.09	ug/L		94
70)	4-Chlorotoluene	91	14.311	14.311	0.951	939853	38.15	ug/L		99
71)	tert-Butylbenzene	134	14.591	14.592	0.969	225527	37.70	ug/L		95
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1099156	38.58	ug/L		96
73)	sec-Butylbenzene	105	14.817	14.817	0.984	1354003	37.22	ug/L		99
74)	4-Isopropyltoluene	119	14.591	14.592	0.969	918501	38.27	ug/L		97
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	589336	38.52	ug/L		100
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	576309	37.79	ug/L		100
77)	n-Butylbenzene	91	15.372	15.372	1.021	983039	34.16	ug/L		98
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	569095	40.25	ug/L		100
79)	1,2-Dibromo-3-chloropr...	157	16.311	16.305	1.083	50389	37.24	ug/L		97
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	359286	37.44	ug/L		98
81)	Hexachlorobutadiene	225	17.444	17.439	1.159	205464	33.07	ug/L		100
82)	Naphthalene	128	17.627	17.627	1.171	858300	43.32	ug/L		100
83)	1,2,3-Trichlorobenzene	180	17.944	17.938	1.192	337190	39.84	ug/L		100
85)	Acrolein		0.000	6.020	0.000	0	N.D.			
86)	Trichlorotrifluoroethane		6.178	6.178	0.655	0m	N.D.	d		
87)	Isopropyl Alcohol		6.288	6.276	0.667	0m	N.D.	d		
88)	Allyl chloride		6.544	6.605	0.694	0m	N.D.	d		
89)	tert-Butyl Alcohol		6.745	6.770	0.715	0m	N.D.	d		
90)	Acrylonitrile		7.044	7.007	0.747	0m	N.D.	d		
91)	Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d		
92)	2-Chloro-1,3-butadiene		7.678	7.666	0.814	0m	N.D.	d		
93)	Ethyl tert-butyl ether		7.952	7.958	0.843	0m	N.D.	d		
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d		
95)	Propionitrile		8.233	8.239	0.873	0m	N.D.	d		
96)	Methacrylonitrile		0.000	8.410	0.000	0	N.D.			
97)	Tetrahydrofuran		8.513	8.519	0.902	0m	N.D.	d		
98)	Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A525.D
Acq On : 29 Sep 2017 20:17
Operator : JP1
InstName : VOA6
Sample : |1203885591|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 02 08:45:37 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

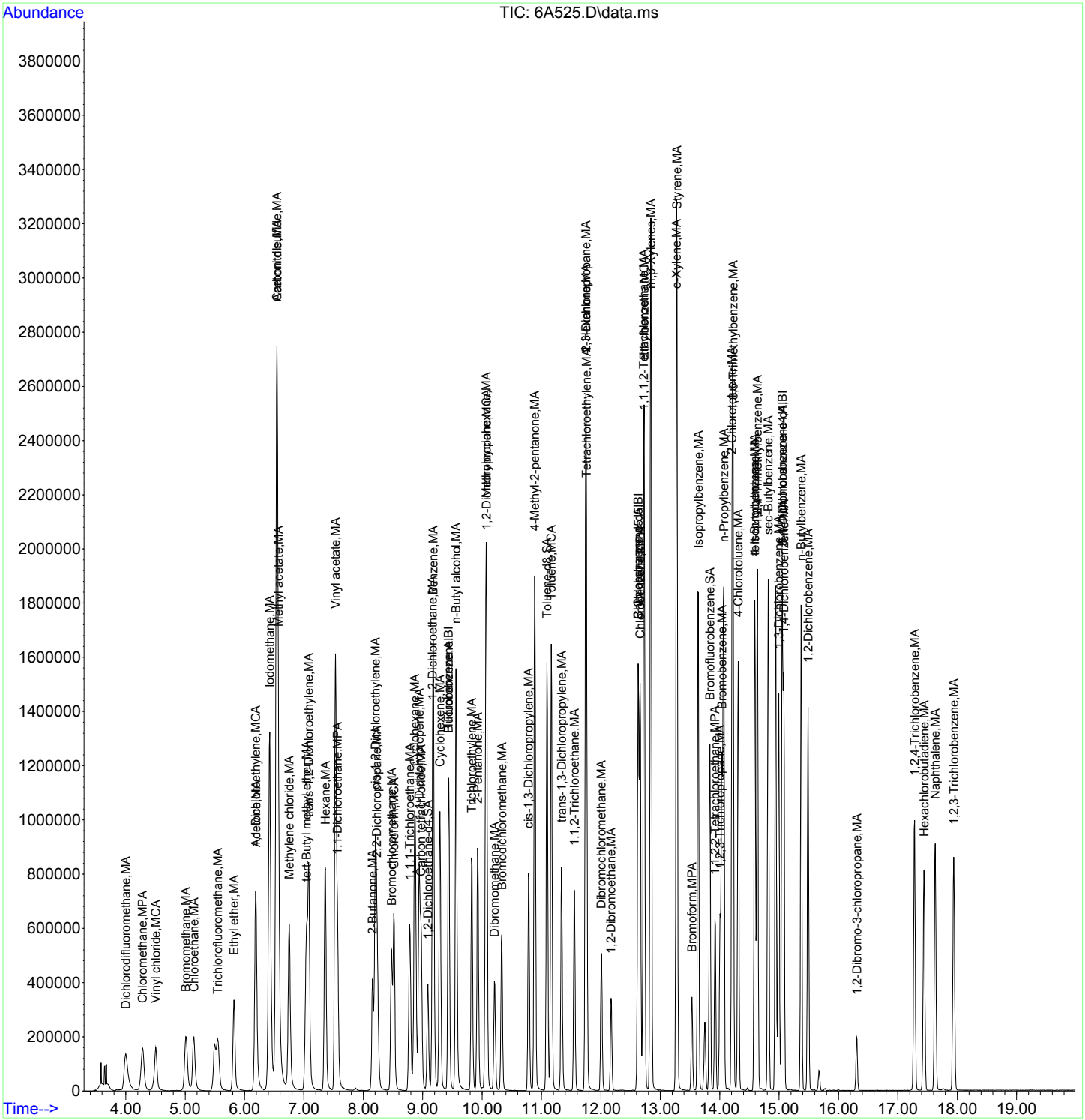
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d
100)	Methyl methacrylate		10.062	10.062	1.067	0m	N.D.	d
101)	1,4-Dioxane		10.208	10.165	1.082	0m	N.D.	d
102)	2-Nitropropane		0.000	10.543	0.000	0	N.D.	
104)	Ethyl methacrylate		11.342	11.348	0.898	0m	N.D.	d
106)	1-Chlorohexane		12.543	12.537	0.833	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		13.640	13.683	0.906	0m	N.D.	d
108)	Cyclohexanone		13.805	13.787	0.917	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		13.976	13.976	0.928	0m	N.D.	d
110)	Pentachloroethane		14.652	14.652	0.973	0m	N.D.	d
111)	Benzyl chloride		15.201	15.195	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		15.591	15.591	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A525.D
Acq On : 29 Sep 2017 20:17
Operator : JP1
InstName : VOA6
Sample : |1203885591|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MS
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Oct 02 08:45:37 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203887116**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2SOL11PS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 03:03**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:13**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M238.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		5600	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane		4960	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane		5300	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane		5600	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene		5630	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane		5780	ug/kg	35.9	108
78-93-3	2-Butanone		23400	ug/kg	180	539
591-78-6	2-Hexanone		24600	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone		22900	ug/kg	180	539
67-64-1	Acetone		22900	ug/kg	180	539
71-43-2	Benzene		5380	ug/kg	35.9	108
75-15-0	Carbon disulfide		30100	ug/kg	180	539
56-23-5	Carbon tetrachloride		5510	ug/kg	35.9	108
108-90-7	Chlorobenzene		5340	ug/kg	35.9	108
75-00-3	Chloroethane		4570	ug/kg	35.9	108
67-66-3	Chloroform		5580	ug/kg	35.9	108
74-87-3	Chloromethane		5180	ug/kg	35.9	108
100-41-4	Ethylbenzene		4990	ug/kg	35.9	108
75-09-2	Methylene chloride		5960	ug/kg	180	539
100-42-5	Styrene		5070	ug/kg	35.9	108
127-18-4	Tetrachloroethylene		5260	ug/kg	35.9	108
108-88-3	Toluene		5260	ug/kg	35.9	108
79-01-6	Trichloroethylene		5490	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate		22800	ug/kg	180	539
75-01-4	Vinyl chloride		4620	ug/kg	35.9	108
1330-20-7	Xylenes (total)		16200	ug/kg	108	323
156-59-2	cis-1,2-Dichloroethylene		5560	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene		5560	ug/kg	35.9	108

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M238.D
Acq On : 04 Oct 2017 03:03
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 04 10:15:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.454	10.454	1.000	1067532	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	812209	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	467080	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	1067532	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	812209	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	467080	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	261373	50.81	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	900818	49.38	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	396069	48.07	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	102%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	96%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.657	4.672	0.446	223304	48.19	ug/L	100
3) Chloromethane	50	4.999	4.998	0.478	298891	48.04	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	249707	42.89	ug/L	100
5) Bromomethane	94	5.805	5.852	0.555	72057	15.08	ug/L	98
6) Chloroethane	64	5.959	6.006	0.570	210724	42.39	ug/L	100
7) Trichlorofluoromethane	101	6.422	6.445	0.614	344472	45.45	ug/L	100
8) Ethyl ether	59	6.766	6.754	0.647	200775	43.76	ug/L	96
9) Acetone	43	7.157	7.145	0.685	419880	212.41	ug/L	98
10) 1,1-Dichloroethylene	61	7.145	7.157	0.683	468998	52.19	ug/L	97
11) Iodomethane	142	7.406	7.418	0.708	2069708	238.88	ug/L	96
12) Acetonitrile	41	7.524	7.512	0.720	757640	1322.81	ug/L	100
13) Methyl acetate	43	7.548	7.548	0.722	770414	278.43	ug/L	99
14) Carbon disulfide	76	7.536	7.548	0.721	4268546	278.74	ug/L	99
15) Methylene chloride	84	7.738	7.738	0.740	312605	55.29	ug/L	98
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	740803	48.20	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	427753	51.55	ug/L	98
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.521	8.520	0.815	1693970	211.14	ug/L	98
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	517566	51.90	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	560802	216.82	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	470700	51.61	ug/L	99
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	396899	48.33	ug/L	95
24) Bromochloromethane	128	9.493	9.493	0.908	128114	50.63	ug/L	97
25) Chloroform	83	9.517	9.528	0.910	459204	51.76	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	417643	51.94	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	568884	49.14	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	351191	48.65	ug/L	98
29) Carbon tetrachloride	117	9.991	9.991	0.956	332054	51.09	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	322750	53.59	ug/L	97
32) Benzene	78	10.204	10.204	0.976	1083308	49.86	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	536374	48.46	ug/L	99
34) n-Butyl alcohol	41	10.537	10.536	1.008	453350	4891.65	ug/L	96
35) Trichloroethylene	95	10.833	10.833	1.036	267863	50.89	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M238.D
Acq On : 04 Oct 2017 03:03
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 04 10:15:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane	63	11.082	11.094	1.060	266290	49.77	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	538115	49.38	ug/L	98
39)	Dibromomethane	93	11.224	11.224	1.074	138889	49.75	ug/L	97
40)	Bromodichloromethane	83	11.331	11.331	1.084	315873	49.80	ug/L	100
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	395391	47.35	ug/L	98
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	415261	212.04	ug/L	95
46)	Toluene	91	12.161	12.173	0.893	1036712	48.80	ug/L	98
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	335091	48.12	ug/L	98
48)	1,1,2-Trichloroethane	83	12.541	12.540	0.921	177961	49.19	ug/L	99
49)	2-Hexanone	43	12.707	12.718	0.933	738140	227.88	ug/L	97
50)	1,3-Dichloropropane	76	12.730	12.742	0.935	349415	49.16	ug/L	94
51)	Tetrachloroethylene	164	12.754	12.766	0.936	203759	48.74	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	208312	48.64	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	207176	49.16	ug/L	99
54)	Chlorobenzene	112	13.655	13.655	1.003	679070	49.57	ug/L	98
55)	1,1,1,2-Tetrachloroethane	131	13.703	13.714	1.006	247767	52.84	ug/L	98
56)	Ethylbenzene	91	13.715	13.714	1.007	1157712	46.26	ug/L	99
57)	m,p-Xylenes	106	13.821	13.821	1.015	963173	100.73	ug/L	98
58)	o-Xylene	106	14.260	14.260	1.047	499670	49.32	ug/L	97
59)	Styrene	104	14.260	14.260	1.047	772945	47.04	ug/L	99
61)	Bromoform	173	14.533	14.533	0.906	124630	43.30	ug/L	99
62)	Isopropylbenzene	105	14.616	14.616	0.911	1259822	47.07	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	287926	46.02	ug/L	99
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	79256	48.41	ug/L #	92
66)	Bromobenzene	156	15.031	15.031	0.937	312894	47.35	ug/L	92
67)	n-Propylbenzene	91	15.031	15.043	0.937	1456403	44.55	ug/L	98
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1063726	47.45	ug/L	98
69)	2-Chlorotoluene	126	15.197	15.197	0.948	312203	48.06	ug/L	94
70)	4-Chlorotoluene	91	15.292	15.292	0.953	937095	46.87	ug/L	98
71)	tert-Butylbenzene	134	15.565	15.564	0.970	239432	48.54	ug/L	95
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1074547	45.37	ug/L	94
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1463023	46.24	ug/L	98
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1224440	46.68	ug/L	99
75)	1,3-Dichlorobenzene	146	15.980	15.991	0.996	610723	45.70	ug/L	99
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	598013	47.45	ug/L	99
77)	n-Butylbenzene	91	16.359	16.359	1.020	1159378	54.48	ug/L	98
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	602355	47.07	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	53862	41.02	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	459759	50.07	ug/L	100
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	285847	50.34	ug/L	100
82)	Naphthalene	128	18.909	18.908	1.179	1027088	50.89	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.264	19.276	1.201	434189	51.80	ug/L	100
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.169	7.228	0.686	0m	N.D.	d	
88)	Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M238.D
Acq On : 04 Oct 2017 03:03
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 04 10:15:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

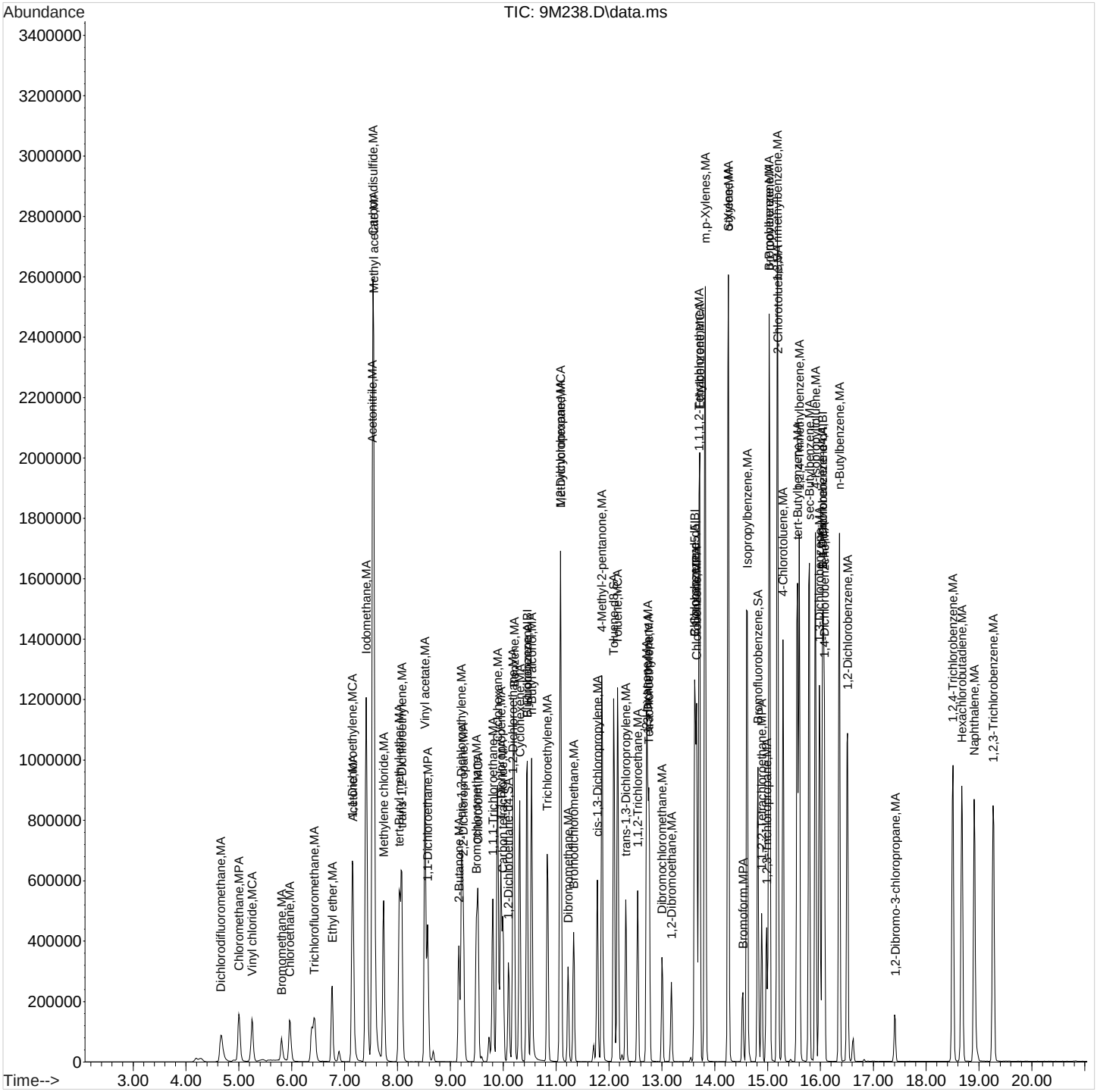
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d
97)	Tetrahydrofuran		9.540	9.540	0.913	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.556	11.533	1.105	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.549	13.513	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110)	Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M238.D
Acq On : 04 Oct 2017 03:03
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 04 10:15:15 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203887116**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2SOL11REPS**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/04/2017 03:57**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:48**	**Aliquot:**	**4.4 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M240.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		43.1	ug/kg	0.408	1.23
79-34-5	1,1,2,2-Tetrachloroethane		36.8	ug/kg	0.408	1.23
79-00-5	1,1,2-Trichloroethane		36.6	ug/kg	0.408	1.23
75-34-3	1,1-Dichloroethane		43.9	ug/kg	0.408	1.23
75-35-4	1,1-Dichloroethylene		41.2	ug/kg	0.408	1.23
107-06-2	1,2-Dichloroethane		26.4	ug/kg	0.408	1.23
78-93-3	2-Butanone		184	ug/kg	2.04	6.13
591-78-6	2-Hexanone		44.8	ug/kg	2.04	6.13
108-10-1	4-Methyl-2-pentanone		141	ug/kg	2.04	6.13
67-64-1	Acetone		295	ug/kg	2.04	6.13
71-43-2	Benzene		29.8	ug/kg	0.408	1.23
75-15-0	Carbon disulfide		199	ug/kg	2.04	6.13
56-23-5	Carbon tetrachloride		40.8	ug/kg	0.408	1.23
108-90-7	Chlorobenzene		21.6	ug/kg	0.408	1.23
75-00-3	Chloroethane		57.9	ug/kg	0.408	1.23
67-66-3	Chloroform		38.3	ug/kg	0.408	1.23
74-87-3	Chloromethane		79.1	ug/kg	0.408	1.23
100-41-4	Ethylbenzene		31.9	ug/kg	0.408	1.23
75-09-2	Methylene chloride		50.0	ug/kg	2.04	6.13
100-42-5	Styrene		11.8	ug/kg	0.408	1.23
127-18-4	Tetrachloroethylene		48.9	ug/kg	0.408	1.23
108-88-3	Toluene		40.2	ug/kg	0.408	1.23
79-01-6	Trichloroethylene		25.5	ug/kg	0.408	1.23
76-13-1	Trichlorotrifluoroethane	U	6.13	ug/kg	2.04	6.13
108-05-4	Vinyl acetate		101	ug/kg	2.04	6.13
75-01-4	Vinyl chloride		57.1	ug/kg	0.408	1.23
1330-20-7	Xylenes (total)		80.1	ug/kg	1.23	3.68
156-59-2	cis-1,2-Dichloroethylene		33.2	ug/kg	0.408	1.23
156-60-5	trans-1,2-Dichloroethylene		30.6	ug/kg	0.408	1.23

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M240.D
Acq On : 04 Oct 2017 03:57
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MS 433718010
ALS Vial : 40 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 04 10:15:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	866688	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	301514	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	68121	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	866688	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	301514	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	68121	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	239835	57.42	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	482283	71.22	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	60596	50.43	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	115%
45) Toluene-d8	50.000	81 - 120	142%#
63) Bromofluorobenzene	50.000	70 - 130	101%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	192009	51.03	ug/L	99
3) Chloromethane	50	4.998	4.998	0.478	326171	64.57	ug/L	100
4) Vinyl chloride	62	5.247	5.259	0.502	220445	46.63	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	172403	44.44	ug/L	98
6) Chloroethane	64	6.006	6.006	0.575	190836	47.29	ug/L	99
7) Trichlorofluoromethane	101	6.445	6.445	0.617	264503	42.98	ug/L	99
8) Ethyl ether	59	6.754	6.754	0.646	127144	34.13	ug/L	97
9) Acetone	43	7.145	7.145	0.683	384952	240.43	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	245297	33.62	ug/L	98
11) Iodomethane	142	7.418	7.418	0.710	1058002	150.41	ug/L	97
12) Acetonitrile	41	7.512	7.512	0.719	738456	1592.16	ug/L	99
13) Methyl acetate	43	7.536	7.548	0.721	494532	219.25	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	2038592	162.28	ug/L	97
15) Methylene chloride	84	7.738	7.738	0.740	188998	40.83	ug/L	97
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	513901	41.19	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	168032	24.94	ug/L	97
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate	43	8.520	8.520	0.815	550724	82.09	ug/L	96
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	290367	35.86	ug/L	99
21) 2-Butanone	43	9.161	9.161	0.876	317830	150.39	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	200635	27.10	ug/L	95
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	239495	35.92	ug/L	96
24) Bromochloromethane	128	9.493	9.493	0.908	57459	27.97	ug/L	95
25) Chloroform	83	9.528	9.528	0.912	224916	31.23	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	229426	35.14	ug/L	99
27) Cyclohexane	56	9.896	9.896	0.947	284676	30.29	ug/L	98
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	130617	22.29	ug/L	98
29) Carbon tetrachloride	117	9.991	9.991	0.956	175883	33.33	ug/L	99
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	105209	21.52	ug/L	94
32) Benzene	78	10.204	10.204	0.976	429140	24.33	ug/L	99
33) Cyclohexene	67	10.311	10.311	0.986	254675	28.34	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	267213	3534.39	ug/L	95
35) Trichloroethylene	95	10.833	10.833	1.036	89119	20.85	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M240.D
Acq On : 04 Oct 2017 03:57
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MS 433718010
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 04 10:15:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0m	N.D.	d	
37)	1,2-Dichloropropane	63	11.082	11.094	1.060	95031	21.88	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	215052	24.31	ug/L	96
39)	Dibromomethane	93	11.224	11.224	1.074	43949	19.39	ug/L	95
40)	Bromodichloromethane	83	11.331	11.331	1.084	105646	20.51	ug/L	99
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	68508	10.11	ug/L	98
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	83623	115.02	ug/L	90
46)	Toluene	91	12.173	12.173	0.894	258739	32.81	ug/L	95
47)	trans-1,3-Dichloroprop...	75	12.327	12.315	0.905	29272	11.32	ug/L	97
48)	1,1,2-Trichloroethane	83	12.540	12.540	0.921	40107	29.86	ug/L	97
49)	2-Hexanone	43	12.718	12.718	0.934	48450	36.60	ug/L	92
50)	1,3-Dichloropropane	76	12.742	12.742	0.936	57141	21.66	ug/L	79
51)	Tetrachloroethylene	164	12.766	12.766	0.937	61957	39.92	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	38726	24.36	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	20294	12.97	ug/L	96
54)	Chlorobenzene	112	13.655	13.655	1.003	89714	17.64	ug/L	95
55)	1,1,1,2-Tetrachloroethane	131	13.714	13.714	1.007	62618	35.97	ug/L	98
56)	Ethylbenzene	91	13.714	13.714	1.007	241905	26.04	ug/L	96
57)	m,p-Xylenes	106	13.821	13.821	1.015	163848	46.16	ug/L	87
58)	o-Xylene	106	14.260	14.260	1.047	72359	19.24	ug/L	85
59)	Styrene	104	14.260	14.260	1.047	58582	9.60	ug/L	87
61)	Bromoform	173	14.533	14.533	0.906	12172	29.00	ug/L	100
62)	Isopropylbenzene	105	14.616	14.616	0.911	298518	76.47	ug/L	95
64)	1,1,2,2-Tetrachloroethane	83	14.888	14.888	0.928	27371	30.00	ug/L	98
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	6780	28.40	ug/L	94
66)	Bromobenzene	156	15.031	15.031	0.937	20135	20.89	ug/L #	72
67)	n-Propylbenzene	91	15.043	15.043	0.938	292678	61.39	ug/L	94
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	175997	53.83	ug/L	93
69)	2-Chlorotoluene	126	15.197	15.197	0.948	38410	40.54	ug/L #	74
70)	4-Chlorotoluene	91	15.292	15.292	0.953	85052	29.17	ug/L	94
71)	tert-Butylbenzene	134	15.564	15.564	0.970	56317	78.28	ug/L	98
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	128740	37.27	ug/L #	28
73)	sec-Butylbenzene	105	15.790	15.790	0.984	331953	71.94	ug/L	94
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	235299	61.50	ug/L	97
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	39124	20.07	ug/L	98
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	32665	17.77	ug/L	96
77)	n-Butylbenzene	91	16.359	16.359	1.020	191330	61.78	ug/L	92
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	27300	14.63	ug/L	97
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	1368	7.14	ug/L #	79
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	23060	16.60	ug/L	98
81)	Hexachlorobutadiene	225	18.683	18.683	1.165	57939	70.25	ug/L	98
82)	Naphthalene	128	18.920	18.908	1.180	39746	12.66	ug/L	99
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	21626	17.05	ug/L	98
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		7.133	7.133	0.682	0m	N.D.	d	
87)	Isopropyl Alcohol		7.299	7.228	0.698	0m	N.D.	d	
88)	Allyl chloride		7.512	7.596	0.719	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.520	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M240.D
Acq On : 04 Oct 2017 03:57
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MS 433718010
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 04 10:15:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

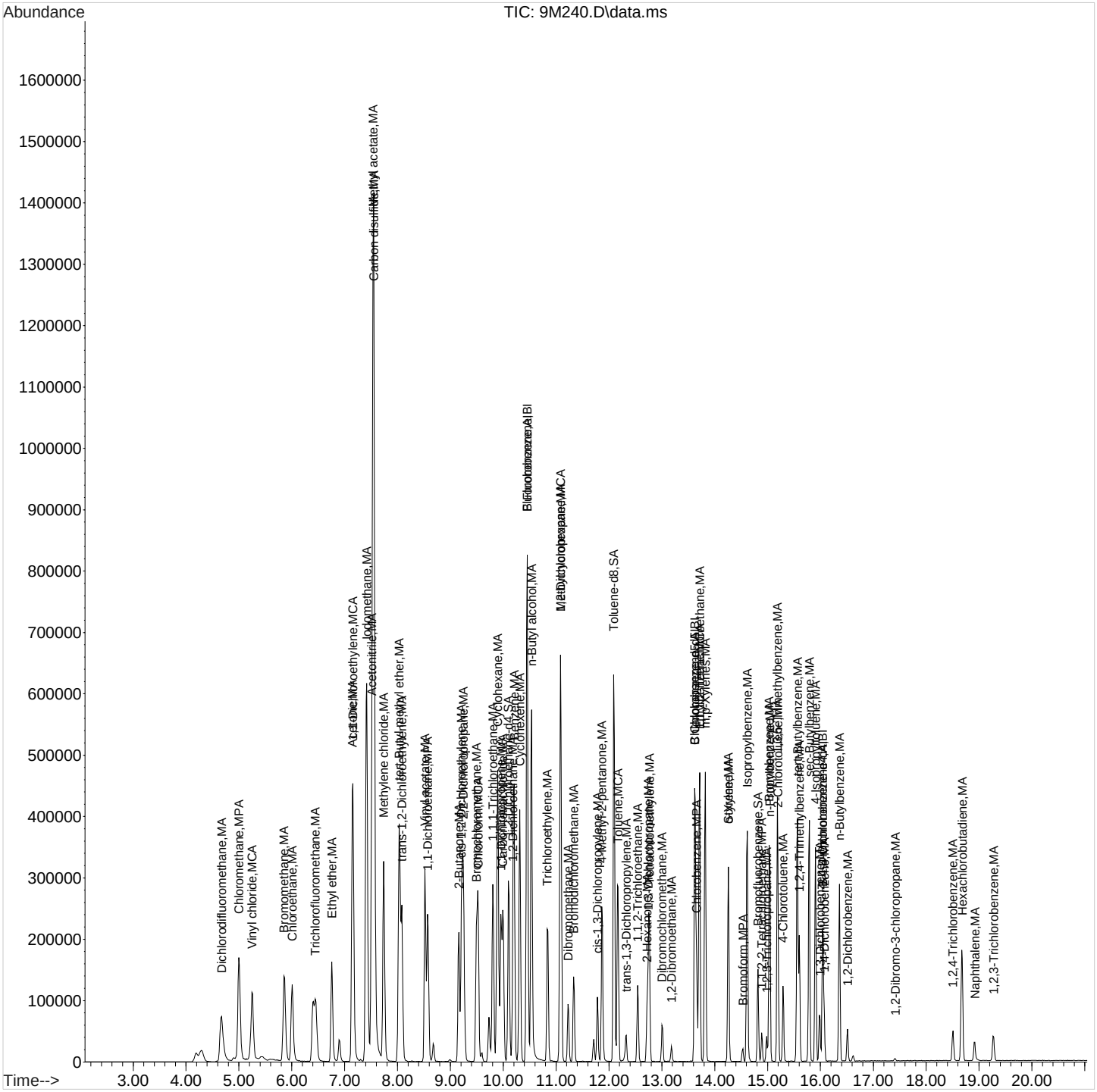
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d
97)	Tetrahydrofuran		9.528	9.540	0.912	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		12.315	12.304	0.904	0m	N.D.	d
106)	1-Chlorohexane		13.620	13.513	0.849	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.616	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.043	14.936	0.938	0m	N.D.	d
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M240.D
Acq On : 04 Oct 2017 03:57
Operator : RXY1
InstName : VOA9
Sample : |1203887116|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MS 433718010
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 04 10:15:21 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/18/2017 09:30**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1203885592**	**Date Received:**	**09/28/2017 10:00**		
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**AA-98PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 20:45**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 20:45**				
Data File:	**092917V6\6A526.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
96-12-8	1,2-Dibromo-3-chloropropane		38.8	ug/L	0.333	1.00
75-15-0	Carbon disulfide		217	ug/L	1.67	5.00
98-82-8	Isopropylbenzene		45.0	ug/L	0.333	1.00
179601-23-1	m,p-Xylenes		91.0	ug/L	0.667	2.00
95-47-6	o-Xylene		45.7	ug/L	0.333	1.00
75-00-3	Chloroethane		51.4	ug/L	0.333	1.00
74-87-3	Chloromethane		53.2	ug/L	0.333	1.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	2.98	5.00
75-01-4	Vinyl chloride		51.1	ug/L	0.333	1.00
108-10-1	4-Methyl-2-pentanone		227	ug/L	1.67	5.00
71-55-6	1,1,1-Trichloroethane		46.0	ug/L	0.333	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.0	ug/L	0.333	1.00
79-00-5	1,1,2-Trichloroethane		47.7	ug/L	0.333	1.00
75-34-3	1,1-Dichloroethane		47.6	ug/L	0.333	1.00
75-35-4	1,1-Dichloroethylene		45.0	ug/L	0.333	1.00
87-61-6	1,2,3-Trichlorobenzene	B	45.6	ug/L	0.333	1.00
120-82-1	1,2,4-Trichlorobenzene	B	44.2	ug/L	0.333	1.00
106-93-4	1,2-Dibromoethane		49.6	ug/L	0.333	1.00
95-50-1	1,2-Dichlorobenzene		45.8	ug/L	0.333	1.00
107-06-2	1,2-Dichloroethane		48.5	ug/L	0.333	1.00
78-87-5	1,2-Dichloropropane		46.5	ug/L	0.333	1.00
541-73-1	1,3-Dichlorobenzene		44.5	ug/L	0.333	1.00
106-46-7	1,4-Dichlorobenzene		44.3	ug/L	0.333	1.00
123-91-1	1,4-Dioxane	U	50.0	ug/L	16.7	50.0
78-93-3	2-Butanone		144	ug/L	1.67	5.00
591-78-6	2-Hexanone		176	ug/L	1.67	5.00
67-64-1	Acetone		128	ug/L	1.74	5.00
71-43-2	Benzene		44.6	ug/L	0.333	1.00
74-97-5	Bromochloromethane		46.8	ug/L	0.333	1.00
75-27-4	Bromodichloromethane		48.5	ug/L	0.333	1.00
75-25-2	Bromoform		42.0	ug/L	0.333	1.00
74-83-9	Bromomethane		51.9	ug/L	0.337	1.00
56-23-5	Carbon tetrachloride		47.1	ug/L	0.333	1.00
108-90-7	Chlorobenzene		45.6	ug/L	0.333	1.00
67-66-3	Chloroform		47.7	ug/L	0.333	1.00
110-82-7	Cyclohexane		44.9	ug/L	0.333	1.00
124-48-1	Dibromochloromethane		50.1	ug/L	0.333	1.00
75-71-8	Dichlorodifluoromethane		67.3	ug/L	0.355	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/18/2017 09:30**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1203885592**	**Date Received:**	**09/28/2017 10:00**		
Client Sample:	**QC for batch 1705051**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**AA-98PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705051**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**09/29/2017 20:45**	**Analyst:**	**JP1**	**Purge Vol:**	**5 mL**
Prep Date:	**09/29/2017 20:45**				
Data File:	**092917V6\6A526.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		45.7	ug/L	0.333	1.00
79-20-9	Methyl acetate		187	ug/L	1.67	5.00
108-87-2	Methylcyclohexane		44.9	ug/L	0.333	1.00
75-09-2	Methylene chloride	B	47.6	ug/L	1.67	5.00
100-42-5	Styrene		47.4	ug/L	0.333	1.00
127-18-4	Tetrachloroethylene		45.6	ug/L	0.333	1.00
108-88-3	Toluene		45.1	ug/L	0.333	1.00
79-01-6	Trichloroethylene		46.4	ug/L	0.333	1.00
75-69-4	Trichlorofluoromethane		53.0	ug/L	0.333	1.00
156-59-2	cis-1,2-Dichloroethylene		47.5	ug/L	0.333	1.00
10061-01-5	cis-1,3-Dichloropropylene		46.3	ug/L	0.333	1.00
1634-04-4	tert-Butyl methyl ether		45.7	ug/L	0.333	1.00
156-60-5	trans-1,2-Dichloroethylene		47.5	ug/L	0.333	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.6	ug/L	0.333	1.00

Quantitation Report
GEL Laboratories, LLC

JP
10/03/2017

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A526.D
Acq On : 29 Sep 2017 20:45
Operator : JP1
InstName : VOA6
Sample : |1203885592|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MSD
ALS Vial : 26 Sample Multiplier: 1

EM
10/05/2017

Quant Time: Oct 02 08:45:39 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	9.434	9.440	1.000	1131485	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	12.628	12.628	1.000	859226	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	152	15.055	15.049	1.000	460334	50.00	ug/L	0.00
84) B Fluorobenzene	96	9.434	9.440	1.000	1131485	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	12.628	12.628	1.000	859226	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	152	15.055	15.055	1.000	460334	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	9.086	9.086	0.963	297364	51.50	ug/L	0.00
45) Toluene-d8	98	11.092	11.092	0.878	1069317	50.16	ug/L	0.00
63) Bromofluorobenzene	95	13.829	13.829	0.919	460875	49.99	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	71 - 134	103%
45) Toluene-d8	50.000	74 - 124	100%
63) Bromofluorobenzene	50.000	70 - 131	100%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.001	4.001	0.424	362907	67.32	ug/L	99
3) Chloromethane	50	4.282	4.274	0.454	389091	53.19	ug/L	99
4) Vinyl chloride	62	4.506	4.498	0.478	340159	51.06	ug/L	99
5) Bromomethane	94	5.020	5.012	0.532	261117	51.91	ug/L	100
6) Chloroethane	64	5.148	5.148	0.546	315791	51.43	ug/L	99
7) Trichlorofluoromethane	101	5.549	5.549	0.588	530839	53.04	ug/L	99
8) Ethyl ether	59	5.822	5.822	0.617	323238	48.53	ug/L	90
9) Acetone	43	6.191	6.191	0.656	390226	127.85	ug/L	94
10) 1,1-Dichloroethylene	61	6.185	6.191	0.656	527122	45.04	ug/L	96
11) Iodomethane	142	6.422	6.422	0.681	2221261	218.39	ug/L	96
12) Acetonitrile	41	6.538	6.544	0.693	899343	1113.94	ug/L	100
13) Methyl acetate	43	6.569	6.569	0.696	877734	186.65	ug/L	96
14) Carbon disulfide	76	6.544	6.544	0.694	4525992	217.01	ug/L	100
15) Methylene chloride	84	6.752	6.752	0.716	334565	47.57	ug/L	90
16) tert-Butyl methyl ether	73	7.044	7.044	0.747	852129	45.66	ug/L	99
17) trans-1,2-Dichloroethy...	61	7.081	7.081	0.751	532569	47.46	ug/L	96
18) Hexane	57	7.361	7.361	0.780	528185	41.07	ug/L	93
19) Vinyl acetate	43	7.532	7.526	0.798	2926251	214.54	ug/L	96
20) 1,1-Dichloroethane	63	7.562	7.562	0.802	631042	47.57	ug/L	99
21) 2-Butanone	43	8.154	8.154	0.864	634141	144.16	ug/L	94
22) cis-1,2-Dichloroethylene	61	8.203	8.203	0.869	601611	47.53	ug/L	96
23) 2,2-Dichloropropane	77	8.227	8.227	0.872	479104	45.02	ug/L	86
24) Bromochloromethane	128	8.477	8.477	0.899	147550	46.82	ug/L #	87
25) Chloroform	83	8.513	8.513	0.902	537741	47.69	ug/L	99
26) 1,1,1-Trichloroethane	97	8.782	8.782	0.931	484181	46.00	ug/L	98
27) Cyclohexane	56	8.867	8.867	0.940	705554	44.88	ug/L	93
28) 1,1-Dichloropropene	75	8.940	8.940	0.948	398992	44.59	ug/L	90
29) Carbon tetrachloride	117	8.971	8.971	0.951	416007	47.09	ug/L	99
31) 1,2-Dichloroethane	62	9.166	9.166	0.972	460247	48.50	ug/L	100
32) Benzene	78	9.178	9.178	0.973	1210989	44.62	ug/L	96
33) Cyclohexene	67	9.288	9.288	0.984	583236	44.07	ug/L	96
34) n-Butyl alcohol	56	9.562	9.562	1.014	1051496	4788.95	ug/L	95
35) Trichloroethylene	95	9.824	9.824	1.041	318861	46.40	ug/L	99
36) 2-Pentanone	43	9.928	9.922	1.052	1124714	229.16	ug/L	95
37) 1,2-Dichloropropane	63	10.074	10.074	1.068	351669	46.53	ug/L	96
38) Methylcyclohexane	83	10.068	10.062	1.067	567368	44.90	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A526.D
Acq On : 29 Sep 2017 20:45
Operator : JP1
InstName : VOA6
Sample : |1203885592|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:45:39 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
39)	Dibromomethane	93	10.214	10.208	1.083	170869	47.55	ug/L	97
40)	Bromodichloromethane	83	10.330	10.330	1.095	400924	48.49	ug/L	100
41)	2-Chloroethylvinyl ether		0.000	10.562	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene	75	10.781	10.781	1.143	480804	46.33	ug/L	92
44)	4-Methyl-2-pentanone	58	10.885	10.885	0.862	608963	226.63	ug/L	93
46)	Toluene	91	11.165	11.165	0.884	1287322	45.11	ug/L	99
47)	trans-1,3-Dichloroprop...	75	11.336	11.336	0.898	432124	48.59	ug/L	92
48)	1,1,2-Trichloroethane	83	11.556	11.549	0.915	211386	47.66	ug/L	100
49)	2-Hexanone	43	11.744	11.744	0.930	963257	175.54	ug/L	95
50)	1,3-Dichloropropane	76	11.744	11.744	0.930	425204	46.54	ug/L	95
51)	Tetrachloroethylene	164	11.757	11.757	0.931	250068	45.55	ug/L	93
52)	Dibromochloromethane	129	12.007	12.007	0.951	275605	50.07	ug/L	99
53)	1,2-Dibromoethane	107	12.171	12.171	0.964	254819	49.62	ug/L	100
54)	Chlorobenzene	112	12.659	12.659	1.002	866454	45.59	ug/L	98
55)	1,1,1,2-Tetrachloroethane	131	12.720	12.720	1.007	309194	49.47	ug/L	100
56)	Ethylbenzene	91	12.726	12.726	1.008	1478484	45.72	ug/L	97
57)	m,p-Xylenes	106	12.842	12.842	1.017	1143275	90.99	ug/L	94
58)	o-Xylene	91	13.275	13.275	1.051	1206058	45.72	ug/L	96
59)	Styrene	104	13.281	13.281	1.052	943560	47.40	ug/L	96
61)	Bromoform	173	13.531	13.531	0.899	167856	42.00	ug/L	97
62)	Isopropylbenzene	105	13.634	13.634	0.906	1523868	45.01	ug/L	98
64)	1,1,2,2-Tetrachloroethane	83	13.921	13.921	0.925	335085	47.00	ug/L	100
65)	1,2,3-Trichloropropane	110	14.006	14.006	0.930	100929	47.50	ug/L	96
66)	Bromobenzene	156	14.037	14.037	0.932	361510	46.07	ug/L	97
67)	n-Propylbenzene	91	14.067	14.067	0.934	1789846	44.73	ug/L	97
68)	1,3,5-Trimethylbenzene	105	14.226	14.226	0.945	1302220	45.82	ug/L	98
69)	2-Chlorotoluene	126	14.207	14.207	0.944	360112	45.17	ug/L	94
70)	4-Chlorotoluene	91	14.311	14.311	0.951	1139505	44.98	ug/L	98
71)	tert-Butylbenzene	134	14.592	14.592	0.969	277295	45.08	ug/L	96
72)	1,2,4-Trimethylbenzene	105	14.634	14.634	0.972	1339696	45.74	ug/L	96
73)	sec-Butylbenzene	105	14.817	14.817	0.984	1700601	45.47	ug/L	100
74)	4-Isopropyltoluene	119	14.592	14.592	0.969	1118855	45.34	ug/L	97
75)	1,3-Dichlorobenzene	146	14.994	14.994	0.996	700166	44.50	ug/L	99
76)	1,4-Dichlorobenzene	146	15.079	15.079	1.002	694170	44.27	ug/L	100
77)	n-Butylbenzene	91	15.372	15.372	1.021	1306809	44.16	ug/L	99
78)	1,2-Dichlorobenzene	146	15.488	15.488	1.029	666540	45.84	ug/L	99
79)	1,2-Dibromo-3-chloropr...	157	16.311	16.305	1.083	53941	38.75	ug/L	95
80)	1,2,4-Trichlorobenzene	180	17.280	17.280	1.148	435834	44.17	ug/L	99
81)	Hexachlorobutadiene	225	17.445	17.439	1.159	285937	44.76	ug/L	100
82)	Naphthalene	128	17.627	17.627	1.171	976951	47.96	ug/L	99
83)	1,2,3-Trichlorobenzene	180	17.938	17.938	1.192	396591	45.58	ug/L	100
85)	Acrolein		0.000	6.020	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		6.185	6.178	0.656	0m	N.D.	d	
87)	Isopropyl Alcohol		6.185	6.276	0.656	0m	N.D.	d	
88)	Allyl chloride		6.538	6.605	0.693	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	6.770	0.000	0	N.D.		
90)	Acrylonitrile		7.050	7.007	0.747	0m	N.D.	d	
91)	Isopropyl ether		7.532	7.550	0.798	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		7.672	7.666	0.813	0m	N.D.	d	
93)	Ethyl tert-butyl ether		7.965	7.958	0.844	0m	N.D.	d	
94)	Ethyl acetate		8.154	8.172	0.864	0m	N.D.	d	
95)	Propionitrile		8.251	8.239	0.875	0m	N.D.	d	
96)	Methacrylonitrile		0.000	8.410	0.000	0	N.D.		
97)	Tetrahydrofuran		8.520	8.519	0.903	0m	N.D.	d	
98)	Isobutyl alcohol		8.867	8.867	0.940	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A526.D
Acq On : 29 Sep 2017 20:45
Operator : JP1
InstName : VOA6
Sample : |1203885592|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:45:39 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE

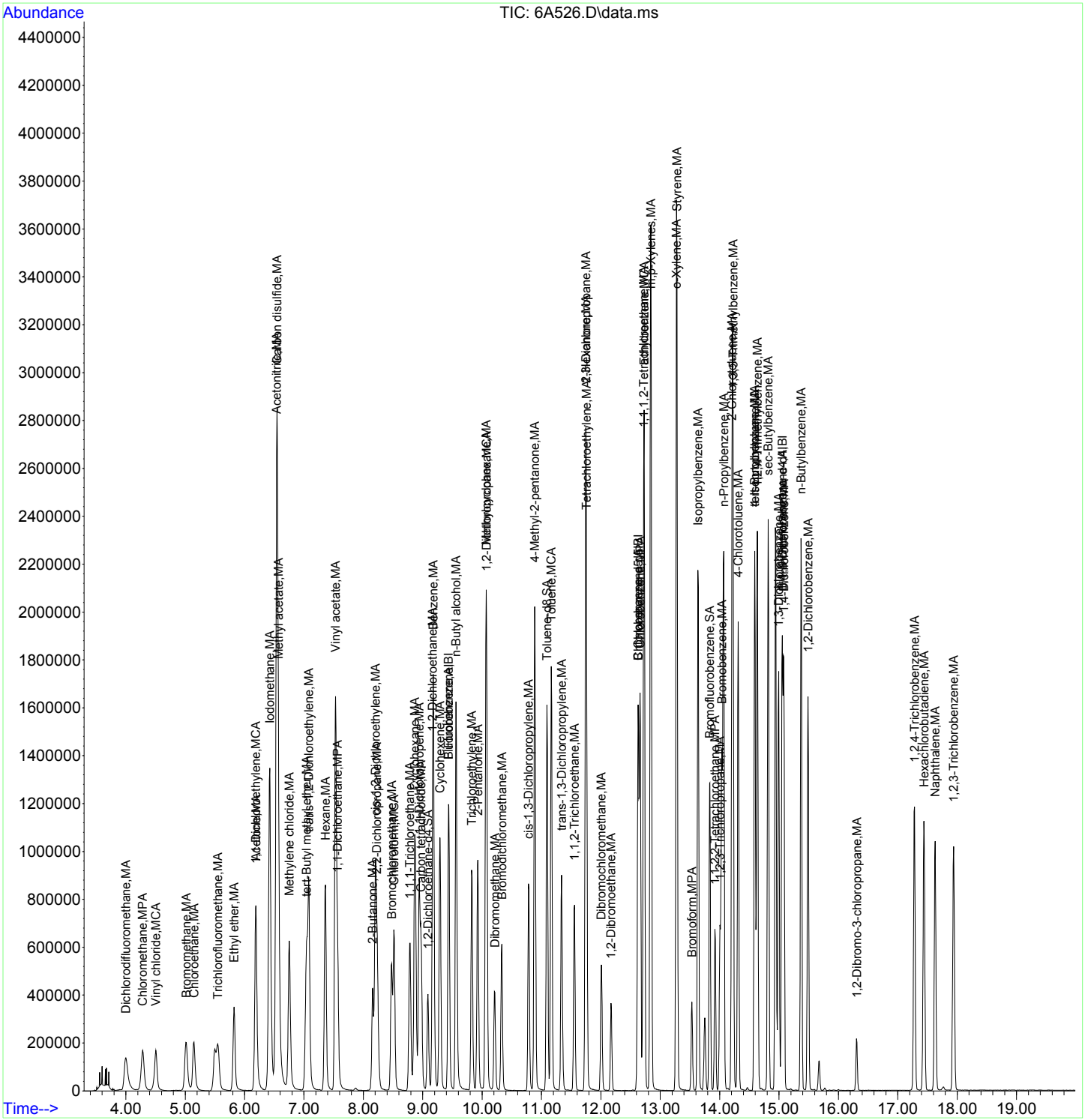
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
99)	Methyl tert-amyl ether		9.178	9.208	0.973	0m	N.D.	d
100)	Methyl methacrylate		10.068	10.062	1.067	0m	N.D.	d
101)	1,4-Dioxane		10.208	10.165	1.082	0m	N.D.	d
102)	2-Nitropropane		10.647	10.543	1.129	0m	N.D.	d
104)	Ethyl methacrylate		11.348	11.348	0.899	0m	N.D.	d
106)	1-Chlorohexane		12.543	12.537	0.833	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		13.634	13.683	0.906	0m	N.D.	d
108)	Cyclohexanone		13.805	13.787	0.917	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		13.982	13.976	0.929	0m	N.D.	d
110)	Pentachloroethane		14.652	14.652	0.973	0m	N.D.	d
111)	Benzyl chloride		15.195	15.195	1.009	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		15.591	15.591	1.036	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\data\092917V6\
Data File : 6A526.D
Acq On : 29 Sep 2017 20:45
Operator : JP1
InstName : VOA6
Sample : |1203885592|1705051|1|VOAF|1|VOA8260BL|
Misc : CNLD 5ML PH<2 MIX[A] 433845001MSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Oct 02 08:45:39 2017
Quant Method : C:\msdchem\1\data\091917V6\VOA6-8260-091917.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Wed Sep 20 08:48:03 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203887117**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2SOL11PSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**50**
Run Date:	**10/04/2017 03:30**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/02/2017 15:13**	**Aliquot:**	**5 g**	**Final Volume:**	**10 mL**
Data File:	**100317V9\9M239.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		5680	ug/kg	35.9	108
79-34-5	1,1,2,2-Tetrachloroethane		5500	ug/kg	35.9	108
79-00-5	1,1,2-Trichloroethane		5720	ug/kg	35.9	108
75-34-3	1,1-Dichloroethane		5770	ug/kg	35.9	108
75-35-4	1,1-Dichloroethylene		5630	ug/kg	35.9	108
107-06-2	1,2-Dichloroethane		5950	ug/kg	35.9	108
78-93-3	2-Butanone		26600	ug/kg	180	539
591-78-6	2-Hexanone		27700	ug/kg	180	539
108-10-1	4-Methyl-2-pentanone		25800	ug/kg	180	539
67-64-1	Acetone		25800	ug/kg	180	539
71-43-2	Benzene		5530	ug/kg	35.9	108
75-15-0	Carbon disulfide		30200	ug/kg	180	539
56-23-5	Carbon tetrachloride		5640	ug/kg	35.9	108
108-90-7	Chlorobenzene		5600	ug/kg	35.9	108
75-00-3	Chloroethane		5190	ug/kg	35.9	108
67-66-3	Chloroform		5720	ug/kg	35.9	108
74-87-3	Chloromethane		5740	ug/kg	35.9	108
100-41-4	Ethylbenzene		5130	ug/kg	35.9	108
75-09-2	Methylene chloride		6110	ug/kg	180	539
100-42-5	Styrene		5300	ug/kg	35.9	108
127-18-4	Tetrachloroethylene		5470	ug/kg	35.9	108
108-88-3	Toluene		5450	ug/kg	35.9	108
79-01-6	Trichloroethylene		5690	ug/kg	35.9	108
76-13-1	Trichlorotrifluoroethane	U	539	ug/kg	180	539
108-05-4	Vinyl acetate		26100	ug/kg	180	539
75-01-4	Vinyl chloride		5010	ug/kg	35.9	108
1330-20-7	Xylenes (total)		16700	ug/kg	108	323
156-59-2	cis-1,2-Dichloroethylene		5690	ug/kg	35.9	108
156-60-5	trans-1,2-Dichloroethylene		5660	ug/kg	35.9	108

RY
10/04/2017

EM
10/10/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M239.D
Acq On : 04 Oct 2017 03:30
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 04 10:15:18 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	96	10.453	10.454	1.000	1116764	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	852577	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	484409	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.453	10.454	1.000	1116764	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	852577	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	484409	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	270379	50.24	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	945608	49.38	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	415512	48.63	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	100%
45) Toluene-d8	50.000	81 - 120	99%
63) Bromofluorobenzene	50.000	70 - 130	97%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.657	4.672	0.446	253133	52.21	ug/L	99
3) Chloromethane	50	4.999	4.998	0.478	346520	53.24	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	283060	46.47	ug/L	100
5) Bromomethane	94	5.805	5.852	0.555	63952	12.79	ug/L	97
6) Chloroethane	64	5.959	6.006	0.570	250105	48.10	ug/L	99
7) Trichlorofluoromethane	101	6.422	6.445	0.614	392421	49.49	ug/L	100
8) Ethyl ether	59	6.754	6.754	0.646	242251	50.47	ug/L	99
9) Acetone	43	7.157	7.145	0.685	493429	239.15	ug/L	99
10) 1,1-Dichloroethylene	61	7.145	7.157	0.684	491041	52.23	ug/L	98
11) Iodomethane	142	7.406	7.418	0.708	2221759	245.13	ug/L	97
12) Acetonitrile	41	7.524	7.512	0.720	871478	1456.51	ug/L	99
13) Methyl acetate	43	7.548	7.548	0.722	903219	312.55	ug/L	100
14) Carbon disulfide	76	7.536	7.548	0.721	4479778	279.65	ug/L	99
15) Methylene chloride	84	7.738	7.738	0.740	334907	56.66	ug/L	98
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	840494	52.28	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	455693	52.49	ug/L	99
18) Hexane		0.000	8.354	0.000	0m	N.D.	d	
19) Vinyl acetate	43	8.521	8.520	0.815	2026721	242.07	ug/L	99
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	558384	53.52	ug/L	100
21) 2-Butanone	43	9.161	9.161	0.876	665718	246.46	ug/L	99
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	503372	52.76	ug/L	100
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	425952	49.58	ug/L	97
24) Bromochloromethane	128	9.493	9.493	0.908	140573	53.10	ug/L	97
25) Chloroform	83	9.517	9.528	0.910	492396	53.06	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	442800	52.64	ug/L	100
27) Cyclohexane	56	9.884	9.896	0.946	604073	49.88	ug/L	99
28) 1,1-Dichloropropene	75	9.955	9.955	0.952	377138	49.94	ug/L	99
29) Carbon tetrachloride	117	9.991	9.991	0.956	355397	52.27	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	347849	55.21	ug/L	100
32) Benzene	78	10.204	10.204	0.976	1165909	51.30	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	573073	49.49	ug/L	99
34) n-Butyl alcohol	41	10.536	10.536	1.008	535116	5527.33	ug/L	99
35) Trichloroethylene	95	10.833	10.833	1.036	290379	52.74	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M239.D
Acq On : 04 Oct 2017 03:30
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 04 10:15:18 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane	63	11.082	11.094	1.060	291531	52.09	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	583798	51.21	ug/L	99
39)	Dibromomethane	93	11.224	11.224	1.074	155890	53.38	ug/L	97
40)	Bromodichloromethane	83	11.331	11.331	1.084	349814	52.71	ug/L	100
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0m	N.D.	d	
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	442630	50.67	ug/L	99
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	491266	238.97	ug/L	97
46)	Toluene	91	12.161	12.173	0.893	1128034	50.59	ug/L	98
47)	trans-1,3-Dichloroprop...	75	12.315	12.315	0.904	380667	52.08	ug/L	99
48)	1,1,2-Trichloroethane	83	12.541	12.540	0.921	201414	53.04	ug/L	100
49)	2-Hexanone	43	12.707	12.718	0.933	871848	256.98	ug/L	98
50)	1,3-Dichloropropane	76	12.730	12.742	0.935	391332	52.46	ug/L	94
51)	Tetrachloroethylene	164	12.754	12.766	0.936	222744	50.75	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	236440	52.60	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	237499	53.68	ug/L	100
54)	Chlorobenzene	112	13.655	13.655	1.003	747097	51.96	ug/L	99
55)	1,1,1,2-Tetrachloroethane	131	13.703	13.714	1.006	271759	55.21	ug/L	99
56)	Ethylbenzene	91	13.715	13.714	1.007	1250574	47.61	ug/L	99
57)	m,p-Xylenes	106	13.821	13.821	1.015	1041121	103.73	ug/L	98
58)	o-Xylene	106	14.260	14.260	1.047	543476	51.11	ug/L	98
59)	Styrene	104	14.260	14.260	1.047	848623	49.20	ug/L	100
61)	Bromoform	173	14.533	14.533	0.906	144595	48.44	ug/L	99
62)	Isopropylbenzene	105	14.616	14.616	0.911	1368235	49.29	ug/L	99
64)	1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	330739	50.97	ug/L	99
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	90276	53.17	ug/L	98
66)	Bromobenzene	156	15.031	15.031	0.937	343558	50.14	ug/L	91
67)	n-Propylbenzene	91	15.031	15.043	0.937	1569030	46.28	ug/L	98
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	1154359	49.65	ug/L	98
69)	2-Chlorotoluene	126	15.197	15.197	0.948	340221	50.50	ug/L	95
70)	4-Chlorotoluene	91	15.292	15.292	0.953	1013162	48.86	ug/L	98
71)	tert-Butylbenzene	134	15.564	15.564	0.970	258871	50.60	ug/L	95
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	1162023	47.31	ug/L	93
73)	sec-Butylbenzene	105	15.790	15.790	0.984	1579957	48.15	ug/L	99
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	1327751	48.80	ug/L	99
75)	1,3-Dichlorobenzene	146	15.980	15.991	0.996	664197	47.92	ug/L	100
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	653452	49.99	ug/L	99
77)	n-Butylbenzene	91	16.359	16.359	1.020	1249749	56.67	ug/L	98
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	664011	50.03	ug/L	100
79)	1,2-Dibromo-3-chloropr...	157	17.414	17.414	1.086	65109	47.81	ug/L	97
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	512409	53.88	ug/L	99
81)	Hexachlorobutadiene	225	18.671	18.683	1.164	314280	53.41	ug/L	99
82)	Naphthalene	128	18.909	18.908	1.179	1181923	56.59	ug/L	100
83)	1,2,3-Trichlorobenzene	180	19.264	19.276	1.201	487737	56.18	ug/L	100
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.287	7.228	0.697	0m	N.D.	d	
88)	Allyl chloride		7.524	7.596	0.720	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M239.D
Acq On : 04 Oct 2017 03:30
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 04 10:15:18 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

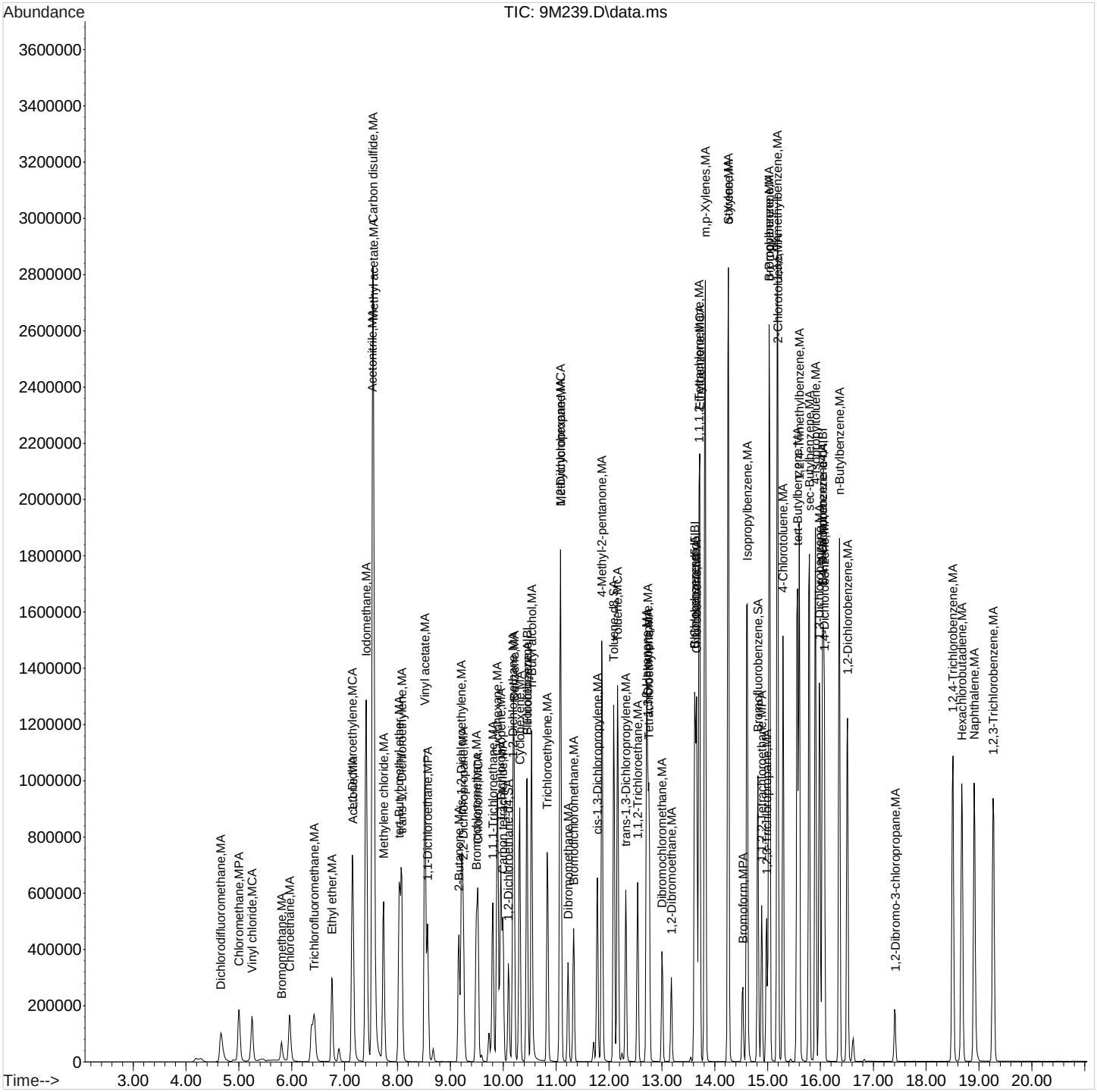
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.517	9.422	0.910	0m	N.D.	d
97)	Tetrahydrofuran		9.517	9.540	0.910	0m	N.D.	d
98)	Isobutyl alcohol		9.884	9.849	0.946	0m	N.D.	d
99)	Methyl tert-amyl ether		10.204	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		11.224	11.165	1.074	0m	N.D.	d
102)	2-Nitropropane		11.544	11.533	1.104	0m	N.D.	d
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.549	13.513	0.845	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110)	Pentachloroethane		15.636	15.636	0.975	0m	N.D.	d
111)	Benzyl chloride		16.193	16.193	1.010	0m	N.D.	d
112)	bis(2-Chloroisopropyl)...		16.608	16.584	1.035	0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M239.D
Acq On : 04 Oct 2017 03:30
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|50|VOA|2|VOA8260BS|
Misc : URSC 100uL n/a SOIL MIX[A] MS 433718010
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 04 10:15:18 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 14:10**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203887117**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
Client Sample:	**QC for batch 1705692**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2SOL11REPSD**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**1705693**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**10/04/2017 04:24**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**10/03/2017 14:49**	**Aliquot:**	**4.4 g**	**Final Volume:**	**5 mL**
Data File:	**100317V9\9M241.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
71-55-6	1,1,1-Trichloroethane		43.9	ug/kg	0.408	1.23
79-34-5	1,1,2,2-Tetrachloroethane		41.7	ug/kg	0.408	1.23
79-00-5	1,1,2-Trichloroethane		38.9	ug/kg	0.408	1.23
75-34-3	1,1-Dichloroethane		45.2	ug/kg	0.408	1.23
75-35-4	1,1-Dichloroethylene		42.5	ug/kg	0.408	1.23
107-06-2	1,2-Dichloroethane		26.8	ug/kg	0.408	1.23
78-93-3	2-Butanone		202	ug/kg	2.04	6.13
591-78-6	2-Hexanone		43.1	ug/kg	2.04	6.13
108-10-1	4-Methyl-2-pentanone		154	ug/kg	2.04	6.13
67-64-1	Acetone		340	ug/kg	2.04	6.13
71-43-2	Benzene		29.3	ug/kg	0.408	1.23
75-15-0	Carbon disulfide		194	ug/kg	2.04	6.13
56-23-5	Carbon tetrachloride		41.5	ug/kg	0.408	1.23
108-90-7	Chlorobenzene		19.2	ug/kg	0.408	1.23
75-00-3	Chloroethane		55.5	ug/kg	0.408	1.23
67-66-3	Chloroform		39.5	ug/kg	0.408	1.23
74-87-3	Chloromethane		78.8	ug/kg	0.408	1.23
100-41-4	Ethylbenzene		28.4	ug/kg	0.408	1.23
75-09-2	Methylene chloride		53.5	ug/kg	2.04	6.13
100-42-5	Styrene		9.19	ug/kg	0.408	1.23
127-18-4	Tetrachloroethylene		45.9	ug/kg	0.408	1.23
108-88-3	Toluene		38.7	ug/kg	0.408	1.23
79-01-6	Trichloroethylene		23.3	ug/kg	0.408	1.23
76-13-1	Trichlorotrifluoroethane	U	6.13	ug/kg	2.04	6.13
108-05-4	Vinyl acetate		86.4	ug/kg	2.04	6.13
75-01-4	Vinyl chloride		54.0	ug/kg	0.408	1.23
1330-20-7	Xylenes (total)		67.1	ug/kg	1.23	3.68
156-59-2	cis-1,2-Dichloroethylene		33.3	ug/kg	0.408	1.23
156-60-5	trans-1,2-Dichloroethylene		29.7	ug/kg	0.408	1.23

RY
10/04/2017

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M241.D
Acq On : 04 Oct 2017 04:24
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MSD 433718010
ALS Vial : 41 Sample Multiplier: 1

EM
10/10/2017

Quant Time: Oct 04 10:15:24 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	96	10.454	10.454	1.000	838259	50.00	ug/L	0.00
43) Chlorobenzene-d5	117	13.620	13.632	1.000	270608	50.00	ug/L	-0.01
60) 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	55170	50.00	ug/L	-0.01
84) B Fluorobenzene	96	10.454	10.454	1.000	838259	50.00	ug/L	0.00
103) B Chlorobenzene-d5	117	13.620	13.632	1.000	270608	50.00	ug/L	-0.01
105) B 1,4-Dichlorobenzene-d4	152	16.039	16.051	1.000	55170	50.00	ug/L	-0.01
System Monitoring Compounds								Dev(Min)
30) 1,2-Dichloroethane-d4	65	10.098	10.098	0.966	247147	61.18	ug/L	0.00
45) Toluene-d8	98	12.090	12.090	0.888	448490	73.79	ug/L	0.00
63) Bromofluorobenzene	95	14.817	14.817	0.924	49512	50.87	ug/L	0.00

Compound	Amount	Range	Recovery
30) 1,2-Dichloroethane-d4	50.000	81 - 124	122%
45) Toluene-d8	50.000	81 - 120	148%#
63) Bromofluorobenzene	50.000	70 - 130	102%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	85	4.672	4.672	0.447	183303	50.37	ug/L	99
3) Chloromethane	50	4.999	4.998	0.478	314137	64.30	ug/L	100
4) Vinyl chloride	62	5.248	5.259	0.502	201495	44.07	ug/L	100
5) Bromomethane	94	5.852	5.852	0.560	157184	41.89	ug/L	97
6) Chloroethane	64	6.007	6.006	0.575	176909	45.33	ug/L	99
7) Trichlorofluoromethane	101	6.445	6.445	0.617	242891	40.81	ug/L	100
8) Ethyl ether	59	6.754	6.754	0.646	118981	33.02	ug/L	99
9) Acetone	43	7.145	7.145	0.684	428792	277.55	ug/L	100
10) 1,1-Dichloroethylene	61	7.157	7.157	0.685	244742	34.68	ug/L	98
11) Iodomethane	142	7.406	7.418	0.708	1050781	154.45	ug/L	97
12) Acetonitrile	41	7.513	7.512	0.719	808208	1804.31	ug/L	99
13) Methyl acetate	43	7.536	7.548	0.721	543834	249.87	ug/L	99
14) Carbon disulfide	76	7.548	7.548	0.722	1929566	158.72	ug/L	97
15) Methylene chloride	84	7.738	7.738	0.740	195028	43.65	ug/L	98
16) tert-Butyl methyl ether	73	8.034	8.034	0.769	541421	44.86	ug/L	100
17) trans-1,2-Dichloroethy...	61	8.082	8.082	0.773	158098	24.26	ug/L	96
18) Hexane		0.000	8.354	0.000	0	N.D.		
19) Vinyl acetate	43	8.521	8.520	0.815	460986	70.49	ug/L	96
20) 1,1-Dichloroethane	63	8.568	8.568	0.820	288813	36.88	ug/L	99
21) 2-Butanone	43	9.161	9.161	0.876	336493	164.92	ug/L	98
22) cis-1,2-Dichloroethylene	61	9.208	9.208	0.881	194725	27.19	ug/L	94
23) 2,2-Dichloropropane	77	9.244	9.244	0.884	237565	36.84	ug/L	94
24) Bromochloromethane	128	9.493	9.493	0.908	58818	29.60	ug/L	97
25) Chloroform	83	9.517	9.528	0.910	224436	32.22	ug/L	99
26) 1,1,1-Trichloroethane	97	9.801	9.801	0.938	226046	35.80	ug/L	100
27) Cyclohexane	56	9.896	9.896	0.947	281342	30.95	ug/L	98
28) 1,1-Dichloropropene	75	9.956	9.955	0.952	118706	20.94	ug/L	98
29) Carbon tetrachloride	117	9.991	9.991	0.956	172934	33.89	ug/L	100
31) 1,2-Dichloroethane	62	10.181	10.181	0.974	103359	21.86	ug/L	96
32) Benzene	78	10.205	10.204	0.976	407920	23.91	ug/L	100
33) Cyclohexene	67	10.311	10.311	0.986	243153	27.98	ug/L	98
34) n-Butyl alcohol	41	10.537	10.536	1.008	293943	4028.32	ug/L	95
35) Trichloroethylene	95	10.833	10.833	1.036	78587	19.01	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M241.D
Acq On : 04 Oct 2017 04:24
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MSD 433718010
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 04 10:15:24 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
36)	2-Pentanone		0.000	10.916	0.000	0	N.D.		
37)	1,2-Dichloropropane	63	11.082	11.094	1.060	90296	21.49	ug/L	100
38)	Methylcyclohexane	83	11.082	11.082	1.060	199114	23.27	ug/L	96
39)	Dibromomethane	93	11.224	11.224	1.074	42474	19.37	ug/L	96
40)	Bromodichloromethane	83	11.331	11.331	1.084	101071	20.29	ug/L	99
41)	2-Chloroethylvinyl ether		0.000	11.544	0.000	0	N.D.		
42)	cis-1,3-Dichloropropylene	75	11.782	11.782	1.127	61137	9.32	ug/L	98
44)	4-Methyl-2-pentanone	58	11.865	11.865	0.871	81984	125.64	ug/L	89
46)	Toluene	91	12.161	12.173	0.893	223694	31.61	ug/L	95
47)	trans-1,3-Dichloroprop...	75	12.327	12.315	0.905	25237	10.88	ug/L	95
48)	1,1,2-Trichloroethane	83	12.541	12.540	0.921	38214	31.71	ug/L	98
49)	2-Hexanone	43	12.719	12.718	0.934	41944	35.14	ug/L	92
50)	1,3-Dichloropropane	76	12.742	12.742	0.936	52642	22.23	ug/L	78
51)	Tetrachloroethylene	164	12.766	12.766	0.937	52210	37.48	ug/L	99
52)	Dibromochloromethane	129	13.003	13.003	0.955	35707	25.03	ug/L	99
53)	1,2-Dibromoethane	107	13.181	13.181	0.968	18163	12.93	ug/L	95
54)	Chlorobenzene	112	13.655	13.655	1.003	71424	15.65	ug/L	95
55)	1,1,1,2-Tetrachloroethane	131	13.715	13.714	1.007	57051	36.52	ug/L	98
56)	Ethylbenzene	91	13.715	13.714	1.007	193641	23.22	ug/L	95
57)	m,p-Xylenes	106	13.821	13.821	1.015	122697	38.51	ug/L	84
58)	o-Xylene	106	14.260	14.260	1.047	54935	16.28	ug/L	81
59)	Styrene	104	14.260	14.260	1.047	41061	7.50	ug/L	86
61)	Bromoform	173	14.533	14.533	0.906	10497	30.88	ug/L	98
62)	Isopropylbenzene	105	14.616	14.616	0.911	229060	72.45	ug/L	95
64)	1,1,2,2-Tetrachloroethane	83	14.889	14.888	0.928	25170	34.06	ug/L	95
65)	1,2,3-Trichloropropane	110	14.983	14.983	0.934	6018	31.12	ug/L #	78
66)	Bromobenzene	156	15.031	15.031	0.937	14248	18.26	ug/L #	66
67)	n-Propylbenzene	91	15.031	15.043	0.937	199266	51.61	ug/L	94
68)	1,3,5-Trimethylbenzene	105	15.185	15.185	0.947	118978	44.94	ug/L	94
69)	2-Chlorotoluene	126	15.197	15.197	0.948	26074	33.98	ug/L #	68
70)	4-Chlorotoluene	91	15.292	15.292	0.953	54401	23.04	ug/L	92
71)	tert-Butylbenzene	134	15.565	15.564	0.970	41607	71.41	ug/L	96
72)	1,2,4-Trimethylbenzene	105	15.600	15.600	0.973	81420	29.10	ug/L #	28
73)	sec-Butylbenzene	105	15.790	15.790	0.984	228211	61.07	ug/L	94
74)	4-Isopropyltoluene	119	15.908	15.908	0.992	153752	49.62	ug/L	97
75)	1,3-Dichlorobenzene	146	15.991	15.991	0.997	23206	14.70	ug/L	96
76)	1,4-Dichlorobenzene	146	16.074	16.074	1.002	18895	12.69	ug/L	97
77)	n-Butylbenzene	91	16.359	16.359	1.020	118314	46.94	ug/L	91
78)	1,2-Dichlorobenzene	146	16.513	16.513	1.030	15815	10.46	ug/L	95
79)	1,2-Dibromo-3-chloropr...	157	17.415	17.414	1.086	791	5.10	ug/L	83
80)	1,2,4-Trichlorobenzene	180	18.505	18.505	1.154	10192	8.62	ug/L	96
81)	Hexachlorobutadiene	225	18.672	18.683	1.164	38272	57.16	ug/L	99
82)	Naphthalene	128	18.921	18.908	1.180	14601	5.12	ug/L	96
83)	1,2,3-Trichlorobenzene	180	19.276	19.276	1.202	9100	8.39	ug/L	98
85)	Acrolein		0.000	6.979	0.000	0	N.D.		
86)	Trichlorotrifluoroethane		0.000	7.133	0.000	0	N.D.		
87)	Isopropyl Alcohol		7.299	7.228	0.698	0m	N.D.	d	
88)	Allyl chloride		7.513	7.596	0.719	0m	N.D.	d	
89)	tert-Butyl Alcohol		0.000	7.738	0.000	0	N.D.		
90)	Acrylonitrile		8.034	7.999	0.769	0m	N.D.	d	
91)	Isopropyl ether		8.521	8.544	0.815	0m	N.D.	d	
92)	2-Chloro-1,3-butadiene		8.675	8.675	0.830	0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M241.D
Acq On : 04 Oct 2017 04:24
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MSD 433718010
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 04 10:15:24 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE

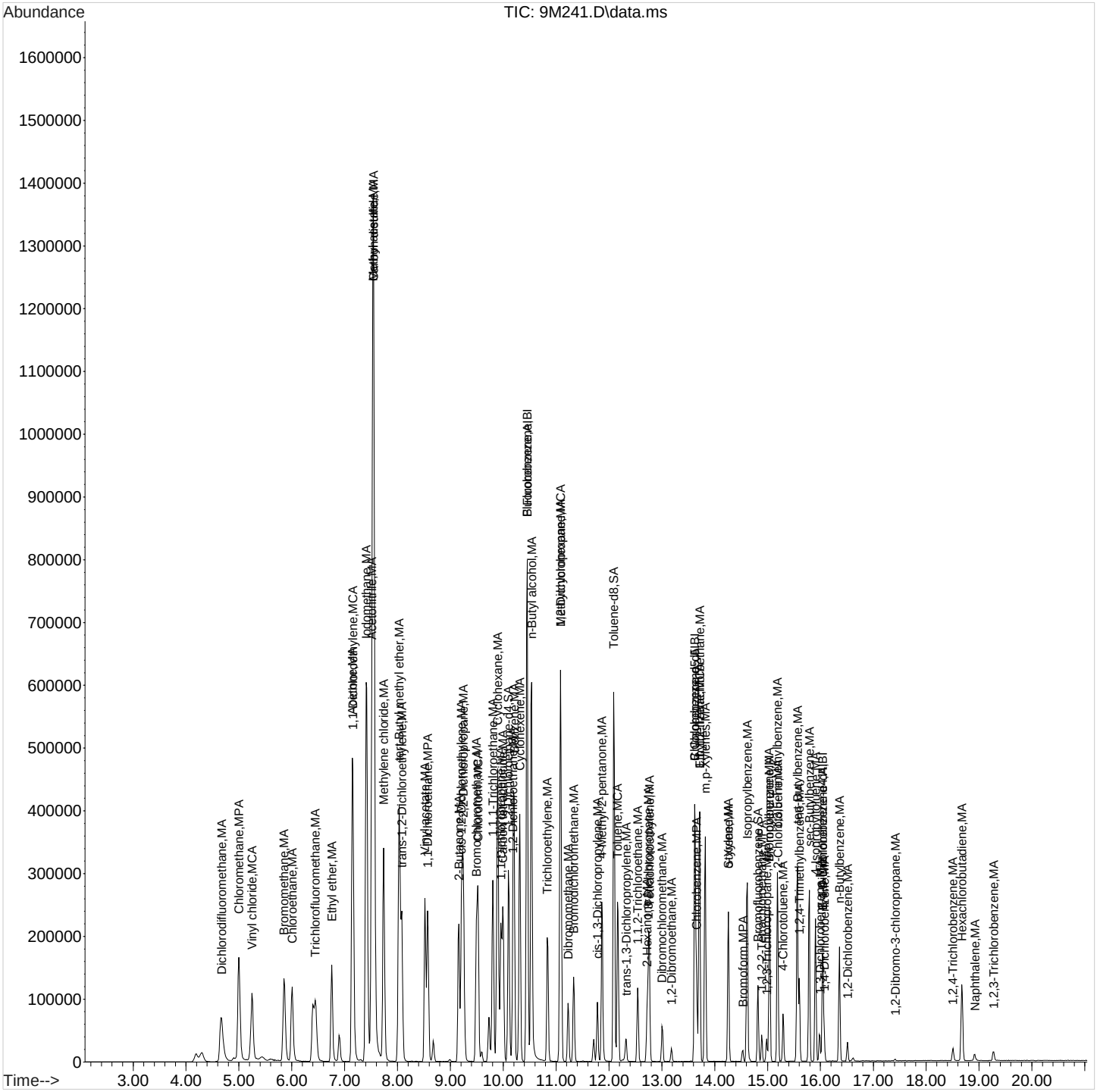
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units
93)	Ethyl tert-butyl ether		0.000	8.948	0.000	0	N.D.	
94)	Ethyl acetate		9.161	9.161	0.876	0m	N.D.	d
95)	Propionitrile		9.161	9.244	0.876	0m	N.D.	d
96)	Methacrylonitrile		9.505	9.422	0.909	0m	N.D.	d
97)	Tetrahydrofuran		9.505	9.540	0.909	0m	N.D.	d
98)	Isobutyl alcohol		9.896	9.849	0.947	0m	N.D.	d
99)	Methyl tert-amyl ether		10.205	10.205	0.976	0m	N.D.	d
100)	Methyl methacrylate		11.082	11.047	1.060	0m	N.D.	d
101)	1,4-Dioxane		0.000	11.165	0.000	0	N.D.	
102)	2-Nitropropane		0.000	11.533	0.000	0	N.D.	
104)	Ethyl methacrylate		0.000	12.304	0.000	0	N.D.	
106)	1-Chlorohexane		13.620	13.513	0.849	0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene		14.604	14.651	0.911	0m	N.D.	d
108)	Cyclohexanone		14.604	14.782	0.911	0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...		15.031	14.936	0.937	0m	N.D.	d
110)	Pentachloroethane		0.000	15.636	0.000	0	N.D.	
111)	Benzyl chloride		0.000	16.193	0.000	0	N.D.	
112)	bis(2-Chloroisopropyl)...		0.000	16.584	0.000	0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\100317V9\
Data File : 9M241.D
Acq On : 04 Oct 2017 04:24
Operator : RXY1
InstName : VOA9
Sample : |1203887117|1705693|1|VOA|1|VOA8260BS|
Misc : URSC 5g n/a SOIL MIX[A] MSD 433718010
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 04 10:15:24 2017
Quant Method : C:\msdchem\1\DATA\090617V9\VOA9-8260-090617.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Sep 07 09:55:18 2017
Response via : Initial Calibration
Integrator: RTE



Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **1705692**
Analyst: Ramona Yarbrough
Method: SW846 5030
Lab SOP: GL-OA-E-038 REV# 26
Instrument: Volatiles Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
1203887113 MB	02-OCT-2017 10:00:00	Soil	5	5	1	N/A
1203887115 LCS	02-OCT-2017 10:01:00	Soil	5	5	1	N/A
1203887114 HB	02-OCT-2017 15:05:00	Soil	5	10	2	N/A
433718001 - 2	02-OCT-2017 15:06:00	Soil	5	10	2	N/A
433718002 - 2	02-OCT-2017 15:07:00	Soil	5	10	2	N/A
433718003 - 2	02-OCT-2017 15:08:00	Soil	5	10	2	N/A
433718006 - 2	02-OCT-2017 15:09:00	Soil	5.1	10	1.96078	N/A
433718007 - 2	02-OCT-2017 15:10:00	Soil	5.1	10	1.96078	N/A
433718008 - 2	02-OCT-2017 15:11:00	Soil	5.1	10	1.96078	N/A
433718009 - 2	02-OCT-2017 15:12:00	Soil	5.2	10	1.92308	N/A
433718010 - 2	02-OCT-2017 15:13:00	Soil	5	10	2	N/A
1203887116 - 2 PS (433718010)	02-OCT-2017 15:13:00	Soil	5	10	2	N/A
1203887117 - 2 PSD (433718010)	02-OCT-2017 15:13:00	Soil	5	10	2	N/A
433718011 - 2	02-OCT-2017 15:14:00	Soil	5.2	10	1.92308	N/A
433718012 - 2	02-OCT-2017 15:15:00	Soil	5	10	2	N/A
433718013 - 2	02-OCT-2017 15:16:00	Soil	5.5	10	1.81818	N/A
433718014 - 2	02-OCT-2017 15:17:00	Soil	5	10	2	N/A
433718015 - 2	02-OCT-2017 15:18:00	Soil	5.1	10	1.96078	N/A
433718016 - 2	02-OCT-2017 15:19:00	Soil	5.8	10	1.72414	N/A
433718017 - 2	02-OCT-2017 15:20:00	Soil	5.6	10	1.78571	N/A
1203887685 MB	03-OCT-2017 09:00:00	Soil	5	5	1	N/A
1203887687 LCS	03-OCT-2017 09:01:00	Soil	5	5	1	N/A
433718001	03-OCT-2017 12:00:00	Soil	5	5	1	N/A
433718002	03-OCT-2017 12:01:00	Soil	5	5	1	N/A
433718003	03-OCT-2017 12:02:00	Soil	5	5	1	N/A
433718006	03-OCT-2017 12:03:00	Soil	5	5	1	N/A
433718007	03-OCT-2017 12:04:00	Soil	5	5	1	N/A
433718008	03-OCT-2017 12:05:00	Soil	5	5	1	N/A
433718009	03-OCT-2017 12:06:00	Soil	5	5	1	N/A
433718010	03-OCT-2017 12:07:00	Soil	5	5	1	N/A
433718011	03-OCT-2017 12:08:00	Soil	5	5	1	N/A
433718012	03-OCT-2017 12:09:00	Soil	5	5	1	N/A
433718013	03-OCT-2017 12:10:00	Soil	5	5	1	N/A
433718014	03-OCT-2017 12:11:00	Soil	5	5	1	N/A
433718015	03-OCT-2017 12:12:00	Soil	5	5	1	N/A

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check
433718016	03-OCT-2017 12:13:00	Soil	5	5	1	N/A
433718017	03-OCT-2017 12:14:00	Soil	5	5	1	N/A
433718018	03-OCT-2017 14:45:00	Soil	5	5	1	N/A
433718019	03-OCT-2017 14:46:00	Soil	5	5	1	N/A
433718020	03-OCT-2017 14:47:00	Soil	5	5	1	N/A
1203887116 PS (433718010)	03-OCT-2017 14:48:00	Soil	4.4	5	1.13636	N/A
1203887117 PSD (433718010)	03-OCT-2017 14:49:00	Soil	4.4	5	1.13636	N/A
433718018 - 2	03-OCT-2017 14:50:00	Soil	6	10	1.66667	N/A
433718019 - 2	03-OCT-2017 14:51:00	Soil	5	10	2	N/A
433718020 - 2	03-OCT-2017 14:52:00	Soil	5.1	10	1.96078	N/A
1203888700 HB	03-OCT-2017 14:53:00	Soil	5	10	2	N/A
1203887686 MB	03-OCT-2017 15:00:00	Soil	5	5	1	N/A
1203887688 LCS	03-OCT-2017 15:01:00	Soil	5	5	1	N/A

Reagent/Solvent Lot ID	Description	Amount

Comments:

JP
09/21/2017

EM
09/20/2017

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 9/19/2017 Method 8260B/624 Operator: JP1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1553

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/19/2017

CI test lot # 6021
Sequence Number: 091917V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV			5uL ea.		
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
LCS/MS				5uL ea.	
BFB	IVM170821-01				1
SHORT			5uL ea.		
SH LCS				5uL ea.	

Purge Amount	
5ML	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
9/19/2017	13:21	6Z201.D	IVM170821-01	GEL	BFB	10ML	1	N/A	1	W/S	JP1	N/A	O	
9/19/2017	13:49	6Z202.D	W6VM170919-01	VSTD0005	ICAL	5UL	1	MIX[A]	2	W	JP1	N/A	O	UVM170726-01/UVM170829-01C/UVM170608-01C
9/19/2017	14:17	6Z203.D	W6VM170919-02	VSTD001	ICAL	5UL	1	MIX[A]	3	W	JP1	N/A	O	UVM170726-02/UVM170829-02C/UVM170608-02C
9/19/2017	14:45	6Z204.D	W6VM170919-03	VSTD002	ICAL	5UL	1	MIX[A]	4	W	JP1	N/A	O	UVM170726-03/UVM170829-03C/UVM170608-03C
9/19/2017	15:14	6Z205.D	W6VM170919-04	VSTD005	ICAL	5UL	1	MIX[A]	5	W	JP1	N/A	O	UVM170726-04/UVM170829-04C/UVM170608-04C
9/19/2017	15:42	6Z206.D	W6VM170919-05	VSTD010	ICAL	5UL	1	MIX[A]	6	W	JP1	N/A	O	UVM170726-05/UVM170829-05C/UVM170608-05C
9/19/2017	16:10	6Z207.D	W6VM170919-06	VSTD020	ICAL	5UL	1	MIX[A]	7	W	JP1	N/A	O	UVM170726-06/UVM170829-06C/UVM170608-06C
9/19/2017	16:37	6Z208.D	W6VM170919-07	VSTD050	ICAL	5UL	1	MIX[A]	8	W	JP1	N/A	O	UVM170726-07/UVM170829-07C/UVM170608-07C
9/19/2017	17:05	6Z209.D	W6VM170919-08	VSTD080	ICAL	4UL	1	MIX[A]	9	W	JP1	N/A	O	UVM170726-08/UVM170829-08C/UVM170608-08C
9/19/2017	17:33	6Z210.D	W6VM170919-09	VSTD100	ICAL	5UL	1	MIX[A]	10	W	JP1	N/A	O	UVM170726-08/UVM170829-08C/UVM170608-08C
9/19/2017	18:01	6Z211.D	120371	GEL	BLANK	5mL	1	N/A	11	W	JP1	N/A	X	RINSE
9/19/2017	18:30	6Z212.D	W6VM170919-10	GEL	ICV	50	1	MIX[A]	12	W	JP1	N/A	O	MIX[A] UVM170607-10E/UVM170829-10E/IVM170915-02/UVM170608-09A
9/19/2017	18:58	6Z213.D	W6VM170919-11	VSTD005	ICAL	5UL	1	MIX[B]	13	W	JP1	N/A	O	UVM170731-01A/UVM170824-01A
9/19/2017	19:25	6Z214.D	W6VM170919-12	VSTD010	ICAL	5UL	1	MIX[B]	14	W	JP1	N/A	O	UVM170731-02A/UVM170824-02A
9/19/2017	19:53	6Z215.D	W6VM170919-13	VSTD025	ICAL	5UL	1	MIX[B]	15	W	JP1	N/A	O	UVM170731-03A/UVM170824-03A
9/19/2017	20:22	6Z216.D	W6VM170919-14	VSTD050	ICAL	5UL	1	MIX[B]	16	W	JP1	N/A	O	UVM170731-04A/UVM170824-04A
9/19/2017	20:50	6Z217.D	W6VM170919-15	VSTD100	ICAL	5UL	1	MIX[B]	17	W	JP1	N/A	O	UVM170731-05A/UVM170824-05A
9/19/2017	21:18	6Z218.D	W6VM170919-16	VSTD250	ICAL	5UL	1	MIX[B]	18	W	JP1	N/A	O	UVM170731-06A/UVM170824-06A
9/19/2017	21:46	6Z219.D	W6VM170919-17	VSTD300	ICAL	3UL	1	MIX[B]	19	W	JP1	N/A	O	UVM170731-07A/UVM170824-07A
9/19/2017	22:14	6Z220.D	W6VM170919-18	VSTD500	ICAL	5UL	1	MIX[B]	20	W	JP1	N/A	O	UVM170731-07A/UVM170824-07A
9/19/2017	22:41	6Z221.D	120371	GEL	BLANK	5mL	1	N/A	21	W	JP1	N/A	X	RINSE
9/19/2017	23:09	6Z222.D	W6VM170919-19	GEL	ICV	250	1	MIX[B]	22	W	JP1	N/A	O	MIX[B] UVM170731-08C/UVM170824-08B

JP
10/03/2017

EM
10/05/2017

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 9/29/2017 Method 8260B/624 Operator: JP1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1553

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/19/2017

CI test lot # 6021
Sequence Number: 092917V6

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM170929-01		5uL ea.		
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
LCS/MS	W6VM170929-02			5uL ea.	
BFB	IVM170920-01				1
SHORT	W6VM170929-03		5uL ea.		
SH LCS	W6VM170929-04			5uL ea.	

Purge Amount	
5ML	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
9/29/2017 9:02	6A501.D	IVM170920-01	GEL	BFB	10ML	1	N/A	1	W/S	JP1	N/A	O	
9/29/2017 9:30	6A502.D	W6VM170929-01	GEL	CCV	5ML	1	N/A	2	W	JP1	N/A	O	MIX[A] UVM170228-07G/UVM170829-07I/UVM170608-09A
9/29/2017 9:59	6A503.D	W6VM170929-02	GEL	LCS	5ML	1	N/A	3	W	JP1	N/A	O	MIX[A] UVM170607-10F/UVM170829-10F/IVM170922-01/UVM170608-09A
9/29/2017 10:27	6A504.D	W6VM170929-03	GEL	CCV	5ML	1	N/A	4	W	JP1	N/A	O	MIX[B] UVM170731-06F/UVM170824-06F
9/29/2017 10:55	6A505.D	W6VM170929-04	GEL	LCS	5ML	1	N/A	5	W	JP1	N/A	O	MIX[B] UVM170731-08C/UVM170824-08B
9/29/2017 11:23	6A506.D	120386	GEL	BLANK	5ML	1	N/A	6	W	JP1	N/A	O	
9/29/2017 11:51	6A507.D	433718004	URSC	1705051	5ML	1	PH7	7	W	JP1	N	O	
9/29/2017 12:19	6A508.D	433718005	URSC	1705051	5ML	1	PH<2	8	W	JP1	N	O	
9/29/2017 12:47	6A509.D	433604003	SNLS	1705062	5ML	1	PH<2	9	W	JP1	N	O	
9/29/2017 13:15	6A510.D	433604006	SNLS	1705062	5ML	1	PH<2	10	W	JP1	N	O	
9/29/2017 13:43	6A511.D	433631001	SNLS	1705062	5ML	1	PH<2	11	W	JP1	N	O	
9/29/2017 14:12	6A512.D	433631002	SNLS	1705062	5ML	1	PH<2	12	W	JP1	N	O	
9/29/2017 14:40	6A513.D	433845001	CNLD	1705051	5ML	1	PH<2	13	W	JP1	N	O	
9/29/2017 15:08	6A514.D	433845002	CNLD	1705051	5ML	1	PH<2	14	W	JP1	N	O	
9/29/2017 15:36	6A515.D	433845003	CNLD	1705051	5ML	1	PH<2	15	W	JP1	N	O	
9/29/2017 16:04	6A516.D	433845004	CNLD	1705051	5ML	1	PH<2	16	W	JP1	N	O	
9/29/2017 16:33	6A517.D	433845005	CNLD	1705051	5ML	1	PH<2	17	W	JP1	N	O	
9/29/2017 17:00	6A518.D	433845006	CNLD	1705051	5ML	1	PH<2	18	W	JP1	N	O	
9/29/2017 17:29	6A519.D	433845007	CNLD	1705051	5ML	1	PH<2	19	W	JP1	N	O	
9/29/2017 17:57	6A520.D	433845008	CNLD	1705051	5ML	1	PH<2	20	W	JP1	N	O	
9/29/2017 18:25	6A521.D	433845009	CNLD	1705051	5ML	1	PH<2	21	W	JP1	N	O	
9/29/2017 18:53	6A522.D	433845010	CNLD	1705051	5ML	1	PH<2	22	W	JP1	N	O	
9/29/2017 19:21	6A523.D	433845011	CNLD	1705051	5ML	1	PH<2	23	W	JP1	N	O	
9/29/2017 19:49	6A524.D	433522001	LLNL	1705051	1ML	5	PH7	24	W	JP1	N	O	
9/29/2017 20:17	6A525.D	1203885591	CNLD	1705051	5ML	1	PH<2	25	W	JP1	N	O	MIX[A] 433845001MS
9/29/2017 20:45	6A526.D	1203885592	CNLD	1705051	5ML	1	PH<2	26	W	JP1	N	O	MIX[A] 433845001MSD

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

RY 09/07/2017

EM 09/09/2017

Date: 9/6/2017 Method 8260B/6200/624 Operator: RXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY: Log VO-M-021 PAGE #06

Daily Instrument Readings:

Multiplier Voltage: 1765

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2017

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 090617V9

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
BFB	IVM170821-01				1

Purge Amount	
5ml	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Date	Analysis Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
6 Sep 2017	11:41	9I301.D	12038-----	GEL	BLANK	5mL	1	n/a	1	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	12:09	9I302.D	12038-----	GEL	BLANK	5mL	1	n/a	2	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	12:59	9I303.D	12038-----	GEL	BLANK	5mL	1	n/a	3	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	13:27	9I304.D	12038-----	GEL	BLANK	5mL	1	n/a	4	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	**13:54**	9I305.D	IVM170821-01	GEL	BFB	5mL	1	n/a	5	w/s	RXY1	N/A	O	
6 Sep 2017	14:21	9I306.D	W9VM170906-01	GEL50	ICAL	5mL	1	n/a	6	w	RXY1	N/A	O	MIX[A] UVM170726-07 + UVM170829-07B + UVM170608-07C
6 Sep 2017	14:50	9I307.D	W9VM170906-02	GEL80	ICAL	5mL	1	n/a	7	w	RXY1	N/A	O	MIX[A] UVM170726-08 + UVM170829-08B + UVM170608-08C
6 Sep 2017	15:18	9I308.D	W9VM170906-03	GEL100	ICAL	5mL	1	n/a	8	w	RXY1	N/A	O	MIX[A] UVM170726-08 + UVM170829-08B + UVM170608-08C
6 Sep 2017	15:48	9I309.D	12038-----	GEL	BLANK	5mL	1	n/a	9	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	16:17	9I310.D	W9VM170906-04	GEL.5	ICAL	5mL	1	n/a	10	w	RXY1	N/A	O	MIX[A] UVM170726-01 + UVM170829-01B
6 Sep 2017	16:45	9I311.D	W9VM170906-05	GEL1	ICAL	5mL	1	n/a	11	w	RXY1	N/A	O	MIX[A] UVM170726-02 + UVM170829-02B
6 Sep 2017	17:13	9I312.D	W9VM170906-06	GEL2	ICAL	5mL	1	n/a	12	w	RXY1	N/A	O	MIX[A] UVM170726-03 + UVM170829-03B + UVM170608-03C
6 Sep 2017	17:42	9I313.D	W9VM170906-07	GEL5	ICAL	5mL	1	n/a	13	w	RXY1	N/A	O	MIX[A] UVM170726-04 + UVM170829-04B + UVM170608-04C
6 Sep 2017	18:10	9I314.D	W9VM170906-08	GEL10	ICAL	5mL	1	n/a	14	w	RXY1	N/A	O	MIX[A] UVM170726-05 + UVM170829-05B + UVM170608-05C
6 Sep 2017	18:39	9I315.D	W9VM170906-09	GEL20	ICAL	5mL	1	n/a	15	w	RXY1	N/A	O	MIX[A] UVM170726-06 + UVM170829-06B + UVM170608-06C
6 Sep 2017	19:08	9I316.D	W9VM170906-10	GEL	ICV	5mL	1	n/a	16	w	RXY1	N/A	O	MIX[A] UVM170607-10D + UVM170829-10B + IVM170831-01 + UVM170330-09F
6 Sep 2017	19:37	9I317.D	W9VM170906-11	GEL5	ICAL	5mL	1	n/a	17	w	RXY1	N/A	O	MIX[B] UVM170731-01A + UVM170824-01A
6 Sep 2017	20:05	9I318.D	W9VM170906-12	GEL10	ICAL	5mL	1	n/a	18	w	RXY1	N/A	O	MIX[B] UVM170731-02A + UVM170824-02A
6 Sep 2017	20:34	9I319.D	W9VM170906-13	GEL25	ICAL	5mL	1	n/a	19	w	RXY1	N/A	O	MIX[B] UVM170731-03A + UVM170824-03A
6 Sep 2017	21:02	9I320.D	W9VM170906-14	GEL50	ICAL	5mL	1	n/a	20	w	RXY1	N/A	O	MIX[B] UVM170731-04A + UVM170824-04A
6 Sep 2017	21:30	9I321.D	W9VM170906-15	GEL100	ICAL	5mL	1	n/a	21	w	RXY1	N/A	O	MIX[B] UVM170731-05A + UVM170824-05A
6 Sep 2017	21:58	9I322.D	W9VM170906-16	GEL250	ICAL	5mL	1	n/a	22	w	RXY1	N/A	O	MIX[B] UVM170731-06A + UVM170824-06A
6 Sep 2017	22:26	9I323.D	W9VM170906-17	GEL300	ICAL	5mL	1	n/a	23	w	RXY1	N/A	O	MIX[B] UVM170731-07A + UVM170824-07A
6 Sep 2017	22:53	9I324.D	W9VM170906-18	GEL500	ICAL	5mL	1	n/a	24	w	RXY1	N/A	O	MIX[B] UVM170731-07A + UVM170824-07A
6 Sep 2017	23:21	9I325.D	12038-----	GEL	BLANK	5mL	1	n/a	25	w	RXY1	N/A	X	Instrument blank
6 Sep 2017	23:49	9I326.D	W9VM170906-19	GEL	ICV	5mL	1	n/a	26	w	RXY1	N/A	X	MIX[B] UVM170731-08B + UVM170824-08A
7 Sep 2017	00:17	9I327.D	W9VM170906-20	GEL	LCS	5mL	1	n/a	27	w	RXY1	N/A	X	MIX[A] UVM170607-10D + UVM170829-10B + IVM170831-01 + UVM170330-09F
7 Sep 2017	00:45	9I328.D	W9VM170906-21	GEL	ICV	5mL	1	n/a	28	w	RXY1	N/A	O	MIX[B] UVM170731-08B + UVM170824-08A
7 Sep 2017	01:13	9I329.D	12038-----	GEL	BLANK	5mL	1	n/a	29	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

RY 10/04/2017

EM 10/10/2017

Date: 10/2/2017 Method 8260B/6200/624 Operator: RXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY: Log VO-M-021 PAGE #06

Daily Instrument Readings:

Multiplier Voltage: 1741

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2017

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 100217V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM171002-03		5 uL ea.		
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
LCS/MS	W9VM171002-04			5 uL ea.	
BFB	IVM170920-01				1
SHORT	W9VM171002-05		5 uL ea.		

Purge Amount

5ml	Water Purge Vol:
Various	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
100	ul
DS 435	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
2 Oct 2017	09:59	9M101.D	12038-----	GEL	BLANK	5mL	1	n/a	1	w	RXY1	N/A	X	Instrument blank
2 Oct 2017	10:27	9M102.D	12038-----	GEL	BLANK	5mL	1	n/a	2	w	RXY1	N/A	X	Instrument blank
2 Oct 2017	10:55	9M103.D	12038-----	GEL	BLANK	5mL	1	n/a	3	w	RXY1	N/A	X	Instrument blank
2 Oct 2017	**11:22**	9M104.D	IVM170920-01	GEL	BFB	5mL	1	n/a	4	w/s	RXY1	N/A	O	
2 Oct 2017	11:48	9M105.D	W9VM171002-01	GEL	QCCHK	5mL	1	n/a	5	w	RXY1	N/A	X	MIX[A] UVM170607-10G + UVM170829-10F + IVM170925-01
2 Oct 2017	12:17	9M106.D	W9VM171002-02	GEL	CCV	5mL	1	n/a	6	w	RXY1	N/A	X	MIX[A] UVM170228-07G + UVM170829-07I + UVM170608-09A
2 Oct 2017	12:45	9M107.D	W9VM171002-03	GEL	CCV/LCS	5mL	1	n/a	7	w	RXY1	N/A	O	MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01 + UVM170608-09A
2 Oct 2017	13:14	9M108.D	W9VM171002-04	GEL	LCS	5g	1	n/a	8	s	RXY1	N/A	O	SOIL MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01 + UVM170608-09A
2 Oct 2017	13:42	9M109.D	W9VM171002-05	GEL	CCV	5mL	1	n/a	9	w	RXY1	N/A	O	MIX[B] UVM170731-06F + UVM170824-06F
2 Oct 2017	14:11	9M110.D	W9VM171002-06	GEL	LCS	5mL	1	n/a	10	w	RXY1	N/A	X	MIX[B] UVM170731-08C + UVM170922-08A
2 Oct 2017	14:39	9M111.D	12038-----	GEL	BLANK	5g	1	n/a	11	s	RXY1	N/A	O	SOIL
2 Oct 2017	15:08	9M112.D	12038-----	GEL	BLANK	5mL	1	n/a	12	w	RXY1	N/A	X	
2 Oct 2017	15:56	9M113.D	1203887114	GEL	1705693	100uL	50	n/a	13	s	RXY1	N/A	O	SOIL
2 Oct 2017	16:23	9M114.D	433718001	URSC	1705693	100uL	50	n/a	14	s	RXY1	N/A	O	SOIL: w/ 9M208
2 Oct 2017	16:51	9M115.D	433718002	URSC	1705693	100uL	50	n/a	15	s	RXY1	N/A	O	SOIL: w/ 9M209
2 Oct 2017	17:19	9M116.D	433718003	URSC	1705693	100uL	50	n/a	16	s	RXY1	N/A	O	SOIL: w/ 9M210
2 Oct 2017	17:47	9M117.D	433718006	URSC	1705693	100uL	50	n/a	17	s	RXY1	N/A	O	SOIL: w/ 9M211
2 Oct 2017	18:14	9M118.D	433718007	URSC	1705693	100uL	50	n/a	18	s	RXY1	N/A	O	SOIL: w/ 9M212
2 Oct 2017	18:42	9M119.D	433718008	URSC	1705693	100uL	50	n/a	19	s	RXY1	N/A	O	SOIL: w/ 9M213
2 Oct 2017	19:10	9M120.D	433718009	URSC	1705693	100uL	50	n/a	20	s	RXY1	N/A	O	SOIL: w/ 9M214
2 Oct 2017	19:37	9M121.D	433718010	URSC	1705693	100uL	50	n/a	21	s	RXY1	N/A	O	SOIL: w/ 9M215
2 Oct 2017	20:05	9M122.D	433718011	URSC	1705693	100uL	50	n/a	22	s	RXY1	N/A	O	SOIL: w/ 9M216
2 Oct 2017	20:33	9M123.D	433718012	URSC	1705693	100uL	50	n/a	23	s	RXY1	N/A	O	SOIL: w/ 9M217
2 Oct 2017	21:01	9M124.D	433718013	URSC	1705693	100uL	50	n/a	24	s	RXY1	N/A	O	SOIL: w/ 9M218
2 Oct 2017	21:28	9M125.D	433718014	URSC	1705693	100uL	50	n/a	25	s	RXY1	N/A	O	SOIL: w/ 9M219
2 Oct 2017	21:56	9M126.D	433718015	URSC	1705693	100uL	50	n/a	26	s	RXY1	N/A	O	SOIL: w/ 9M220
2 Oct 2017	22:24	9M127.D	433718016	URSC	1705693	100uL	50	n/a	27	s	RXY1	N/A	O	SOIL: w/ 9M221
2 Oct 2017	22:52	9M128.D	433718017	URSC	1705693	100uL	50	n/a	28	s	RXY1	N/A	O	SOIL: w/ 9M222
2 Oct 2017	23:19	9M129.D	12038-----	GEL	BLANK	5mL	1	n/a	29	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

RY 10/10/2017

EM 10/10/2017

Date: 10/3/2017 Method 8260B/6200/624 Operator: RXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY: Log VO-M-021 PAGE #06

Daily Instrument Readings:

Multiplier Voltage: 1741

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2017

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 100317V9

Daily Standard Volume Added for Purge (ul)

Solution ID#		Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM171003-01		5 uL ea.		
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
LCS/MS	W9VM171003-03			5 uL ea.	
BFB	IVM170920-01				1
SHORT	W9VM171003-04		5 uL ea.		

Purge Amount

5ml	Water Purge Vol:
5g	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3 Oct 2017 09:47	9M201.D	IVM170920-01	GEL	BFB	5mL	1	n/a	1	w/s	RXY1	N/A	O	
3 Oct 2017 10:14	9M202.D	W9VM171003-01	GEL	CCV	5mL	1	n/a	2	w	RXY1	N/A	O	MIX[A] UVM170314-07E + UVM170829-07I + UVM170608-09A
3 Oct 2017 10:41	9M203.D	W9VM171003-02	GEL	LCS	5mL	1	n/a	3	w	RXY1	N/A	O	MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01 + UVM170608-09A
3 Oct 2017 11:10	9M204.D	W9VM171003-03	GEL	LCS	5g	1	n/a	4	s	RXY1	N/A	O	SOIL MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01 + UVM170608-09A
3 Oct 2017 11:38	9M205.D	W9VM171003-04	GEL	CCV	5mL	1	n/a	5	w	RXY1	N/A	O	MIX[B] UVM170731-06F + UVM170922-06E
3 Oct 2017 12:06	9M206.D	12038-----	GEL	BLANK	5mL	1	n/a	6	w	RXY1	N/A	X	
3 Oct 2017 12:34	9M207.D	12038-----	GEL	BLANK	5g	1	n/a	7	s	RXY1	N/A	O	SOIL
3 Oct 2017 13:03	9M208.D	433718001	URSC	1705693	5g	1	n/a	8	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M114
3 Oct 2017 13:31	9M209.D	433718002	URSC	1705693	5g	1	n/a	9	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M115
3 Oct 2017 13:59	9M210.D	433718003	URSC	1705693	5g	1	n/a	10	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M116
3 Oct 2017 14:28	9M211.D	433718006	URSC	1705693	5g	1	n/a	11	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M117
3 Oct 2017 14:56	9M212.D	433718007	URSC	1705693	5g	1	n/a	12	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M118
3 Oct 2017 15:25	9M213.D	433718008	URSC	1705693	5g	1	n/a	13	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M119
3 Oct 2017 15:54	9M214.D	433718009	URSC	1705693	5g	1	n/a	14	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M120
3 Oct 2017 16:23	9M215.D	433718010	URSC	1705693	5g	1	n/a	15	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M121
3 Oct 2017 16:51	9M216.D	433718011	URSC	1705693	5g	1	n/a	16	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M122
3 Oct 2017 17:20	9M217.D	433718012	URSC	1705693	5g	1	n/a	17	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M123
3 Oct 2017 17:48	9M218.D	433718013	URSC	1705693	5g	1	n/a	18	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M124
3 Oct 2017 18:17	9M219.D	433718014	URSC	1705693	5g	1	n/a	19	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M125
3 Oct 2017 18:45	9M220.D	433718015	URSC	1705693	5g	1	n/a	20	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M126
3 Oct 2017 19:14	9M221.D	433718016	URSC	1705693	5g	1	n/a	21	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M127
3 Oct 2017 19:43	9M222.D	433718017	URSC	1705693	5g	1	n/a	22	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M128
3 Oct 2017 20:10	9M223.D	433718018	URSC	1705693	5g	1	n/a	23	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M235
3 Oct 2017 20:39	9M224.D	433718019	URSC	1705693	5g	1	n/a	24	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M236
3 Oct 2017 21:07	9M225.D	433718020	URSC	1705693	5g	1	n/a	25	s	RXY1	N/A	O	SOIL: (Low IS, High SS: Matrix) w/ 9M237
3 Oct 2017 21:35	9M226.D	12038-----	GEL	BLANK	5mL	1	n/a	26	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

RY 10/04/2017

EM 10/10/2017

Date: 10/3/2017 Method 8260B/6200/624 Operator: RXY1

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY: Log VO-M-021 PAGE #06

Daily Instrument Readings:

Multiplier Voltage: 1741

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 9/6/2017

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 100317V9pm

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM171003-05		5 uL ea.		
IS	UVM170714-01	1	1	1	
SS	UVM170303-02	1	1	1	
LCS/MS	W9VM171003-07			5 uL ea.	
BFB	IVM170920-01				1
SHORT	W9VM171003-08		5 uL ea.		

Purge Amount	
5ml	Water Purge Vol:
Various	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
100	ul
DS435	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
3 Oct 2017 22:01	9M227.D	IVM170920-01	GEL	BFB2	5mL	1	n/a	27	w/s	RXY1	N/A	O	
3 Oct 2017 22:28	9M228.D	W9VM171003-05	GEL	CCV	5mL	1	n/a	28	w	RXY1	N/A	O	MIX[A] UVM170314-07E + UVM170829-07I
3 Oct 2017 22:55	9M229.D	W9VM171003-06	GEL	LCS	5mL	1	n/a	29	w	RXY1	N/A	X	MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01
3 Oct 2017 23:23	9M230.D	W9VM171003-07	GEL	LCS	5g	1	n/a	30	s	RXY1	N/A	O	SOIL MIX[A] UVM170607-10G + UVM170829-10F + IVM171002-01
3 Oct 2017 23:51	9M231.D	W9VM171003-08	GEL	CCV	5mL	1	n/a	31	w	RXY1	N/A	O	MIX[B] UVM170731-06F + UVM170922-06E
4 Oct 2017 00:19	9M232.D	12038-----	GEL	BLANK	5mL	1	n/a	32	w	RXY1	N/A	X	
4 Oct 2017 00:47	9M233.D	12038-----	GEL	BLANK	5g	1	n/a	33	s	RXY1	N/A	O	SOIL
4 Oct 2017 01:14	9M234.D	1203888700	GEL	1705693	100uL	50	n/a	34	s	RXY1	N/A	O	SOIL
4 Oct 2017 01:42	9M235.D	433718018	URSC	1705693	100uL	50	n/a	35	s	RXY1	N/A	O	SOIL: w/ 9M223
4 Oct 2017 02:09	9M236.D	433718019	URSC	1705693	100uL	50	n/a	36	s	RXY1	N/A	O	SOIL: w/ 9M224
4 Oct 2017 02:36	9M237.D	433718020	URSC	1705693	100uL	50	n/a	37	s	RXY1	N/A	O	SOIL: w/ 9M225
4 Oct 2017 03:03	9M238.D	1203887116	URSC	1705693	100uL	50	n/a	38	s	RXY1	N/A	O	SOIL MIX[A] MS 433718010
4 Oct 2017 03:30	9M239.D	1203887117	URSC	1705693	100uL	50	n/a	39	s	RXY1	N/A	O	SOIL MIX[A] MS 433718010
4 Oct 2017 03:57	9M240.D	1203887116	URSC	1705693	5g	1	n/a	40	s	RXY1	N/A	O	SOIL MIX[A] MS 433718010 (Low IS, High SS: Matrix)
4 Oct 2017 04:24	9M241.D	1203887117	URSC	1705693	5g	1	n/a	41	s	RXY1	N/A	O	SOIL MIX[A] MSD 433718010 (Low IS, High SS: Matrix)
4 Oct 2017 04:51	9M242.D	12038-----	GEL	BLANK	5mL	1	n/a	42	w	RXY1	N/A	X	Instrument blank

Semi-Volatile Analysis

Case Narrative

GC/MS Semivolatile
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 433718

Product: **Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method: SW846 3541/8270C
Analytical Procedure: GL-OA-E-009 REV# 39
Analytical Batch: 1707073

Preparation Method: SW846 3541
Preparation Procedure: GL-OA-E-066 REV# 8
Preparation Batch: 1707072

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
433718018	G2ESOL01
433718019	G2ESOL02
433718020	G2ESOL03
1203890201	Method Blank (MB)
1203890202	Laboratory Control Sample (LCS)
1203890203	433718018(G2ESOL01) Matrix Spike (MS)
1203890204	433718018(G2ESOL01) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) between the MS and MSD (See Below) did not meet acceptance limits. As the individual MS and MSD recoveries were within the acceptance limits, the failures had no adverse impact on the reported sample data.

Sample	Analyte	Value
1203890203MS and 1203890204MSD (G2ESOL01)	Benzo(ghi)perylene	RPD 44* (0%-30%)
	Dibenzo(a,h)anthracene	RPD 37* (0%-30%)
	Indeno(1,2,3-cd)pyrene	RPD 41* (0%-30%)

Miscellaneous Information

Manual Integrations
Samples (See Below) required manual integration in order to properly identify one or more peaks and/or to

correctly position the baseline as set in the calibration standard injections.

Sample	Analyte	Value
1203890203 (G2ESOL01MS)	Several	See applicable report
1203890204 (G2ESOL01MSD)	Several	See applicable report

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 433718 GEL Work Order: 433718

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a surrogate compound
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

DL Indicates that sample is diluted.
RA Indicates that sample is re-analyzed without re-extraction.
RE Indicates that sample is re-extracted.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Barbara Bailey **Name: Barbara Bailey**

Date: 10 OCT 2017 **Title: Data Validator**

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 17:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0618.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	10.6	35.4
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
83-32-9	Acenaphthene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	10.6	35.4
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
86-74-8	Carbazole	U	35.4	ug/kg	10.6	35.4
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
80-62-6	Methyl methacrylate	U	354	ug/kg	106	354
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	106	354

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/09/2017 17:34**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.26 g**	**Final Volume:**	**1 mL**
Data File:	**100917a.s\sAj0919.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	10.7	35.7
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
83-32-9	Acenaphthene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	10.7	35.7
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
86-74-8	Carbazole	U	35.7	ug/kg	10.7	35.7
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
80-62-6	Methyl methacrylate	U	357	ug/kg	107	357
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	107	357

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/09/2017 18:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.25 g**	**Final Volume:**	**1 mL**
Data File:	**100917a.s\sAj0920.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.2	ug/kg	10.6	35.2
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	10.6	35.2
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	10.6	35.2
83-32-9	Acenaphthene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	10.6	35.2
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
86-74-8	Carbazole	U	35.2	ug/kg	10.6	35.2
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
80-62-6	Methyl methacrylate	U	352	ug/kg	106	352
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	106	352

Quality Control Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 433718

Matrix Type: SOLID

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1203890201	MB for batch 1707072	64	61	60	58	72	79
1203890202	LCS for batch 1707072	72	70	65	63	92	87
433718018	G2ESOL01	72	71	67	63	82	88
1203890203	G2ESOL01MS	67	66	59	57	91	82
1203890204	G2ESOL01MSD	61	60	56	52	78	66
433718019	G2ESOL02	55	57	54	54	61	77
433718020	G2ESOL03	77	75	72	70	88	84

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(36%-104%)
PHL	= Phenol-d5	(39%-106%)
NBZ	= Nitrobenzene-d5	(34%-109%)
FBP	= 2-Fluorobiphenyl	(35%-107%)
TBP	= 2,4,6-Tribromophenol	(39%-115%)
TPH	= p-Terphenyl-d14	(45%-119%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **LCS for batch 1707072**
Lab Sample ID **1203890202**
Instrument: **MSDA.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **SOIL**
Analysis Date: **10/06/2017 16:56**
Prep Batch ID: **1707072**
Batch ID: **1707073**
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-57-6	LCS	2-Methylnaphthalene	1610	0.0	1310	81	50-105
91-20-3	LCS	Naphthalene	1610	0.0	1280	80	54-106
90-12-0	LCS	1-Methylnaphthalene	1610	0.0	1320	82	55-112
91-58-7	LCS	2-Chloronaphthalene	1610	0.0	1250	78	55-102
83-32-9	LCS	Acenaphthene	1610	0.0	1430	89	57-104
86-73-7	LCS	Fluorene	1610	0.0	1430	89	54-108
85-01-8	LCS	Phenanthrene	1610	0.0	1370	85	58-101
120-12-7	LCS	Anthracene	1610	0.0	1330	83	58-102
86-74-8	LCS	Carbazole	1610	0.0	1490	93	58-113
206-44-0	LCS	Fluoranthene	1610	0.0	1560	97	56-114
129-00-0	LCS	Pyrene	1610	0.0	1340	83	50-109
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1610	0.0	1630	101	58-122
56-55-3	LCS	Benzo(a)anthracene	1610	0.0	1410	87	60-106
218-01-9	LCS	Chrysene	1610	0.0	1410	88	62-111
205-99-2	LCS	Benzo(b)fluoranthene	1610	0.0	1580	98	40-115
207-08-9	LCS	Benzo(k)fluoranthene	1610	0.0	1580	98	41-117
50-32-8	LCS	Benzo(a)pyrene	1610	0.0	1450	90	41-115
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1610	0.0	1140	71	36-123
53-70-3	LCS	Dibenzo(a,h)anthracene	1610	0.0	1180	73	39-129
191-24-2	LCS	Benzo(ghi)perylene	1610	0.0	1020	63	35-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2ESOL01MS**
Lab Sample ID **1203890203**
Instrument: **MSDA.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **SOIL**
%Moisture: **6**
Analysis Date: **10/06/2017 18:22**
Prep Batch ID: **1707072**
Batch ID: **1707073**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
91-57-6	MS	2-Methylnaphthalene	1760	0.00	U	1390	79	34-107
91-20-3	MS	Naphthalene	1760	0.00	U	1260	72	34-108
90-12-0	MS	1-Methylnaphthalene	1760	0.00	U	1420	81	37-113
91-58-7	MS	2-Chloronaphthalene	1760	0.00	U	1220	70	36-106
83-32-9	MS	Acenaphthene	1760	0.00	U	1460	83	35-113
86-73-7	MS	Fluorene	1760	0.00	U	1510	86	38-114
85-01-8	MS	Phenanthrene	1760	0.00	U	1400	80	36-116
120-12-7	MS	Anthracene	1760	0.00	U	1380	79	41-111
86-74-8	MS	Carbazole	1760	0.00	U	1570	90	43-116
206-44-0	MS	Fluoranthene	1760	0.00	U	1640	93	41-115
129-00-0	MS	Pyrene	1760	0.00	U	1320	75	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1760	0.00	U	1700	97	41-132
56-55-3	MS	Benzo(a)anthracene	1760	0.00	U	1420	81	42-115
218-01-9	MS	Chrysene	1760	0.00	U	1410	80	42-121
205-99-2	MS	Benzo(b)fluoranthene	1760	0.00	U	1440	82	30-124
207-08-9	MS	Benzo(k)fluoranthene	1760	0.00	U	1480	84	30-128
50-32-8	MS	Benzo(a)pyrene	1760	0.00	U	1340	76	32-119
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1760	0.00	U	996	57	15-126
53-70-3	MS	Dibenzo(a,h)anthracene	1760	0.00	U	1110	63	20-129
191-24-2	MS	Benzo(ghi)perylene	1760	0.00	U	920	52	13-126

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **433718**
Client ID: **G2ESOL01MSD**
Lab Sample ID **1203890204**
Instrument: **MSDA.I**
Analyst: **JMB3**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **SOIL**
%Moisture: **6**
Analysis Date: **10/06/2017 18:48**
Prep Batch ID: **1707072**
Batch ID: **1707073**
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
91-57-6	MSD 2-Methylnaphthalene	1770	0.00	U	1330	75	34-107	5	0-30
91-20-3	MSD Naphthalene	1770	0.00	U	1210	68	34-108	4	0-30
90-12-0	MSD 1-Methylnaphthalene	1770	0.00	U	1340	76	37-113	6	0-30
91-58-7	MSD 2-Chloronaphthalene	1770	0.00	U	1100	62	36-106	10	0-30
83-32-9	MSD Acenaphthene	1770	0.00	U	1300	73	35-113	12	0-30
86-73-7	MSD Fluorene	1770	0.00	U	1340	76	38-114	12	0-30
85-01-8	MSD Phenanthrene	1770	0.00	U	1200	68	36-116	15	0-30
120-12-7	MSD Anthracene	1770	0.00	U	1190	67	41-111	15	0-30
86-74-8	MSD Carbazole	1770	0.00	U	1310	74	43-116	18	0-30
206-44-0	MSD Fluoranthene	1770	0.00	U	1390	79	41-115	16	0-30
129-00-0	MSD Pyrene	1770	0.00	U	1060	60	36-125	22	0-30
117-81-7	MSD bis(2-Ethylhexyl)phthalate	1770	0.00	U	1400	79	41-132	19	0-30
56-55-3	MSD Benzo(a)anthracene	1770	0.00	U	1150	65	42-115	21	0-30
218-01-9	MSD Chrysene	1770	0.00	U	1150	65	42-121	20	0-30
205-99-2	MSD Benzo(b)fluoranthene	1770	0.00	U	1180	66	30-124	20	0-30
207-08-9	MSD Benzo(k)fluoranthene	1770	0.00	U	1210	68	30-128	20	0-30
50-32-8	MSD Benzo(a)pyrene	1770	0.00	U	1060	60	32-119	24	0-30
193-39-5	MSD Indeno(1,2,3-cd)pyrene	1770	0.00	U	655	37	15-126	41 *	0-30
53-70-3	MSD Dibenzo(a,h)anthracene	1770	0.00	U	763	43	20-129	37 *	0-30
191-24-2	MSD Benzo(ghi)perylene	1770	0.00	U	588	33	13-126	44 *	0-30

Method Blank Summary

SDG Number:	**433718**	**Client:**	**URSC013**	**Matrix:**	**SOIL**
Client ID:	**MB for batch 1707072**	**Instrument ID:**	**MSDA.I**	**Data File:**	**100617.s\sAj0615.D**
Lab Sample ID:	**1203890201**	**Prep Date:**	**10/06/2017 09:27**	**Analyzed:**	**10/06/17 16:24**
Column:	**DB-5ms**				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 1707072	1203890202	100617.s\sAj0616.D	10/06/17	1656
02	G2ESOL01	433718018	100617.s\sAj0618.D	10/06/17	1756
03	G2ESOL01MS	1203890203	100617.s\sAj0619.D	10/06/17	1822
04	G2ESOL01MSD	1203890204	100617.s\sAj0620.D	10/06/17	1848
05	G2ESOL02	433718019	100917a.s\sAj0919.D	10/09/17	1734
06	G2ESOL03	433718020	100917a.s\sAj0920.D	10/09/17	1800

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: MSDA.I **Injection Date/Time:** 15-SEP-17 08:47

Column Description: DB-5ms **Lab File ID** 091517.s\sAI1501.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	45.2
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	40
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.1
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	25.8
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	87.6
442	Greater than 40% of mass 198	92.9
443	17 - 23% of mass 442	19.7

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	WBN170822-05.1	091517.s\sAI1505.D	15-SEP-17 10:40
ICALMIX[A]	WBN170822-04	091517.s\sAI1506.D	15-SEP-17 11:45
ICALMIX[A]	WBN170822-03	091517.s\sAI1507.D	15-SEP-17 12:16
ICALMIX[A]	WBN170822-02	091517.s\sAI1508.D	15-SEP-17 12:47
ICALMIX[A]	WBN170822-01	091517.s\sAI1509.D	15-SEP-17 13:18
ICALMIX[A]	WBN170822-08	091517.s\sAI1510.D	15-SEP-17 13:49
ICALMIX[A]	WBN170822-07	091517.s\sAI1511.D	15-SEP-17 14:20
ICALMIX[A]	WBN170822-06	091517.s\sAI1512.D	15-SEP-17 14:51
ICVMIX[A]01	WBN170831-09.1	091517.s\sAI1513.D	15-SEP-17 15:24

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: MSDA.I **Injection Date/Time:** 15-SEP-17 15:56

Column Description: DB-5ms **Lab File ID** 091517.s\sAI1514.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	43.4
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	39.2
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	47
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.5
365	Greater than 1% of mass 198	3.2
441	Present, but less than mass 443	85.6
442	Greater than 40% of mass 198	97.8
443	17 - 23% of mass 442	19.2

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[B]	WBN170822-17	091517.s\sAI1515.D	15-SEP-17 16:11
ICALMIX[B]	WBN170822-16	091517.s\sAI1516.D	15-SEP-17 16:38
ICALMIX[B]	WBN170822-18	091517.s\sAI1517.D	15-SEP-17 17:04
ICALMIX[B]	WBN170822-15.1	091517.s\sAI1518.D	15-SEP-17 17:31
ICALMIX[B]	WBN170822-14	091517.s\sAI1519.D	15-SEP-17 17:58
ICALMIX[B]	WBN170822-19	091517.s\sAI1520.D	15-SEP-17 18:25
ICALMIX[B]	WBN170822-13	091517.s\sAI1521.D	15-SEP-17 18:51
ICALMIX[B]	WBN170822-12	091517.s\sAI1522.D	15-SEP-17 19:18
ICALMIX[B]	WBN170822-11	091517.s\sAI1523.D	15-SEP-17 19:44

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: MSDA.I **Injection Date/Time:** 18-SEP-17 09:45

Column Description: DB-5ms **Lab File ID** 091517.s\sAI1549.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	42.9
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	47.1
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	25.1
365	Greater than 1% of mass 198	3.1
441	Present, but less than mass 443	85.1
442	Greater than 40% of mass 198	95.3
443	17 - 23% of mass 442	18.6

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[B]02	WBN170918-18	091517.s\sAI1550.D	18-SEP-17 09:59

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: MSDA.I **Injection Date/Time:** 06-OCT-17 08:16

Column Description: DB-5ms **Lab File ID** 100617.s\sAj0601.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	43
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	38.7
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	47
197	0 - 1% of mass 198	0.2
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	85.6
442	Greater than 40% of mass 198	85
443	17 - 23% of mass 442	18.9

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	WBN170809-05.5	100617.s\sAj0602.D	06-OCT-17 08:33
CCVMIX[B]02	WBN171002-15.1	100617.s\sAj0604.D	06-OCT-17 09:29
BLK01	1203890201	100617.s\sAj0615.D	06-OCT-17 16:24
BLK01LCS	1203890202	100617.s\sAj0616.D	06-OCT-17 16:56
G2ESOL01	433718018	100617.s\sAj0618.D	06-OCT-17 17:56
G2ESOL01MS	1203890203	100617.s\sAj0619.D	06-OCT-17 18:22
G2ESOL01MSD	1203890204	100617.s\sAj0620.D	06-OCT-17 18:48

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 433718

Instrument ID: MSDA.I **Injection Date/Time:** 09-OCT-17 14:32

Column Description: DB-5ms **Lab File ID** 100917a.s\sAj0912.D

m/e	Ion Abundance Criteria	% Relative Abundance
51	30 - 60% of mass 198	43.5
68	Less than 2% of mass 69	1.7
69	Mass 69 Relative Abundance	36.2
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	46.8
197	0 - 1% of mass 198	0
198	Base Peak, 100% Relative Abundance	100
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	25.1
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	84.1
442	Greater than 40% of mass 198	91.2
443	17 - 23% of mass 442	19.2

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

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[B]03	WBN171002-15.2	100917a.s\sAj0913.D	09-OCT-17 14:57
CCVMIX[A]04	WBN171003-05.1	100917a.s\sAj0914.D	09-OCT-17 15:22
G2ESOL02	433718019	100917a.s\sAj0919.D	09-OCT-17 17:34
G2ESOL03	433718020	100917a.s\sAj0920.D	09-OCT-17 18:00

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: MSDA.I

STD Analysis Time: 06-OCT-17 08:33

GC Column: DB-5ms

Data File: 100617.s\sAj0602.D

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	226706		5.44	784183		7.23	404969		9.55	578556		11.4	330789		14.9	205756		18.0
Upper Limit	453412		5.94	1568366		7.73	809938		10.1	1157112		11.9	661578		15.4	411512		18.5
Lower Limit	113353		4.94	392092		6.73	202485		9.05	289278		10.9	165395		14.4	102878		17.5
Sample ID																		
BLK01	225601		5.44	794964		7.22	429004		9.53	666428		11.4	448135		14.9	292586		18.0
BLK01LCS	229894		5.44	842041		7.22	465655		9.54	772647		11.4	521429		14.9	313531		18.0
G2ESOL01	224585		5.43	831986		7.22	467418		9.53	777046		11.4	540270		14.9	333414		18.0
G2ESOL01MS	223277		5.43	670424		7.22	424165		9.54	748946		11.4	552316		14.9	364763		18.0
G2ESOL01MSD	227977		5.43	676794		7.22	438118		9.54	784203		11.4	602765		14.9	380999		18.0

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 433718

Instrument: MSDA.I

STD Analysis Time: 09-OCT-17 15:22

GC Column: DB-5ms

Data File: 100917a.s\sAj0914.D

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	114377		5.53	418785		7.3	239041		9.62	402672		11.5	287820		15.0	219763		18.2
Upper Limit	228754		6.03	837570		7.8	478082		10.1	805344		12.0	575640		15.5	439526		18.7
Lower Limit	57189		5.03	209393		6.8	119521		9.12	201336		11.0	143910		14.5	109882		17.7
Sample ID																		
G2ESOL02	120248		5.53	445490		7.3	253042		9.62	433499		11.5	284999		15.0	180389		18.2
G2ESOL03	128524		5.53	474468		7.3	267930		9.62	469232		11.5	344542		15.0	236526		18.2

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

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718018**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL01**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 17:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.09 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0618.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
91-58-7	2-Chloronaphthalene	U	35.4	ug/kg	10.6	35.4
91-57-6	2-Methylnaphthalene	U	35.4	ug/kg	10.6	35.4
83-32-9	Acenaphthene	U	35.4	ug/kg	10.6	35.4
120-12-7	Anthracene	U	35.4	ug/kg	10.6	35.4
56-55-3	Benzo(a)anthracene	U	35.4	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene	U	35.4	ug/kg	10.6	35.4
205-99-2	Benzo(b)fluoranthene	U	35.4	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene	U	35.4	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene	U	35.4	ug/kg	10.6	35.4
86-74-8	Carbazole	U	35.4	ug/kg	10.6	35.4
218-01-9	Chrysene	U	35.4	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene	U	35.4	ug/kg	10.6	35.4
206-44-0	Fluoranthene	U	35.4	ug/kg	10.6	35.4
86-73-7	Fluorene	U	35.4	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.4	ug/kg	10.6	35.4
80-62-6	Methyl methacrylate	U	354	ug/kg	106	354
91-20-3	Naphthalene	U	35.4	ug/kg	10.6	35.4
85-01-8	Phenanthrene	U	35.4	ug/kg	10.6	35.4
129-00-0	Pyrene	U	35.4	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate	U	354	ug/kg	106	354

Quantitation Report
GEL Laboratories, LLC

10/06/2017

10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0618.D
Acq On : 06 Oct 2017 17:56
Operator : JMB3
InstName : MSDA
Sample : |433718018|1707073|1|SVM|1|URSC
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 06 20:15:20 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	224585	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.216	7.228	1.000	831986	40.00	ng/uL	-0.01
42) A Acenaphthene-d10	164	9.534	9.540	1.000	467418	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.410	11.410	1.000	777046	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.863	14.863	1.000	540270	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.022	18.016	1.000	333414	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	224585	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.216	7.228	1.000	831986	40.00	ng/uL	-0.01
123) B Acenaphthene-d10	164	9.534	9.540	1.000	467418	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.410	11.410	1.000	777046	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.863	14.863	1.000	540270	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.022	18.016	1.000	333414	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.410	11.410	1.000	777046	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.863	14.863	1.000	540270	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	224585	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.216	7.228	1.000	831986	40.00	ng/uL	-0.01
163) D Acenaphthene-d10	164	9.534	9.540	1.000	467418	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.410	11.410	1.000	777046	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.863	14.863	1.000	540270	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.216	7.228	1.000	831986	40.00	ng/uL	-0.01
177) E Perylene-d12	264	18.022	18.016	1.000	327003	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.781	3.752	0.696	494285	71.58	ng/uL	0.03
8) Phenol-d5	99	4.922	4.910	0.906	609413	70.57	ng/uL	0.01
25) Nitrobenzene-d5	82	6.216	6.228	0.861	273032	33.29	ng/uL	-0.01
47) 2-Fluorobiphenyl	172	8.669	8.675	0.909	544153	31.28	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.534	10.534	1.105	153941	81.97	ng/uL	0.00
83) p-Terphenyl-d14	244	13.398	13.392	0.901	626280	43.86	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	72%
8) Phenol-d5	100.000	39 - 106	71%
25) Nitrobenzene-d5	50.000	34 - 109	67%
47) 2-Fluorobiphenyl	50.000	35 - 107	63%
66) 2,4,6-Tribromophenol	100.000	39 - 115	82%
83) p-Terphenyl-d14	50.000	45 - 119	88%

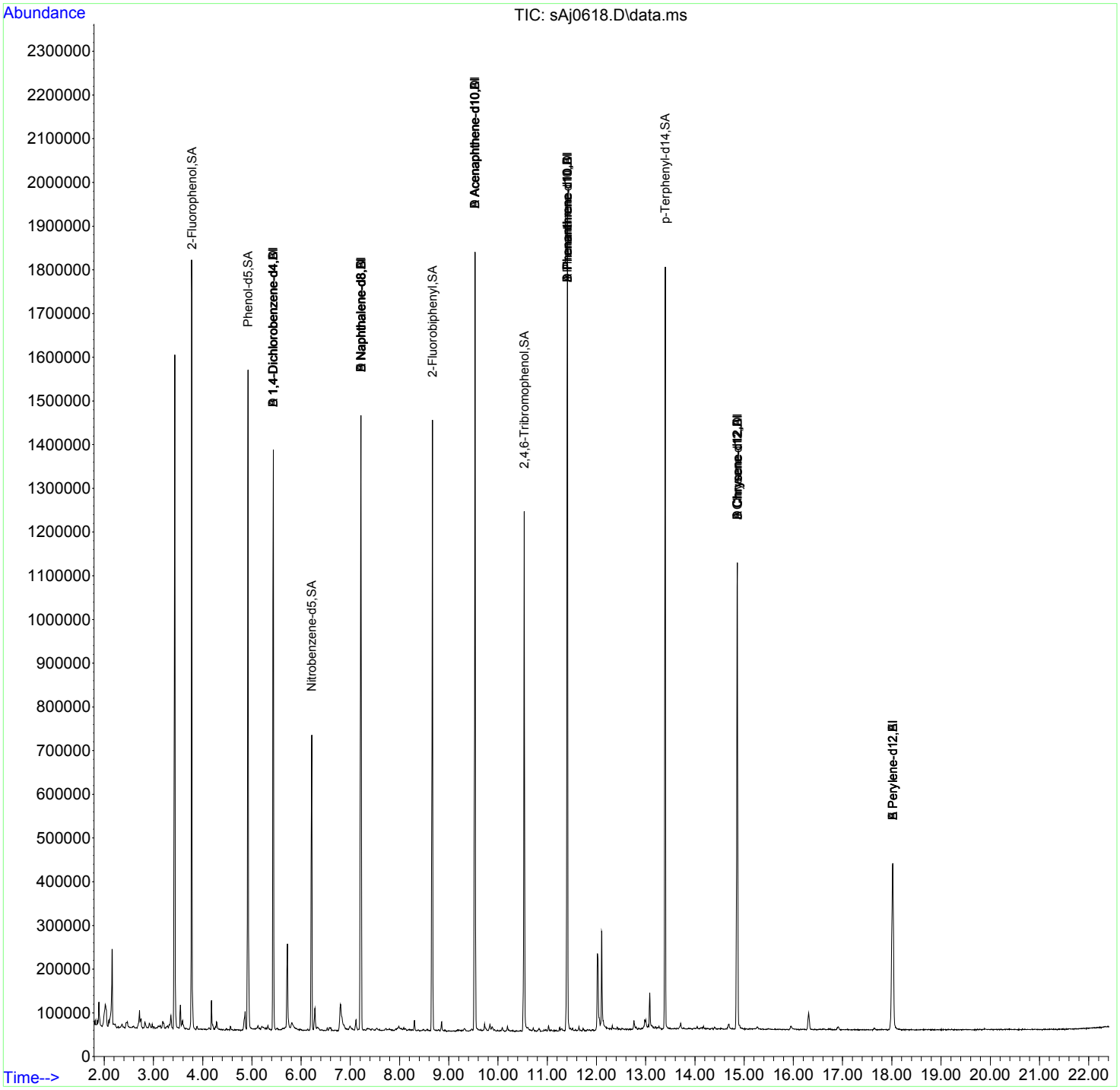
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

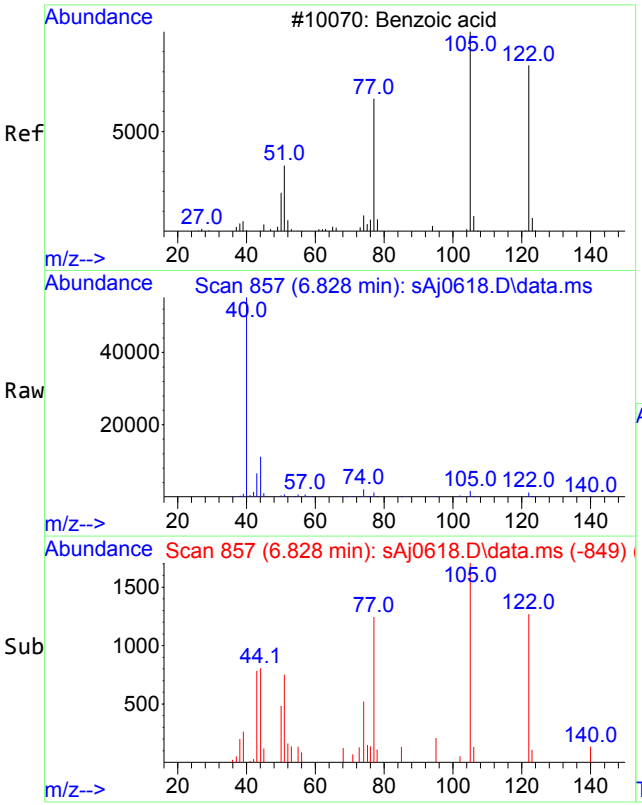
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0618.D
Acq On : 06 Oct 2017 17:56
Operator : JMB3
InstName : MSDA
Sample : |433718018|1707073|1|SVM|1|URSC
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 06 20:15:20 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

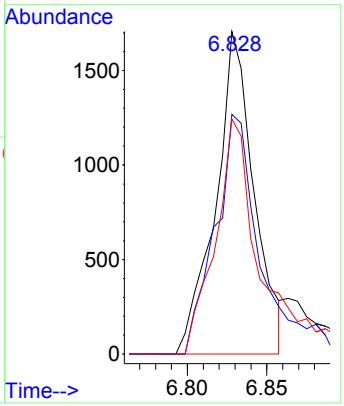




#32 BEFORE analyst DELETION
Benzoic acid
Concen: 13.35 ng/uL
RT: 6.828 min Scan# 857
Delta R.T. -0.100 min
Lab File: sAj0618.D
Acq: 06 Oct 2017 17:56

Tgt Ion:105 Resp: 2863

Ion	Ratio	Lower	Upper
105	100		
122	83.9	45.8	105.8
77	85.4	44.1	104.1



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:45**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718019**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**7.3**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL02**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/09/2017 17:34**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.26 g**	**Final Volume:**	**1 mL**
Data File:	**100917a.s\sAj0919.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
91-58-7	2-Chloronaphthalene	U	35.7	ug/kg	10.7	35.7
91-57-6	2-Methylnaphthalene	U	35.7	ug/kg	10.7	35.7
83-32-9	Acenaphthene	U	35.7	ug/kg	10.7	35.7
120-12-7	Anthracene	U	35.7	ug/kg	10.7	35.7
56-55-3	Benzo(a)anthracene	U	35.7	ug/kg	10.7	35.7
50-32-8	Benzo(a)pyrene	U	35.7	ug/kg	10.7	35.7
205-99-2	Benzo(b)fluoranthene	U	35.7	ug/kg	10.7	35.7
191-24-2	Benzo(ghi)perylene	U	35.7	ug/kg	10.7	35.7
207-08-9	Benzo(k)fluoranthene	U	35.7	ug/kg	10.7	35.7
86-74-8	Carbazole	U	35.7	ug/kg	10.7	35.7
218-01-9	Chrysene	U	35.7	ug/kg	10.7	35.7
53-70-3	Dibenzo(a,h)anthracene	U	35.7	ug/kg	10.7	35.7
206-44-0	Fluoranthene	U	35.7	ug/kg	10.7	35.7
86-73-7	Fluorene	U	35.7	ug/kg	10.7	35.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.7	ug/kg	10.7	35.7
80-62-6	Methyl methacrylate	U	357	ug/kg	107	357
91-20-3	Naphthalene	U	35.7	ug/kg	10.7	35.7
85-01-8	Phenanthrene	U	35.7	ug/kg	10.7	35.7
129-00-0	Pyrene	U	35.7	ug/kg	10.7	35.7
117-81-7	bis(2-Ethylhexyl)phthalate	U	357	ug/kg	107	357

Quantitation Report
GEL Laboratories, LLC

JMB 10/10/2017

JCB 10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0919.D
Acq On : 09 Oct 2017 17:34
Operator : JMB3
InstName : MSDA
Sample : |433718019|1707073|1|SVM|1|URSC
Misc : |MSD827C4_S| SOIL MIX[A,B,D,J]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 10 08:08:07 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards									
1) A	1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	120248	40.00	ng/uL	0.00
24) A	Naphthalene-d8	136	7.299	7.304	1.000	445490	40.00	ng/uL	0.00
42) A	Acenaphthene-d10	164	9.616	9.622	1.000	253042	40.00	ng/uL	0.00
67) A	Phenanthrene-d10	188	11.487	11.492	1.000	433499	40.00	ng/uL	0.00
81) A	Chrysene-d12	240	14.963	14.975	1.000	284999	40.00	ng/uL	-0.01
91) A	Perylene-d12	264	18.198	18.204	1.000	180389	40.00	ng/uL	0.00
99) B	1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	120248	40.00	ng/uL	0.00
115) B	Naphthalene-d8	136	7.299	7.304	1.000	445490	40.00	ng/uL	0.00
123) B	Acenaphthene-d10	164	9.616	9.622	1.000	253042	40.00	ng/uL	0.00
132) B	Phenanthrene-d10	188	11.487	11.492	1.000	433499	40.00	ng/uL	0.00
145) B	Chrysene-d12	240	14.963	14.975	1.000	284999	40.00	ng/uL	-0.01
151) B	Perylene-d12	264	18.198	18.204	1.000	180389	40.00	ng/uL	0.00
154) J	Phenanthrene-d10	188	11.487	11.492	1.000	433499	40.00	ng/uL	0.00
156) J	Chrysene-d12	240	14.963	14.975	1.000	284999	40.00	ng/uL	-0.01
159) D	1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	120248	40.00	ng/uL	0.00
161) D	Naphthalene-d8	136	7.299	7.304	1.000	445490	40.00	ng/uL	0.00
163) D	Acenaphthene-d10	164	9.616	9.622	1.000	253042	40.00	ng/uL	0.00
166) D	Phenanthrene-d10	188	11.487	11.492	1.000	433499	40.00	ng/uL	0.00
173) D	Chrysene-d12	240	14.963	14.975	1.000	284999	40.00	ng/uL	-0.01
175) E	Naphthalene-d8	136	7.299	7.304	1.000	445490	40.00	ng/uL	0.00
177) E	Perylene-d12	264	18.198	18.204	1.000	180389	40.00	ng/uL	0.00
System Monitoring Compounds									Dev(Min)
5)	2-Fluorophenol	112	3.863	3.840	0.699	203940	55.16	ng/uL	0.02
8)	Phenol-d5	99	5.005	5.005	0.905	264430	57.19	ng/uL	0.00
25)	Nitrobenzene-d5	82	6.304	6.316	0.864	118916	27.08	ng/uL	-0.01
47)	2-Fluorobiphenyl	172	8.746	8.751	0.909	254066	26.98	ng/uL	0.00
66)	2,4,6-Tribromophenol	330	10.610	10.616	1.103	62268	61.25	ng/uL	0.00
83)	p-Terphenyl-d14	244	13.469	13.475	0.900	291233	38.66	ng/uL	0.00

	Compound	Amount	Range	Recovery
5)	2-Fluorophenol	100.000	36 - 104	55%
8)	Phenol-d5	100.000	39 - 106	57%
25)	Nitrobenzene-d5	50.000	34 - 109	54%
47)	2-Fluorobiphenyl	50.000	35 - 107	54%
66)	2,4,6-Tribromophenol	100.000	39 - 115	61%
83)	p-Terphenyl-d14	50.000	45 - 119	77%

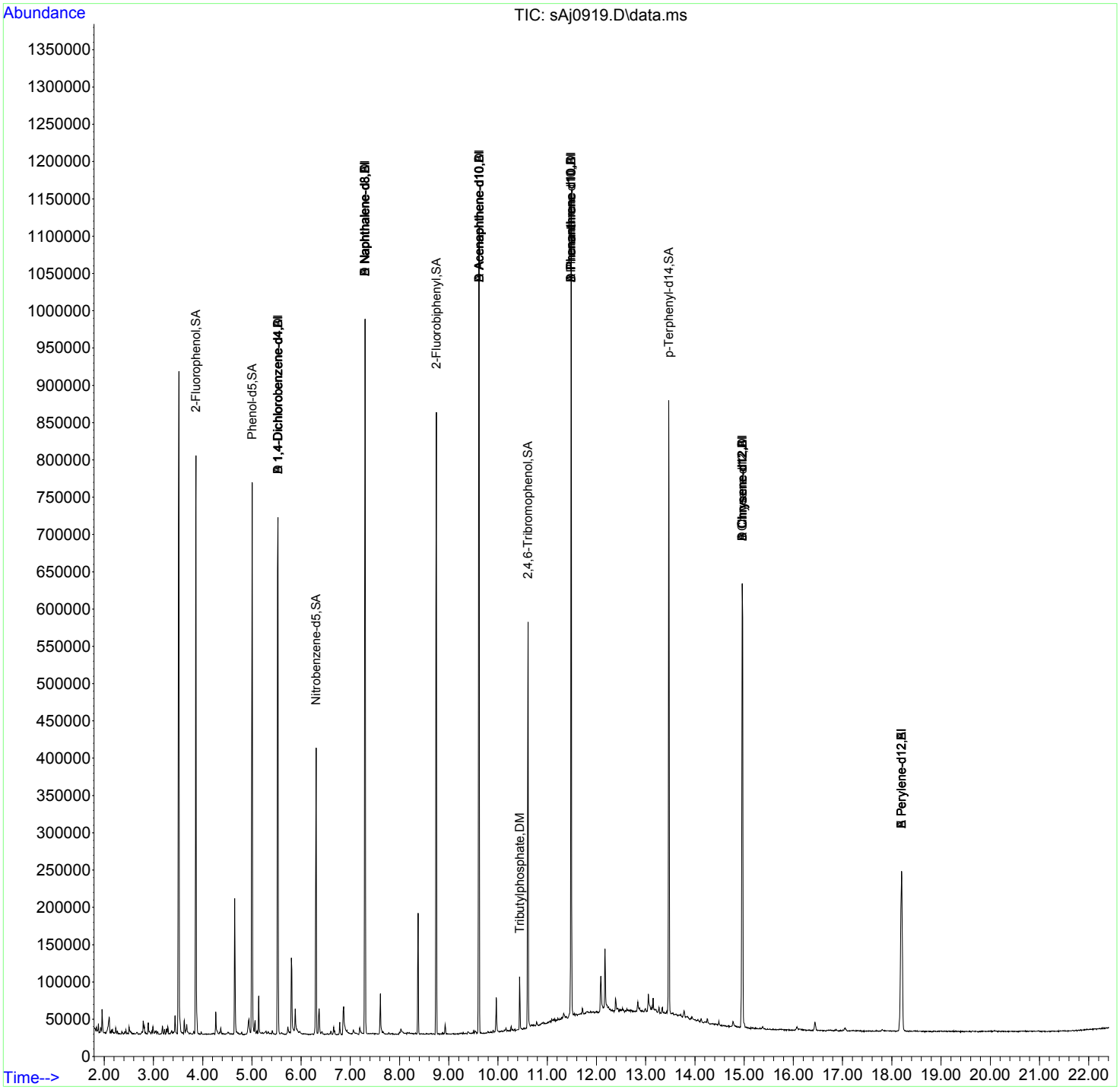
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
165) Tributylphosphate	99	10.440	10.470	1.086	30436	3.47	ng/uL	98

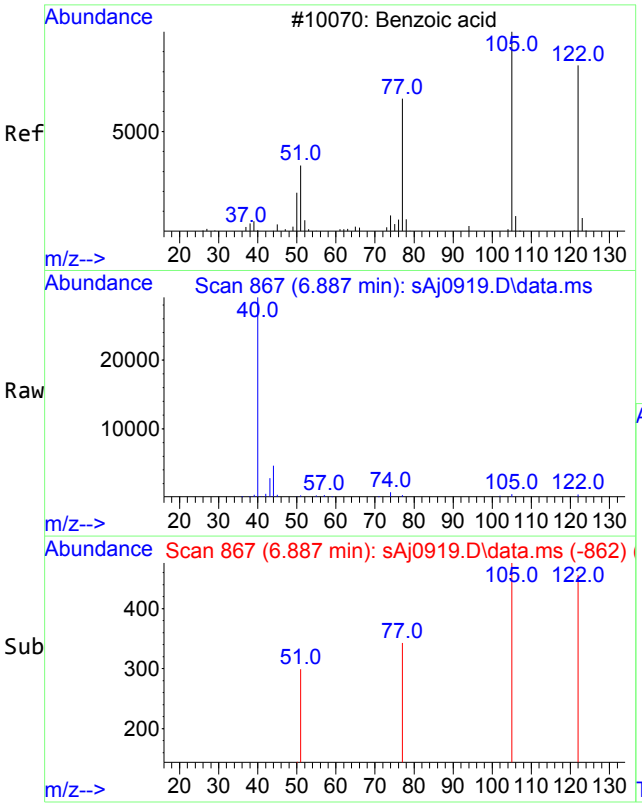
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0919.D
Acq On : 09 Oct 2017 17:34
Operator : JMB3
InstName : MSDA
Sample : |433718019|1707073|1|SVM|1|URSC
Misc : |MSD827C4_S| SOIL MIX[A,B,D,J]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Oct 10 08:08:07 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

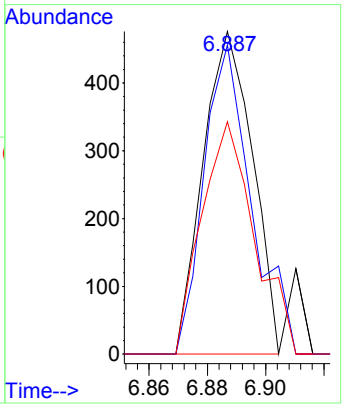


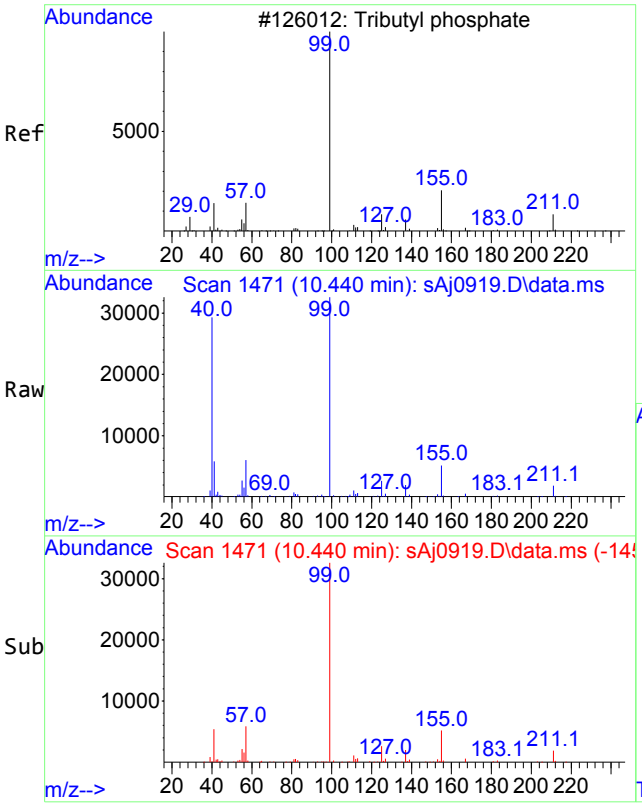


#32 BEFORE analyst DELETION
Benzoic acid
Concen: 12.99 ng/uL
RT: 6.887 min Scan# 867
Delta R.T. -0.118 min
Lab File: sAj0919.D
Acq: 09 Oct 2017 17:34

Tgt Ion:105 Resp: 561

Ion	Ratio	Lower	Upper
105	100		
122	92.0	45.8	105.8
77	0.0	44.1	104.1#

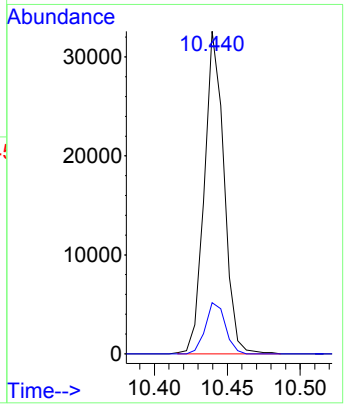




#165
Tributylphosphate
Concen: 3.47 ng/uL
RT: 10.440 min Scan# 1471
Delta R.T. -0.031 min
Lab File: sAj0919.D
Acq: 09 Oct 2017 17:34

Tgt Ion: 99 Resp: 30436

Ion	Ratio	Lower	Upper
99	100		
155	16.1	0.0	45.3



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:50**	**Matrix:**	**SOIL**
Lab Sample ID:	**433718020**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6.2**
		Client:	**URSC013**	**Project:**	**URSC00114**
Client ID:	**G2ESOL03**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/09/2017 18:00**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.25 g**	**Final Volume:**	**1 mL**
Data File:	**100917a.s\sAj0920.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	35.2	ug/kg	10.6	35.2
91-58-7	2-Chloronaphthalene	U	35.2	ug/kg	10.6	35.2
91-57-6	2-Methylnaphthalene	U	35.2	ug/kg	10.6	35.2
83-32-9	Acenaphthene	U	35.2	ug/kg	10.6	35.2
120-12-7	Anthracene	U	35.2	ug/kg	10.6	35.2
56-55-3	Benzo(a)anthracene	U	35.2	ug/kg	10.6	35.2
50-32-8	Benzo(a)pyrene	U	35.2	ug/kg	10.6	35.2
205-99-2	Benzo(b)fluoranthene	U	35.2	ug/kg	10.6	35.2
191-24-2	Benzo(ghi)perylene	U	35.2	ug/kg	10.6	35.2
207-08-9	Benzo(k)fluoranthene	U	35.2	ug/kg	10.6	35.2
86-74-8	Carbazole	U	35.2	ug/kg	10.6	35.2
218-01-9	Chrysene	U	35.2	ug/kg	10.6	35.2
53-70-3	Dibenzo(a,h)anthracene	U	35.2	ug/kg	10.6	35.2
206-44-0	Fluoranthene	U	35.2	ug/kg	10.6	35.2
86-73-7	Fluorene	U	35.2	ug/kg	10.6	35.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	35.2	ug/kg	10.6	35.2
80-62-6	Methyl methacrylate	U	352	ug/kg	106	352
91-20-3	Naphthalene	U	35.2	ug/kg	10.6	35.2
85-01-8	Phenanthrene	U	35.2	ug/kg	10.6	35.2
129-00-0	Pyrene	U	35.2	ug/kg	10.6	35.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	352	ug/kg	106	352

Quantitation Report
GEL Laboratories, LLC

JMB 10/10/2017

JCB 10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0920.D
Acq On : 09 Oct 2017 18:00
Operator : JMB3
InstName : MSDA
Sample : |433718020|1707073|1|SVM|1|URSC
Misc : |MSD827C4_S| SOIL MIX[A,B,D,J]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Oct 10 08:08:44 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	128524	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.299	7.304	1.000	474468	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.616	9.622	1.000	267930	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.487	11.492	1.000	469232	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.963	14.975	1.000	344542	40.00	ng/uL	-0.01
91) A Perylene-d12	264	18.204	18.204	1.000	236526	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	128524	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.299	7.304	1.000	474468	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.616	9.622	1.000	267930	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.487	11.492	1.000	469232	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.963	14.975	1.000	344542	40.00	ng/uL	-0.01
151) B Perylene-d12	264	18.204	18.204	1.000	236526	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.487	11.492	1.000	469232	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.963	14.975	1.000	344542	40.00	ng/uL	-0.01
159) D 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	128524	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.299	7.304	1.000	474468	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.616	9.622	1.000	267930	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.487	11.492	1.000	469232	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.963	14.975	1.000	344542	40.00	ng/uL	-0.01
175) E Naphthalene-d8	136	7.299	7.304	1.000	474468	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.204	18.204	1.000	236526	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.869	3.840	0.700	303322	76.76	ng/uL	0.03
8) Phenol-d5	99	5.005	5.005	0.905	368611	74.59	ng/uL	0.00
25) Nitrobenzene-d5	82	6.305	6.316	0.864	167336	35.77	ng/uL	-0.01
47) 2-Fluorobiphenyl	172	8.746	8.751	0.909	348594	34.96	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.610	10.616	1.103	94906	88.16	ng/uL	0.00
83) p-Terphenyl-d14	244	13.475	13.475	0.901	384702	42.25	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	77%
8) Phenol-d5	100.000	39 - 106	75%
25) Nitrobenzene-d5	50.000	34 - 109	72%
47) 2-Fluorobiphenyl	50.000	35 - 107	70%
66) 2,4,6-Tribromophenol	100.000	39 - 115	88%
83) p-Terphenyl-d14	50.000	45 - 119	85%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0920.D
Acq On    : 09 Oct 2017  18:00
Operator  : JMB3
InstName  : MSDA
Sample    : |433718020|1707073|1|SVM|1|URSC
Misc      : |MSD827C4_S| SOIL MIX[A,B,D,J]
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Oct 10 08:08:44 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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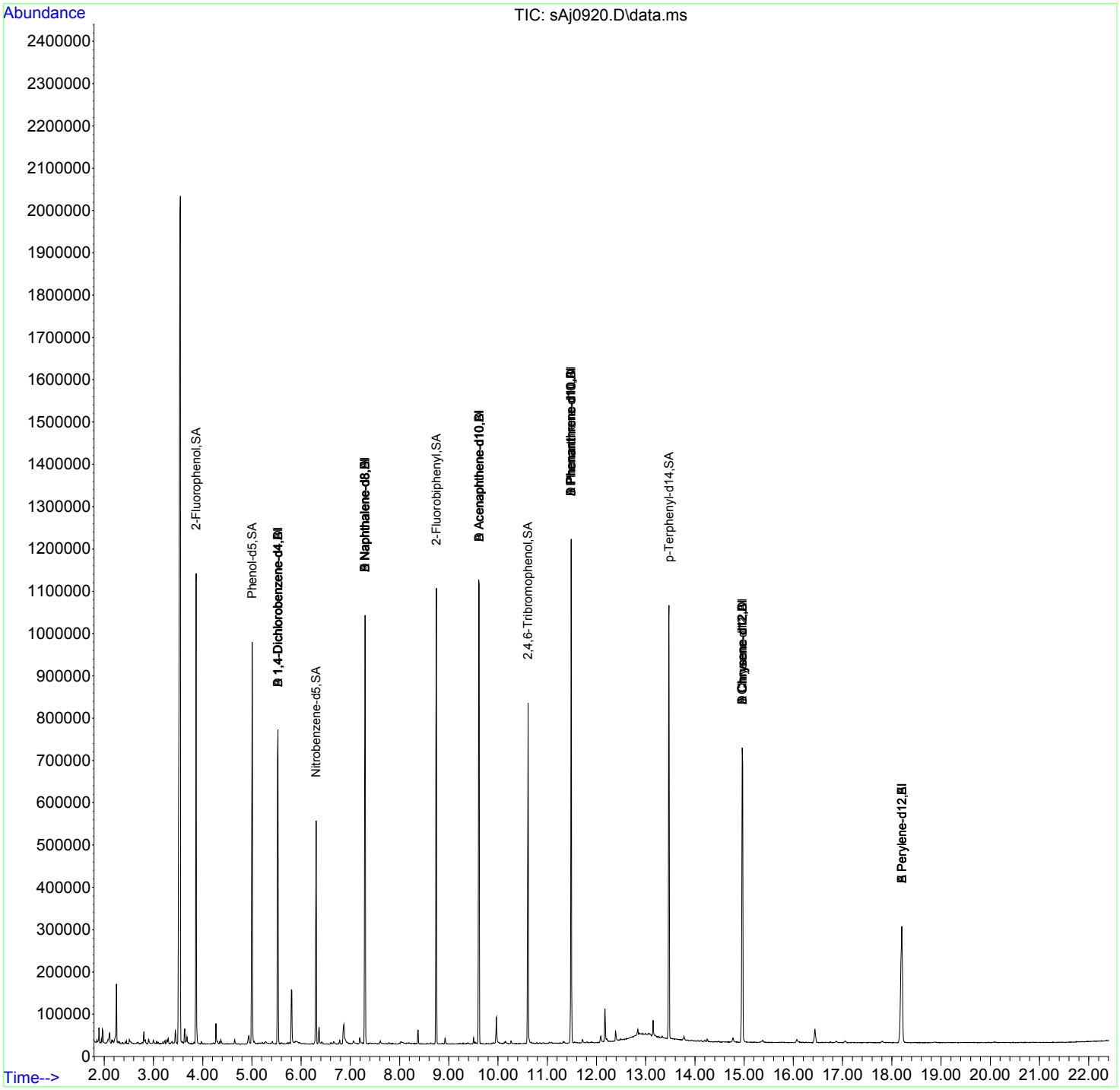
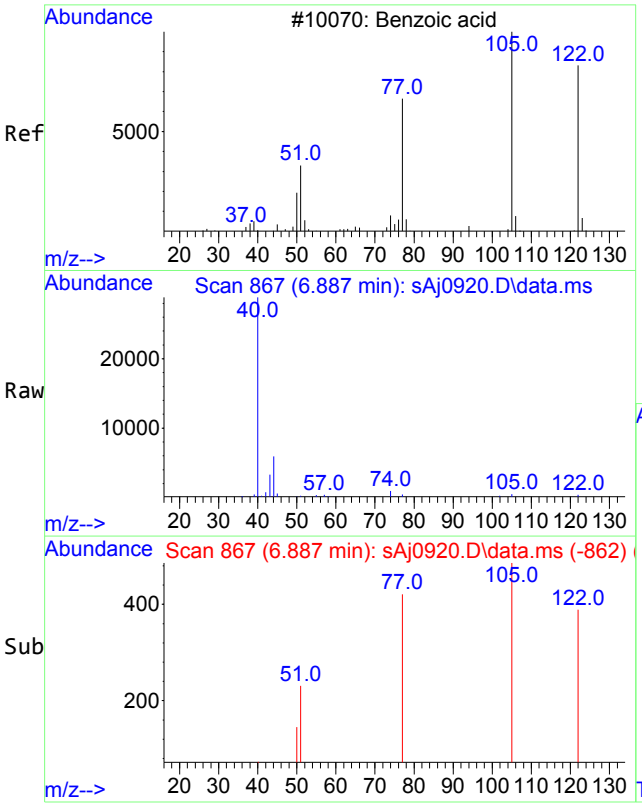
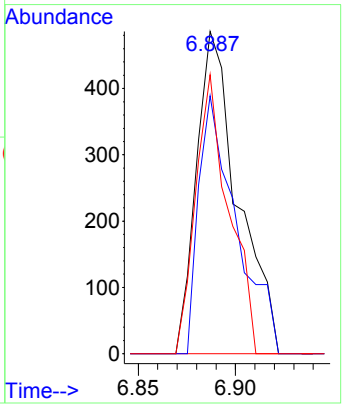




#32 BEFORE analyst DELETION
Benzoic acid
Concen: 13.03 ng/uL
RT: 6.887 min Scan# 867
Delta R.T. -0.118 min
Lab File: sAj0920.D
Acq: 09 Oct 2017 18:00

Tgt Ion:105 Resp: 724

Ion	Ratio	Lower	Upper
105	100		
122	0.0	45.8	105.8#
77	69.2	44.1	104.1



Standards

SW846 8270/EPA 625

Calibration Standard Concentration Levels*

MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120	30	60
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120	30	60
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120	30	60
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120	30	60
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120	30	60
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120	30	60
Pyridine		10	20	40	50	80	100	120	30	60
Aniline		10	20	40	50	80	100	120	30	60
Phenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120	30	60
2-Chlorophenol		10	20	40	50	80	100	120	30	60
n-Decane		10	20	40	50	80	100	120	30	60
1,3-Dichlorobenzene		10	20	40	50	80	100	120	30	60
1,4-Dichlorobenzene		10	20	40	50	80	100	120	30	60
Benzyl Alcohol		10	20	40	50	80	100	120	30	60
1,2-Dichlorobenzene		10	20	40	50	80	100	120	30	60
bis(2-Chloro-1-methylethyl)ether		10	20	40	50	80	100	120	30	60
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120	30	60
N-Nitrosodipropylamine		10	20	40	50	80	100	120	30	60
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120	30	60
Hexachloroethane		10	20	40	50	80	100	120	30	60
Nitrobenzene		10	20	40	50	80	100	120	30	60
Isophorone		10	20	40	50	80	100	120	30	60
2-Nitrophenol		10	20	40	50	80	100	120	30	60
2,4-Dimethylphenol		10	20	40	50	80	100	120	30	60
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120	30	60
2,4-Dichlorophenol		10	20	40	50	80	100	120	30	60
Benzoic Acid			20	40	50	80	100	120	30	60
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120	30	60
Naphthalene	1	10	20	40	50	80	100	120	30	60
alpha-Terpineol		10	20	40	50	80	100	120	30	60
4-Chloroaniline		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorobutadiene		10	20	40	50	80	100	120	30	60
4-Chloro-3-methylphenol		10	20	40	50	80	100	120	30	60
2-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
1-Methylnaphthalene	1	10	20	40	50	80	100	120	30	60
Hexachlorocyclopentadiene		10	20	40	50	80	100	120	30	60
2,3-Dichloroaniline		10	20	40	50	80	100	120	30	60
2,4,6-Trichlorophenol		10	20	40	50	80	100	120	30	60
2,4,5-Trichlorophenol		10	20	40	50	80	100	120	30	60
2-Chloronaphthalene	1	10	20	40	50	80	100	120	30	60
o-Nitroaniline		10	20	40	50	80	100	120	30	60
m-Nitroaniline		10	20	40	50	80	100	120	30	60
Dimethylphthalate	1**	10	20	40	50	80	100	120	30	60
2,6-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Acenaphthylene	1	10	20	40	50	80	100	120	30	60
Acenaphthene	1	10	20	40	50	80	100	120	30	60
2,4-Dinitrophenol			20	40	50	80	100	120	30	60
Dibenzofuran		10	20	40	50	80	100	120	30	60
2,4-Dinitrotoluene		10	20	40	50	80	100	120	30	60
Diethylphthalate	1**	10	20	40	50	80	100	120	30	60
4-Nitrophenol		10	20	40	50	80	100	120	30	60
Fluorene	1	10	20	40	50	80	100	120	30	60
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120	30	60
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120	30	60
p-Nitroaniline		10	20	40	50	80	100	120	30	60
Diphenylamine		10	20	40	50	80	100	120	30	60
1,2-Diphenylhydrazine		10	20	40	50	80	100	120	30	60
4-Bromophenyl phenyether		10	20	40	50	80	100	120	30	60
Hexachlorobenzene		10	20	40	50	80	100	120	30	60
Pentachlorophenol		10	20	40	50	80	100	120	30	60
n-Octadecane		10	20	40	50	80	100	120	30	60
Phenanthrene	1	10	20	40	50	80	100	120	30	60
Anthracene	1	10	20	40	50	80	100	120	30	60
Di-n-butylphthalate	1**	10	20	40	50	80	100	120	30	60
Fluoranthene	1	10	20	40	50	80	100	120	30	60
Pyrene	1	10	20	40	50	80	100	120	30	60
Butylbenzylphthalate	1**	10	20	40	50	80	100	120	30	60
Benzo(a)anthracene	1	10	20	40	50	80	100	120	30	60
Chrysene	1	10	20	40	50	80	100	120	30	60
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120	30	60
Di-n-octylphthalate	1**	10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120	30	60
Benzo(a)pyrene	1	10	20	40	50	80	100	120	30	60
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120	30	60
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120	30	60
Benzo(ghi)perylene	1	10	20	40	50	80	100	120	30	60
m-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120	30	60
Dinoseb		10	20	40	50	80	100	120	30	60
Carbazole	1	10	20	40	50	80	100	120	30	60
p-Benzoquinone		10	20	40	50	80	100	120	30	60
Methoxychlor		10	20	40	50	80	100	120	30	60
p-Toluidine		10	20	40	50	80	100	120	30	60
m-Toluidine		10	20	40	50	80	10	120	30	60
1,4-Dinitrobenzene		10	20	40	50	80	100	120	30	60
2-Ethoxyethanol		10	20	40	50	80	100	120	30	60
Phthalic anhydride		10	20	40	50	80	100	120	30	60
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120	30	60
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Benzaldehyde		10	20	40	50	80	100	120	30	60
Acetophenone		10	20	40	50	80	100	120	30	60
Caprolactam		10	20	40	50	80	100	120	30	60
1,1'-Biphenyl		10	20	40	50	80	100	120	30	60
Atrazine		10	20	40	50	80	100	120	30	60
Benzidine		10	20	40	50	80	100	120	30	60
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120	30	60
1,4-Dioxane		10	20	40	50	80	100	120	30	60
Methyl methacrylate		10	20	40	50	80	100	120	30	60
Ethyl methacrylate		10	20	40	50	80	100	120	30	60
2-Picoline		10	20	40	50	80	100	120	30	60
N-Nitrosomethylethylamine		10	20	40	50	80	100	120	30	60
2-Butoxyethanol		10	20	40	50	80	100	120	30	60
Methyl methanesulfonate		10	20	40	50	80	100	120	30	60
N-Nitrosodiethylamine		10	20	40	50	80	100	120	30	60
Ethyl methanesulfonate		10	20	40	50	80	100	120	30	60
Pentachloroethane		10	20	40	50	80	100	120	30	60
N-Nitrosopyrrolidine		10	20	40	50	80	100	120	30	60
N-Nitrosomorpholine		10	20	40	50	80	100	120	30	60
o-Toluidine		10	20	40	50	80	100	120	30	60
N-Nitrosopiperidine		10	20	40	50	80	100	120	30	60
a,a-Dimethylphenethylamine		10	20	40	50	80	100	120	30	60
2,6-Dichlorophenol		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachloropropene		10	20	40	50	80	100	120	30	60
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120	30	60
Safrole		10	20	40	50	80	100	120	30	60
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120	30	60
Isosafrole		10	20	40	50	80	100	120	30	60
1,4-Naphthoquinone		10	20	40	50	80	100	120	30	60
Pentachlorobenzene		10	20	40	50	80	100	120	30	60
1-Naphthylamine		10	20	40	50	80	100	120	30	60
2-Naphthylamine		10	20	40	50	80	100	120	30	60
5-Nitro-o-toluidine		10	20	40	50	80	100	120	30	60
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120	30	60
Phenacetin		10	20	40	50	80	100	120	30	60
Diallate		10	20	40	50	80	100	120	30	60
cis-Diallate		1.5	3	6	7.5	12	15	18	4.5	9
trans-Diallate		8.5	17	34	42	68	85	102	25.5	51
4-Aminobiphenyl		10	20	40	50	80	100	120	30	60
Pentachloronitrobenzene		10	20	40	50	80	100	120	30	60
Pronamide		10	20	40	50	80	100	120	30	60
4-Nitroquinoline-1-oxide		10	20	40	50	80	100	120	30	60
Methapyrilene		10	20	40	50	80	100	120	30	60
Isodrin		10	20	40	50	80	100	120	30	60
Aramite		10	20	40	50	80	100	120	30	60
Kepone		10	20	40	50	80	100	120	30	60
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120	30	60
Chlorobenzilate		10	20	40	50	80	100	120	30	60
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120	30	60
2-Acetylaminofluorene		10	20	40	50	80	100	120	30	60
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120	30	60
3-Methylcholanthrene		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
Hexachlorophene		500	1000	1250	1500	1750	2000			
p-Phenylenediamine		500	1000	1250	1500	1750	2000			

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
Tributylphosphate		10	20	40	50	80	100	120	30	60
Triethylphosphorothioate		10	20	40	50	80	100	120	30	60
Thionazin		10	20	40	50	80	100	120	30	60
Sulfotepp		10	20	40	50	80	100	120	30	60
Phorate		10	20	40	50	80	100	120	30	60
Dimethoate		10	20	40	50	80	100	120	30	60
Disulfoton		10	20	40	50	80	100	120	30	60
Methyl parathion		10	20	40	50	80	100	120	30	60
Famphur		10	20	40	50	80	100	120	30	60
Parathion		10	20	40	50	80	100	120	30	60

SW846 8270/EPA 625										
Calibration Standard Concentration Levels*										
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8	Level 9	Level 10
bis(Chloromethyl)ether		10	20	40	50	80	100	120	30	60
4-Chlorothiophenol		10	20	40	50	80	100	120	30	60
4-Chlorothioanisole		10	20	40	50	80	100	120	30	60
Phthalic acid		10	20	40	50	80	100	120	30	60
Hydroxymethyl phthalimide		10	20	40	50	80	100	120	30	60
Diphenyl sulfide		10	20	40	50	80	100	120	30	60
Diphenyl disulfide		10	20	40	50	80	100	120	30	60
Phenyl sulfone		10	20	40	50	80	100	120	30	60
Octachlorostyrene		10	20	40	50	80	100	120	30	60
Thiophenol		10	20	40	50	80	100	120	30	60
2,2'-Dichlorobenzil		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120	30	60
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120	30	60

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.

EPA 522								
Calibration Standard Concentration Levels#								
	Level 1	Level 2	Level 3	Level 4	Level 5	ICV	CCV	
Tetrahydrofuran-d8 (INTERNAL STANDARD)								
1,4-Dioxane-d8 (SURROGATE)	50	100	200	400	500	200	See Method	
1,4-Dioxane	50	100	200	400	500	200	See Method	

All values are ug/L without the prep factor.
Usual calibration levels using SIM methodology

SW846 8270SIM										
Calibration Standard Concentration Levels*										
MEGASIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)										
Naphthalene-d8 (INTERNAL STANDARD)										
Acenaphthene-d10 (INTERNAL STANDARD)										
Phenanthrene-d10 (INTERNAL STANDARD)										
Chrysene-d12 (INTERNAL STANDARD)										
Perylene-d12 (INTERNAL STANDARD)										
5-alpha-Androstane (SURROGATE)	$0.1	0.2	0.5	1	2	5	10	20		
$N-Methyl-N-nitrosomethylamine		0.2	0.5	1	2	5	10	20		
$bis(2-Chloroethyl)ether	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosodipropylamine	0.1	0.2	0.5	1	2	5	10	20		
Naphthalene	$0.1	0.2	0.5	1	2	5	10	20		
2-Methylnaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
1-Methylnaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
2-Chloronaphthalene	$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthylene	$0.1	0.2	0.5	1	2	5	10	20		
Acenaphthene	$0.1	0.2	0.5	1	2	5	10	20		
Fluorene	$0.1	0.2	0.5	1	2	5	10	20		
Phenanthrene	$0.1	0.2	0.5	1	2	5	10	20		
Anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Chrysene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(b)fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(k)fluoranthene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(a)pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Indeno-(1,2,3-cd)pyrene	$0.1	0.2	0.5	1	2	5	10	20		
Dibenzo(a,h)anthracene	$0.1	0.2	0.5	1	2	5	10	20		
Benzo(ghi)perylene	$0.1	0.2	0.5	1	2	5	10	20		

$ By special request - Not for regulatory purposes

SW846 8270SIM										
Calibration Standard Concentration Levels*										
APSIM analytes (A)	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6#	Level 7	Level 8	Level 9	Level 10
$N-Nitrosodimethylamine	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosopyrrolidine	0.1	0.2	0.5	1	2	5	10	20		
$N-Nitrosodi-n-butylamine	0.1	0.2	0.5	1	2	5	10	20		
$Benzidine			2.5	5	10	25	50	100		
$3,3'-Dichlorobenzidine	0.1	0.2	0.5	1	2	5	10	20		

$ By special request - Not for regulatory purposes
All values are mg/L without prep factor.
# indicates the calibraton verification concentration level used.
* Usual calibration levels using SIM methodology
(10/16/Full list)

Calibration History Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

JMB
10/06/2017

BB
10/09/2017

Cal Lvl:1 Amt:1.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1510.D

Injection Date	Mix	Calibration File
15 Sep 2017 13:49	A	D:\MSDChem\1\data\091517.s\sAI1510.D

Cal Lvl:2 Amt:10.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1542.D

Injection Date	Mix	Calibration File
15 Sep 2017 14:20	A	D:\MSDChem\1\data\091517.s\sAI1511.D
15 Sep 2017 16:11	B	D:\MSDChem\1\data\091517.s\sAI1515.D
15 Sep 2017 23:55	D	D:\MSDChem\1\data\091517.s\sAI1534.D
16 Sep 2017 02:55	E	D:\MSDChem\1\data\091517.s\sAI1542.D
15 Sep 2017 20:39	J	D:\MSDChem\1\data\091517.s\sAI1525.D

Cal Lvl:3 Amt:20.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1543.D

Injection Date	Mix	Calibration File
15 Sep 2017 14:51	A	D:\MSDChem\1\data\091517.s\sAI1512.D
15 Sep 2017 16:38	B	D:\MSDChem\1\data\091517.s\sAI1516.D
16 Sep 2017 00:17	D	D:\MSDChem\1\data\091517.s\sAI1535.D
16 Sep 2017 03:17	E	D:\MSDChem\1\data\091517.s\sAI1543.D
15 Sep 2017 21:01	J	D:\MSDChem\1\data\091517.s\sAI1526.D

Cal Lvl:4 Amt:40.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1544.D

Injection Date	Mix	Calibration File
15 Sep 2017 10:40	A	D:\MSDChem\1\data\091517.s\sAI1505.D
15 Sep 2017 17:31	B	D:\MSDChem\1\data\091517.s\sAI1518.D
16 Sep 2017 00:40	D	D:\MSDChem\1\data\091517.s\sAI1536.D
16 Sep 2017 03:40	E	D:\MSDChem\1\data\091517.s\sAI1544.D
15 Sep 2017 21:24	J	D:\MSDChem\1\data\091517.s\sAI1527.D

Cal Lvl:5 Amt:50.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1545.D

Injection Date	Mix	Calibration File
15 Sep 2017 11:45	A	D:\MSDChem\1\data\091517.s\sAI1506.D
15 Sep 2017 17:58	B	D:\MSDChem\1\data\091517.s\sAI1519.D
16 Sep 2017 01:02	D	D:\MSDChem\1\data\091517.s\sAI1537.D
16 Sep 2017 04:02	E	D:\MSDChem\1\data\091517.s\sAI1545.D
15 Sep 2017 21:46	J	D:\MSDChem\1\data\091517.s\sAI1528.D

Cal Lvl:6 Amt:80.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1546.D

Injection Date	Mix	Calibration File
15 Sep 2017 12:16	A	D:\MSDChem\1\data\091517.s\sAI1507.D
15 Sep 2017 18:51	B	D:\MSDChem\1\data\091517.s\sAI1521.D
16 Sep 2017 01:25	D	D:\MSDChem\1\data\091517.s\sAI1538.D
16 Sep 2017 04:25	E	D:\MSDChem\1\data\091517.s\sAI1546.D
15 Sep 2017 22:09	J	D:\MSDChem\1\data\091517.s\sAI1529.D

Calibration History Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:7 Amt:100.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1547.D

Injection Date	Mix	Calibration File
15 Sep 2017 12:47	A	D:\MSDChem\1\data\091517.s\sAI1508.D
15 Sep 2017 19:18	B	D:\MSDChem\1\data\091517.s\sAI1522.D
16 Sep 2017 01:47	D	D:\MSDChem\1\data\091517.s\sAI1539.D
16 Sep 2017 04:47	E	D:\MSDChem\1\data\091517.s\sAI1547.D
15 Sep 2017 22:31	J	D:\MSDChem\1\data\091517.s\sAI1530.D

Cal Lvl:8 Amt:120.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1509.D

Injection Date	Mix	Calibration File
15 Sep 2017 13:18	A	D:\MSDChem\1\data\091517.s\sAI1509.D
15 Sep 2017 19:44	B	D:\MSDChem\1\data\091517.s\sAI1523.D
16 Sep 2017 02:10	D	D:\MSDChem\1\data\091517.s\sAI1540.D
15 Sep 2017 22:54	J	D:\MSDChem\1\data\091517.s\sAI1531.D

Cal Lvl:9 Amt:30.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1517.D

Injection Date	Mix	Calibration File
15 Sep 2017 17:04	B	D:\MSDChem\1\data\091517.s\sAI1517.D

Cal Lvl:10 Amt:60.00 Last Updated with: D:\MSDChem\1\data\091517.s\sAI1520.D

Injection Date	Mix	Calibration File
15 Sep 2017 18:25	B	D:\MSDChem\1\data\091517.s\sAI1520.D

MSDA_8270d_8270c_091517.m Fri Oct 06 11:29:34 2017

JMB 10/06/2017

SAB 10/09/2017

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
2)A 2-Ethoxyethanol		0.8224478	0.8734781	0.8313963	0.8266705	0.8353918				
	0.8824504	0.8184932					0.8415	AVRG		3.0496
3)AM N-Methyl-N-nitrosomethyl	0.7178544	0.8290268	0.8097677	0.7796508	0.7873101	0.7897013				
	0.7927341	0.8143023					0.7900	AVRG		4.2337
4)AM Pyridine		1.3550630	1.3896929	1.4186619	1.3874309	1.3991721				
	1.3982852	1.3394610					1.3840	AVRG		1.9790
5)SA 2-Fluorophenol		1.2754914	1.2476450	1.2460364	1.1933730	1.2526216				
	1.2045926	1.1894149					1.2299	AVRG		2.7340
6)A p-Benzoquinone		0.7734056	0.7912471	0.8086063	0.8009574	0.7861273				
	0.7394977	0.7049387					0.7721	AVRG		4.8183
7)AM Aniline		1.9638254	1.9185137	1.8716915	1.8992013	1.9074481				
	1.8293169	1.8513162					1.8916	AVRG		2.3787
8)SA Phenol-d5		1.5820725	1.5594951	1.5323846	1.5311867	1.5325573				
	1.5044152	1.5245842					1.5381	AVRG		1.6405
9)AMC Phenol		1.6617272	1.6367582	1.5894371	1.5913919	1.6033382				
	1.5670756	1.6043700					1.6077	AVRG		1.9740
10)AM bis(2-Chloroethyl) ether		1.3457028	1.3188658	1.3009728	1.2815353	1.2937147				
	1.2670297	1.2831635					1.2987	AVRG		2.0336
11)AM 2-Chlorophenol		1.3759625	1.3634280	1.3340609	1.3503443	1.3449431				
	1.3181565	1.3399399					1.3467	AVRG		1.4130
12)AM n-Decane		2.1279289	2.0625189	2.0892820	2.0305279	2.0534039				
	2.0122676	1.9470119					2.0461	AVRG		2.8279
13)AM 1,3-Dichlorobenzene		1.5809518	1.5497508	1.5642263	1.5414232	1.5464300				
	1.5153295	1.4963982					1.5421	AVRG		1.8498
14)AMC 1,4-Dichlorobenzene		1.6043833	1.5763881	1.5630186	1.5544977	1.5599062				
	1.5304341	1.5124314					1.5573	AVRG		1.9199
15)AM 1,2-Dichlorobenzene		1.5198722	1.5011888	1.4825114	1.4659550	1.4754267				

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Integrator : (RTE Integrator) Response via : Initial Calibration

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Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	1.4401495	1.4363090					1.4745	AVRG		2.0622
16)AM bis(2-Chloro-1-methyleth		2.6131831	2.5867973	2.5501169	2.5257703	2.5030516				
	2.4282478	2.4657132					2.5247	AVRG		2.5864
17)AM Benzyl alcohol		0.8748729	0.8834565	0.8568675	0.8584999	0.8611494				
	0.8359339	0.8657146					0.8624	AVRG		1.7444
18)AM o-Cresol		1.1082955	1.0874063	1.0663535	1.0673633	1.0654280				
	1.0341837	1.0565057					1.0694	AVRG		2.1840
19)AM m,p-Cresols		1.4352157	1.4281596	1.3855904	1.3897945	1.3728922				
	1.3313595	1.3979814					1.3916	AVRG		2.5062
20)AMP N-Nitrosodipropylamine		0.9930266	1.0034520	0.9625578	0.9704049	0.9577254				
	0.9129735						0.9667	AVRG		3.2849
21)A p-Toluidine		1.9732063	1.8633668	1.7200224	1.6642657	1.5625800				
							1.7567	AVRG		9.2591
22)A m-Toluidine		1.7587738	1.6822033	1.6287517	1.6306027	1.4773530				
	1.4672231	1.4323350					1.5825	AVRG		7.8403
23)AM Hexachloroethane		0.5832348	0.6026159	0.5986716	0.5951970	0.5948292				
	0.5876030	0.5811246					0.5919	AVRG		1.3617
25)SA Nitrobenzene-d5		0.3974255	0.3846871	0.3887369	0.3912769	0.3966221				
	0.4042392	0.3974978					0.3944	AVRG		1.6585
26)AM Nitrobenzene		0.3940393	0.3885326	0.3921271	0.3944579	0.4027076				
	0.4039942	0.3985251					0.3963	AVRG		1.4252
27)AM Isophorone		0.7116581	0.7031457	0.6786189	0.6825198	0.6729904				
	0.6644032	0.6803057					0.6848	AVRG		2.4413
28)AMC 2-Nitrophenol		0.1494431	0.1552909	0.1522220	0.1622814	0.1696952				
	0.1751333	0.1785850					0.1632	AVRG		7.0492
29)AM 2,4-Dimethylphenol		0.3269498	0.3241236	0.3170106	0.3172523	0.3157201				
	0.3180619	0.3180222					0.3196	AVRG		1.3189

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Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
30)AM bis(2-Chloroethoxy)metha		0.4608471	0.4514611	0.4387280	0.4429338	0.4385135				
	0.4364251	0.4422164					0.4444	AVRG		1.9651
31)AMC 2,4-Dichlorophenol		0.3065330	0.3086149	0.3039214	0.3030628	0.3018896				
	0.2994704	0.3019086					0.3036	AVRG		1.0149
32)AM Benzoic acid			42959	91600	141876	259451				
-0.0770 | 0.2410 | 0.00	312917	428676						LINR	#	0.9969
33)AM 1,2,4-Trichlorobenzene		0.3574664	0.3507943	0.3486790	0.3448540	0.3453681				
	0.3456259	0.3408456					0.3477	AVRG		1.5343
34)AM alpha-Terpineol		0.3776014	0.3774296	0.3647025	0.3696217	0.3693038				
	0.3698159	0.3745889					0.3719	AVRG		1.2915
35)AM Naphthalene	1.1143627	1.1312256	1.0940109	1.0826382	1.0687483	1.0603053				
	1.0608058	1.0496335					1.0827	AVRG		2.6480
36)AM 4-Chloroaniline		0.4130535	0.3832214	0.3529038	0.3390064	0.2953069				
							0.3567	AVRG		12.5185
37)AMC Hexachlorobutadiene		0.2106758	0.2088535	0.2062811	0.2028480	0.2052084				
	0.2092171	0.2051813					0.2069	AVRG		1.3392
38)AMC 4-Chloro-3-methylphenol		0.3095495	0.3080900	0.2970838	0.2994687	0.2910490				
	0.2801330	0.2954974					0.2973	AVRG		3.3870
39)AM 2-Methylnaphthalene	0.7422110	0.7297567	0.7282858	0.6940454	0.6921778	0.6780048				
	0.6562865	0.6733881					0.6993	AVRG		4.4119
40)A Phthalic anhydride		0.1323539	0.1584405	0.1609376	0.1881551	0.1699185				
	0.1471941	0.1706912					0.1611	AVRG		11.1288
41)AM 1-Methylnaphthalene	0.7142546	0.6891638	0.6828242	0.6468982	0.6434966	0.6225178				
	0.6050015	0.6231563					0.6534	AVRG		5.8418
43)AMP Hexachlorocyclopentadien		27676	57937	122749	162187	261238				
-0.0913 | 0.5017 | 0.00	302665							LINR	#	0.9940
44)AM 2,3-Dichloroaniline		0.6737369	0.6382052	0.6210792	0.5834441	0.5349611				
	0.4992659	0.4898026					0.5772	AVRG		12.3523

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Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
45)AMC 2,4,6-Trichlorophenol		0.3856916	0.3856520	0.3992974	0.3997412	0.4171666				
	0.4301033	0.4154495					0.4047	AVRG		4.1519
46)AM 2,4,5-Trichlorophenol		0.3974017	0.3962641	0.4200444	0.4091547	0.4194632				
	0.4223684	0.4196877					0.4121	AVRG		2.7238
47)SA 2-Fluorobiphenyl		1.4653587	1.4149625	1.4809696	1.4684041	1.5178116				
	1.5808973	1.4916964					1.4886	AVRG		3.4484
48)AM 2-Chloronaphthalene	1.2097032	1.2565993	1.2193429	1.2490602	1.2349690	1.2698011				
	1.3036206	1.2496306					1.2491	AVRG		2.3623
49)AM o-Nitroaniline		0.3278484	0.3453302	0.3403203	0.3463094	0.3529399				
	0.3414580	0.3534156					0.3439	AVRG		2.5361
50)A 1,4-Dinitrobenzene		0.1322021	0.1498445	0.1421791	0.1512204	0.1524314				
	0.1445051	0.1608369					0.1476	AVRG		6.1397
51)AM m-Nitroaniline		0.2597533	0.2566513	0.2209195	0.2066149	0.1983654				
	0.1811493	0.1983713					0.2174	AVRG		13.9286
52)AM Dimethylphthalate	1.3590808	1.4125419	1.3866403	1.3263889	1.3186091	1.2772778				
	1.2293354	1.2728732					1.3228	AVRG		4.6754
53)A m-Dinitrobenzene		0.1723367	0.1819433	0.1725491	0.1733129	0.1727324				
	0.1624679	0.1794467					0.1735	AVRG		3.5772
54)AM 2,6-Dinitrotoluene		0.2825879	0.3003908	0.2838920	0.2871931	0.2807927				
	0.2661234	0.2820601					0.2833	AVRG		3.5620
55)AM 2,4-Dinitrotoluene		0.3427069	0.3663669	0.3317354	0.3306667	0.3155661				
	0.2881230	0.3234512					0.3284	AVRG		7.3276
56)AM Acenaphthylene	1.9017981	1.9743373	1.9388933	1.9570432	1.9136846	1.9237817				
	1.9065850	1.8847839					1.9251	AVRG		1.5556
57)AMC Acenaphthene	1.1029897	1.1023912	1.0855692	1.0767378	1.0642885	1.0606061				
	1.0542150	1.0460228					1.0741	AVRG		2.0016
58)AMP 2,4-Dinitrophenol			0.0558033	0.0575717	0.0658188	0.0744762				

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Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	0.0725506						0.0652	AVRG		12.9815
59)AM Dibenzofuran		1.7293210	1.6902131	1.6472366	1.6281131	1.5898717				
	1.5517400	1.5747503					1.6302	AVRG		3.9261
60)A 2,3,4,6-Tetrachloropheno		0.2852061	0.2974766	0.2994171	0.2968250	0.2924669				
	0.2795566	0.2894178					0.2915	AVRG		2.4830
61)AM Diethylphthalate	1.3502500	1.3741307	1.3838118	1.2656681	1.2175231	1.1605839				
	1.0693589	1.1764060					1.2497	AVRG		9.1087
62)AMP 4-Nitrophenol		0.1493695	0.1686688	0.1722873	0.1740293	0.1738056				
	0.1573770	0.1798089					0.1679	AVRG		6.3785
63)AM Fluorene	1.3324822	1.3481918	1.3353208	1.2775906	1.2423880	1.1930590				
	1.1285750	1.1911235					1.2561	AVRG		6.4326
64)AM 4-Chlorophenylphenylethe		0.6433902	0.6316001	0.6101979	0.5973792	0.5733722				
	0.5479758	0.5626521					0.5952	AVRG		5.9962
65)AM p-Nitroaniline		0.2271972	0.2454821	0.2216700	0.2158174	0.1805794				
	0.1801190	0.1880095					0.2084	AVRG		12.3099
66)SA 2,4,6-Tribromophenol		0.1615325	0.1747329	0.1665416	0.1612424	0.1536992				
	0.1434446	0.1637989					0.1607	AVRG		6.1618
68)AM 2-Methyl-4,6-dinitrophen		6743	18049	28595	39802	59158		1/x^2		
-0.0088 | 0.0810 | 0.00	58568							LINR	#	0.9903
69)AMC Diphenylamine		0.7096334	0.6864476	0.7139371	0.7387900	0.7657727				
	0.8106870	0.7495848					0.7393	AVRG		5.5827
70)AM 1,2-Diphenylhydrazine		0.8556817	0.8369600	0.8826347	0.9198136	0.9605256				
	1.0185055	0.9466844					0.9173	AVRG		6.9571
71)AM 4-Bromophenylphenylether		0.2452787	0.2330800	0.2442271	0.2512321	0.2553736				
	0.2686684	0.2547772					0.2504	AVRG		4.4434
72)AM Hexachlorobenzene		0.2599462	0.2482090	0.2573927	0.2662274	0.2683096				
	0.2795980	0.2666540					0.2638	AVRG		3.7370

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Compound b | m1 | m2	1 7	2 8	3 9	4 10	5	6	Avg	Curve	Exp	%RSD/r2
73)AMC Pentachlorophenol		0.0857655	0.1009886	0.1076353	0.1140456	0.1210065				
	0.1223918	0.1304540					0.1118	AVRG		13.4816
74)AM n-Octadecane		0.7171940	0.7076577	0.7601776	0.7947366	0.8491153				
	0.9317938	0.8431291					0.8005	AVRG		10.0241
75)A Dinoseb		8231	23434	36568	52269	78208		1/x^2		
-0.0121 | 0.1048 | 0.00	72256							LINR	#	0.9916
76)AM Phenanthrene	1.1380300	1.1449628	1.1160908	1.0945776	1.1082931	1.0915885				
	1.0930730	1.0907806					1.1097	AVRG		1.9507
77)AM Anthracene	1.1150247	1.1556700	1.1280586	1.1288924	1.1365558	1.1184108				
	1.1108334	1.1081494					1.1252	AVRG		1.3955
78)AM Carbazole	0.8464747	0.9086847	0.9018575	0.9054268	0.8904546	0.8653352				
	0.8475170	0.8786169					0.8805	AVRG		2.8634
79)AM Di-n-butylphthalate	1.0879636	1.1648002	1.1992249	1.1772912	1.1628657	1.1339575				
	1.1041390	1.1589477					1.1486	AVRG		3.2619
80)AMC Fluoranthene	1.0496658	1.0490590	1.0337679	1.0268752	0.9889622	0.9487284				
	0.9199928	0.9704582					0.9984	AVRG		4.8980
82)AM Pyrene	1.8042350	1.7473386	1.8045295	1.6726719	1.7711750	1.6335788				
	1.5749447	1.7096217					1.7148	AVRG		4.8414
83)SA p-Terphenyl-d14		1.0687389	1.0902009	1.0424217	1.0893845	1.0252239				
	0.9915376	1.0928743					1.0572	AVRG		3.6803
84)AM Butylbenzylphthalate		0.5537522	0.6317829	0.6201666	0.6546866	0.6552282				
	0.6349409	0.7098001					0.6372	AVRG		7.3582
85)AM bis(2-Ethylhexyl)phthala		0.8026154	0.8665242	0.9145112	0.9377945	0.9511327				
	0.9245757	1.0018190					0.9141	AVRG		6.9802
86)AM Benzo(a)anthracene	1.3176971	1.2660654	1.2526602	1.2524824	1.2581208	1.2421850				
	1.2349789	1.2495857					1.2592	AVRG		2.0195
87)AM Chrysene	1.1708112	1.1674817	1.1569771	1.1597572	1.1619317	1.1456342				
	1.1553890	1.1307306					1.1561	AVRG		1.1076

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b | m1 | m2	7	8	9	10						
88)A Methoxychlor		0.5287730	0.6363701	0.6226086	0.6691065	0.7040086				
	0.6946101	0.7893458					0.6635	AVRG		12.1560
89)A Methylenebis(2-chloroani		0.1903049	0.1977671	0.1939706	0.1930124	0.1996989				
	0.1995431	0.1946218					0.1956	AVRG		1.8125
90)AMC Di-n-octylphthalate		1.0986235	1.1938335	1.3183632	1.2976275	1.4315313				
	1.4588938	1.4471123					1.3209	AVRG		10.4042
92)AM Benzo(b)fluoranthene	1.2020584	1.2569070	1.2903355	1.3121353	1.2963132	1.2738153				
	1.2662907	1.3292298					1.2784	AVRG		3.0501
93)AM Benzo(k)fluoranthene	1.1661252	1.2344452	1.2641726	1.2722297	1.2634882	1.2291753				
	1.2571102	1.2573632					1.2430	AVRG		2.7705
94)AMC Benzo(a)pyrene	0.9836713	1.0742695	1.1248595	1.1345742	1.1303196	1.1374552				
	1.1556796	1.1511196					1.1115	AVRG		5.1556
95)AM Indeno(1,2,3-cd)pyrene	0.6536125	0.7297543	0.7406581	0.7275689	0.7989602	0.8626200				
	0.8743492	0.8017448					0.7737	AVRG		9.6521
96)AM Dibenzo(a,h)anthracene	0.6602725	0.7370401	0.7572963	0.7435693	0.7876391	0.8565605				
	0.8706005	0.7913621					0.7755	AVRG		8.7346
97)AM Benzo(ghi)perylene	0.7801531	0.7918266	0.8000034	0.7918276	0.8395464	0.8967205				
	0.9065507	0.8249098					0.8289	AVRG		5.8956
98)A Dibenzo(a,e)pyrene		0.4506520	0.4779261	0.4772504	0.5551620	0.5877697				
	0.5829539	0.5356145					0.5239	AVRG		10.5518
100)BM 1,4-Dioxane		0.4792609	0.4655930	0.4888481	0.4498959	0.4523639				
	0.4599931	0.4532872	0.4817838	0.4719156			0.4670	AVRG		3.0437
101)B Methyl methacrylate		0.2263891	0.2183397	0.2241280	0.2131119	0.2107761				
	0.2114971	0.2062296	0.2168030	0.2117193			0.2154	AVRG		3.0570
102)B Ethyl methacrylate		1.1077673	1.1399613	1.1223729	1.1245210	1.0391258				
	1.0629137	1.0626224	1.0993015	1.0900439			1.0943	AVRG		3.0725
103)B 2-Picoline		1.5105843	1.4880670	1.5296328	1.4606858	1.4789911				

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For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	1.4933185	1.4792270	1.4999299	1.4936423			1.4927	AVRG		1.3301
104)B N-Nitrosomethylethylamin		0.6193908	0.5906319	0.6133532	0.6026518	0.6097673				
	0.6158021	0.6169788	0.6098529	0.6177360			0.6107	AVRG		1.4948
105)B Methyl methanesulfonate		0.7610229	0.7489910	0.7019956	0.6848818	0.6625729				
	0.6448789	0.6373537	0.7084777	0.6826479			0.6925	AVRG		6.1669
106)B N-Nitrosodiethylamine		0.6395152	0.6278380	0.6201491	0.6096403	0.6157921				
	0.6261721	0.6290433	0.6293078	0.6318567			0.6255	AVRG		1.4347
107)B 2-Butoxyethanol		1.8675144	1.8522369	1.8288301	1.8550996	1.8348683				
	1.8653845	1.8688788	1.8725753	1.8407516			1.8540	AVRG		0.8651
108)B Ethyl methanesulfonate		1.0559337	1.0313874	1.0263616	1.0343300	1.0152061				
	1.0067882	0.9917754	1.0331488	1.0075845			1.0225	AVRG		1.8722
109)BM Benzaldehyde		1.1853429	1.1472524	1.0874354	1.0513678	0.8523969				
			1.1316626	0.9780404			1.0619	AVRG		10.8107
110)B Pentachloroethane		0.5739978	0.5597753	0.5641758	0.5481949	0.5467998				
	0.5503364	0.5447846	0.5607810	0.5551780			0.5560	AVRG		1.7204
111)BM N-Nitrosopyrrolidine		0.6668416	0.6634017	0.6692983	0.6788281	0.6867478				
	0.6858831	0.6916235	0.6738042	0.6780319			0.6772	AVRG		1.4295
112)BM Acetophenone		1.9537530	1.8863684	1.8745885	1.9014484	1.8837354				
	1.8777757	1.8707362	1.9048685	1.8793499			1.8925	AVRG		1.3579
113)B N-Nitrosomorpholine		0.9384591	0.9164138	0.9065202	0.9113526	0.9003237				
	0.9022001	0.9060687	0.9223640	0.8973158			0.9112	AVRG		1.4178
114)B o-Toluidine		2.1642772	2.1390700	2.1093447	2.1175910	2.0778169				
	2.0557922	2.0439981	2.1270917	2.1027593			2.1042	AVRG		1.8575
116)B N-Nitrosopiperidine		0.1788300	0.1797829	0.1813885	0.1806108	0.1822316				
	0.1803898	0.1803464	0.1808481	0.1822071			0.1807	AVRG		0.6082
117)B a,a-Dimethylphenethylami		80393	327762	899160	1206854			1/x^2		
-0.2396 | 1.4270 | 0.00			721561	1339502				LINR	#	0.9920

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
118)BM 2,6-Dichlorophenol		0.2628998	0.2665321	0.2704211	0.2765610	0.2742537				
	0.2731215	0.2746563	0.2751555	0.2756682			0.2721	AVRG		1.7070
119)B Hexachloropropene		0.1638327	0.1724535	0.1665548	0.1576069	0.1227385				
			0.1758679	0.1469726			0.1580	AVRG		11.5565
120)BM Caprolactam		0.0839905	0.0882863	0.0894387	0.0937804	0.0928217				
	0.0904178	0.0928388	0.0932921	0.0912781			0.0907	AVRG		3.4462
121)B N-Nitrosodi-n-butylamine		0.2628715	0.2533715	0.2927242	0.3057225	0.3104568				
	0.2773138	0.2639807	0.2934734	0.3020758			0.2847	AVRG		7.3377
122)B Safrole		0.2766068	0.2748733	0.2712492	0.2746369	0.2689455				
	0.2659821	0.2652572	0.2761536	0.2683685			0.2713	AVRG		1.6198
124)B 1,2,4,5-Tetrachlorobenze		0.6412879	0.6174008	0.6427798	0.6148452	0.6197168				
	0.6312914	0.6183050	0.6300123	0.6401819			0.6284	AVRG		1.7833
125)BM 1,1-Biphenyl		1.5675161	1.5333779	1.5622099	1.5054904	1.5226230				
	1.5161752	1.4869077	1.5422051	1.5446421			1.5312	AVRG		1.7138
126)B Isosafrole		0.4932154	0.4916041	0.5035197	0.4898620	0.4925908				
	0.4998743	0.4940439	0.4936224	0.5043003			0.4958	AVRG		1.0721
127)B 1,4-Naphthoquinone		0.4865913	0.4836119	0.4551461	0.4363164	0.3571027				
	0.3426391	0.3304136	0.4721552	0.4106452			0.4194	AVRG		14.7833
128)B Pentachlorobenzene		0.5456025	0.5273713	0.5248993	0.5228626	0.5218142				
	0.5284883	0.5184008	0.5256875	0.5208302			0.5262	AVRG		1.5099
129)B 1-Naphthylamine		1.2724187	1.2306519	1.1631377	1.1955574	1.0473795				
	0.9609491	0.9153345	1.2368235	1.0882366			1.1234	AVRG		11.3499
130)B 2-Naphthylamine		1.2172998	1.2014806	1.1241634	1.1727331	1.0563420				
	0.9636709	0.9423260	1.1908501	1.0609360			1.1033	AVRG		9.3407
131)B 5-Nitro-o-toluidine		0.2512138	0.2762980	0.2734737	0.3120518	0.3061425				
	0.2895867	0.2947749	0.2935065	0.2803281			0.2864	AVRG		6.4419
133)B 1,3,5-Trinitrobenzene		0.0920158	0.1001772	0.1046389	0.1202161	0.1230655				
	0.1202878	0.1283495	0.1121261	0.1118761			0.1125	AVRG		10.4998

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
134)B Phenacetin		0.3134595	0.3294308	0.3316435	0.3415638	0.3286694				
	0.3198675	0.3274399	0.3466846	0.3214622			0.3289	AVRG		3.1559
135)B Diallate		0.2994277	0.2913496	0.3036124	0.2911559	0.2965767				
	0.3032013	0.3023090	0.2989839	0.3056780			0.2991	AVRG		1.7546
136)B Cis Diallate		0.3361736	0.3151280	0.3274818	0.3148734	0.3212525				
	0.3344184	0.3311823	0.3231096	0.3250763			0.3254	AVRG		2.3656
137)B Trans Diallate		0.3522678	0.3427642	0.3571910	0.3425364	0.3489138				
	0.3567075	0.3556576	0.3517457	0.3596212			0.3519	AVRG		1.7546
138)BM50Atrazine		0.2220182	0.2185001	0.2059817	0.2032431	0.1780790				
			0.2159962	0.1888278			0.2047	AVRG		7.9347
139)B 4-Aminobiphenyl		0.7639655	0.7388489	0.7776590	0.7765977	0.7099778				
	0.6446629	0.6092901	0.7809243	0.7390607			0.7268	AVRG		8.4973
140)B Pentachloronitrobenzene		0.0914163	0.0894932	0.0926482	0.0913327	0.0914377				
	0.0925224	0.0919749	0.0929360	0.0917070			0.0917	AVRG		1.1125
141)B Pronamide		0.3573911	0.3494693	0.3360292	0.3457812	0.3376339				
	0.3290101	0.3337789	0.3506567	0.3310229			0.3412	AVRG		2.9081
142)B 4-Nitroquinoline-1-oxide		0.0256158	0.0329906	0.0341680	0.0473647	0.0466554				
	0.0408613		0.0411215	0.0379558			0.0383	AVRG	#	19.0324
143)B Methapyrilene		0.3401307	0.3320806	0.2725495	0.3057909	0.2671347				
	0.2346036	0.2624571	0.3266618	0.2503807			0.2880	AVRG		13.4852
144)B Isodrin		0.1251315	0.1182714	0.1112873	0.1178875	0.1154874				
	0.1148206	0.1170203	0.1183780	0.1121541			0.1167	AVRG		3.4915
146)B Aramite		0.0507922	0.0539020	0.0634446	0.0612068	0.0636994				
	0.0743143	0.0661725	0.0578624	0.0645199			0.0618	AVRG		11.2869
147)B Kepone		0.1264163	0.1252089	0.1310905	0.1256538	0.1185884				
	0.1296361	0.1138446	0.1268732	0.1251247			0.1247	AVRG		4.2938
148)B p-(Dimethylamino)azobenz		0.2753284	0.2792487	0.3004813	0.2735725	0.2719574				

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
	0.3046944	0.2628938	0.2829887	0.2853205			0.2818	AVRG		4.7890
149)B Chlorobenzilate		0.3282175	0.3419074	0.3802079	0.3655383	0.3757943				
	0.4369697	0.3815715	0.3616771	0.3903328			0.3736	AVRG		8.2932
150)B 2-Acetylaminofluorene		0.2713626	0.3169611	0.3331974	0.4038480	0.4198163				
	0.3645678	0.4394391	0.3555338	0.3783338			0.3648	AVRG		14.5089
152)B 7,12-Dimethylbenz(a)anth		0.5861400	0.6062236	0.6271824	0.5789585	0.5919828				
	0.6197727	0.6121306	0.6308649	0.6157457			0.6077	AVRG		3.0156
153)B 3-Methylcholanthrene		0.1034588	0.1073836	0.1134262	0.1144177	0.1160556				
	0.1164274	0.1183736	0.1103719	0.1156540			0.1128	AVRG		4.3012
155)JM Benzidine		0.4100180	0.4372844	0.5117951	0.4825909	0.4910173				
	0.4442146	0.5058881					0.4690	AVRG		8.2404
157)J 3,3'-Dimethylbenzidine		0.8918432	0.9414113	0.9369498	0.9525508	0.9609525				
	0.9443872	0.9842188					0.9446	AVRG		2.9793
158)JM 3,3'-Dichlorobenzidine		0.3868339	0.3955545	0.4065441	0.4043801	0.4208915				
	0.4014105	0.4228359					0.4055	AVRG		3.1899
160)D bis(Chloromethyl)ether		0.9557002	0.8965644	0.9226508	0.8483622	0.8519748				
	0.8324011	0.8274003					0.8764	AVRG		5.6194
162)D Triethylphosphorothioate		0.1760250	0.1694554	0.1789912	0.1694867	0.1651680				
	0.1702877	0.1708945					0.1715	AVRG		2.6804
164)D Thionazine		0.1921643	0.1881919	0.2066900	0.1973305	0.1878768				
	0.2037655	0.2089544					0.1979	AVRG		4.4341
165)DM Tributylphosphate		1.2229401	1.2797746	1.4483935	1.4080299	1.3338112				
	1.4799339	1.5332976					1.3866	AVRG		8.0896
167)D Sulfotepp		0.1067636	0.1028474	0.1120335	0.1070408	0.1073761				
	0.1098277	0.1098109					0.1080	AVRG		2.7338
168)D Phorate		0.4803893	0.4672970	0.5038839	0.4713725	0.4770261				
	0.4781056	0.4702196					0.4783	AVRG		2.5532

Response Factor Report MSDA
GEL Laboratories, LLC

Method File : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Last Update : Mon Sep 18 09:10:44 2017
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: x = concentration ratio, y = response ratio. y = b + m1(x) + m2(xE2)

Compound	1	2	3	4	5	6	Avg	Curve	Exp	%RSD/r2
b | m1 | m2	7	8	9	10						
169)D Dimethoate		0.2416899	0.2495232	0.2876559	0.2768768	0.2770316				
	0.2987673	0.3064405					0.2769	AVRG		8.6685
170)D Disulfoton		0.4342725	0.3997838	0.4200139	0.3975234	0.3782972				
	0.3922693	0.3943086					0.4024	AVRG		4.6561
171)D Methyl parathion		0.1341581	0.1526551	0.1881608	0.1872540	0.1819583				
							0.1688	AVRG		14.3537
172)D Parathion		5645	14619	36868	49088	66442		1/x^2		
-0.0055 | 0.0543 | 0.00								LINR	#	0.9944
174)D Famphur		0.4306986	0.4796212	0.5523864	0.5328085	0.5344996				
	0.5340336	0.5140661					0.5112	AVRG		8.2667
176)E p-Phenylenediamine		0.4677332	0.4401829	0.4385593	0.4284985	0.4333493				
	0.4358579						0.4407	AVRG		3.1475
178)E Hexachlorophene		170669	471640	1051432	994083	1357226		1/x^2		
-0.9918 | 0.1287 | 0.00	1787955							LINR	#	0.9924

(#) = Out of Range ($) = Individual RF Out of Range
AVRG = Average, LINR = Linear Regression, 1/x = the inverse of concentration, 1/x^2 = the inverse square of concentration

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1505.D
Acq On : 15 Sep 2017 10:40
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-05.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 18 09:12:34 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	180518	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	631512	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	313105	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	454061	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	278867	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	198619	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.699	3.699	0.685	224932	40.53	ng/uL	0.00
8) Phenol-d5	99	4.863	4.863	0.901	276623	39.85	ng/uL	0.00
25) Nitrobenzene-d5	82	6.187	6.187	0.862	245492	39.43	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.634	8.634	0.909	463699	39.80	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.493	10.493	1.105	52145	41.45	ng/uL	0.00
83) p-Terphenyl-d14	244	13.351	13.351	0.902	290697	39.44	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.099	2.099	0.389	150082	39.52	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.358	2.358	0.437	140741	39.47	ng/uL	100
4) Pyridine	79	2.393	2.393	0.443	256094	41.00	ng/uL	100
6) p-Benzoquinone	54	4.316	4.316	0.800	145968	41.89	ng/uL	100
7) Aniline	93	4.940	4.940	0.915	337874	39.58	ng/uL	100
9) Phenol	94	4.881	4.881	0.904	286922	39.54	ng/uL	100
10) bis(2-Chloroethyl) ether	93	5.028	5.028	0.931	234849	40.07	ng/uL	100
11) 2-Chlorophenol	128	5.099	5.099	0.944	240822	39.62	ng/uL	100
12) n-Decane	43	5.169	5.169	0.958	377153	40.84	ng/uL	100
13) 1,3-Dichlorobenzene	146	5.316	5.316	0.985	282371	40.57	ng/uL	100
14) 1,4-Dichlorobenzene	146	5.422	5.422	1.004	282153	40.15	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.634	5.634	1.044	267620	40.22	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	5.793	5.793	1.073	460342	40.40	ng/uL	100
17) Benzyl alcohol	108	5.587	5.587	1.035	154680	39.75	ng/uL	100
18) o-Cresol	107	5.734	5.734	1.062	192496	39.89	ng/uL	100
19) m,p-Cresols	107	5.969	5.969	1.106	250124	39.83	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1505.D
Acq On : 15 Sep 2017 10:40
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-05.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 18 09:12:34 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	5.987	5.987	1.109	173759	39.83	ng/uL	100
21)	p-Toluidine	106	6.034	6.034	1.118	310495	39.17	ng/uL	100
22)	m-Toluidine	106	6.081	6.081	1.126	294019	41.17	ng/uL	100
23)	Hexachloroethane	117	6.116	6.116	1.133	108071	40.46	ng/uL	100
26)	Nitrobenzene	77	6.216	6.216	0.866	247633	39.57	ng/uL	100
27)	Isophorone	82	6.552	6.552	0.912	428556	39.64	ng/uL	100
28)	2-Nitrophenol	139	6.657	6.657	0.927	96130	37.30	ng/uL	100
29)	2,4-Dimethylphenol	122	6.716	6.716	0.935	200196	39.68	ng/uL	100
30)	bis(2-Chloroethoxy)met...	93	6.863	6.863	0.956	277062	39.49	ng/uL	100
31)	2,4-Dichlorophenol	162	6.981	6.981	0.972	191930	40.04	ng/uL	100
32)	Benzoic acid	105	6.869	6.869	0.957	91600	36.86	ng/uL	100
33)	1,2,4-Trichlorobenzene	180	7.105	7.105	0.989	220195	40.12	ng/uL	100
34)	alpha-Terpineol	59	7.234	7.234	1.007	230314	39.23	ng/uL	100
35)	Naphthalene	128	7.210	7.210	1.004	683699	40.00	ng/uL	100
36)	4-Chloroaniline	127	7.287	7.287	1.015	222863	39.57	ng/uL	100
37)	Hexachlorobutadiene	225	7.387	7.387	1.029	130269	39.88	ng/uL	100
38)	4-Chloro-3-methylphenol	107	7.940	7.940	1.106	187612	39.98	ng/uL	100
39)	2-Methylnaphthalene	142	8.146	8.146	1.134	438298	39.70	ng/uL	100
40)	Phthalic anhydride	104	8.216	8.216	1.144	101634	39.96	ng/uL	100
41)	1-Methylnaphthalene	142	8.275	8.275	1.152	408524	39.60	ng/uL	100
43)	Hexachlorocyclopentadiene	237	8.352	8.352	0.879	122749	38.53	ng/uL	100
44)	2,3-Dichloroaniline	161	8.516	8.516	0.897	194463	43.04	ng/uL	100
45)	2,4,6-Trichlorophenol	196	8.516	8.516	0.897	125022	39.46	ng/uL	100
46)	2,4,5-Trichlorophenol	196	8.552	8.552	0.900	131518	40.78	ng/uL	100
48)	2-Chloronaphthalene	162	8.781	8.781	0.924	391087	40.00	ng/uL	100
49)	o-Nitroaniline	65	8.916	8.916	0.939	106556	39.58	ng/uL	100
50)	1,4-Dinitrobenzene	168	9.104	9.104	0.959	44517	38.53	ng/uL	100
51)	m-Nitroaniline	138	9.446	9.446	0.994	69171	40.65	ng/uL	100
52)	Dimethylphthalate	163	9.169	9.169	0.965	415299	40.11	ng/uL	100
53)	m-Dinitrobenzene	168	9.199	9.199	0.968	54026	39.77	ng/uL	100
54)	2,6-Dinitrotoluene	165	9.240	9.240	0.973	88888	40.08	ng/uL	100
55)	2,4-Dinitrotoluene	165	9.746	9.746	1.026	103868	40.41	ng/uL	100
56)	Acenaphthylene	152	9.316	9.316	0.981	612760	40.66	ng/uL	100
57)	Acenaphthene	154	9.540	9.540	1.004	337132	40.10	ng/uL	100
58)	2,4-Dinitrophenol	184	9.575	9.575	1.008	18026	35.30	ng/uL	100
59)	Dibenzofuran	168	9.763	9.763	1.028	515758	40.42	ng/uL	100
60)	2,3,4,6-Tetrachlorophenol	232	9.910	9.910	1.043	93749	41.09	ng/uL	100
61)	Diethylphthalate	149	10.069	10.069	1.060	396287	40.51	ng/uL	100
62)	4-Nitrophenol	139	9.646	9.646	1.015	53944	41.04	ng/uL	100
63)	Fluorene	166	10.193	10.193	1.073	400020	40.68	ng/uL	100
64)	4-Chlorophenylphenylether	204	10.198	10.198	1.074	191056	41.01	ng/uL	100
65)	p-Nitroaniline	138	10.216	10.216	1.076	69406	42.54	ng/uL	100
68)	2-Methyl-4,6-dinitroph...	198	10.257	10.257	0.902	28595	35.46	ng/uL	100
69)	Diphenylamine	169	10.351	10.351	0.910	324171	38.63	ng/uL	100
70)	1,2-Diphenylhydrazine	77	10.398	10.398	0.915	400770	38.49	ng/uL	100
71)	4-Bromophenylphenylether	248	10.816	10.816	0.951	110894	39.02	ng/uL	100
72)	Hexachlorobenzene	284	10.881	10.881	0.957	116872	39.03	ng/uL	100
73)	Pentachlorophenol	266	11.122	11.122	0.978	48873	38.53	ng/uL	100
74)	n-Octadecane	57	11.251	11.251	0.990	345167	37.98	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1505.D
Acq On : 15 Sep 2017 10:40
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-05.1|ICAL|1|SVM|1|M-4
Misc : |MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 18 09:12:34 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.357	11.357	0.999	36568	35.35	ng/uL	100
76)	Phenanthrene	178	11.398	11.398	1.003	497005	39.46	ng/uL	100
77)	Anthracene	178	11.463	11.463	1.008	512586	40.13	ng/uL	100
78)	Carbazole	167	11.663	11.663	1.026	411119	41.13	ng/uL	100
79)	Di-n-butylphthalate	149	12.104	12.104	1.065	534562	41.00	ng/uL	100
80)	Fluoranthene	202	12.875	12.875	1.132	466264	41.14	ng/uL	100
82)	Pyrene	202	13.157	13.157	0.889	466453	39.02	ng/uL	100
84)	Butylbenzylphthalate	149	13.975	13.975	0.944	172944	38.93	ng/uL	100
85)	bis(2-Ethylhexyl)phtha...	149	14.857	14.857	1.004	255027	40.02	ng/uL	100
86)	Benzo(a)anthracene	228	14.786	14.786	0.999	349276	39.79	ng/uL	100
87)	Chrysene	228	14.845	14.845	1.003	323418	40.13	ng/uL	100
88)	Methoxychlor	227	14.698	14.698	0.993	173625	37.53	ng/uL	100
89)	Methylenebis(2-chloroa...	231	14.757	14.757	0.997	54092	39.67	ng/uL	100
90)	Di-n-octylphthalate	149	16.157	16.157	1.091	367648	39.92	ng/uL	100
92)	Benzo(b)fluoranthene	252	16.945	16.945	0.946	260615	41.06	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.016	17.016	0.950	252689	40.94	ng/uL	100
94)	Benzo(a)pyrene	252	17.763	17.763	0.991	225348	40.83	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	21.180	21.180	1.182	144509	37.62	ng/uL	100
96)	Dibenzo(a,h)anthracene	278	21.304	21.304	1.189	147687	38.35	ng/uL	100
97)	Benzo(ghi)perylene	276	21.945	21.945	1.225	157272	38.21	ng/uL	100
98)	Dibenzo(a,e)pyrene	302	25.856	25.856	1.443	94791	36.44	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1505.D
Acq On    : 15 Sep 2017  10:40
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-05.1|ICAL|1|SVM|1|M-4
Misc      : |MIX[A]
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Sep 18 09:12:34 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                          SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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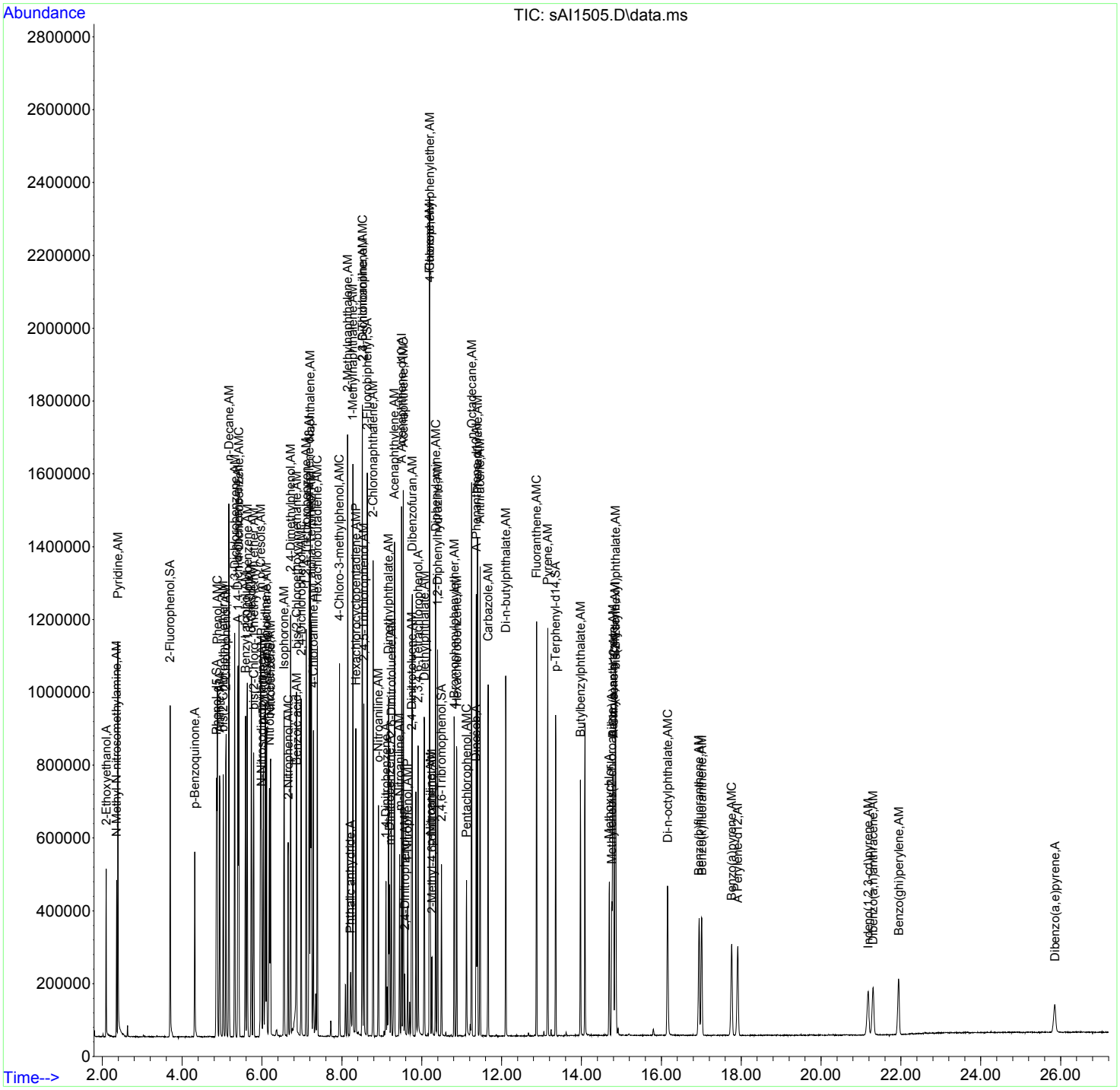

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1506.D
Acq On : 15 Sep 2017 11:45
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-04|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 18 09:12:36 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	187173	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.187	7.181	1.000	654626	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.504	9.499	1.000	326083	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	440778	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.810	14.804	1.000	244718	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.922	17.916	1.000	170797	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.504	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01
151) B Perylene-d12	264	17.922	17.910	1.000	0m	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.810	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.504	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01
175) E Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.705	3.699	0.686	279209	48.52	ng/uL	0.00
8) Phenol-d5	99	4.869	4.863	0.902	358246	49.78	ng/uL	0.00
25) Nitrobenzene-d5	82	6.193	6.187	0.862	320175	49.61	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.640	8.634	0.909	598527	49.32	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.499	10.493	1.105	65723	50.16	ng/uL	0.00
83) p-Terphenyl-d14	244	13.357	13.351	0.902	333240	51.52	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.093	2.099	0.388	193413	49.12	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.358	2.358	0.437	184204	49.83	ng/uL	99
4) Pyridine	79	2.393	2.393	0.443	324612	50.13	ng/uL	100
6) p-Benzoquinone	54	4.322	4.316	0.801	187397	51.87	ng/uL	99
7) Aniline	93	4.946	4.940	0.916	444349	50.20	ng/uL	100
9) Phenol	94	4.887	4.881	0.905	372332	49.49	ng/uL	100
10) bis(2-Chloroethyl) ether	93	5.034	5.028	0.932	299836	49.34	ng/uL	98
11) 2-Chlorophenol	128	5.105	5.099	0.946	315935	50.14	ng/uL	99
12) n-Decane	43	5.175	5.169	0.959	475075	49.62	ng/uL	99
13) 1,3-Dichlorobenzene	146	5.322	5.316	0.986	360641	49.98	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.428	5.422	1.005	363700	49.91	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.634	5.634	1.044	342984	49.71	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	5.799	5.793	1.074	590945	50.02	ng/uL	99
17) Benzyl alcohol	108	5.593	5.587	1.036	200860	49.78	ng/uL	99
18) o-Cresol	107	5.740	5.734	1.063	249727	49.91	ng/uL	100
19) m,p-Cresols	107	5.975	5.969	1.107	325165	49.94	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1506.D
Acq On : 15 Sep 2017 11:45
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-04|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 18 09:12:36 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	5.993	5.987	1.110	227042	50.19	ng/uL	99
21)	p-Toluidine	106	6.040	6.034	1.119	389382	47.37	ng/uL	100
22)	m-Toluidine	106	6.087	6.081	1.127	381506	51.52	ng/uL	99
23)	Hexachloroethane	117	6.116	6.116	1.133	139256	50.28	ng/uL	99
26)	Nitrobenzene	77	6.222	6.216	0.866	322778	49.76	ng/uL	100
27)	Isophorone	82	6.563	6.552	0.913	558494	49.83	ng/uL	99
28)	2-Nitrophenol	139	6.663	6.657	0.927	132792	49.71	ng/uL	99
29)	2,4-Dimethylphenol	122	6.722	6.716	0.935	259602	49.63	ng/uL	100
30)	bis(2-Chloroethoxy)met...	93	6.869	6.863	0.956	362445	49.83	ng/uL	100
31)	2,4-Dichlorophenol	162	6.993	6.981	0.973	247991	49.91	ng/uL	100
32)	Benzoic acid	105	6.899	6.869	0.960	141876	48.75	ng/uL	98
33)	1,2,4-Trichlorobenzene	180	7.110	7.105	0.989	282188	49.60	ng/uL	99
34)	alpha-Terpineol	59	7.246	7.234	1.008	302455	49.70	ng/uL	99
35)	Naphthalene	128	7.222	7.210	1.005	874538	49.35	ng/uL	100
36)	4-Chloroaniline	127	7.293	7.287	1.015	277403	47.52	ng/uL	99
37)	Hexachlorobutadiene	225	7.393	7.387	1.029	165987	49.02	ng/uL	99
38)	4-Chloro-3-methylphenol	107	7.946	7.940	1.106	245050	50.37	ng/uL	99
39)	2-Methylnaphthalene	142	8.152	8.146	1.134	566397	49.49	ng/uL	99
40)	Phthalic anhydride	104	8.222	8.216	1.144	153964	58.40	ng/uL	96
41)	1-Methylnaphthalene	142	8.281	8.275	1.152	526562	49.24	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.357	8.352	0.879	162187	46.93	ng/uL	99
44)	2,3-Dichloroaniline	161	8.522	8.516	0.897	237814	50.54	ng/uL	100
45)	2,4,6-Trichlorophenol	196	8.522	8.516	0.897	162936	49.38	ng/uL	98
46)	2,4,5-Trichlorophenol	196	8.557	8.552	0.900	166773	49.65	ng/uL	99
48)	2-Chloronaphthalene	162	8.793	8.781	0.925	503378	49.43	ng/uL	100
49)	o-Nitroaniline	65	8.922	8.916	0.939	141157	50.34	ng/uL	99
50)	1,4-Dinitrobenzene	168	9.110	9.104	0.959	61638	51.23	ng/uL	94
51)	m-Nitroaniline	138	9.451	9.446	0.994	84217	47.52	ng/uL	99
52)	Dimethylphthalate	163	9.181	9.169	0.966	537470	49.84	ng/uL	100
53)	m-Dinitrobenzene	168	9.204	9.199	0.968	70643	49.93	ng/uL	97
54)	2,6-Dinitrotoluene	165	9.246	9.240	0.973	117061	50.69	ng/uL	98
55)	2,4-Dinitrotoluene	165	9.757	9.746	1.027	134781	50.35	ng/uL	98
56)	Acenaphthylene	152	9.328	9.316	0.981	780025	49.70	ng/uL	100
57)	Acenaphthene	154	9.551	9.540	1.005	433808	49.54	ng/uL	100
58)	2,4-Dinitrophenol	184	9.581	9.575	1.008	26828	50.44	ng/uL	98
59)	Dibenzofuran	168	9.769	9.763	1.028	663625	49.94	ng/uL	100
60)	2,3,4,6-Tetrachlorophenol	232	9.916	9.910	1.043	120987	50.92	ng/uL	98
61)	Diethylphthalate	149	10.075	10.069	1.060	496267	48.71	ng/uL	99
62)	4-Nitrophenol	139	9.657	9.646	1.016	70935	51.82	ng/uL	99
63)	Fluorene	166	10.199	10.193	1.073	506402	49.45	ng/uL	100
64)	4-Chlorophenylphenylether	204	10.204	10.198	1.074	243494	50.18	ng/uL	100
65)	p-Nitroaniline	138	10.228	10.216	1.076	87968	51.78	ng/uL	98
68)	2-Methyl-4,6-dinitroph...	198	10.263	10.257	0.902	39802	48.96	ng/uL	100
69)	Diphenylamine	169	10.357	10.351	0.911	407053	49.97	ng/uL	100
70)	1,2-Diphenylhydrazine	77	10.404	10.398	0.915	506792	50.14	ng/uL	100
71)	4-Bromophenylphenylether	248	10.822	10.816	0.951	138422	50.17	ng/uL	99
72)	Hexachlorobenzene	284	10.887	10.881	0.957	146684	50.47	ng/uL	99
73)	Pentachlorophenol	266	11.128	11.122	0.978	62836	51.02	ng/uL	98
74)	n-Octadecane	57	11.257	11.251	0.990	437878	49.64	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1506.D
Acq On : 15 Sep 2017 11:45
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-04|ICAL|1|SVM|1|M-5
Misc : |MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 18 09:12:36 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.363	11.357	0.999	52269	49.87	ng/uL	97
76)	Phenanthrene	178	11.404	11.398	1.003	610639	49.94	ng/uL	100
77)	Anthracene	178	11.469	11.463	1.008	626211	50.50	ng/uL	100
78)	Carbazole	167	11.669	11.663	1.026	490616	50.56	ng/uL	100
79)	Di-n-butylphthalate	149	12.110	12.104	1.065	640707	50.62	ng/uL	100
80)	Fluoranthene	202	12.881	12.875	1.132	544891	49.53	ng/uL	100
82)	Pyrene	202	13.163	13.157	0.889	541798	51.64	ng/uL	100
84)	Butylbenzylphthalate	149	13.981	13.975	0.944	200267	51.37	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	14.869	14.857	1.004	286869	51.29	ng/uL	100
86)	Benzo(a)anthracene	228	14.792	14.786	0.999	384856	49.96	ng/uL	100
87)	Chrysene	228	14.851	14.845	1.003	355432	50.25	ng/uL	100
88)	Methoxychlor	227	14.704	14.698	0.993	204678	50.42	ng/uL	99
89)	Methylenebis(2-chloroa...	231	14.769	14.757	0.997	59042	49.35	ng/uL	99
90)	Di-n-octylphthalate	149	16.169	16.157	1.092	396941	49.12	ng/uL	99
92)	Benzo(b)fluoranthene	252	16.957	16.945	0.946	276758	50.70	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.028	17.016	0.950	269750	50.82	ng/uL	99
94)	Benzo(a)pyrene	252	17.775	17.763	0.992	241319	50.85	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.198	21.180	1.183	170575	51.64	ng/uL	98
96)	Dibenzo(a,h)anthracene	278	21.321	21.304	1.190	168158	50.78	ng/uL	99
97)	Benzo(ghi)perylene	276	21.963	21.945	1.225	179240	50.64	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	25.880	25.856	1.444	118525	52.98	ng/uL#	58

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1506.D
Acq On    : 15 Sep 2017  11:45
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-04|ICAL|1|SVM|1|M-5
Misc      : |MIX[A]
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Sep 18 09:12:36 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                          SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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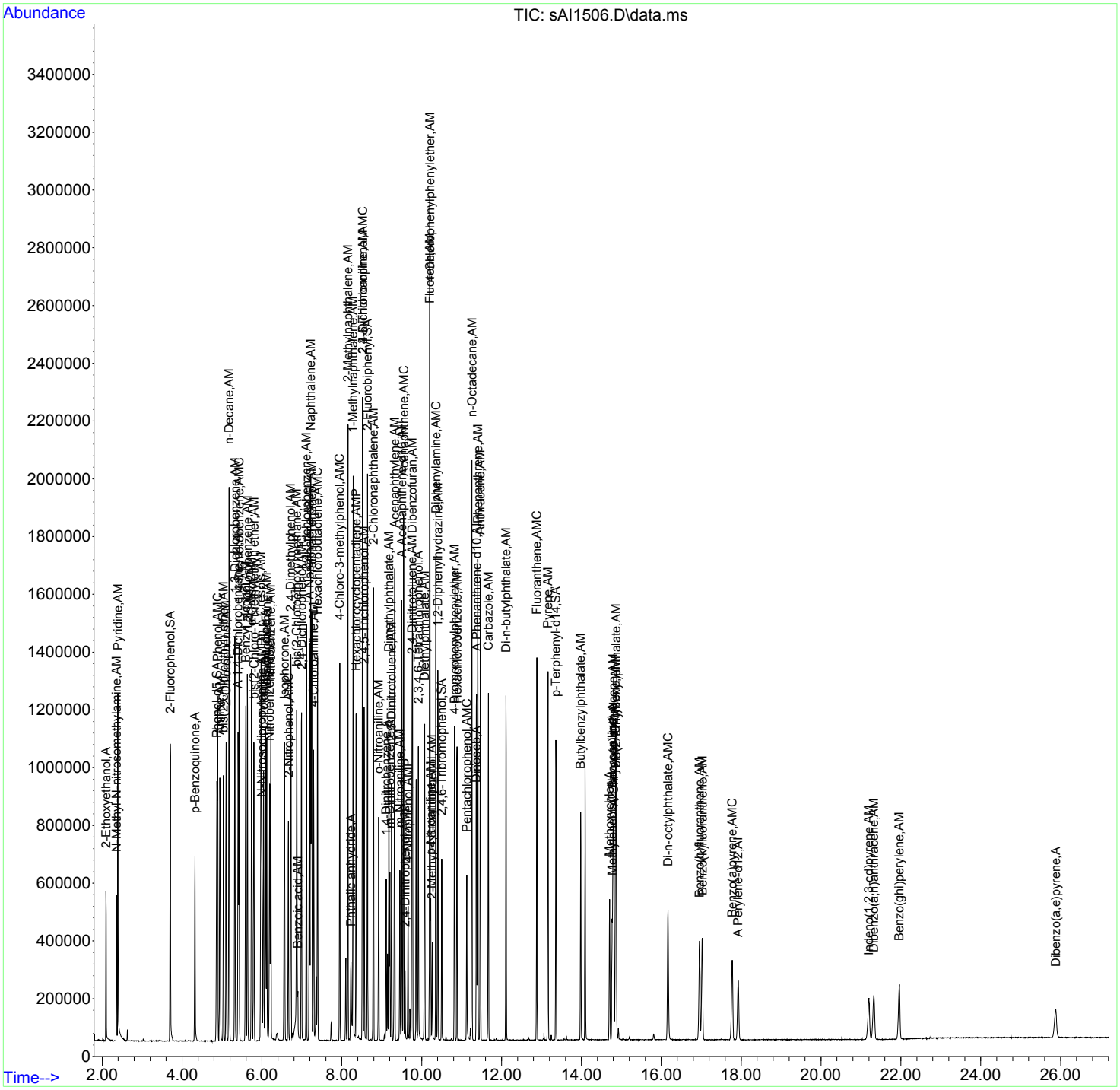


Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1507.D
Acq On : 15 Sep 2017 12:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-03|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 18 09:12:38 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	186625	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.187	7.181	1.000	640466	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.504	9.499	1.000	293040	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	366187	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.810	14.804	1.000	212893	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	166185	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.504	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.810	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.504	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01
175) E Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.705	3.699	0.686	467541	81.48	ng/uL	0.00
8) Phenol-d5	99	4.875	4.863	0.903	572027	79.71	ng/uL	0.01
25) Nitrobenzene-d5	82	6.199	6.187	0.863	508046	80.46	ng/uL	0.01
47) 2-Fluorobiphenyl	172	8.640	8.634	0.909	889559	81.57	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.499	10.493	1.105	90080	76.51	ng/uL	0.00
83) p-Terphenyl-d14	244	13.357	13.351	0.902	436526	77.58	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.105	2.099	0.390	311810	79.42	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.370	2.358	0.439	294756	79.97	ng/uL	99
4) Pyridine	79	2.399	2.393	0.444	522241	80.88	ng/uL	100
6) p-Benzoquinone	54	4.322	4.316	0.801	293422	81.45	ng/uL	99
7) Aniline	93	4.952	4.940	0.917	711955	80.67	ng/uL	99
9) Phenol	94	4.899	4.881	0.907	598446	79.78	ng/uL	100
10) bis(2-Chloroethyl) ether	93	5.040	5.028	0.934	482879	79.69	ng/uL	100
11) 2-Chlorophenol	128	5.105	5.099	0.946	502000	79.90	ng/uL	100
12) n-Decane	43	5.175	5.169	0.959	766433	80.28	ng/uL	98
13) 1,3-Dichlorobenzene	146	5.322	5.316	0.986	577205	80.23	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.428	5.422	1.005	582235	80.13	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.640	5.634	1.045	550703	80.05	ng/uL	100
16) bis(2-Chloro-1-methyle...	45	5.799	5.793	1.074	934264	79.31	ng/uL	99
17) Benzyl alcohol	108	5.599	5.587	1.037	321424	79.89	ng/uL	99
18) o-Cresol	107	5.746	5.734	1.064	397671	79.71	ng/uL	99
19) m,p-Cresols	107	5.987	5.969	1.109	512432	78.93	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1507.D
Acq On : 15 Sep 2017 12:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-03|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 18 09:12:38 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	6.016	5.987	1.114	357471	79.26	ng/uL#	37
21)	p-Toluidine	106	6.040	6.034	1.119	583233	71.16	ng/uL	100
22)	m-Toluidine	106	6.093	6.081	1.129	551422	74.69	ng/uL	99
23)	Hexachloroethane	117	6.116	6.116	1.133	222020	80.40	ng/uL	99
26)	Nitrobenzene	77	6.228	6.216	0.867	515841	81.29	ng/uL	100
27)	Isophorone	82	6.563	6.552	0.913	862055	78.62	ng/uL	100
28)	2-Nitrophenol	139	6.663	6.657	0.927	217368	83.17	ng/uL	99
29)	2,4-Dimethylphenol	122	6.728	6.716	0.936	404416	79.03	ng/uL	100
30)	bis(2-Chloroethoxy)met...	93	6.875	6.863	0.957	561706	78.93	ng/uL	99
31)	2,4-Dichlorophenol	162	6.993	6.981	0.973	386700	79.54	ng/uL	99
32)	Benzoic acid	105	6.934	6.869	0.965	259451	80.02	ng/uL	93
33)	1,2,4-Trichlorobenzene	180	7.110	7.105	0.989	442393	79.47	ng/uL	100
34)	alpha-Terpineol	59	7.246	7.234	1.008	473053	79.45	ng/uL	98
35)	Naphthalene	128	7.222	7.210	1.005	1358179	78.34	ng/uL	100
36)	4-Chloroaniline	127	7.299	7.287	1.016	378268	66.23	ng/uL	97
37)	Hexachlorobutadiene	225	7.387	7.387	1.028	262858	79.35	ng/uL	99
38)	4-Chloro-3-methylphenol	107	7.946	7.940	1.106	372814	78.33	ng/uL	99
39)	2-Methylnaphthalene	142	8.152	8.146	1.134	868478	77.57	ng/uL	100
40)	Phthalic anhydride	104	8.222	8.216	1.144	217654	84.38	ng/uL	97
41)	1-Methylnaphthalene	142	8.281	8.275	1.152	797403	76.22	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.357	8.352	0.879	261238	78.35	ng/uL	99
44)	2,3-Dichloroaniline	161	8.516	8.516	0.896	313530	74.14	ng/uL	99
45)	2,4,6-Trichlorophenol	196	8.522	8.516	0.897	244493	82.46	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.563	8.552	0.901	245839	81.44	ng/uL	97
48)	2-Chloronaphthalene	162	8.787	8.781	0.924	744205	81.33	ng/uL	99
49)	o-Nitroaniline	65	8.922	8.916	0.939	206851	82.09	ng/uL	100
50)	1,4-Dinitrobenzene	168	9.110	9.104	0.959	89337	82.62	ng/uL	95
51)	m-Nitroaniline	138	9.457	9.446	0.995	116258	72.99	ng/uL	100
52)	Dimethylphthalate	163	9.181	9.169	0.966	748587	77.24	ng/uL	100
53)	m-Dinitrobenzene	168	9.204	9.199	0.968	101235	79.63	ng/uL	89
54)	2,6-Dinitrotoluene	165	9.252	9.240	0.973	164567	79.29	ng/uL	99
55)	2,4-Dinitrotoluene	165	9.757	9.746	1.027	184947	76.88	ng/uL	98
56)	Acenaphthylene	152	9.328	9.316	0.981	1127490	79.94	ng/uL	100
57)	Acenaphthene	154	9.546	9.540	1.004	621600	78.99	ng/uL	99
58)	2,4-Dinitrophenol	184	9.587	9.575	1.009	43649	91.32	ng/uL	98
59)	Dibenzofuran	168	9.769	9.763	1.028	931792	78.02	ng/uL	100
60)	2,3,4,6-Tetrachlorophenol	232	9.916	9.910	1.043	171409	80.27	ng/uL	98
61)	Diethylphthalate	149	10.075	10.069	1.060	680195	74.29	ng/uL	100
62)	4-Nitrophenol	139	9.657	9.646	1.016	101864	82.81	ng/uL	98
63)	Fluorene	166	10.199	10.193	1.073	699228	75.99	ng/uL	100
64)	4-Chlorophenylphenylether	204	10.204	10.198	1.074	336042	77.06	ng/uL	99
65)	p-Nitroaniline	138	10.228	10.216	1.076	105834	69.32	ng/uL	92
68)	2-Methyl-4,6-dinitroph...	198	10.263	10.257	0.903	59158	84.16	ng/uL	99
69)	Diphenylamine	169	10.357	10.351	0.911	560832	82.87	ng/uL	99
70)	1,2-Diphenylhydrazine	77	10.404	10.398	0.915	703464	83.77	ng/uL	100
71)	4-Bromophenylphenylether	248	10.816	10.816	0.951	187029	81.60	ng/uL	99
72)	Hexachlorobenzene	284	10.881	10.881	0.957	196503	81.38	ng/uL	99
73)	Pentachlorophenol	266	11.122	11.122	0.978	88622	86.62	ng/uL	99
74)	n-Octadecane	57	11.251	11.251	0.990	621870	84.85	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1507.D
Acq On : 15 Sep 2017 12:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-03|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 18 09:12:38 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

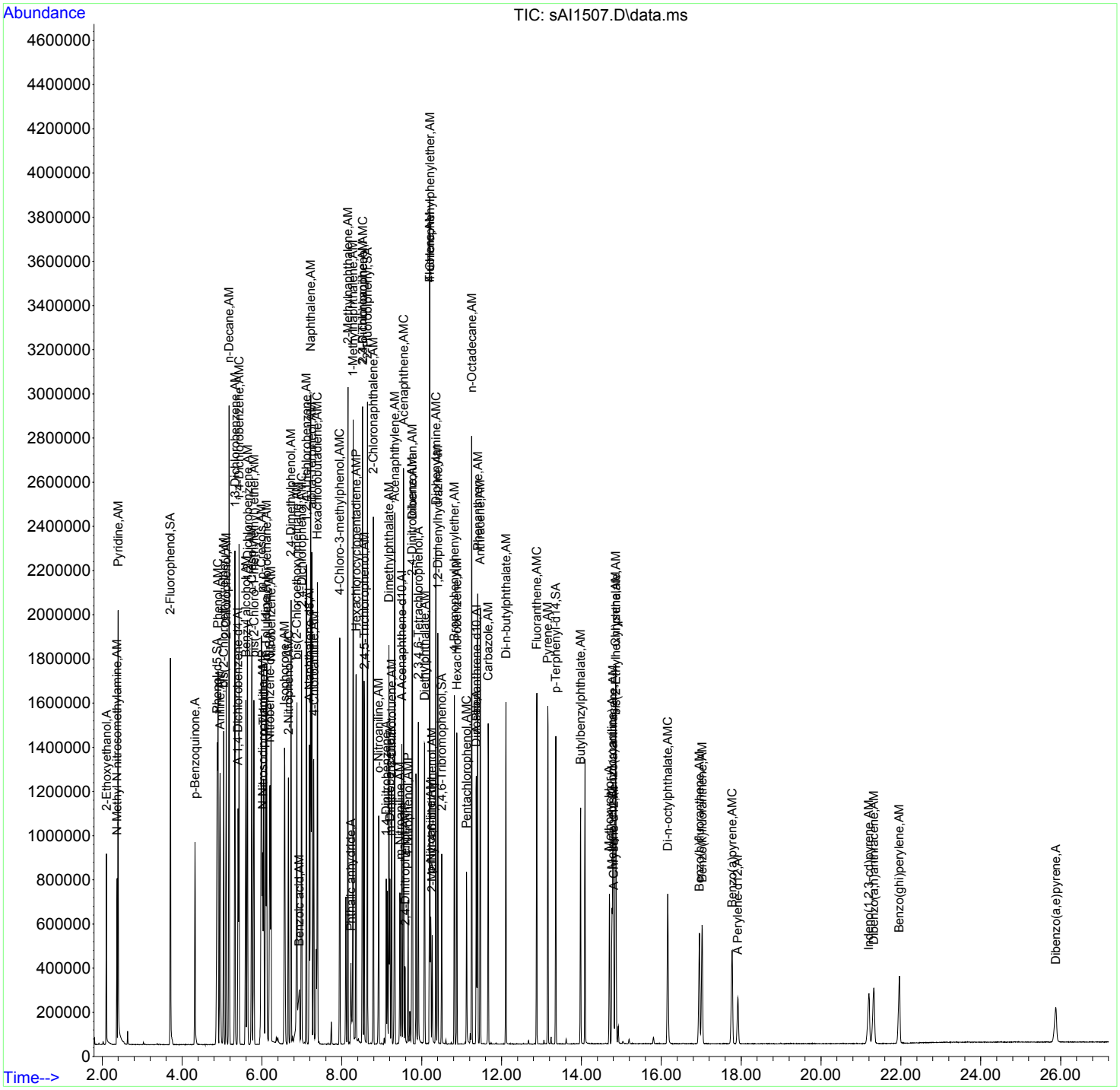
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.363	11.357	0.999	78208	86.12	ng/uL	96
76)	Phenanthrene	178	11.404	11.398	1.003	799451	78.70	ng/uL	100
77)	Anthracene	178	11.469	11.463	1.009	819095	79.52	ng/uL	100
78)	Carbazole	167	11.663	11.663	1.026	633749	78.62	ng/uL	100
79)	Di-n-butylphthalate	149	12.110	12.104	1.065	830481	78.98	ng/uL	100
80)	Fluoranthene	202	12.881	12.875	1.133	694824	76.02	ng/uL	100
82)	Pyrene	202	13.157	13.157	0.888	695555	76.21	ng/uL	100
84)	Butylbenzylphthalate	149	13.981	13.975	0.944	278987	82.26	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	14.863	14.857	1.004	404979	83.24	ng/uL	100
86)	Benzo(a)anthracene	228	14.787	14.786	0.998	528905	78.92	ng/uL	99
87)	Chrysene	228	14.851	14.845	1.003	487795	79.28	ng/uL	99
88)	Methoxychlor	227	14.698	14.698	0.992	299757	84.88	ng/uL	99
89)	Methylenebis(2-chloroa...	231	14.763	14.757	0.997	85029	81.69	ng/uL	99
90)	Di-n-octylphthalate	149	16.163	16.157	1.091	609526	86.70	ng/uL	99
92)	Benzo(b)fluoranthene	252	16.957	16.945	0.946	423378	79.71	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.022	17.016	0.950	408541	79.11	ng/uL	99
94)	Benzo(a)pyrene	252	17.775	17.763	0.992	378056	81.87	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	21.198	21.180	1.183	286709	89.20	ng/uL	100
96)	Dibenzo(a,h)anthracene	278	21.321	21.304	1.190	284695	88.36	ng/uL	100
97)	Benzo(ghi)perylene	276	21.963	21.945	1.226	298043	86.54	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	25.880	25.856	1.445	195357	89.75	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1507.D
Acq On : 15 Sep 2017 12:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-03|ICAL|1|SVM|1|M-6
Misc : |MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 18 09:12:38 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1508.D
Acq On : 15 Sep 2017 12:47
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-02|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 18 09:12:40 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	180899	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.187	7.181	1.000	592657	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.504	9.499	1.000	251587	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	278620	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	163287	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	134764	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.504	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.504	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.711	3.699	0.687	544774	97.94	ng/uL	0.01
8) Phenol-d5	99	4.881	4.863	0.904	680368	97.81	ng/uL	0.02
25) Nitrobenzene-d5	82	6.199	6.187	0.863	598938	102.51	ng/uL	0.01
47) 2-Fluorobiphenyl	172	8.640	8.634	0.909	994333	106.20	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.498	10.493	1.105	90222	89.26	ng/uL	0.00
83) p-Terphenyl-d14	244	13.357	13.351	0.902	404763	93.79	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.111	2.099	0.391	399086	104.87	ng/uL	100
3) N-Methyl-N-nitrosometh...	74	2.375	2.358	0.440	358512	100.34	ng/uL	99
4) Pyridine	79	2.399	2.393	0.444	632371	101.03	ng/uL	100
6) p-Benzoquinone	54	4.322	4.316	0.801	334436	95.78	ng/uL	99
7) Aniline	93	4.952	4.940	0.917	827304	96.71	ng/uL	100
9) Phenol	94	4.905	4.881	0.908	708706	97.47	ng/uL	100
10) bis(2-Chloroethyl) ether	93	5.046	5.028	0.935	573011	97.56	ng/uL	99
11) 2-Chlorophenol	128	5.110	5.099	0.947	596133	97.88	ng/uL	100
12) n-Decane	43	5.175	5.169	0.959	910043	98.34	ng/uL	98
13) 1,3-Dichlorobenzene	146	5.322	5.316	0.986	685304	98.27	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.428	5.422	1.005	692135	98.28	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.640	5.634	1.045	651304	97.67	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	5.799	5.793	1.074	1098169	96.18	ng/uL	100
17) Benzyl alcohol	108	5.605	5.587	1.038	378049	96.94	ng/uL	100
18) o-Cresol	107	5.746	5.734	1.064	467707	96.71	ng/uL	99
19) m,p-Cresols	107	5.987	5.969	1.109	602104	95.67	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1508.D
Acq On : 15 Sep 2017 12:47
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-02|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 18 09:12:40 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
20)	N-Nitrosodipropylamine	70	6.022	5.987	1.115	412890	94.44	ng/uL#	38	
21)	p-Toluidine	106	6.046	6.034	1.120	662434	83.38	ng/uL	96	A
22)	m-Toluidine	106	6.099	6.081	1.130	663548	92.72	ng/uL	98	
23)	Hexachloroethane	117	6.116	6.116	1.133	265742	99.27	ng/uL	100	
26)	Nitrobenzene	77	6.228	6.216	0.867	598575	101.93	ng/uL	100	
27)	Isophorone	82	6.569	6.552	0.914	984408	97.02	ng/uL	100	
28)	2-Nitrophenol	139	6.663	6.657	0.927	259485	107.29	ng/uL	99	
29)	2,4-Dimethylphenol	122	6.734	6.716	0.937	471254	99.52	ng/uL	100	
30)	bis(2-Chloroethoxy)met...	93	6.875	6.863	0.957	646626	98.20	ng/uL	99	
31)	2,4-Dichlorophenol	162	6.999	6.981	0.974	443708	98.63	ng/uL	99	
32)	Benzoic acid	105	6.952	6.869	0.967	312917	100.42	ng/uL	98	
33)	1,2,4-Trichlorobenzene	180	7.110	7.105	0.989	512094	99.41	ng/uL	100	
34)	alpha-Terpineol	59	7.246	7.234	1.008	547935	99.45	ng/uL	98	
35)	Naphthalene	128	7.222	7.210	1.005	1571735	97.98	ng/uL	100	
36)	4-Chloroaniline	127	7.299	7.287	1.016	391272	74.03	ng/uL	96	
37)	Hexachlorobutadiene	225	7.393	7.387	1.029	309985	101.12	ng/uL	100	
38)	4-Chloro-3-methylphenol	107	7.946	7.940	1.106	415057	94.24	ng/uL	99	
39)	2-Methylnaphthalene	142	8.151	8.146	1.134	972382	93.85	ng/uL	100	
40)	Phthalic anhydride	104	8.228	8.216	1.145	218089	91.37	ng/uL	97	
41)	1-Methylnaphthalene	142	8.281	8.275	1.152	896396	92.59	ng/uL	99	
43)	Hexachlorocyclopentadiene	237	8.357	8.352	0.879	302665	103.18	ng/uL	99	A
44)	2,3-Dichloroaniline	161	8.516	8.516	0.896	314022	86.50	ng/uL	100	
45)	2,4,6-Trichlorophenol	196	8.522	8.516	0.897	270521	106.27	ng/uL	99	
46)	2,4,5-Trichlorophenol	196	8.563	8.552	0.901	265656	102.50	ng/uL	97	
48)	2-Chloronaphthalene	162	8.793	8.781	0.925	819935	104.37	ng/uL	100	
49)	o-Nitroaniline	65	8.922	8.916	0.939	214766	99.28	ng/uL	99	
50)	1,4-Dinitrobenzene	168	9.110	9.104	0.959	90889	97.90	ng/uL	96	
51)	m-Nitroaniline	138	9.451	9.446	0.994	113937	83.32	ng/uL	98	
52)	Dimethylphthalate	163	9.181	9.169	0.966	773212	92.93	ng/uL	100	
53)	m-Dinitrobenzene	168	9.204	9.199	0.968	102187	93.62	ng/uL	87	
54)	2,6-Dinitrotoluene	165	9.251	9.240	0.973	167383	93.94	ng/uL	100	
55)	2,4-Dinitrotoluene	165	9.757	9.746	1.027	181220	87.74	ng/uL	99	
56)	Acenaphthylene	152	9.328	9.316	0.981	1199180	99.04	ng/uL	100	
57)	Acenaphthene	154	9.551	9.540	1.005	663067	98.15	ng/uL	100	
58)	2,4-Dinitrophenol	184	9.587	9.575	1.009	45632	111.20	ng/uL	96	A
59)	Dibenzofuran	168	9.769	9.763	1.028	975994	95.19	ng/uL	100	
60)	2,3,4,6-Tetrachlorophenol	232	9.916	9.910	1.043	175832	95.91	ng/uL	97	
61)	Diethylphthalate	149	10.075	10.069	1.060	672592	85.57	ng/uL	100	
62)	4-Nitrophenol	139	9.657	9.646	1.016	98985	93.73	ng/uL	99	
63)	Fluorene	166	10.198	10.193	1.073	709837	89.85	ng/uL	99	
64)	4-Chlorophenylphenylether	204	10.204	10.198	1.074	344659	92.06	ng/uL	99	
65)	p-Nitroaniline	138	10.228	10.216	1.076	113289	86.43	ng/uL	97	
68)	2-Methyl-4,6-dinitroph...	198	10.263	10.257	0.903	58568	108.19	ng/uL	98	A
69)	Diphenylamine	169	10.357	10.351	0.911	564684	109.66	ng/uL	100	
70)	1,2-Diphenylhydrazine	77	10.404	10.398	0.915	709440	111.04	ng/uL	100	
71)	4-Bromophenylphenylether	248	10.816	10.816	0.951	187141	107.31	ng/uL	99	
72)	Hexachlorobenzene	284	10.881	10.881	0.957	194754	106.00	ng/uL	99	
73)	Pentachlorophenol	266	11.122	11.122	0.978	85252	109.52	ng/uL	99	
74)	n-Octadecane	57	11.251	11.251	0.990	649041	116.40	ng/uL	100	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1508.D
Acq On : 15 Sep 2017 12:47
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-02|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 18 09:12:40 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

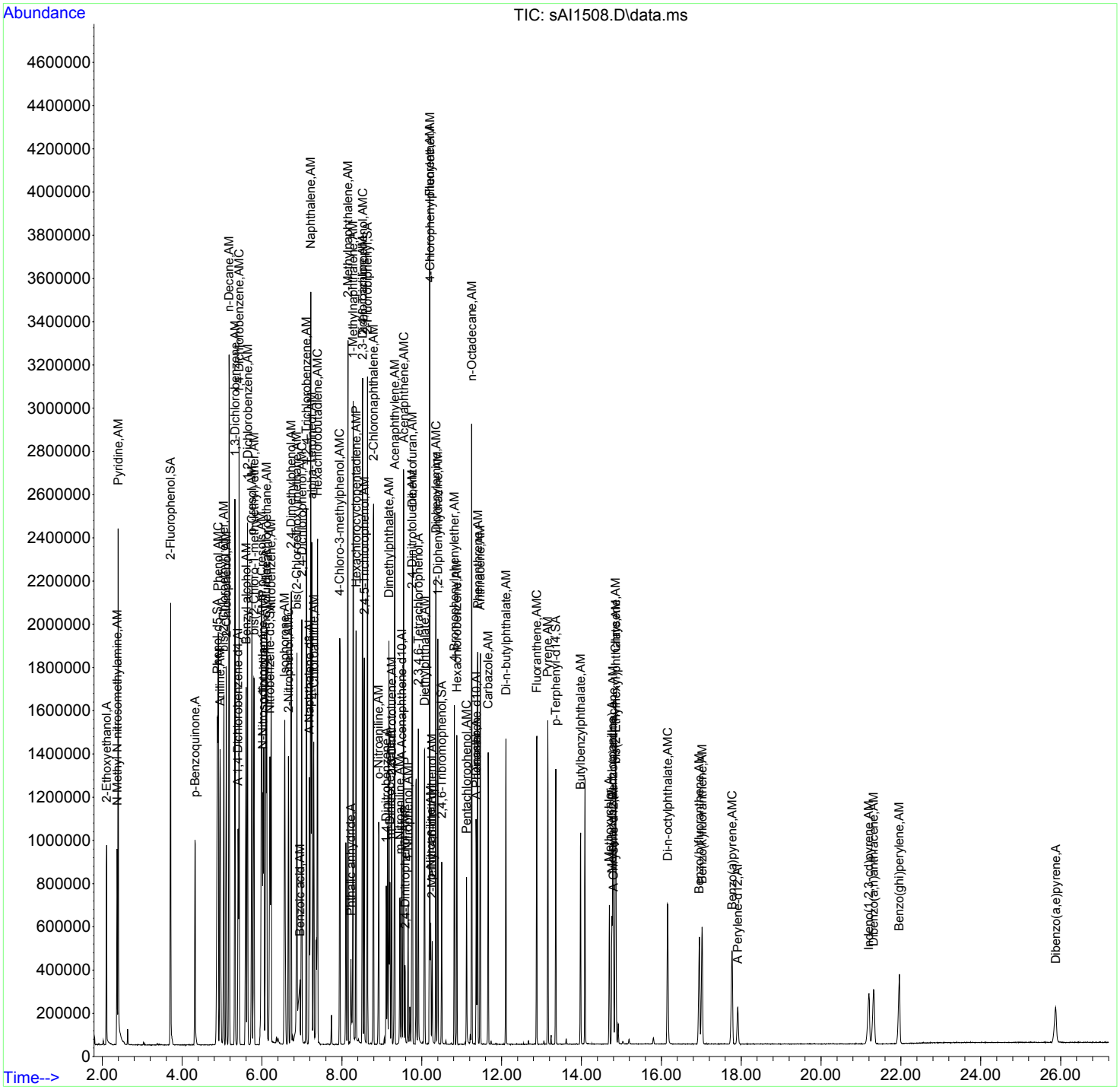
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
75)	Dinoseb	211	11.363	11.357	0.999	72256	103.59	ng/uL	98	A
76)	Phenanthrene	178	11.404	11.398	1.003	761380	98.50	ng/uL	100	
77)	Anthracene	178	11.469	11.463	1.009	773751	98.72	ng/uL	100	
78)	Carbazole	167	11.663	11.663	1.026	590338	96.25	ng/uL	100	
79)	Di-n-butylphthalate	149	12.110	12.104	1.065	769088	96.13	ng/uL	100	
80)	Fluoranthene	202	12.881	12.875	1.133	640821	92.14	ng/uL	100	
82)	Pyrene	202	13.157	13.157	0.889	642920	91.85	ng/uL	100	
84)	Butylbenzylphthalate	149	13.981	13.975	0.944	259194	99.65	ng/uL	98	
85)	bis(2-Ethylhexyl)phtha...	149	14.863	14.857	1.004	377428	101.14	ng/uL	100	
86)	Benzo(a)anthracene	228	14.786	14.786	0.999	504140	98.07	ng/uL	99	
87)	Chrysene	228	14.851	14.845	1.003	471650	99.94	ng/uL	99	
88)	Methoxychlor	227	14.698	14.698	0.993	283552	104.68	ng/uL	98	
89)	Methylenebis(2-chloroa...	231	14.763	14.757	0.997	81457	102.04	ng/uL	100	
90)	Di-n-octylphthalate	149	16.163	16.157	1.092	595546	110.45	ng/uL	99	
92)	Benzo(b)fluoranthene	252	16.951	16.945	0.946	426626	99.05	ng/uL	100	
93)	Benzo(k)fluoranthene	252	17.022	17.016	0.950	423533	101.13	ng/uL	100	
94)	Benzo(a)pyrene	252	17.774	17.763	0.992	389360	103.98	ng/uL	100	
95)	Indeno(1,2,3-cd)pyrene	276	21.198	21.180	1.183	294577	113.01	ng/uL	100	
96)	Dibenzo(a,h)anthracene	278	21.315	21.304	1.190	293314	112.26	ng/uL	100	
97)	Benzo(ghi)perylene	276	21.962	21.945	1.226	305426	109.36	ng/uL	100	
98)	Dibenzo(a,e)pyrene	302	25.874	25.856	1.444	196403	111.27	ng/uL	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1508.D
Acq On : 15 Sep 2017 12:47
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-02|ICAL|1|SVM|1|M-7
Misc : |MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 18 09:12:40 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1509.D
Acq On : 15 Sep 2017 13:18
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-01|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 18 09:12:42 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
Internal Standards								Dev(Min)	
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	192081	40.00	ng/uL	0.00	
24) A Naphthalene-d8	136	7.193	7.181	1.000	659628	40.00	ng/uL	0.01	
42) A Acenaphthene-d10	164	9.504	9.499	1.000	309245	40.00	ng/uL	0.00	
67) A Phenanthrene-d10	188	11.375	11.369	1.000	395000	40.00	ng/uL	0.00	
81) A Chrysene-d12	240	14.810	14.804	1.000	222279	40.00	ng/uL	0.00	
91) A Perylene-d12	264	17.916	17.916	1.000	154745	40.00	ng/uL	0.00	
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00	
115) B Naphthalene-d8	136	7.193	7.181	1.000	0m	40.00	ng/uL	0.01	
123) B Acenaphthene-d10	164	9.504	9.498	1.000	0m	40.00	ng/uL	0.00	
132) B Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00	
145) B Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01	
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00	
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00	
156) J Chrysene-d12	240	14.810	14.804	1.000	0m	40.00	ng/uL	0.00	
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00	
161) D Naphthalene-d8	136	7.193	7.181	1.000	0m	40.00	ng/uL	0.01	
163) D Acenaphthene-d10	164	9.504	9.499	1.000	0m	40.00	ng/uL	0.00	
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00	
173) D Chrysene-d12	240	14.810	14.798	1.000	0m	40.00	ng/uL	0.01	
175) E Naphthalene-d8	136	7.193	7.181	1.000	0m	40.00	ng/uL	0.01	
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96	
System Monitoring Compounds								Dev(Min)	
5) 2-Fluorophenol	112	3.711	3.699	0.687	685392	116.05	ng/uL	0.01	
8) Phenol-d5	99	4.887	4.863	0.905	878531	118.95	ng/uL	0.02	
25) Nitrobenzene-d5	82	6.205	6.187	0.863	786602	120.96	ng/uL	0.02	A
47) 2-Fluorobiphenyl	172	8.646	8.634	0.910	1383899	120.25	ng/uL	0.01	A
66) 2,4,6-Tribromophenol	330	10.504	10.493	1.105	151962	122.30	ng/uL	0.01	A
83) p-Terphenyl-d14	244	13.357	13.351	0.902	728769	124.05	ng/uL	0.00	A

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
2) 2-Ethoxyethanol	59	2.111	2.099	0.391	471651	116.72	ng/uL	100	
3) N-Methyl-N-nitrosometh...	74	2.381	2.358	0.441	469236	123.68	ng/uL	99	A
4) Pyridine	79	2.399	2.393	0.444	771855	116.14	ng/uL	100	
6) p-Benzoquinone	54	4.328	4.316	0.802	406216	109.56	ng/uL	98	
7) Aniline	93	4.958	4.940	0.918	1066808	117.44	ng/uL	100	
9) Phenol	94	4.911	4.881	0.910	924507	119.75	ng/uL	100	
10) bis(2-Chloroethyl) ether	93	5.052	5.028	0.936	739414	118.56	ng/uL	100	
11) 2-Chlorophenol	128	5.111	5.099	0.947	772131	119.40	ng/uL	100	
12) n-Decane	43	5.181	5.169	0.960	1121952	114.19	ng/uL	97	
13) 1,3-Dichlorobenzene	146	5.328	5.316	0.987	862289	116.45	ng/uL	99	
14) 1,4-Dichlorobenzene	146	5.428	5.422	1.005	871528	116.54	ng/uL	100	
15) 1,2-Dichlorobenzene	146	5.640	5.634	1.045	827663	116.89	ng/uL	99	
16) bis(2-Chloro-1-methyle...	45	5.805	5.793	1.075	1420850	117.20	ng/uL	99	
17) Benzyl alcohol	108	5.611	5.587	1.039	498862	120.47	ng/uL	99	A
18) o-Cresol	107	5.752	5.734	1.065	608804	118.56	ng/uL	99	
19) m,p-Cresols	107	5.999	5.969	1.111	805577	120.55	ng/uL	93	A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1509.D
Acq On : 15 Sep 2017 13:18
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-01|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 18 09:12:42 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
21)	p-Toluidine	106	6.052	6.034	1.121	841362	99.74	ng/uL	85	A
22)	m-Toluidine	106	6.105	6.081	1.131	825373	108.62	ng/uL	98	
23)	Hexachloroethane	117	6.122	6.116	1.134	334869	117.82	ng/uL	99	
26)	Nitrobenzene	77	6.234	6.216	0.867	788635	120.66	ng/uL	100	A
27)	Isophorone	82	6.575	6.552	0.914	1346246	119.21	ng/uL	100	
28)	2-Nitrophenol	139	6.669	6.657	0.927	353399	131.28	ng/uL	99	A
29)	2,4-Dimethylphenol	122	6.740	6.716	0.937	629329	119.41	ng/uL	99	
30)	bis(2-Chloroethoxy)met...	93	6.881	6.863	0.957	875095	119.40	ng/uL	99	
31)	2,4-Dichlorophenol	162	7.005	6.981	0.974	597442	119.32	ng/uL	99	
32)	Benzoic acid	105	6.981	6.869	0.971	428676	120.65	ng/uL	97	A
33)	1,2,4-Trichlorobenzene	180	7.116	7.105	0.989	674494	117.65	ng/uL	99	
34)	alpha-Terpineol	59	7.252	7.234	1.008	741268	120.88	ng/uL	98	A
35)	Naphthalene	128	7.228	7.210	1.005	2077103	116.33	ng/uL	100	
36)	4-Chloroaniline	127	7.305	7.287	1.016	525500	89.34	ng/uL	97	A
37)	Hexachlorobutadiene	225	7.393	7.387	1.028	406030	119.01	ng/uL	100	
38)	4-Chloro-3-methylphenol	107	7.952	7.940	1.105	584755	119.29	ng/uL	99	
39)	2-Methylnaphthalene	142	8.157	8.146	1.134	1332557	115.56	ng/uL	100	
40)	Phthalic anhydride	104	8.234	8.216	1.145	337778	127.15	ng/uL	75	A
41)	1-Methylnaphthalene	142	8.287	8.275	1.152	1233154	114.44	ng/uL	99	
43)	Hexachlorocyclopentadiene	237	8.357	8.352	0.879	396645	109.53	ng/uL	99	A
44)	2,3-Dichloroaniline	161	8.522	8.516	0.897	454407	101.83	ng/uL	100	
45)	2,4,6-Trichlorophenol	196	8.528	8.516	0.897	385427	123.18	ng/uL	99	A
46)	2,4,5-Trichlorophenol	196	8.569	8.552	0.902	389359	122.22	ng/uL	97	A
48)	2-Chloronaphthalene	162	8.793	8.781	0.925	1159326	120.05	ng/uL	100	A
49)	o-Nitroaniline	65	8.934	8.916	0.940	327876	123.30	ng/uL	100	A
50)	1,4-Dinitrobenzene	168	9.122	9.104	0.960	149214	130.76	ng/uL	95	A
51)	m-Nitroaniline	138	9.463	9.446	0.996	184036	109.49	ng/uL	98	
52)	Dimethylphthalate	163	9.193	9.169	0.967	1180889	115.47	ng/uL	100	
53)	m-Dinitrobenzene	168	9.216	9.199	0.970	166479	124.08	ng/uL	75	A
54)	2,6-Dinitrotoluene	165	9.257	9.240	0.974	261677	119.48	ng/uL	100	
55)	2,4-Dinitrotoluene	165	9.763	9.746	1.027	300077	118.20	ng/uL	97	
56)	Acenaphthylene	152	9.334	9.316	0.982	1748580	117.49	ng/uL	100	
57)	Acenaphthene	154	9.552	9.540	1.005	970432	116.86	ng/uL	100	
58)	2,4-Dinitrophenol	184	9.593	9.575	1.009	81626	161.82	ng/uL	95	A
59)	Dibenzofuran	168	9.775	9.763	1.028	1460951	115.92	ng/uL	100	
60)	2,3,4,6-Tetrachlorophenol	232	9.922	9.910	1.044	268503	119.15	ng/uL	99	
61)	Diethylphthalate	149	10.081	10.069	1.061	1091393	112.96	ng/uL	99	
62)	4-Nitrophenol	139	9.669	9.646	1.017	166815	128.51	ng/uL	98	A
63)	Fluorene	166	10.204	10.193	1.074	1105047	113.79	ng/uL	99	
64)	4-Chlorophenylphenylether	204	10.210	10.198	1.074	521992	113.43	ng/uL	99	
65)	p-Nitroaniline	138	10.246	10.216	1.078	174423	108.25	ng/uL	93	
68)	2-Methyl-4,6-dinitroph...	198	10.275	10.257	0.903	108041	139.46	ng/uL	97	A
69)	Diphenylamine	169	10.363	10.351	0.911	888258	121.68	ng/uL	100	A
70)	1,2-Diphenylhydrazine	77	10.410	10.398	0.915	1121821	123.85	ng/uL	100	A
71)	4-Bromophenylphenylether	248	10.822	10.816	0.951	301911	122.11	ng/uL	99	A
72)	Hexachlorobenzene	284	10.887	10.881	0.957	315985	121.32	ng/uL	99	A
73)	Pentachlorophenol	266	11.128	11.122	0.978	154588	140.08	ng/uL	99	A
74)	n-Octadecane	57	11.257	11.251	0.990	999108	126.38	ng/uL	99	A
75)	Dinoseb	211	11.369	11.357	0.999	146048	145.73	ng/uL	97	A

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1509.D
Acq On : 15 Sep 2017 13:18
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-01|ICAL|1|SVM|1|M-8
Misc : |MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 18 09:12:42 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
76)	Phenanthrene	178	11.410	11.398	1.003	1292575	117.96	ng/uL	100	
77)	Anthracene	178	11.475	11.463	1.009	1313157	118.18	ng/uL	100	
78)	Carbazole	167	11.669	11.663	1.026	1041161	119.74	ng/uL	100	
79)	Di-n-butylphthalate	149	12.110	12.104	1.065	1373353	121.08	ng/uL	100	A
80)	Fluoranthene	202	12.881	12.875	1.132	1149993	116.64	ng/uL	100	
82)	Pyrene	202	13.163	13.157	0.889	1140039	119.64	ng/uL	99	
84)	Butylbenzylphthalate	149	13.981	13.975	0.944	473321	133.67	ng/uL	98	A
85)	bis(2-Ethylhexyl)phtha...	149	14.863	14.857	1.004	668050	131.51	ng/uL	100	A
86)	Benzo(a)anthracene	228	14.792	14.786	0.999	833270	119.08	ng/uL	100	
87)	Chrysene	228	14.857	14.845	1.003	754013	117.37	ng/uL	99	
88)	Methoxychlor	227	14.704	14.698	0.993	526365	142.75	ng/uL	98	A
89)	Methylenebis(2-chloroa...	231	14.769	14.757	0.997	129781	119.42	ng/uL	99	
90)	Di-n-octylphthalate	149	16.163	16.157	1.091	964988	131.47	ng/uL	98	A
92)	Benzo(b)fluoranthene	252	16.957	16.945	0.946	617075	124.77	ng/uL	99	A
93)	Benzo(k)fluoranthene	252	17.033	17.016	0.951	583712	121.39	ng/uL	99	A
94)	Benzo(a)pyrene	252	17.780	17.763	0.992	534390	124.28	ng/uL	100	A
95)	Indeno(1,2,3-cd)pyrene	276	21.210	21.180	1.184	372198	124.36	ng/uL	98	A
96)	Dibenzo(a,h)anthracene	278	21.321	21.304	1.190	367378	122.45	ng/uL	100	A
97)	Benzo(ghi)perylene	276	21.968	21.945	1.226	382952	119.42	ng/uL	99	
98)	Dibenzo(a,e)pyrene	302	25.880	25.856	1.445	248651	122.68	ng/uL	99	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1509.D
Acq On    : 15 Sep 2017  13:18
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-01|ICAL|1|SVM|1|M-8
Misc      : |MIX[A]
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Sep 18 09:12:42 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                          SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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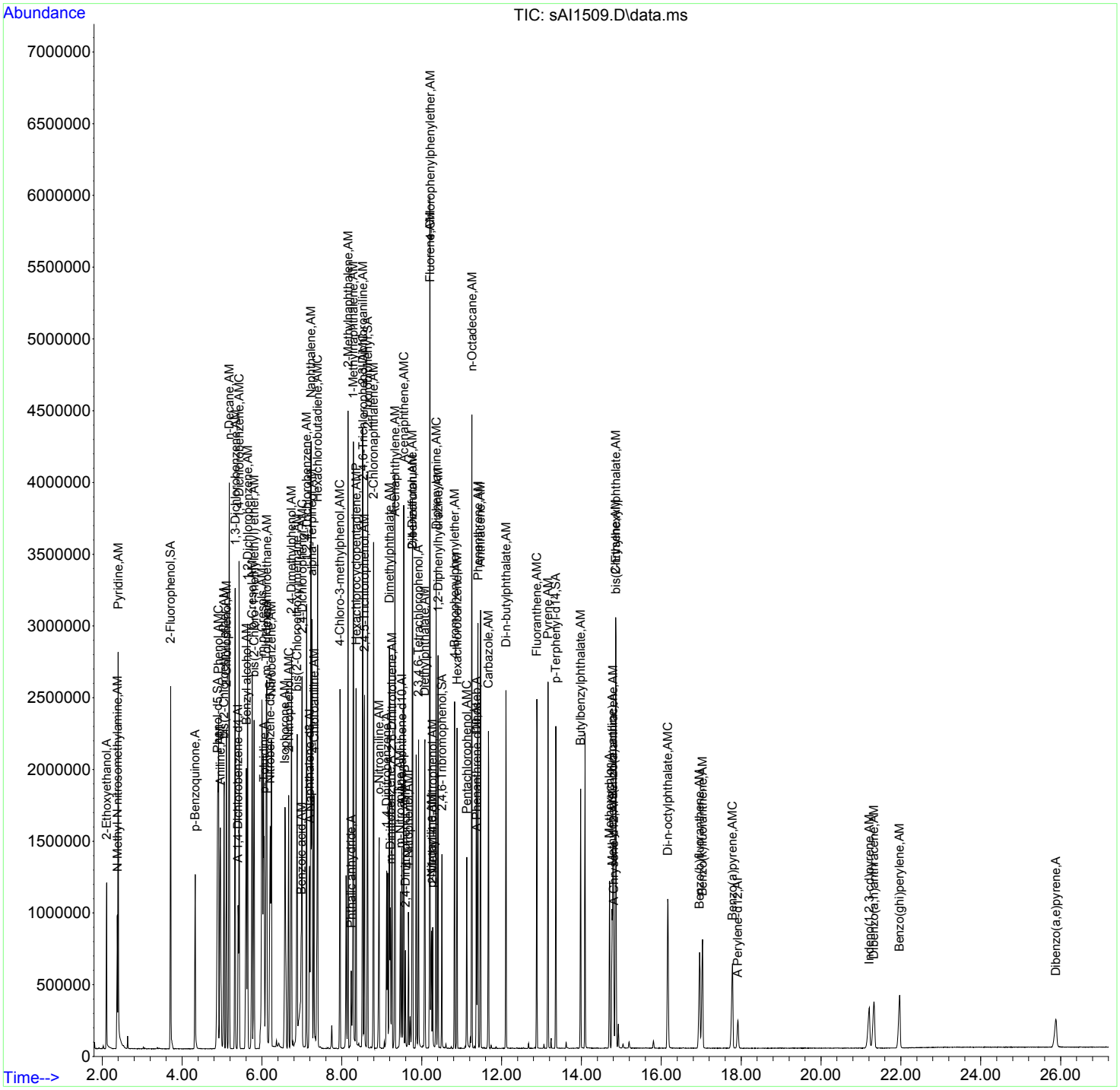


Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1510.D
Acq On : 15 Sep 2017 13:49
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-08|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 18 09:12:44 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	190345	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	688214	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	375960	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	601601	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.798	14.804	1.000	346119	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	258257	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0d	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0d	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0d	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0d	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0d	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0d	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.358	2.358	0.437	3416	0.91	ng/uL	94
35) Naphthalene	128	7.204	7.210	1.003	19173	1.03	ng/uL	100
39) 2-Methylnaphthalene	142	8.140	8.146	1.134	12770	1.06	ng/uL	99
41) 1-Methylnaphthalene	142	8.269	8.275	1.152	12289	1.09	ng/uL	94
48) 2-Chloronaphthalene	162	8.775	8.781	0.924	11370	0.97	ng/uL	98
52) Dimethylphthalate	163	9.157	9.169	0.964	12774	1.03	ng/uL#	96
56) Acenaphthylene	152	9.310	9.316	0.980	17875	0.99	ng/uL	99
57) Acenaphthene	154	9.534	9.540	1.004	10367	1.03	ng/uL	97
61) Diethylphthalate	149	10.051	10.069	1.058	12691	1.08	ng/uL	98
63) Fluorene	166	10.187	10.193	1.072	12524	1.06	ng/uL	99
76) Phenanthrene	178	11.392	11.398	1.002	17116	1.03	ng/uL	99
77) Anthracene	178	11.457	11.463	1.008	16770	0.99	ng/uL	99
78) Carbazole	167	11.657	11.663	1.025	12731	0.96	ng/uL	99
79) Di-n-butylphthalate	149	12.104	12.104	1.065	16363	0.95	ng/uL	98
80) Fluoranthene	202	12.869	12.875	1.132	15787	1.05	ng/uL	99
82) Pyrene	202	13.151	13.157	0.889	15612	1.05	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1510.D
Acq On : 15 Sep 2017 13:49
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-08|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 18 09:12:44 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

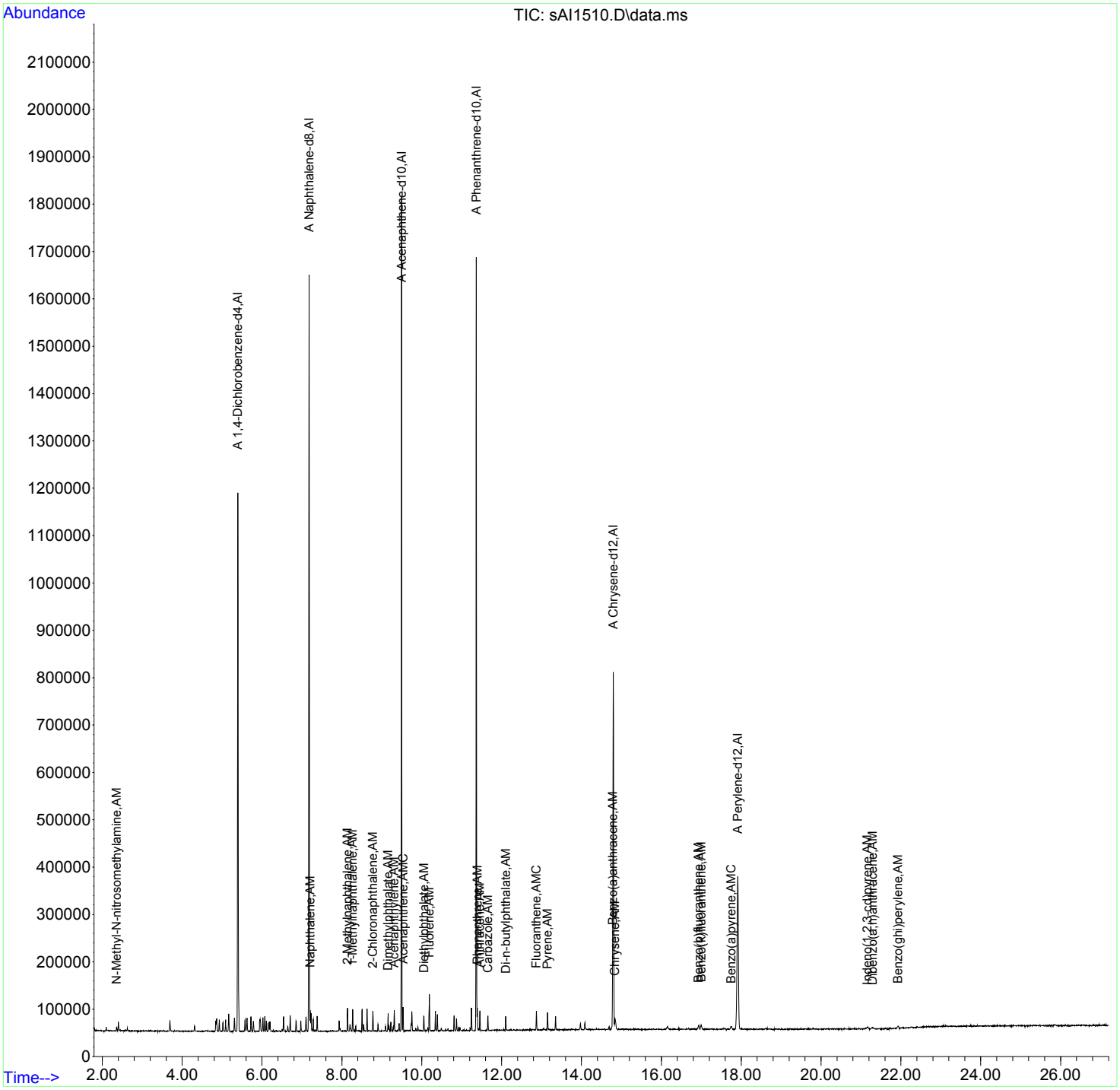
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
86)	Benzo(a)anthracene	228	14.781	14.786	0.999	11402	1.05	ng/uL	98
87)	Chrysene	228	14.839	14.845	1.003	10131	1.01	ng/uL	98
92)	Benzo(b)fluoranthene	252	16.933	16.945	0.945	7761	0.94	ng/uL	96
93)	Benzo(k)fluoranthene	252	16.998	17.016	0.949	7529	0.94	ng/uL	98
94)	Benzo(a)pyrene	252	17.751	17.763	0.991	6351	0.88	ng/uL	98
95)	Indeno(1,2,3-cd)pyrene	276	21.157	21.180	1.181	4220	0.84	ng/uL	97
96)	Dibenzo(a,h)anthracene	278	21.292	21.304	1.188	4263	0.85	ng/uL#	71
97)	Benzo(ghi)perylene	276	21.921	21.945	1.224	5037	0.94	ng/uL	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1510.D
Acq On : 15 Sep 2017 13:49
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-08|ICAL|1|SVM|1|M-1
Misc : |MIX[A]
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 18 09:12:44 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1511.D
Acq On : 15 Sep 2017 14:20
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-07|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 09:12:46 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	192732	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	681597	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	362082	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	555515	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	326991	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	251449	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.693	3.699	0.685	61457	10.37	ng/uL	0.00
8) Phenol-d5	99	4.852	4.863	0.900	76229	10.29	ng/uL	-0.01
25) Nitrobenzene-d5	82	6.175	6.187	0.860	67721	10.08	ng/uL	-0.01
47) 2-Fluorobiphenyl	172	8.628	8.634	0.908	132645	9.84	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.487	10.493	1.104	14622	10.05	ng/uL	0.00
83) p-Terphenyl-d14	244	13.351	13.351	0.902	87367	10.11	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.093	2.099	0.388	39628	9.77	ng/uL	99
3) N-Methyl-N-nitrosometh...	74	2.352	2.358	0.436	39945	10.49	ng/uL	99
4) Pyridine	79	2.393	2.393	0.444	65291	9.79	ng/uL	97
6) p-Benzoquinone	54	4.311	4.316	0.799	37265	10.02	ng/uL	100
7) Aniline	93	4.934	4.940	0.915	94623	10.38	ng/uL	99
9) Phenol	94	4.869	4.881	0.903	80067	10.34	ng/uL	99
10) bis(2-Chloroethyl) ether	93	5.022	5.028	0.931	64840	10.36	ng/uL	99
11) 2-Chlorophenol	128	5.093	5.099	0.944	66298	10.22	ng/uL	99
12) n-Decane	43	5.169	5.169	0.959	102530	10.40	ng/uL	100
13) 1,3-Dichlorobenzene	146	5.311	5.316	0.985	76175	10.25	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.417	5.422	1.004	77304	10.30	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.628	5.634	1.044	73232	10.31	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	5.787	5.793	1.073	125911	10.35	ng/uL	99
17) Benzyl alcohol	108	5.575	5.587	1.034	42154	10.15	ng/uL	98
18) o-Cresol	107	5.722	5.734	1.061	53401	10.36	ng/uL	99
19) m,p-Cresols	107	5.952	5.969	1.104	69153	10.31	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1511.D
Acq On : 15 Sep 2017 14:20
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-07|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 09:12:46 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	5.969	5.987	1.107	47847	10.27	ng/uL	100
21)	p-Toluidine	106	6.022	6.034	1.117	95075	11.23	ng/uL	99
22)	m-Toluidine	106	6.075	6.081	1.127	84743	11.11	ng/uL	99
23)	Hexachloroethane	117	6.111	6.116	1.133	28102	9.85	ng/uL	97
26)	Nitrobenzene	77	6.205	6.216	0.864	67144	9.94	ng/uL	99
27)	Isophorone	82	6.540	6.552	0.911	121266	10.39	ng/uL	100
28)	2-Nitrophenol	139	6.652	6.657	0.926	25465	9.16	ng/uL	98
29)	2,4-Dimethylphenol	122	6.711	6.716	0.934	55712	10.23	ng/uL	98
30)	bis(2-Chloroethoxy)met...	93	6.858	6.863	0.955	78528	10.37	ng/uL	98
31)	2,4-Dichlorophenol	162	6.975	6.981	0.971	52233	10.10	ng/uL	99
33)	1,2,4-Trichlorobenzene	180	7.105	7.105	0.989	60912	10.28	ng/uL	99
34)	alpha-Terpineol	59	7.228	7.234	1.007	64343	10.15	ng/uL	100
35)	Naphthalene	128	7.211	7.210	1.004	192760	10.45	ng/uL	100
36)	4-Chloroaniline	127	7.281	7.287	1.014	70384	11.58	ng/uL	98
37)	Hexachlorobutadiene	225	7.381	7.387	1.028	35899	10.18	ng/uL	99
38)	4-Chloro-3-methylphenol	107	7.934	7.940	1.105	52747	10.41	ng/uL	99
39)	2-Methylnaphthalene	142	8.140	8.146	1.134	124350	10.44	ng/uL	99
40)	Phthalic anhydride	104	8.210	8.216	1.143	22553	8.22	ng/uL	66
41)	1-Methylnaphthalene	142	8.269	8.275	1.152	117433	10.55	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.352	8.352	0.879	27676	13.37	ng/uL	99
44)	2,3-Dichloroaniline	161	8.510	8.516	0.896	60987	11.67	ng/uL	100
45)	2,4,6-Trichlorophenol	196	8.510	8.516	0.896	34913	9.53	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.546	8.552	0.900	35973	9.64	ng/uL	95
48)	2-Chloronaphthalene	162	8.781	8.781	0.924	113748	10.06	ng/uL	99
49)	o-Nitroaniline	65	8.910	8.916	0.938	29677	9.53	ng/uL	99
50)	1,4-Dinitrobenzene	168	9.099	9.104	0.958	11967	8.96	ng/uL	99
51)	m-Nitroaniline	138	9.440	9.446	0.994	23513	11.95	ng/uL	99
52)	Dimethylphthalate	163	9.163	9.169	0.965	127864	10.68	ng/uL	99
53)	m-Dinitrobenzene	168	9.187	9.199	0.967	15600	9.93	ng/uL	100
54)	2,6-Dinitrotoluene	165	9.234	9.240	0.972	25580	9.98	ng/uL	98
55)	2,4-Dinitrotoluene	165	9.740	9.746	1.025	31022	10.44	ng/uL	85
56)	Acenaphthylene	152	9.310	9.316	0.980	178718	10.26	ng/uL	99
57)	Acenaphthene	154	9.534	9.540	1.004	99789	10.26	ng/uL	99
59)	Dibenzofuran	168	9.757	9.763	1.027	156539	10.61	ng/uL	98
60)	2,3,4,6-Tetrachlorophenol	232	9.905	9.910	1.043	25817	9.78	ng/uL	98
61)	Diethylphthalate	149	10.057	10.069	1.059	124387	11.00	ng/uL	100
62)	4-Nitrophenol	139	9.640	9.646	1.015	13521	8.90	ng/uL	97
63)	Fluorene	166	10.193	10.193	1.073	122039	10.73	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.199	10.198	1.074	58240	10.81	ng/uL	99
65)	p-Nitroaniline	138	10.204	10.216	1.074	20566	10.90	ng/uL	100
68)	2-Methyl-4,6-dinitroph...	198	10.246	10.257	0.901	6743	10.35	ng/uL	99
69)	Diphenylamine	169	10.346	10.351	0.910	98553	9.60	ng/uL	100
70)	1,2-Diphenylhydrazine	77	10.393	10.398	0.914	118836	9.33	ng/uL	99
71)	4-Bromophenylphenylether	248	10.810	10.816	0.951	34064	9.80	ng/uL	100
72)	Hexachlorobenzene	284	10.875	10.881	0.957	36101	9.86	ng/uL	98
73)	Pentachlorophenol	266	11.122	11.122	0.978	11911	7.67	ng/uL	99
74)	n-Octadecane	57	11.246	11.251	0.989	99603	8.96	ng/uL	100
75)	Dinoseb	211	11.357	11.357	0.999	8231	10.26	ng/uL	94
76)	Phenanthrene	178	11.393	11.398	1.002	159011	10.32	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1511.D
Acq On : 15 Sep 2017 14:20
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-07|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 09:12:46 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

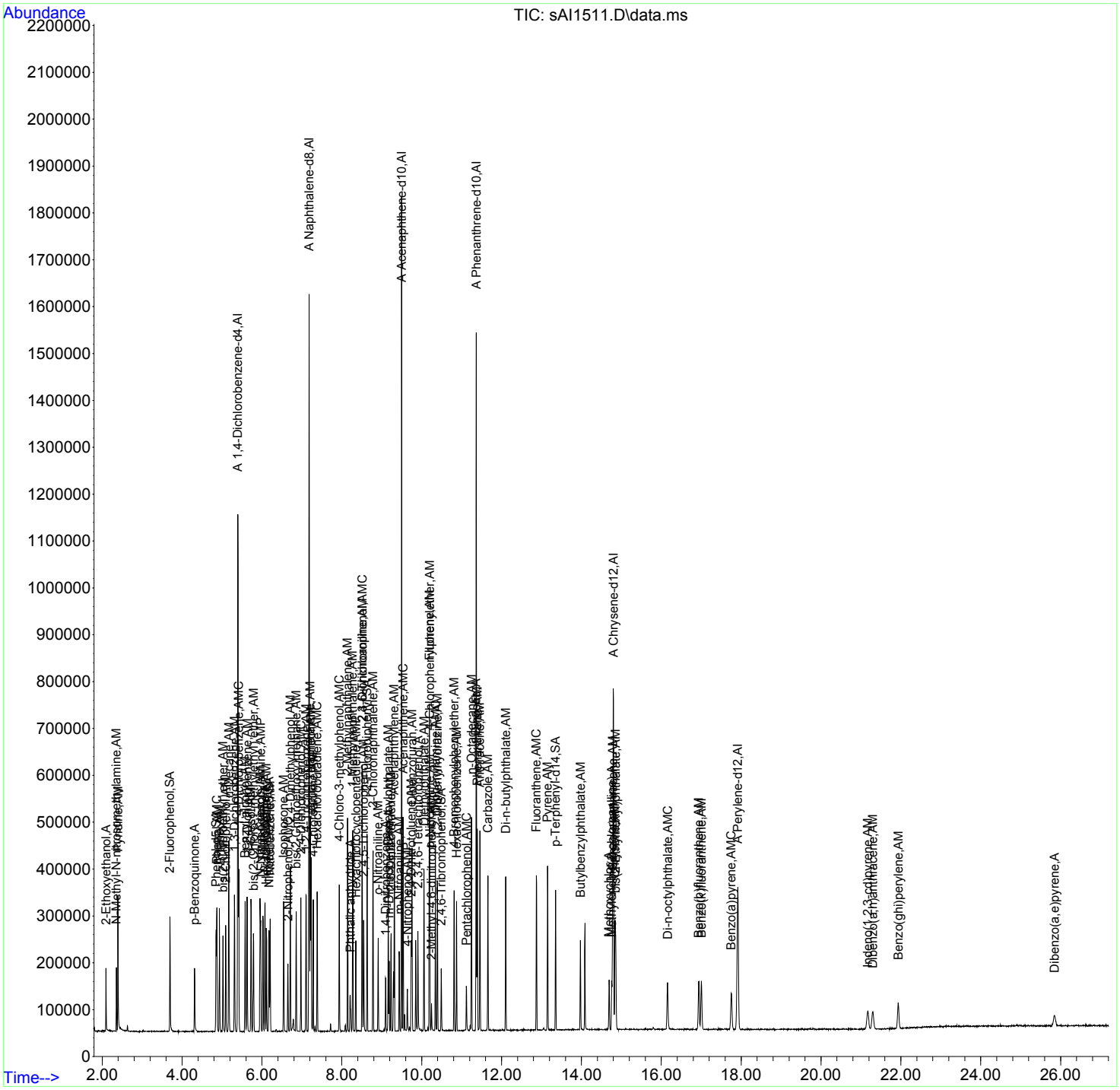
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
77)	Anthracene	178	11.457	11.463	1.008	160498	10.27	ng/uL	100
78)	Carbazole	167	11.657	11.663	1.025	126197	10.32	ng/uL	99
79)	Di-n-butylphthalate	149	12.104	12.104	1.065	161766	10.14	ng/uL	100
80)	Fluoranthene	202	12.869	12.875	1.132	145692	10.51	ng/uL	100
82)	Pyrene	202	13.151	13.157	0.888	142841	10.19	ng/uL	99
84)	Butylbenzylphthalate	149	13.975	13.975	0.944	45268	8.69	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	14.857	14.857	1.004	65612	8.78	ng/uL	99
86)	Benzo(a)anthracene	228	14.781	14.786	0.998	103498	10.05	ng/uL	100
87)	Chrysene	228	14.840	14.845	1.002	95439	10.10	ng/uL	99
88)	Methoxychlor	227	14.692	14.698	0.992	43226	7.97	ng/uL	99
89)	Methylenebis(2-chloroa...	231	14.757	14.757	0.997	15557	9.73	ng/uL	99
90)	Di-n-octylphthalate	149	16.157	16.157	1.091	89810	8.32	ng/uL	99
92)	Benzo(b)fluoranthene	252	16.939	16.945	0.945	79012	9.83	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.004	17.016	0.949	77600	9.93	ng/uL	100
94)	Benzo(a)pyrene	252	17.751	17.763	0.991	67531	9.67	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.169	21.180	1.182	45874	9.43	ng/uL	98
96)	Dibenzo(a,h)anthracene	278	21.298	21.304	1.189	46332	9.50	ng/uL	99
97)	Benzo(ghi)perylene	276	21.933	21.945	1.224	49776	9.55	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	25.851	25.856	1.443	28329	8.60	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1511.D
Acq On : 15 Sep 2017 14:20
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-07|ICAL|1|SVM|1|M-2
Misc : |MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 18 09:12:46 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1512.D
Acq On : 15 Sep 2017 14:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-06|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 18 09:12:48 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	188007	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	678198	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	373347	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	596602	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	339642	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	233919	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	0m	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	0m	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.693	3.699	0.685	117283	20.29	ng/uL	0.00
8) Phenol-d5	99	4.852	4.863	0.900	146598	20.28	ng/uL	-0.01
25) Nitrobenzene-d5	82	6.181	6.187	0.861	130447	19.51	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.634	8.634	0.909	264136	19.01	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.493	10.493	1.105	32618	21.74	ng/uL	0.00
83) p-Terphenyl-d14	244	13.351	13.351	0.902	185139	20.62	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.093	2.099	0.388	82110	20.76	ng/uL	96
3) N-Methyl-N-nitrosometh...	74	2.352	2.358	0.436	76121	20.50	ng/uL	98
4) Pyridine	79	2.393	2.393	0.444	130636	20.08	ng/uL	98
6) p-Benzoquinone	54	4.317	4.316	0.800	74380	20.50	ng/uL	98
7) Aniline	93	4.940	4.940	0.916	180347	20.28	ng/uL	99
9) Phenol	94	4.875	4.881	0.904	153861	20.36	ng/uL	99
10) bis(2-Chloroethyl) ether	93	5.022	5.028	0.931	123978	20.31	ng/uL	100
11) 2-Chlorophenol	128	5.093	5.099	0.944	128167	20.25	ng/uL	99
12) n-Decane	43	5.169	5.169	0.959	193884	20.16	ng/uL	100
13) 1,3-Dichlorobenzene	146	5.316	5.316	0.986	145682	20.10	ng/uL	100
14) 1,4-Dichlorobenzene	146	5.417	5.422	1.004	148186	20.25	ng/uL	100
15) 1,2-Dichlorobenzene	146	5.628	5.634	1.044	141117	20.36	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	5.793	5.793	1.074	243168	20.49	ng/uL	99
17) Benzyl alcohol	108	5.581	5.587	1.035	83048	20.49	ng/uL	98
18) o-Cresol	107	5.728	5.734	1.062	102220	20.34	ng/uL	98
19) m,p-Cresols	107	5.958	5.969	1.105	134252	20.53	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1512.D
Acq On : 15 Sep 2017 14:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-06|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 18 09:12:48 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	5.975	5.987	1.108	94328	20.76	ng/uL	99
21)	p-Toluidine	106	6.028	6.034	1.118	175163	21.21	ng/uL	100
22)	m-Toluidine	106	6.075	6.081	1.127	158133	21.26	ng/uL	100
23)	Hexachloroethane	117	6.111	6.116	1.133	56648	20.36	ng/uL	99
26)	Nitrobenzene	77	6.205	6.216	0.864	131751	19.61	ng/uL	99
27)	Isophorone	82	6.546	6.552	0.912	238436	20.54	ng/uL	99
28)	2-Nitrophenol	139	6.652	6.657	0.926	52659	19.03	ng/uL	99
29)	2,4-Dimethylphenol	122	6.711	6.716	0.934	109910	20.28	ng/uL	98
30)	bis(2-Chloroethoxy)met...	93	6.858	6.863	0.955	153090	20.32	ng/uL	99
31)	2,4-Dichlorophenol	162	6.981	6.981	0.972	104651	20.33	ng/uL	100
32)	Benzoic acid	105	6.822	6.869	0.950	42959	23.29	ng/uL	91
33)	1,2,4-Trichlorobenzene	180	7.105	7.105	0.989	118954	20.18	ng/uL	99
34)	alpha-Terpineol	59	7.234	7.234	1.007	127986	20.30	ng/uL	99
35)	Naphthalene	128	7.211	7.210	1.004	370978	20.21	ng/uL	99
36)	4-Chloroaniline	127	7.287	7.287	1.015	129950	21.49	ng/uL	99
37)	Hexachlorobutadiene	225	7.387	7.387	1.029	70822	20.19	ng/uL	99
38)	4-Chloro-3-methylphenol	107	7.934	7.940	1.105	104473	20.73	ng/uL	100
39)	2-Methylnaphthalene	142	8.146	8.146	1.134	246961	20.83	ng/uL	99
40)	Phthalic anhydride	104	8.210	8.216	1.143	53727	19.67	ng/uL	98
41)	1-Methylnaphthalene	142	8.275	8.275	1.152	231545	20.90	ng/uL	100
43)	Hexachlorocyclopentadiene	237	8.352	8.352	0.879	57937	19.65	ng/uL	98
44)	2,3-Dichloroaniline	161	8.510	8.516	0.896	119136	22.11	ng/uL	100
45)	2,4,6-Trichlorophenol	196	8.510	8.516	0.896	71991	19.06	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.552	8.552	0.900	73972	19.23	ng/uL	96
48)	2-Chloronaphthalene	162	8.781	8.781	0.924	227619	19.52	ng/uL	98
49)	o-Nitroaniline	65	8.910	8.916	0.938	64464	20.08	ng/uL	99
50)	1,4-Dinitrobenzene	168	9.099	9.104	0.958	27972	20.30	ng/uL	96
51)	m-Nitroaniline	138	9.440	9.446	0.994	47910	23.61	ng/uL	97
52)	Dimethylphthalate	163	9.169	9.169	0.965	258849	20.96	ng/uL	99
53)	m-Dinitrobenzene	168	9.193	9.199	0.968	33964	20.97	ng/uL	95
54)	2,6-Dinitrotoluene	165	9.234	9.240	0.972	56075	21.21	ng/uL	98
55)	2,4-Dinitrotoluene	165	9.740	9.746	1.025	68391	22.31	ng/uL	95
56)	Acenaphthylene	152	9.316	9.316	0.981	361940	20.14	ng/uL	100
57)	Acenaphthene	154	9.540	9.540	1.004	202647	20.21	ng/uL	99
58)	2,4-Dinitrophenol	184	9.575	9.575	1.008	10417	17.11	ng/uL	99
59)	Dibenzofuran	168	9.757	9.763	1.027	315518	20.74	ng/uL	98
60)	2,3,4,6-Tetrachlorophenol	232	9.910	9.910	1.043	55531	20.41	ng/uL	97
61)	Diethylphthalate	149	10.063	10.069	1.059	258321	22.15	ng/uL	99
62)	4-Nitrophenol	139	9.646	9.646	1.015	31486	20.09	ng/uL	98
63)	Fluorene	166	10.193	10.193	1.073	249269	21.26	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.199	10.198	1.074	117903	21.22	ng/uL	99
65)	p-Nitroaniline	138	10.210	10.216	1.075	45825	23.56	ng/uL	98
68)	2-Methyl-4,6-dinitroph...	198	10.252	10.257	0.902	18049	19.30	ng/uL	99
69)	Diphenylamine	169	10.346	10.351	0.910	204768	18.57	ng/uL	100
70)	1,2-Diphenylhydrazine	77	10.399	10.398	0.915	249666	18.25	ng/uL	100
71)	4-Bromophenylphenylether	248	10.810	10.816	0.951	69528	18.62	ng/uL	100
72)	Hexachlorobenzene	284	10.875	10.881	0.957	74041	18.82	ng/uL	98
73)	Pentachlorophenol	266	11.122	11.122	0.978	30125	18.07	ng/uL	97
74)	n-Octadecane	57	11.251	11.251	0.990	211095	17.68	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1512.D
Acq On : 15 Sep 2017 14:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-06|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 18 09:12:48 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

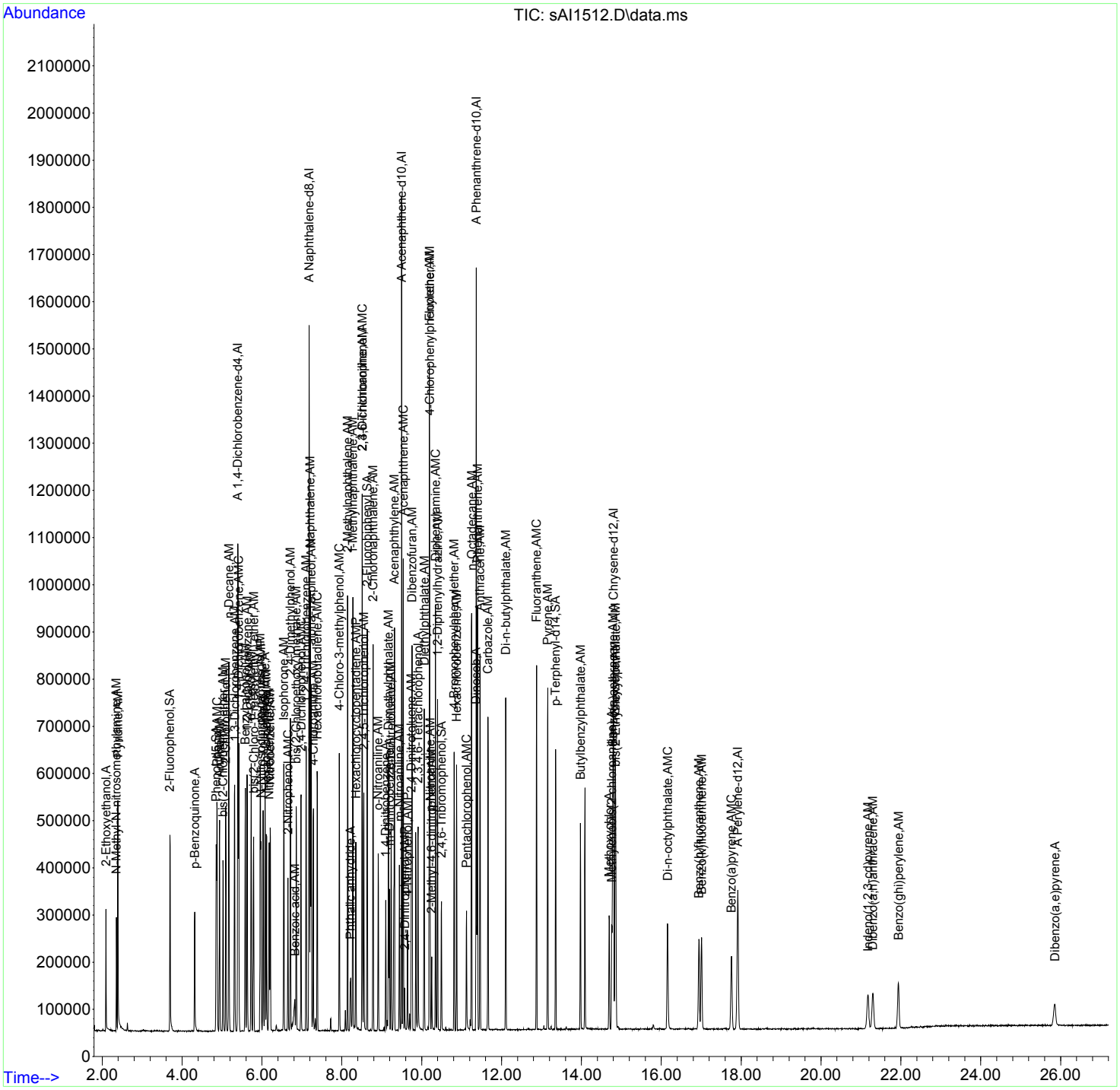
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.357	11.357	0.999	23434	19.60	ng/uL	97
76)	Phenanthrene	178	11.399	11.398	1.003	332931	20.12	ng/uL	99
77)	Anthracene	178	11.463	11.463	1.008	336501	20.05	ng/uL	99
78)	Carbazole	167	11.657	11.663	1.025	269025	20.48	ng/uL	99
79)	Di-n-butylphthalate	149	12.104	12.104	1.065	357730	20.88	ng/uL	100
80)	Fluoranthene	202	12.875	12.875	1.132	308374	20.71	ng/uL	100
82)	Pyrene	202	13.157	13.157	0.889	306447	21.05	ng/uL	99
84)	Butylbenzylphthalate	149	13.975	13.975	0.944	107290	19.83	ng/uL	99
85)	bis(2-Ethylhexyl)phtha...	149	14.857	14.857	1.004	147154	18.96	ng/uL	100
86)	Benzo(a)anthracene	228	14.787	14.786	0.999	212728	19.90	ng/uL	99
87)	Chrysene	228	14.845	14.845	1.003	196479	20.02	ng/uL	99
88)	Methoxychlor	227	14.698	14.698	0.993	108069	19.18	ng/uL	99
89)	Methylenebis(2-chloroa...	231	14.757	14.757	0.997	33585	20.23	ng/uL	98
90)	Di-n-octylphthalate	149	16.157	16.157	1.091	202738	18.08	ng/uL	99
92)	Benzo(b)fluoranthene	252	16.945	16.945	0.946	150917	20.19	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.010	17.016	0.949	147857	20.34	ng/uL	99
94)	Benzo(a)pyrene	252	17.757	17.763	0.991	131563	20.24	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.174	21.180	1.182	86627	19.15	ng/uL	97
96)	Dibenzo(a,h)anthracene	278	21.298	21.304	1.189	88573	19.53	ng/uL	99
97)	Benzo(ghi)perylene	276	21.939	21.945	1.225	93568	19.30	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	25.857	25.856	1.443	55898	18.24	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1512.D
Acq On : 15 Sep 2017 14:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-06|ICAL|1|SVM|1|M-3
Misc : |MIX[A]
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 18 09:12:48 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 15-SEP-17 15:24

Data File: 091517.s\sAI1513.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN170831-09.1

Method: 091517.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2299	1.31589		.01		6.99163	60		Averaged	
S	Phenol-d5	1.5381	1.70811		.01		11.05325	60		Averaged	
S	Nitrobenzene-d5	0.3944	0.40263		.01		2.08671	60		Averaged	
S	2-Fluorobiphenyl	1.4886	1.49522		.01		0.44471	60		Averaged	
S	2,4,6-Tribromophenol	0.1607	0.17383		.01		8.1705	60		Averaged	
S	p-Terphenyl-d14	1.0572	1.08519		.01		2.64756	60		Averaged	
	Naphthalene	1.0827	1.05565		.7		-2.49838	60		Averaged	
	2-Methylnaphthalene	0.6993	0.66107		.4		-5.4669	60		Averaged	
	1-Methylnaphthalene	0.6534	0.62751		.01		-3.96235	60		Averaged	
	2-Chloronaphthalene	1.2491	1.20731		.8		-3.34561	60		Averaged	
	Acenaphthene	1.0741	1.09492		.9		1.93837	20		Averaged	CCC
	Fluorene	1.2561	1.22937		.9		-2.12802	60		Averaged	
	Phenanthrene	1.1097	1.05904		.7		-4.5652	60		Averaged	
	Anthracene	1.1252	1.08364		.7		-3.69357	60		Averaged	
	Carbazole	0.8805	0.84739		.01		-3.76036	60		Averaged	
	Fluoranthene	0.9984	0.92449		.6		-7.40284	20		Averaged	CCC
	Pyrene	1.7148	1.69129		.6		-1.37101	60		Averaged	
	Benzo(a)anthracene	1.2592	1.20032		.8		-4.67598	60		Averaged	
	Chrysene	1.1561	1.10573		.7		-4.35689	60		Averaged	
	bis(2-Ethylhexyl)phthalate	0.9141	1.02754		.01		12.41002	60		Averaged	
	Benzo(b)fluoranthene	1.2784	1.23557		.7		-3.35028	60		Averaged	
	Benzo(k)fluoranthene	1.243	1.18949		.7		-4.30491	60		Averaged	
	Benzo(a)pyrene	1.1115	1.06994		.7		-3.73909	20		Averaged	CCC
	Indeno(1,2,3-cd)pyrene	0.7737	0.74251		.5		-4.03128	60		Averaged	
	Dibenzo(a,h)anthracene	0.7755	0.76607		.4		-1.21599	60		Averaged	
	Benzo(ghi)perylene	0.8289	0.80551		.5		-2.82181	60		Averaged	

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1513.D
Acq On : 15 Sep 2017 15:24
Operator : JMB3
InstName : MSDA
Sample : |WBN170831-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 18 09:12:50 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	185887	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.187	7.181	1.000	655782	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.504	9.499	1.000	332933	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	457310	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	249244	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	187191	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	185887	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.187	7.181	1.000	655782	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.504	9.498	1.000	332933	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	457310	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	249244	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	187191	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	457310	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	249244	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	185887	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.187	7.181	1.000	655782	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.504	9.499	1.000	332933	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	457310	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	249244	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.187	7.181	1.000	655782	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.699	3.699	0.685	244607	42.80	ng/uL	0.00
8) Phenol-d5	99	4.863	4.863	0.901	317516	44.42	ng/uL	0.00
25) Nitrobenzene-d5	82	6.187	6.187	0.861	264039	40.84	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.634	8.634	0.908	497809	40.18	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.498	10.493	1.105	57873	43.26	ng/uL	0.00
83) p-Terphenyl-d14	244	13.357	13.351	0.902	270478	41.06	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.093	2.099	0.388	153348	39.21	ng/uL	98
3) N-Methyl-N-nitrosometh...	74	2.358	2.358	0.437	155441	42.34	ng/uL	97
4) Pyridine	79	2.387	2.393	0.442	262251	40.78	ng/uL	99
6) p-Benzoquinone	54	4.316	4.316	0.800	153064	42.66	ng/uL	98
7) Aniline	93	4.946	4.940	0.916	367933	41.85	ng/uL	99
9) Phenol	94	4.881	4.881	0.904	301904	40.41	ng/uL	99
10) bis(2-Chloroethyl) ether	93	5.034	5.028	0.932	242924	40.25	ng/uL	99
11) 2-Chlorophenol	128	5.099	5.099	0.944	249511	39.87	ng/uL	96
12) n-Decane	43	5.169	5.169	0.958	384093	40.39	ng/uL	99
13) 1,3-Dichlorobenzene	146	5.316	5.316	0.985	285233	39.80	ng/uL	100
14) 1,4-Dichlorobenzene	146	5.422	5.422	1.004	289485	40.00	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.634	5.634	1.044	273102	39.86	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	5.793	5.793	1.073	483691	41.23	ng/uL	99
17) Benzyl alcohol	108	5.587	5.587	1.035	169139	42.21	ng/uL	100
18) o-Cresol	107	5.734	5.734	1.062	212445	42.75	ng/uL	98
19) m,p-Cresols	107	5.969	5.969	1.106	275898	42.66	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1513.D
Acq On : 15 Sep 2017 15:24
Operator : JMB3
InstName : MSDA
Sample : |WBN170831-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 18 09:12:50 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	5.987	5.987	1.109	188286	41.91	ng/uL	99
21)	p-Toluidine	106	6.034	6.034	1.118	418878	51.31	ng/uL	100
22)	m-Toluidine	106	6.087	6.081	1.127	372587	50.66	ng/uL	98
23)	Hexachloroethane	117	6.116	6.116	1.133	111592	40.57	ng/uL	98
26)	Nitrobenzene	77	6.216	6.216	0.865	266998	41.09	ng/uL	100
27)	Isophorone	82	6.557	6.552	0.912	458661	40.85	ng/uL	100
28)	2-Nitrophenol	139	6.657	6.657	0.926	109639	40.97	ng/uL	99
29)	2,4-Dimethylphenol	122	6.716	6.716	0.935	202840	38.71	ng/uL	99
30)	bis(2-Chloroethoxy)met...	93	6.863	6.863	0.955	292934	40.20	ng/uL	100
31)	2,4-Dichlorophenol	162	6.987	6.981	0.972	195932	39.36	ng/uL	99
32)	Benzoic acid	105	6.875	6.869	0.957	118432	42.76	ng/uL	97
33)	1,2,4-Trichlorobenzene	180	7.104	7.105	0.989	225739	39.60	ng/uL	100
34)	alpha-Terpineol	59	7.240	7.234	1.007	228096	37.41	ng/uL	98
35)	Naphthalene	128	7.216	7.210	1.004	692279	39.00	ng/uL	100
36)	4-Chloroaniline	127	7.293	7.287	1.015	260841	44.60	ng/uL	98
37)	Hexachlorobutadiene	225	7.387	7.387	1.028	137072	40.41	ng/uL	100
38)	4-Chloro-3-methylphenol	107	7.940	7.940	1.105	194259	39.86	ng/uL	100
39)	2-Methylnaphthalene	142	8.146	8.146	1.133	433517	37.81	ng/uL	100
40)	Phthalic anhydride	104	8.216	8.216	1.143	81569	30.88	ng/uL	96
41)	1-Methylnaphthalene	142	8.275	8.275	1.151	411507	38.41	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.351	8.352	0.879	106414	32.76	ng/uL	99
44)	2,3-Dichloroaniline	161	8.516	8.516	0.896	220508	45.90	ng/uL	100
45)	2,4,6-Trichlorophenol	196	8.516	8.516	0.896	132911	39.45	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.557	8.552	0.900	145890	42.54	ng/uL	97
48)	2-Chloronaphthalene	162	8.787	8.781	0.924	401955	38.66	ng/uL	100
49)	o-Nitroaniline	65	8.916	8.916	0.938	119325	41.68	ng/uL	100
50)	1,4-Dinitrobenzene	168	9.104	9.104	0.958	57047	46.43	ng/uL	93
51)	m-Nitroaniline	138	9.445	9.446	0.994	83545	46.17	ng/uL	100
52)	Dimethylphthalate	163	9.175	9.169	0.965	512503	46.55	ng/uL	100
53)	m-Dinitrobenzene	168	9.198	9.199	0.968	66627	46.13	ng/uL	99
54)	2,6-Dinitrotoluene	165	9.240	9.240	0.972	98603	41.82	ng/uL	99
55)	2,4-Dinitrotoluene	165	9.745	9.746	1.025	117167	42.87	ng/uL	94
56)	Acenaphthylene	152	9.322	9.316	0.981	639937	39.94	ng/uL	100
57)	Acenaphthene	154	9.545	9.540	1.004	364534	40.78	ng/uL	100
58)	2,4-Dinitrophenol	184	9.575	9.575	1.007	23166	42.66	ng/uL	96
59)	Dibenzofuran	168	9.763	9.763	1.027	528882	38.98	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	9.910	9.910	1.043	101986	42.04	ng/uL	98
61)	Diethylphthalate	149	10.069	10.069	1.059	482264	46.36	ng/uL	100
62)	4-Nitrophenol	139	9.651	9.646	1.015	57867	41.41	ng/uL	99
63)	Fluorene	166	10.198	10.193	1.073	409298	39.15	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.204	10.198	1.074	198884	40.14	ng/uL	99
65)	p-Nitroaniline	138	10.222	10.216	1.076	73363	42.29	ng/uL	97
68)	2-Methyl-4,6-dinitroph...	198	10.257	10.257	0.902	34763	41.91	ng/uL	99
69)	Diphenylamine	169	10.351	10.351	0.910	349677	41.37	ng/uL	99
70)	1,2-Diphenylhydrazine	77	10.398	10.398	0.915	417600	39.82	ng/uL	100
71)	4-Bromophenylphenylether	248	10.816	10.816	0.951	110018	38.43	ng/uL	99
72)	Hexachlorobenzene	284	10.881	10.881	0.957	117357	38.92	ng/uL	99
73)	Pentachlorophenol	266	11.122	11.122	0.978	55257	43.25	ng/uL	98
74)	n-Octadecane	57	11.251	11.251	0.990	339045	37.04	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1513.D
Acq On : 15 Sep 2017 15:24
Operator : JMB3
InstName : MSDA
Sample : |WBN170831-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 18 09:12:50 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

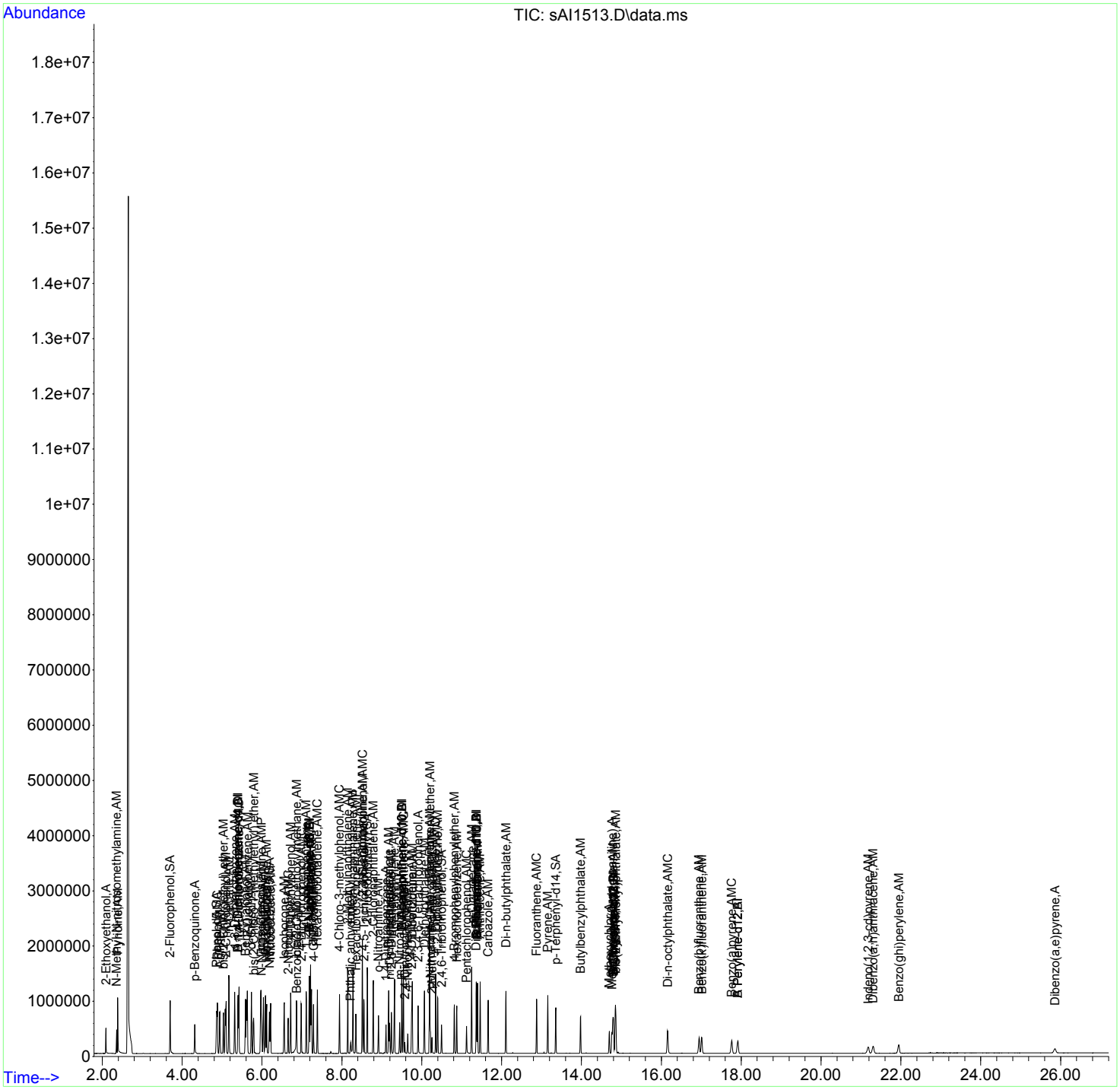
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.363	11.357	0.999	49479	45.90	ng/uL	98
76)	Phenanthrene	178	11.398	11.398	1.003	484310	38.17	ng/uL	100
77)	Anthracene	178	11.463	11.463	1.008	495561	38.52	ng/uL	100
78)	Carbazole	167	11.663	11.663	1.026	387520	38.49	ng/uL	99
79)	Di-n-butylphthalate	149	12.110	12.104	1.065	603538	45.96	ng/uL	100
80)	Fluoranthene	202	12.875	12.875	1.132	422778	37.04	ng/uL	100
82)	Pyrene	202	13.157	13.157	0.889	421544	39.45	ng/uL	100
84)	Butylbenzylphthalate	149	13.981	13.975	0.944	184375	46.44	ng/uL	98
85)	bis(2-Ethylhexyl)phtha...	149	14.863	14.857	1.004	256109	44.96	ng/uL	100
86)	Benzo(a)anthracene	228	14.786	14.786	0.999	299172	38.13	ng/uL	99
87)	Chrysene	228	14.845	14.845	1.003	275597	38.26	ng/uL	99
88)	Methoxychlor	227	14.698	14.698	0.993	173626	41.99	ng/uL	98
89)	Methylenebis(2-chloroa...	231	14.763	14.757	0.997	57061	46.83	ng/uL	100
90)	Di-n-octylphthalate	149	16.157	16.157	1.091	373106	45.33	ng/uL	99
92)	Benzo(b)fluoranthene	252	16.945	16.945	0.946	231288	38.66	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.016	17.016	0.950	222662	38.28	ng/uL	99
94)	Benzo(a)pyrene	252	17.763	17.763	0.991	200283	38.50	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	21.180	21.180	1.182	138991	38.39	ng/uL	99
96)	Dibenzo(a,h)anthracene	278	21.304	21.304	1.189	143402	39.51	ng/uL	99
97)	Benzo(ghi)perylene	276	21.945	21.945	1.225	150785	38.87	ng/uL	99
98)	Dibenzo(a,e)pyrene	302	25.862	25.856	1.444	93637	38.19	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1513.D
Acq On : 15 Sep 2017 15:24
Operator : JMB3
InstName : MSDA
Sample : |WBN170831-09.1|ICV|1|SVM|1|M-ICV
Misc : |MIX[A]
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 18 09:12:50 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1515.D
Acq On : 15 Sep 2017 16:11
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 18 09:12:52 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	194391	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	706794	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	389485	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	640542	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	350999	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	242222	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.093	2.093	0.388	23291	10.26	ng/uL	91
101) Methyl methacrylate	100	2.093	2.093	0.388	11002	10.51	ng/uL	100
102) Ethyl methacrylate	69	2.758	2.764	0.511	53835	10.12	ng/uL	94
103) 2-Picoline	93	3.087	3.087	0.572	73411	10.12	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.193	3.199	0.592	30101	10.14	ng/uL	99
105) Methyl methanesulfonate	80	3.522	3.528	0.653	36984	10.99	ng/uL	96
106) N-Nitrosodiethylamine	102	3.987	3.999	0.739	31079	10.22	ng/uL	98
107) 2-Butoxyethanol	57	4.064	4.075	0.754	90757	10.07	ng/uL	99
108) Ethyl methanesulfonate	79	4.352	4.363	0.807	51316	10.33	ng/uL	100
109) Benzaldehyde	77	4.799	4.805	0.890	57605	11.16	ng/uL	99
110) Pentachloroethane	167	5.005	5.010	0.928	27895	10.32	ng/uL	98
111) N-Nitrosopyrrolidine	100	5.928	5.946	1.099	32407	9.85	ng/uL	97
112) Acetophenone	105	5.963	5.969	1.106	94948	10.32	ng/uL	98
113) N-Nitrosomorpholine	56	5.987	6.005	1.110	45607	10.30	ng/uL	100
114) o-Toluidine	106	6.010	6.022	1.115	105179	10.29	ng/uL	100
116) N-Nitrosopiperidine	114	6.416	6.428	0.894	31599	9.89	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1515.D
Acq On : 15 Sep 2017 16:11
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 18 09:12:52 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

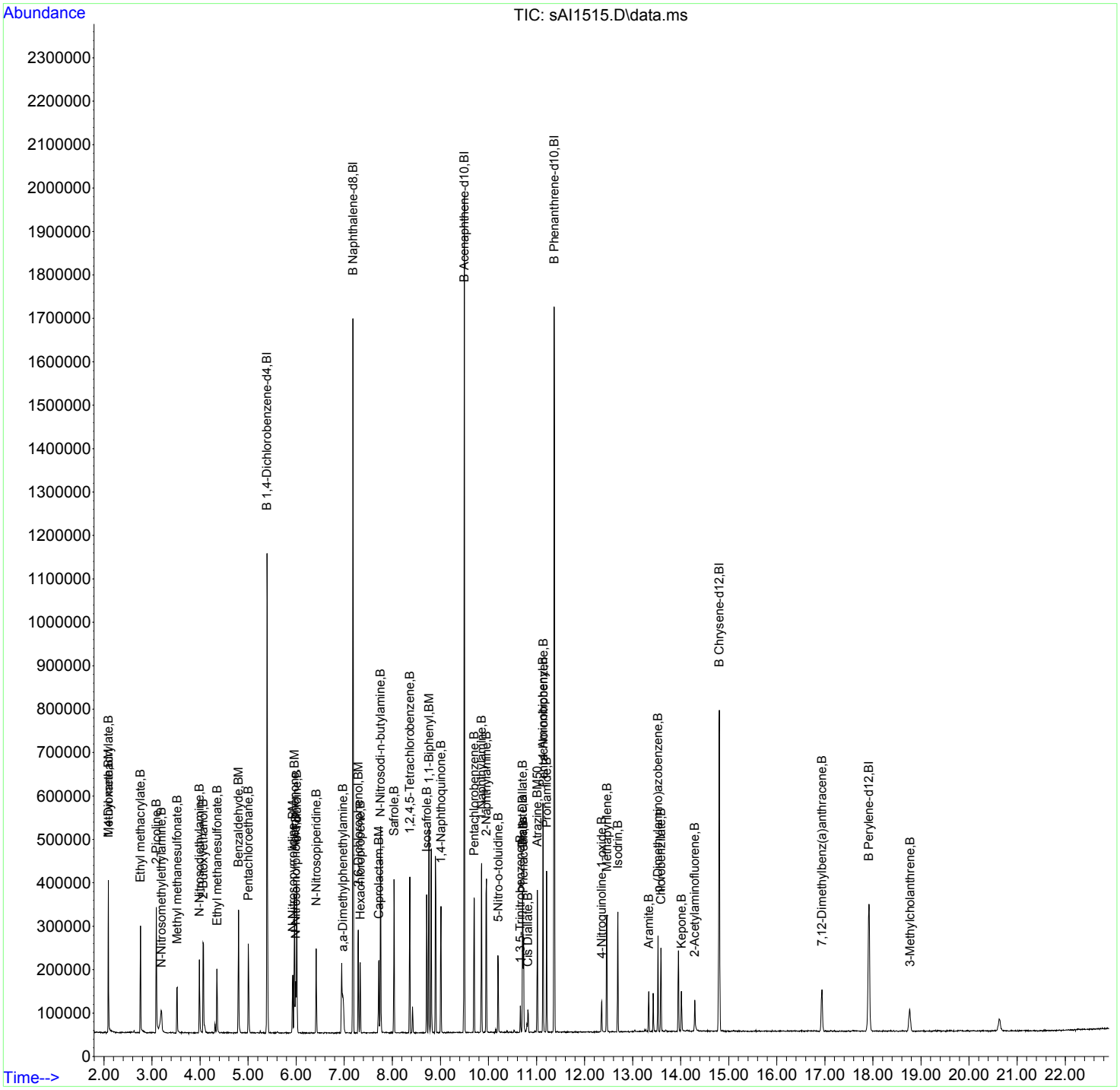
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	6.969	7.016	0.971	80393	9.91	ng/uL	90
118) 2,6-Dichlorophenol	162	7.293	7.299	1.016	46454	9.66	ng/uL	99
119) Hexachloropropene	213	7.334	7.334	1.021	28949	10.37	ng/uL	100
120) Caprolactam	113	7.716	7.752	1.075	14841	9.26	ng/uL#	74
121) N-Nitrosodi-n-butylamine	84	7.752	7.763	1.079	46449	9.23	ng/uL	92
122) Safrole	162	8.034	8.040	1.119	48876	10.19	ng/uL	100
124) 1,2,4,5-Tetrachloroben...	216	8.363	8.363	0.880	62443	10.20	ng/uL	100
125) 1,1-Biphenyl	154	8.763	8.763	0.923	152631	10.24	ng/uL	100
126) Isosafrole	162	8.716	8.722	0.918	48025	9.95	ng/uL	99
127) 1,4-Naphthoquinone	158	9.010	9.016	0.949	47380	11.60	ng/uL	99
128) Pentachlorobenzene	250	9.704	9.704	1.022	53126	10.37	ng/uL	99
129) 1-Naphthylamine	143	9.857	9.857	1.038	123897	11.33	ng/uL	99
130) 2-Naphthylamine	143	9.957	9.957	1.048	118530	11.03	ng/uL	100
131) 5-Nitro-o-toluidine	152	10.204	10.210	1.074	24461	8.77	ng/uL	96
133) 1,3,5-Trinitrobenzene	75	10.663	10.669	0.938	14735	8.18	ng/uL	97
134) Phenacetin	108	10.728	10.740	0.944	50196	9.53	ng/uL	99
135) Diallate	86	10.710	10.710	0.942	47949	10.01	ng/uL	89
136) Cis Diallate	86	10.822	10.822	0.952	8075	1.55	ng/uL	99
137) Trans Diallate	86	10.710	10.710	0.942	47949	8.51	ng/uL	89
138) Atrazine	200	11.016	11.028	0.969	35553	10.85	ng/uL	100
139) 4-Aminobiphenyl	169	11.134	11.140	0.979	122338	10.51	ng/uL	100
140) Pentachloronitrobenzene	237	11.140	11.140	0.980	14639	9.97	ng/uL	99
141) Pronamide	173	11.210	11.216	0.986	57231	10.47	ng/uL	99
142) 4-Nitroquinoline-1-oxide	190	12.357	12.357	1.087	4102	6.68	ng/uL#	52
143) Methapyrilene	97	12.463	12.463	1.096	54467	11.81	ng/uL	100
144) Isodrin	193	12.692	12.692	1.116	20038	10.72	ng/uL	99
146) Aramite	185	13.334	13.334	0.901	4457	8.22	ng/uL	92
147) Kepone	272	14.016	14.016	0.947	11093	10.14	ng/uL	99
148) p-(Dimethylamino)azobe...	225	13.528	13.528	0.914	24160	9.77	ng/uL	98
149) Chlorobenzilate	251	13.587	13.586	0.918	28801	8.79	ng/uL	96
150) 2-Acetylaminofluorene	181	14.292	14.298	0.965	23812	7.44	ng/uL	95
152) 7,12-Dimethylbenz(a)an...	256	16.939	16.939	0.945	35494	9.65	ng/uL	99
153) 3-Methylcholanthrene	269	18.769	18.769	1.048	6265	9.17	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1515.D
Acq On : 15 Sep 2017 16:11
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-17|ICAL|1|SVM|1|A-2
Misc : |MIX[B]
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 18 09:12:52 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1516.D
Acq On : 15 Sep 2017 16:38
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 18 09:12:54 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	199698	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	719568	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	403890	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	660430	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.798	14.798	1.000	368632	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	246965	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.087	2.093	0.387	46489	19.94	ng/uL	99
101) Methyl methacrylate	100	2.093	2.093	0.388	21801	20.27	ng/uL	97
102) Ethyl methacrylate	69	2.758	2.764	0.511	113824	20.83	ng/uL	96
103) 2-Picoline	93	3.087	3.087	0.572	148582	19.94	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.193	3.199	0.592	58974	19.34	ng/uL	98
105) Methyl methanesulfonate	80	3.522	3.528	0.653	74786	21.63	ng/uL	98
106) N-Nitrosodiethylamine	102	3.993	3.999	0.740	62689	20.08	ng/uL	99
107) 2-Butoxyethanol	57	4.070	4.075	0.755	184944	19.98	ng/uL	100
108) Ethyl methanesulfonate	79	4.352	4.363	0.807	102983	20.17	ng/uL	99
109) Benzaldehyde	77	4.799	4.805	0.890	114552	21.61	ng/uL	100
110) Pentachloroethane	167	5.005	5.010	0.928	55893	20.14	ng/uL	98
111) N-Nitrosopyrrolidine	100	5.934	5.946	1.100	66240	19.59	ng/uL	99
112) Acetophenone	105	5.964	5.969	1.106	188352	19.94	ng/uL	100
113) N-Nitrosomorpholine	56	5.993	6.005	1.111	91503	20.11	ng/uL	99
114) o-Toluidine	106	6.016	6.022	1.116	213584	20.33	ng/uL	100
116) N-Nitrosopiperidine	114	6.416	6.428	0.894	64683	19.89	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1516.D
Acq On : 15 Sep 2017 16:38
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 18 09:12:54 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

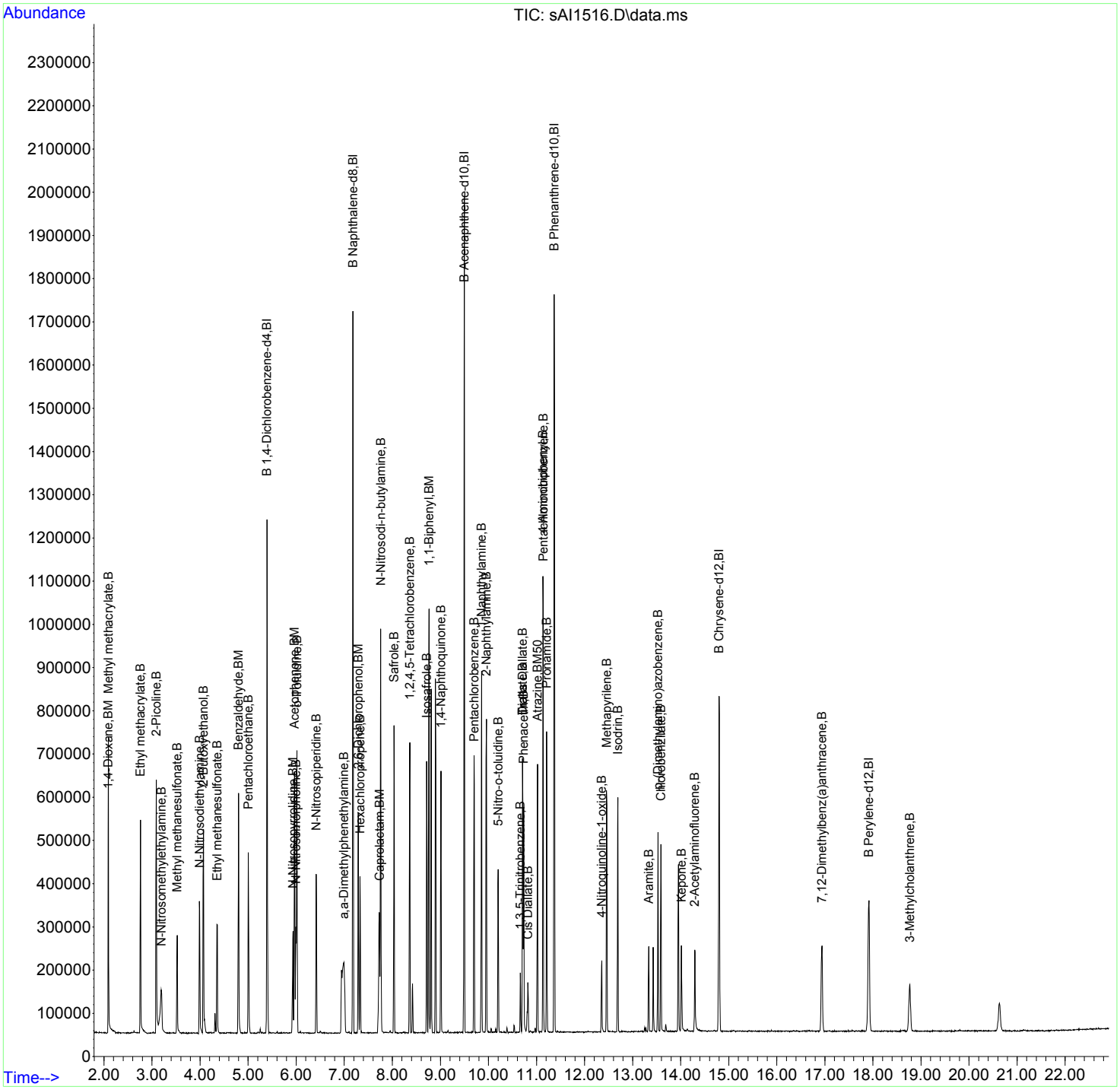
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117)	a,a-Dimethylphenethyla...	58	6.993	7.016	0.974	327762	19.48	ng/uL	94
118)	2,6-Dichlorophenol	162	7.293	7.299	1.016	95894	19.59	ng/uL	99
119)	Hexachloropropene	213	7.328	7.334	1.020	62046	21.83	ng/uL	100
120)	Caprolactam	113	7.734	7.752	1.077	31764	19.47	ng/uL#	77
121)	N-Nitrosodi-n-butylamine	84	7.758	7.763	1.080	91159	17.80	ng/uL	91
122)	Safrole	162	8.034	8.040	1.119	98895	20.26	ng/uL	100
124)	1,2,4,5-Tetrachloroben...	216	8.363	8.363	0.880	124681	19.65	ng/uL	100
125)	1,1-Biphenyl	154	8.763	8.763	0.923	309658	20.03	ng/uL	100
126)	Isosafrole	162	8.716	8.722	0.918	99277	19.83	ng/uL	100
127)	1,4-Naphthoquinone	158	9.010	9.016	0.949	97663	23.06	ng/uL	100
128)	Pentachlorobenzene	250	9.705	9.704	1.022	106500	20.04	ng/uL	99
129)	1-Naphthylamine	143	9.857	9.857	1.038	248524	21.91	ng/uL	99
130)	2-Naphthylamine	143	9.957	9.957	1.048	242633	21.78	ng/uL	100
131)	5-Nitro-o-toluidine	152	10.204	10.210	1.074	55797	19.30	ng/uL	99
133)	1,3,5-Trinitrobenzene	75	10.663	10.669	0.938	33080	17.80	ng/uL	98
134)	Phenacetin	108	10.734	10.740	0.944	108783	20.03	ng/uL	100
135)	Diallate	86	10.710	10.710	0.942	96208	19.48	ng/uL	94
136)	Cis Diallate	86	10.822	10.822	0.952	15609	2.91	ng/uL	98
137)	Trans Diallate	86	10.710	10.710	0.942	96208	16.56	ng/uL	94
138)	Atrazine	200	11.022	11.028	0.969	72152	21.35	ng/uL	97
139)	4-Aminobiphenyl	169	11.134	11.140	0.979	243979	20.33	ng/uL	100
140)	Pentachloronitrobenzene	237	11.140	11.140	0.980	29552	19.51	ng/uL	98
141)	Pronamide	173	11.210	11.216	0.986	115400	20.48	ng/uL	100
142)	4-Nitroquinoline-1-oxide	190	12.357	12.357	1.087	10894	17.21	ng/uL#	76
143)	Methapyrilene	97	12.457	12.463	1.096	109658	23.06	ng/uL	100
144)	Isodrin	193	12.693	12.692	1.116	39055	20.27	ng/uL	99
146)	Aramite	185	13.334	13.334	0.901	9935	17.45	ng/uL	97
147)	Kepone	272	14.016	14.016	0.947	23078	20.08	ng/uL	99
148)	p-(Dimethylamino)azobe...	225	13.528	13.528	0.914	51470	19.82	ng/uL	100
149)	Chlorobenzilate	251	13.587	13.586	0.918	63019	18.30	ng/uL	99
150)	2-Acetylaminofluorene	181	14.293	14.298	0.966	58421	17.38	ng/uL	99
152)	7,12-Dimethylbenz(a)an...	256	16.939	16.939	0.945	74858	19.95	ng/uL	99
153)	3-Methylcholanthrene	269	18.763	18.769	1.047	13260	19.03	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1516.D
Acq On : 15 Sep 2017 16:38
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-16|ICAL|1|SVM|1|A-3
Misc : |MIX[B]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 18 09:12:54 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1517.D
Acq On : 15 Sep 2017 17:04
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-18|ICAL|1|SVM|1|A-9
Misc : |MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 18 09:12:56 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	216227	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	776143	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	432163	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	696537	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	400652	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	266058	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.093	2.093	0.388	78131	30.95	ng/uL	99
101) Methyl methacrylate	100	2.093	2.093	0.388	35159	30.19	ng/uL	98
102) Ethyl methacrylate	69	2.758	2.764	0.511	178274	30.14	ng/uL	99
103) 2-Picoline	93	3.087	3.087	0.572	243244	30.15	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.193	3.199	0.592	98900	29.96	ng/uL	99
105) Methyl methanesulfonate	80	3.528	3.528	0.654	114894	30.69	ng/uL	100
106) N-Nitrosodiethylamine	102	3.993	3.999	0.740	102055	30.18	ng/uL	99
107) 2-Butoxyethanol	57	4.069	4.075	0.755	303676	30.30	ng/uL	100
108) Ethyl methanesulfonate	79	4.358	4.363	0.808	167546	30.31	ng/uL	98
109) Benzaldehyde	77	4.805	4.805	0.891	183522	31.97	ng/uL	100
110) Pentachloroethane	167	5.005	5.010	0.928	90942	30.26	ng/uL	99
111) N-Nitrosopyrrolidine	100	5.940	5.946	1.101	109271	29.85	ng/uL	99
112) Acetophenone	105	5.969	5.969	1.107	308913	30.20	ng/uL	100
113) N-Nitrosomorpholine	56	5.999	6.005	1.112	149580	30.37	ng/uL	100
114) o-Toluidine	106	6.016	6.022	1.116	344951	30.33	ng/uL	100
116) N-Nitrosopiperidine	114	6.422	6.428	0.894	105273	30.02	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1517.D
Acq On : 15 Sep 2017 17:04
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-18|ICAL|1|SVM|1|A-9
Misc : |MIX[B]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 18 09:12:56 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	7.016	7.016	0.977	721561	32.78	ng/uL	91
118) 2,6-Dichlorophenol	162	7.293	7.299	1.016	160170	30.33	ng/uL	99
119) Hexachloropropene	213	7.334	7.334	1.021	102374	33.39	ng/uL	99
120) Caprolactam	113	7.746	7.752	1.079	54306	30.86	ng/uL	100
121) N-Nitrosodi-n-butylamine	84	7.757	7.763	1.080	170833	30.93	ng/uL	99
122) Safrole	162	8.040	8.040	1.120	160751	30.53	ng/uL	100
124) 1,2,4,5-Tetrachloroben...	216	8.363	8.363	0.880	204201	30.08	ng/uL	99
125) 1,1-Biphenyl	154	8.763	8.763	0.923	499863	30.21	ng/uL	100
126) Isosafrole	162	8.722	8.722	0.918	159994	29.87	ng/uL	100
127) 1,4-Naphthoquinone	158	9.016	9.016	0.949	153036	33.77	ng/uL	100
128) Pentachlorobenzene	250	9.704	9.704	1.022	170387	29.97	ng/uL	99
129) 1-Naphthylamine	143	9.857	9.857	1.038	400882	33.03	ng/uL	100
130) 2-Naphthylamine	143	9.957	9.957	1.048	385981	32.38	ng/uL	100
131) 5-Nitro-o-toluidine	152	10.204	10.210	1.074	95132	30.75	ng/uL	100
133) 1,3,5-Trinitrobenzene	75	10.669	10.669	0.938	58575	29.89	ng/uL	100
134) Phenacetin	108	10.740	10.740	0.944	181109	31.62	ng/uL	99
135) Diallate	86	10.710	10.710	0.942	156190	29.98	ng/uL	99
136) Cis Diallate	86	10.822	10.822	0.951	25319	4.47	ng/uL	99
137) Trans Diallate	86	10.710	10.710	0.942	156190	25.49	ng/uL	99
138) Atrazine	200	11.028	11.028	0.969	112837	31.66	ng/uL	99
139) 4-Aminobiphenyl	169	11.140	11.140	0.979	407957	32.24	ng/uL	100
140) Pentachloronitrobenzene	237	11.140	11.140	0.979	48550	30.40	ng/uL	99
141) Pronamide	173	11.216	11.216	0.986	183184	30.83	ng/uL	99
142) 4-Nitroquinoline-1-oxide	190	12.357	12.357	1.086	21482	32.18	ng/uL	99
143) Methapyrilene	97	12.463	12.463	1.096	170649	34.03	ng/uL	99
144) Isodrin	193	12.692	12.692	1.116	61841	30.43	ng/uL	99
146) Aramite	185	13.334	13.334	0.901	17387	28.10	ng/uL	97
147) Kepone	272	14.016	14.016	0.947	38124	30.52	ng/uL	100
148) p-(Dimethylamino)azobe...	225	13.528	13.528	0.914	85035	30.12	ng/uL	99
149) Chlorobenzilate	251	13.586	13.586	0.918	108680	29.04	ng/uL	99
150) 2-Acetylaminofluorene	181	14.298	14.298	0.966	106834	29.24	ng/uL	98
152) 7,12-Dimethylbenz(a)an...	256	16.939	16.939	0.945	125885	31.15	ng/uL	100
153) 3-Methylcholanthrene	269	18.769	18.769	1.048	22024	29.34	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1517.D
Acq On    : 15 Sep 2017  17:04
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-18|ICAL|1|SVM|1|A-9
Misc      : |MIX[B]
ALS Vial  : 16   Sample Multiplier: 1

Quant Time: Sep 18 09:12:56 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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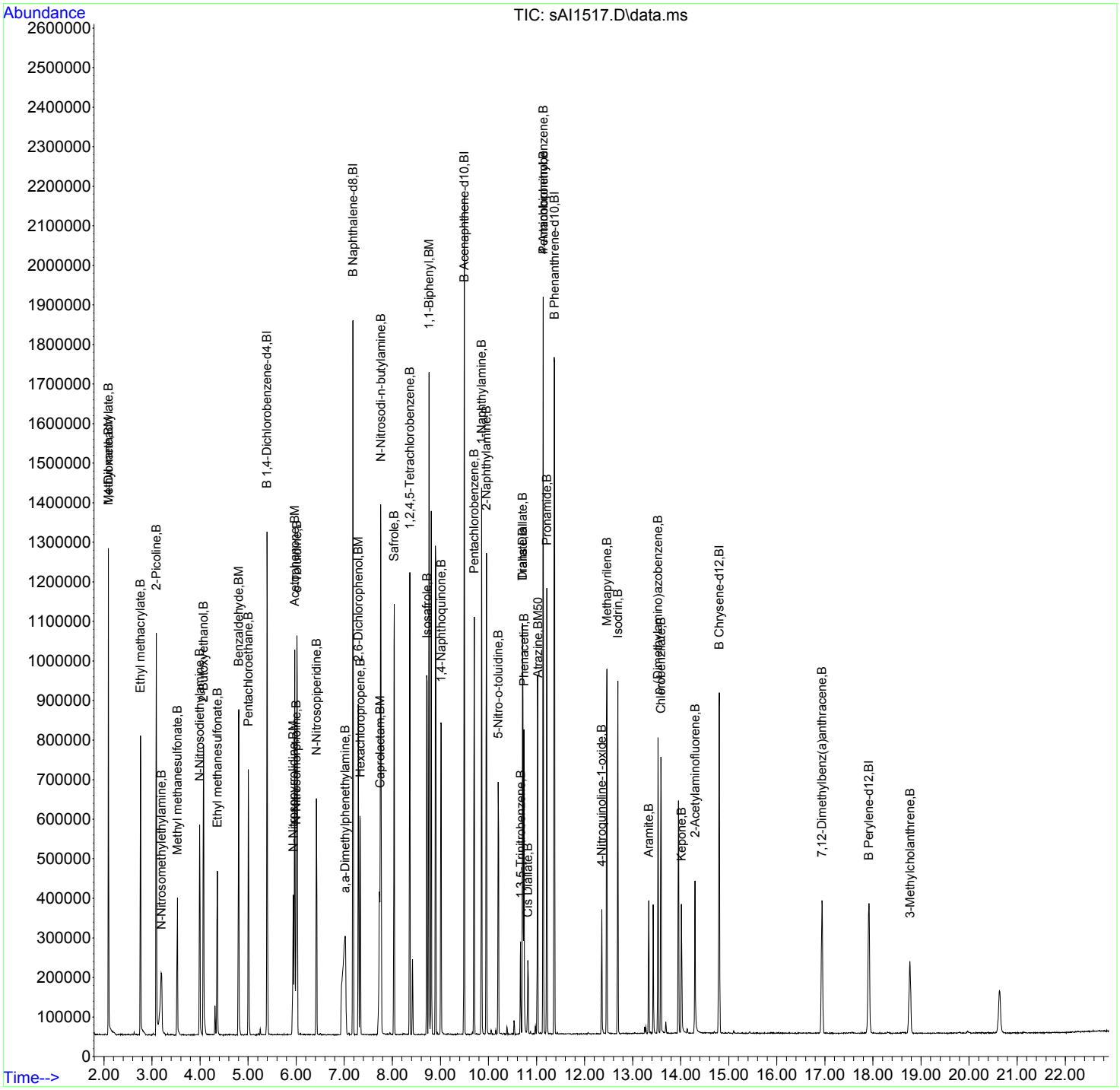


Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1518.D
Acq On : 15 Sep 2017 17:31
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-15.1|ICAL|1|SVM|1|A-4
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 18 09:12:58 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.910	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	212923	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	751062	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	397903	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	586455	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.798	14.798	1.000	269684	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.910	17.910	1.000	172685	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.093	2.093	0.388	104087	41.87	ng/uL	100
101) Methyl methacrylate	100	2.093	2.093	0.388	47722	41.61	ng/uL	100
102) Ethyl methacrylate	69	2.764	2.764	0.512	238979	41.03	ng/uL	100
103) 2-Picoline	93	3.087	3.087	0.572	325694	40.99	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.199	3.199	0.593	130597	40.17	ng/uL	100
105) Methyl methanesulfonate	80	3.528	3.528	0.654	149471	40.55	ng/uL	100
106) N-Nitrosodiethylamine	102	3.999	3.999	0.741	132044	39.66	ng/uL	100
107) 2-Butoxyethanol	57	4.075	4.075	0.756	389400	39.46	ng/uL	100
108) Ethyl methanesulfonate	79	4.363	4.363	0.809	218536	40.15	ng/uL	100
109) Benzaldehyde	77	4.805	4.805	0.891	231540	40.96	ng/uL	100
110) Pentachloroethane	167	5.010	5.010	0.929	120126	40.59	ng/uL	100
111) N-Nitrosopyrrolidine	100	5.946	5.946	1.103	142509	39.54	ng/uL	100
112) Acetophenone	105	5.969	5.969	1.107	399143	39.62	ng/uL	100
113) N-Nitrosomorpholine	56	6.005	6.005	1.113	193019	39.79	ng/uL	100
114) o-Toluidine	106	6.022	6.022	1.117	449128	40.10	ng/uL	100
116) N-Nitrosopiperidine	114	6.428	6.428	0.895	136234	40.14	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1518.D
Acq On : 15 Sep 2017 17:31
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-15.1|ICAL|1|SVM|1|A-4
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 18 09:12:58 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

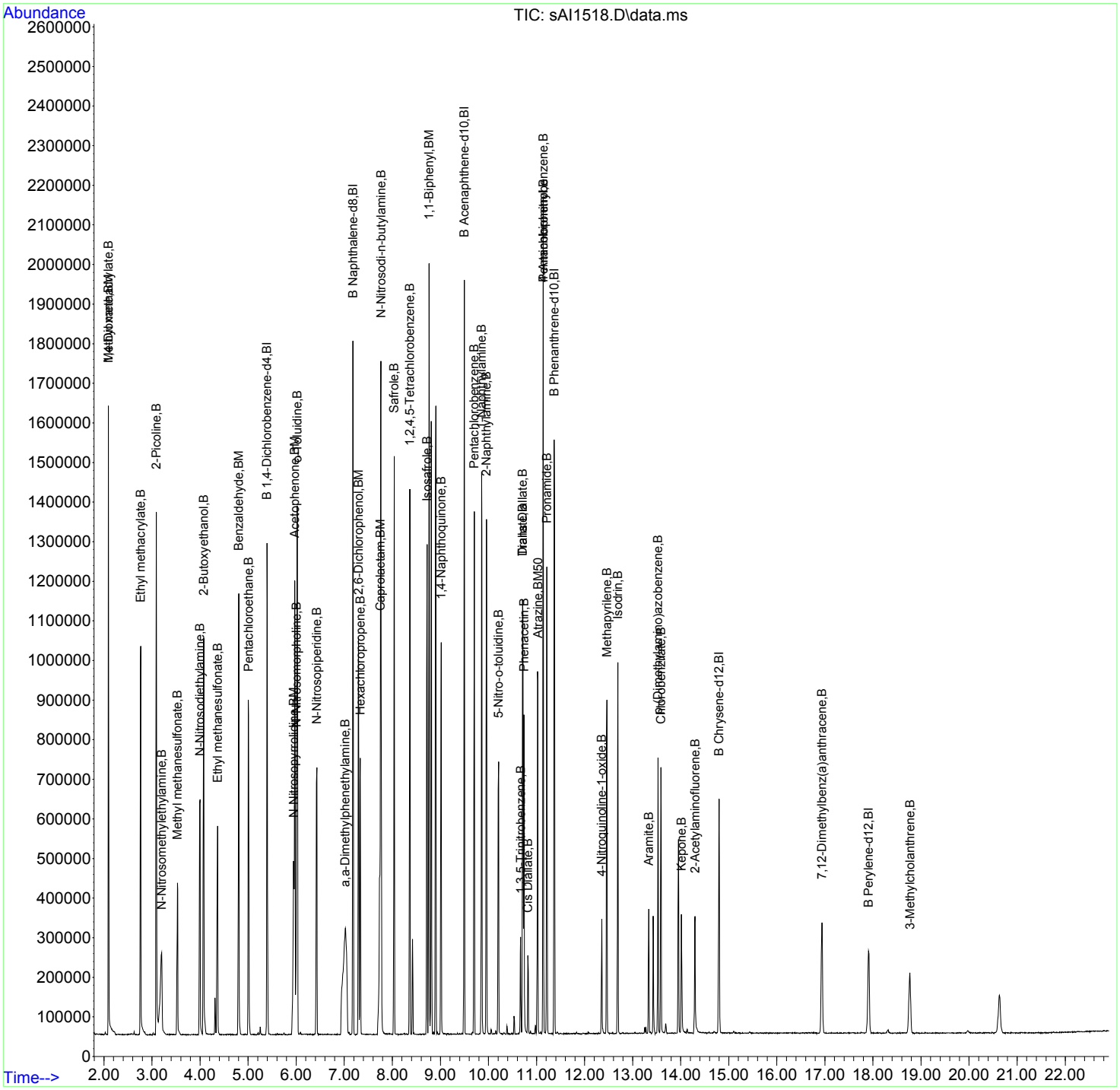
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	7.016	7.016	0.977	899160	40.27	ng/uL	100
118) 2,6-Dichlorophenol	162	7.299	7.299	1.016	203103	39.75	ng/uL	100
119) Hexachloropropene	213	7.334	7.334	1.021	125093	42.16	ng/uL	100
120) Caprolactam	113	7.752	7.752	1.079	67174	39.45	ng/uL	100
121) N-Nitrosodi-n-butylamine	84	7.763	7.763	1.081	219854	41.13	ng/uL	100
122) Safrole	162	8.040	8.040	1.120	203725	39.99	ng/uL	100
124) 1,2,4,5-Tetrachloroben...	216	8.363	8.363	0.880	255764	40.91	ng/uL	100
125) 1,1-Biphenyl	154	8.763	8.763	0.923	621608	40.81	ng/uL	100
126) Isosafrole	162	8.722	8.722	0.918	200352	40.62	ng/uL	100
127) 1,4-Naphthoquinone	158	9.016	9.016	0.949	181104	43.41	ng/uL	100
128) Pentachlorobenzene	250	9.704	9.704	1.022	208859	39.90	ng/uL	100
129) 1-Naphthylamine	143	9.857	9.857	1.038	462816	41.42	ng/uL	100
130) 2-Naphthylamine	143	9.957	9.957	1.048	447308	40.76	ng/uL	100
131) 5-Nitro-o-toluidine	152	10.210	10.210	1.075	108816	38.20	ng/uL	100
133) 1,3,5-Trinitrobenzene	75	10.669	10.669	0.938	61366	37.20	ng/uL	100
134) Phenacetin	108	10.740	10.740	0.945	194494	40.33	ng/uL	100
135) Diallate	86	10.710	10.710	0.942	178055	40.60	ng/uL	100
136) Cis Diallate	86	10.822	10.822	0.952	28808	6.04	ng/uL	100
137) Trans Diallate	86	10.710	10.710	0.942	178055	34.51	ng/uL	100
138) Atrazine	200	11.028	11.028	0.970	120799	40.26	ng/uL	100
139) 4-Aminobiphenyl	169	11.140	11.140	0.980	456062	42.80	ng/uL	100
140) Pentachloronitrobenzene	237	11.140	11.140	0.980	54334	40.41	ng/uL	100
141) Pronamide	173	11.216	11.216	0.987	197066	39.39	ng/uL	100
142) 4-Nitroquinoline-1-oxide	190	12.357	12.357	1.087	20038	35.65	ng/uL	100
143) Methapyrilene	97	12.463	12.463	1.096	159838	37.86	ng/uL	100
144) Isodrin	193	12.692	12.692	1.116	65265	38.14	ng/uL	100
146) Aramite	185	13.334	13.334	0.901	17110	41.09	ng/uL	100
147) Kepone	272	14.016	14.016	0.947	35353	42.04	ng/uL	100
148) p-(Dimethylamino)azobe...	225	13.528	13.528	0.914	81035	42.65	ng/uL	100
149) Chlorobenzilate	251	13.586	13.586	0.918	102536	40.71	ng/uL	100
150) 2-Acetylaminofluorene	181	14.298	14.298	0.966	89858	36.54	ng/uL	100
152) 7,12-Dimethylbenz(a)an...	256	16.939	16.939	0.946	108305	41.28	ng/uL	100
153) 3-Methylcholanthrene	269	18.769	18.769	1.048	19587	40.21	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1518.D
Acq On : 15 Sep 2017 17:31
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-15.1|ICAL|1|SVM|1|A-4
Misc : |MIX[B]
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 18 09:12:58 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1519.D
Acq On : 15 Sep 2017 17:58
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-14|ICAL|1|SVM|1|A-5
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 18 09:13:00 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.922	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	212234	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	768357	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	433082	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	724236	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	423914	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.922	17.910	1.000	323845	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.922	17.963	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.087	2.093	0.387	119354	48.17	ng/uL	100
101) Methyl methacrylate	100	2.093	2.093	0.388	56537	49.46	ng/uL	97
102) Ethyl methacrylate	69	2.758	2.764	0.511	298327	51.38	ng/uL	94
103) 2-Picoline	93	3.087	3.087	0.572	387509	48.93	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.199	3.199	0.593	159879	49.34	ng/uL	99
105) Methyl methanesulfonate	80	3.534	3.528	0.655	181694	49.45	ng/uL	100
106) N-Nitrosodiethylamine	102	3.999	3.999	0.742	161733	48.73	ng/uL	100
107) 2-Butoxyethanol	57	4.075	4.075	0.756	492144	50.03	ng/uL	99
108) Ethyl methanesulfonate	79	4.364	4.363	0.809	274400	50.58	ng/uL	100
109) Benzaldehyde	77	4.805	4.805	0.891	278920	49.50	ng/uL	100
110) Pentachloroethane	167	5.011	5.010	0.929	145432	49.30	ng/uL	99
111) N-Nitrosopyrrolidine	100	5.952	5.946	1.104	180088	50.12	ng/uL	100
112) Acetophenone	105	5.975	5.969	1.108	504440	50.24	ng/uL	100
113) N-Nitrosomorpholine	56	6.011	6.005	1.115	241775	50.01	ng/uL	100
114) o-Toluidine	106	6.028	6.022	1.118	561781	50.32	ng/uL	99
116) N-Nitrosopiperidine	114	6.428	6.428	0.895	173467	49.97	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1519.D
Acq On : 15 Sep 2017 17:58
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-14|ICAL|1|SVM|1|A-5
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 18 09:13:00 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

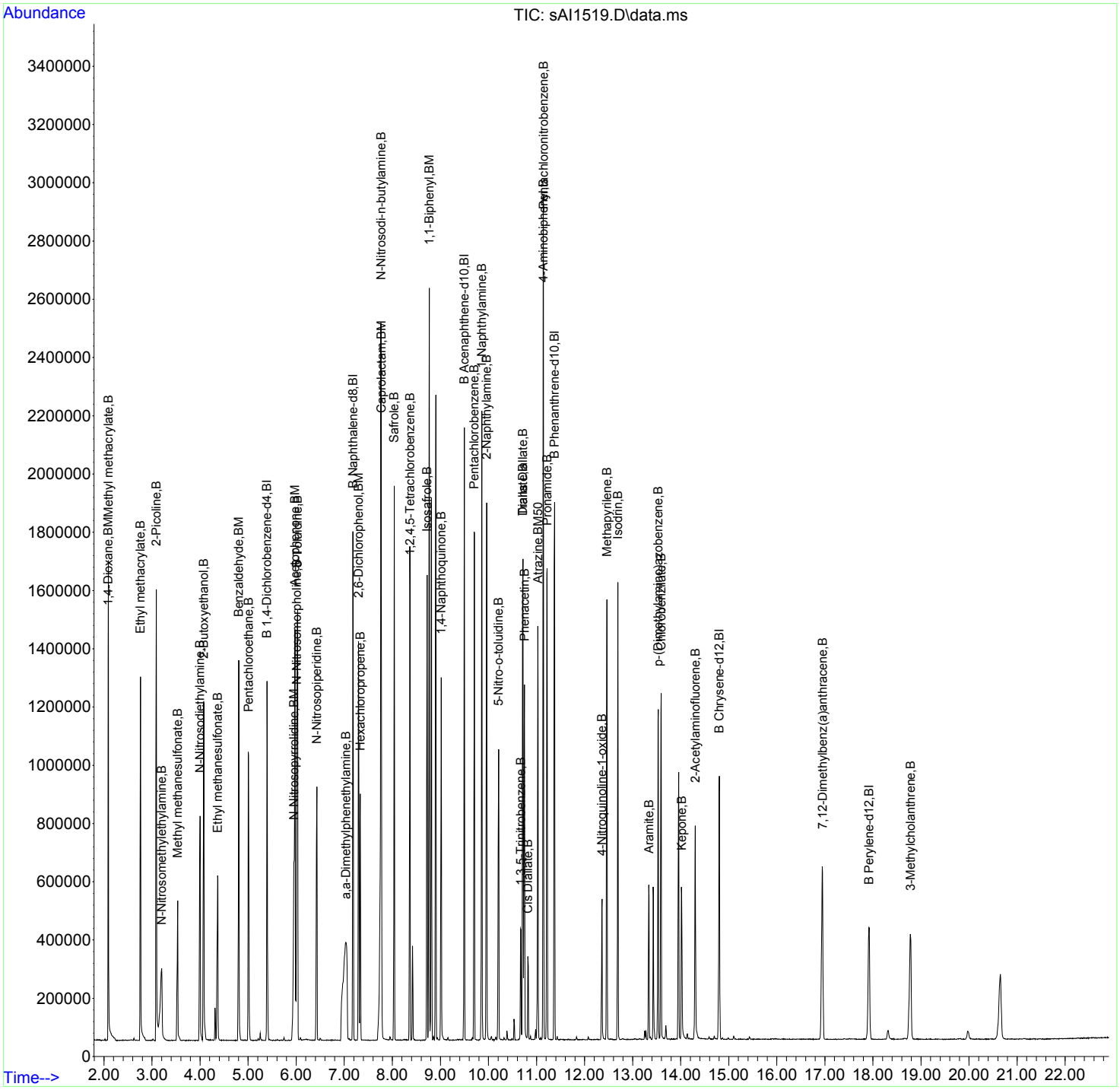
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	7.034	7.016	0.980	1206854	50.74	ng/uL	91
118) 2,6-Dichlorophenol	162	7.299	7.299	1.016	265622	50.81	ng/uL	99
119) Hexachloropropene	213	7.334	7.334	1.021	151373	49.87	ng/uL	98
120) Caprolactam	113	7.769	7.752	1.082	90071	51.71	ng/uL	99
121) N-Nitrosodi-n-butylamine	84	7.763	7.763	1.081	293630	53.70	ng/uL	97
122) Safrole	162	8.040	8.040	1.120	263774	50.61	ng/uL	100
124) 1,2,4,5-Tetrachloroben...	216	8.369	8.363	0.881	332848	48.92	ng/uL	99
125) 1,1-Biphenyl	154	8.769	8.763	0.923	815001	49.16	ng/uL	100
126) Isosafrole	162	8.722	8.722	0.918	265188	49.40	ng/uL	100
127) 1,4-Naphthoquinone	158	9.016	9.016	0.949	236201	52.02	ng/uL	98
128) Pentachlorobenzene	250	9.704	9.704	1.022	283053	49.68	ng/uL	99
129) 1-Naphthylamine	143	9.863	9.857	1.038	647218	53.21	ng/uL	100
130) 2-Naphthylamine	143	9.963	9.957	1.049	634862	53.15	ng/uL	100
131) 5-Nitro-o-toluidine	152	10.210	10.210	1.075	168930	54.48	ng/uL	99
133) 1,3,5-Trinitrobenzene	75	10.669	10.669	0.938	108831	53.42	ng/uL	99
134) Phenacetin	108	10.751	10.740	0.945	309216	51.92	ng/uL	100
135) Diallate	86	10.716	10.710	0.942	263582	48.66	ng/uL	97
136) Cis Diallate	86	10.822	10.822	0.951	42758	7.26	ng/uL	99
137) Trans Diallate	86	10.716	10.710	0.942	263582	41.37	ng/uL	97
138) Atrazine	200	11.028	11.028	0.969	183995	49.65	ng/uL	100
139) 4-Aminobiphenyl	169	11.140	11.140	0.979	703050	53.43	ng/uL	99
140) Pentachloronitrobenzene	237	11.146	11.140	0.980	82683	49.79	ng/uL	99
141) Pronamide	173	11.222	11.216	0.987	313034	50.67	ng/uL	99
142) 4-Nitroquinoline-1-oxide	190	12.363	12.357	1.087	42879	61.77	ng/uL#	78
143) Methapyrilene	97	12.463	12.463	1.096	276831	53.09	ng/uL	99
144) Isodrin	193	12.693	12.692	1.116	106723	50.50	ng/uL	99
146) Aramite	185	13.340	13.334	0.901	32433	49.55	ng/uL	99
147) Kepone	272	14.022	14.016	0.947	66583	50.38	ng/uL	99
148) p-(Dimethylamino)azobe...	225	13.534	13.528	0.914	144964	48.53	ng/uL	98
149) Chlorobenzilate	251	13.592	13.586	0.918	193696	48.92	ng/uL	97
150) 2-Acetylaminofluorene	181	14.304	14.298	0.966	213996	55.35	ng/uL	99
152) 7,12-Dimethylbenz(a)an...	256	16.951	16.939	0.946	234366	47.64	ng/uL	100
153) 3-Methylcholanthrene	269	18.780	18.769	1.048	46317	50.70	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1519.D
Acq On : 15 Sep 2017 17:58
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-14|ICAL|1|SVM|1|A-5
Misc : |MIX[B]
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 18 09:13:00 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1520.D
Acq On : 15 Sep 2017 18:25
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-19|ICAL|1|SVM|1|A-10
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 18 09:13:02 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	217505	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	773541	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.499	9.498	1.000	411054	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.369	11.369	1.000	601910	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.798	14.798	1.000	291693	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	207210	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.499	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.369	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.087	2.093	0.387	153966	60.63	ng/uL	99
101) Methyl methacrylate	100	2.093	2.093	0.388	69075	58.96	ng/uL	97
102) Ethyl methacrylate	69	2.758	2.764	0.511	355635	59.77	ng/uL	96
103) 2-Picoline	93	3.087	3.087	0.572	487312	60.04	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.199	3.199	0.593	201541	60.69	ng/uL	98
105) Methyl methanesulfonate	80	3.534	3.528	0.655	222719	59.14	ng/uL	99
106) N-Nitrosodiethylamine	102	3.999	3.999	0.742	206148	60.61	ng/uL	97
107) 2-Butoxyethanol	57	4.081	4.075	0.757	600559	59.57	ng/uL	99
108) Ethyl methanesulfonate	79	4.369	4.363	0.810	328732	59.12	ng/uL	99
109) Benzaldehyde	77	4.805	4.805	0.891	319093	55.26	ng/uL	100
110) Pentachloroethane	167	5.011	5.010	0.929	181131	59.91	ng/uL	100
111) N-Nitrosopyrrolidine	100	5.958	5.946	1.105	221213	60.08	ng/uL	99
112) Acetophenone	105	5.975	5.969	1.108	613152	59.58	ng/uL	99
113) N-Nitrosomorpholine	56	6.016	6.005	1.116	292756	59.08	ng/uL	100
114) o-Toluidine	106	6.028	6.022	1.118	686041	59.96	ng/uL	99
116) N-Nitrosopiperidine	114	6.434	6.428	0.896	211417	60.49	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1520.D
Acq On : 15 Sep 2017 18:25
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-19|ICAL|1|SVM|1|A-10
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 18 09:13:02 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

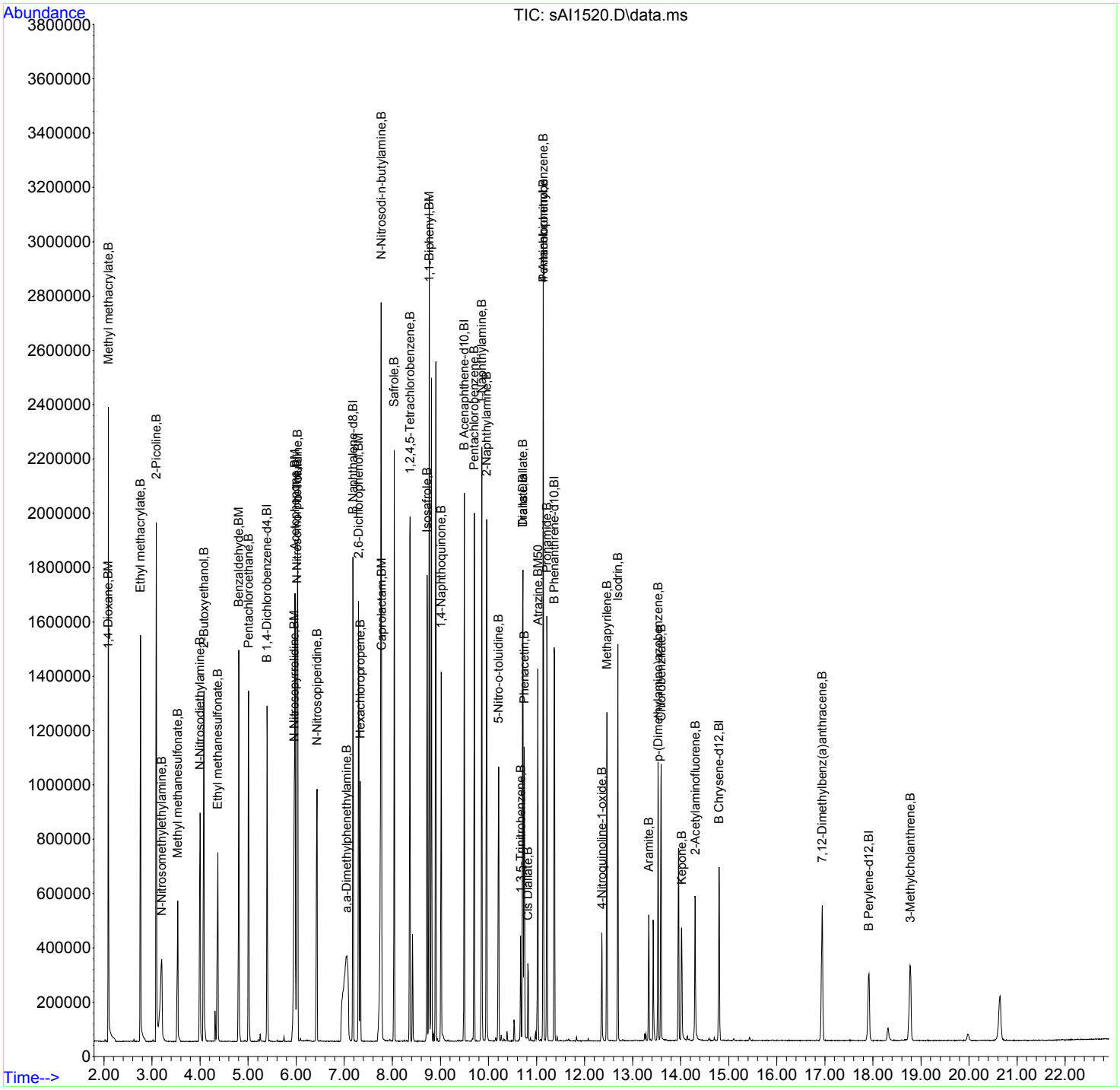
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	7.052	7.016	0.982	1339502	55.26	ng/uL	94
118) 2,6-Dichlorophenol	162	7.299	7.299	1.016	319861	60.78	ng/uL	98
119) Hexachloropropene	213	7.334	7.334	1.021	170534	55.81	ng/uL	99
120) Caprolactam	113	7.775	7.752	1.083	105911	60.39	ng/uL	96
121) N-Nitrosodi-n-butylamine	84	7.769	7.763	1.082	350502	63.67	ng/uL	98
122) Safrole	162	8.040	8.040	1.120	311391	59.34	ng/uL	99
124) 1,2,4,5-Tetrachloroben...	216	8.369	8.363	0.881	394724	61.12	ng/uL	99
125) 1,1-Biphenyl	154	8.769	8.763	0.923	952397	60.53	ng/uL	100
126) Isosafrole	162	8.722	8.722	0.918	310942	61.02	ng/uL	100
127) 1,4-Naphthoquinone	158	9.016	9.016	0.949	253196	58.75	ng/uL	99
128) Pentachlorobenzene	250	9.704	9.704	1.022	321134	59.39	ng/uL	99
129) 1-Naphthylamine	143	9.863	9.857	1.038	670986	58.12	ng/uL	100
130) 2-Naphthylamine	143	9.963	9.957	1.049	654153	57.70	ng/uL	100
131) 5-Nitro-o-toluidine	152	10.210	10.210	1.075	172845	58.73	ng/uL	99
133) 1,3,5-Trinitrobenzene	75	10.669	10.669	0.938	101009	59.65	ng/uL	99
134) Phenacetin	108	10.746	10.740	0.945	290237	58.64	ng/uL	100
135) Diallate	86	10.716	10.710	0.943	275986	61.31	ng/uL	97
136) Cis Diallate	86	10.822	10.822	0.952	44025	8.99	ng/uL	99
137) Trans Diallate	86	10.716	10.710	0.943	275986	52.11	ng/uL	97
138) Atrazine	200	11.028	11.028	0.970	170486	55.36	ng/uL	100
139) 4-Aminobiphenyl	169	11.140	11.140	0.980	667272	61.01	ng/uL	100
140) Pentachloronitrobenzene	237	11.140	11.140	0.980	82799	59.99	ng/uL	99
141) Pronamide	173	11.216	11.216	0.987	298869	58.21	ng/uL	99
142) 4-Nitroquinoline-1-oxide	190	12.363	12.357	1.087	34269	59.40	ng/uL#	80
143) Methapyrilene	97	12.463	12.463	1.096	226060	52.17	ng/uL	100
144) Isodrin	193	12.693	12.692	1.116	101260	57.66	ng/uL	99
146) Aramite	185	13.334	13.334	0.901	28230	62.67	ng/uL	99
147) Kepone	272	14.022	14.016	0.948	54747	60.20	ng/uL	99
148) p-(Dimethylamino)azobe...	225	13.534	13.528	0.915	124839	60.74	ng/uL	99
149) Chlorobenzilate	251	13.593	13.586	0.919	170786	62.69	ng/uL	96
150) 2-Acetylaminofluorene	181	14.304	14.298	0.967	165536	62.23	ng/uL	99
152) 7,12-Dimethylbenz(a)an...	256	16.945	16.939	0.946	191383	60.80	ng/uL	99
153) 3-Methylcholanthrene	269	18.775	18.769	1.048	35947	61.50	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1520.D
Acq On : 15 Sep 2017 18:25
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-19|ICAL|1|SVM|1|A-10
Misc : |MIX[B]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 18 09:13:02 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1521.D
Acq On : 15 Sep 2017 18:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-13|ICAL|1|SVM|1|A-6
Misc : |MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 18 09:13:04 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.921	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	211625	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	762214	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	419749	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	660384	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	378300	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.921	17.910	1.000	284200	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.921	17.963	1.000	0m	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.087	2.093	0.387	191463	77.49	ng/uL	99
101) Methyl methacrylate	100	2.093	2.093	0.388	89211	78.27	ng/uL	95
102) Ethyl methacrylate	69	2.758	2.764	0.511	439810	75.97	ng/uL	100
103) 2-Picoline	93	3.087	3.087	0.572	625983	79.27	ng/uL	100
104) N-Nitrosomethylethylamine	88	3.199	3.199	0.593	258084	79.88	ng/uL	99
105) Methyl methanesulfonate	80	3.540	3.528	0.656	280434	76.54	ng/uL	99
106) N-Nitrosodiethylamine	102	4.005	3.999	0.743	260634	78.76	ng/uL	99
107) 2-Butoxyethanol	57	4.081	4.075	0.757	776608	79.17	ng/uL	99
108) Ethyl methanesulfonate	79	4.375	4.363	0.811	429686	79.43	ng/uL	100
109) Benzaldehyde	77	4.810	4.805	0.892	360777	64.22	ng/uL	99
110) Pentachloroethane	167	5.010	5.010	0.929	231433	78.68	ng/uL	100
111) N-Nitrosopyrrolidine	100	5.969	5.946	1.107	290666	81.13	ng/uL	98
112) Acetophenone	105	5.981	5.969	1.109	797291	79.63	ng/uL	100
113) N-Nitrosomorpholine	56	6.022	6.005	1.117	381062	79.04	ng/uL	99
114) o-Toluidine	106	6.034	6.022	1.119	879436	79.00	ng/uL	99
116) N-Nitrosopiperidine	114	6.440	6.428	0.897	277799	80.66	ng/uL	100

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1521.D
Acq On : 15 Sep 2017 18:51
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-13|ICAL|1|SVM|1|A-6
Misc : |MIX[B]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 18 09:13:04 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
117) a,a-Dimethylphenethyla...	58	7.057	7.016	0.983	1721043	70.01	ng/uL	96	A
118) 2,6-Dichlorophenol	162	7.304	7.299	1.017	418080	80.62	ng/uL	100	
119) Hexachloropropene	213	7.334	7.334	1.021	187106	62.14	ng/uL	99	
120) Caprolactam	113	7.787	7.752	1.084	141500	81.89	ng/uL#	1	
121) N-Nitrosodi-n-butylamine	84	7.769	7.763	1.082	473269	87.25	ng/uL	98	
122) Safrole	162	8.045	8.040	1.120	409988	79.29	ng/uL	99	
124) 1,2,4,5-Tetrachloroben...	216	8.369	8.363	0.881	520251	78.89	ng/uL	99	
125) 1,1-Biphenyl	154	8.775	8.763	0.924	1278239	79.55	ng/uL	100	
126) Isosafrole	162	8.728	8.722	0.919	413529	79.47	ng/uL	100	
127) 1,4-Naphthoquinone	158	9.022	9.016	0.950	299787	68.12	ng/uL	99	
128) Pentachlorobenzene	250	9.710	9.704	1.022	438062	79.33	ng/uL	99	
129) 1-Naphthylamine	143	9.863	9.857	1.038	879273	74.59	ng/uL	99	
130) 2-Naphthylamine	143	9.969	9.957	1.050	886797	76.59	ng/uL	100	
131) 5-Nitro-o-toluidine	152	10.216	10.210	1.076	257006	85.52	ng/uL	97	
133) 1,3,5-Trinitrobenzene	75	10.675	10.669	0.938	162541	87.49	ng/uL	99	
134) Phenacetin	108	10.757	10.740	0.946	434096	79.94	ng/uL	99	
135) Diallate	86	10.716	10.710	0.942	391709	79.31	ng/uL	97	
136) Cis Diallate	86	10.828	10.822	0.952	63645	11.85	ng/uL	100	
137) Trans Diallate	86	10.716	10.710	0.942	391709	67.42	ng/uL	97	
138) Atrazine	200	11.034	11.028	0.970	235201	69.61	ng/uL	100	
139) 4-Aminobiphenyl	169	11.145	11.140	0.980	937716	78.15	ng/uL	100	
140) Pentachloronitrobenzene	237	11.145	11.140	0.980	120768	79.75	ng/uL	99	
141) Pronamide	173	11.222	11.216	0.987	445936	79.16	ng/uL	99	
142) 4-Nitroquinoline-1-oxide	190	12.363	12.357	1.087	61621	97.35	ng/uL#	67	
143) Methapyrilene	97	12.469	12.463	1.096	352823	74.21	ng/uL	100	
144) Isodrin	193	12.692	12.692	1.116	152532	79.16	ng/uL	99	
146) Aramite	185	13.339	13.334	0.901	48195	82.50	ng/uL	98	
147) Kepone	272	14.022	14.016	0.947	89724	76.07	ng/uL	98	
148) p-(Dimethylamino)azobe...	225	13.533	13.528	0.914	205763	77.20	ng/uL	100	
149) Chlorobenzilate	251	13.592	13.586	0.918	284326	80.47	ng/uL	94	
150) 2-Acetylaminofluorene	181	14.310	14.298	0.967	317633	92.07	ng/uL	98	
152) 7,12-Dimethylbenz(a)an...	256	16.951	16.939	0.946	336483	77.94	ng/uL	99	
153) 3-Methylcholanthrene	269	18.792	18.769	1.049	65966	82.28	ng/uL	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1521.D
Acq On    : 15 Sep 2017  18:51
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-13|ICAL|1|SVM|1|A-6
Misc      : |MIX[B]
ALS Vial  : 20   Sample Multiplier: 1

Quant Time: Sep 18 09:13:04 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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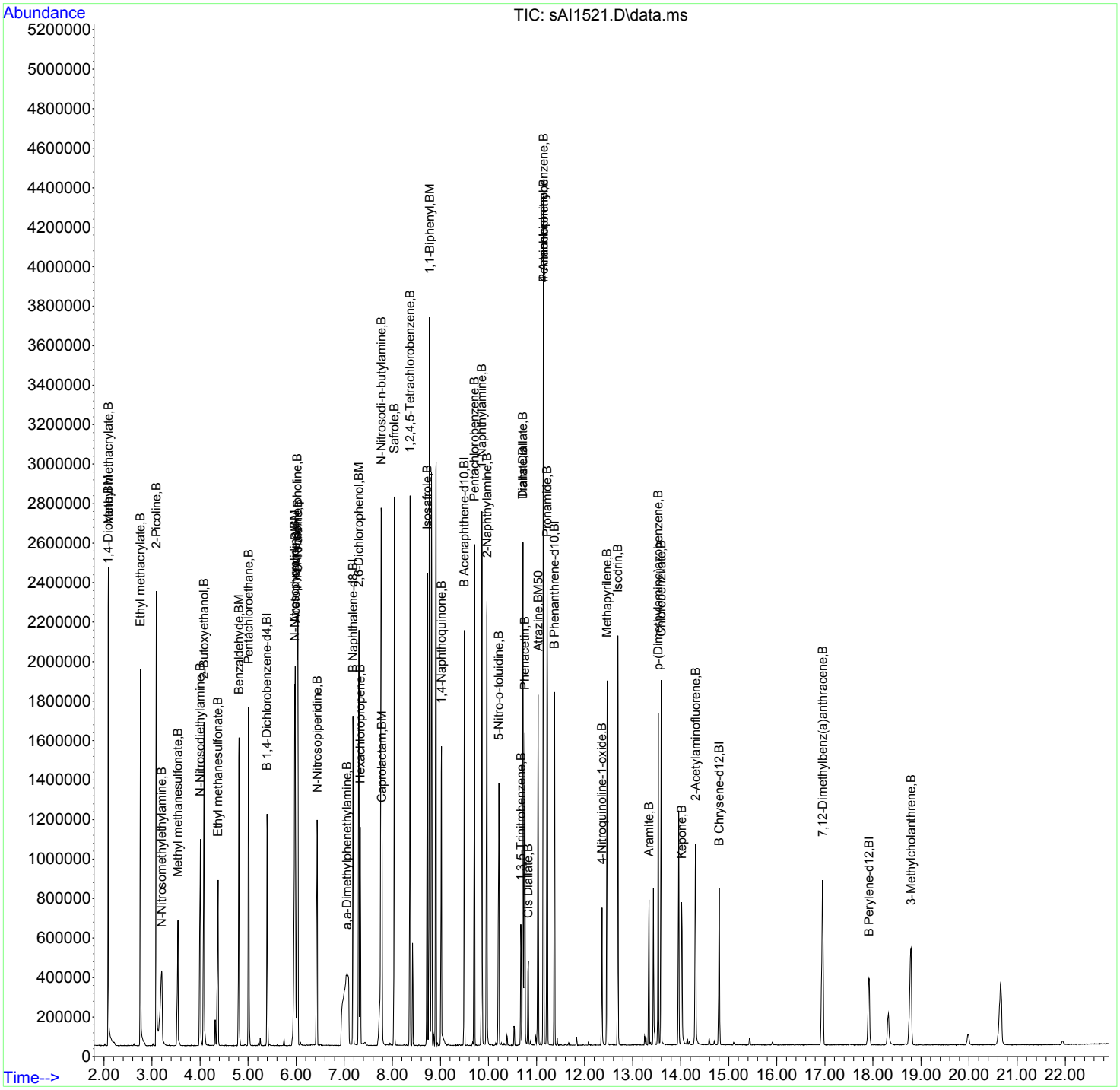

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1522.D
Acq On : 15 Sep 2017 19:18
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-12|ICAL|1|SVM|1|A-7
Misc : |MIX[B]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 18 09:13:06 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.916	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	226806	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	819401	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	436625	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	662348	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.798	14.798	1.000	314798	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.916	17.910	1.000	201712	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.798	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.798	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.916	17.963	1.000	0m	40.00	ng/uL	-0.05
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.093	2.093	0.388	260823	98.50	ng/uL	99
101) Methyl methacrylate	100	2.099	2.093	0.389	119922	98.17	ng/uL	96
102) Ethyl methacrylate	69	2.763	2.764	0.512	602688	97.13	ng/uL	99
103) 2-Picoline	93	3.093	3.087	0.573	846734	100.04	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.205	3.199	0.594	349169	100.84	ng/uL	98
105) Methyl methanesulfonate	80	3.546	3.528	0.657	365656	93.12	ng/uL	100
106) N-Nitrosodiethylamine	102	4.010	3.999	0.743	355049	100.11	ng/uL	99
107) 2-Butoxyethanol	57	4.087	4.075	0.757	1057701	100.61	ng/uL	100
108) Ethyl methanesulfonate	79	4.381	4.363	0.812	570864	98.46	ng/uL	100
109) Benzaldehyde	77	4.810	4.805	0.891	384176	63.80	ng/uL	100
110) Pentachloroethane	167	5.010	5.010	0.928	312049	98.98	ng/uL	99
111) N-Nitrosopyrrolidine	100	5.975	5.946	1.107	388906	101.29	ng/uL	97
112) Acetophenone	105	5.987	5.969	1.109	1064727	99.22	ng/uL	100
113) N-Nitrosomorpholine	56	6.028	6.005	1.117	511561	99.01	ng/uL	100
114) o-Toluidine	106	6.040	6.022	1.119	1165665	97.70	ng/uL	99
116) N-Nitrosopiperidine	114	6.440	6.428	0.897	369529	99.81	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1522.D
Acq On : 15 Sep 2017 19:18
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-12|ICAL|1|SVM|1|A-7
Misc : |MIX[B]
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 18 09:13:06 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
117) a,a-Dimethylphenethyla...	58	7.093	7.016	0.988	1819747	68.97	ng/uL	91	A
118) 2,6-Dichlorophenol	162	7.310	7.299	1.018	559490	100.36	ng/uL	99	
119) Hexachloropropene	213	7.334	7.334	1.021	225880	69.79	ng/uL	99	
120) Caprolactam	113	7.798	7.752	1.086	185221	99.71	ng/uL#	2	
121) N-Nitrosodi-n-butylamine	84	7.775	7.763	1.083	568078	97.42	ng/uL	94	
122) Safrole	162	8.046	8.040	1.120	544865	98.02	ng/uL	100	
124) 1,2,4,5-Tetrachloroben...	216	8.369	8.363	0.881	689094	100.46	ng/uL	100	
125) 1,1-Biphenyl	154	8.775	8.763	0.924	1655000	99.02	ng/uL	99	
126) Isosafrole	162	8.734	8.722	0.919	545644	100.81	ng/uL	100	
127) 1,4-Naphthoquinone	158	9.022	9.016	0.950	374012	81.70	ng/uL	100	
128) Pentachlorobenzene	250	9.710	9.704	1.022	576878	100.43	ng/uL	100	
129) 1-Naphthylamine	143	9.869	9.857	1.039	1048936	85.54	ng/uL	99	
130) 2-Naphthylamine	143	9.969	9.957	1.050	1051907	87.34	ng/uL	99	
131) 5-Nitro-o-toluidine	152	10.222	10.210	1.076	316102	101.12	ng/uL	97	
133) 1,3,5-Trinitrobenzene	75	10.681	10.669	0.939	199181	106.90	ng/uL	98	
134) Phenacetin	108	10.763	10.740	0.946	529659	97.25	ng/uL	100	
135) Diallate	86	10.716	10.710	0.942	502062	101.36	ng/uL	95	
136) Cis Diallate	86	10.828	10.822	0.952	83063	15.42	ng/uL	99	
137) Trans Diallate	86	10.716	10.710	0.942	502062	86.15	ng/uL	95	
138) Atrazine	200	11.034	11.028	0.970	235393	69.46	ng/uL	99	
139) 4-Aminobiphenyl	169	11.145	11.140	0.980	1067478	88.70	ng/uL	100	
140) Pentachloronitrobenzene	237	11.145	11.140	0.980	153205	100.88	ng/uL	98	
141) Pronamide	173	11.228	11.216	0.987	544798	96.43	ng/uL	99	
142) 4-Nitroquinoline-1-oxide	190	12.363	12.357	1.087	67661	106.57	ng/uL#	63	A
143) Methapyrilene	97	12.469	12.463	1.096	388473	81.47	ng/uL	99	
144) Isodrin	193	12.698	12.692	1.116	190128	98.38	ng/uL	99	
146) Aramite	185	13.339	13.334	0.901	58485	120.31	ng/uL	97	A
147) Kepone	272	14.022	14.016	0.948	102023	103.95	ng/uL	99	
148) p-(Dimethylamino)azobe...	225	13.539	13.528	0.915	239793	108.11	ng/uL	99	
149) Chlorobenzilate	251	13.592	13.586	0.919	343893	116.97	ng/uL	92	
150) 2-Acetylaminofluorene	181	14.310	14.298	0.967	286913	99.94	ng/uL	98	
152) 7,12-Dimethylbenz(a)an...	256	16.951	16.939	0.946	312539	101.99	ng/uL	99	
153) 3-Methylcholanthrene	269	18.786	18.769	1.049	58712	103.18	ng/uL	100	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1522.D
Acq On    : 15 Sep 2017  19:18
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-12|ICAL|1|SVM|1|A-7
Misc      : |MIX[B]
ALS Vial  : 21   Sample Multiplier: 1

Quant Time: Sep 18 09:13:06 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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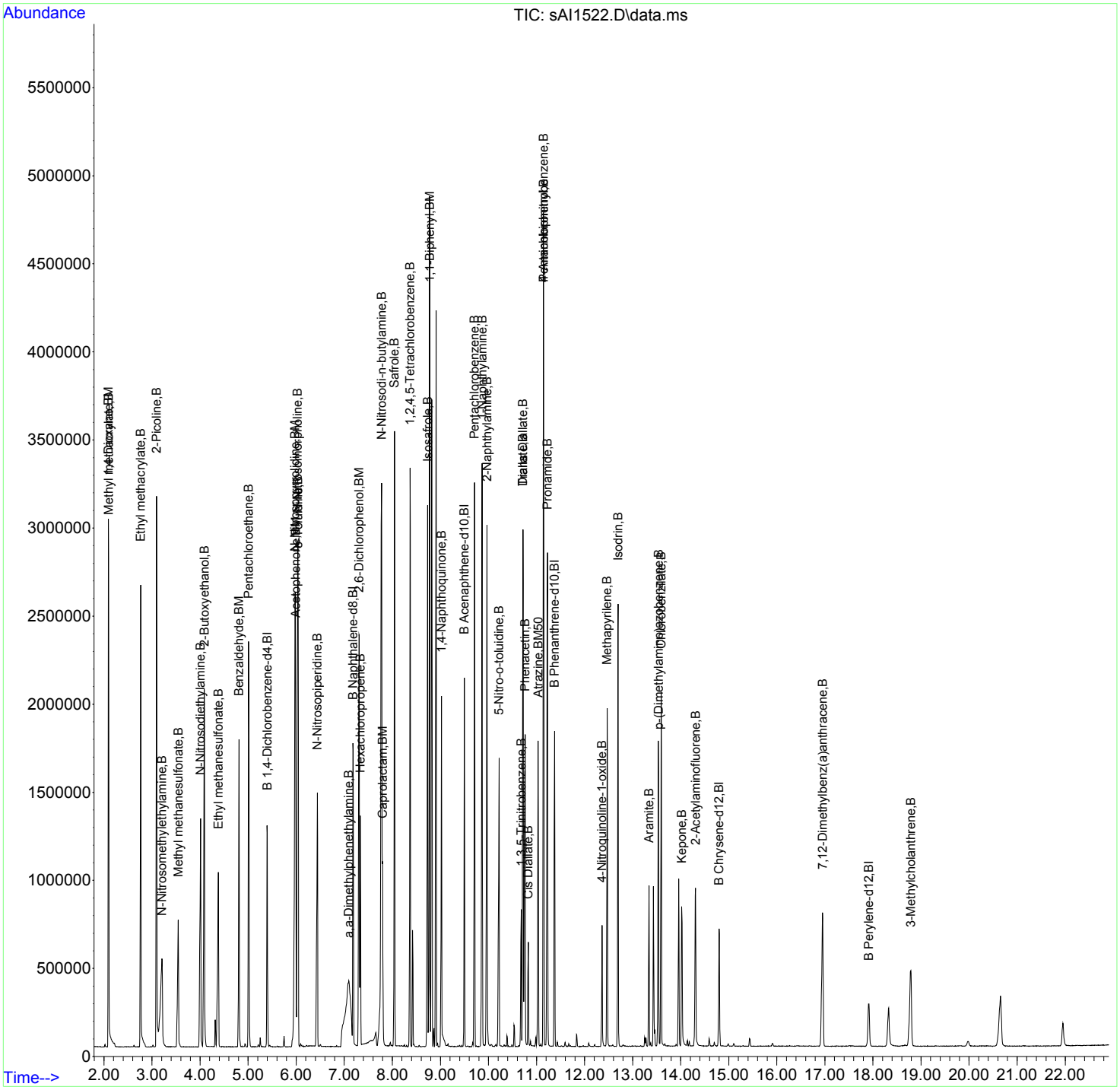

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1523.D
Acq On : 15 Sep 2017 19:44
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-11|ICAL|1|SVM|1|A-8
Misc : |MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 18 09:13:08 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.399	5.399	1.000	0m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.921	17.916	1.000	0m	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	221449	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.187	7.181	1.000	800330	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	432581	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	655302	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	398640	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.921	17.910	1.000	297265	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	0m	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.399	5.393	1.000	0m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	0m	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	0m	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	0m	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.187	7.181	1.000	0m	40.00	ng/uL	0.00
177) E Perylene-d12	264	0.000	17.963	1.000	0	0.00	ng/uL	-17.96
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue	
100) 1,4-Dioxane	88	2.099	2.093	0.389	301140	116.48	ng/uL	100	
101) Methyl methacrylate	100	2.099	2.093	0.389	137008	114.87	ng/uL	98	
102) Ethyl methacrylate	69	2.769	2.764	0.513	705950	116.53	ng/uL	98	
103) 2-Picoline	93	3.099	3.087	0.574	982720	118.92	ng/uL	99	
104) N-Nitrosomethylethylamine	88	3.211	3.199	0.595	409888	121.24	ng/uL	98	A
105) Methyl methanesulfonate	80	3.552	3.528	0.658	423424	110.44	ng/uL	100	
106) N-Nitrosodiethylamine	102	4.016	3.999	0.744	417903	120.68	ng/uL	99	A
107) 2-Butoxyethanol	57	4.093	4.075	0.758	1241584	120.96	ng/uL	100	A
108) Ethyl methanesulfonate	79	4.387	4.363	0.813	658883	116.39	ng/uL	99	
109) Benzaldehyde	77	4.810	4.805	0.891	272873	46.41	ng/uL	99	
110) Pentachloroethane	167	5.016	5.010	0.929	361926	117.58	ng/uL	99	
111) N-Nitrosopyrrolidine	100	5.981	5.946	1.108	459478	122.56	ng/uL	96	A
112) Acetophenone	105	5.987	5.969	1.109	1242818	118.62	ng/uL	99	
113) N-Nitrosomorpholine	56	6.034	6.005	1.118	601944	119.32	ng/uL	100	
114) o-Toluidine	106	6.046	6.022	1.120	1357924	116.57	ng/uL	99	
116) N-Nitrosopiperidine	114	6.446	6.428	0.897	433010	119.74	ng/uL	98	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1523.D
Acq On : 15 Sep 2017 19:44
Operator : JMB3
InstName : MSDA
Sample : |WBN170822-11|ICAL|1|SVM|1|A-8
Misc : |MIX[B]
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 18 09:13:08 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units		
117) a,a-Dimethylphenethyla...	58	7.110	7.016	0.989	1742587	67.75	ng/uL	95	A
118) 2,6-Dichlorophenol	162	7.310	7.299	1.017	659447	121.11	ng/uL	100	A
119) Hexachloropropene	213	7.334	7.334	1.020	222858	70.49	ng/uL	99	
120) Caprolactam	113	7.804	7.752	1.086	222905	122.85	ng/uL#	11	A
121) N-Nitrosodi-n-butylamine	84	7.775	7.763	1.082	633815	111.28	ng/uL	93	
122) Safrole	162	8.051	8.040	1.120	636880	117.31	ng/uL	99	
124) 1,2,4,5-Tetrachloroben...	216	8.375	8.363	0.882	802401	118.07	ng/uL	100	
125) 1,1-Biphenyl	154	8.781	8.763	0.924	1929624	116.53	ng/uL	99	
126) Isosafrole	162	8.740	8.722	0.920	641142	119.56	ng/uL	99	
127) 1,4-Naphthoquinone	158	9.028	9.016	0.950	428792	94.54	ng/uL	99	
128) Pentachlorobenzene	250	9.716	9.704	1.023	672751	118.22	ng/uL	99	
129) 1-Naphthylamine	143	9.869	9.857	1.039	1187869	97.78	ng/uL	99	
130) 2-Naphthylamine	143	9.969	9.957	1.050	1222897	102.49	ng/uL	99	
131) 5-Nitro-o-toluidine	152	10.222	10.210	1.076	382542	123.52	ng/uL	98	A
133) 1,3,5-Trinitrobenzene	75	10.681	10.669	0.939	252323	136.87	ng/uL	99	A
134) Phenacetin	108	10.769	10.740	0.947	643716	119.46	ng/uL	99	
135) Diallate	86	10.722	10.710	0.943	594311	121.27	ng/uL	95	A
136) Cis Diallate	86	10.828	10.822	0.952	97661	18.32	ng/uL	99	A
137) Trans Diallate	86	10.722	10.710	0.943	594311	103.08	ng/uL	95	A
138) Atrazine	200	11.040	11.028	0.971	260918	77.82	ng/uL	99	
139) 4-Aminobiphenyl	169	11.151	11.140	0.980	1197807	100.60	ng/uL	100	
140) Pentachloronitrobenzene	237	11.151	11.140	0.980	180814	120.34	ng/uL	97	A
141) Pronamide	173	11.228	11.216	0.987	656178	117.39	ng/uL	99	
142) 4-Nitroquinoline-1-oxide	190	12.369	12.357	1.087	105439	167.86	ng/uL#	54	A
143) Methapyrilene	97	12.475	12.463	1.097	515966	109.37	ng/uL	100	
144) Isodrin	193	12.698	12.692	1.116	230051	120.31	ng/uL	99	A
146) Aramite	185	13.339	13.334	0.901	79137	128.56	ng/uL	96	A
147) Kepone	272	14.022	14.016	0.947	136149	109.54	ng/uL	98	
148) p-(Dimethylamino)azobe...	225	13.539	13.528	0.915	314400	111.94	ng/uL	100	
149) Chlorobenzilate	251	13.598	13.586	0.919	456329	122.57	ng/uL	91	A
150) 2-Acetylaminofluorene	181	14.316	14.298	0.967	525534	144.56	ng/uL	99	A
152) 7,12-Dimethylbenz(a)an...	256	16.963	16.939	0.947	545895	120.88	ng/uL	99	A
153) 3-Methylcholanthrene	269	18.804	18.769	1.049	105565	125.88	ng/uL	98	A

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1523.D
Acq On    : 15 Sep 2017  19:44
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170822-11|ICAL|1|SVM|1|A-8
Misc      : |MIX[B]
ALS Vial  : 22   Sample Multiplier: 1

Quant Time: Sep 18 09:13:08 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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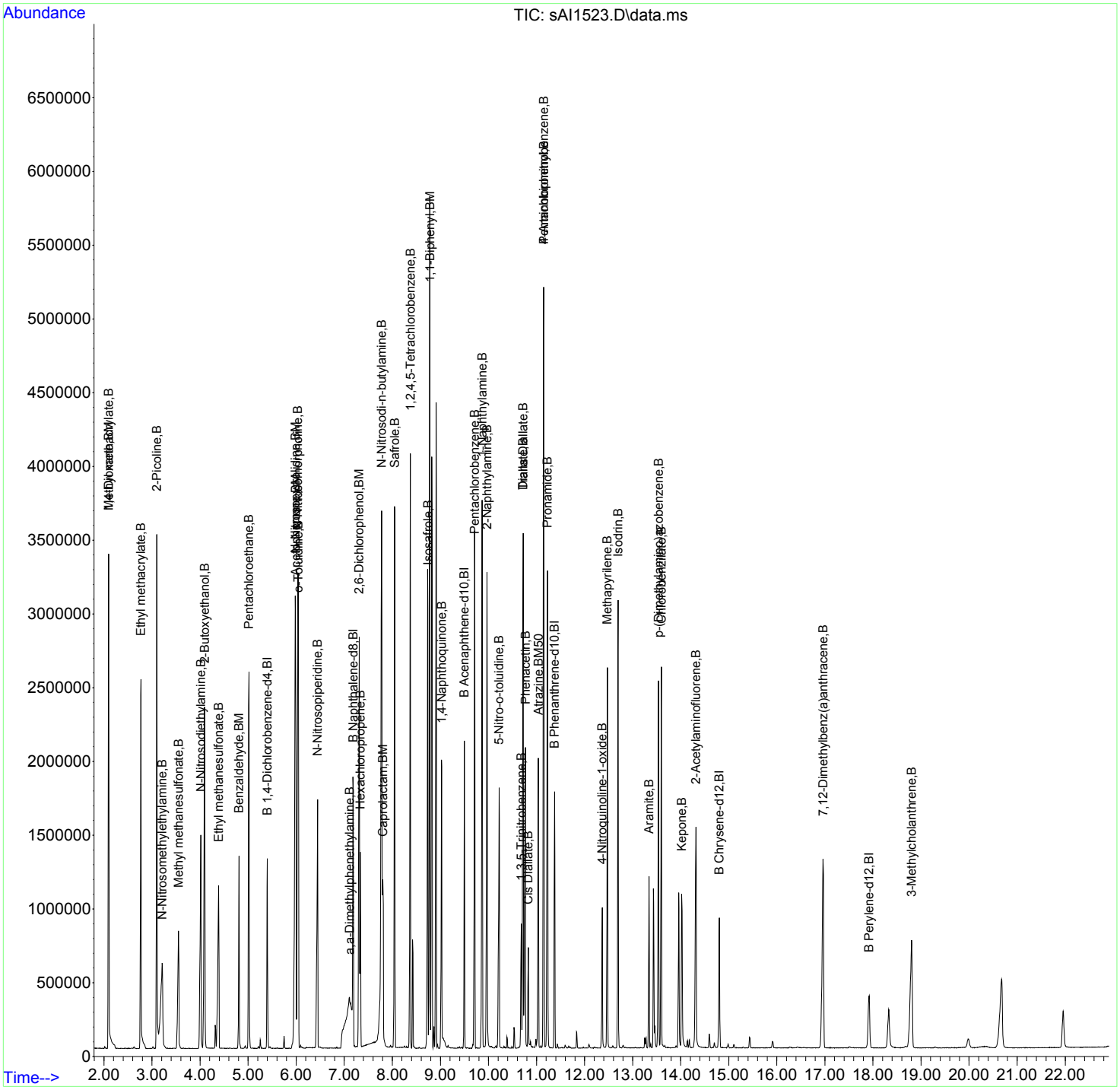

Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 18-SEP-17 09:59

Data File: 091517.s\sAI1550.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN170918-18

Method: 091517.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2154	0.22352		.01		3.76973	60		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB 09/18/2017

JCB 09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1550.D
Acq On : 18 Sep 2017 09:59
Operator : JMB3
InstName : MSDA
Sample : |WBN170918-18|ICV|1|SVM|1|A-ICV
Misc : |MIX[B]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Sep 18 10:25:27 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.393	5.399	1.000	218457	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.181	7.181	1.000	799960	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.498	9.499	1.000	449000	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.375	11.369	1.000	760450	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.804	14.804	1.000	474856	40.00	ng/uL	0.00
91) A Perylene-d12	264	17.922	17.916	1.000	296315	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	218457	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.181	7.181	1.000	799960	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.498	9.498	1.000	449000	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.375	11.369	1.000	760450	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.804	14.798	1.000	474856	40.00	ng/uL	0.00
151) B Perylene-d12	264	17.922	17.910	1.000	296315	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.375	11.369	1.000	760450	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.804	14.804	1.000	474856	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.393	5.393	1.000	218457	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.181	7.181	1.000	799960	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.498	9.499	1.000	449000	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.375	11.369	1.000	760450	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.804	14.798	1.000	474856	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.181	7.181	1.000	799960	40.00	ng/uL	0.00
177) E Perylene-d12	264	17.922	17.963	1.000	296315	40.00	ng/uL	-0.04
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.699	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.863	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.187	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.634	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.493	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.351	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.087	2.093	0.387	100392	39.36	ng/uL	98
101) Methyl methacrylate	100	2.093	2.093	0.388	48829	41.50	ng/uL	92
102) Ethyl methacrylate	69	2.758	2.764	0.511	255491	42.75	ng/uL	92
103) 2-Picoline	93	3.087	3.087	0.572	316356	38.81	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.199	3.199	0.593	137952	41.36	ng/uL	95
105) Methyl methanesulfonate	80	3.534	3.528	0.655	157398	41.62	ng/uL	99
106) N-Nitrosodiethylamine	102	3.999	3.999	0.741	136300	39.90	ng/uL	98
107) 2-Butoxyethanol	57	4.075	4.075	0.756	437792	43.24	ng/uL	100
108) Ethyl methanesulfonate	79	4.363	4.363	0.809	229197	41.04	ng/uL	99
109) Benzaldehyde	77	4.805	4.805	0.891	216189	37.28	ng/uL	100
110) Pentachloroethane	167	5.005	5.010	0.928	126463	41.65	ng/uL	100
111) N-Nitrosopyrrolidine	100	5.946	5.946	1.103	153156	41.41	ng/uL	96
112) Acetophenone	105	5.969	5.969	1.107	428134	41.42	ng/uL	98
113) N-Nitrosomorpholine	56	6.005	6.005	1.113	200977	40.38	ng/uL	98
114) o-Toluidine	106	6.022	6.022	1.117	477049	41.51	ng/uL	99
116) N-Nitrosopiperidine	114	6.428	6.428	0.895	148726	41.15	ng/uL	98

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1550.D
Acq On : 18 Sep 2017 09:59
Operator : JMB3
InstName : MSDA
Sample : |WBN170918-18|ICV|1|SVM|1|A-ICV
Misc : |MIX[B]
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Sep 18 10:25:27 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117) a,a-Dimethylphenethyla...	58	6.975	7.016	0.971	672848	30.29	ng/uL	91
118) 2,6-Dichlorophenol	162	7.299	7.299	1.016	226977	41.70	ng/uL	99
119) Hexachloropropene	213	7.334	7.334	1.021	116024	36.72	ng/uL	99
120) Caprolactam	113	7.757	7.752	1.080	75566	41.67	ng/uL	90
121) N-Nitrosodi-n-butylamine	84	7.763	7.763	1.081	247581	43.49	ng/uL	99
122) Safrole	162	8.040	8.040	1.120	222166	40.94	ng/uL	99
124) 1,2,4,5-Tetrachloroben...	216	8.363	8.363	0.880	290660	41.20	ng/uL	100
125) 1,1-Biphenyl	154	8.769	8.763	0.923	716863	41.71	ng/uL	99
126) Isosafrole	162	8.722	8.722	0.918	249457	44.82	ng/uL	99
127) 1,4-Naphthoquinone	158	9.016	9.016	0.949	200590	42.61	ng/uL	98
128) Pentachlorobenzene	250	9.704	9.704	1.022	244756	41.44	ng/uL	99
129) 1-Naphthylamine	143	9.857	9.857	1.038	485988	38.54	ng/uL	99
130) 2-Naphthylamine	143	9.963	9.957	1.049	528191	42.65	ng/uL	99
131) 5-Nitro-o-toluidine	152	10.210	10.210	1.075	155212	48.28	ng/uL	97
133) 1,3,5-Trinitrobenzene	75	10.669	10.669	0.938	98459	46.02	ng/uL	98
134) Phenacetin	108	10.745	10.740	0.945	288490	46.14	ng/uL	99
135) Diallate	86	10.716	10.710	0.942	227421	39.99	ng/uL	98
136) Cis Diallate	86	10.828	10.822	0.952	36179	5.85	ng/uL	98
137) Trans Diallate	86	10.716	10.710	0.942	227421	33.99	ng/uL	98
138) Atrazine	200	11.028	11.028	0.969	152826	39.28	ng/uL	99
139) 4-Aminobiphenyl	169	11.140	11.140	0.979	610575	44.19	ng/uL	100
140) Pentachloronitrobenzene	237	11.145	11.140	0.980	74812	42.90	ng/uL	99
141) Pronamide	173	11.222	11.216	0.987	276318	42.60	ng/uL	99
142) 4-Nitroquinoline-1-oxide	190	12.363	12.357	1.087	29338	40.25	ng/uL#	49
143) Methapyrilene	97	12.463	12.463	1.096	269287	49.19	ng/uL	99
144) Isodrin	193	12.692	12.692	1.116	90482	40.78	ng/uL	98
146) Aramite	185	13.339	13.334	0.901	36646	49.98	ng/uL	96
147) Kepone	272	14.022	14.016	0.947	59754	40.36	ng/uL	99
148) p-(Dimethylamino)azobe...	225	13.534	13.528	0.914	147305	44.03	ng/uL	100
149) Chlorobenzilate	251	13.592	13.586	0.918	205482	46.33	ng/uL	92
150) 2-Acetylaminofluorene	181	14.304	14.298	0.966	180749	41.74	ng/uL	99
152) 7,12-Dimethylbenz(a)an...	256	16.951	16.939	0.946	189599	42.12	ng/uL	100
153) 3-Methylcholanthrene	269	18.780	18.769	1.048	31675	37.89	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1550.D
Acq On    : 18 Sep 2017  09:59
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN170918-18|ICV|1|SVM|1|A-ICV
Misc      : |MIX[B]
ALS Vial  : 49   Sample Multiplier: 1

Quant Time: Sep 18 10:25:27 2017
Quant Method : D:\MSDChem\1\data\091517.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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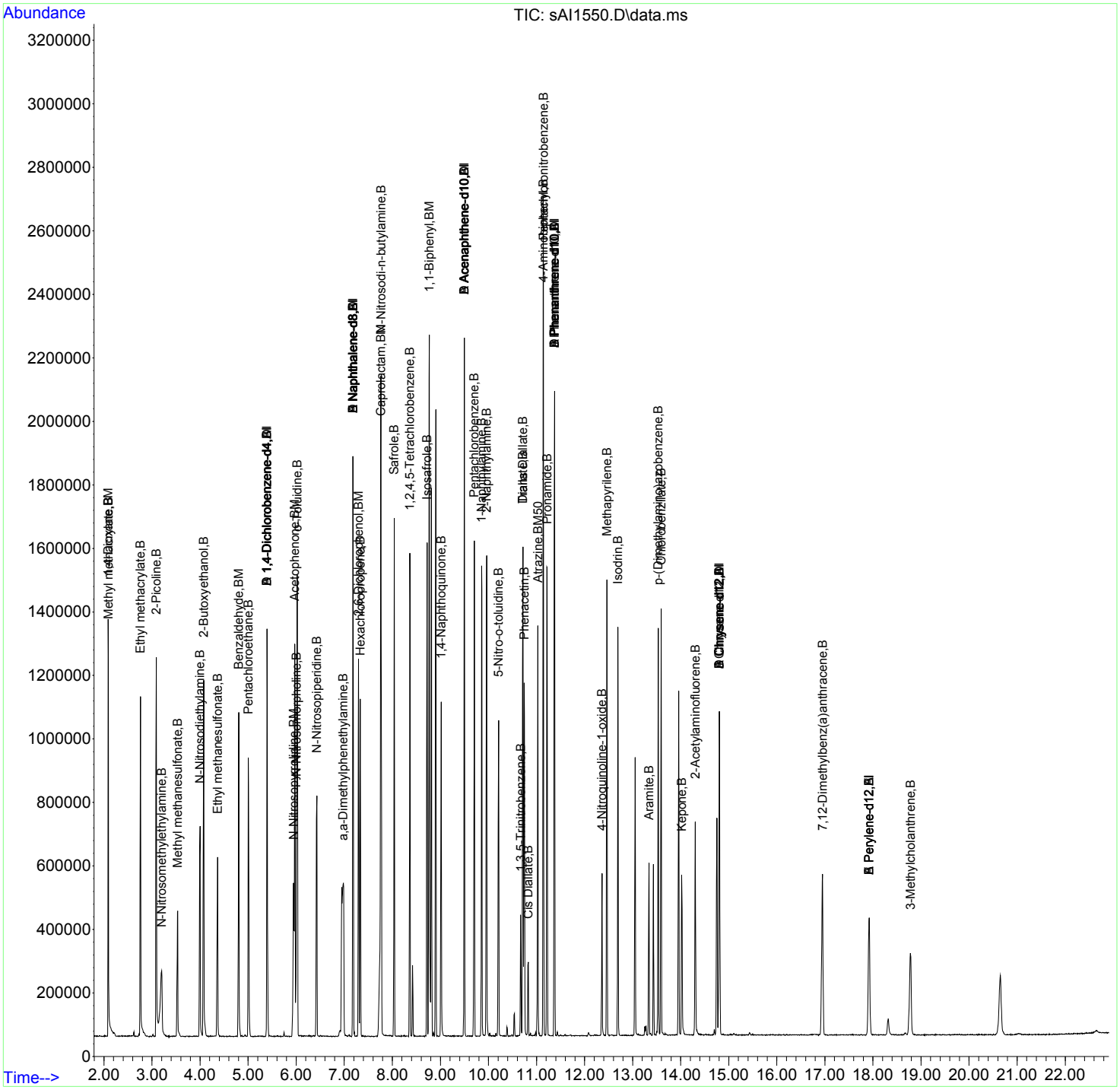


Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 06-OCT-17 08:33

Data File: 100617.s\sAj0602.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN170809-05.5

Method: 100617.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2299	1.20813		.01		-1.77006	60		Averaged	
S	Phenol-d5	1.5381	1.47452		.01		-4.13367	60		Averaged	
S	Nitrobenzene-d5	0.3944	0.38478		.01		-2.43915	60		Averaged	
S	2-Fluorobiphenyl	1.4886	1.43667		.01		-3.48851	60		Averaged	
S	2,4,6-Tribromophenol	0.1607	0.16455		.01		2.39577	60		Averaged	
S	p-Terphenyl-d14	1.0572	1.09966		.01		4.01627	60		Averaged	
	Naphthalene	1.0827	1.05726		.7		-2.34968	60		Averaged	
	2-Methylnaphthalene	0.6993	0.69102		.4		-1.18404	60		Averaged	
	1-Methylnaphthalene	0.6534	0.64952		.01		-0.59382	60		Averaged	
	2-Chloronaphthalene	1.2491	1.19158		.8		-4.60492	60		Averaged	
	Acenaphthene	1.0741	1.04272		.9		-2.92152	20		Averaged	CCC
	Fluorene	1.2561	1.23067		.9		-2.02452	60		Averaged	
	Phenanthrene	1.1097	1.07183		.7		-3.41263	60		Averaged	
	Anthracene	1.1252	1.07958		.7		-4.05439	60		Averaged	
	Carbazole	0.8805	0.84488		.01		-4.04543	60		Averaged	
	Fluoranthene	0.9984	0.9782		.6		-2.02324	20		Averaged	CCC
	Pyrene	1.7148	1.68546		.6		-1.71099	60		Averaged	
	Benzo(a)anthracene	1.2592	1.21606		.8		-3.42598	60		Averaged	
	bis(2-Ethylhexyl)phthalate	0.9141	1.02072		.01		11.66393	60		Averaged	
	Chrysene	1.1561	1.10797		.7		-4.16313	60		Averaged	
	Benzo(b)fluoranthene	1.2784	1.31567		.7		2.91536	60		Averaged	
	Benzo(k)fluoranthene	1.243	1.28175		.7		3.11746	60		Averaged	
	Benzo(a)pyrene	1.1115	1.09686		.7		-1.31714	20		Averaged	CCC
	Indeno(1,2,3-cd)pyrene	0.7737	0.6768		.5		-12.52423	60		Averaged	
	Dibenzo(a,h)anthracene	0.7755	0.66995		.4		-13.61057	60		Averaged	
	Benzo(ghi)perylene	0.8289	0.68308		.5		-17.59199	60		Averaged	

Quantitation Report
GEL Laboratories, LLC

JMB
10/06/2017

BJB
10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0602.D
Acq On : 06 Oct 2017 08:33
Operator : JMB3
InstName : MSDA
Sample : |WBN170809-05.5|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 06 11:29:52 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	226706	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.228	7.228	1.000	784183	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.546	9.540	1.000	404969	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.416	11.410	1.000	578556	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.863	14.863	1.000	330789	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.022	18.016	1.000	205756	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	226706	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.228	7.228	1.000	784183	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.546	9.540	1.000	404969	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.416	11.410	1.000	578556	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.863	14.863	1.000	330789	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.022	18.016	1.000	205756	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.416	11.410	1.000	578556	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.863	14.863	1.000	330789	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	226706	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.228	7.228	1.000	784183	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.546	9.540	1.000	404969	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.416	11.410	1.000	578556	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.863	14.863	1.000	330789	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.228	7.228	1.000	784183	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.022	18.016	1.000	205756	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.758	3.752	0.691	273891	39.29	ng/uL	0.00
8) Phenol-d5	99	4.922	4.910	0.905	334282	38.35	ng/uL	0.01
25) Nitrobenzene-d5	82	6.228	6.228	0.862	301738	39.03	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.675	8.675	0.909	581806	38.60	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.540	10.534	1.104	66636	40.95	ng/uL	0.00
83) p-Terphenyl-d14	244	13.398	13.392	0.901	363755	41.61	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.158	2.158	0.397	198638	41.65	ng/uL	94
3) N-Methyl-N-nitrosometh...	74	2.422	2.417	0.445	176523	39.42	ng/uL	92
4) Pyridine	79	2.452	2.452	0.451	304578	38.83	ng/uL	95
6) p-Benzoquinone	54	4.364	4.363	0.802	117204	26.78	ng/uL	93
7) Aniline	93	4.987	4.987	0.917	412552	38.48	ng/uL	98
9) Phenol	94	4.940	4.928	0.908	347613	38.15	ng/uL	94
10) bis(2-Chloroethyl) ether	93	5.075	5.075	0.933	293188	39.83	ng/uL	99
11) 2-Chlorophenol	128	5.152	5.140	0.947	296185	38.81	ng/uL	98
12) n-Decane	43	5.211	5.210	0.958	440969	38.03	ng/uL	97
13) 1,3-Dichlorobenzene	146	5.363	5.358	0.986	343158	39.26	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.463	5.463	1.004	344712	39.06	ng/uL	99
15) 1,2-Dichlorobenzene	146	5.675	5.675	1.043	327397	39.18	ng/uL	99
16) bis(2-Chloro-1-methyle...	45	5.834	5.834	1.072	550655	38.48	ng/uL	99
17) Benzyl alcohol	108	5.634	5.634	1.036	185608	37.98	ng/uL	95
18) o-Cresol	107	5.793	5.781	1.065	230398	38.01	ng/uL	98
19) m,p-Cresols	107	6.022	6.016	1.107	297266	37.69	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0602.D
Acq On : 06 Oct 2017 08:33
Operator : JMB3
InstName : MSDA
Sample : |WBN170809-05.5|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 06 11:29:52 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	6.028	6.028	1.108	216798	39.57	ng/uL	93
21)	p-Toluidine	106	6.081	6.075	1.118	382173	38.39	ng/uL	98
22)	m-Toluidine	106	6.128	6.122	1.127	361309	40.28	ng/uL	100
23)	Hexachloroethane	117	6.158	6.157	1.132	132657	39.54	ng/uL	99
26)	Nitrobenzene	77	6.258	6.258	0.866	295693	38.06	ng/uL	97
27)	Isophorone	82	6.599	6.599	0.913	540108	40.23	ng/uL	99
28)	2-Nitrophenol	139	6.699	6.699	0.927	144645	45.20	ng/uL	94
29)	2,4-Dimethylphenol	122	6.769	6.763	0.937	241298	38.51	ng/uL	96
30)	bis(2-Chloroethoxy)met...	93	6.905	6.905	0.955	350370	40.21	ng/uL	99
31)	2,4-Dichlorophenol	162	7.040	7.028	0.974	227328	38.19	ng/uL	99
32)	Benzoic acid	105	6.934	6.928	0.959	161575	46.98	ng/uL	96
33)	1,2,4-Trichlorobenzene	180	7.146	7.146	0.989	271571	39.84	ng/uL	100
34)	alpha-Terpineol	59	7.281	7.275	1.007	299277	41.05	ng/uL	97
35)	Naphthalene	128	7.257	7.252	1.004	829082	39.06	ng/uL	100
36)	4-Chloroaniline	127	7.334	7.328	1.015	272013	38.90	ng/uL	96
37)	Hexachlorobutadiene	225	7.428	7.422	1.028	159362	39.29	ng/uL	99
38)	4-Chloro-3-methylphenol	107	7.999	7.981	1.107	215447	36.97	ng/uL	97
39)	2-Methylnaphthalene	142	8.187	8.187	1.133	541887	39.53	ng/uL	100
40)	Phthalic anhydride	104	8.263	8.257	1.143	100866	31.94	ng/uL	96
41)	1-Methylnaphthalene	142	8.316	8.316	1.151	509343	39.76	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.393	8.393	0.879	146900	36.19	ng/uL	99
44)	2,3-Dichloroaniline	161	8.557	8.557	0.896	245347	41.98	ng/uL	99
45)	2,4,6-Trichlorophenol	196	8.563	8.557	0.897	157066	38.33	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.616	8.599	0.903	158712	38.04	ng/uL	98
48)	2-Chloronaphthalene	162	8.828	8.822	0.925	482553	38.16	ng/uL	99
49)	o-Nitroaniline	65	8.963	8.957	0.939	136006	39.06	ng/uL	95
50)	1,4-Dinitrobenzene	168	9.152	9.146	0.959	71654	47.95	ng/uL	85
51)	m-Nitroaniline	138	9.493	9.487	0.994	88434	40.18	ng/uL	91
52)	Dimethylphthalate	163	9.216	9.210	0.965	542351	40.50	ng/uL	100
53)	m-Dinitrobenzene	168	9.246	9.240	0.969	79743	45.39	ng/uL	94
54)	2,6-Dinitrotoluene	165	9.287	9.281	0.973	119721	41.74	ng/uL	93
55)	2,4-Dinitrotoluene	165	9.793	9.787	1.026	144721	43.53	ng/uL	89
56)	Acenaphthylene	152	9.363	9.357	0.981	754889	38.73	ng/uL	100
57)	Acenaphthene	154	9.587	9.581	1.004	422269	38.83	ng/uL	99
58)	2,4-Dinitrophenol	184	9.622	9.616	1.008	30010	45.43	ng/uL	87
59)	Dibenzofuran	168	9.804	9.798	1.027	644104	39.03	ng/uL	97
60)	2,3,4,6-Tetrachlorophenol	232	9.957	9.951	1.043	120438	40.81	ng/uL	96
61)	Diethylphthalate	149	10.104	10.104	1.059	523677	41.39	ng/uL	99
62)	4-Nitrophenol	139	9.728	9.698	1.019	62173	36.57	ng/uL	92
63)	Fluorene	166	10.240	10.234	1.073	498385	39.19	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.240	10.240	1.073	239787	39.79	ng/uL	97
65)	p-Nitroaniline	138	10.269	10.263	1.076	74016	35.08	ng/uL	97
68)	2-Methyl-4,6-dinitroph...	198	10.304	10.298	0.903	47068	44.54	ng/uL	87
69)	Diphenylamine	169	10.393	10.387	0.910	404758	37.85	ng/uL	100
70)	1,2-Diphenylhydrazine	77	10.440	10.440	0.914	497056	37.47	ng/uL	98
71)	4-Bromophenylphenylether	248	10.857	10.851	0.951	141438	39.06	ng/uL	98
72)	Hexachlorobenzene	284	10.922	10.922	0.957	153348	40.20	ng/uL	99
73)	Pentachlorophenol	266	11.175	11.163	0.979	67023	41.46	ng/uL	98
74)	n-Octadecane	57	11.287	11.287	0.989	451809	39.02	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0602.D
Acq On : 06 Oct 2017 08:33
Operator : JMB3
InstName : MSDA
Sample : |WBN170809-05.5|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 06 11:29:52 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

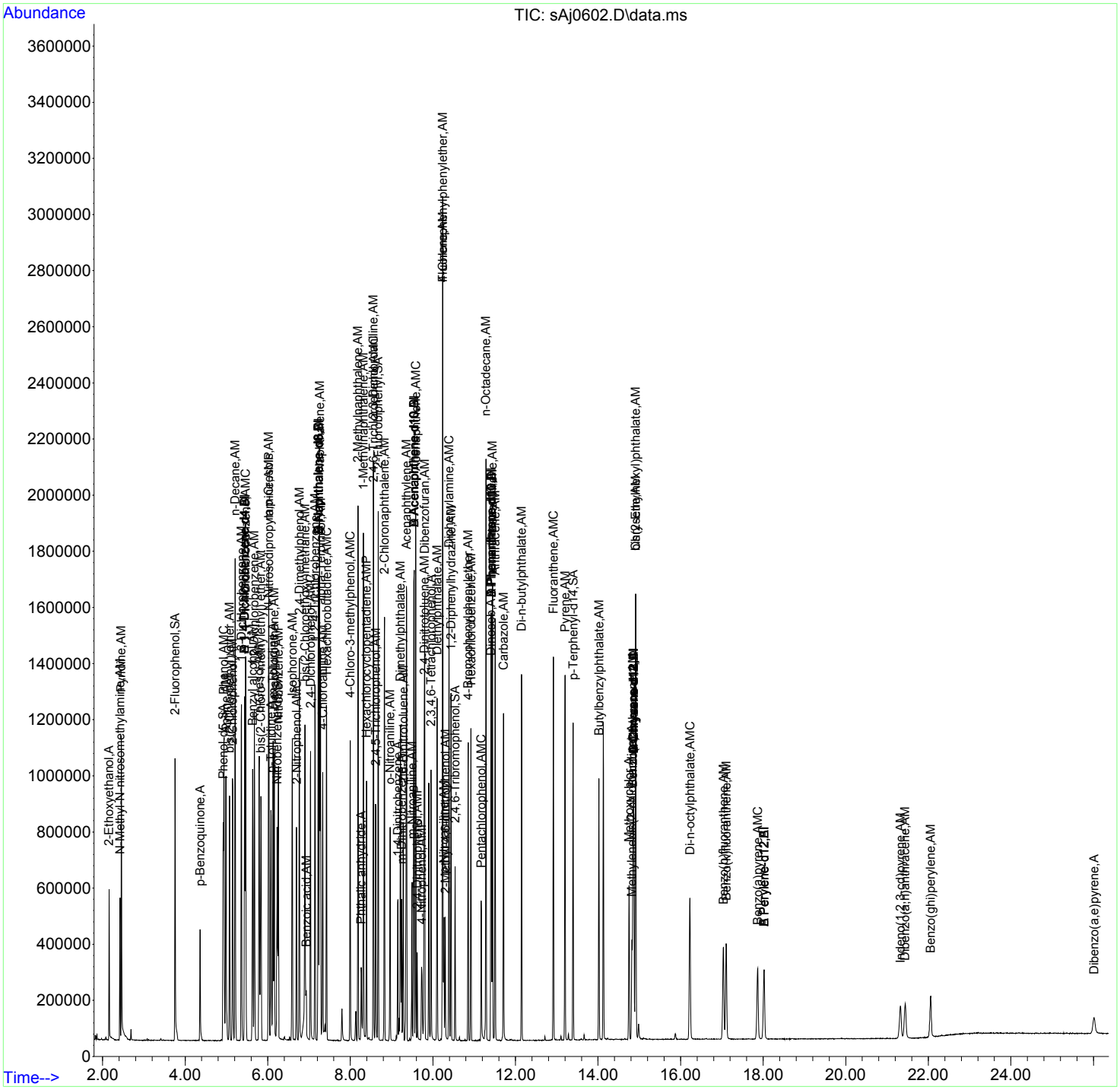
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.404	11.398	0.999	90816	64.52	ng/uL	94
76)	Phenanthrene	178	11.445	11.440	1.003	620115	38.64	ng/uL	100
77)	Anthracene	178	11.510	11.504	1.008	624597	38.38	ng/uL	100
78)	Carbazole	167	11.710	11.704	1.026	488808	38.38	ng/uL	99
79)	Di-n-butylphthalate	149	12.145	12.145	1.064	718828	43.27	ng/uL	100
80)	Fluoranthene	202	12.922	12.916	1.132	565945	39.19	ng/uL	99
82)	Pyrene	202	13.204	13.198	0.888	557531	39.32	ng/uL	98
84)	Butylbenzylphthalate	149	14.022	14.016	0.943	239489	45.45	ng/uL	97
85)	bis(2-Ethylhexyl)phtha...	149	14.910	14.910	1.003	337644	44.66	ng/uL	99
86)	Benzo(a)anthracene	228	14.845	14.845	0.999	402259	38.63	ng/uL	99
87)	Chrysene	228	14.910	14.904	1.003	366503	38.33	ng/uL	99
88)	Methoxychlor	227	14.751	14.745	0.992	271736	49.52	ng/uL	97
89)	Methylenebis(2-chloroa...	231	14.822	14.816	0.997	55809	34.51	ng/uL	99
90)	Di-n-octylphthalate	149	16.228	16.222	1.092	482512	44.17	ng/uL	97
92)	Benzo(b)fluoranthene	252	17.039	17.028	0.945	270706	41.17	ng/uL	99
93)	Benzo(k)fluoranthene	252	17.104	17.098	0.949	263728	41.25	ng/uL	99
94)	Benzo(a)pyrene	252	17.869	17.857	0.992	225685	39.47	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	21.327	21.316	1.183	139255	34.99	ng/uL	99
96)	Dibenzo(a,h)anthracene	278	21.439	21.427	1.190	137847	34.55	ng/uL	99
97)	Benzo(ghi)perylene	276	22.057	22.051	1.224	140548	32.96	ng/uL	98
98)	Dibenzo(a,e)pyrene	302	26.015	26.003	1.444	78715	29.21	ng/uL	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0602.D
Acq On : 06 Oct 2017 08:33
Operator : JMB3
InstName : MSDA
Sample : |WBN170809-05.5|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 06 11:29:52 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 06-OCT-17 09:29

Data File: 100617.s\sAj0604.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN171002-15.1

Method: 100617.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2154	0.24251		.01		12.58589	60		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB
10/06/2017

BJB
10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0604.D
Acq On : 06 Oct 2017 09:29
Operator : JMB3
InstName : MSDA
Sample : |WBN171002-15.1|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 11:34:12 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	234206	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.222	7.228	1.000	798937	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.540	9.540	1.000	417433	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.410	11.410	1.000	611722	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.857	14.863	1.000	380006	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.016	18.016	1.000	245021	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	234206	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.222	7.228	1.000	798937	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.540	9.540	1.000	417433	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.410	11.410	1.000	611722	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.857	14.863	1.000	380006	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.016	18.016	1.000	245021	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.410	11.410	1.000	611722	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.857	14.863	1.000	380006	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	234206	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.222	7.228	1.000	798937	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.540	9.540	1.000	417433	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.410	11.410	1.000	611722	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.857	14.863	1.000	380006	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.222	7.228	1.000	798937	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.016	18.016	1.000	245469	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.752	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	4.910	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.228	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.675	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.534	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.392	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.152	2.152	0.396	124759	45.63	ng/uL	90
101) Methyl methacrylate	100	2.152	2.152	0.396	56798	45.03	ng/uL#	82
102) Ethyl methacrylate	69	2.811	2.811	0.517	259499	40.50	ng/uL	97
103) 2-Picoline	93	3.140	3.140	0.577	355061	40.63	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.252	3.252	0.598	149195	41.73	ng/uL	92
105) Methyl methanesulfonate	80	3.581	3.581	0.658	154247	38.04	ng/uL	97
106) N-Nitrosodiethylamine	102	4.046	4.046	0.744	147434	40.26	ng/uL	96
107) 2-Butoxyethanol	57	4.122	4.122	0.758	444596	40.96	ng/uL	98
108) Ethyl methanesulfonate	79	4.410	4.411	0.811	242237	40.46	ng/uL	100
109) Benzaldehyde	77	4.846	4.846	0.891	259312	41.71	ng/uL	99
110) Pentachloroethane	167	5.052	5.052	0.929	135140	41.51	ng/uL	100
111) N-Nitrosopyrrolidine	100	5.993	5.993	1.102	154371	38.93	ng/uL	94
112) Acetophenone	105	6.016	6.010	1.106	434071	39.17	ng/uL	98
113) N-Nitrosomorpholine	56	6.046	6.046	1.111	199095	37.32	ng/uL	97
114) o-Toluidine	106	6.063	6.063	1.115	486399	39.48	ng/uL	99
116) N-Nitrosopiperidine	114	6.469	6.469	0.896	150075	41.57	ng/uL	94

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0604.D
Acq On : 06 Oct 2017 09:29
Operator : JMB3
InstName : MSDA
Sample : |WBN171002-15.1|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 11:34:12 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

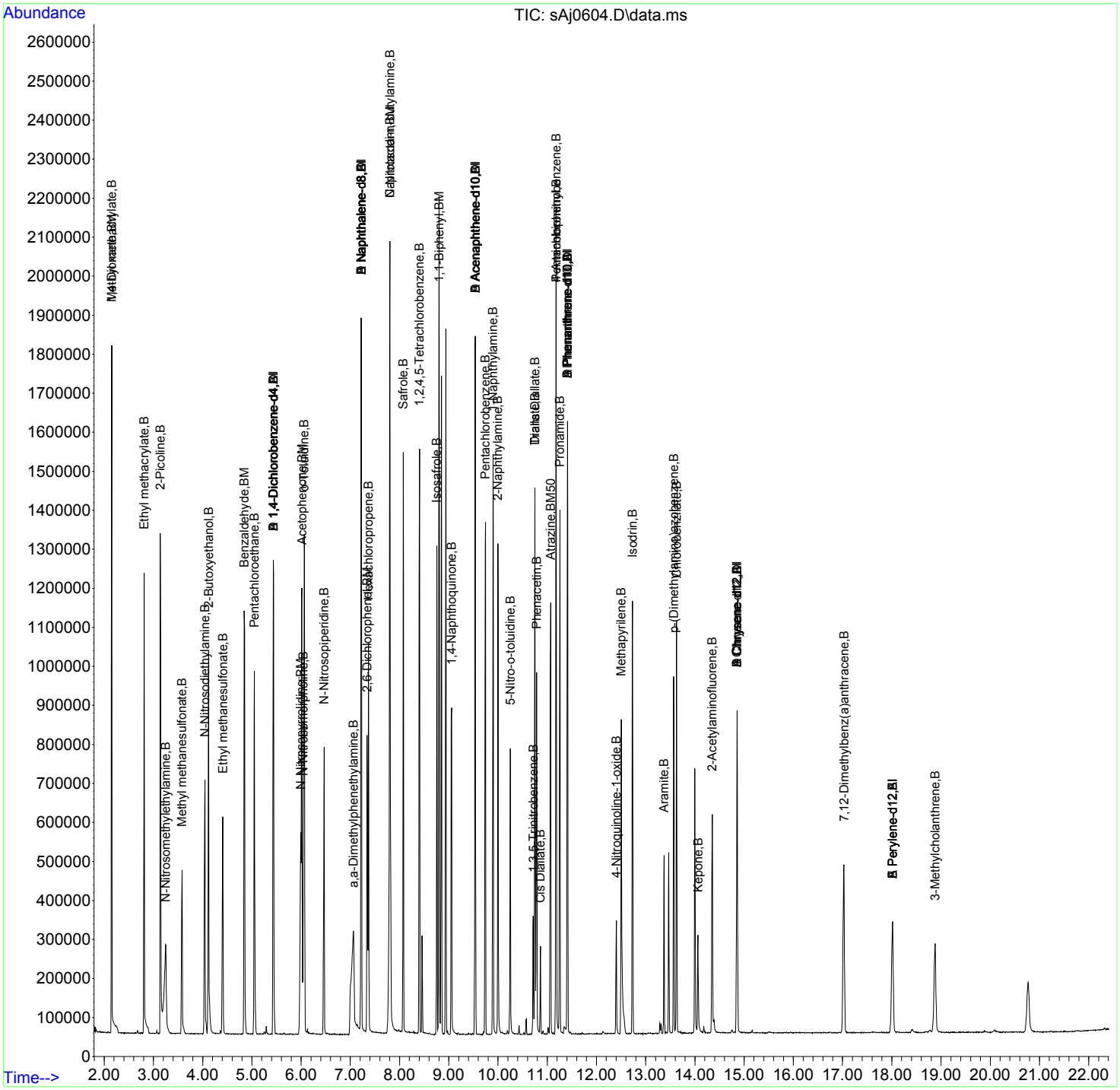
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117)	a,a-Dimethylphenethyla...	58	7.063	7.040	0.978	647716	29.44	ng/uL	90
118)	2,6-Dichlorophenol	162	7.340	7.340	1.016	167062	30.73	ng/uL	100
119)	Hexachloropropene	213	7.369	7.369	1.020	175977	55.76	ng/uL	100
120)	Caprolactam	113	7.804	7.799	1.081	73060	40.34	ng/uL	96
121)	N-Nitrosodi-n-butylamine	84	7.804	7.799	1.081	260309	45.78	ng/uL	97
122)	Safrole	162	8.075	8.075	1.118	223573	41.25	ng/uL	97
124)	1,2,4,5-Tetrachloroben...	216	8.404	8.404	0.881	283531	43.23	ng/uL	100
125)	1,1-Biphenyl	154	8.804	8.804	0.923	676292	42.32	ng/uL	99
126)	Isosafrole	162	8.757	8.757	0.918	214647	41.48	ng/uL	97
127)	1,4-Naphthoquinone	158	9.057	9.051	0.949	172770	39.47	ng/uL	96
128)	Pentachlorobenzene	250	9.745	9.746	1.022	233463	42.51	ng/uL	99
129)	1-Naphthylamine	143	9.898	9.898	1.038	478616	40.83	ng/uL	98
130)	2-Naphthylamine	143	9.998	9.998	1.048	450791	39.15	ng/uL	99
131)	5-Nitro-o-toluidine	152	10.251	10.246	1.075	121995	40.82	ng/uL	94
133)	1,3,5-Trinitrobenzene	75	10.716	10.704	0.939	88640	51.51	ng/uL	96
134)	Phenacetin	108	10.787	10.781	0.945	213152	42.38	ng/uL	97
135)	Diallate	86	10.751	10.751	0.942	218279	47.71	ng/uL	95
136)	Cis Diallate	86	10.863	10.863	0.952	35232	7.08	ng/uL	97
137)	Trans Diallate	86	10.751	10.751	0.942	218279	40.56	ng/uL	95
138)	Atrazine	200	11.069	11.063	0.970	133614	42.69	ng/uL	98
139)	4-Aminobiphenyl	169	11.181	11.175	0.980	462783	41.64	ng/uL	99
140)	Pentachloronitrobenzene	237	11.181	11.181	0.980	63491	45.26	ng/uL	97
141)	Pronamide	173	11.257	11.251	0.987	235301	45.09	ng/uL	99
142)	4-Nitroquinoline-1-oxide	190	12.404	12.398	1.087	29027	49.50	ng/uL#	72
143)	Methapyrilene	97	12.504	12.498	1.096	218156	49.54	ng/uL	99
144)	Isodrin	193	12.734	12.734	1.116	83943	47.03	ng/uL	97
146)	Aramite	185	13.375	13.375	0.900	34494	58.78	ng/uL	94
147)	Kepone	272	14.063	14.063	0.947	31749	26.80	ng/uL	98
148)	p-(Dimethylamino)azobe...	225	13.569	13.569	0.913	110518	41.28	ng/uL	98
149)	Chlorobenzilate	251	13.628	13.628	0.917	173696	48.94	ng/uL	88
150)	2-Acetylaminofluorene	181	14.351	14.345	0.966	165569	47.78	ng/uL	98
152)	7,12-Dimethylbenz(a)an...	256	17.027	17.022	0.945	169494	45.54	ng/uL	98
153)	3-Methylcholanthrene	269	18.880	18.874	1.048	29805	43.12	ng/uL	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0604.D
Acq On : 06 Oct 2017 09:29
Operator : JMB3
InstName : MSDA
Sample : |WBN171002-15.1|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Oct 06 11:34:12 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 09-OCT-17 14:57

Data File: 100917a.s\sAj0913.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN171002-15.2

Method: 100917a.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
Methyl methacrylate	0.2154	0.21106		.01		-2.01486	60		Averaged

Quantitation Report
GEL Laboratories, LLC

JMB 10/09/2017

JCB 10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0913.D
Acq On : 09 Oct 2017 14:57
Operator : JMB3
InstName : MSDA
Sample : |WBN171002-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 09 15:17:50 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	167504	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.304	7.304	1.000	612117	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.616	9.622	1.000	348126	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.498	11.492	1.000	600109	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.969	14.975	1.000	396218	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.210	18.204	1.000	275679	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	167504	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.304	7.304	1.000	612117	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.616	9.622	1.000	348126	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.498	11.492	1.000	600109	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.969	14.975	1.000	396218	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.210	18.204	1.000	275679	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.498	11.492	1.000	600109	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.969	14.975	1.000	396218	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	167504	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.304	7.304	1.000	612117	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.616	9.622	1.000	348126	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.498	11.492	1.000	600109	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.969	14.975	1.000	396218	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.304	7.304	1.000	612117	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.210	18.204	1.000	276457	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	0.000	3.840	0.000	0	0.00	ng/uL	
8) Phenol-d5	99	0.000	5.005	0.000	0	0.00	ng/uL	
25) Nitrobenzene-d5	82	0.000	6.316	0.000	0	0.00	ng/uL	
47) 2-Fluorobiphenyl	172	0.000	8.751	0.000	0	0.00	ng/uL	
66) 2,4,6-Tribromophenol	330	0.000	10.616	0.000	0	0.00	ng/uL	
83) p-Terphenyl-d14	244	0.000	13.475	0.000	0	0.00	ng/uL	

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
100) 1,4-Dioxane	88	2.228	2.187	0.403	75823	38.77	ng/uL	94
101) Methyl methacrylate	100	2.228	2.187	0.403	35353	39.19	ng/uL#	85
102) Ethyl methacrylate	69	2.893	2.856	0.523	163311	35.64	ng/uL	98
103) 2-Picoline	93	3.228	3.191	0.584	226779	36.28	ng/uL	99
104) N-Nitrosomethylethylamine	88	3.340	3.304	0.604	100983	39.49	ng/uL	98
105) Methyl methanesulfonate	80	3.669	3.639	0.664	107725	37.15	ng/uL	97
106) N-Nitrosodiethylamine	102	4.134	4.111	0.748	103409	39.48	ng/uL	96
107) 2-Butoxyethanol	57	4.210	4.189	0.762	319238	41.12	ng/uL	95
108) Ethyl methanesulfonate	79	4.499	4.482	0.814	171163	39.97	ng/uL	97
109) Benzaldehyde	77	4.940	4.924	0.894	180756	40.65	ng/uL	96
110) Pentachloroethane	167	5.140	5.134	0.930	94305	40.50	ng/uL	100
111) N-Nitrosopyrrolidine	100	6.087	6.090	1.101	116787	41.18	ng/uL	97
112) Acetophenone	105	6.105	6.108	1.104	324161	40.90	ng/uL	96
113) N-Nitrosomorpholine	56	6.140	6.144	1.111	164480	43.10	ng/uL	98
114) o-Toluidine	106	6.157	6.162	1.114	357054	40.52	ng/uL	99
116) N-Nitrosopiperidine	114	6.557	6.538	0.898	113851	41.16	ng/uL	95

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0913.D
Acq On : 09 Oct 2017 14:57
Operator : JMB3
InstName : MSDA
Sample : |WBN171002-15.2|CCV|1|SVM|1|A-CCV
Misc : |MIX[B]
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Oct 09 15:17:50 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
117)	a,a-Dimethylphenethyla...	58	7.122	7.114	0.975	777576	42.32	ng/uL	93
118)	2,6-Dichlorophenol	162	7.422	7.417	1.016	175232	42.08	ng/uL	100
119)	Hexachloropropene	213	7.452	7.447	1.020	123418	51.04	ng/uL	100
120)	Caprolactam	113	7.904	7.881	1.082	59104	42.59	ng/uL#	2
121)	N-Nitrosodi-n-butylamine	84	7.881	7.881	1.079	177305	40.70	ng/uL	92
122)	Safrole	162	8.157	8.160	1.117	174660	42.06	ng/uL	97
124)	1,2,4,5-Tetrachloroben...	216	8.487	8.477	0.883	216359	39.56	ng/uL	100
125)	1,1-Biphenyl	154	8.887	8.880	0.924	544645	40.87	ng/uL	100
126)	Isosafrole	162	8.840	8.833	0.919	176747	40.96	ng/uL	98
127)	1,4-Naphthoquinone	158	9.134	9.130	0.950	137014	37.54	ng/uL	95
128)	Pentachlorobenzene	250	9.822	9.830	1.021	192953	42.13	ng/uL	99
129)	1-Naphthylamine	143	9.981	9.984	1.038	443903	45.40	ng/uL	98
130)	2-Naphthylamine	143	10.081	10.085	1.048	434557	45.26	ng/uL	98
131)	5-Nitro-o-toluidine	152	10.334	10.334	1.075	125725	50.44	ng/uL	90
133)	1,3,5-Trinitrobenzene	75	10.793	10.782	0.939	82927	49.12	ng/uL	95
134)	Phenacetin	108	10.869	10.859	0.945	215906	43.75	ng/uL	97
135)	Diallate	86	10.828	10.829	0.942	178825	39.85	ng/uL	97
136)	Cis Diallate	86	10.940	10.942	0.951	29533	6.05	ng/uL	97
137)	Trans Diallate	86	10.828	10.829	0.942	178825	33.87	ng/uL	97
138)	Atrazine	200	11.145	11.143	0.969	119209	38.82	ng/uL	99
139)	4-Aminobiphenyl	169	11.263	11.256	0.980	490869	45.02	ng/uL	100
140)	Pentachloronitrobenzene	237	11.263	11.261	0.980	57690	41.92	ng/uL	100
141)	Pronamide	173	11.334	11.333	0.986	225964	44.14	ng/uL	99
142)	4-Nitroquinoline-1-oxide	190	12.487	12.488	1.086	35229	61.24	ng/uL#	56
143)	Methapyrilene	97	12.581	12.589	1.094	212577	49.20	ng/uL	99
144)	Isodrin	193	12.816	12.825	1.115	83008	47.40	ng/uL	98
146)	Aramite	185	13.451	13.475	0.899	34967	57.15	ng/uL	96
147)	Kepone	272	14.151	14.169	0.945	43888	35.53	ng/uL	99
148)	p-(Dimethylamino)azobe...	225	13.651	13.671	0.912	115010	41.20	ng/uL	97
149)	Chlorobenzilate	251	13.704	13.730	0.916	179651	48.55	ng/uL	89
150)	2-Acetylaminofluorene	181	14.451	14.453	0.965	159677	44.19	ng/uL	98
152)	7,12-Dimethylbenz(a)an...	256	17.198	17.199	0.944	184722	44.11	ng/uL	98
153)	3-Methylcholanthrene	269	19.098	19.072	1.049	33020	42.46	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0913.D
Acq On    : 09 Oct 2017  14:57
Operator  : JMB3
InstName  : MSDA
Sample    : |WBN171002-15.2|CCV|1|SVM|1|A-CCV
Misc      : |MIX[B]
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Oct 09 15:17:50 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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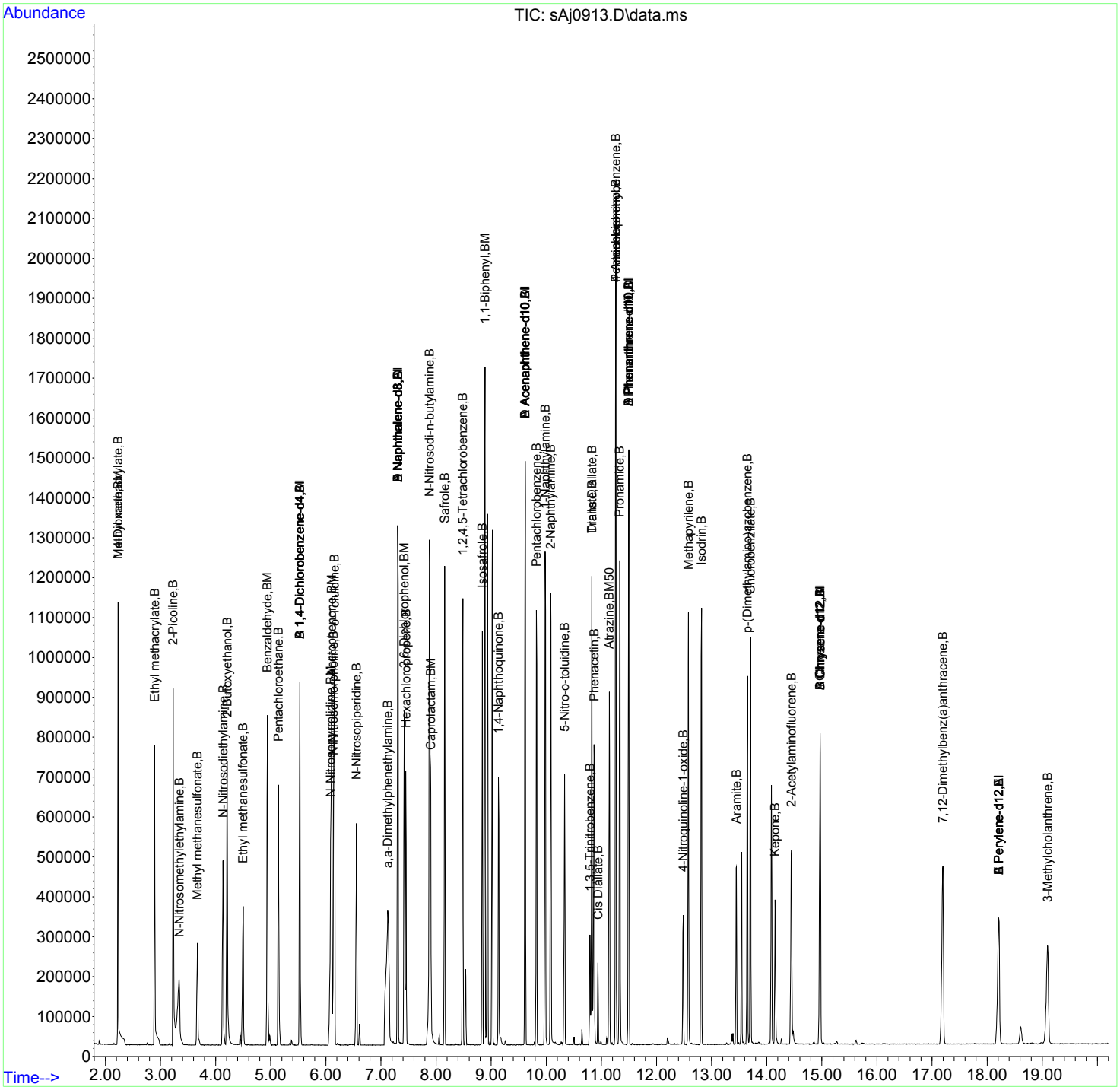

Continuing Calibration Summary

Client SDG: 433718

Instrument ID: MSDA.I

Injection Date: 09-OCT-17 15:22

Data File: 100917a.s\sAj0914.D

Init. Cal. Date(s) 15-SEP-17 10:40 - 15-SEP-17 19:44

Lab Sample ID WBN171003-05.1

Method: 100917a.s\MSDA_8270d_8270c_091517.m

Quant Type ISTD

Method Update: 18-SEP-17 09:10

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	2-Fluorophenol	1.2299	1.17928		.01		-4.11578	60		Averaged	
S	Phenol-d5	1.5381	1.47105		.01		-4.35927	60		Averaged	
S	Nitrobenzene-d5	0.3944	0.36459		.01		-7.55832	60		Averaged	
S	2-Fluorobiphenyl	1.4886	1.35507		.01		-8.97017	60		Averaged	
S	2,4,6-Tribromophenol	0.1607	0.19176		.01		19.32794	60		Averaged	
S	p-Terphenyl-d14	1.0572	0.99711		.01		-5.68388	60		Averaged	
	Naphthalene	1.0827	1.06534		.7		-1.6034	60		Averaged	
	2-Methylnaphthalene	0.6993	0.72645		.4		3.88245	60		Averaged	
	1-Methylnaphthalene	0.6534	0.67799		.01		3.76339	60		Averaged	
	2-Chloronaphthalene	1.2491	1.14914		.8		-8.00256	60		Averaged	
	Acenaphthene	1.0741	1.04964		.9		-2.27726	20		Averaged	CCC
	Fluorene	1.2561	1.29601		.9		3.17729	60		Averaged	
	Phenanthrene	1.1097	1.06613		.7		-3.92629	60		Averaged	
	Anthracene	1.1252	1.09561		.7		-2.62975	60		Averaged	
	Carbazole	0.8805	0.8847		.01		0.477	60		Averaged	
	Fluoranthene	0.9984	1.09664		.6		9.83974	20		Averaged	CCC
	Pyrene	1.7148	1.55762		.6		-9.16608	60		Averaged	
	Benzo(a)anthracene	1.2592	1.20643		.8		-4.19076	60		Averaged	
	bis(2-Ethylhexyl)phthalate	0.9141	1.08801		.01		19.02527	60		Averaged	
	Chrysene	1.1561	1.10017		.7		-4.83782	60		Averaged	
	Benzo(b)fluoranthene	1.2784	1.22706		.7		-4.01596	60		Averaged	
	Benzo(k)fluoranthene	1.243	1.21545		.7		-2.21641	60		Averaged	
	Benzo(a)pyrene	1.1115	1.08319		.7		-2.54701	20		Averaged	CCC
	Indeno(1,2,3-cd)pyrene	0.7737	0.77648		.5		0.35931	60		Averaged	
	Dibenzo(a,h)anthracene	0.7755	0.76828		.4		-0.93101	60		Averaged	
	Benzo(ghi)perylene	0.8289	0.82575		.5		-0.38002	60		Averaged	

Quantitation Report
GEL Laboratories, LLC

JMB
10/09/2017

JCB
10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0914.D
Acq On : 09 Oct 2017 15:22
Operator : JMB3
InstName : MSDA
Sample : |WBN171003-05.1|CCV|1|SVM|1|M-CCV
Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Oct 09 15:52:57 2017
Quant Method : D:\MSDChem\1\data\100917a.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	114377	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.304	7.304	1.000	418785	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.622	9.622	1.000	239041	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.492	11.492	1.000	402672	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.975	14.975	1.000	287820	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.204	18.204	1.000	219763	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	114377	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.304	7.304	1.000	418785	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.622	9.622	1.000	239041	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.492	11.492	1.000	402672	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.975	14.975	1.000	287820	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.204	18.204	1.000	219763	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.492	11.492	1.000	402672	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.975	14.975	1.000	287820	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.528	5.528	1.000	114377	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.304	7.304	1.000	418785	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.622	9.622	1.000	239041	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.492	11.492	1.000	402672	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.975	14.975	1.000	287820	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.304	7.304	1.000	418785	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.204	18.204	1.000	219763	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.840	3.840	0.695	134883	38.35	ng/uL	0.00
8) Phenol-d5	99	4.999	5.005	0.904	168254	38.26	ng/uL	0.00
25) Nitrobenzene-d5	82	6.310	6.316	0.864	152686	36.98	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.751	8.751	0.910	323918	36.41	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.616	10.616	1.103	45839	47.73	ng/uL	0.00
83) p-Terphenyl-d14	244	13.469	13.475	0.899	286987	37.73	ng/uL	0.00

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) 2-Ethoxyethanol	59	2.240	2.240	0.405	102440	42.57	ng/uL	88
3) N-Methyl-N-nitrosometh...	74	2.505	2.505	0.453	86888	38.46	ng/uL	88
4) Pyridine	79	2.534	2.540	0.458	136272	34.44	ng/uL	95
6) p-Benzoquinone	54	4.446	4.452	0.804	80001	36.24	ng/uL	98
7) Aniline	93	5.075	5.075	0.918	205224	37.94	ng/uL	99
9) Phenol	94	5.016	5.022	0.907	176662	38.43	ng/uL	97
10) bis(2-Chloroethyl) ether	93	5.158	5.158	0.933	142287	38.32	ng/uL	95
11) 2-Chlorophenol	128	5.234	5.234	0.947	152423	39.58	ng/uL	99
12) n-Decane	43	5.293	5.293	0.957	219933	37.59	ng/uL	87
13) 1,3-Dichlorobenzene	146	5.446	5.446	0.985	173358	39.32	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.552	5.552	1.004	174847	39.27	ng/uL	98
15) 1,2-Dichlorobenzene	146	5.763	5.763	1.043	167450	39.72	ng/uL	98
16) bis(2-Chloro-1-methyle...	45	5.916	5.922	1.070	283511	39.27	ng/uL	99
17) Benzyl alcohol	108	5.716	5.722	1.034	96332	39.07	ng/uL	93
18) o-Cresol	107	5.869	5.869	1.062	119078	38.94	ng/uL	96
19) m,p-Cresols	107	6.099	6.105	1.103	156607	39.36	ng/uL	98

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InstName : MSDA
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Misc : |MIX[A]
ALS Vial : 2 Sample Multiplier: 1

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Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
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	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
20)	N-Nitrosodipropylamine	70	6.110	6.116	1.105	106948	38.69	ng/uL	100
21)	p-Toluidine	106	6.157	6.163	1.114	199883	39.79	ng/uL	99
22)	m-Toluidine	106	6.210	6.210	1.123	187079	41.34	ng/uL	99
23)	Hexachloroethane	117	6.240	6.240	1.129	66033	39.02	ng/uL	99
26)	Nitrobenzene	77	6.340	6.346	0.868	150663	36.31	ng/uL	94
27)	Isophorone	82	6.681	6.681	0.915	276647	38.59	ng/uL	98
28)	2-Nitrophenol	139	6.781	6.781	0.928	76307	44.65	ng/uL	94
29)	2,4-Dimethylphenol	122	6.840	6.846	0.936	132230	39.52	ng/uL	96
30)	bis(2-Chloroethoxy)met...	93	6.981	6.981	0.956	181724	39.05	ng/uL	99
31)	2,4-Dichlorophenol	162	7.110	7.116	0.973	125996	39.64	ng/uL	99
32)	Benzoic acid	105	6.999	7.004	0.958	65816	38.87	ng/uL	97
33)	1,2,4-Trichlorobenzene	180	7.228	7.228	0.990	139442	38.31	ng/uL	100
34)	alpha-Terpineol	59	7.352	7.357	1.006	174329	44.78	ng/uL	91
35)	Naphthalene	128	7.334	7.334	1.004	446148	39.36	ng/uL	100
36)	4-Chloroaniline	127	7.410	7.410	1.014	155795	41.72	ng/uL	97
37)	Hexachlorobutadiene	225	7.504	7.504	1.027	83645	38.62	ng/uL	99
38)	4-Chloro-3-methylphenol	107	8.063	8.063	1.104	124665	40.06	ng/uL	97
39)	2-Methylnaphthalene	142	8.263	8.263	1.131	304227	41.55	ng/uL	100
40)	Phthalic anhydride	104	8.340	8.346	1.142	54202	32.14	ng/uL	92
41)	1-Methylnaphthalene	142	8.393	8.399	1.149	283934	41.50	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.469	8.469	0.880	75492	32.45	ng/uL	99
44)	2,3-Dichloroaniline	161	8.634	8.634	0.897	144263	41.82	ng/uL	99
45)	2,4,6-Trichlorophenol	196	8.634	8.634	0.897	89846	37.15	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.681	8.681	0.902	92461	37.55	ng/uL	97
48)	2-Chloronaphthalene	162	8.904	8.904	0.925	274692	36.80	ng/uL	100
49)	o-Nitroaniline	65	9.034	9.040	0.939	85836	41.76	ng/uL	97
50)	1,4-Dinitrobenzene	168	9.222	9.222	0.958	43824	49.68	ng/uL	86
51)	m-Nitroaniline	138	9.569	9.569	0.994	59459	45.77	ng/uL	92
52)	Dimethylphthalate	163	9.287	9.293	0.965	325007	41.11	ng/uL	100
53)	m-Dinitrobenzene	168	9.316	9.322	0.968	48669	46.93	ng/uL	90
54)	2,6-Dinitrotoluene	165	9.357	9.363	0.972	72553	42.86	ng/uL	94
55)	2,4-Dinitrotoluene	165	9.869	9.869	1.026	93509	47.65	ng/uL	89
56)	Acenaphthylene	152	9.440	9.440	0.981	449565	39.08	ng/uL	99
57)	Acenaphthene	154	9.663	9.663	1.004	250908	39.09	ng/uL	100
58)	2,4-Dinitrophenol	184	9.698	9.698	1.008	24131	61.89	ng/uL	90
59)	Dibenzofuran	168	9.881	9.881	1.027	388756	39.91	ng/uL	98
60)	2,3,4,6-Tetrachlorophenol	232	10.028	10.034	1.042	76656	44.01	ng/uL	97
61)	Diethylphthalate	149	10.181	10.181	1.058	329529	44.12	ng/uL	99
62)	4-Nitrophenol	139	9.781	9.787	1.017	48856	48.69	ng/uL	90
63)	Fluorene	166	10.316	10.316	1.072	309800	41.27	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.316	10.316	1.072	149154	41.93	ng/uL	98
65)	p-Nitroaniline	138	10.345	10.345	1.075	62883	50.49	ng/uL	90
68)	2-Methyl-4,6-dinitroph...	198	10.375	10.381	0.903	38120	51.12	ng/uL	92
69)	Diphenylamine	169	10.469	10.469	0.911	261857	35.19	ng/uL	99
70)	1,2-Diphenylhydrazine	77	10.516	10.516	0.915	302104	32.72	ng/uL	97
71)	4-Bromophenylphenylether	248	10.928	10.934	0.951	92084	36.53	ng/uL	98
72)	Hexachlorobenzene	284	10.998	10.998	0.957	101489	38.22	ng/uL	99
73)	Pentachlorophenol	266	11.245	11.245	0.979	47444	42.17	ng/uL	98
74)	n-Octadecane	57	11.357	11.357	0.988	318254	39.49	ng/uL	91

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Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
75)	Dinoseb	211	11.475	11.475	0.998	57899	59.49	ng/uL	96
76)	Phenanthrene	178	11.522	11.522	1.003	429300	38.43	ng/uL	100
77)	Anthracene	178	11.587	11.587	1.008	441172	38.95	ng/uL	100
78)	Carbazole	167	11.787	11.787	1.026	356242	40.19	ng/uL	100
79)	Di-n-butylphthalate	149	12.216	12.216	1.063	539845	46.69	ng/uL	100
80)	Fluoranthene	202	12.998	12.998	1.131	441587	43.93	ng/uL	99
82)	Pyrene	202	13.281	13.281	0.887	448315	36.33	ng/uL	98
84)	Butylbenzylphthalate	149	14.098	14.104	0.941	212371	46.32	ng/uL	96
85)	bis(2-Ethylhexyl)phtha...	149	15.004	15.010	1.002	313151	47.61	ng/uL	99
86)	Benzo(a)anthracene	228	14.951	14.951	0.998	347235	38.32	ng/uL	99
87)	Chrysene	228	15.016	15.016	1.003	316650	38.07	ng/uL	99
88)	Methoxychlor	227	14.845	14.851	0.991	239048	50.07	ng/uL	97
89)	Methylenebis(2-chloroa...	231	14.916	14.922	0.996	55636	39.54	ng/uL	99
90)	Di-n-octylphthalate	149	16.351	16.357	1.092	449375	47.28	ng/uL	98
92)	Benzo(b)fluoranthene	252	17.198	17.198	0.945	269662	38.39	ng/uL	99
93)	Benzo(k)fluoranthene	252	17.269	17.269	0.949	267110	39.11	ng/uL	98
94)	Benzo(a)pyrene	252	18.045	18.051	0.991	238045	38.98	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.563	21.557	1.185	170641	40.15	ng/uL	98
96)	Dibenzo(a,h)anthracene	278	21.663	21.663	1.190	168840	39.63	ng/uL	98
97)	Benzo(ghi)perylene	276	22.251	22.251	1.222	181470	39.85	ng/uL	97
98)	Dibenzo(a,e)pyrene	302	26.292	26.292	1.444	101316	35.20	ng/uL	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

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Misc      : |MIX[A]
ALS Vial  : 2   Sample Multiplier: 1

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Quant Title  : BNA01                                        SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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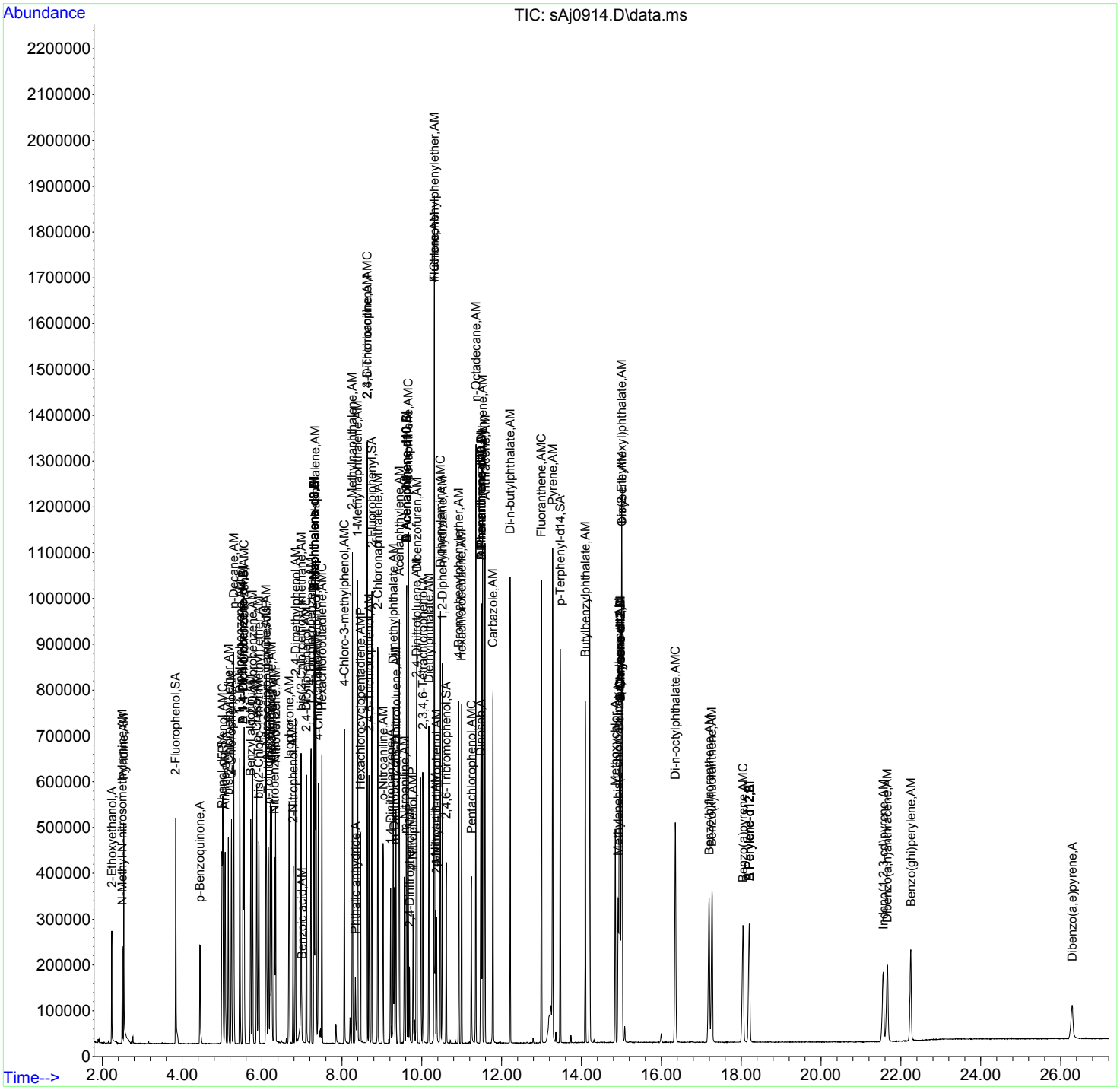


Quality Control Data

DFTPP Tune Report
GEL Laboratories, LLC

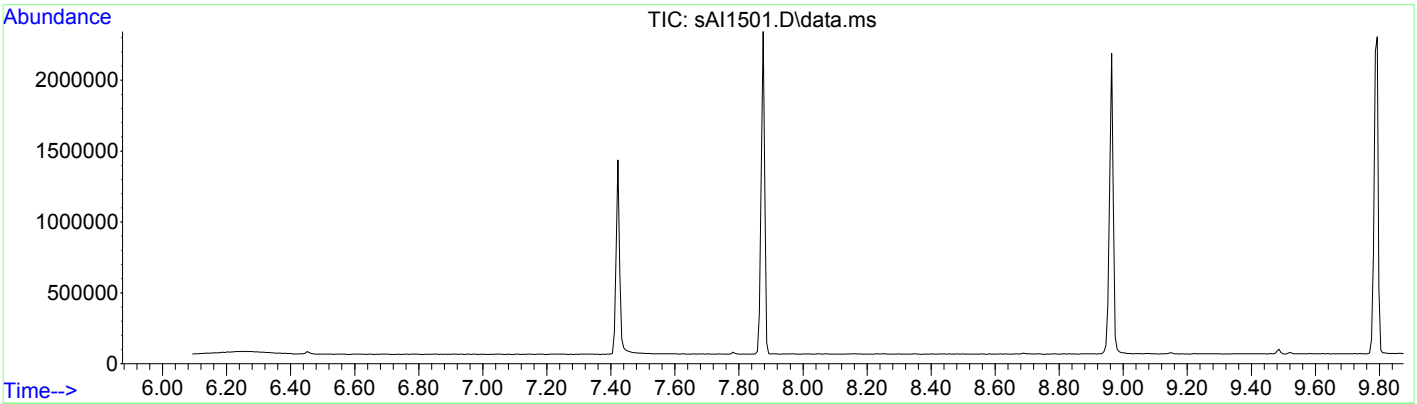
JMB
09/15/2017

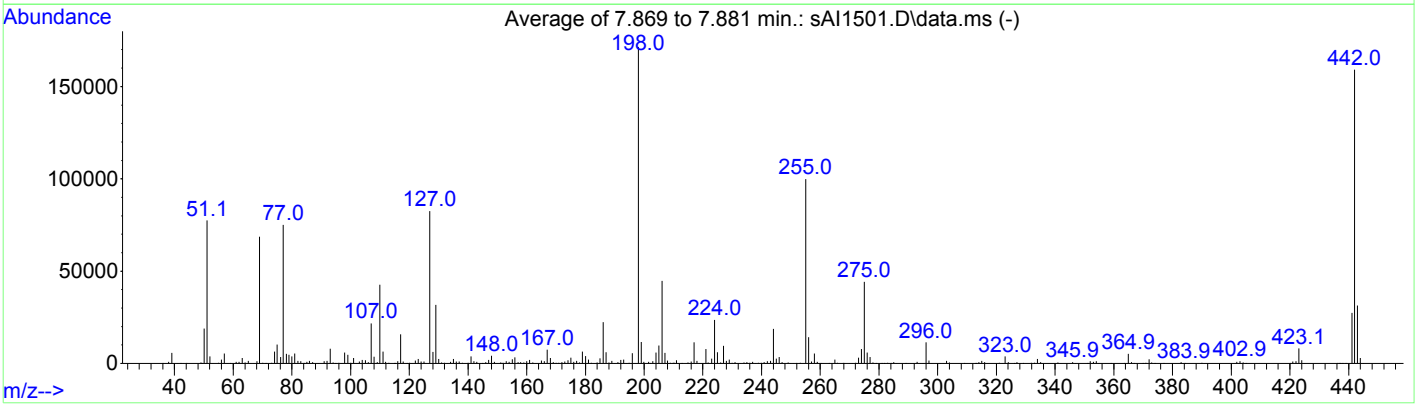
JCB
09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1501.D
Acq On : 15 Sep 2017 08:47
Operator : JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Mon Jun 30 12:02:26 2014





AutoFind: Scans 303, 304, 305; Background Corrected with Scan 298

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	45.2	77424	PASS
68	69	0.00	2	1.7	1173	PASS
69	198	0.00	100	40.0	68604	PASS
70	69	0.00	2	0.6	410	PASS
127	198	40	60	48.1	82499	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	171395	PASS
199	198	5	9	6.7	11539	PASS
275	198	10	30	25.8	44144	PASS
365	198	1	100	3.0	5202	PASS
441	443	0.01	100	87.6	27443	PASS
442	198	40	100	92.9	159189	PASS
443	442	17	23	19.7	31314	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

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InstName : MSDA
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 15 13:40:21 2017
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Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.875	7.881	1.000	1751126	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.875	7.869	1.000	1751126	5.00	ug/ml#	1
3) Pentachlorophenol	266	7.422	7.428	0.942	131659	4.48	ug/ml	100
4) Benzidine	184	8.963	8.969	1.138	725004	9.01	ug/ml	98
5) DDE	246	9.152	9.158	1.162	1138	7.10	ug/ml	82
6) DDD	235	9.487	9.493	1.205	4722	1.58	ug/ml	75
7) DDT	235	9.793	9.799	1.243	364883	5.50	ug/ml	87

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Misc :
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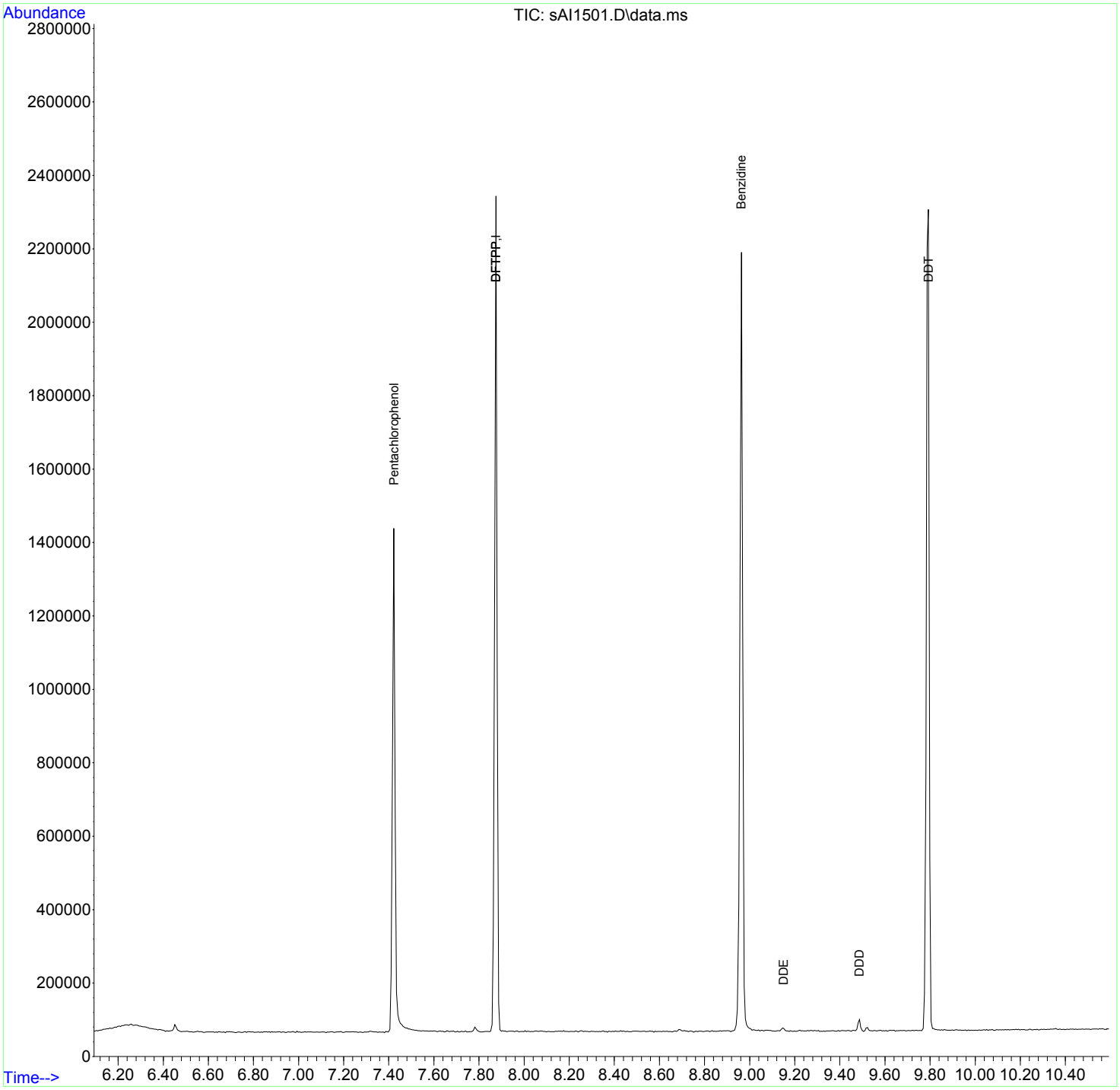
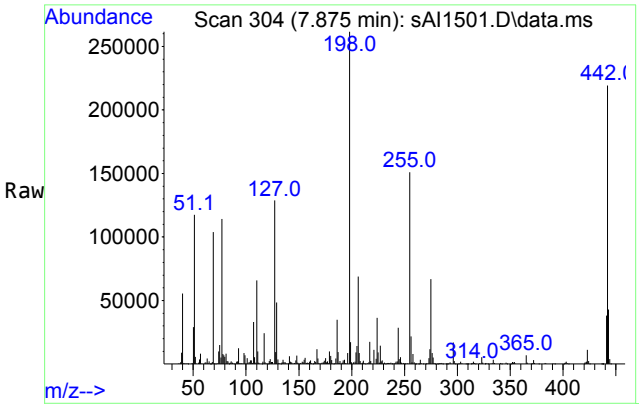
Quant Time: Sep 15 13:40:21 2017
Quant Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

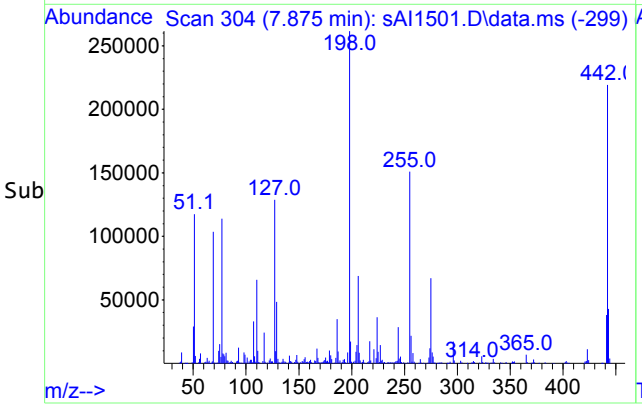


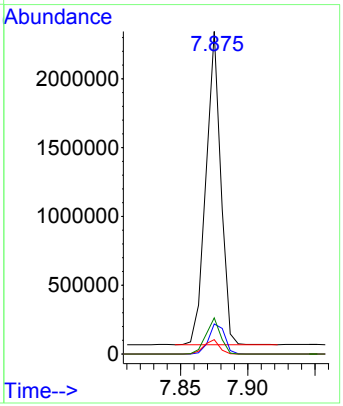


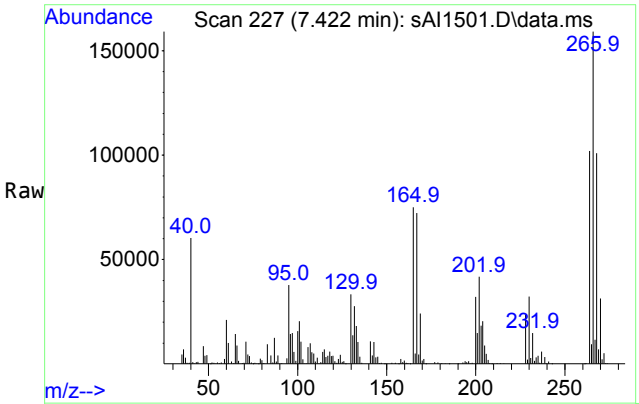
#2
DFTPP
Concen: 5.00 ug/ml
RT: 7.875 min Scan# 304
Delta R.T. 0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:TIC Resp: 1751126

Ion	Ratio	Lower	Upper
TIC	100		
442	10.3	766.5	806.5#
69	4.6	379.1	419.1#
198	11.2	1434.0	1474.0#



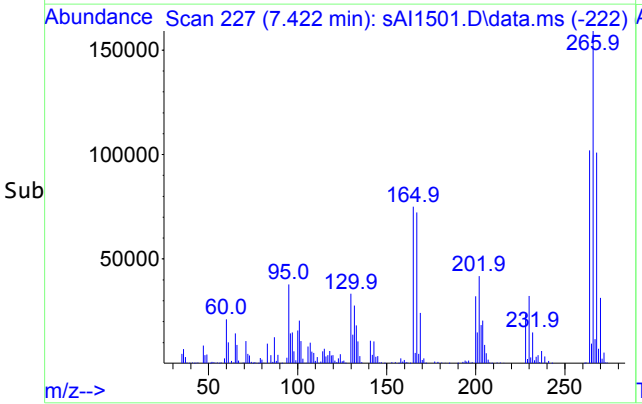


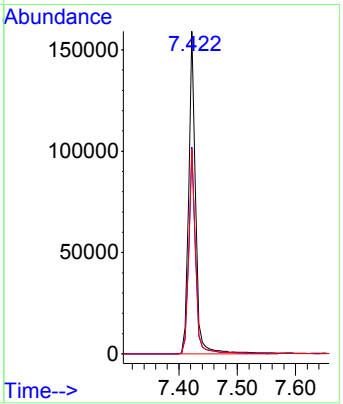


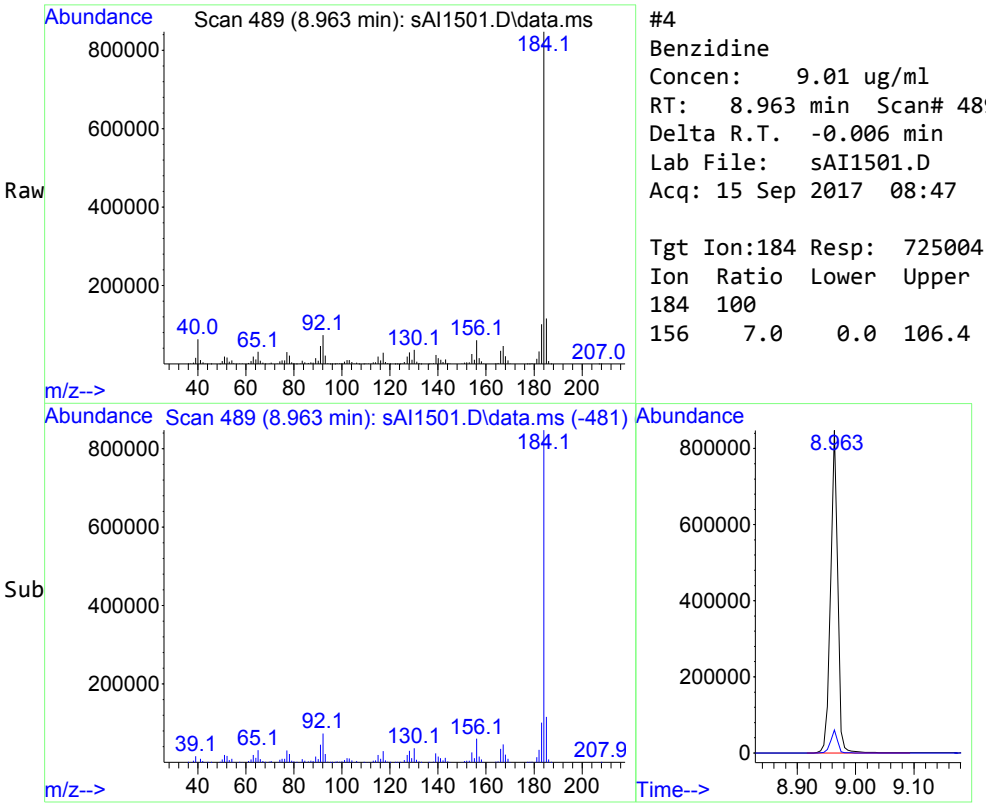
#3
Pentachlorophenol
Concen: 4.48 ug/ml
RT: 7.422 min Scan# 227
Delta R.T. -0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:266 Resp: 131659

Ion	Ratio	Lower	Upper
266	100		
264	63.0	0.0	163.0
268	62.4	0.0	161.7



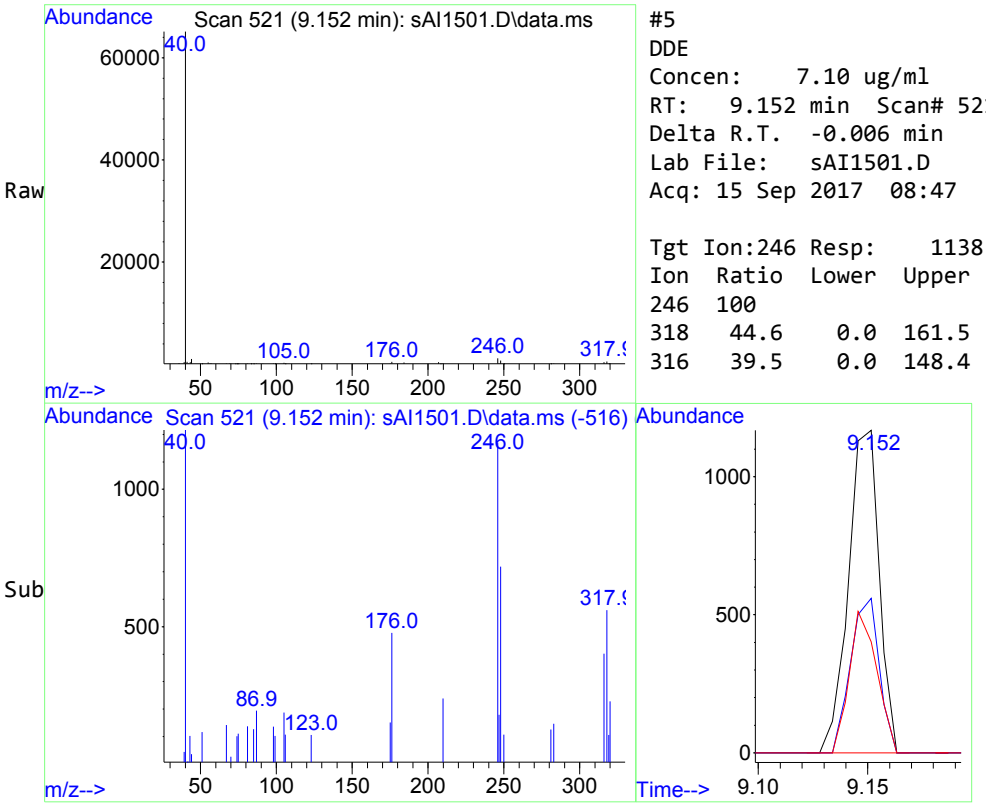




#4
Benzidine
Concen: 9.01 ug/ml
RT: 8.963 min Scan# 489
Delta R.T. -0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:184 Resp: 725004

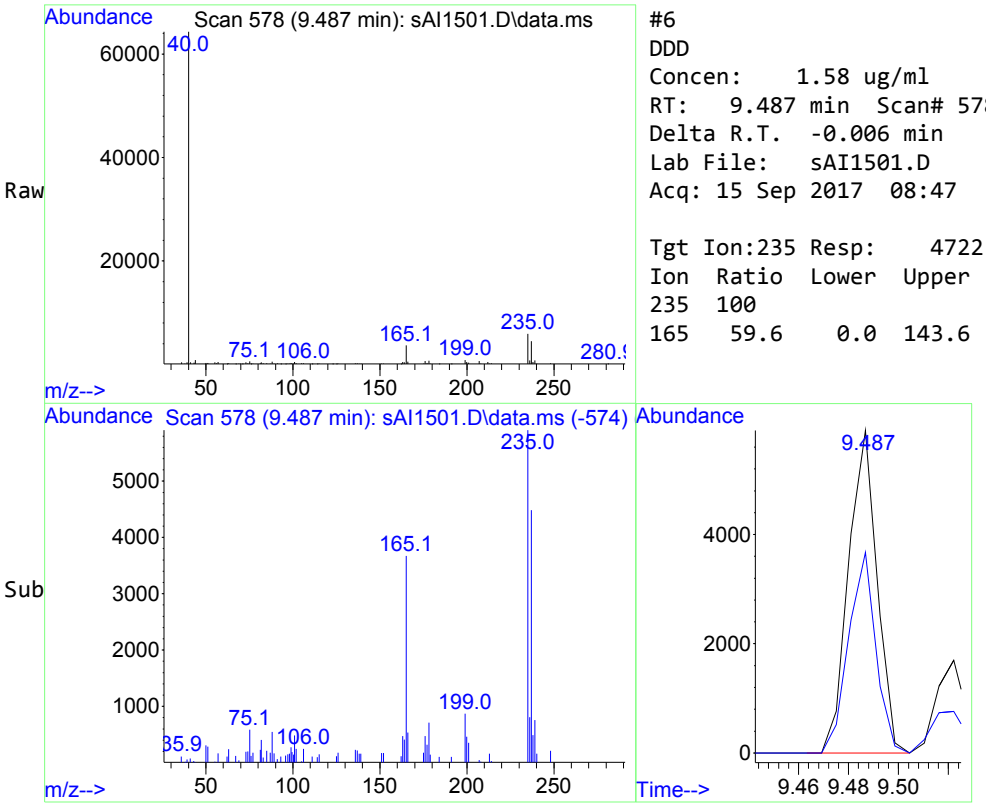
Ion	Ratio	Lower	Upper
184	100		
156	7.0	0.0	106.4



#5
DDE
Concen: 7.10 ug/ml
RT: 9.152 min Scan# 521
Delta R.T. -0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:246 Resp: 1138

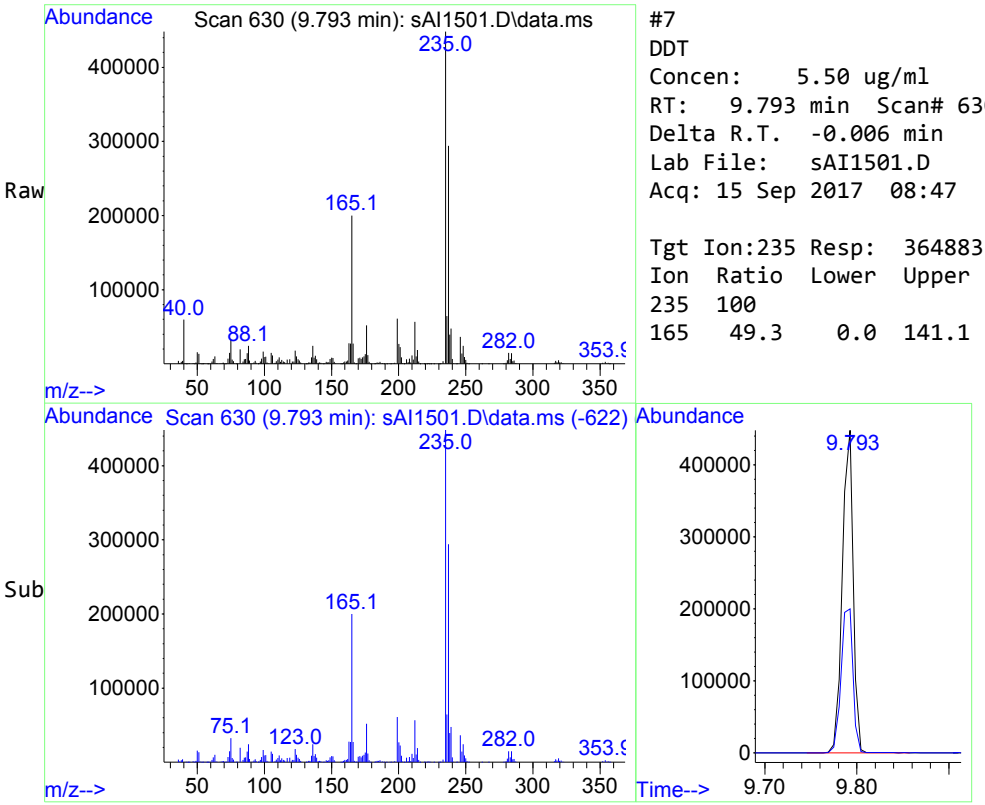
Ion	Ratio	Lower	Upper
246	100		
318	44.6	0.0	161.5
316	39.5	0.0	148.4



#6
DDD
Concen: 1.58 ug/ml
RT: 9.487 min Scan# 578
Delta R.T. -0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:235 Resp: 4722

Ion	Ratio	Lower	Upper
235	100		
165	59.6	0.0	143.6



#7
DDT
Concen: 5.50 ug/ml
RT: 9.793 min Scan# 630
Delta R.T. -0.006 min
Lab File: sAI1501.D
Acq: 15 Sep 2017 08:47

Tgt Ion:235 Resp: 364883

Ion	Ratio	Lower	Upper
235	100		
165	49.3	0.0	141.1

8270 Breakdown Report

JMB
09/15/2017

Data File : D:\MSDChem\1\data\091517.s\sAI1501.D Vial: 1
Acq On : 15 Sep 2017 08:47 Operator: JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP| Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

JCB
09/18/2017

Compounds	Area/%Breakdown	8270C	8270D
DDE	1138		
DDD	4722		
DDT	364883		
Breakdown	1.58%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.82	Pass(<3)	Pass(<2)
Pentachlorophenol	1.02	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

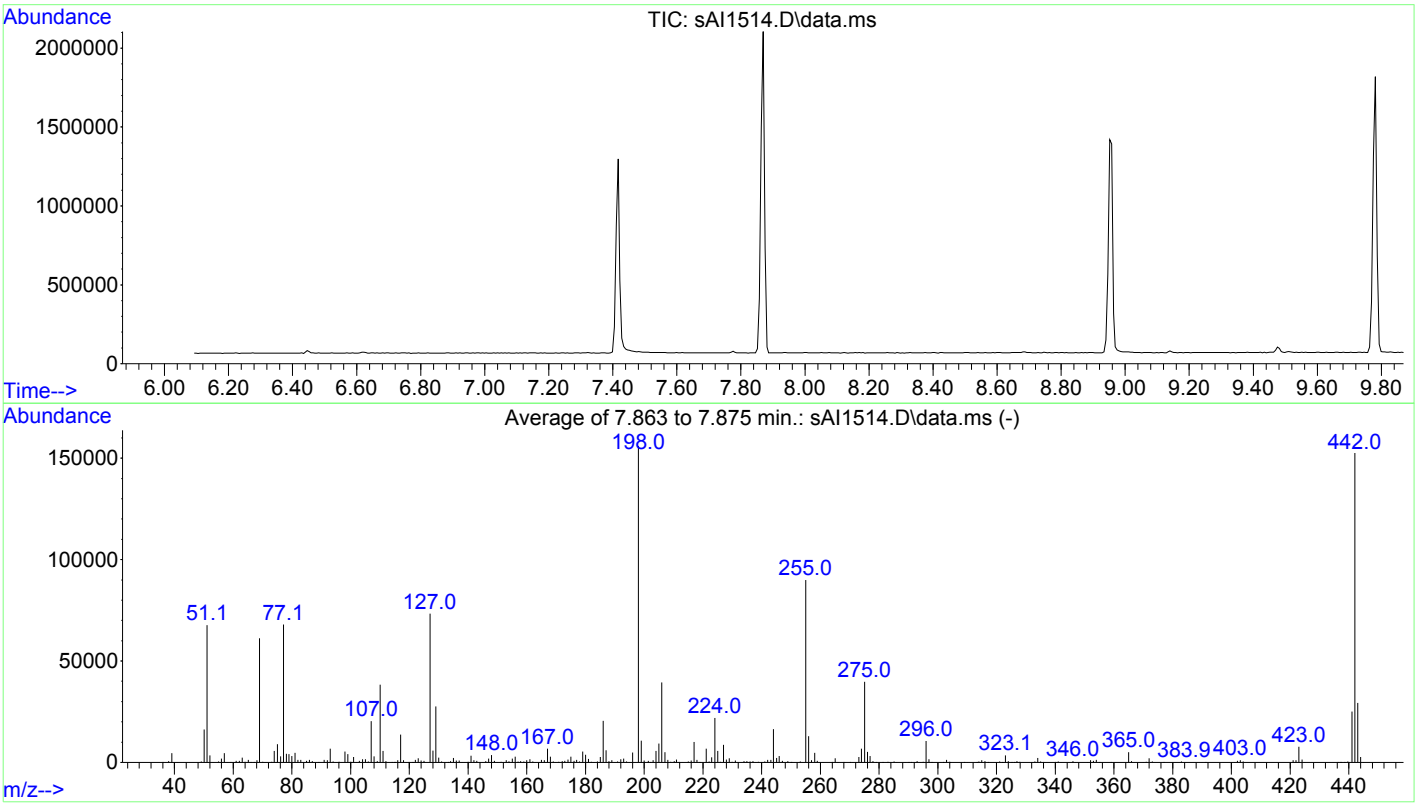
JMB
09/15/2017

JCB
09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1514.D
Acq On : 15 Sep 2017 15:56
Operator : JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Mon Jun 30 12:02:26 2014



AutoFind: Scans 302, 303, 304; Background Corrected with Scan 297

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.4	67672	PASS
68	69	0.00	2	1.9	1134	PASS
69	198	0.00	100	39.2	61172	PASS
70	69	0.00	2	0.6	381	PASS
127	198	40	60	47.0	73320	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	155957	PASS
199	198	5	9	6.8	10682	PASS
275	198	10	30	25.5	39731	PASS
365	198	1	100	3.2	5013	PASS
441	443	0.01	100	85.6	25045	PASS
442	198	40	100	97.8	152603	PASS
443	442	17	23	19.2	29272	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
09/15/2017

JCB
09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1514.D
Acq On : 15 Sep 2017 15:56
Operator : JMB3
InstName : MSDA
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 15 16:07:30 2017
Quant Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

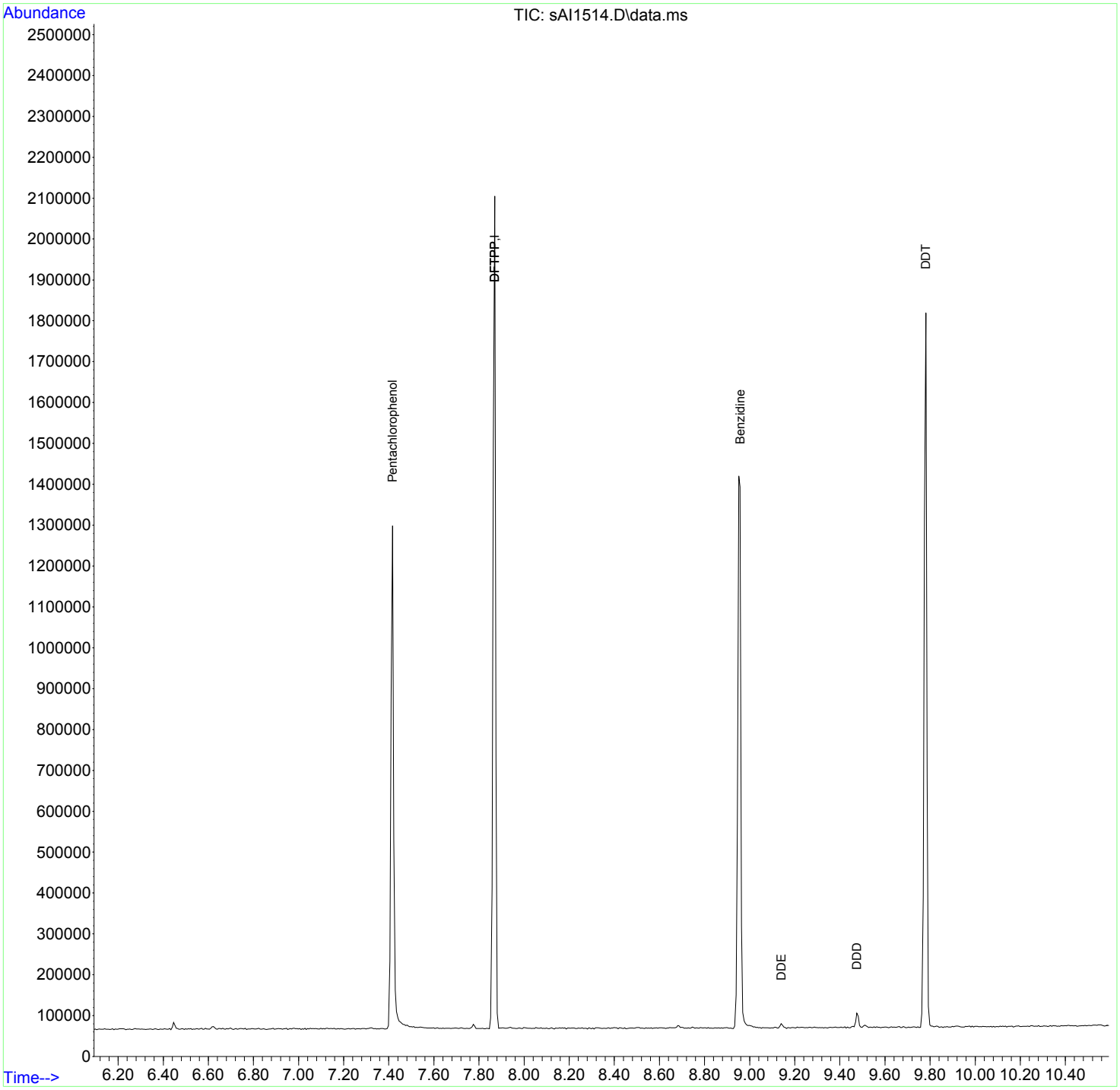
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.869	7.881	1.000	1603474	5.00	ug/ml	#-0.01
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.869	7.869	1.000	1603474	5.00	ug/ml#	1
3) Pentachlorophenol	266	7.416	7.428	0.942	120639	4.48	ug/ml	99
4) Benzidine	184	8.957	8.969	1.138	513772	6.98	ug/ml	98
5) DDE	246	9.140	9.158	1.161	1338	9.12	ug/ml	76
6) DDD	235	9.475	9.493	1.204	5656	2.06	ug/ml	84
7) DDT	235	9.781	9.799	1.243	268567	4.42	ug/ml	87

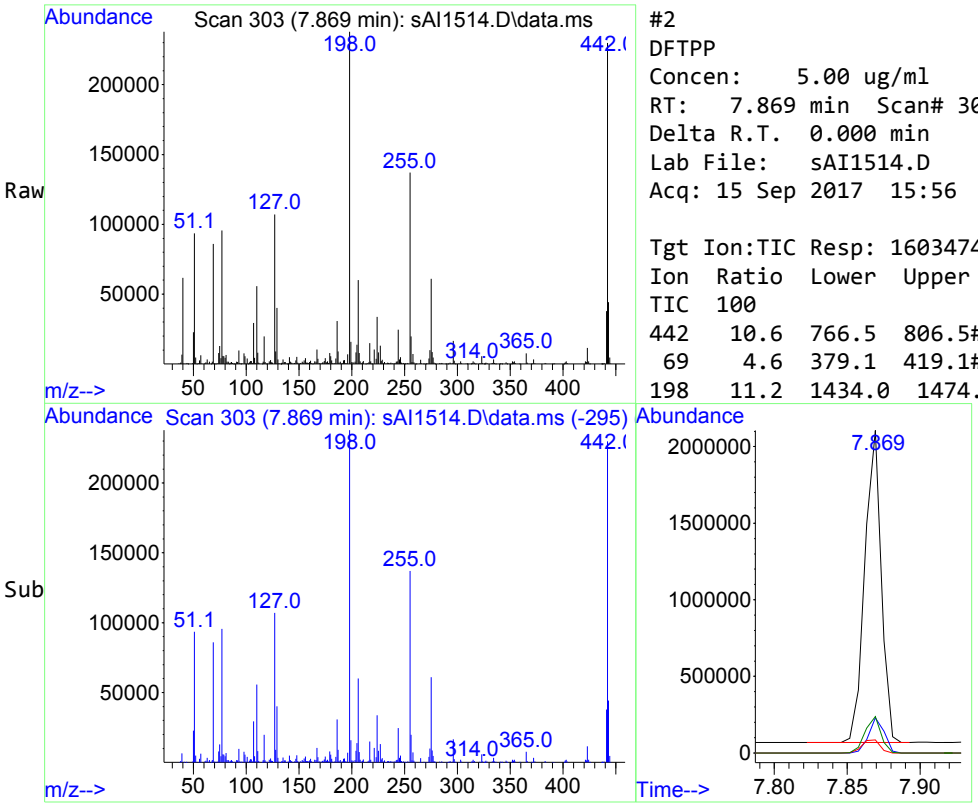
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1514.D
Acq On : 15 Sep 2017 15:56
Operator : JMB3
InstName : MSDA
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 15 16:07:30 2017
Quant Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

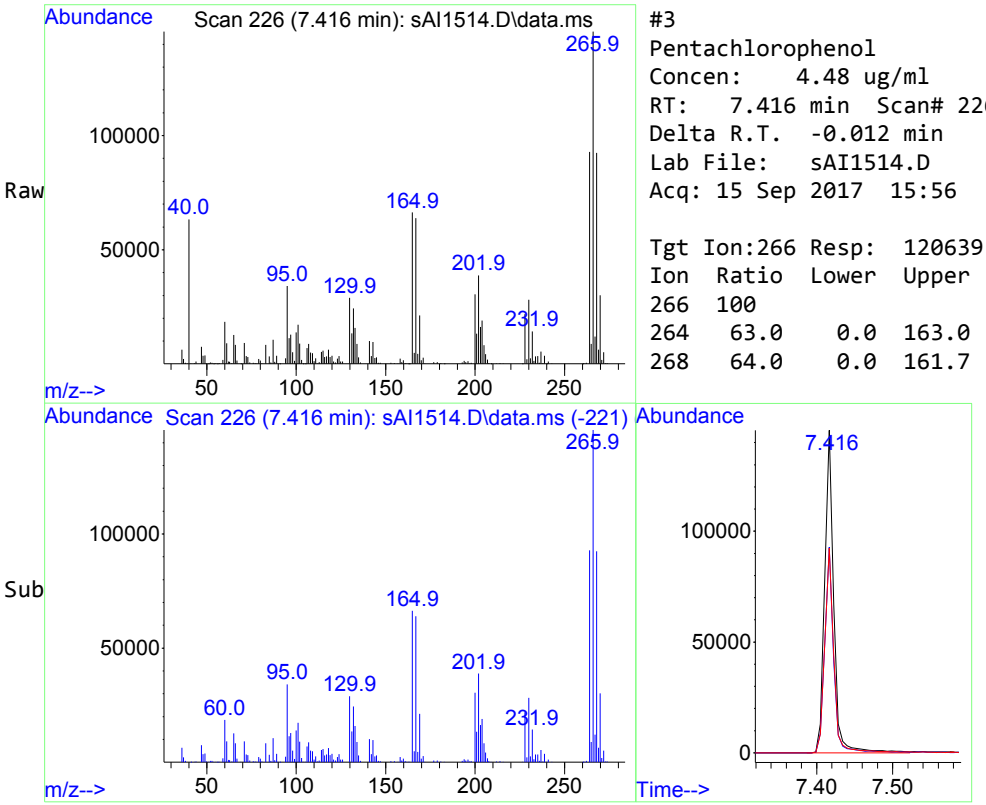




#2
DFTPP
Concen: 5.00 ug/ml
RT: 7.869 min Scan# 303
Delta R.T. 0.000 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:TIC Resp: 1603474

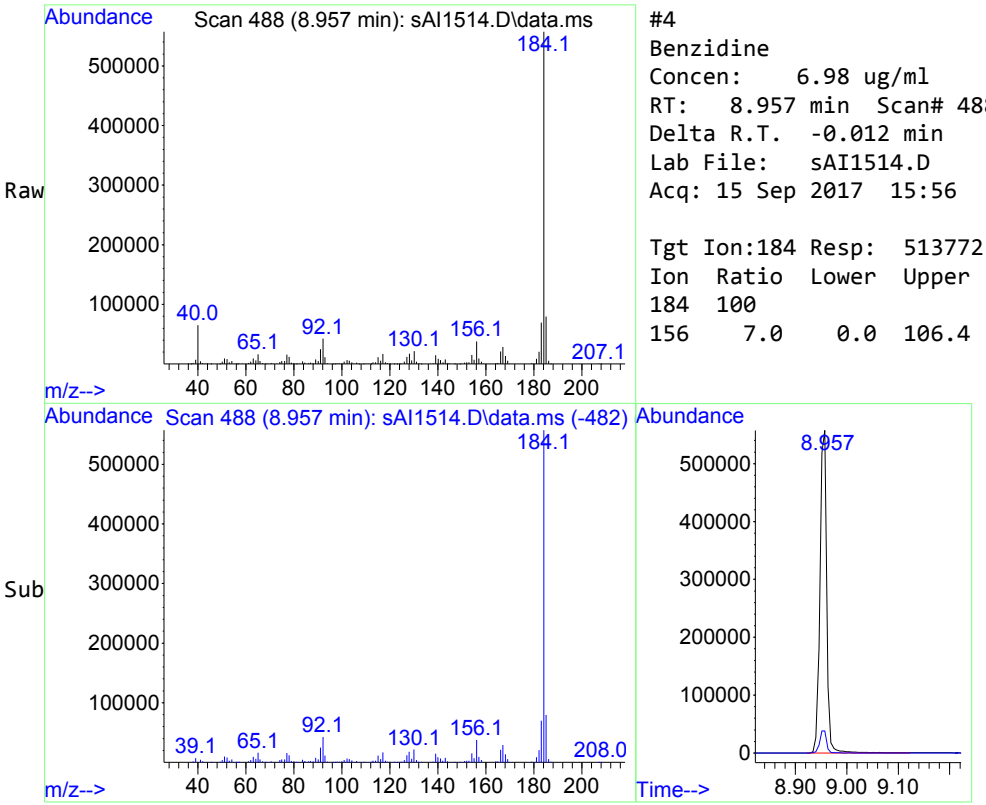
Ion	Ratio	Lower	Upper
TIC	100		
442	10.6	766.5	806.5#
69	4.6	379.1	419.1#
198	11.2	1434.0	1474.0#



#3
Pentachlorophenol
Concen: 4.48 ug/ml
RT: 7.416 min Scan# 226
Delta R.T. -0.012 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:266 Resp: 120639

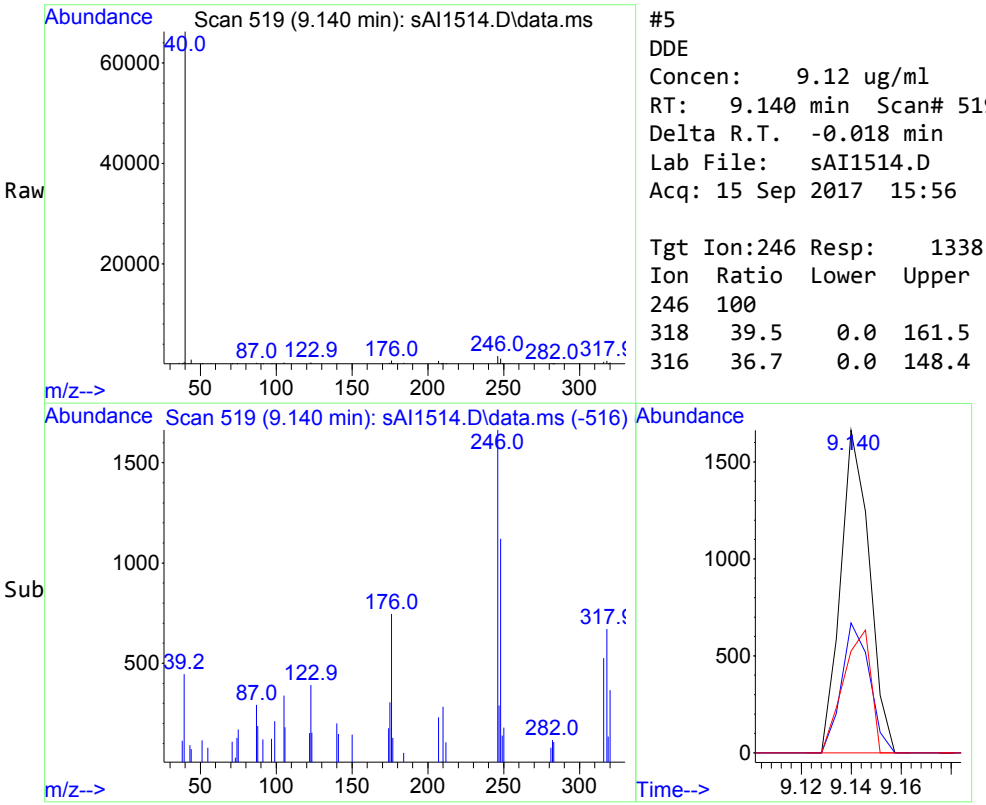
Ion	Ratio	Lower	Upper
266	100		
264	63.0	0.0	163.0
268	64.0	0.0	161.7



#4
Benzidine
Concen: 6.98 ug/ml
RT: 8.957 min Scan# 488
Delta R.T. -0.012 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:184 Resp: 513772

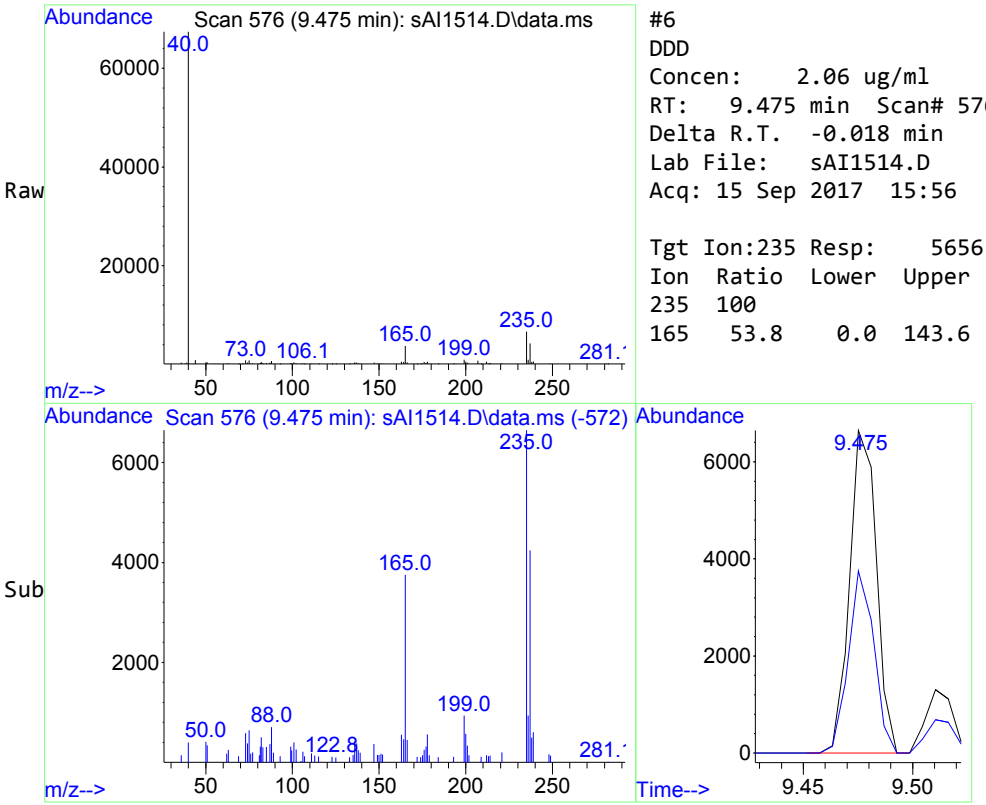
Ion	Ratio	Lower	Upper
184	100		
156	7.0	0.0	106.4



#5
DDE
Concen: 9.12 ug/ml
RT: 9.140 min Scan# 519
Delta R.T. -0.018 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:246 Resp: 1338

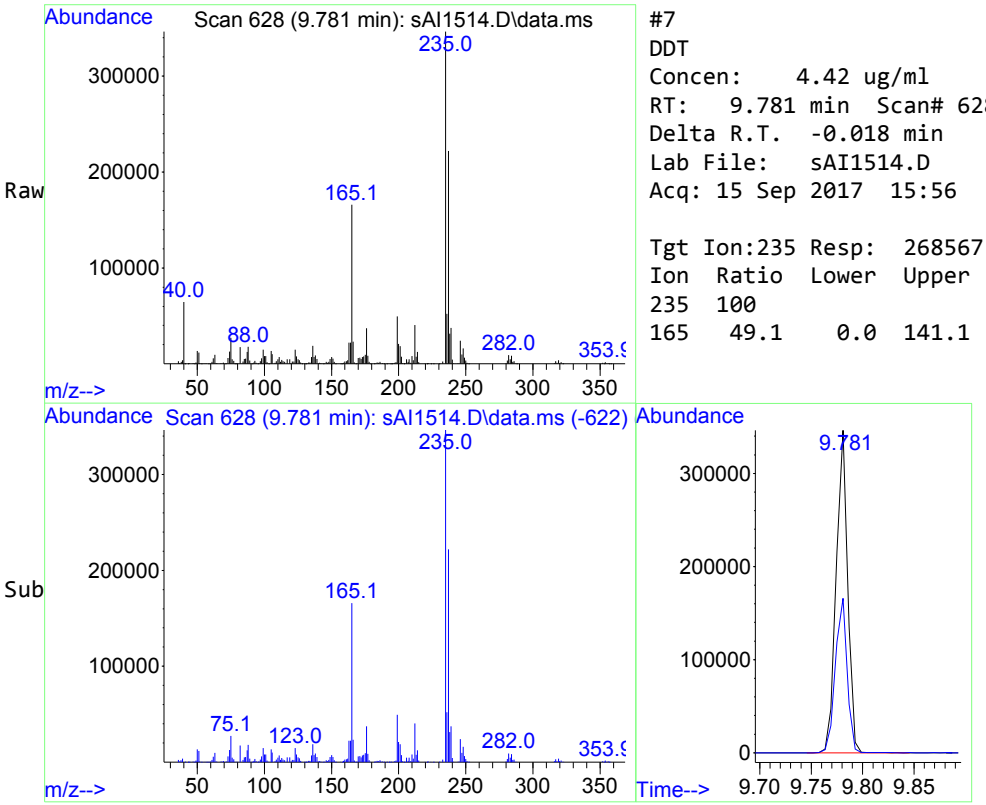
Ion	Ratio	Lower	Upper
246	100		
318	39.5	0.0	161.5
316	36.7	0.0	148.4



#6
DDD
Concen: 2.06 ug/ml
RT: 9.475 min Scan# 576
Delta R.T. -0.018 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:235 Resp: 5656

Ion	Ratio	Lower	Upper
235	100		
165	53.8	0.0	143.6



#7
DDT
Concen: 4.42 ug/ml
RT: 9.781 min Scan# 628
Delta R.T. -0.018 min
Lab File: sAI1514.D
Acq: 15 Sep 2017 15:56

Tgt Ion:235 Resp: 268567

Ion	Ratio	Lower	Upper
235	100		
165	49.1	0.0	141.1

8270 Breakdown Report

JMB
09/15/2017

Data File : D:\MSDChem\1\data\091517.s\sAI1514.D Vial: 1
Acq On : 15 Sep 2017 15:56 Operator: JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP| Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

JCB
09/18/2017

Compounds	Area/%Breakdown	8270C	8270D
DDE	1338		
DDD	5656		
DDT	268567		
Breakdown	2.54%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.57	Pass(<3)	Pass(<2)
Pentachlorophenol	1.00	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

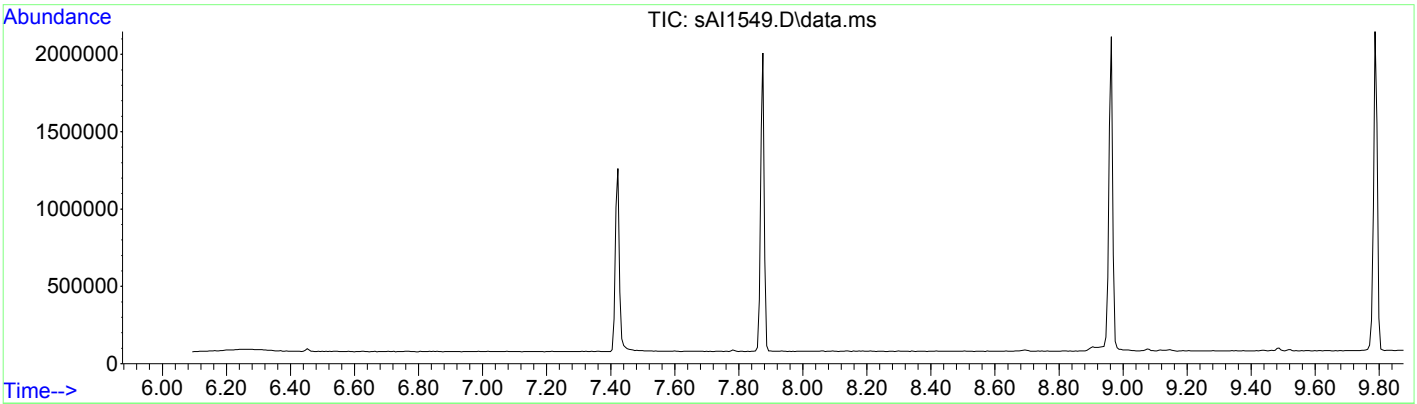
JMB
09/18/2017

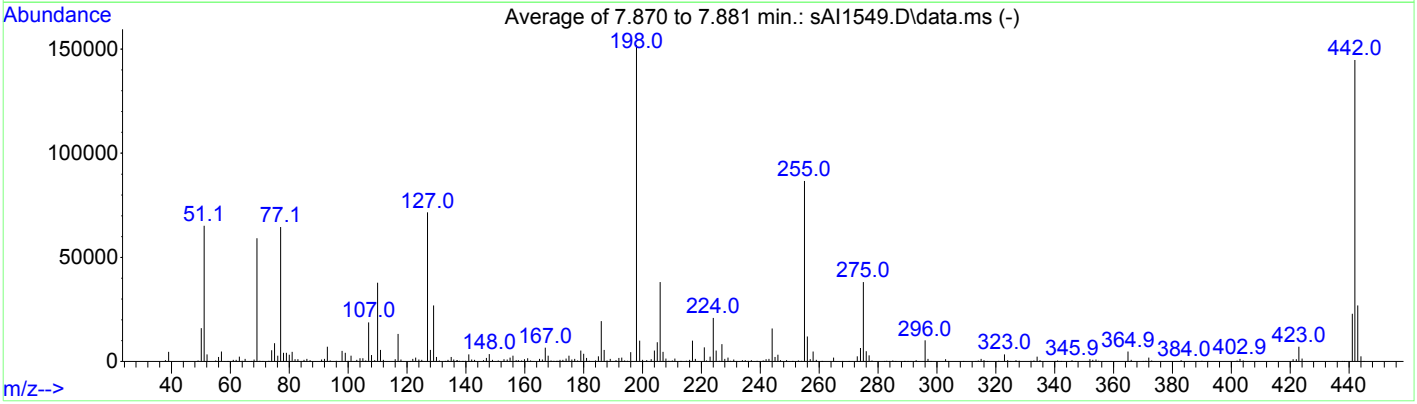
Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1549.D
Acq On : 18 Sep 2017 09:45
Operator : JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 48 Sample Multiplier: 1

09/19/2017

Integration File:

Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Mon Jun 30 12:02:26 2014





AutoFind: Scans 303, 304, 305; Background Corrected with Scan 297

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	42.9	65130	PASS
68	69	0.00	2	1.6	972	PASS
69	198	0.00	100	38.9	59136	PASS
70	69	0.00	2	0.6	336	PASS
127	198	40	60	47.1	71587	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	151955	PASS
199	198	5	9	6.6	10037	PASS
275	198	10	30	25.1	38168	PASS
365	198	1	100	3.1	4713	PASS
441	443	0.01	100	85.1	22908	PASS
442	198	40	100	95.3	144784	PASS
443	442	17	23	18.6	26925	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
09/18/2017

JCB
09/18/2017

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1549.D
Acq On : 18 Sep 2017 09:45
Operator : JMB3
InstName : MSDA
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Sep 18 10:26:06 2017
Quant Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

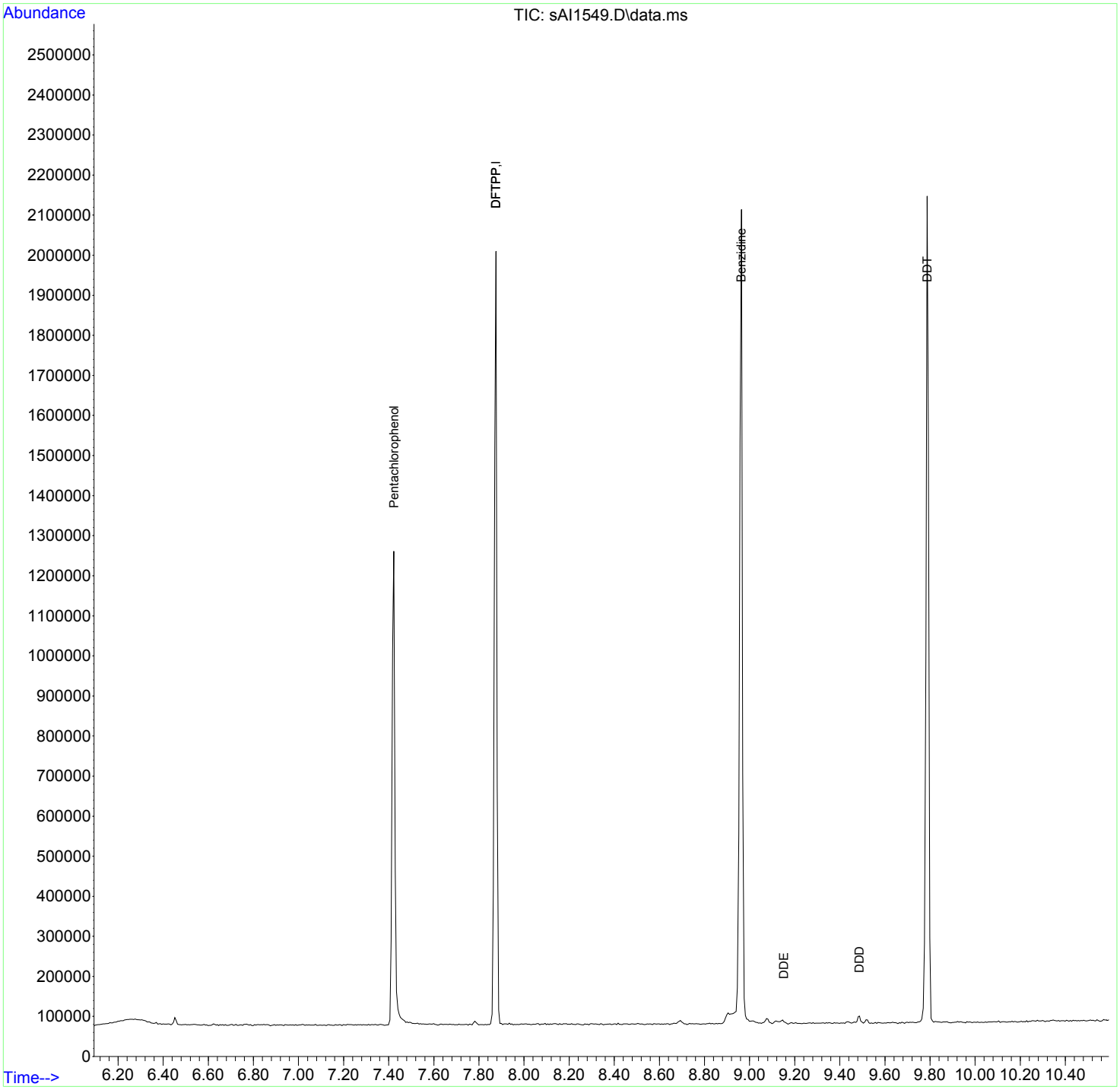
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.875	7.881	1.000	1543151	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.875	7.869	1.000	1543151	5.00	ug/ml#	1
3) Pentachlorophenol	266	7.422	7.428	0.942	122153	4.71	ug/ml	98
4) Benzidine	184	8.964	8.969	1.138	688662	9.72	ug/ml	98
5) DDE	246	9.152	9.158	1.162	1232	8.73	ug/ml	85
6) DDD	235	9.487	9.493	1.205	3815	1.44	ug/ml	83
7) DDT	235	9.787	9.799	1.243	336415	5.75	ug/ml	88

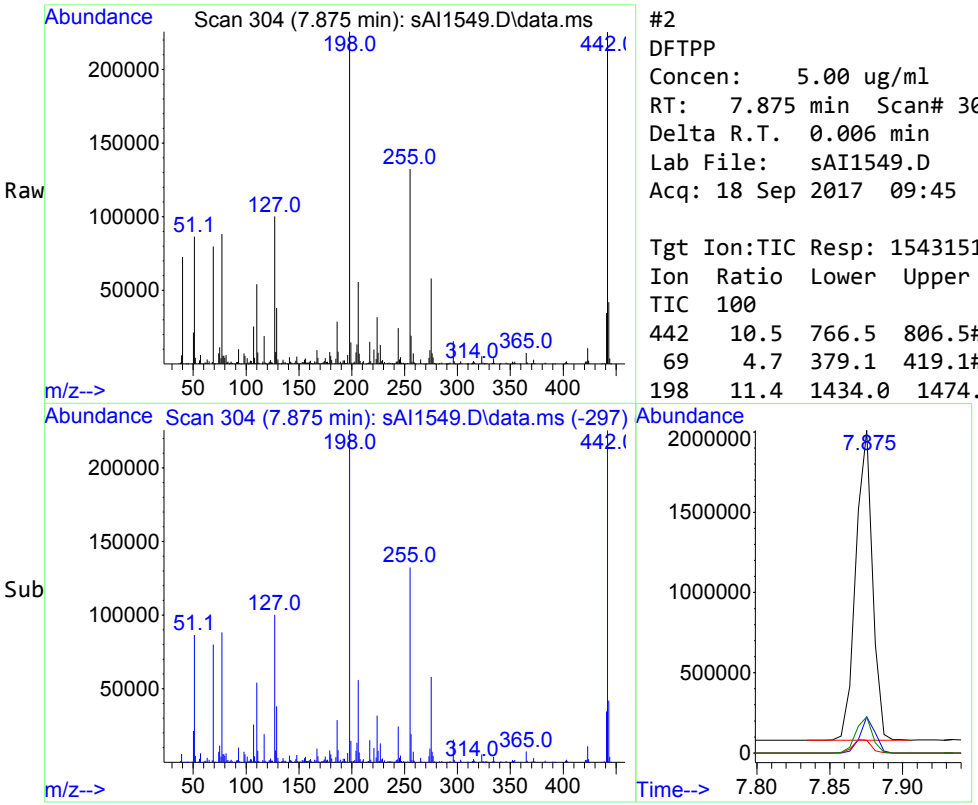
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\091517.s\
Data File : sAI1549.D
Acq On : 18 Sep 2017 09:45
Operator : JMB3
InstName : MSDA
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 48 Sample Multiplier: 1

Quant Time: Sep 18 10:26:06 2017
Quant Method : D:\MSDChem\1\data\091517.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

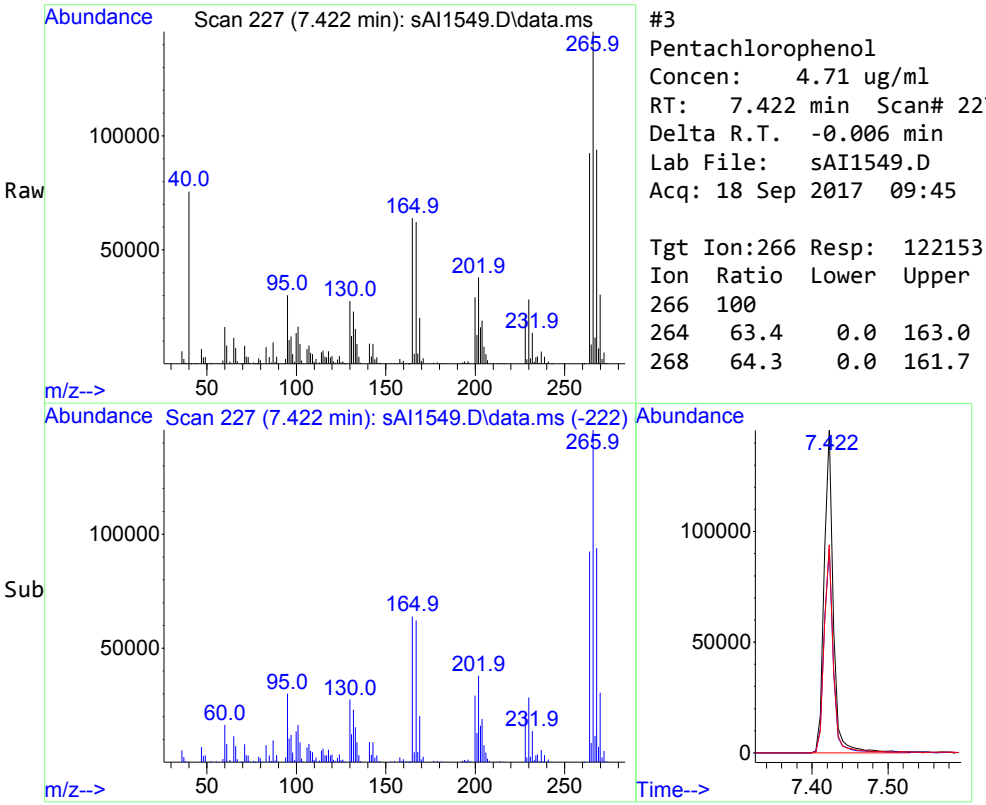




#2
DFTPP
Concen: 5.00 ug/ml
RT: 7.875 min Scan# 304
Delta R.T. 0.006 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:TIC Resp: 1543151

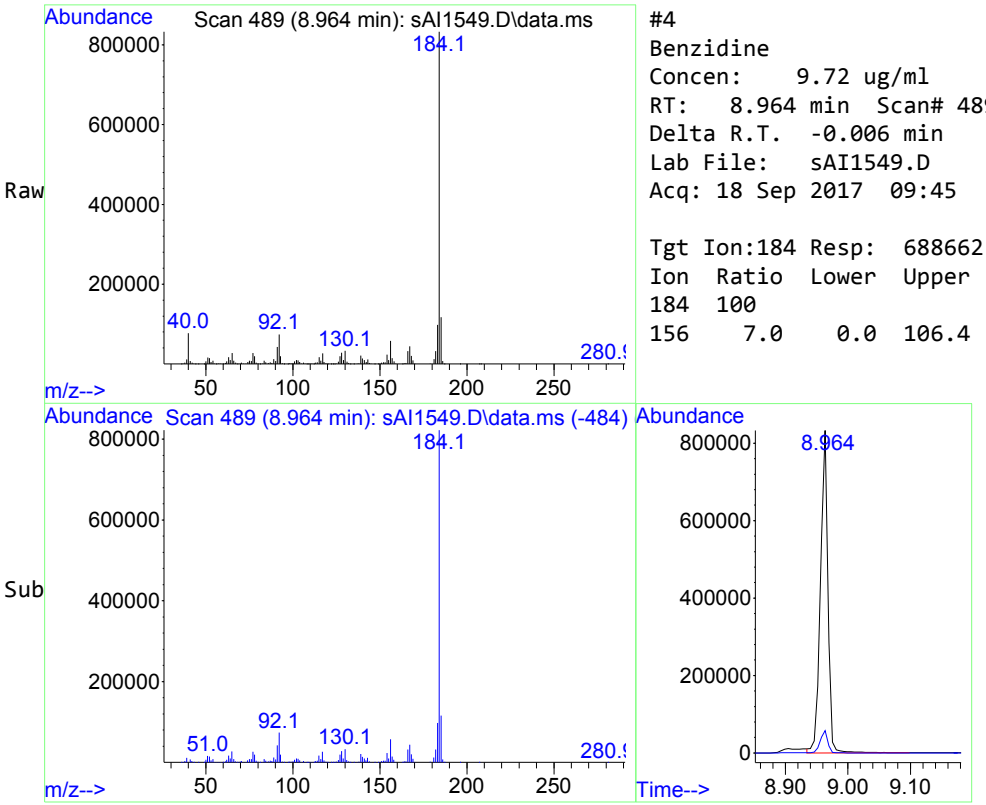
Ion	Ratio	Lower	Upper
TIC	100		
442	10.5	766.5	806.5#
69	4.7	379.1	419.1#
198	11.4	1434.0	1474.0#



#3
Pentachlorophenol
Concen: 4.71 ug/ml
RT: 7.422 min Scan# 227
Delta R.T. -0.006 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:266 Resp: 122153

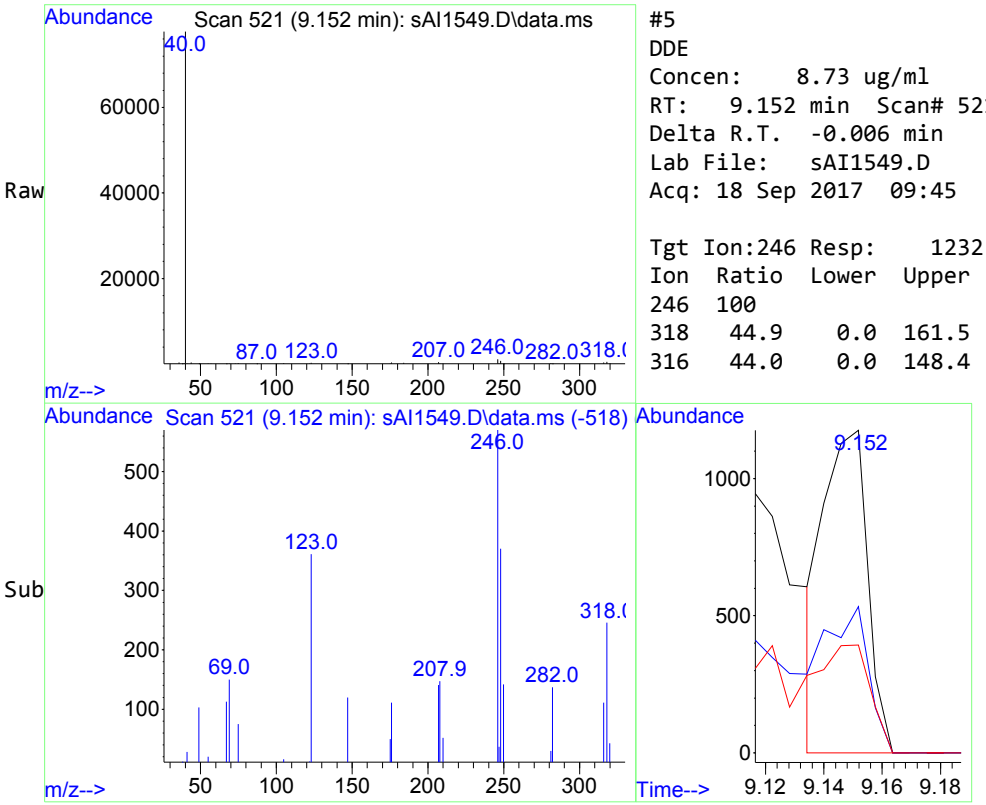
Ion	Ratio	Lower	Upper
266	100		
264	63.4	0.0	163.0
268	64.3	0.0	161.7



#4
Benzidine
Concen: 9.72 ug/ml
RT: 8.964 min Scan# 489
Delta R.T. -0.006 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:184 Resp: 688662

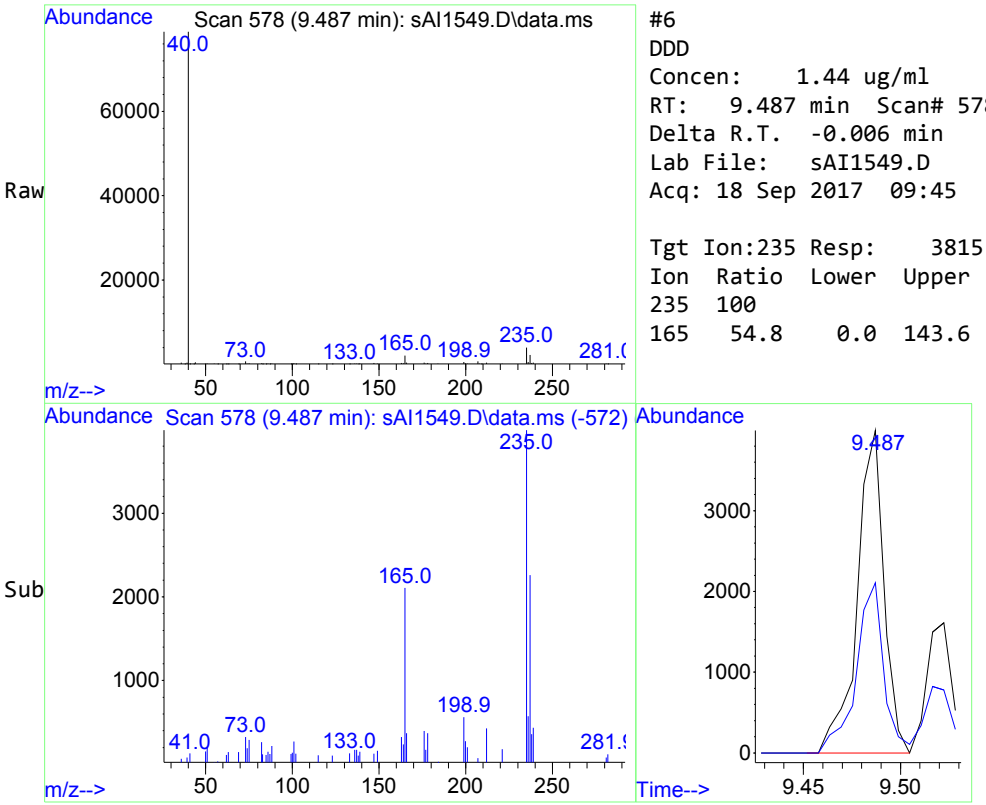
Ion	Ratio	Lower	Upper
184	100		
156	7.0	0.0	106.4



#5
DDE
Concen: 8.73 ug/ml
RT: 9.152 min Scan# 521
Delta R.T. -0.006 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:246 Resp: 1232

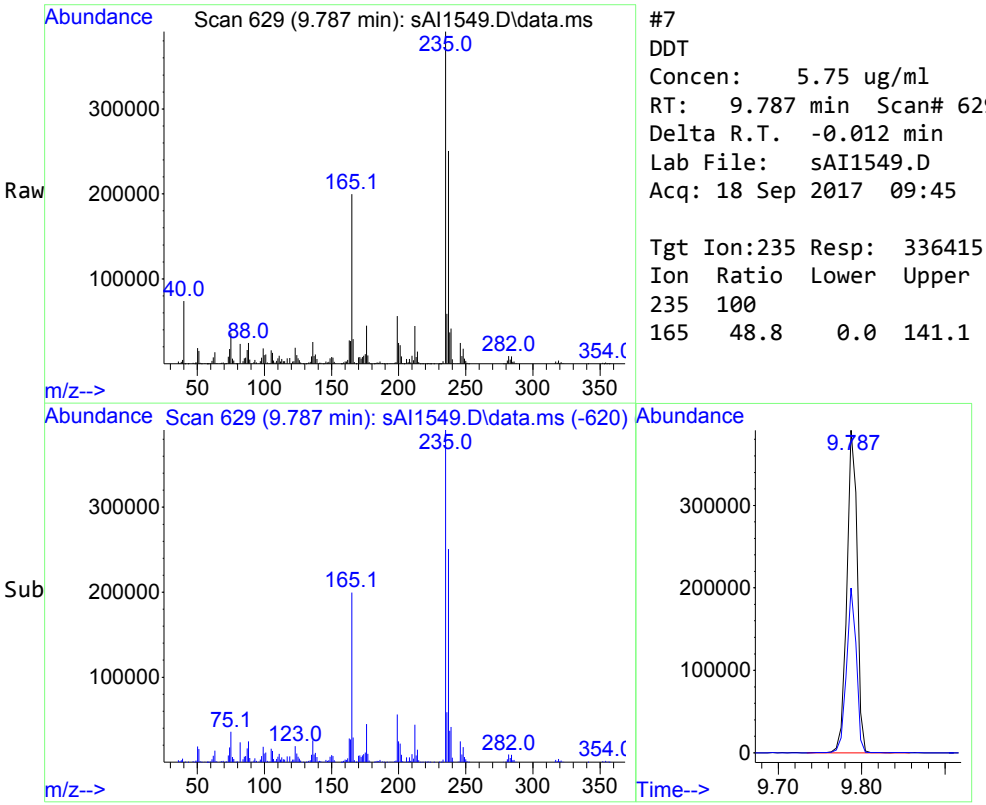
Ion	Ratio	Lower	Upper
246	100		
318	44.9	0.0	161.5
316	44.0	0.0	148.4



#6
DDD
Concen: 1.44 ug/ml
RT: 9.487 min Scan# 578
Delta R.T. -0.006 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:235 Resp: 3815

Ion	Ratio	Lower	Upper
235	100		
165	54.8	0.0	143.6



#7
DDT
Concen: 5.75 ug/ml
RT: 9.787 min Scan# 629
Delta R.T. -0.012 min
Lab File: sAI1549.D
Acq: 18 Sep 2017 09:45

Tgt Ion:235 Resp: 336415

Ion	Ratio	Lower	Upper
235	100		
165	48.8	0.0	141.1

8270 Breakdown Report

JMB
09/18/2017

Data File : D:\MSDChem\1\data\091517.s\sAI1549.D Vial: 48
Acq On : 18 Sep 2017 09:45 Operator: JMB3
Sample : |WBN170717-99|DFTPP|1|SVM|1|DFTPP| Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

JCB
09/18/2017

Compounds	Area/%Breakdown	8270C	8270D
DDE	1232		
DDD	3815		
DDT	336415		
Breakdown	1.48%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.68	Pass(<3)	Pass(<2)
Pentachlorophenol	0.90	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

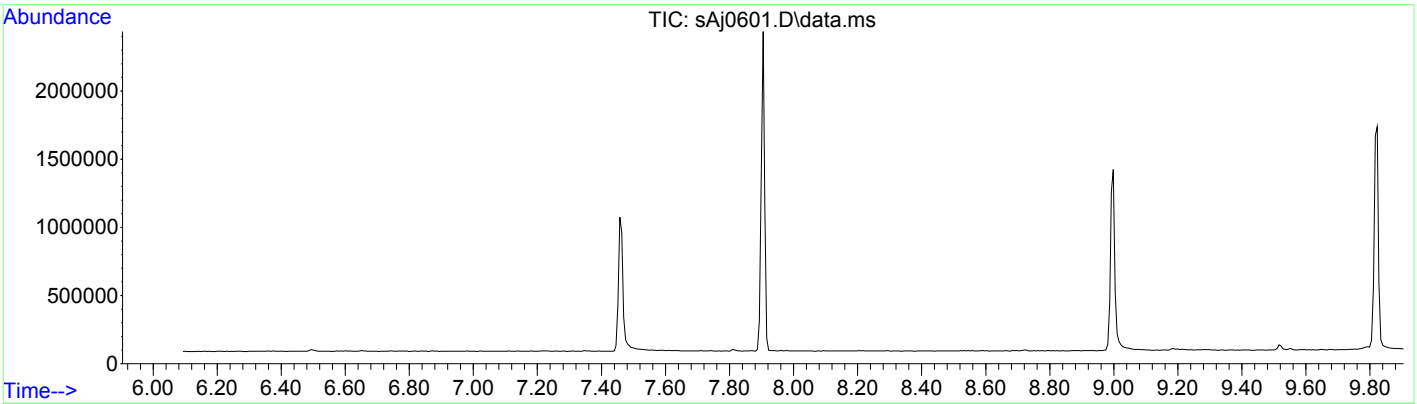
JMB
10/06/2017

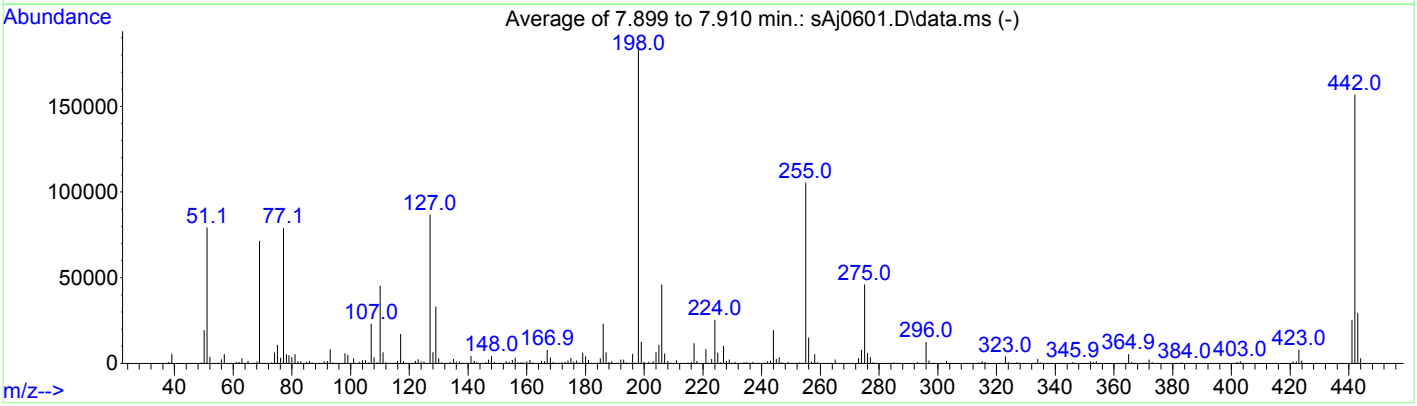
Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0601.D
Acq On : 06 Oct 2017 08:16
Operator : JMB3
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

BB
10/09/2017

Integration File:

Method : D:\MSDChem\1\data\100617.s\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Mon Jun 30 12:02:26 2014





AutoFind: Scans 308, 309, 310; Background Corrected with Scan 302

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.0	79328	PASS
68	69	0.00	2	1.6	1148	PASS
69	198	0.00	100	38.7	71477	PASS
70	69	0.00	2	0.4	321	PASS
127	198	40	60	47.0	86779	PASS
197	198	0.00	1	0.2	369	PASS
198	198	50	100	100.0	184581	PASS
199	198	5	9	6.8	12634	PASS
275	198	10	30	25.0	46115	PASS
365	198	1	100	2.9	5362	PASS
441	443	0.01	100	85.6	25332	PASS
442	198	40	100	85.0	156923	PASS
443	442	17	23	18.9	29594	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
10/06/2017

BJB
10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0601.D
Acq On : 06 Oct 2017 08:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 06 08:58:10 2017
Quant Method : D:\MSDChem\1\data\100617.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

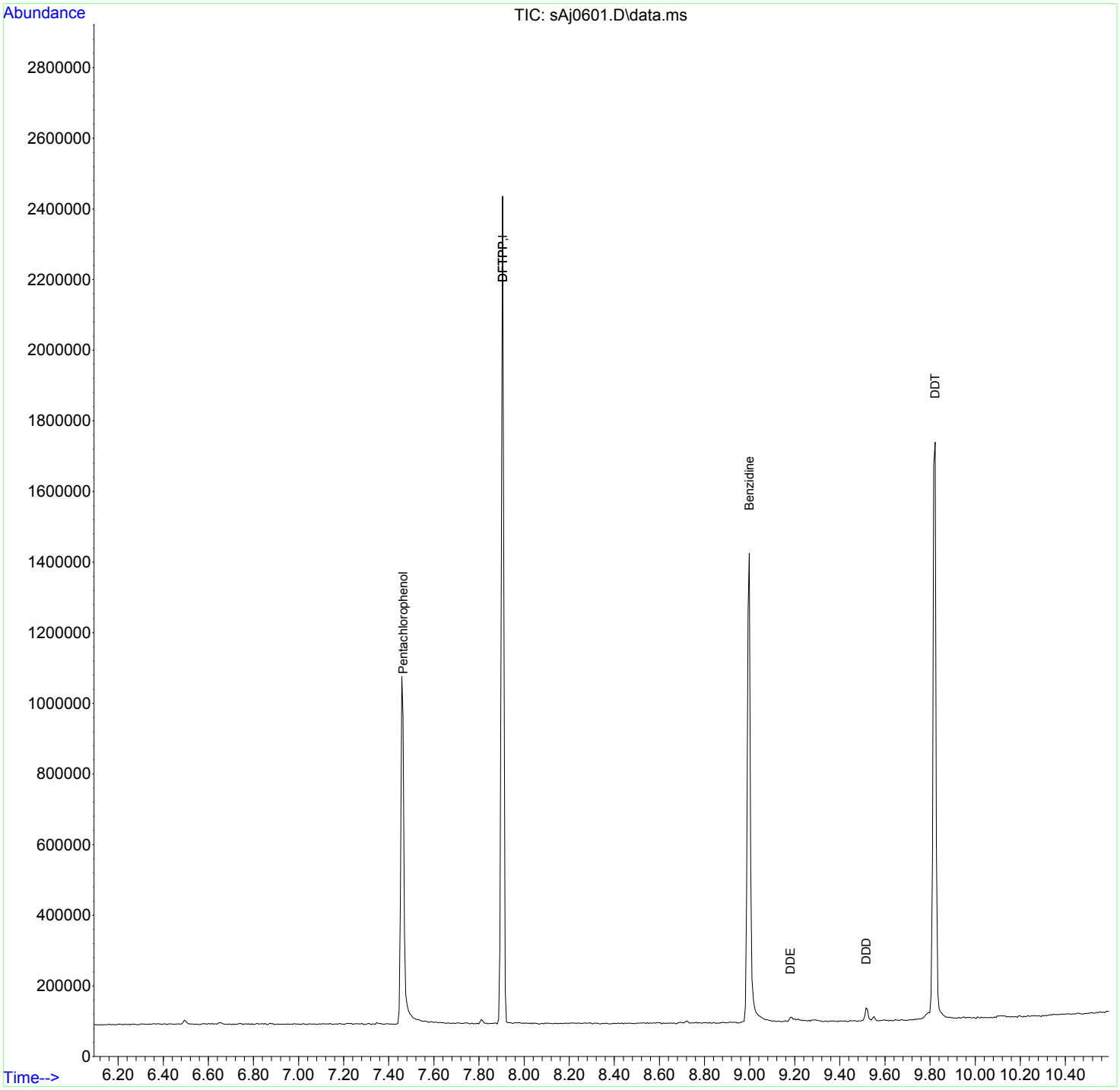
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.905	7.899	1.000	1797387	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.905	7.899	1.000	1797387	5.00	ug/ml#	1
3) Pentachlorophenol	266	7.463	7.452	0.944	122207	4.05	ug/ml	98
4) Benzidine	184	8.999	8.993	1.138	533293	6.46	ug/ml	100
5) DDE	246	9.181	9.175	1.161	4209	25.60	ug/ml	97
6) DDD	235	9.516	9.510	1.204	6620	2.15	ug/ml	97
7) DDT	235	9.822	9.816	1.243	307397	4.51	ug/ml	95

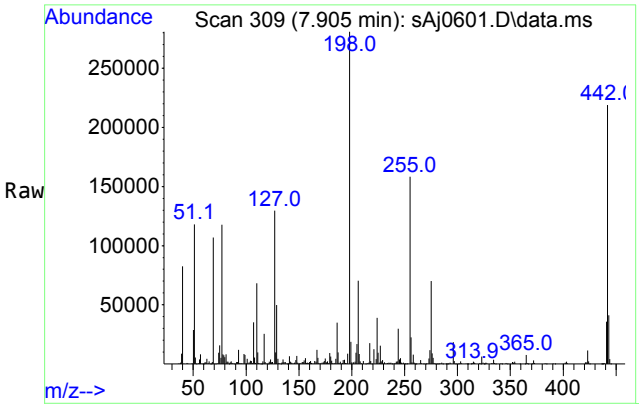
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0601.D
Acq On : 06 Oct 2017 08:16
Operator : JMB3
InstName : MSDA
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 06 08:58:10 2017
Quant Method : D:\MSDChem\1\data\100617.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

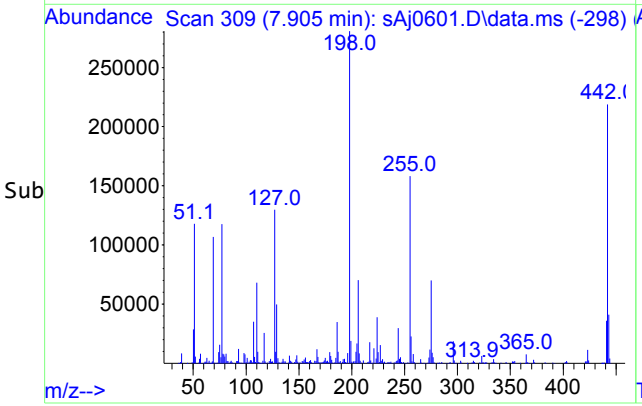


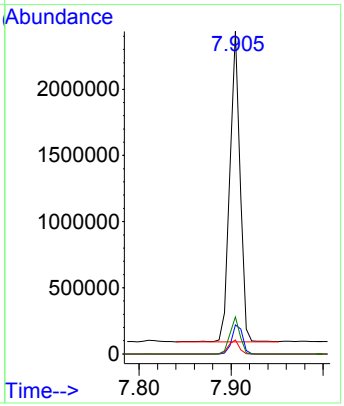


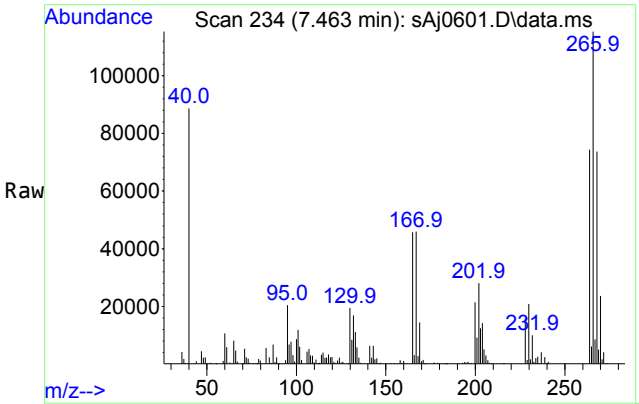
#2
DFTPP
Concen: 5.00 ug/ml
RT: 7.905 min Scan# 309
Delta R.T. 0.006 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:TIC Resp: 1797387

Ion	Ratio	Lower	Upper
TIC	100		
442	9.9	766.5	806.5#
69	4.6	379.1	419.1#
198	11.6	1434.0	1474.0#



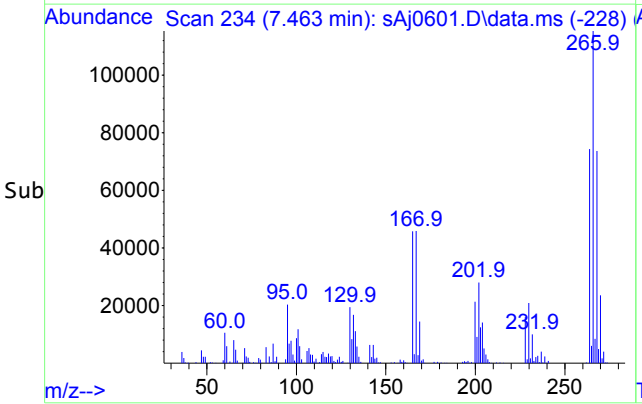


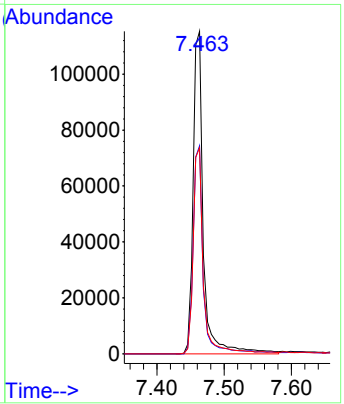


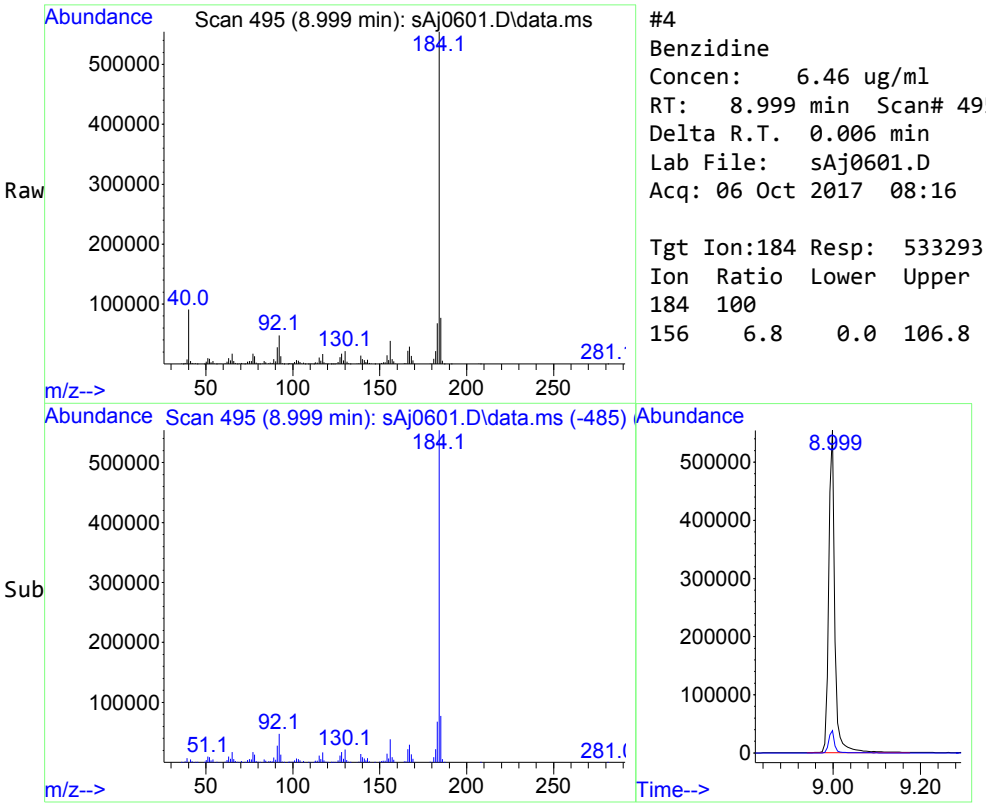
#3
Pentachlorophenol
Concen: 4.05 ug/ml
RT: 7.463 min Scan# 234
Delta R.T. 0.012 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:266 Resp: 122207

Ion	Ratio	Lower	Upper
266	100		
264	64.1	0.0	162.1
268	63.3	0.0	162.5



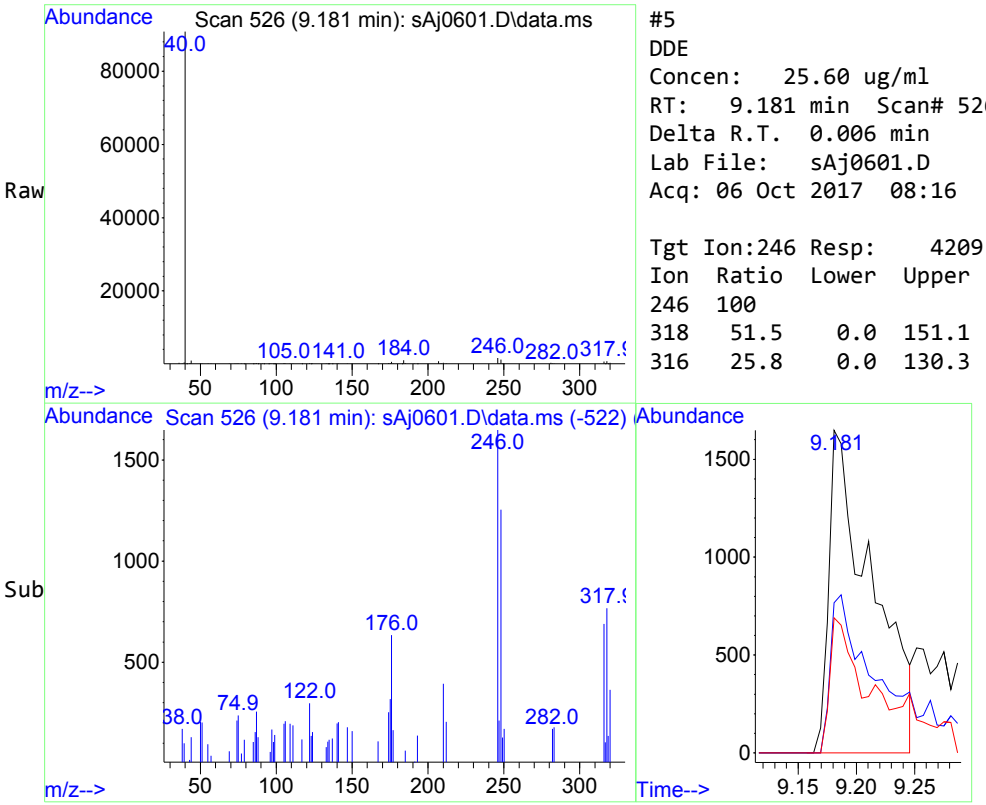




#4
Benzidine
Concen: 6.46 ug/ml
RT: 8.999 min Scan# 495
Delta R.T. 0.006 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:184 Resp: 533293

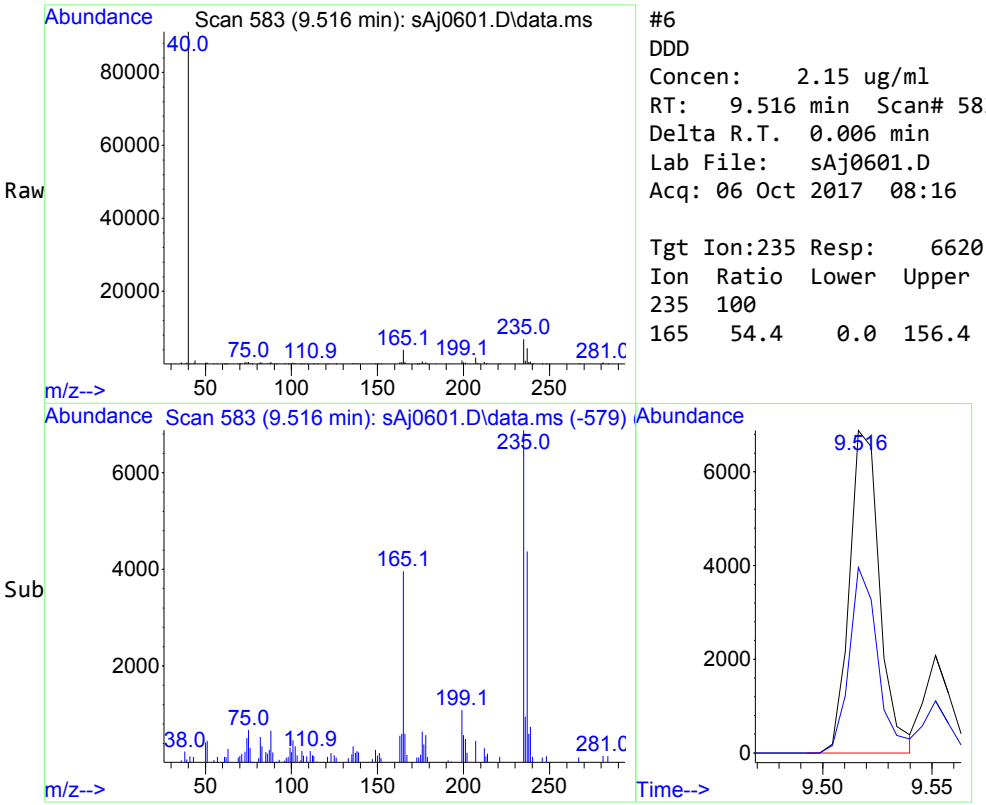
Ion	Ratio	Lower	Upper
184	100		
156	6.8	0.0	106.8



#5
DDE
Concen: 25.60 ug/ml
RT: 9.181 min Scan# 526
Delta R.T. 0.006 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:246 Resp: 4209

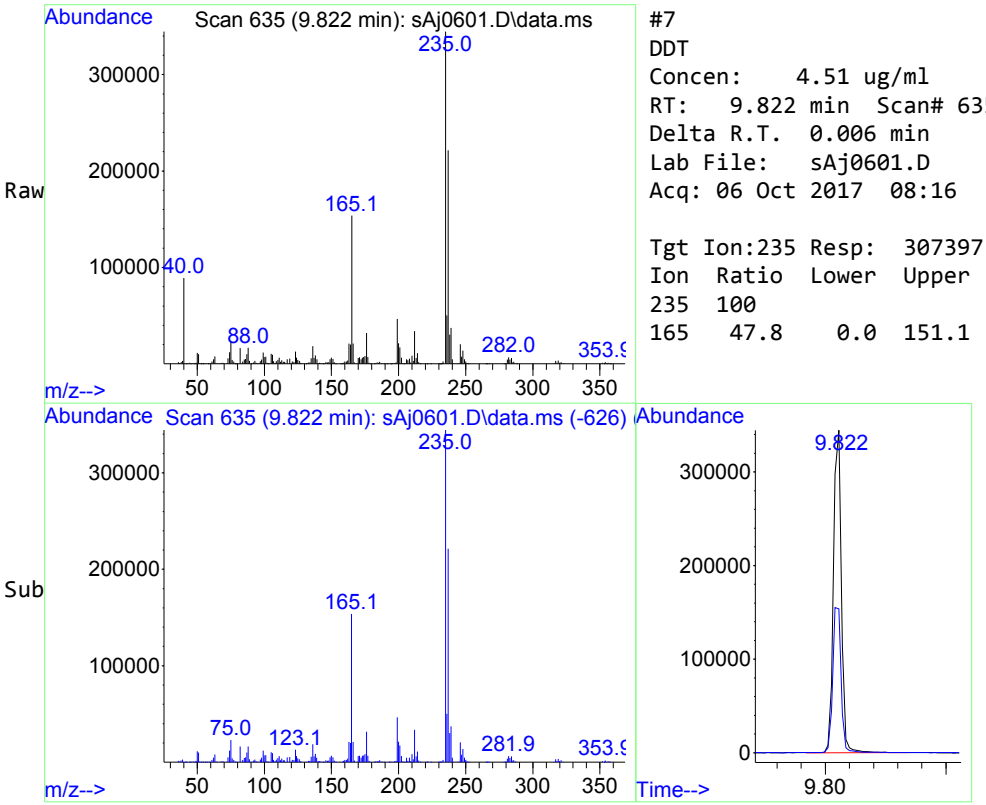
Ion	Ratio	Lower	Upper
246	100		
318	51.5	0.0	151.1
316	25.8	0.0	130.3



#6
DDD
Concen: 2.15 ug/ml
RT: 9.516 min Scan# 583
Delta R.T. 0.006 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:235 Resp: 6620

Ion	Ratio	Lower	Upper
235	100		
165	54.4	0.0	156.4



#7
DDT
Concen: 4.51 ug/ml
RT: 9.822 min Scan# 635
Delta R.T. 0.006 min
Lab File: sAj0601.D
Acq: 06 Oct 2017 08:16

Tgt Ion:235 Resp: 307397

Ion	Ratio	Lower	Upper
235	100		
165	47.8	0.0	151.1

8270 Breakdown Report

JMB
10/06/2017

Data File : D:\MSDChem\1\data\100617.s\sAj0601.D Vial: 1
Acq On : 06 Oct 2017 08:16 Operator: JMB3
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP| Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

10/09/2017

Compounds	Area/%Breakdown	8270C	8270D
DDE	4209		
DDD	6620		
DDT	307397		
Breakdown	3.40%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	0.74	Pass(<3)	Pass(<2)
Pentachlorophenol	0.74	Pass(<5)	Pass(<2)

DFTPP Tune Report
GEL Laboratories, LLC

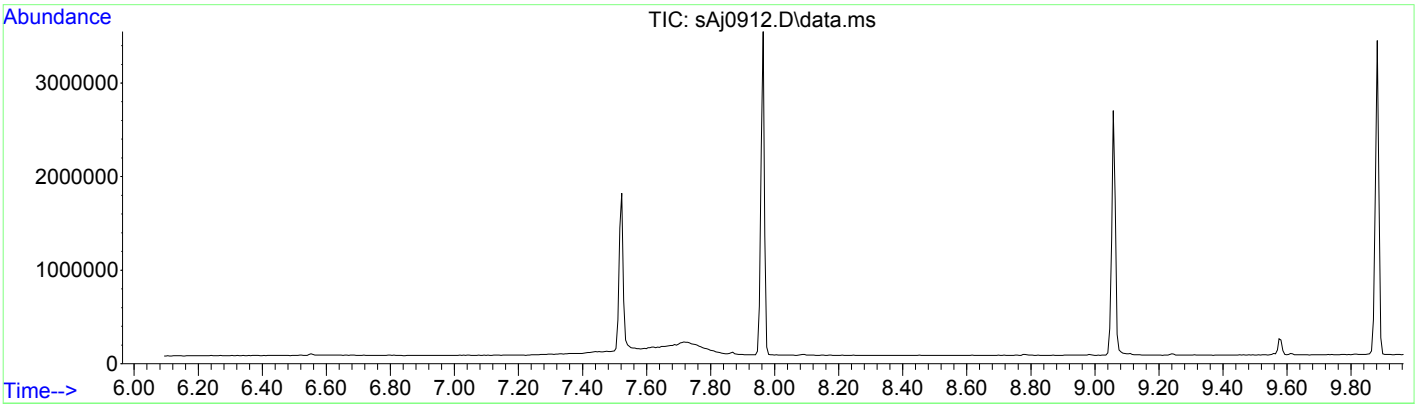
JMB
10/09/2017

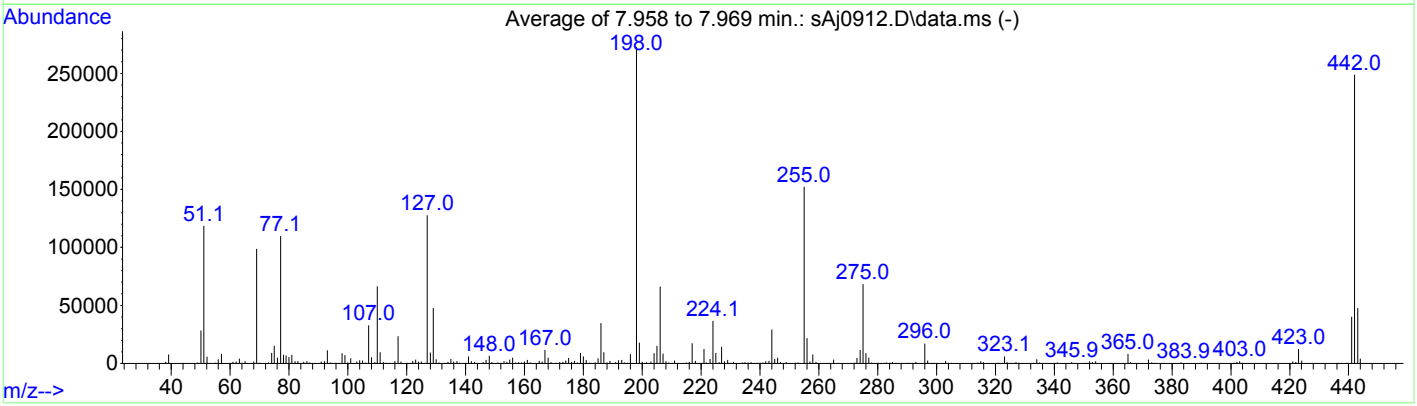
JCB
10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0912.D
Acq On : 09 Oct 2017 14:32
Operator : JMB3
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : D:\MSDChem\1\data\100917a.s\BNABrk_Down.m
Title : dftpp / endrin / ddt SubList :
Last Update : Mon Jun 30 12:02:26 2014





AutoFind: Scans 318, 319, 320; Background Corrected with Scan 313

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.5	118715	PASS
68	69	0.00	2	1.7	1668	PASS
69	198	0.00	100	36.2	98672	PASS
70	69	0.00	2	0.6	550	PASS
127	198	40	60	46.8	127592	PASS
197	198	0.00	1	0.0	0	PASS
198	198	50	100	100.0	272640	PASS
199	198	5	9	6.6	18020	PASS
275	198	10	30	25.1	68375	PASS
365	198	1	100	3.0	8263	PASS
441	443	0.01	100	84.1	40187	PASS
442	198	40	100	91.2	248675	PASS
443	442	17	23	19.2	47757	PASS

This report evaluates the Rel Abn% as passing only if it is greater than the Lower Limit and lower than the Upper Limit.

Quantitation Report
GEL Laboratories, LLC

JMB
10/09/2017

JCB
10/10/2017

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0912.D
Acq On : 09 Oct 2017 14:32
Operator : JMB3
InstName : MSDA
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 09 14:44:21 2017
Quant Method : D:\MSDChem\1\data\100917a.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

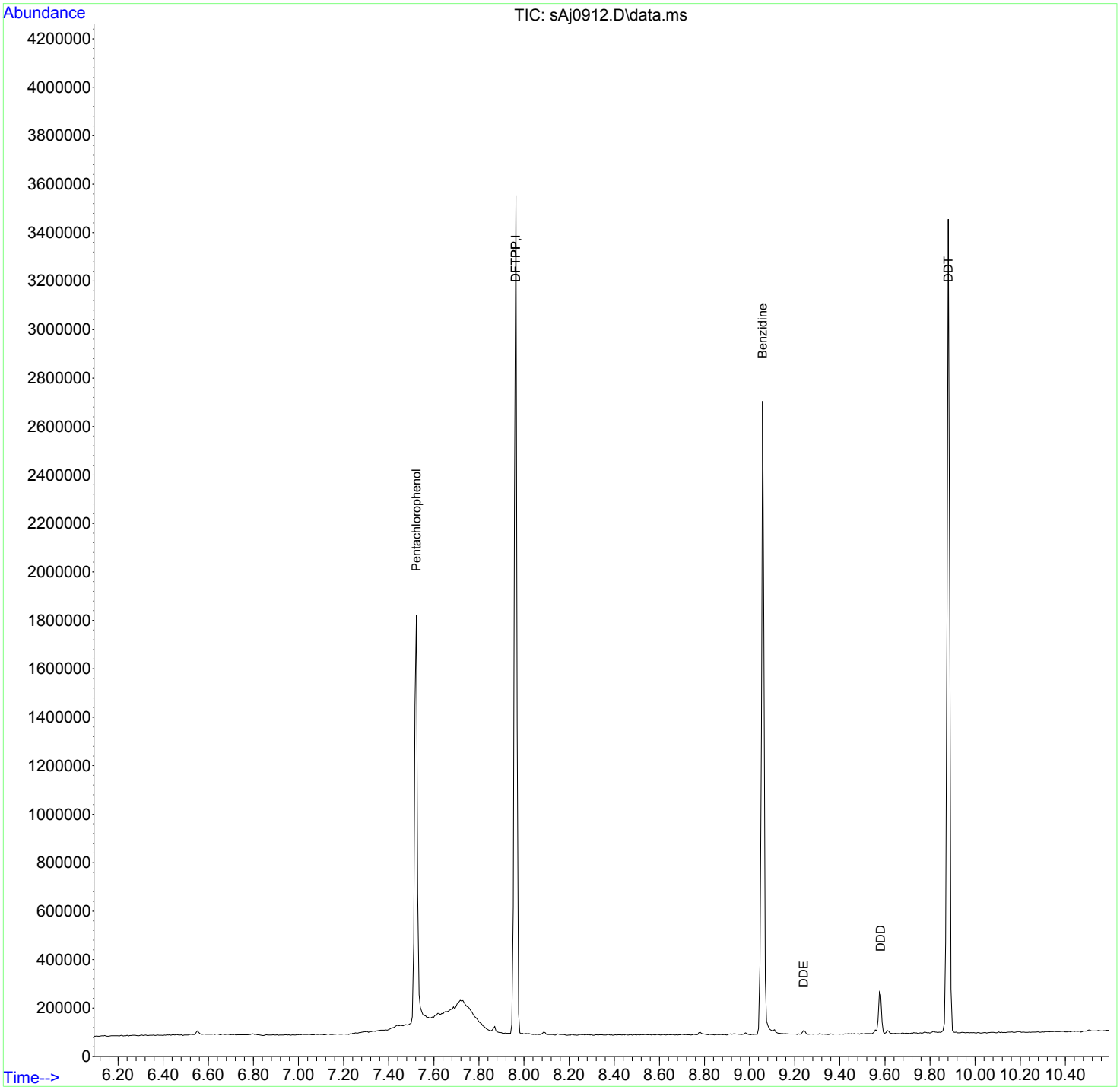
Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) DFTPP	TIC	7.964	7.964	1.000	2680278	5.00	ug/ml #	0.00
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
2) DFTPP	TIC	7.964	7.964	1.000	2680278	5.00	ug/ml#	1
3) Pentachlorophenol	266	7.522	7.522	0.945	178814	3.97	ug/ml	98
4) Benzidine	184	9.058	9.058	1.137	892803	7.25	ug/ml	99
5) DDE	246	9.240	9.240	1.160	1801	7.35	ug/ml	90
6) DDD	235	9.581	9.581	1.203	32035	6.98	ug/ml	95
7) DDT	235	9.881	9.881	1.241	529863	5.22	ug/ml	96

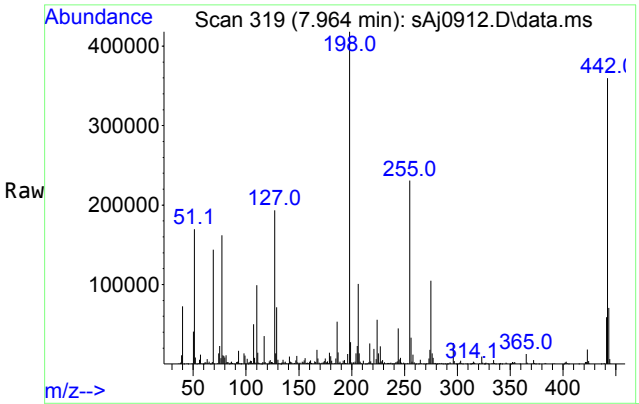
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100917a.s\
Data File : sAj0912.D
Acq On : 09 Oct 2017 14:32
Operator : JMB3
InstName : MSDA
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP|
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Oct 09 14:44:21 2017
Quant Method : D:\MSDChem\1\data\100917a.s\BNABrk_Down.m
Quant Title : dftpp / endrin / ddt SubList :
QLast Update : Mon Jun 30 12:02:26 2014
Response via : Initial Calibration
Integrator: RTE

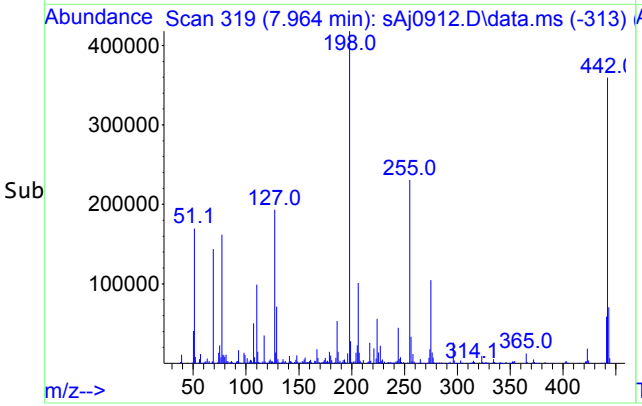


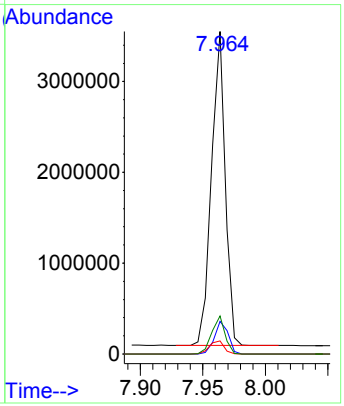


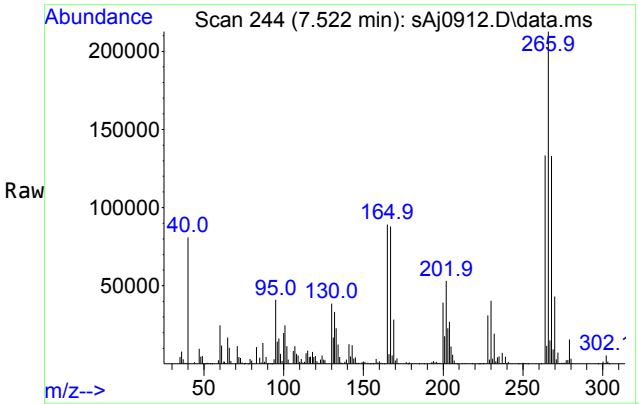
#2
DFTPP
Concen: 5.00 ug/ml
RT: 7.964 min Scan# 319
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:TIC Resp: 2680278

Ion	Ratio	Lower	Upper
TIC	100		
442	10.4	766.5	806.5#
69	4.4	379.1	419.1#
198	11.7	1434.0	1474.0#



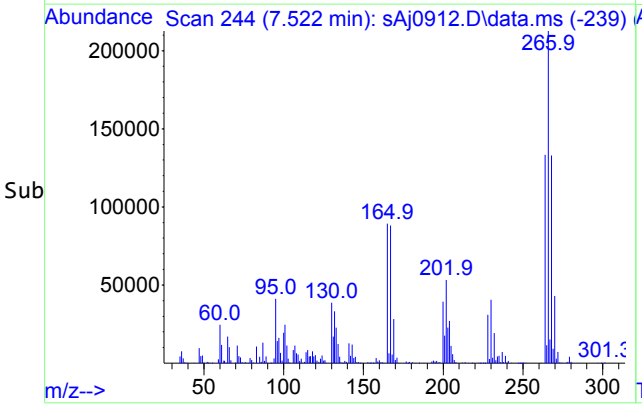


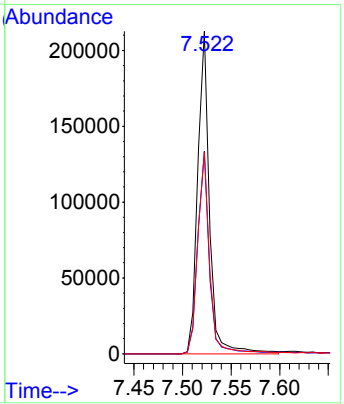


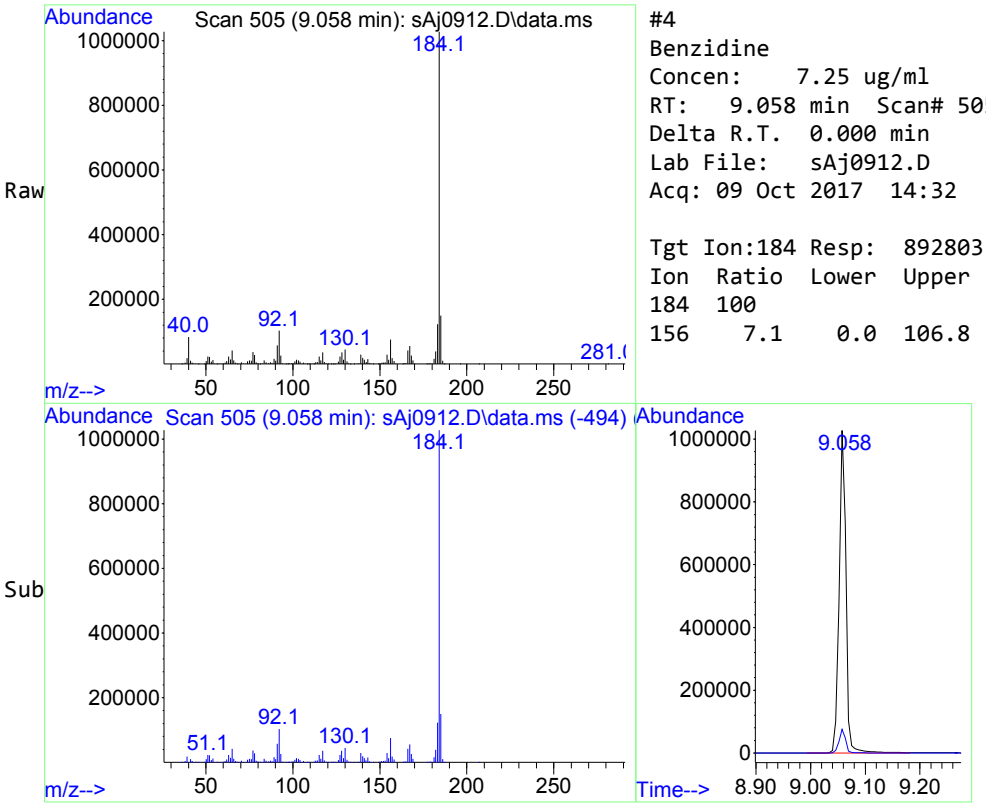
#3
Pentachlorophenol
Concen: 3.97 ug/ml
RT: 7.522 min Scan# 244
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:266 Resp: 178814

Ion	Ratio	Lower	Upper
266	100		
264	63.8	0.0	162.1
268	63.7	0.0	162.5



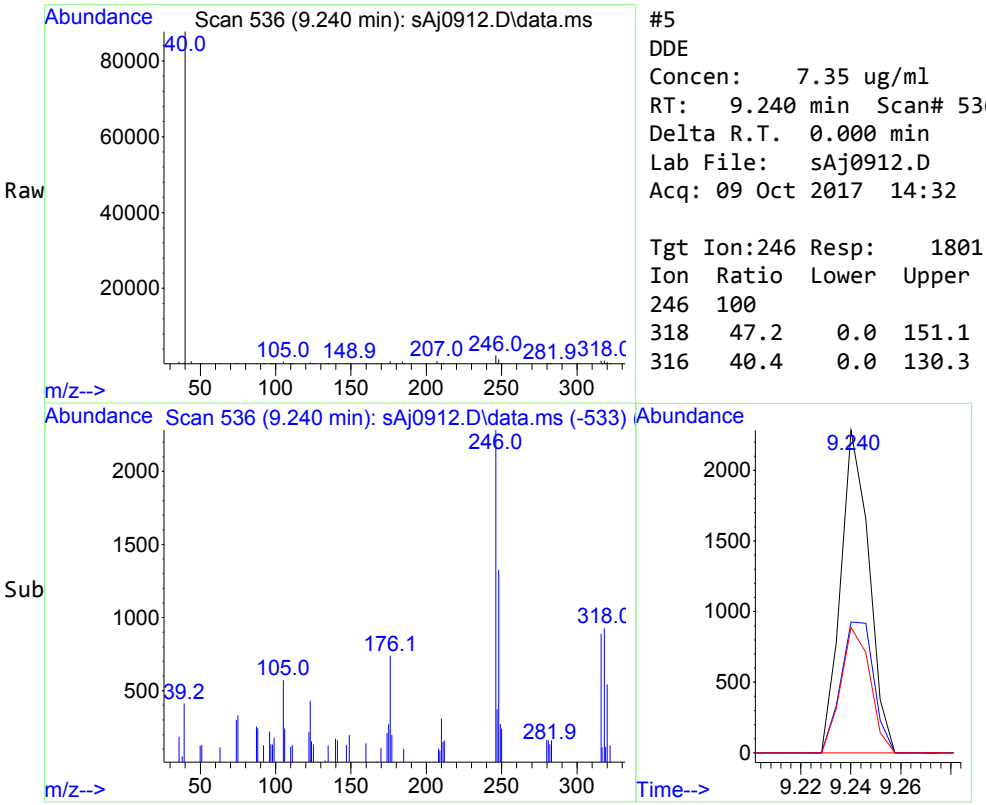




#4
Benzidine
Concen: 7.25 ug/ml
RT: 9.058 min Scan# 505
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:184 Resp: 892803

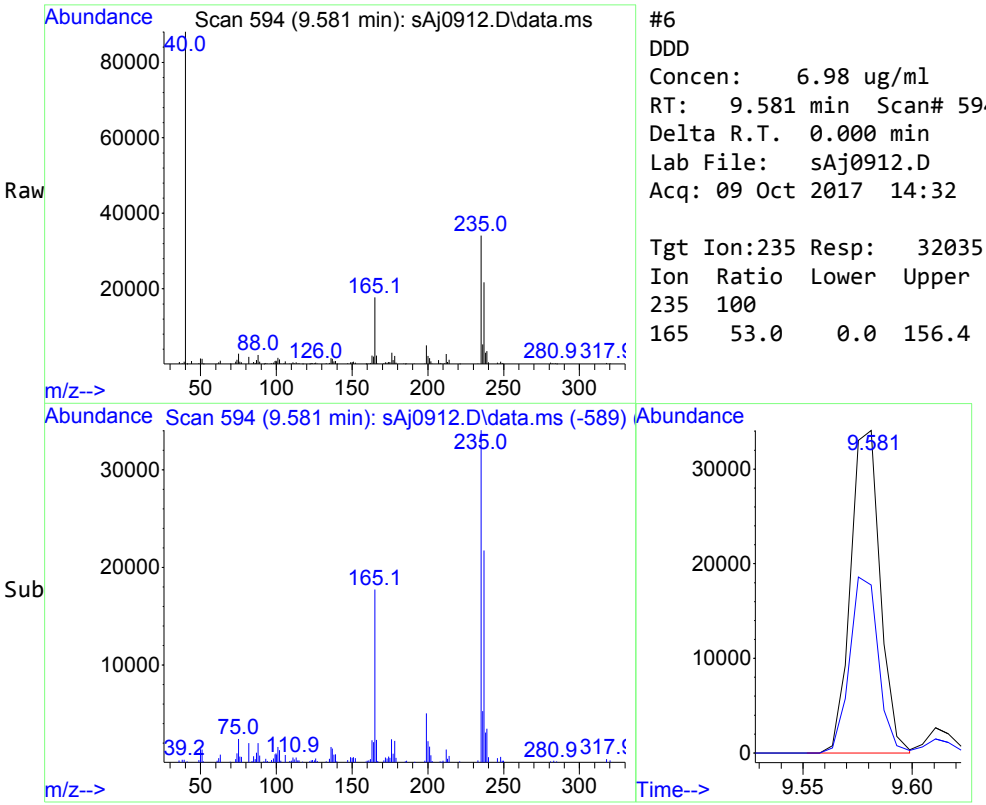
Ion	Ratio	Lower	Upper
184	100		
156	7.1	0.0	106.8



#5
DDE
Concen: 7.35 ug/ml
RT: 9.240 min Scan# 536
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:246 Resp: 1801

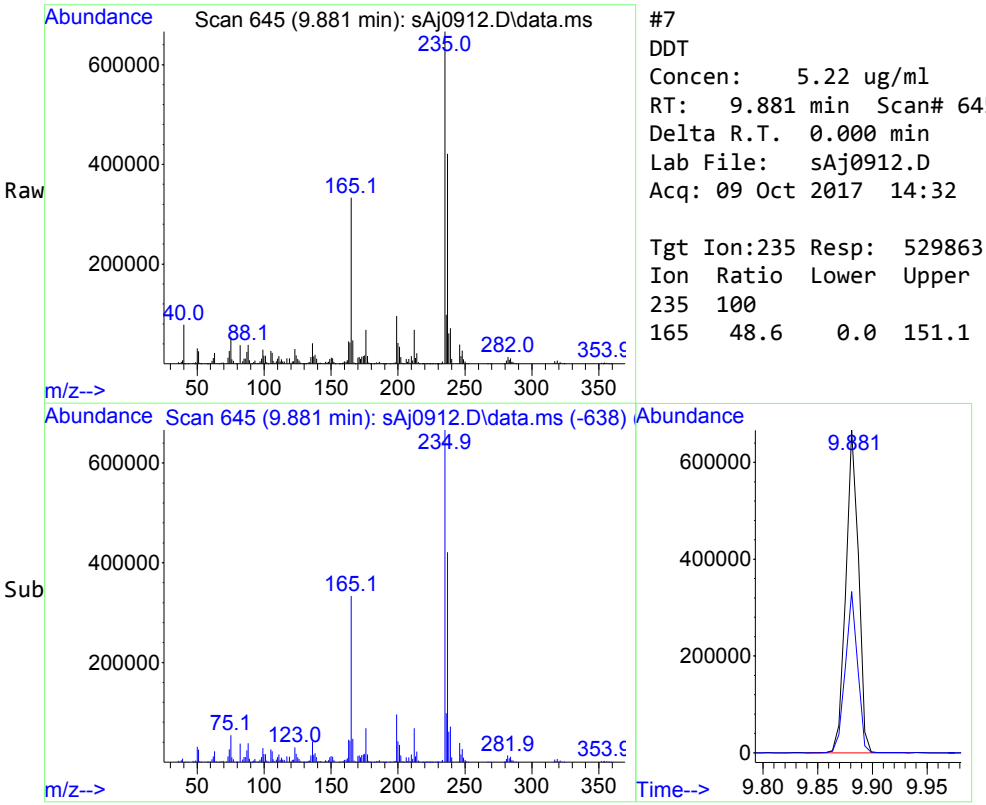
Ion	Ratio	Lower	Upper
246	100		
318	47.2	0.0	151.1
316	40.4	0.0	130.3



#6
DDD
Concen: 6.98 ug/ml
RT: 9.581 min Scan# 594
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:235 Resp: 32035

Ion	Ratio	Lower	Upper
235	100		
165	53.0	0.0	156.4



#7
DDT
Concen: 5.22 ug/ml
RT: 9.881 min Scan# 645
Delta R.T. 0.000 min
Lab File: sAj0912.D
Acq: 09 Oct 2017 14:32

Tgt Ion:235 Resp: 529863

Ion	Ratio	Lower	Upper
235	100		
165	48.6	0.0	151.1

8270 Breakdown Report

JMB
10/09/2017

Data File : D:\MSDChem\1\data\100917a.s\sAj0912.D Vial: 1
Acq On : 09 Oct 2017 14:32 Operator: JMB3
Sample : |WBN170928-99|DFTPP|1|SVM|1|DFTPP| Inst : MSDA
Misc : Multiplr: 1.00
IntFile : rteint.p

JCB
10/10/2017

Compounds	Area/%Breakdown	8270C	8270D
DDE	1801		
DDD	32035		
DDT	529863		
Breakdown	6.00%	Pass(<20)	Pass(<20)

Compounds	Tailing Factor	8270C	8270D
Benzidine	1.01	Pass(<3)	Pass(<2)
Pentachlorophenol	0.86	Pass(<5)	Pass(<2)

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203890201**				
Client Sample:	**QC for batch 1707072**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**MB for batch 1707072**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 16:24**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**31.03 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0615.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene	U	32.2	ug/kg	9.67	32.2
91-58-7	2-Chloronaphthalene	U	32.2	ug/kg	9.67	32.2
91-57-6	2-Methylnaphthalene	U	32.2	ug/kg	9.67	32.2
83-32-9	Acenaphthene	U	32.2	ug/kg	9.67	32.2
120-12-7	Anthracene	U	32.2	ug/kg	9.67	32.2
56-55-3	Benzo(a)anthracene	U	32.2	ug/kg	9.67	32.2
50-32-8	Benzo(a)pyrene	U	32.2	ug/kg	9.67	32.2
205-99-2	Benzo(b)fluoranthene	U	32.2	ug/kg	9.67	32.2
191-24-2	Benzo(ghi)perylene	U	32.2	ug/kg	9.67	32.2
207-08-9	Benzo(k)fluoranthene	U	32.2	ug/kg	9.67	32.2
86-74-8	Carbazole	U	32.2	ug/kg	9.67	32.2
218-01-9	Chrysene	U	32.2	ug/kg	9.67	32.2
53-70-3	Dibenzo(a,h)anthracene	U	32.2	ug/kg	9.67	32.2
206-44-0	Fluoranthene	U	32.2	ug/kg	9.67	32.2
86-73-7	Fluorene	U	32.2	ug/kg	9.67	32.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	32.2	ug/kg	9.67	32.2
80-62-6	Methyl methacrylate	U	322	ug/kg	96.7	322
91-20-3	Naphthalene	U	32.2	ug/kg	9.67	32.2
85-01-8	Phenanthrene	U	32.2	ug/kg	9.67	32.2
129-00-0	Pyrene	U	32.2	ug/kg	9.67	32.2
117-81-7	bis(2-Ethylhexyl)phthalate	U	322	ug/kg	96.7	322

Quantitation Report
GEL Laboratories, LLC

10/06/2017

10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0615.D
Acq On : 06 Oct 2017 16:24
Operator : JMB3
InstName : MSDA
Sample : |1203890201|1707073|1|SVM|1|MB
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 06 16:57:11 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	225601	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.216	7.228	1.000	794964	40.00	ng/uL	-0.01
42) A Acenaphthene-d10	164	9.534	9.540	1.000	429004	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.410	11.410	1.000	666428	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.857	14.863	1.000	448135	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.016	18.016	1.000	292586	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	225601	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.216	7.228	1.000	794964	40.00	ng/uL	-0.01
123) B Acenaphthene-d10	164	9.534	9.540	1.000	429004	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.410	11.410	1.000	666428	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.857	14.863	1.000	448135	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.016	18.016	1.000	292586	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.410	11.410	1.000	666428	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.857	14.863	1.000	448135	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	225601	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.216	7.228	1.000	794964	40.00	ng/uL	-0.01
163) D Acenaphthene-d10	164	9.534	9.540	1.000	429004	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.410	11.410	1.000	666428	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.857	14.863	1.000	448135	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.216	7.228	1.000	794964	40.00	ng/uL	-0.01
177) E Perylene-d12	264	18.016	18.016	1.000	286870	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.781	3.752	0.695	440934	63.57	ng/uL	0.03
8) Phenol-d5	99	4.922	4.910	0.905	529277	61.01	ng/uL	0.01
25) Nitrobenzene-d5	82	6.216	6.228	0.861	236586	30.19	ng/uL	-0.01
47) 2-Fluorobiphenyl	172	8.669	8.675	0.909	464801	29.11	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.534	10.534	1.105	124345	72.14	ng/uL	0.00
83) p-Terphenyl-d14	244	13.398	13.392	0.902	469879	39.67	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	64%
8) Phenol-d5	100.000	39 - 106	61%
25) Nitrobenzene-d5	50.000	34 - 109	60%
47) 2-Fluorobiphenyl	50.000	35 - 107	58%
66) 2,4,6-Tribromophenol	100.000	39 - 115	72%
83) p-Terphenyl-d14	50.000	45 - 119	79%

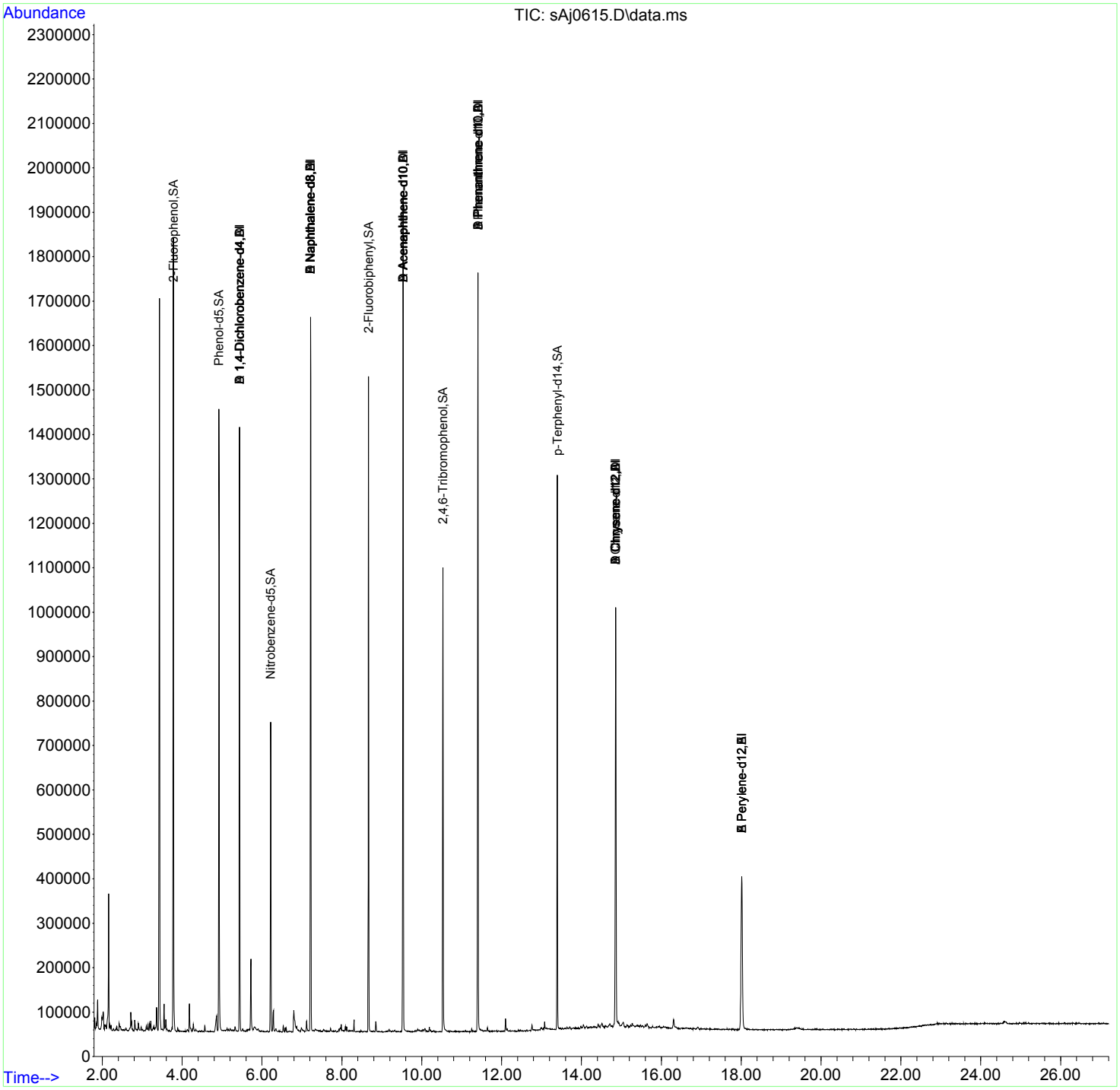
Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue

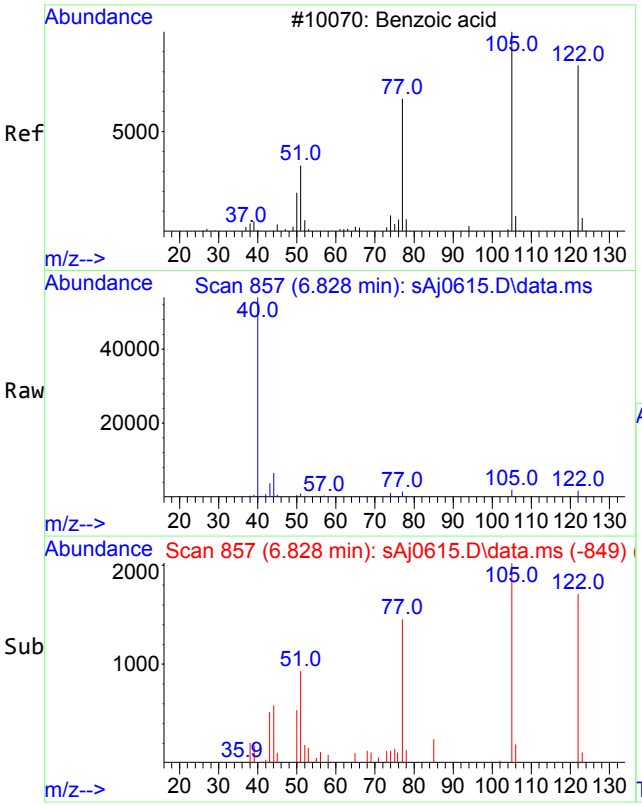
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0615.D
Acq On : 06 Oct 2017 16:24
Operator : JMB3
InstName : MSDA
Sample : |1203890201|1707073|1|SVM|1|MB
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 06 16:57:11 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

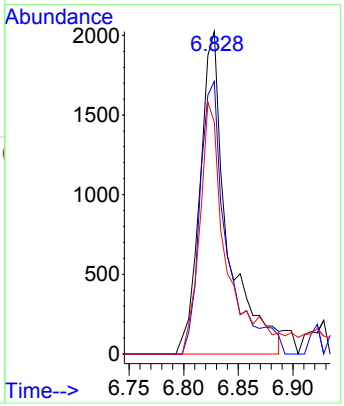




#32 BEFORE analyst DELETION
Benzoic acid
Concen: 13.52 ng/uL
RT: 6.828 min Scan# 857
Delta R.T. -0.100 min
Lab File: sAj0615.D
Acq: 06 Oct 2017 16:24

Tgt Ion:105 Resp: 3557

Ion	Ratio	Lower	Upper
105	100		
122	78.9	45.8	105.8
77	69.6	44.1	104.1



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**			**Matrix:**	**SOIL**
Lab Sample ID:	**1203890202**				
Client Sample:	**QC for batch 1707072**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**LCS for batch 1707072**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 16:56**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**31.04 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0616.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene		1320	ug/kg	9.66	32.2
91-58-7	2-Chloronaphthalene		1250	ug/kg	9.66	32.2
91-57-6	2-Methylnaphthalene		1310	ug/kg	9.66	32.2
83-32-9	Acenaphthene		1430	ug/kg	9.66	32.2
120-12-7	Anthracene		1330	ug/kg	9.66	32.2
56-55-3	Benzo(a)anthracene		1410	ug/kg	9.66	32.2
50-32-8	Benzo(a)pyrene		1450	ug/kg	9.66	32.2
205-99-2	Benzo(b)fluoranthene		1580	ug/kg	9.66	32.2
191-24-2	Benzo(ghi)perylene		1020	ug/kg	9.66	32.2
207-08-9	Benzo(k)fluoranthene		1580	ug/kg	9.66	32.2
86-74-8	Carbazole		1490	ug/kg	9.66	32.2
218-01-9	Chrysene		1410	ug/kg	9.66	32.2
53-70-3	Dibenzo(a,h)anthracene		1180	ug/kg	9.66	32.2
206-44-0	Fluoranthene		1560	ug/kg	9.66	32.2
86-73-7	Fluorene		1430	ug/kg	9.66	32.2
193-39-5	Indeno(1,2,3-cd)pyrene		1140	ug/kg	9.66	32.2
80-62-6	Methyl methacrylate	U	322	ug/kg	96.6	322
91-20-3	Naphthalene		1280	ug/kg	9.66	32.2
85-01-8	Phenanthrene		1370	ug/kg	9.66	32.2
129-00-0	Pyrene		1340	ug/kg	9.66	32.2
117-81-7	bis(2-Ethylhexyl)phthalate		1630	ug/kg	96.6	322

Quantitation Report
GEL Laboratories, LLC

10/06/2017

10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0616.D
Acq On : 06 Oct 2017 16:56
Operator : JMB3
InstName : MSDA
Sample : |1203890202|1707073|1|SVM|1|LCS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 06 20:02:09 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
Internal Standards								Dev(Min)
1) A 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	229894	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.222	7.228	1.000	842041	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.540	9.540	1.000	465655	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.416	11.410	1.000	772647	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.869	14.863	1.000	521429	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.021	18.016	1.000	313531	40.00	ng/uL	0.00
99) B 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	229894	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.222	7.228	1.000	842041	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.540	9.540	1.000	465655	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.416	11.410	1.000	772647	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.869	14.863	1.000	521429	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.021	18.016	1.000	313531	40.00	ng/uL	0.00
154) J Phenanthrene-d10	188	11.416	11.410	1.000	772647	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.869	14.863	1.000	521429	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.440	5.440	1.000	229894	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.222	7.228	1.000	842041	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.540	9.540	1.000	465655	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.416	11.410	1.000	772647	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.869	14.863	1.000	521429	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.222	7.228	1.000	842041	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.021	18.016	1.000	312328	40.00	ng/uL	0.00
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.781	3.752	0.695	505965	71.58	ng/uL	0.03
8) Phenol-d5	99	4.934	4.910	0.907	622346	70.40	ng/uL	0.02
25) Nitrobenzene-d5	82	6.228	6.228	0.862	271691	32.73	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.675	8.675	0.909	545580	31.48	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.545	10.534	1.105	172399	92.15	ng/uL	0.01
83) p-Terphenyl-d14	244	13.398	13.392	0.901	600390	43.57	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	72%
8) Phenol-d5	100.000	39 - 106	70%
25) Nitrobenzene-d5	50.000	34 - 109	65%
47) 2-Fluorobiphenyl	50.000	35 - 107	63%
66) 2,4,6-Tribromophenol	100.000	39 - 115	92%
83) p-Terphenyl-d14	50.000	45 - 119	87%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.440	2.417	0.449	156779	34.53	ng/uL	94
4) Pyridine	79	2.487	2.452	0.457	202567	25.47	ng/uL	95
7) Aniline	93	4.987	4.987	0.917	292405	26.90	ng/uL	96
9) Phenol	94	4.952	4.928	0.910	380194	41.15	ng/uL	98
10) bis(2-Chloroethyl) ether	93	5.075	5.075	0.933	314609	42.15	ng/uL	98
11) 2-Chlorophenol	128	5.152	5.140	0.947	319074	41.22	ng/uL	98
12) n-Decane	43	5.210	5.210	0.958	340523	28.96	ng/uL	97
13) 1,3-Dichlorobenzene	146	5.357	5.358	0.985	321542	36.28	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.463	5.463	1.004	330925	36.97	ng/uL	99

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0616.D
Acq On : 06 Oct 2017 16:56
Operator : JMB3
InstName : MSDA
Sample : |1203890202|1707073|1|SVM|1|LCS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 06 20:02:09 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15)	1,2-Dichlorobenzene	146	5.675	5.675	1.043	324405	38.28	ng/uL	100
16)	bis(2-Chloro-1-methyle...	45	5.828	5.834	1.071	599730	41.33	ng/uL	79
17)	Benzyl alcohol	108	5.640	5.634	1.037	203981	41.16	ng/uL	95
18)	o-Cresol	107	5.804	5.781	1.067	249125	40.53	ng/uL	90
19)	m,p-Cresols	107	6.016	6.016	1.106	363153	45.41	ng/uL#	52
20)	N-Nitrosodipropylamine	70	6.028	6.028	1.108	237066	42.67	ng/uL	77
23)	Hexachloroethane	117	6.152	6.157	1.131	124070	36.47	ng/uL	98
26)	Nitrobenzene	77	6.257	6.258	0.866	342352	41.03	ng/uL	97
27)	Isophorone	82	6.593	6.599	0.913	607470	42.14	ng/uL	99
28)	2-Nitrophenol	139	6.699	6.699	0.928	163091	47.46	ng/uL	93
29)	2,4-Dimethylphenol	122	6.769	6.763	0.937	239745	35.64	ng/uL	97
30)	bis(2-Chloroethoxy)met...	93	6.904	6.905	0.956	394781	42.20	ng/uL	100
31)	2,4-Dichlorophenol	162	7.040	7.028	0.975	261695	40.94	ng/uL	99
32)	Benzoic acid	105	6.969	6.928	0.965	273857	66.76	ng/uL	97
33)	1,2,4-Trichlorobenzene	180	7.146	7.146	0.989	289378	39.54	ng/uL	99
34)	alpha-Terpineol	59	7.281	7.275	1.008	318441	40.68	ng/uL	96
35)	Naphthalene	128	7.251	7.252	1.004	906816	39.79	ng/uL	100
36)	4-Chloroaniline	127	7.334	7.328	1.015	222422	29.62	ng/uL	97
37)	Hexachlorobutadiene	225	7.422	7.422	1.028	171783	39.44	ng/uL	99
38)	4-Chloro-3-methylphenol	107	8.010	7.981	1.109	266673	42.61	ng/uL	97
39)	2-Methylnaphthalene	142	8.187	8.187	1.134	598996	40.69	ng/uL	100
41)	1-Methylnaphthalene	142	8.316	8.316	1.151	563866	40.99	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.393	8.393	0.880	108030	25.77	ng/uL	99
44)	2,3-Dichloroaniline	161	8.557	8.557	0.897	290603	43.25	ng/uL	99
45)	2,4,6-Trichlorophenol	196	8.563	8.557	0.898	192209	40.79	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.622	8.599	0.904	200042	41.70	ng/uL	97
48)	2-Chloronaphthalene	162	8.828	8.822	0.925	565968	38.92	ng/uL	97
49)	o-Nitroaniline	65	8.963	8.957	0.940	181870	45.42	ng/uL	96
51)	m-Nitroaniline	138	9.493	9.487	0.995	119765	47.32	ng/uL	93
52)	Dimethylphthalate	163	9.210	9.210	0.965	673166	43.71	ng/uL	99
54)	2,6-Dinitrotoluene	165	9.287	9.281	0.973	157882	47.87	ng/uL	94
55)	2,4-Dinitrotoluene	165	9.793	9.787	1.027	205915	53.87	ng/uL	89
56)	Acenaphthylene	152	9.357	9.357	0.981	922516	41.16	ng/uL	100
57)	Acenaphthene	154	9.581	9.581	1.004	556486	44.50	ng/uL	100
58)	2,4-Dinitrophenol	184	9.622	9.616	1.009	34066	44.85	ng/uL	88
59)	Dibenzofuran	168	9.804	9.798	1.028	803476	42.34	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	9.957	9.951	1.044	152300	44.88	ng/uL	97
61)	Diethylphthalate	149	10.104	10.104	1.059	695036	47.77	ng/uL	99
62)	4-Nitrophenol	139	9.740	9.698	1.021	97031	49.64	ng/uL	91
63)	Fluorene	166	10.240	10.234	1.073	649535	44.42	ng/uL	98
64)	4-Chlorophenylphenylether	204	10.240	10.240	1.073	311631	44.97	ng/uL	97
65)	p-Nitroaniline	138	10.275	10.263	1.077	112631	46.42	ng/uL	96
68)	2-Methyl-4,6-dinitroph...	198	10.304	10.298	0.903	69543	48.82	ng/uL	90
69)	Diphenylamine	169	10.392	10.387	0.910	537788	37.66	ng/uL	98
70)	1,2-Diphenylhydrazine	77	10.440	10.440	0.914	676013	38.15	ng/uL	99
71)	4-Bromophenylphenylether	248	10.857	10.851	0.951	192145	39.73	ng/uL	98
72)	Hexachlorobenzene	284	10.922	10.922	0.957	210550	41.33	ng/uL	99
73)	Pentachlorophenol	266	11.175	11.163	0.979	112221	51.99	ng/uL	99
74)	n-Octadecane	57	11.287	11.287	0.989	602805	38.98	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0616.D
Acq On : 06 Oct 2017 16:56
Operator : JMB3
InstName : MSDA
Sample : |1203890202|1707073|1|SVM|1|LCS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 06 20:02:09 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

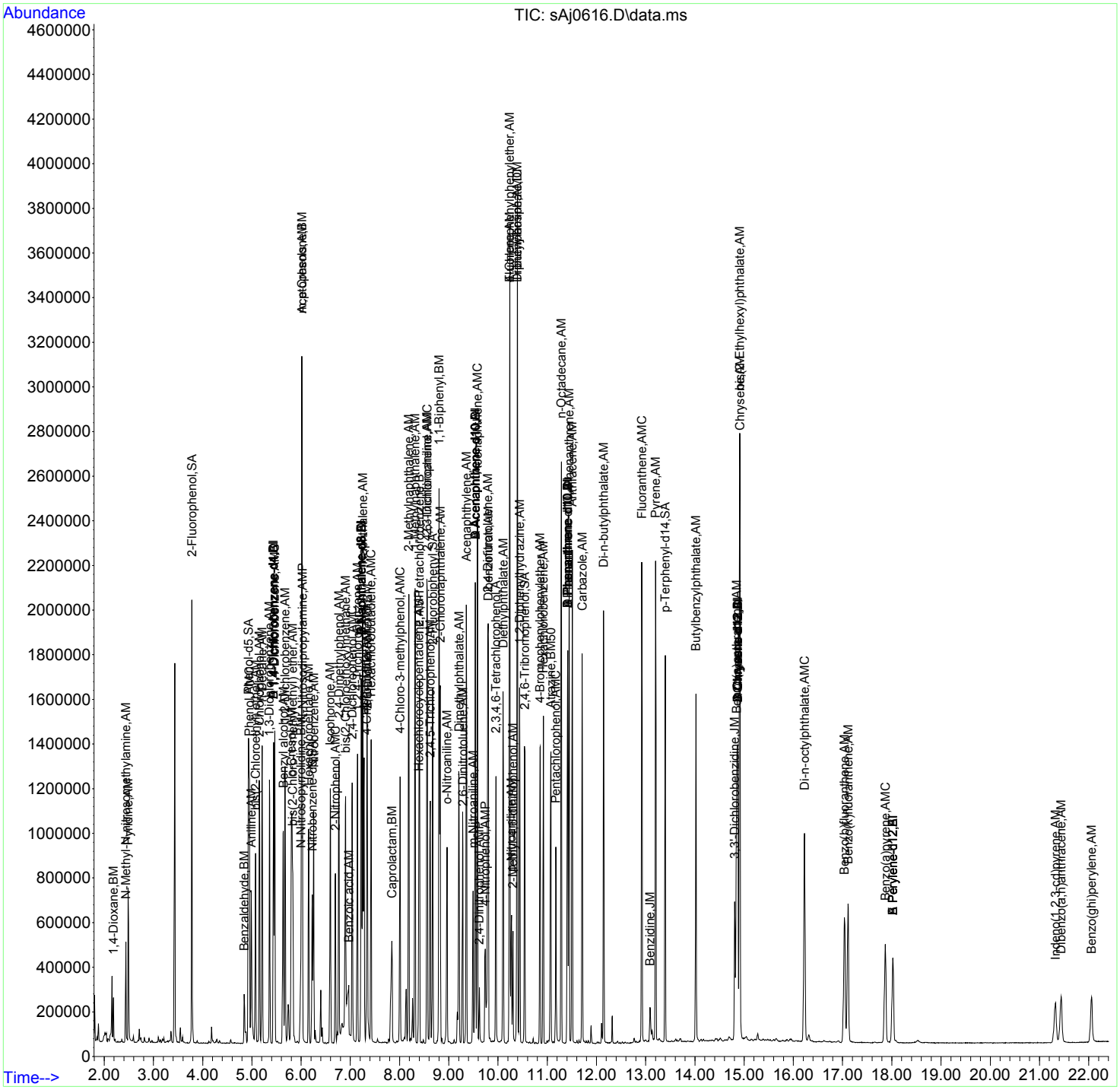
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Phenanthrene	178	11.445	11.440	1.003	913721	42.63	ng/uL	100
77)	Anthracene	178	11.510	11.504	1.008	900569	41.43	ng/uL	100
78)	Carbazole	167	11.710	11.704	1.026	786980	46.27	ng/uL	100
79)	Di-n-butylphthalate	149	12.145	12.145	1.064	1109278	50.00	ng/uL	100
80)	Fluoranthene	202	12.922	12.916	1.132	936222	48.54	ng/uL	99
82)	Pyrene	202	13.204	13.198	0.888	930629	41.63	ng/uL	98
84)	Butylbenzylphthalate	149	14.022	14.016	0.943	420711	50.65	ng/uL	98
85)	bis(2-Ethylhexyl)phtha...	149	14.910	14.910	1.003	603324	50.63	ng/uL	99
86)	Benzo(a)anthracene	228	14.851	14.845	0.999	717934	43.74	ng/uL	96
87)	Chrysene	228	14.916	14.904	1.003	660773	43.85	ng/uL	100
90)	Di-n-octylphthalate	149	16.227	16.222	1.091	902192	52.40	ng/uL	97
92)	Benzo(b)fluoranthene	252	17.039	17.028	0.945	490981	49.00	ng/uL	100
93)	Benzo(k)fluoranthene	252	17.116	17.098	0.950	478531	49.11	ng/uL	98
94)	Benzo(a)pyrene	252	17.869	17.857	0.992	391558	44.94	ng/uL	100
95)	Indeno(1,2,3-cd)pyrene	276	21.327	21.316	1.183	214417	35.36	ng/uL	99
96)	Dibenzo(a,h)anthracene	278	21.439	21.427	1.190	222230	36.56	ng/uL	99
97)	Benzo(ghi)perylene	276	22.057	22.051	1.224	205409	31.61	ng/uL	98
100)	1,4-Dioxane	88	2.187	2.152	0.402	53452	19.92	ng/uL	94
109)	Benzaldehyde	77	4.846	4.846	0.891	42662	6.99	ng/uL	99
111)	N-Nitrosopyrrolidine	100	5.999	5.993	1.103	164486	42.26	ng/uL	93
112)	Acetophenone	105	6.016	6.010	1.106	430743	39.60	ng/uL	78
118)	2,6-Dichlorophenol	162	7.346	7.340	1.017	265534	46.35	ng/uL	99
120)	Caprolactam	113	7.846	7.799	1.086	84610m	44.32	ng/uL	
124)	1,2,4,5-Tetrachloroben...	216	8.404	8.404	0.881	307634	42.05	ng/uL	100
125)	1,1-Biphenyl	154	8.804	8.804	0.923	750980	42.13	ng/uL	99
138)	Atrazine	200	11.075	11.063	0.970	186915	47.28	ng/uL	99
155)	Benzidine	184	13.092	13.081	1.147	106390	11.74	ng/uL	94
158)	3,3'-Dichlorobenzidine	252	14.810	14.798	0.996	174244	32.96	ng/uL	100
165)	Tributylphosphate	99	10.392	10.381	1.089	934009	57.86	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0616.D
Acq On : 06 Oct 2017 16:56
Operator : JMB3
InstName : MSDA
Sample : |1203890202|1707073|1|SVM|1|LCS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 06 20:02:09 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203890203**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
Client Sample:	**QC for batch 1707072**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2ESOL01MS**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 18:22**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.32 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0619.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene		1420	ug/kg	10.5	35.1
91-58-7	2-Chloronaphthalene		1220	ug/kg	10.5	35.1
91-57-6	2-Methylnaphthalene		1390	ug/kg	10.5	35.1
83-32-9	Acenaphthene		1460	ug/kg	10.5	35.1
120-12-7	Anthracene		1380	ug/kg	10.5	35.1
56-55-3	Benzo(a)anthracene		1420	ug/kg	10.5	35.1
50-32-8	Benzo(a)pyrene		1340	ug/kg	10.5	35.1
205-99-2	Benzo(b)fluoranthene		1440	ug/kg	10.5	35.1
191-24-2	Benzo(ghi)perylene		920	ug/kg	10.5	35.1
207-08-9	Benzo(k)fluoranthene		1480	ug/kg	10.5	35.1
86-74-8	Carbazole		1570	ug/kg	10.5	35.1
218-01-9	Chrysene		1410	ug/kg	10.5	35.1
53-70-3	Dibenzo(a,h)anthracene		1110	ug/kg	10.5	35.1
206-44-0	Fluoranthene		1640	ug/kg	10.5	35.1
86-73-7	Fluorene		1510	ug/kg	10.5	35.1
193-39-5	Indeno(1,2,3-cd)pyrene		996	ug/kg	10.5	35.1
80-62-6	Methyl methacrylate	U	351	ug/kg	105	351
91-20-3	Naphthalene		1260	ug/kg	10.5	35.1
85-01-8	Phenanthrene		1400	ug/kg	10.5	35.1
129-00-0	Pyrene		1320	ug/kg	10.5	35.1
117-81-7	bis(2-Ethylhexyl)phthalate		1700	ug/kg	105	351

Quantitation Report
GEL Laboratories, LLC

10/06/2017

10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0619.D
Acq On : 06 Oct 2017 18:22
Operator : JMB3
InstName : MSDA
Sample : |1203890203|1707073|1|SVM|1|MS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 20:05:27 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	223277	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.222	7.228	1.000	670424	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.540	9.540	1.000	424165	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.416	11.410	1.000	748946	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.869	14.863	1.000	552316	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.027	18.016	1.000	364763	40.00	ng/uL	0.01
99) B 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	223277	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.222	7.228	1.000	670424	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.540	9.540	1.000	424165	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.416	11.410	1.000	748946	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.869	14.863	1.000	552316	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.027	18.016	1.000	364763	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.416	11.410	1.000	748946	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.869	14.863	1.000	552316	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	223277	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.222	7.228	1.000	670424	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.540	9.540	1.000	424165	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.416	11.410	1.000	748946	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.869	14.863	1.000	552316	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.222	7.228	1.000	670424	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.027	18.016	1.000	362321	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.769	3.752	0.694	458494	66.79	ng/uL	0.02
8) Phenol-d5	99	4.928	4.910	0.907	565195m	65.83	ng/uL	0.02
25) Nitrobenzene-d5	82	6.222	6.228	0.862	194727	29.46	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.675	8.675	0.909	449397	28.47	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.545	10.534	1.105	155063	90.99	ng/uL	0.01
83) p-Terphenyl-d14	244	13.398	13.392	0.901	594981	40.76	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	67%
8) Phenol-d5	100.000	39 - 106	66%
25) Nitrobenzene-d5	50.000	34 - 109	59%
47) 2-Fluorobiphenyl	50.000	35 - 107	57%
66) 2,4,6-Tribromophenol	100.000	39 - 115	91%
83) p-Terphenyl-d14	50.000	45 - 119	82%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.440	2.417	0.449	140697	31.90	ng/uL	94
4) Pyridine	79	2.493	2.452	0.459	191043m	24.73	ng/uL	
7) Aniline	93	4.987	4.987	0.918	310592	29.42	ng/uL	86
9) Phenol	94	4.946	4.928	0.910	365240m	40.70	ng/uL	
10) bis(2-Chloroethyl) ether	93	5.069	5.075	0.933	282228m	38.93	ng/uL	
11) 2-Chlorophenol	128	5.152	5.140	0.948	286611m	38.13	ng/uL	
12) n-Decane	43	5.199	5.210	0.957	240490	21.06	ng/uL	97
13) 1,3-Dichlorobenzene	146	5.352	5.358	0.985	270409	31.41	ng/uL	99
14) 1,4-Dichlorobenzene	146	5.457	5.463	1.004	280955m	32.32	ng/uL	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0619.D
Acq On : 06 Oct 2017 18:22
Operator : JMB3
InstName : MSDA
Sample : |1203890203|1707073|1|SVM|1|MS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 20:05:27 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15)	1,2-Dichlorobenzene	146	5.669	5.675	1.043	277756m	33.75	ng/uL	
16)	bis(2-Chloro-1-methyle...	45	5.828	5.834	1.073	532548	37.79	ng/uL	88
17)	Benzyl alcohol	108	5.634	5.634	1.037	153527	31.89	ng/uL	93
18)	o-Cresol	107	5.799	5.781	1.067	226310m	37.91	ng/uL	
19)	m,p-Cresols	107	6.016	6.016	1.107	330887m	42.60	ng/uL	
20)	N-Nitrosodipropylamine	70	6.022	6.028	1.108	215021m	39.85	ng/uL	
23)	Hexachloroethane	117	6.152	6.157	1.132	103093m	31.20	ng/uL	
26)	Nitrobenzene	77	6.252	6.258	0.866	233165	35.10	ng/uL	97
27)	Isophorone	82	6.593	6.599	0.913	444855	38.76	ng/uL	99
28)	2-Nitrophenol	139	6.693	6.699	0.927	115682	42.28	ng/uL	92
29)	2,4-Dimethylphenol	122	6.769	6.763	0.937	173959	32.48	ng/uL	99
30)	bis(2-Chloroethoxy)met...	93	6.899	6.905	0.955	282252	37.89	ng/uL	99
31)	2,4-Dichlorophenol	162	7.034	7.028	0.974	205161	40.31	ng/uL	99
32)	Benzoic acid	105	6.969	6.928	0.965	235635	71.12	ng/uL	97
33)	1,2,4-Trichlorobenzene	180	7.146	7.146	0.989	206487	35.44	ng/uL	99
34)	alpha-Terpineol	59	7.275	7.275	1.007	234630	37.64	ng/uL	96
35)	Naphthalene	128	7.252	7.252	1.004	652369	35.95	ng/uL	99
36)	4-Chloroaniline	127	7.334	7.328	1.015	188438	31.52	ng/uL	97
37)	Hexachlorobutadiene	225	7.422	7.422	1.028	117797	33.97	ng/uL	99
38)	4-Chloro-3-methylphenol	107	8.004	7.981	1.108	227853m	45.73	ng/uL	
39)	2-Methylnaphthalene	142	8.187	8.187	1.134	464483	39.63	ng/uL	100
41)	1-Methylnaphthalene	142	8.316	8.316	1.151	443873	40.53	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.393	8.393	0.880	64318	19.36	ng/uL	98
44)	2,3-Dichloroaniline	161	8.557	8.557	0.897	250071	40.86	ng/uL	98
45)	2,4,6-Trichlorophenol	196	8.563	8.557	0.898	164569	38.35	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.616	8.599	0.903	169401	38.77	ng/uL	97
48)	2-Chloronaphthalene	162	8.822	8.822	0.925	460759	34.79	ng/uL	93
49)	o-Nitroaniline	65	8.963	8.957	0.940	150099	41.15	ng/uL	95
51)	m-Nitroaniline	138	9.493	9.487	0.995	106463	46.18	ng/uL	94
52)	Dimethylphthalate	163	9.204	9.210	0.965	569302	40.58	ng/uL	100
54)	2,6-Dinitrotoluene	165	9.281	9.281	0.973	132403	44.07	ng/uL	94
55)	2,4-Dinitrotoluene	165	9.793	9.787	1.027	180443	51.82	ng/uL	91
56)	Acenaphthylene	152	9.357	9.357	0.981	778477	38.13	ng/uL	100
57)	Acenaphthene	154	9.581	9.581	1.004	473039	41.53	ng/uL	100
58)	2,4-Dinitrophenol	184	9.622	9.616	1.009	29058	42.00	ng/uL	90
59)	Dibenzofuran	168	9.804	9.798	1.028	692755	40.07	ng/uL	99
60)	2,3,4,6-Tetrachlorophenol	232	9.957	9.951	1.044	135287	43.77	ng/uL	97
61)	Diethylphthalate	149	10.104	10.104	1.059	611205	46.12	ng/uL	99
62)	4-Nitrophenol	139	9.740	9.698	1.021	104292m	58.57	ng/uL	
63)	Fluorene	166	10.234	10.234	1.073	571725	42.92	ng/uL	98
64)	4-Chlorophenylphenylether	204	10.240	10.240	1.073	274877	43.55	ng/uL	97
65)	p-Nitroaniline	138	10.269	10.263	1.076	112291	50.81	ng/uL	93
68)	2-Methyl-4,6-dinitroph...	198	10.304	10.298	0.903	62835	45.80	ng/uL	88
69)	Diphenylamine	169	10.393	10.387	0.910	476704	34.44	ng/uL	98
70)	1,2-Diphenylhydrazine	77	10.440	10.440	0.914	590344	34.37	ng/uL	99
71)	4-Bromophenylphenylether	248	10.857	10.851	0.951	171422	36.57	ng/uL	97
72)	Hexachlorobenzene	284	10.922	10.922	0.957	186504	37.76	ng/uL	99
73)	Pentachlorophenol	266	11.175	11.163	0.979	98152	46.91	ng/uL	99
74)	n-Octadecane	57	11.287	11.287	0.989	566877	37.82	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0619.D
Acq On : 06 Oct 2017 18:22
Operator : JMB3
InstName : MSDA
Sample : |1203890203|1707073|1|SVM|1|MS
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 06 20:05:27 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Phenanthrene	178	11.445	11.440	1.003	830400	39.97	ng/uL	100
77)	Anthracene	178	11.510	11.504	1.008	828216	39.31	ng/uL	100
78)	Carbazole	167	11.710	11.704	1.026	739009	44.82	ng/uL	100
79)	Di-n-butylphthalate	149	12.145	12.145	1.064	1061169	49.34	ng/uL	100
80)	Fluoranthene	202	12.922	12.916	1.132	873793	46.74	ng/uL	98
82)	Pyrene	202	13.204	13.198	0.888	892341	37.69	ng/uL	99
84)	Butylbenzylphthalate	149	14.022	14.016	0.943	424293	48.22	ng/uL	97
85)	bis(2-Ethylhexyl)phtha...	149	14.910	14.910	1.003	611504	48.45	ng/uL	99
86)	Benzo(a)anthracene	228	14.851	14.845	0.999	703041	40.43	ng/uL	96
87)	Chrysene	228	14.916	14.904	1.003	640680	40.13	ng/uL	100
90)	Di-n-octylphthalate	149	16.227	16.222	1.091	944381	51.78	ng/uL	97
92)	Benzo(b)fluoranthene	252	17.039	17.028	0.945	477218	40.94	ng/uL	99
93)	Benzo(k)fluoranthene	252	17.110	17.098	0.949	477129	42.09	ng/uL	99
94)	Benzo(a)pyrene	252	17.869	17.857	0.991	386982	38.18	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.327	21.316	1.183	200130	28.37	ng/uL	99
96)	Dibenzo(a,h)anthracene	278	21.439	21.427	1.189	223077	31.54	ng/uL	99
97)	Benzo(ghi)perylene	276	22.057	22.051	1.224	198047	26.20	ng/uL	99
100)	1,4-Dioxane	88	2.187	2.152	0.402	46554	17.86	ng/uL	94
109)	Benzaldehyde	77	4.840	4.846	0.891	116152	19.60	ng/uL	98
111)	N-Nitrosopyrrolidine	100	5.999	5.993	1.104	121193m	32.06	ng/uL	
112)	Acetophenone	105	6.016	6.010	1.107	384069m	36.36	ng/uL	
118)	2,6-Dichlorophenol	162	7.346	7.340	1.017	201238	44.12	ng/uL	99
120)	Caprolactam	113	7.840	7.799	1.086	77893m	51.25	ng/uL	
124)	1,2,4,5-Tetrachloroben...	216	8.404	8.404	0.881	242978	36.46	ng/uL	99
125)	1,1-Biphenyl	154	8.804	8.804	0.923	613800	37.80	ng/uL	99
138)	Atrazine	200	11.069	11.063	0.970	171006	44.63	ng/uL	99
155)	Benzidine	184	13.092	13.081	1.147	80267	9.14	ng/uL	94
158)	3,3'-Dichlorobenzidine	252	14.810	14.798	0.996	183244	32.73	ng/uL	99
165)	Tributylphosphate	99	10.393	10.381	1.089	838172	57.00	ng/uL	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0619.D
Acq On    : 06 Oct 2017  18:22
Operator  : JMB3
InstName  : MSDA
Sample    : |1203890203|1707073|1|SVM|1|MS
Misc      : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial  : 19   Sample Multiplier: 1

Quant Time: Oct 06 20:05:27 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title  : BNA01                                          SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE
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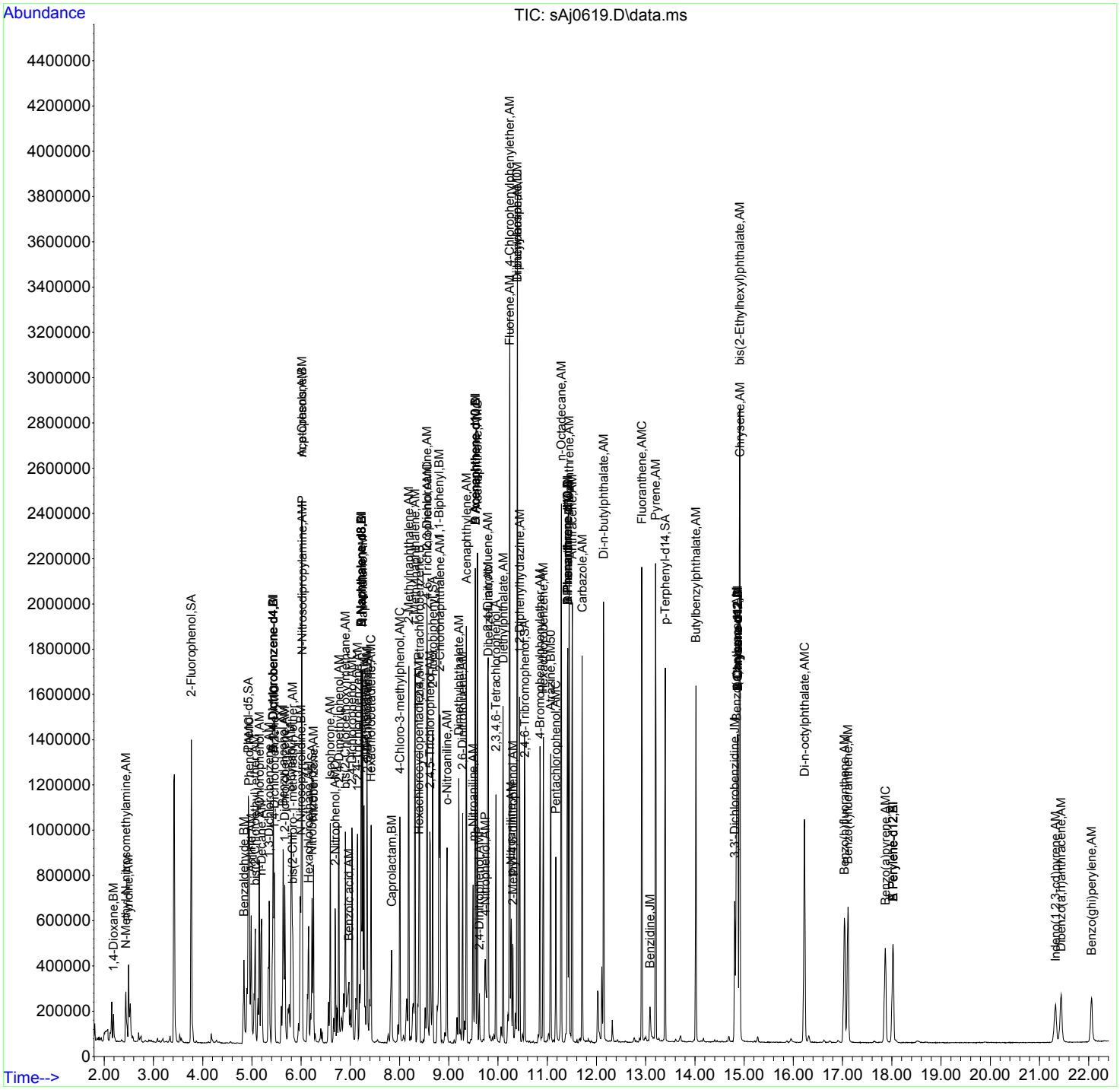
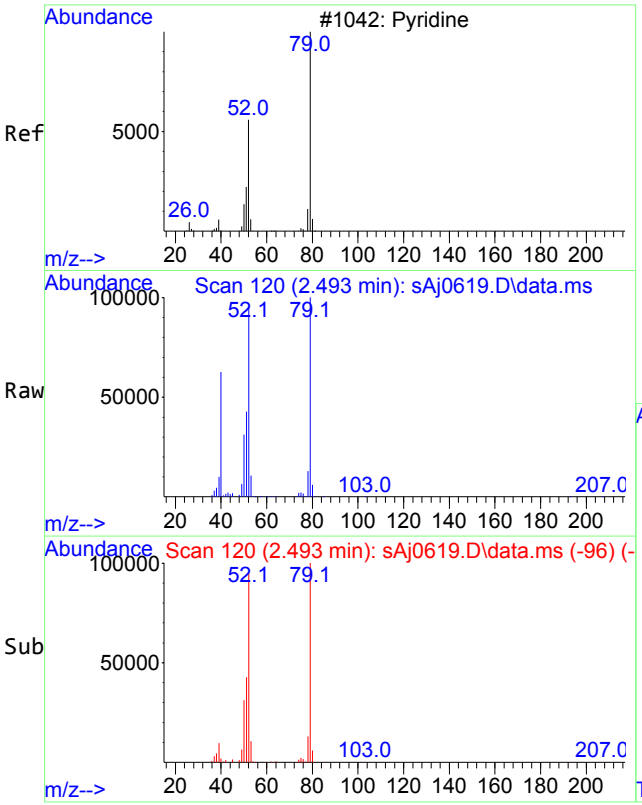
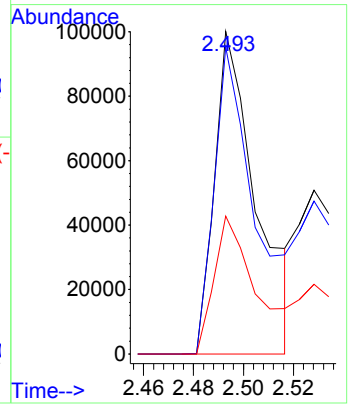


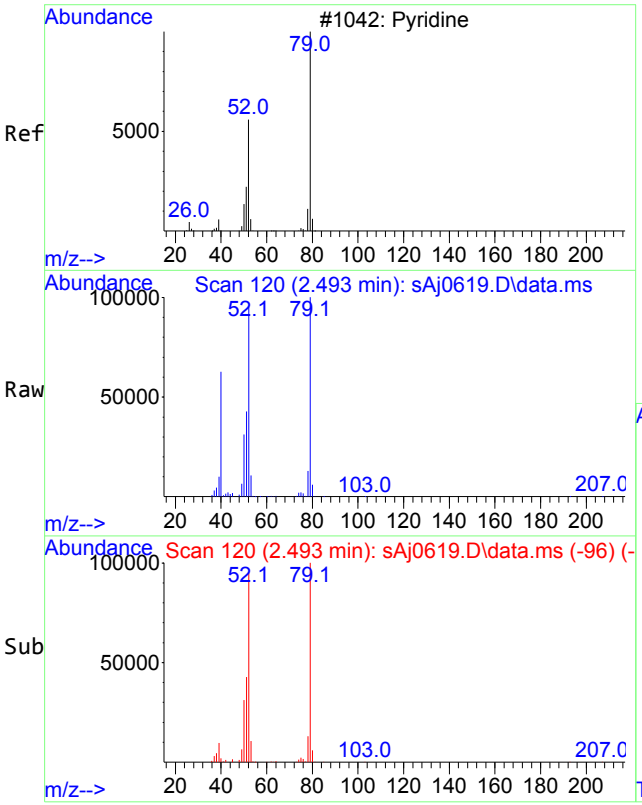


#4 BEFORE analyst integration
Pyridine
Concen: 15.09 ng/uL
RT: 2.493 min Scan# 120
Delta R.T. 0.041 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 79 Resp: 116542

Ion	Ratio	Lower	Upper
79	100		
52	84.0	67.5	127.5
51	38.6	16.0	76.0

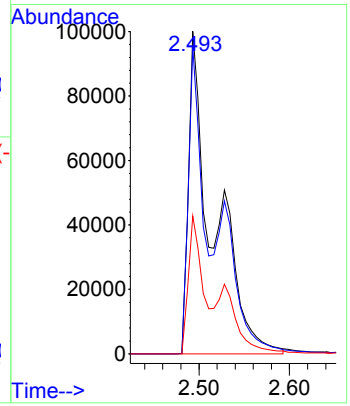


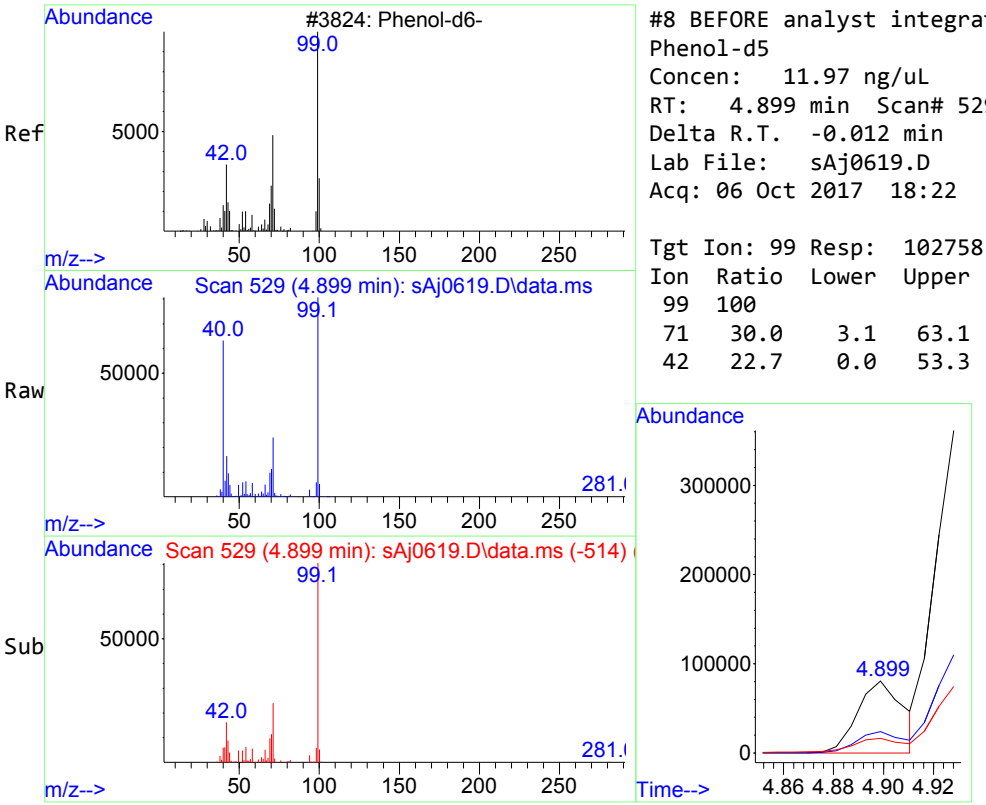


#4 AFTER analyst integration
Pyridine AB
Concen: 24.73 ng/uL MANUALLY INTEGRATED
RT: 2.493 min Scan# 120
Delta R.T. 0.041 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 79 Resp: 191043

Ion	Ratio	Lower	Upper
79	100		
52	93.3	67.5	127.5
51	42.9	16.0	76.0

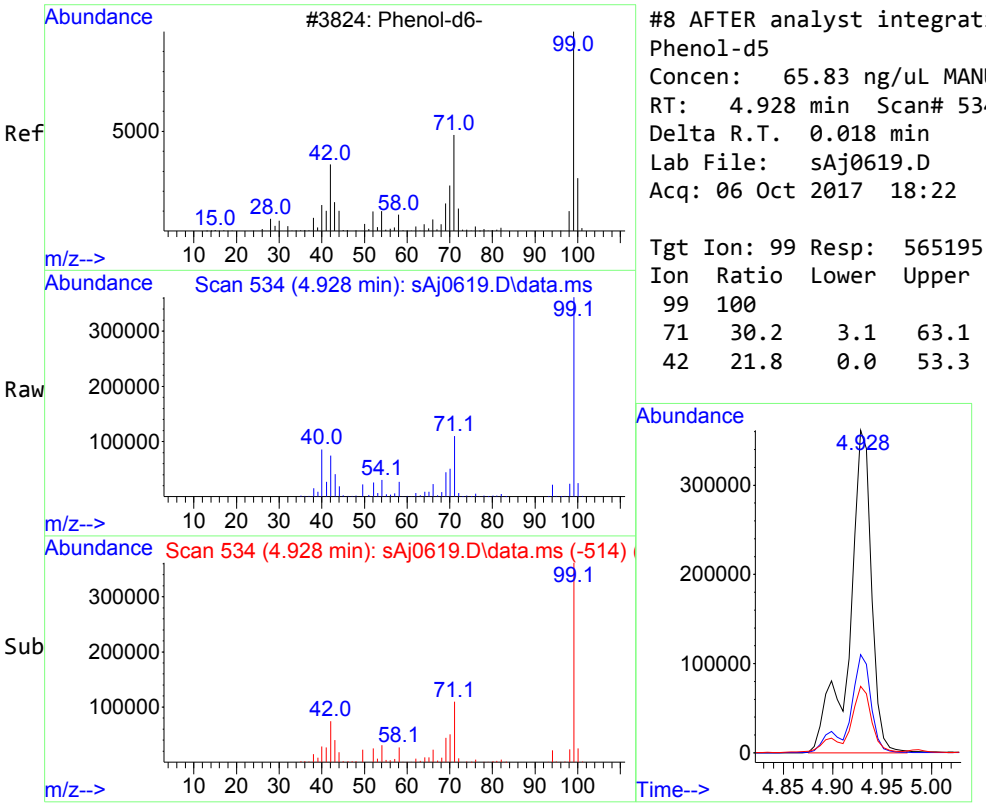




#8 BEFORE analyst integration
Phenol-d5
Concen: 11.97 ng/uL
RT: 4.899 min Scan# 529
Delta R.T. -0.012 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 99 Resp: 102758

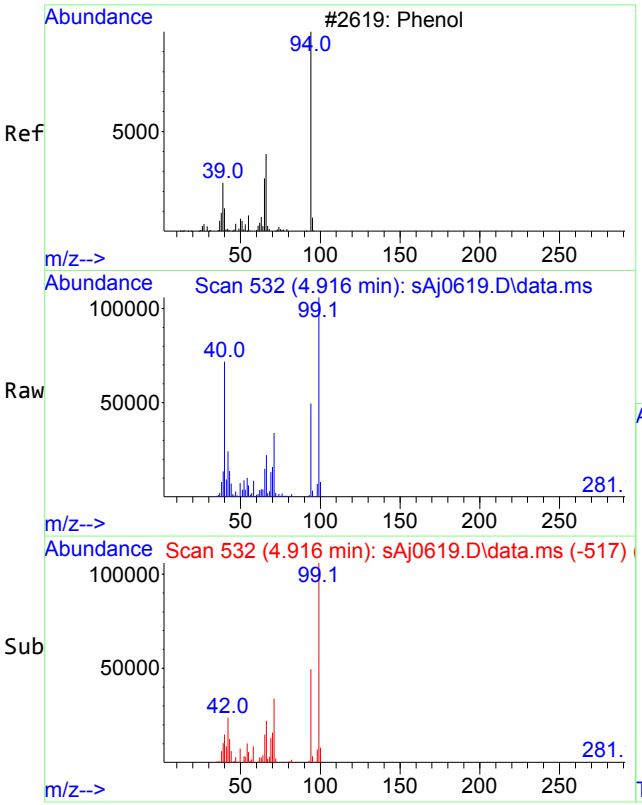
Ion	Ratio	Lower	Upper
99	100		
71	30.0	3.1	63.1
42	22.7	0.0	53.3



#8 AFTER analyst integration
Phenol-d5 AP
Concen: 65.83 ng/uL MANUALLY INTEGRATED
RT: 4.928 min Scan# 534
Delta R.T. 0.018 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 99 Resp: 565195

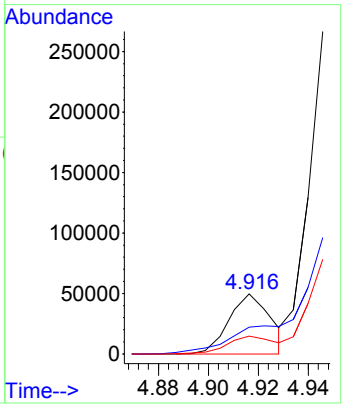
Ion	Ratio	Lower	Upper
99	100		
71	30.2	3.1	63.1
42	21.8	0.0	53.3

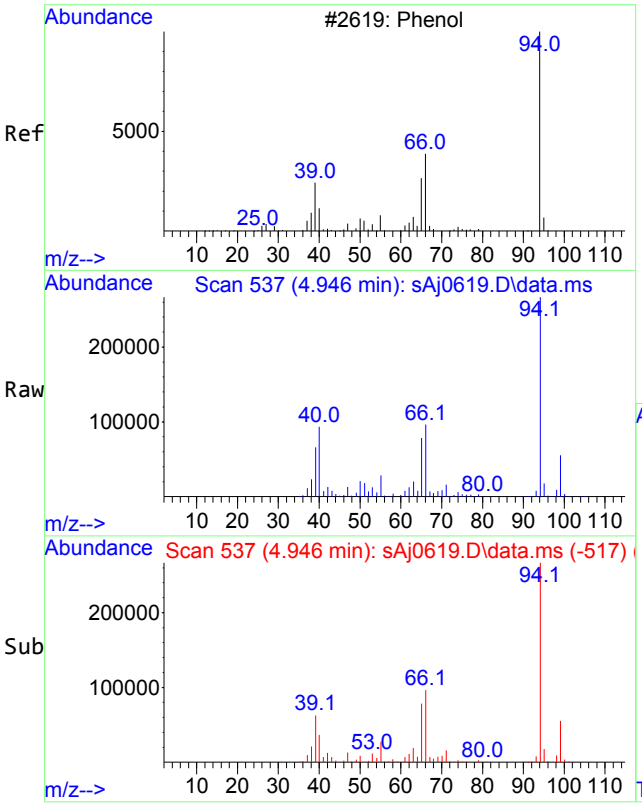


#9 BEFORE analyst integration
Phenol
Concen: 6.40 ng/uL
RT: 4.916 min Scan# 532
Delta R.T. -0.012 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 94 Resp: 57469

Ion	Ratio	Lower	Upper
94	100		
66	62.1	12.5	72.5
65	33.6	1.7	61.7

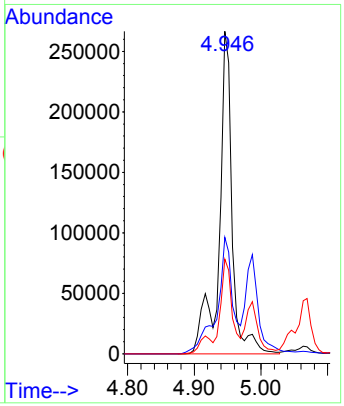


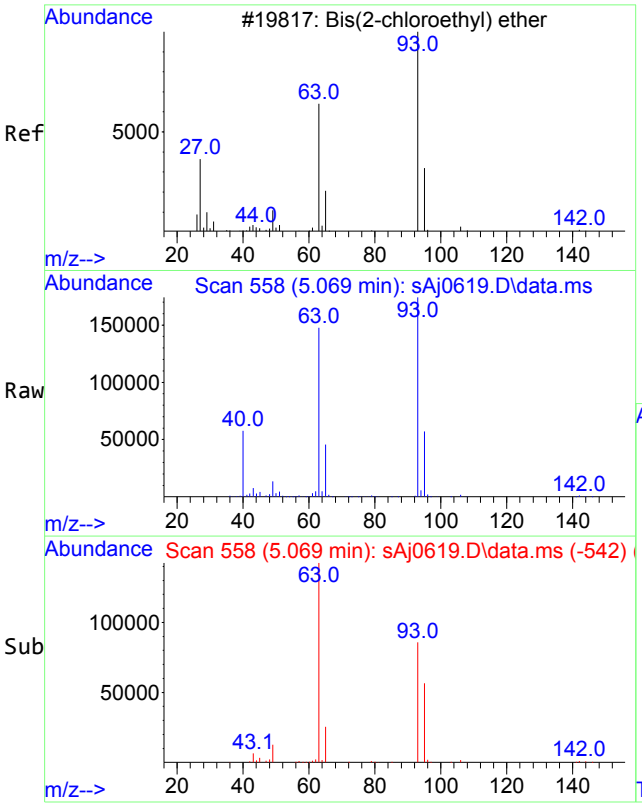


#9 AFTER analyst integration
Phenol AP
Concen: 40.70 ng/uL MANUALLY INTEGRATED
RT: 4.946 min Scan# 537
Delta R.T. 0.018 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 94 Resp: 365240

Ion	Ratio	Lower	Upper
94	100		
66	43.9	12.5	72.5
65	30.6	1.7	61.7

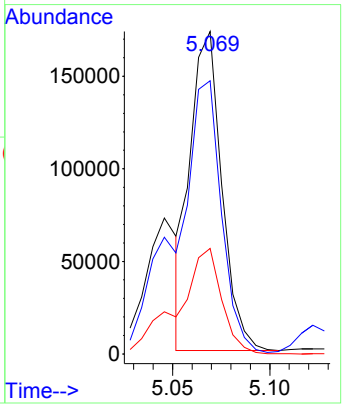


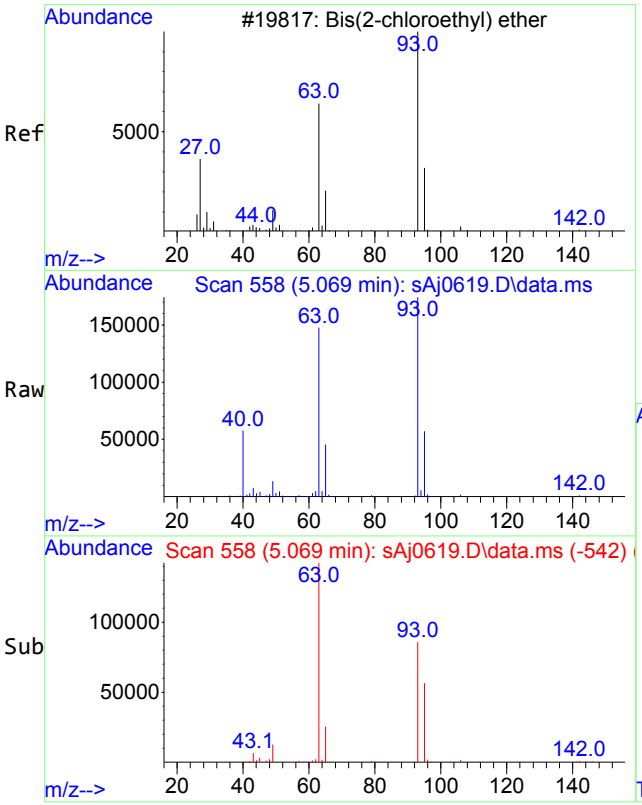


#10 BEFORE analyst integration
bis(2-Chloroethyl) ether
Concen: 26.86 ng/uL
RT: 5.069 min Scan# 558
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 93 Resp: 194698

Ion	Ratio	Lower	Upper
93	100		
63	86.7	59.5	119.5
95	33.0	2.7	62.7

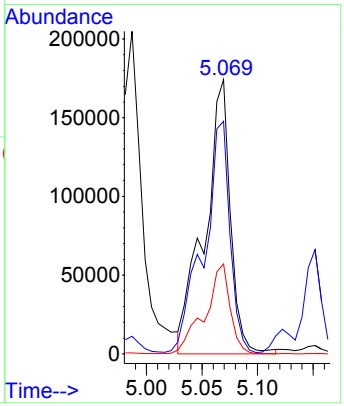


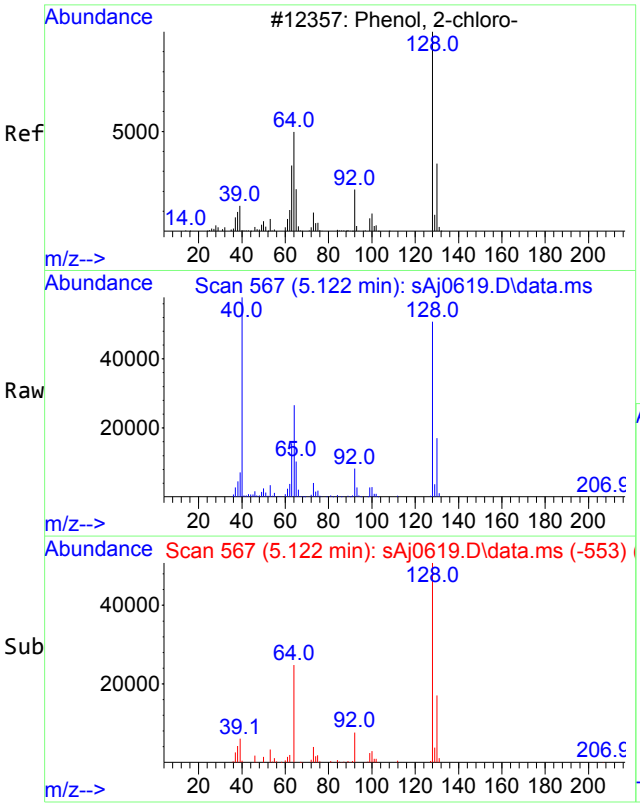


#10 AFTER analyst integration
bis(2-Chloroethyl) ether AB
Concen: 38.93 ng/uL MANUALLY INTEGRATED
RT: 5.069 min Scan# 558
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 93 Resp: 282228

Ion	Ratio	Lower	Upper
93	100		
63	85.4	59.5	119.5
95	31.9	2.7	62.7

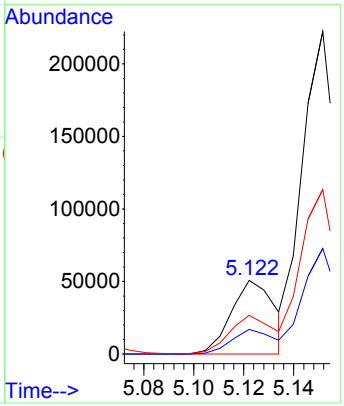


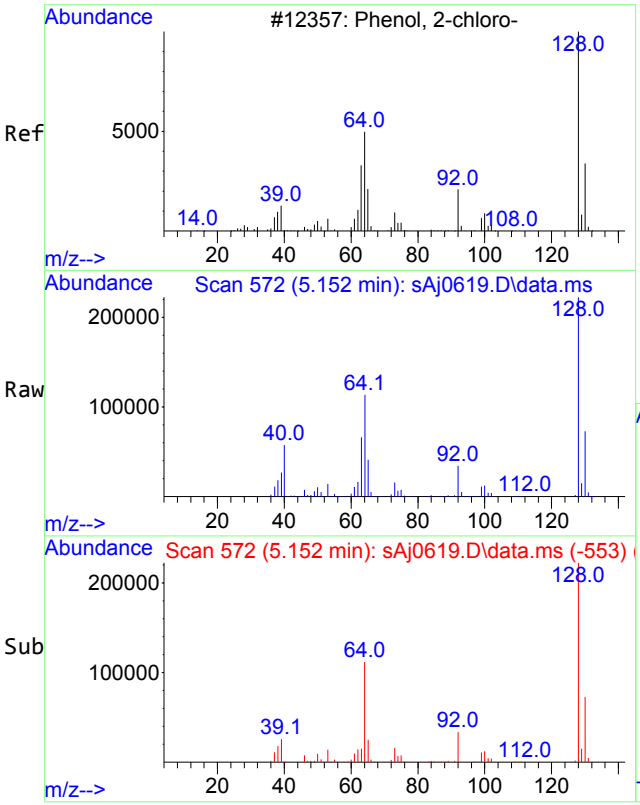


#11 BEFORE analyst integration
2-Chlorophenol
Concen: 8.12 ng/uL
RT: 5.122 min Scan# 567
Delta R.T. -0.018 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:128 Resp: 61019

Ion	Ratio	Lower	Upper
128	100		
130	32.3	2.4	62.4
64	52.0	23.7	83.7

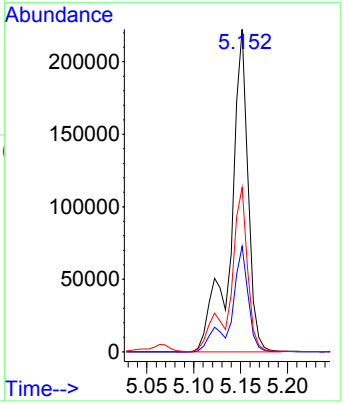


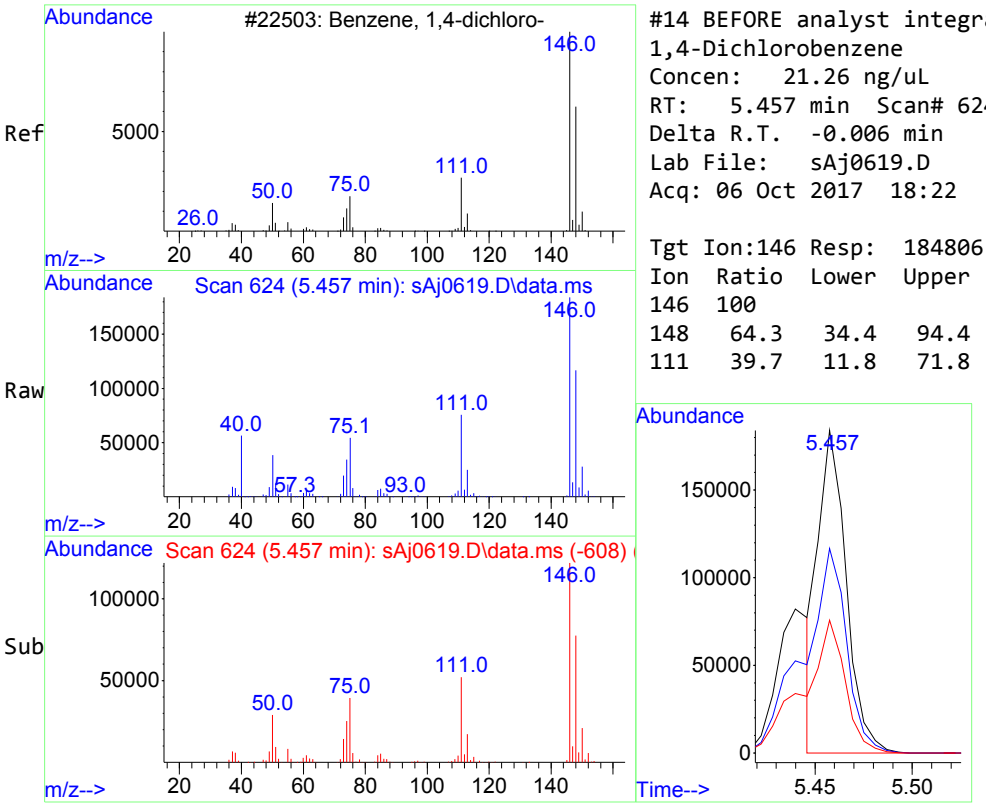


#11 AFTER analyst integration
2-Chlorophenol AP
Concen: 38.13 ng/uL MANUALLY INTEGRATED
RT: 5.152 min Scan# 572
Delta R.T. 0.012 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:128 Resp: 286611

Ion	Ratio	Lower	Upper
128	100		
130	32.2	2.4	62.4
64	51.6	23.7	83.7

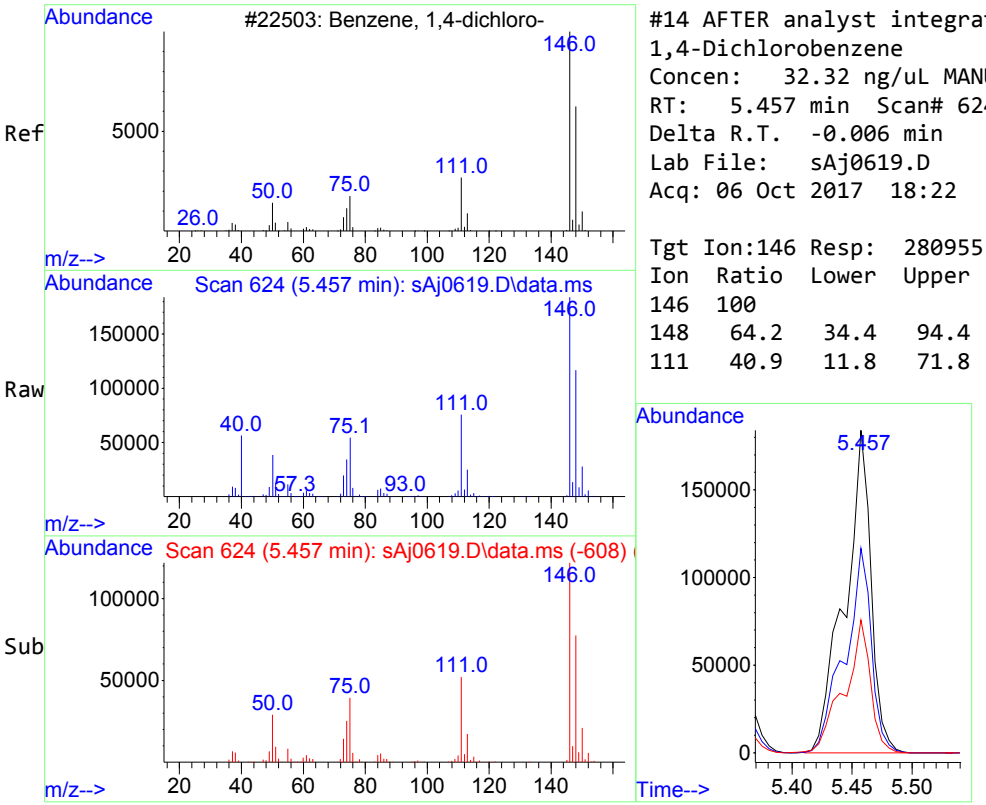




#14 BEFORE analyst integration
1,4-Dichlorobenzene
Concen: 21.26 ng/uL
RT: 5.457 min Scan# 624
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:146 Resp: 184806

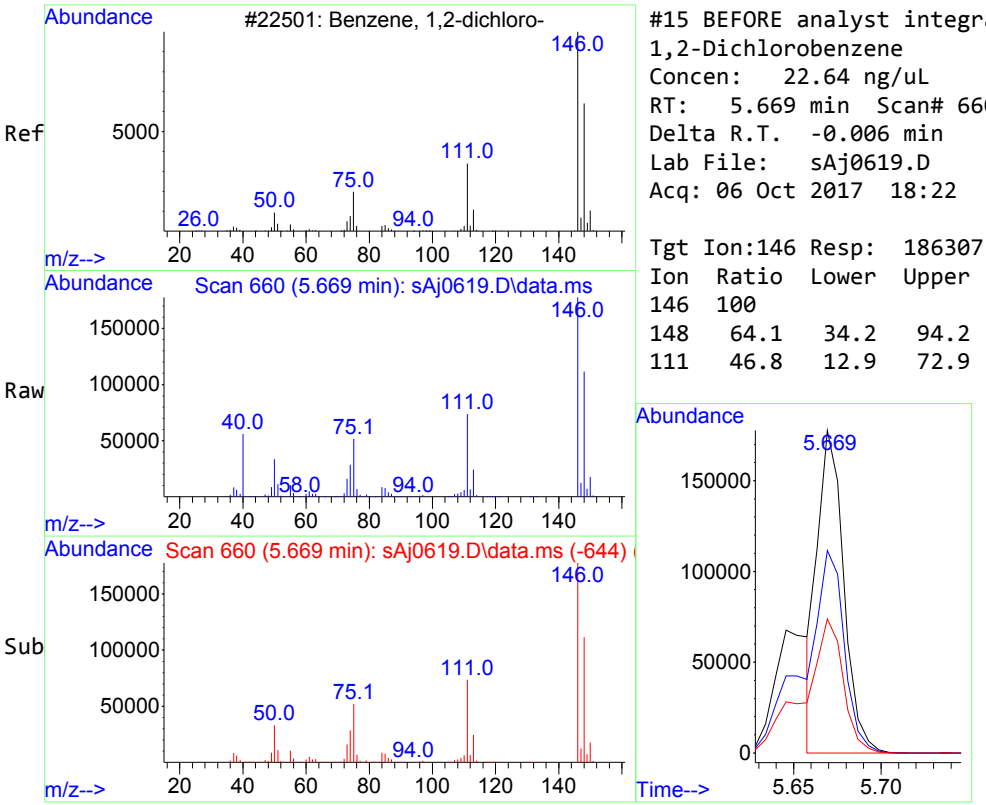
Ion	Ratio	Lower	Upper
146	100		
148	64.3	34.4	94.4
111	39.7	11.8	71.8



#14 AFTER analyst integration
1,4-Dichlorobenzene AB
Concen: 32.32 ng/uL MANUALLY INTEGRATED
RT: 5.457 min Scan# 624
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:146 Resp: 280955

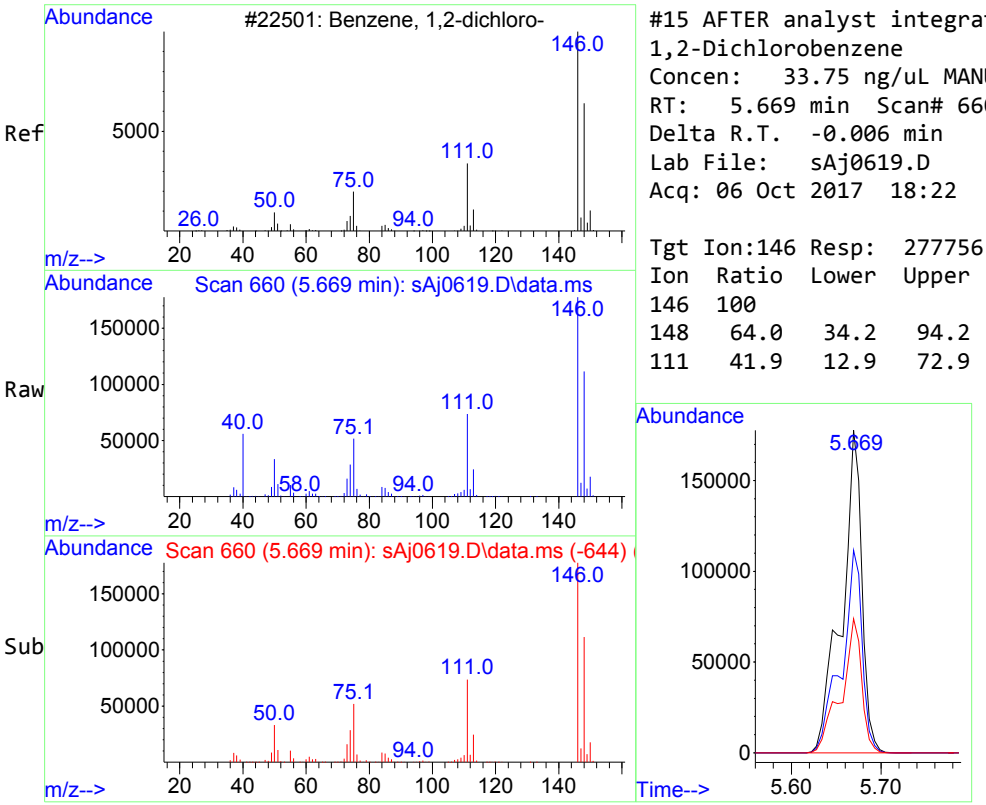
Ion	Ratio	Lower	Upper
146	100		
148	64.2	34.4	94.4
111	40.9	11.8	71.8



#15 BEFORE analyst integration
1,2-Dichlorobenzene
Concen: 22.64 ng/uL
RT: 5.669 min Scan# 660
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:146 Resp: 186307

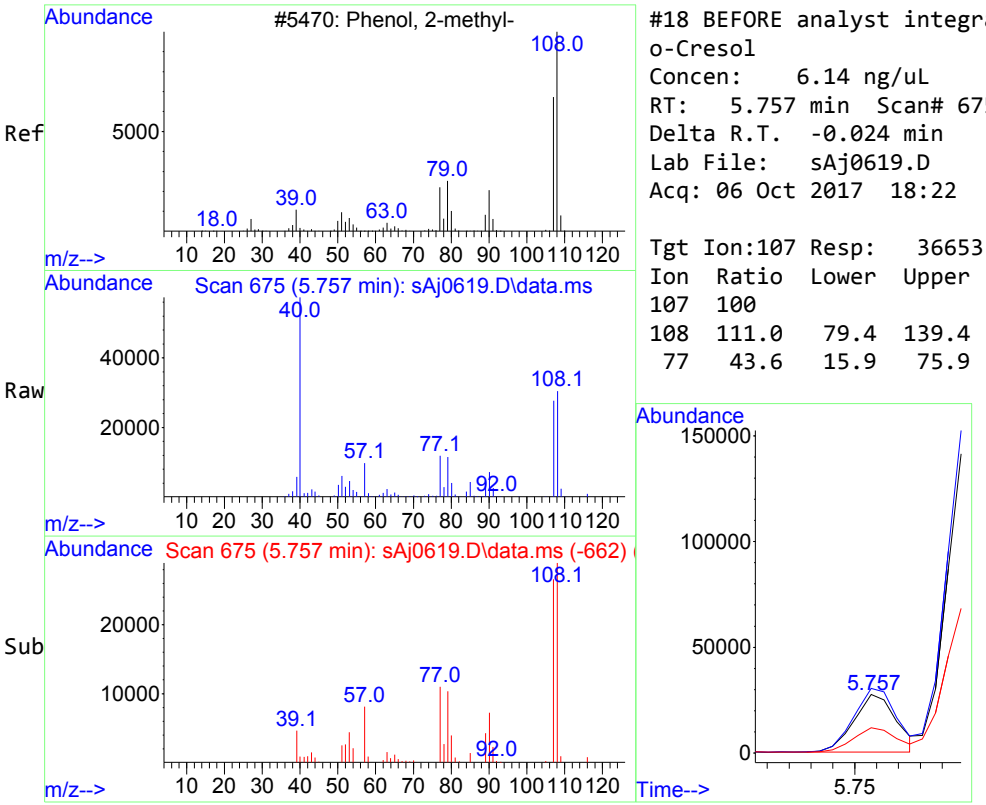
Ion	Ratio	Lower	Upper
146	100		
148	64.1	34.2	94.2
111	46.8	12.9	72.9



#15 AFTER analyst integration
1,2-Dichlorobenzene AB
Concen: 33.75 ng/uL MANUALLY INTEGRATED
RT: 5.669 min Scan# 660
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:146 Resp: 277756

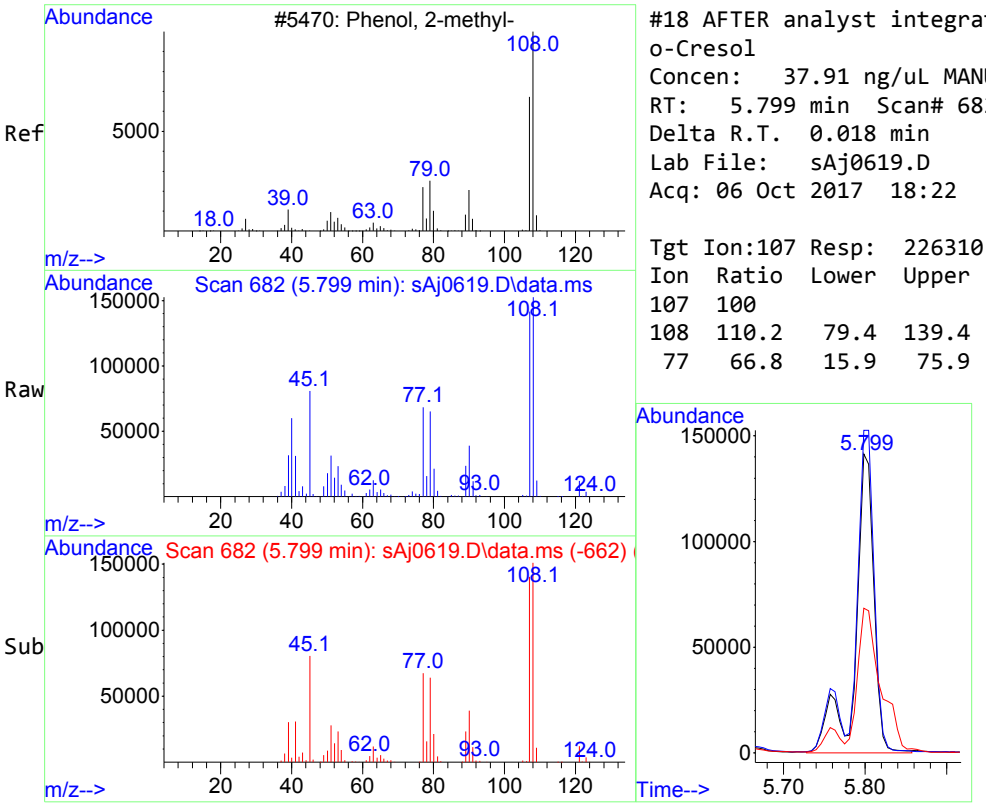
Ion	Ratio	Lower	Upper
146	100		
148	64.0	34.2	94.2
111	41.9	12.9	72.9



#18 BEFORE analyst integration
o-Cresol
Concen: 6.14 ng/uL
RT: 5.757 min Scan# 675
Delta R.T. -0.024 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 36653

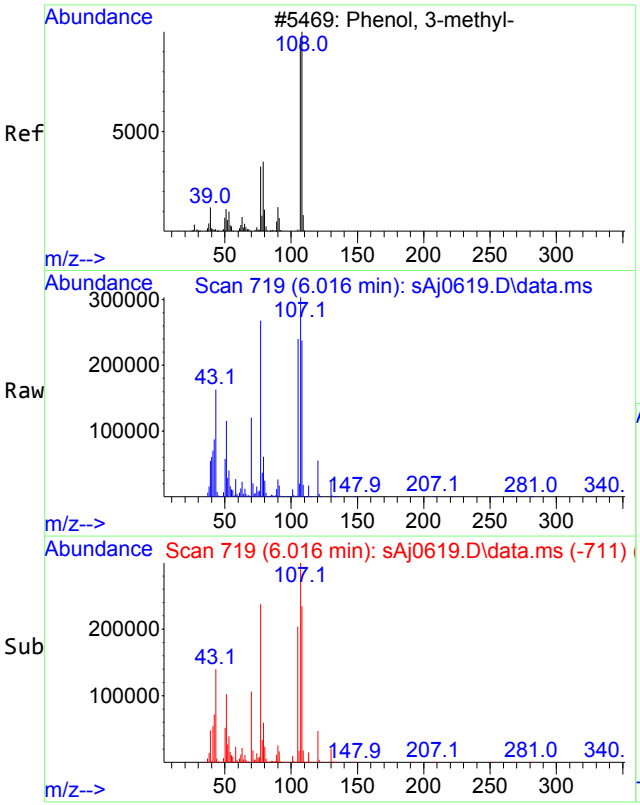
Ion	Ratio	Lower	Upper
107	100		
108	111.0	79.4	139.4
77	43.6	15.9	75.9



#18 AFTER analyst integration
o-Cresol AP
Concen: 37.91 ng/uL MANUALLY INTEGRATED
RT: 5.799 min Scan# 682
Delta R.T. 0.018 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 226310

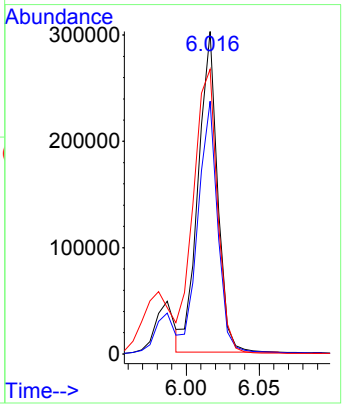
Ion	Ratio	Lower	Upper
107	100		
108	110.2	79.4	139.4
77	66.8	15.9	75.9

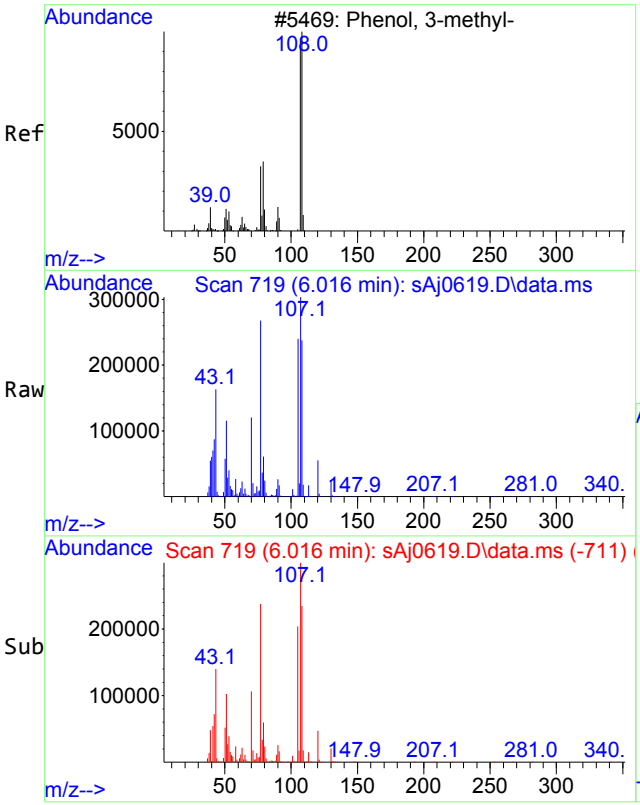


#19 BEFORE analyst integration
m,p-Cresols
Concen: 35.72 ng/uL
RT: 6.016 min Scan# 719
Delta R.T. -0.000 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 277459

Ion	Ratio	Lower	Upper
107	100		
108	79.5	57.6	117.6
77	109.6	2.2	62.2#

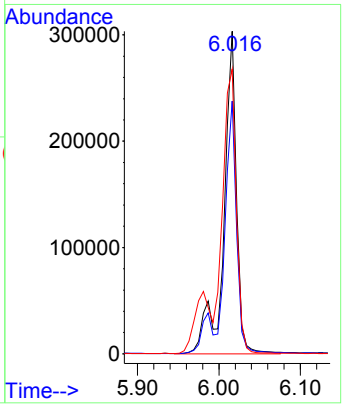


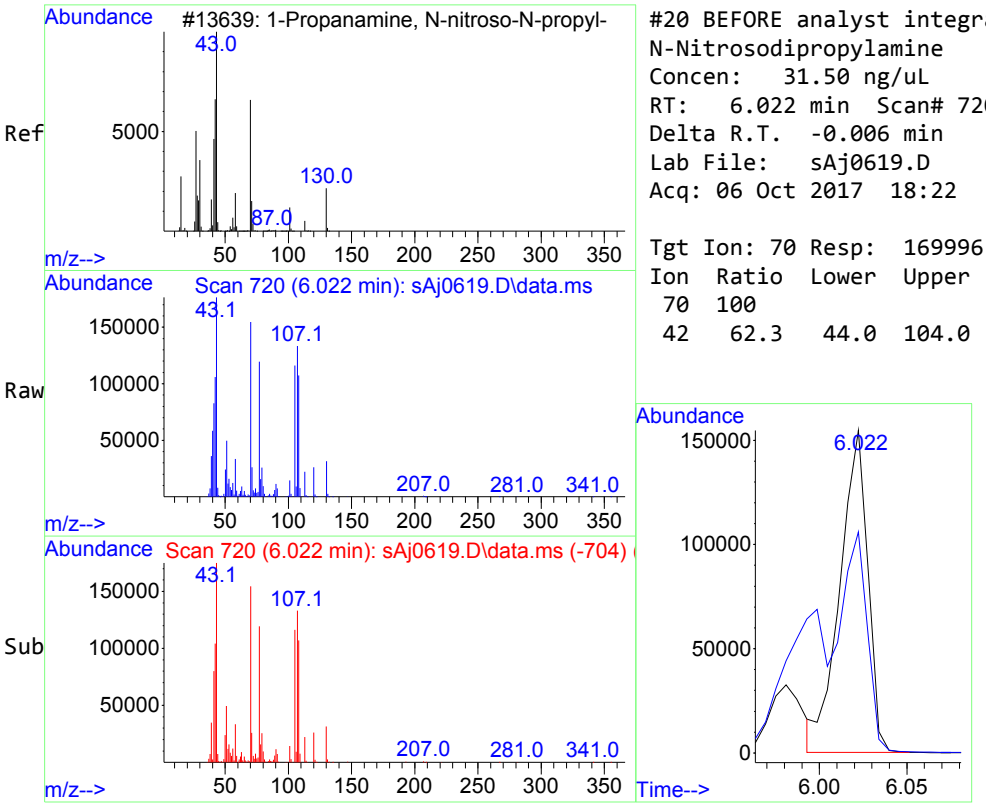


#19 AFTER analyst integration
m,p-Cresols AB
Concen: 42.60 ng/uL MANUALLY INTEGRATED
RT: 6.016 min Scan# 719
Delta R.T. -0.000 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 330887

Ion	Ratio	Lower	Upper
107	100		
108	79.2	57.6	117.6
77	117.0	2.2	62.2#

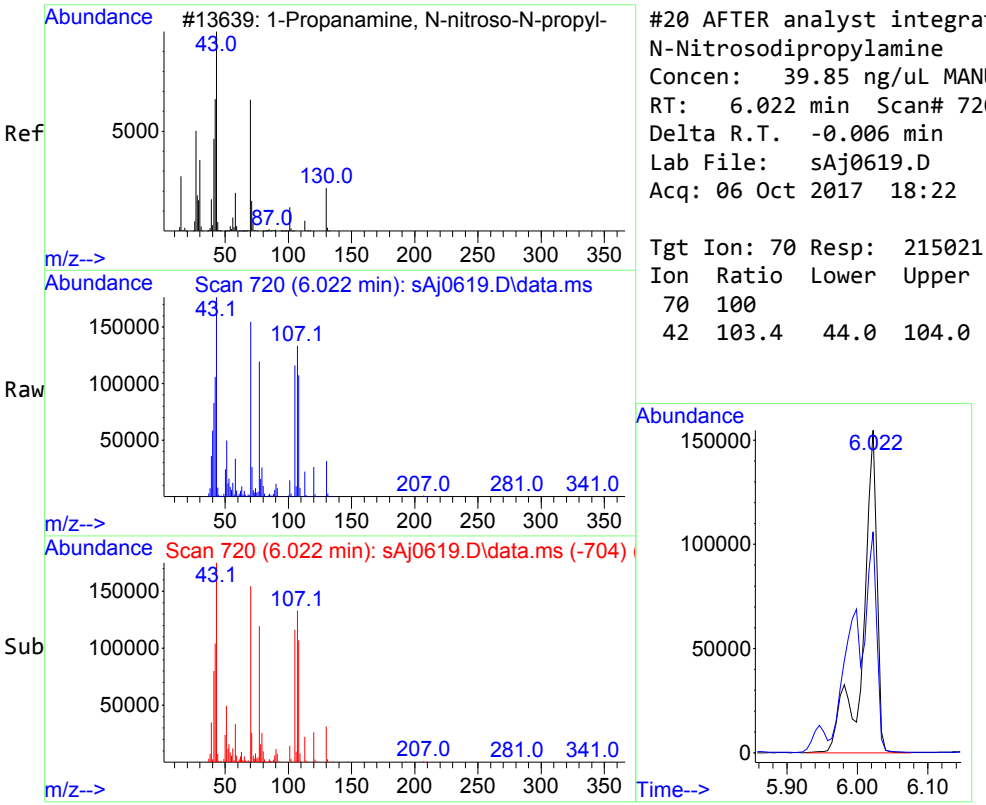




#20 BEFORE analyst integration
N-Nitrosodipropylamine
Concen: 31.50 ng/uL
RT: 6.022 min Scan# 720
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 70 Resp: 169996

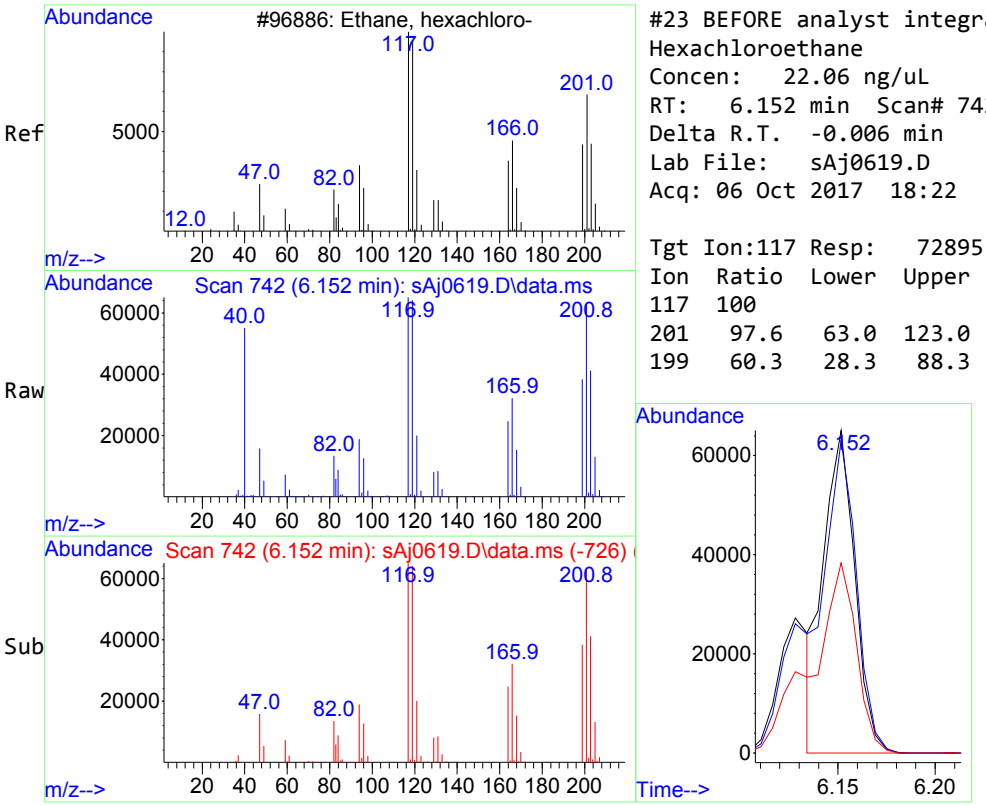
Ion	Ratio	Lower	Upper
70	100		
42	62.3	44.0	104.0



#20 AFTER analyst integration
N-Nitrosodipropylamine AB
Concen: 39.85 ng/uL MANUALLY INTEGRATED
RT: 6.022 min Scan# 720
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 70 Resp: 215021

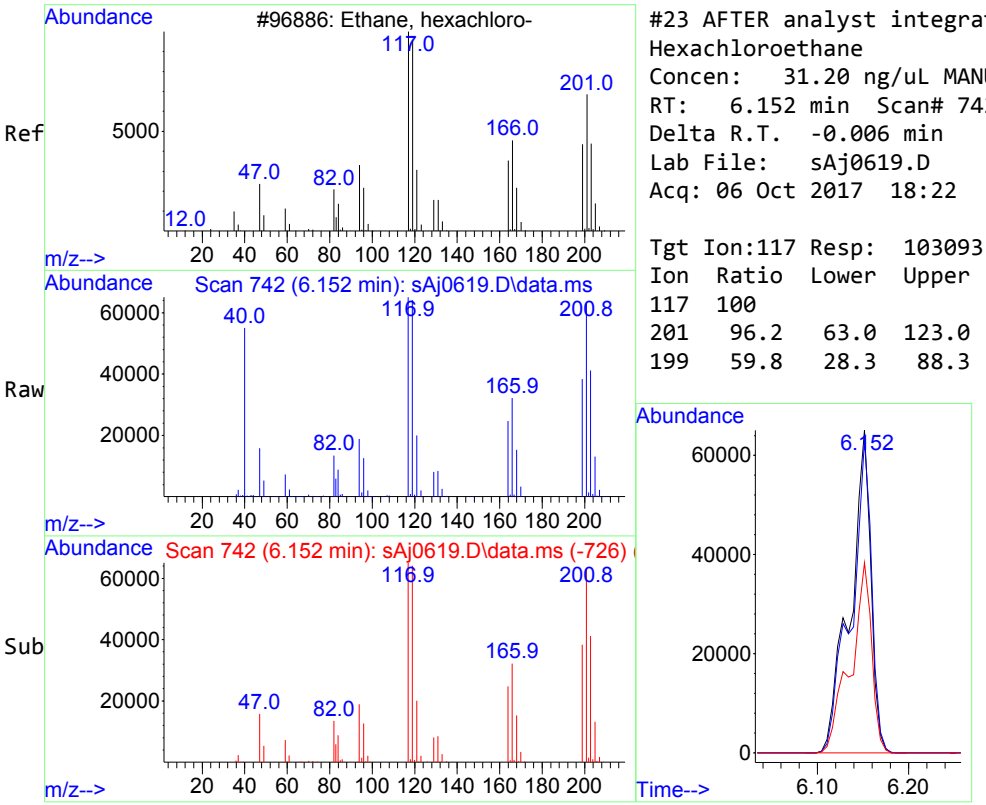
Ion	Ratio	Lower	Upper
70	100		
42	103.4	44.0	104.0



#23 BEFORE analyst integration
Hexachloroethane
Concen: 22.06 ng/uL
RT: 6.152 min Scan# 742
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:117 Resp: 72895

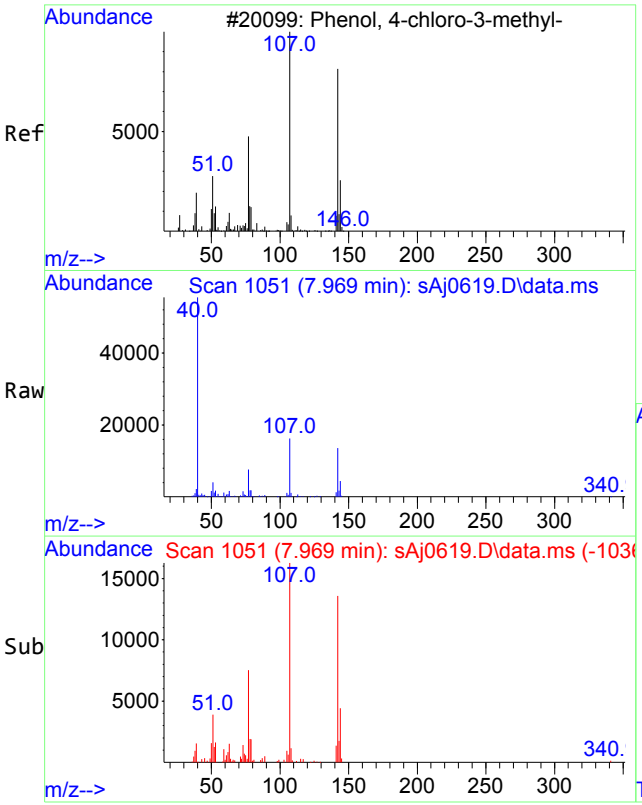
Ion	Ratio	Lower	Upper
117	100		
201	97.6	63.0	123.0
199	60.3	28.3	88.3



#23 AFTER analyst integration
Hexachloroethane AB
Concen: 31.20 ng/uL MANUALLY INTEGRATED
RT: 6.152 min Scan# 742
Delta R.T. -0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:117 Resp: 103093

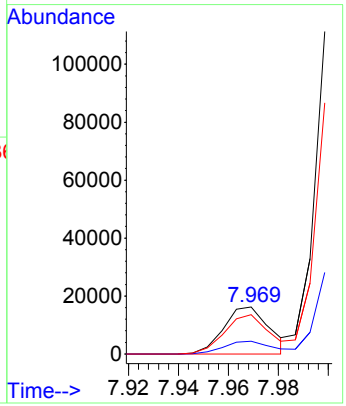
Ion	Ratio	Lower	Upper
117	100		
201	96.2	63.0	123.0
199	59.8	28.3	88.3

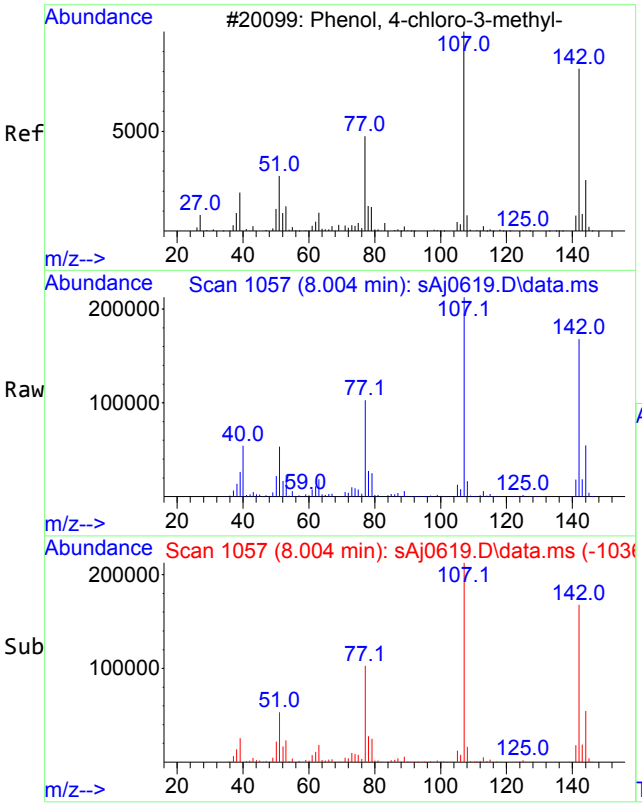


#38 BEFORE analyst integration
4-Chloro-3-methylphenol
Concen: 4.12 ng/uL
RT: 7.969 min Scan# 1051
Delta R.T. -0.012 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 20542

Ion	Ratio	Lower	Upper
107	100		
144	30.6	0.0	55.3
142	81.7	49.2	109.2

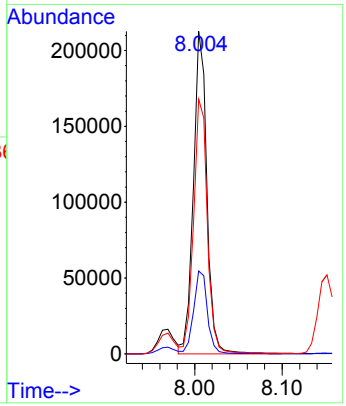


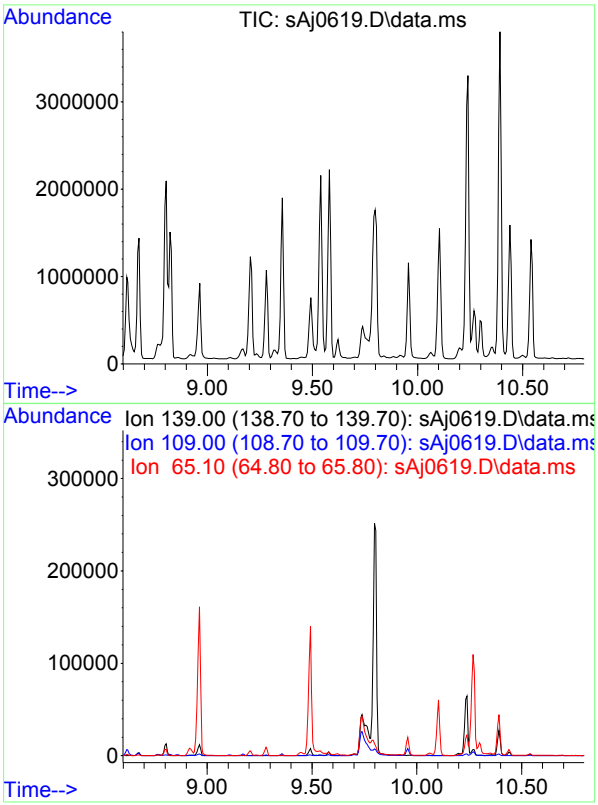


#38 AFTER analyst integration
4-Chloro-3-methylphenol AP
Concen: 45.73 ng/uL MANUALLY INTEGRATED
RT: 8.004 min Scan# 1057
Delta R.T. 0.023 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:107 Resp: 227853

Ion	Ratio	Lower	Upper
107	100		
144	26.3	0.0	55.3
142	81.0	49.2	109.2



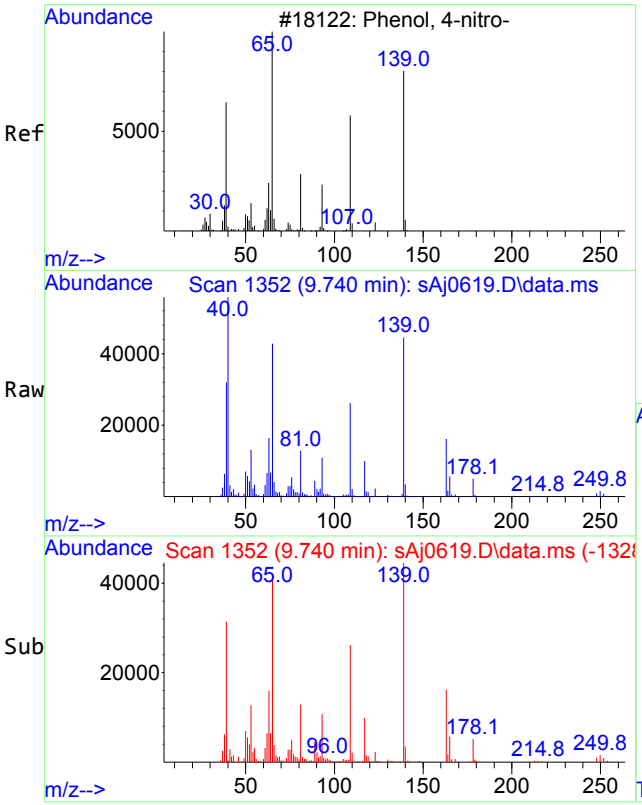


#62 BEFORE analyst integration
4-Nitrophenol
Concen: Below Cal
Expected RT: 9.70 min

Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion: 139

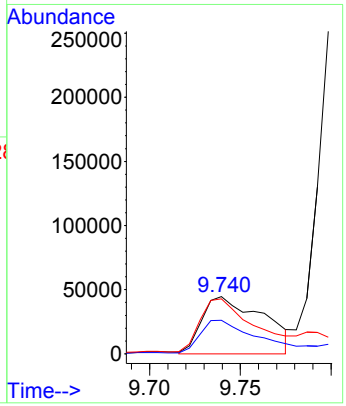
Sig	Exp Ratio
139	100
109	70.4
65	104.8

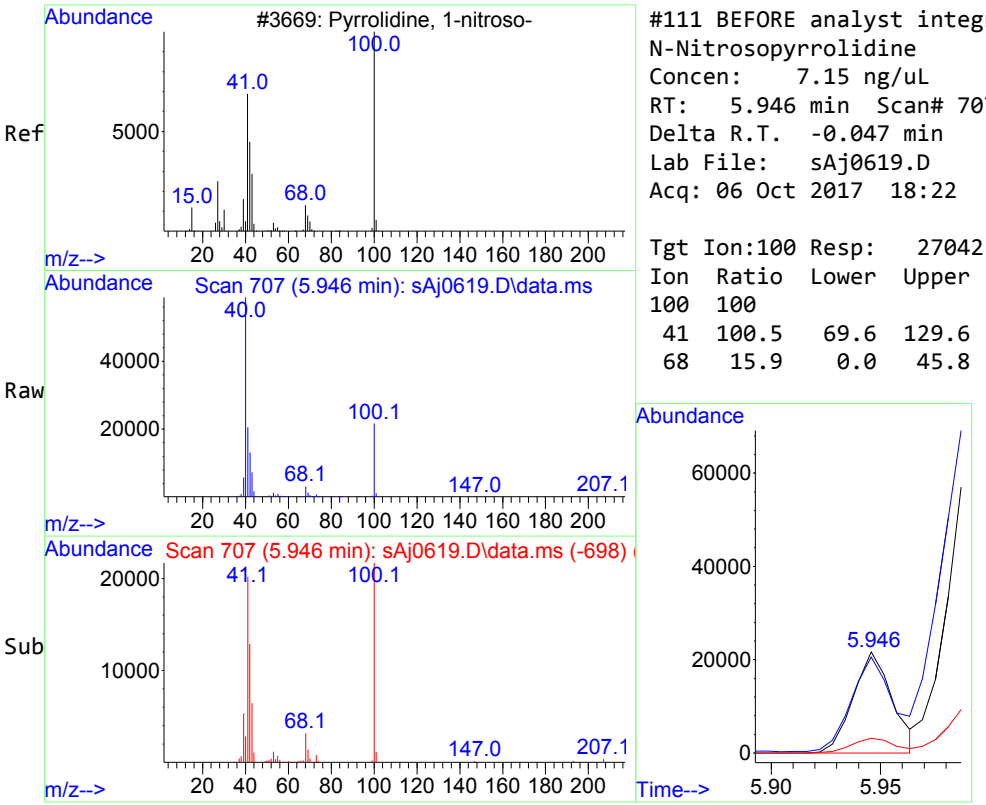


#62 AFTER analyst integration
4-Nitrophenol AP
Concen: 58.57 ng/uL MANUALLY INTEGRATED
RT: 9.740 min Scan# 1352
Delta R.T. 0.042 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:139 Resp: 104292

Ion	Ratio	Lower	Upper
139	100		
109	54.4	40.4	100.4
65	86.6	74.8	134.8

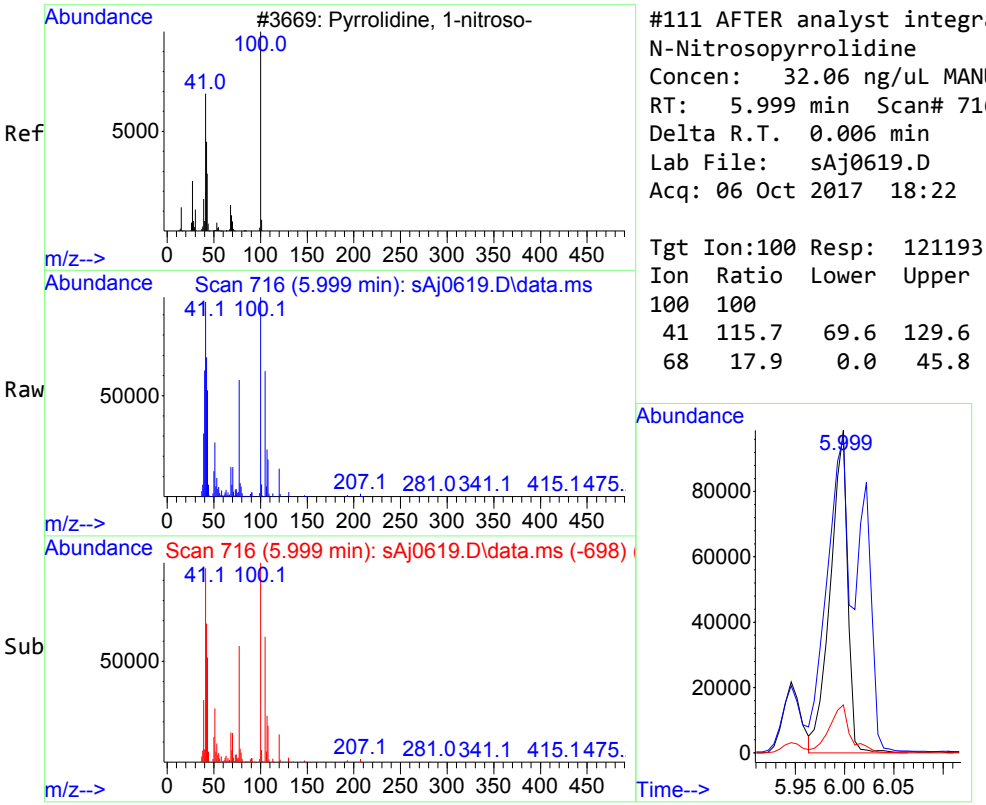




#111 BEFORE analyst integration
N-Nitrosopyrrolidine
Concen: 7.15 ng/uL
RT: 5.946 min Scan# 707
Delta R.T. -0.047 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:100 Resp: 27042

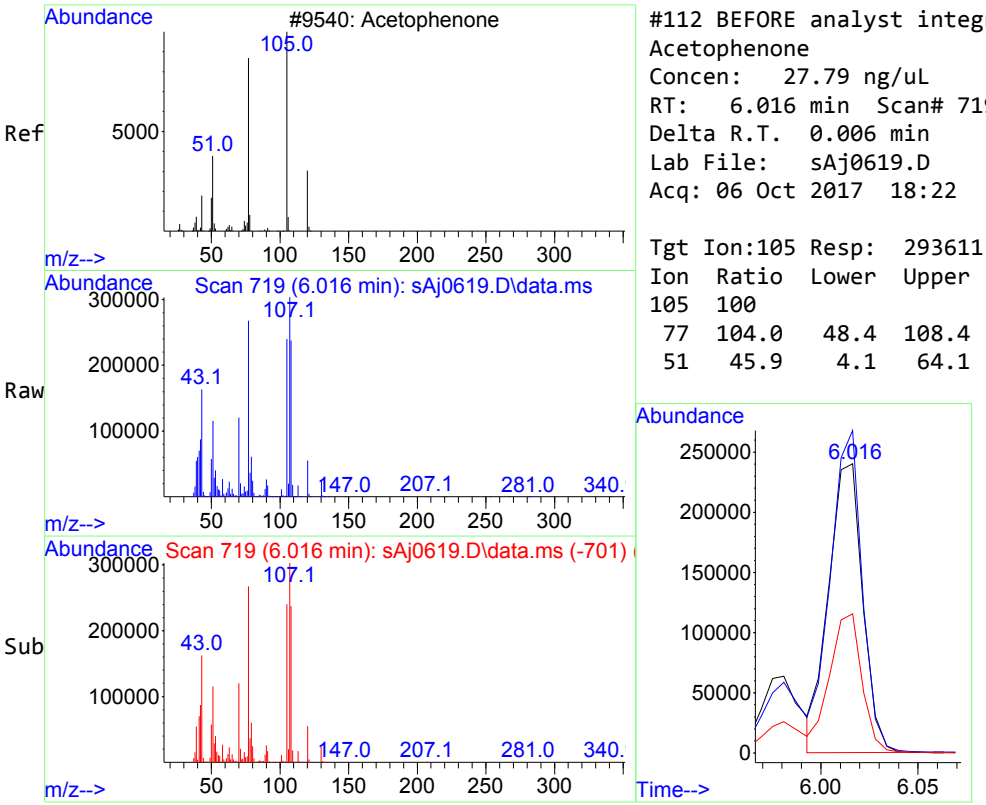
Ion	Ratio	Lower	Upper
100	100		
41	100.5	69.6	129.6
68	15.9	0.0	45.8



#111 AFTER analyst integration
N-Nitrosopyrrolidine AP
Concen: 32.06 ng/uL MANUALLY INTEGRATED
RT: 5.999 min Scan# 716
Delta R.T. 0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:100 Resp: 121193

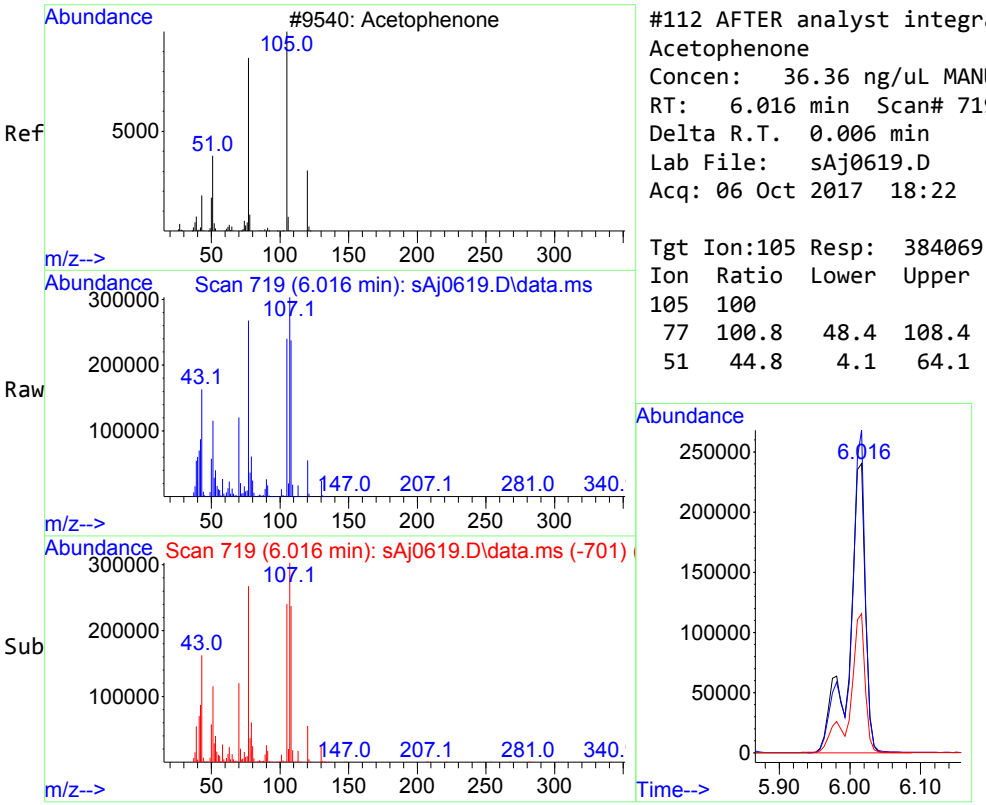
Ion	Ratio	Lower	Upper
100	100		
41	115.7	69.6	129.6
68	17.9	0.0	45.8



#112 BEFORE analyst integration
Acetophenone
Concen: 27.79 ng/uL
RT: 6.016 min Scan# 719
Delta R.T. 0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:105 Resp: 293611

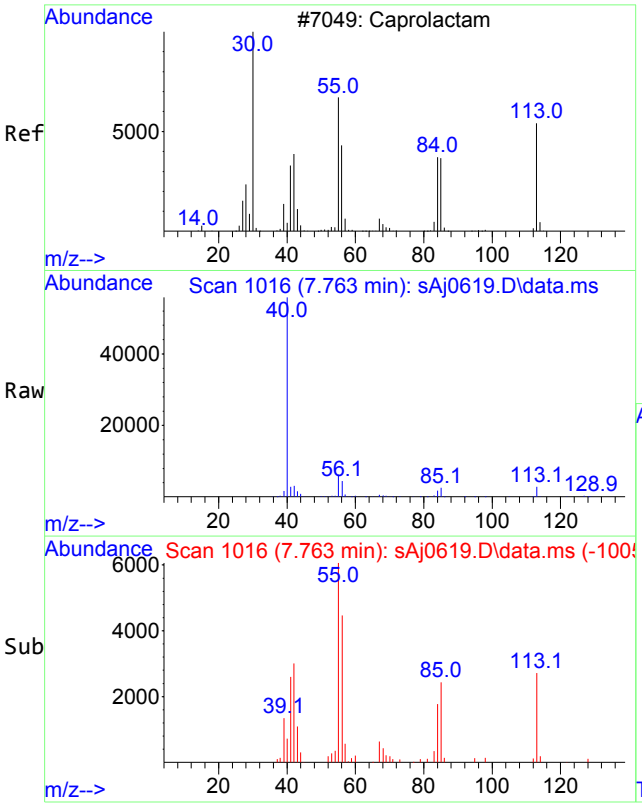
Ion	Ratio	Lower	Upper
105	100		
77	104.0	48.4	108.4
51	45.9	4.1	64.1



#112 AFTER analyst integration
Acetophenone AB
Concen: 36.36 ng/uL MANUALLY INTEGRATED
RT: 6.016 min Scan# 719
Delta R.T. 0.006 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:105 Resp: 384069

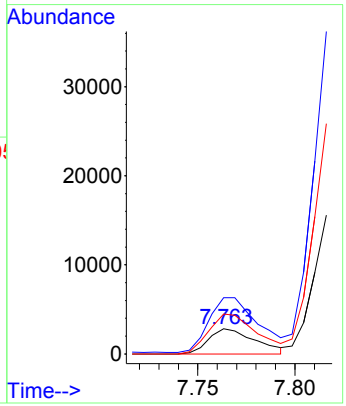
Ion	Ratio	Lower	Upper
105	100		
77	100.8	48.4	108.4
51	44.8	4.1	64.1

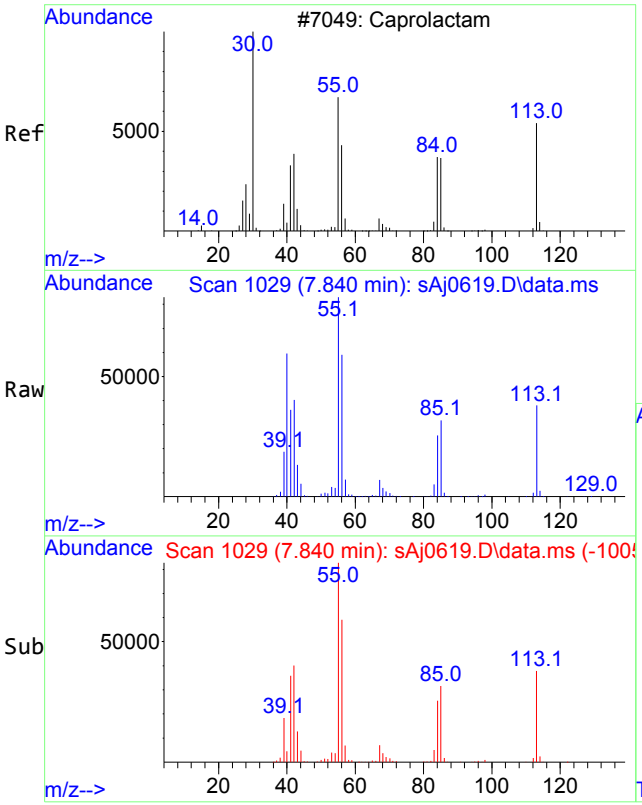


#120 BEFORE analyst integration
Caprolactam
Concen: 3.10 ng/uL
RT: 7.763 min Scan# 1016
Delta R.T. -0.035 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:113 Resp: 4712

Ion	Ratio	Lower	Upper
113	100		
55	227.7	259.0	319.0#
56	164.8	182.0	242.0#

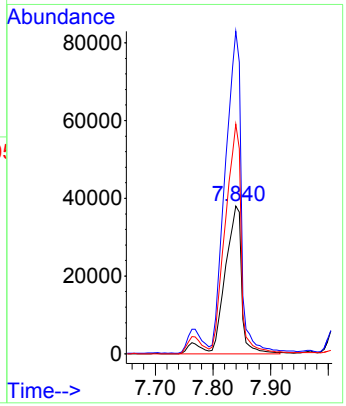




#120 AFTER analyst integration
Caprolactam AP
Concen: 51.25 ng/uL MANUALLY INTEGRATED
RT: 7.840 min Scan# 1029
Delta R.T. 0.041 min
Lab File: sAj0619.D
Acq: 06 Oct 2017 18:22

Tgt Ion:113 Resp: 77893

Ion	Ratio	Lower	Upper
113	100		
55	221.0	259.0	319.0#
56	154.8	182.0	242.0#



Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**433718**	**Date Collected:**	**09/25/2017 13:54**	**Matrix:**	**SOIL**
Lab Sample ID:	**1203890204**	**Date Received:**	**09/27/2017 09:15**	**%Moisture:**	**6**
Client Sample:	**QC for batch 1707072**	**Client:**	**URSC013**	**Project:**	**QC**
Client ID:	**G2ESOL01MSD**	**Method:**	**SW846 3541/8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**1707073**	**Inst:**	**MSDA.I**	**Dilution:**	**1**
Run Date:	**10/06/2017 18:48**	**Analyst:**	**JMB3**	**Inj. Vol:**	**1 uL**
Prep Date:	**10/06/2017 09:27**	**Aliquot:**	**30.07 g**	**Final Volume:**	**1 mL**
Data File:	**100617.s\sAj0620.D**	**Column:**	**DB-5ms**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
90-12-0	1-Methylnaphthalene		1340	ug/kg	10.6	35.4
91-58-7	2-Chloronaphthalene		1100	ug/kg	10.6	35.4
91-57-6	2-Methylnaphthalene		1330	ug/kg	10.6	35.4
83-32-9	Acenaphthene		1300	ug/kg	10.6	35.4
120-12-7	Anthracene		1190	ug/kg	10.6	35.4
56-55-3	Benzo(a)anthracene		1150	ug/kg	10.6	35.4
50-32-8	Benzo(a)pyrene		1060	ug/kg	10.6	35.4
205-99-2	Benzo(b)fluoranthene		1180	ug/kg	10.6	35.4
191-24-2	Benzo(ghi)perylene		588	ug/kg	10.6	35.4
207-08-9	Benzo(k)fluoranthene		1210	ug/kg	10.6	35.4
86-74-8	Carbazole		1310	ug/kg	10.6	35.4
218-01-9	Chrysene		1150	ug/kg	10.6	35.4
53-70-3	Dibenzo(a,h)anthracene		763	ug/kg	10.6	35.4
206-44-0	Fluoranthene		1390	ug/kg	10.6	35.4
86-73-7	Fluorene		1340	ug/kg	10.6	35.4
193-39-5	Indeno(1,2,3-cd)pyrene		655	ug/kg	10.6	35.4
80-62-6	Methyl methacrylate	U	354	ug/kg	106	354
91-20-3	Naphthalene		1210	ug/kg	10.6	35.4
85-01-8	Phenanthrene		1200	ug/kg	10.6	35.4
129-00-0	Pyrene		1060	ug/kg	10.6	35.4
117-81-7	bis(2-Ethylhexyl)phthalate		1400	ug/kg	106	354

Quantitation Report
GEL Laboratories, LLC

10/06/2017

10/09/2017

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0620.D
Acq On : 06 Oct 2017 18:48
Operator : JMB3
InstName : MSDA
Sample : |1203890204|1707073|1|SVM|1|MSD
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 20:05:51 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	Dev(Min)
Internal Standards								
1) A 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	227977m	40.00	ng/uL	0.00
24) A Naphthalene-d8	136	7.222	7.228	1.000	676794	40.00	ng/uL	0.00
42) A Acenaphthene-d10	164	9.540	9.540	1.000	438118	40.00	ng/uL	0.00
67) A Phenanthrene-d10	188	11.410	11.410	1.000	784203	40.00	ng/uL	0.00
81) A Chrysene-d12	240	14.869	14.863	1.000	602765	40.00	ng/uL	0.00
91) A Perylene-d12	264	18.027	18.016	1.000	380999	40.00	ng/uL	0.01
99) B 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	227977m	40.00	ng/uL	0.00
115) B Naphthalene-d8	136	7.222	7.228	1.000	676794	40.00	ng/uL	0.00
123) B Acenaphthene-d10	164	9.540	9.540	1.000	438118	40.00	ng/uL	0.00
132) B Phenanthrene-d10	188	11.410	11.410	1.000	784203	40.00	ng/uL	0.00
145) B Chrysene-d12	240	14.869	14.863	1.000	602765	40.00	ng/uL	0.00
151) B Perylene-d12	264	18.027	18.016	1.000	380999	40.00	ng/uL	0.01
154) J Phenanthrene-d10	188	11.410	11.410	1.000	784203	40.00	ng/uL	0.00
156) J Chrysene-d12	240	14.869	14.863	1.000	602765	40.00	ng/uL	0.00
159) D 1,4-Dichlorobenzene-d4	152	5.434	5.440	1.000	228002m	40.00	ng/uL	0.00
161) D Naphthalene-d8	136	7.222	7.228	1.000	676794	40.00	ng/uL	0.00
163) D Acenaphthene-d10	164	9.540	9.540	1.000	438118	40.00	ng/uL	0.00
166) D Phenanthrene-d10	188	11.410	11.410	1.000	784203	40.00	ng/uL	0.00
173) D Chrysene-d12	240	14.869	14.863	1.000	602765	40.00	ng/uL	0.00
175) E Naphthalene-d8	136	7.222	7.228	1.000	676794	40.00	ng/uL	0.00
177) E Perylene-d12	264	18.027	18.016	1.000	378573	40.00	ng/uL	0.01
System Monitoring Compounds								Dev(Min)
5) 2-Fluorophenol	112	3.775	3.752	0.695	429282	61.24	ng/uL	0.02
8) Phenol-d5	99	4.928	4.910	0.907	529894m	60.45	ng/uL	0.02
25) Nitrobenzene-d5	82	6.222	6.228	0.862	186866	28.01	ng/uL	0.00
47) 2-Fluorobiphenyl	172	8.675	8.675	0.909	422824	25.93	ng/uL	0.00
66) 2,4,6-Tribromophenol	330	10.540	10.534	1.105	137202	77.94	ng/uL	0.00
83) p-Terphenyl-d14	244	13.398	13.392	0.901	521739	32.75	ng/uL	0.00

Compound	Amount	Range	Recovery
5) 2-Fluorophenol	100.000	36 - 104	61%
8) Phenol-d5	100.000	39 - 106	60%
25) Nitrobenzene-d5	50.000	34 - 109	56%
47) 2-Fluorobiphenyl	50.000	35 - 107	52%
66) 2,4,6-Tribromophenol	100.000	39 - 115	78%
83) p-Terphenyl-d14	50.000	45 - 119	66%

Target Compounds	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	QValue
3) N-Methyl-N-nitrosometh...	74	2.452	2.417	0.451	129393	28.74	ng/uL	93
4) Pyridine	79	2.522	2.452	0.464	185868m	23.56	ng/uL	
7) Aniline	93	4.987	4.987	0.918	287789	26.69	ng/uL	88
9) Phenol	94	4.952	4.928	0.911	323792m	35.34	ng/uL	
10) bis(2-Chloroethyl) ether	93	5.069	5.075	0.933	266131m	35.95	ng/uL	
11) 2-Chlorophenol	128	5.152	5.140	0.948	267738m	34.88	ng/uL	
12) n-Decane	43	5.205	5.210	0.958	248061m	21.27	ng/uL	
13) 1,3-Dichlorobenzene	146	5.357	5.358	0.986	258872	29.45	ng/uL	91
14) 1,4-Dichlorobenzene	146	5.457	5.463	1.004	268500m	30.25	ng/uL	

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0620.D
Acq On : 06 Oct 2017 18:48
Operator : JMB3
InstName : MSDA
Sample : |1203890204|1707073|1|SVM|1|MSD
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 20:05:51 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
15)	1,2-Dichlorobenzene	146	5.669	5.675	1.043	261911m	31.17	ng/uL	
16)	bis(2-Chloro-1-methyle...	45	5.828	5.834	1.073	494816	34.39	ng/uL	83
17)	Benzyl alcohol	108	5.634	5.634	1.037	171426m	34.88	ng/uL	
18)	o-Cresol	107	5.799	5.781	1.067	211276m	34.67	ng/uL	
19)	m,p-Cresols	107	6.016	6.016	1.107	287406	36.24	ng/uL#	55
20)	N-Nitrosodipropylamine	70	6.022	6.028	1.108	201943m	36.65	ng/uL	
23)	Hexachloroethane	117	6.152	6.157	1.132	97992m	29.05	ng/uL	
26)	Nitrobenzene	77	6.252	6.258	0.866	223627	33.35	ng/uL	97
27)	Isophorone	82	6.593	6.599	0.913	423099	36.52	ng/uL	98
28)	2-Nitrophenol	139	6.693	6.699	0.927	112836	40.85	ng/uL	91
29)	2,4-Dimethylphenol	122	6.763	6.763	0.936	174012	32.18	ng/uL	97
30)	bis(2-Chloroethoxy)met...	93	6.899	6.905	0.955	273184	36.33	ng/uL	99
31)	2,4-Dichlorophenol	162	7.034	7.028	0.974	191091	37.20	ng/uL	99
32)	Benzoic acid	105	6.963	6.928	0.964	214995	65.51	ng/uL	97
33)	1,2,4-Trichlorobenzene	180	7.146	7.146	0.989	197136	33.51	ng/uL	100
34)	alpha-Terpineol	59	7.275	7.275	1.007	223388	35.50	ng/uL	97
35)	Naphthalene	128	7.251	7.252	1.004	626510	34.20	ng/uL	99
36)	4-Chloroaniline	127	7.334	7.328	1.015	177667	29.44	ng/uL	96
37)	Hexachlorobutadiene	225	7.422	7.422	1.028	111920	31.97	ng/uL	99
38)	4-Chloro-3-methylphenol	107	8.004	7.981	1.108	208659m	41.49	ng/uL	
39)	2-Methylnaphthalene	142	8.187	8.187	1.134	443546	37.49	ng/uL	99
41)	1-Methylnaphthalene	142	8.316	8.316	1.151	418192	37.83	ng/uL	99
43)	Hexachlorocyclopentadiene	237	8.393	8.393	0.880	57148	17.67	ng/uL	98
44)	2,3-Dichloroaniline	161	8.557	8.557	0.897	231199	36.57	ng/uL	99
45)	2,4,6-Trichlorophenol	196	8.563	8.557	0.898	147840	33.35	ng/uL	99
46)	2,4,5-Trichlorophenol	196	8.622	8.599	0.904	154706	34.28	ng/uL	98
48)	2-Chloronaphthalene	162	8.822	8.822	0.925	425317	31.09	ng/uL	99
49)	o-Nitroaniline	65	8.963	8.957	0.940	137014	36.37	ng/uL	96
51)	m-Nitroaniline	138	9.493	9.487	0.995	94113	39.52	ng/uL	93
52)	Dimethylphthalate	163	9.204	9.210	0.965	515731	35.59	ng/uL	100
54)	2,6-Dinitrotoluene	165	9.281	9.281	0.973	120651	38.88	ng/uL	93
55)	2,4-Dinitrotoluene	165	9.787	9.787	1.026	159519	44.35	ng/uL	90
56)	Acenaphthylene	152	9.357	9.357	0.981	715577	33.94	ng/uL	100
57)	Acenaphthene	154	9.581	9.581	1.004	430811	36.62	ng/uL	100
58)	2,4-Dinitrophenol	184	9.622	9.616	1.009	18126	25.36	ng/uL	89
59)	Dibenzofuran	168	9.798	9.798	1.027	637858	35.72	ng/uL	98
60)	2,3,4,6-Tetrachlorophenol	232	9.957	9.951	1.044	119757	37.51	ng/uL	97
61)	Diethylphthalate	149	10.104	10.104	1.059	544947	39.81	ng/uL	99
62)	4-Nitrophenol	139	9.740	9.698	1.021	88207	47.96	ng/uL	75
63)	Fluorene	166	10.234	10.234	1.073	521633	37.92	ng/uL	99
64)	4-Chlorophenylphenylether	204	10.240	10.240	1.073	252856	38.78	ng/uL	97
65)	p-Nitroaniline	138	10.269	10.263	1.076	97343	42.64	ng/uL	91
68)	2-Methyl-4,6-dinitroph...	198	10.298	10.298	0.903	44809	32.58	ng/uL	89
69)	Diphenylamine	169	10.393	10.387	0.911	429375	29.63	ng/uL	97
70)	1,2-Diphenylhydrazine	77	10.440	10.440	0.915	536879	29.85	ng/uL	99
71)	4-Bromophenylphenylether	248	10.851	10.851	0.951	154563	31.49	ng/uL	97
72)	Hexachlorobenzene	284	10.922	10.922	0.957	167726	32.44	ng/uL	99
73)	Pentachlorophenol	266	11.175	11.163	0.979	79200	36.15	ng/uL	99
74)	n-Octadecane	57	11.287	11.287	0.989	520354	33.15	ng/uL	97

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0620.D
Acq On : 06 Oct 2017 18:48
Operator : JMB3
InstName : MSDA
Sample : |1203890204|1707073|1|SVM|1|MSD
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 20:05:51 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

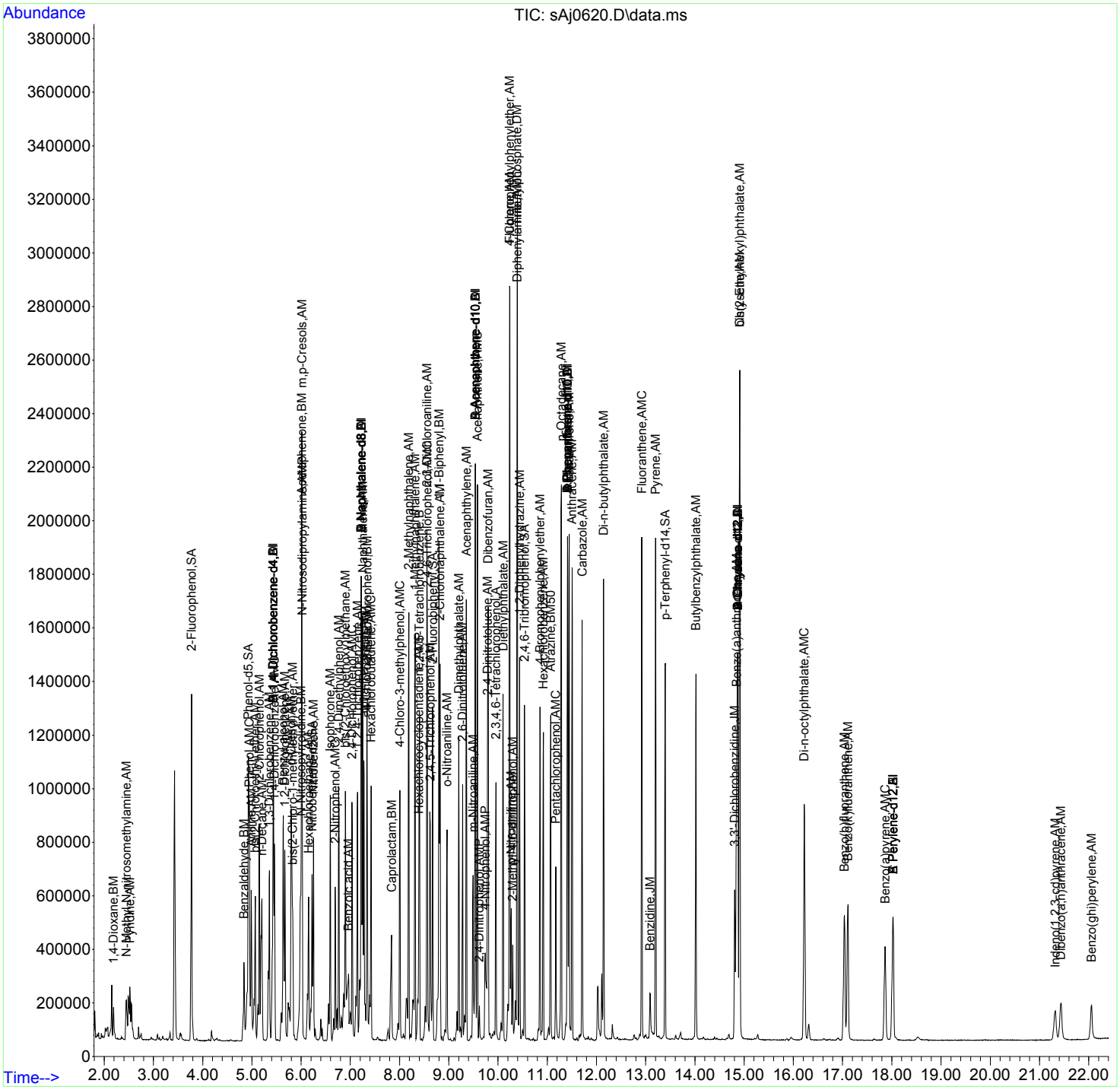
	Compound	QIon	R.T.	Exp RT	Rel RT	Response	Conc	Units	
76)	Phenanthrene	178	11.445	11.440	1.003	738265	33.94	ng/uL	100
77)	Anthracene	178	11.504	11.504	1.008	741676	33.62	ng/uL	100
78)	Carbazole	167	11.710	11.704	1.026	640213	37.09	ng/uL	100
79)	Di-n-butylphthalate	149	12.145	12.145	1.064	925479	41.10	ng/uL	100
80)	Fluoranthene	202	12.922	12.916	1.132	769694	39.32	ng/uL	98
82)	Pyrene	202	13.204	13.198	0.888	774386	29.97	ng/uL	98
84)	Butylbenzylphthalate	149	14.022	14.016	0.943	374014	38.95	ng/uL	97
85)	bis(2-Ethylhexyl)phtha...	149	14.910	14.910	1.003	544994	39.56	ng/uL	98
86)	Benzo(a)anthracene	228	14.851	14.845	0.999	619241	32.63	ng/uL	96
87)	Chrysene	228	14.910	14.904	1.003	567380	32.57	ng/uL	100
90)	Di-n-octylphthalate	149	16.222	16.222	1.091	840563	42.23	ng/uL	97
92)	Benzo(b)fluoranthene	252	17.039	17.028	0.945	404369	33.21	ng/uL	99
93)	Benzo(k)fluoranthene	252	17.110	17.098	0.949	403198	34.05	ng/uL	98
94)	Benzo(a)pyrene	252	17.863	17.857	0.991	316441	29.89	ng/uL	99
95)	Indeno(1,2,3-cd)pyrene	276	21.321	21.316	1.183	136318	18.50	ng/uL	98
96)	Dibenzo(a,h)anthracene	278	21.433	21.427	1.189	159232	21.56	ng/uL	99
97)	Benzo(ghi)perylene	276	22.057	22.051	1.224	131235	16.62	ng/uL	98
100)	1,4-Dioxane	88	2.187	2.152	0.402	46195	17.36	ng/uL	82
109)	Benzaldehyde	77	4.840	4.846	0.891	86887	14.36	ng/uL	98
111)	N-Nitrosopyrrolidine	100	5.999	5.993	1.104	111175	28.81	ng/uL	86
112)	Acetophenone	105	6.010	6.010	1.106	284397	26.37	ng/uL	76
118)	2,6-Dichlorophenol	162	7.340	7.340	1.016	192403	41.79	ng/uL	99
120)	Caprolactam	113	7.840	7.799	1.086	63974m	41.69	ng/uL	
124)	1,2,4,5-Tetrachloroben...	216	8.404	8.404	0.881	227580	33.06	ng/uL	99
125)	1,1-Biphenyl	154	8.804	8.804	0.923	573754	34.21	ng/uL	99
138)	Atrazine	200	11.069	11.063	0.970	147224	36.69	ng/uL	100
155)	Benzidine	184	13.092	13.081	1.147	112584	12.25	ng/uL	96
158)	3,3'-Dichlorobenzidine	252	14.810	14.798	0.996	164331	26.89	ng/uL	99
165)	Tributylphosphate	99	10.387	10.381	1.089	724142	47.68	ng/uL	100

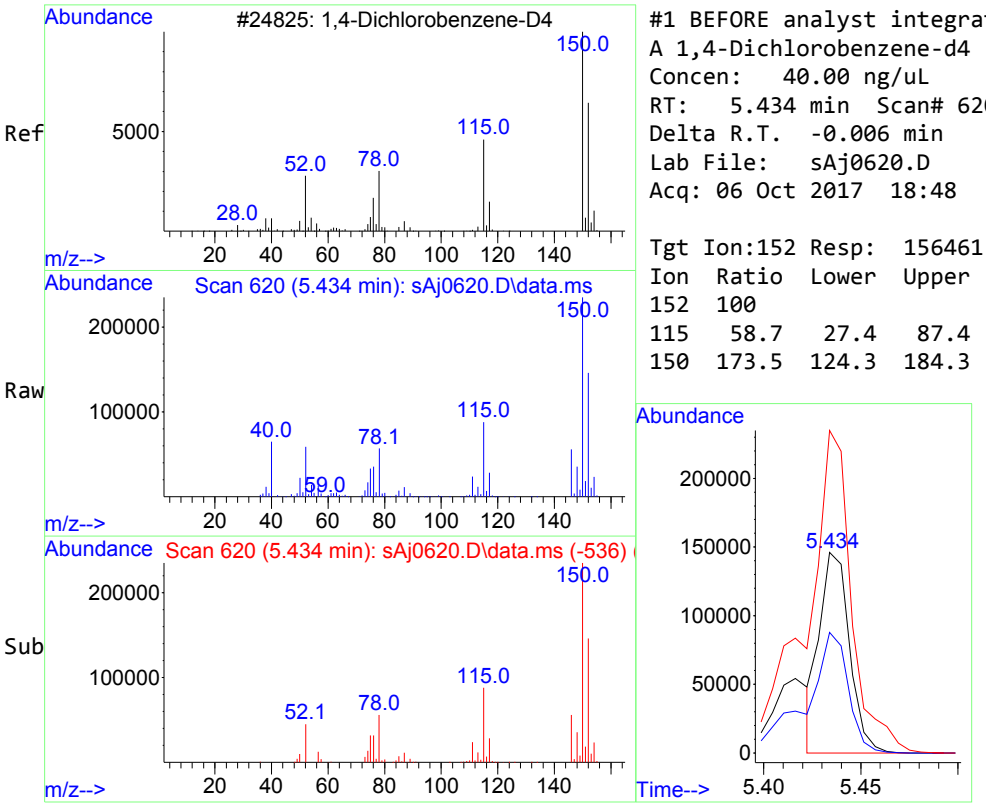
(#) = qualifier out of range (m) = manual integration (+) = signals summed
(A) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : D:\MSDChem\1\data\100617.s\
Data File : sAj0620.D
Acq On : 06 Oct 2017 18:48
Operator : JMB3
InstName : MSDA
Sample : |1203890204|1707073|1|SVM|1|MSD
Misc : |MSD827C4_S| SOIL MIX[A,B,D,E,J]
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Oct 06 20:05:51 2017
Quant Method : D:\MSDChem\1\data\100617.s\MSDA_8270d_8270c_091517.m
Quant Title : BNA01 SubList :
QLast Update : Mon Sep 18 09:10:44 2017
Response via : Initial Calibration
Integrator: RTE

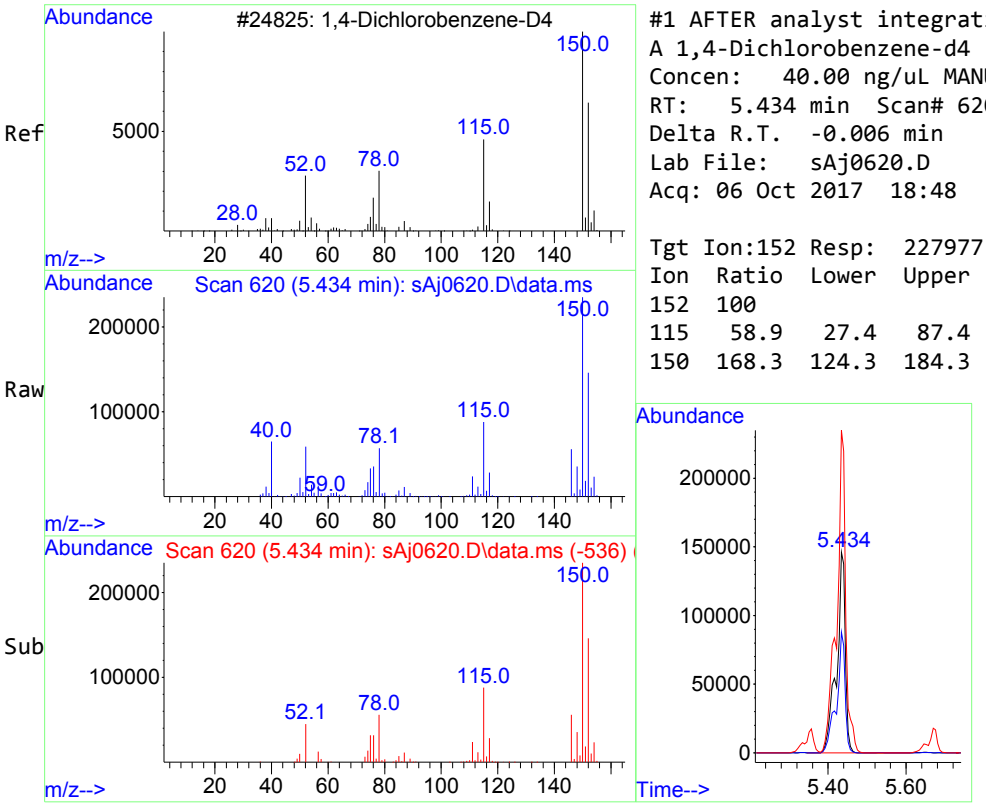




#1 BEFORE analyst integration
A 1,4-Dichlorobenzene-d4
Concen: 40.00 ng/uL
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 156461

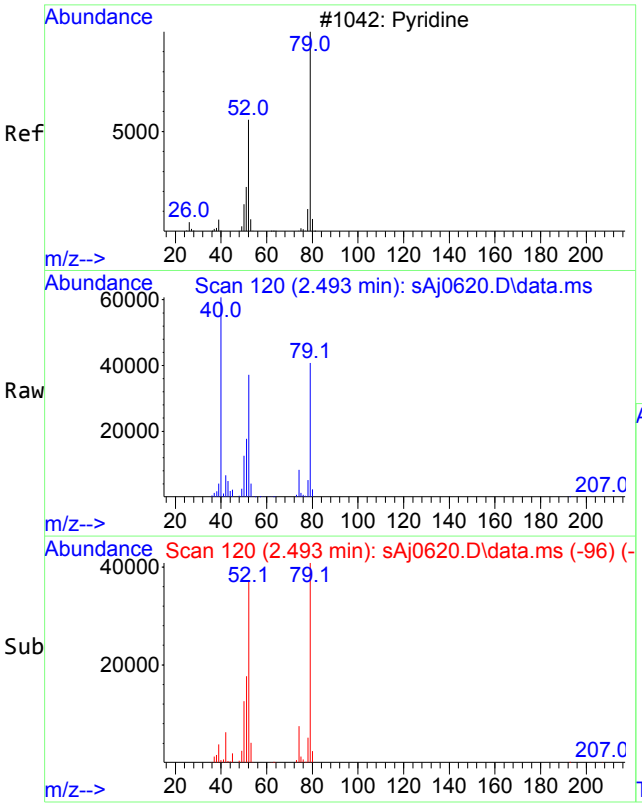
Ion	Ratio	Lower	Upper
152	100		
115	58.7	27.4	87.4
150	173.5	124.3	184.3



#1 AFTER analyst integration
A 1,4-Dichlorobenzene-d4 AB
Concen: 40.00 ng/uL MANUALLY INTEGRATED
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 227977

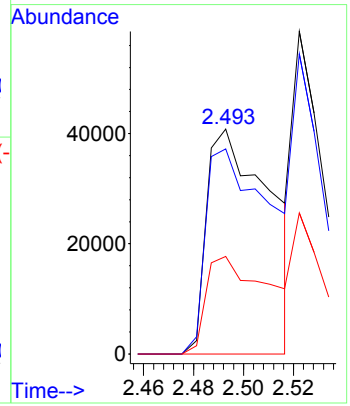
Ion	Ratio	Lower	Upper
152	100		
115	58.9	27.4	87.4
150	168.3	124.3	184.3

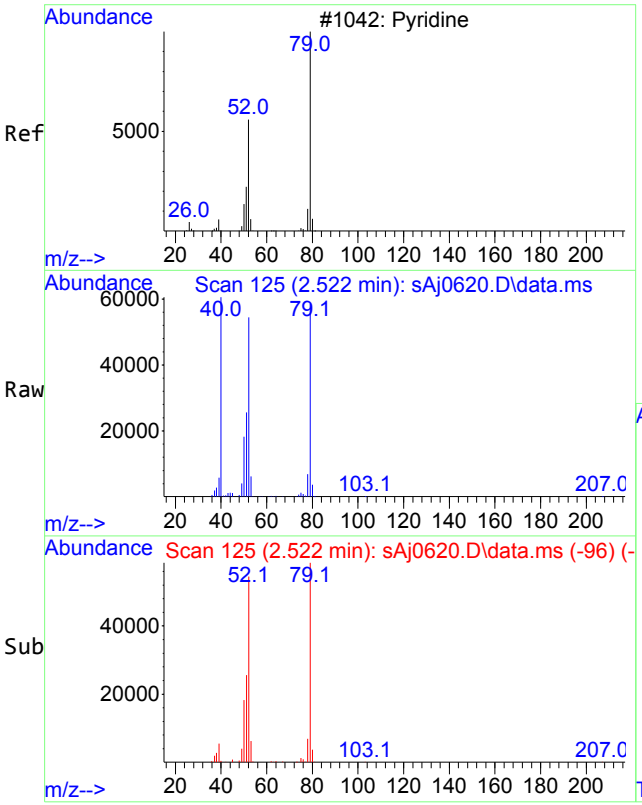


#4 BEFORE analyst integration
Pyridine
Concen: 13.20 ng/uL
RT: 2.493 min Scan# 120
Delta R.T. 0.041 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 79 Resp: 71435

Ion	Ratio	Lower	Upper
79	100		
52	93.1	67.5	127.5
51	30.8	16.0	76.0

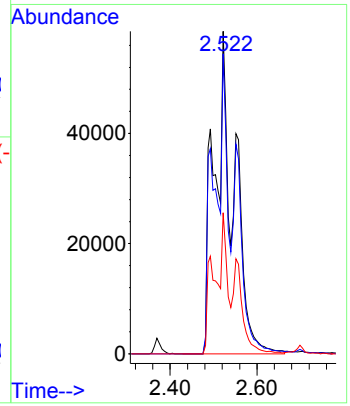


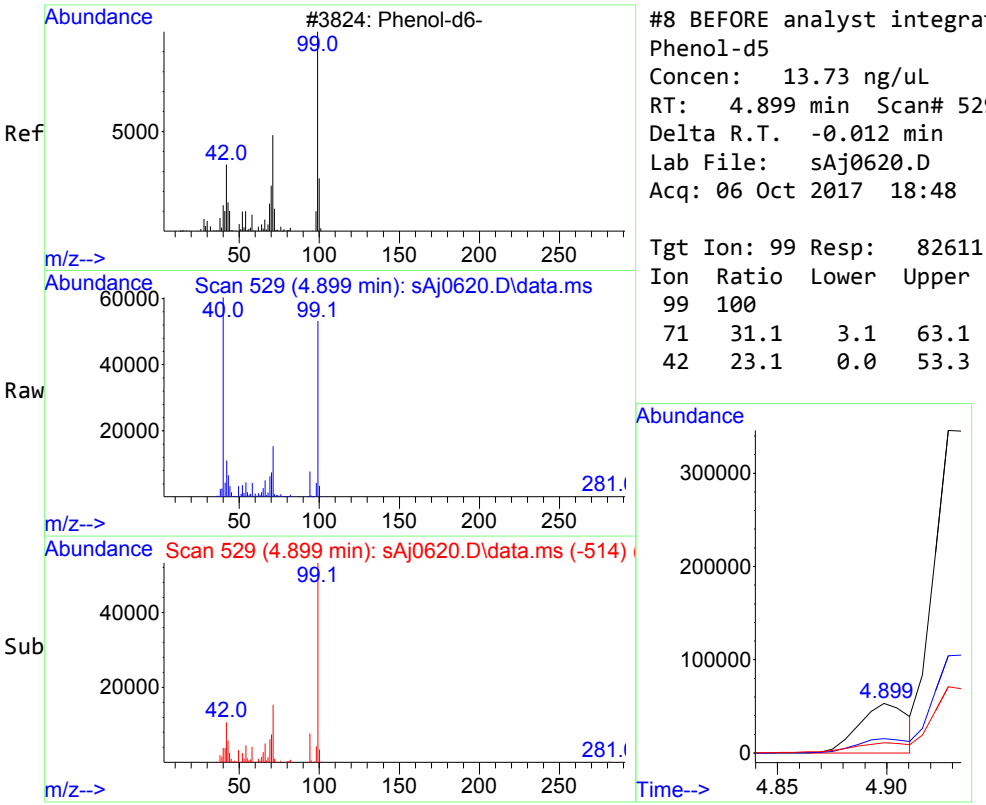


#4 AFTER analyst integration
Pyridine AP
Concen: 23.56 ng/uL MANUALLY INTEGRATED
RT: 2.522 min Scan# 125
Delta R.T. 0.071 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 79 Resp: 185868

Ion	Ratio	Lower	Upper
79	100		
52	92.3	67.5	127.5
51	42.5	16.0	76.0

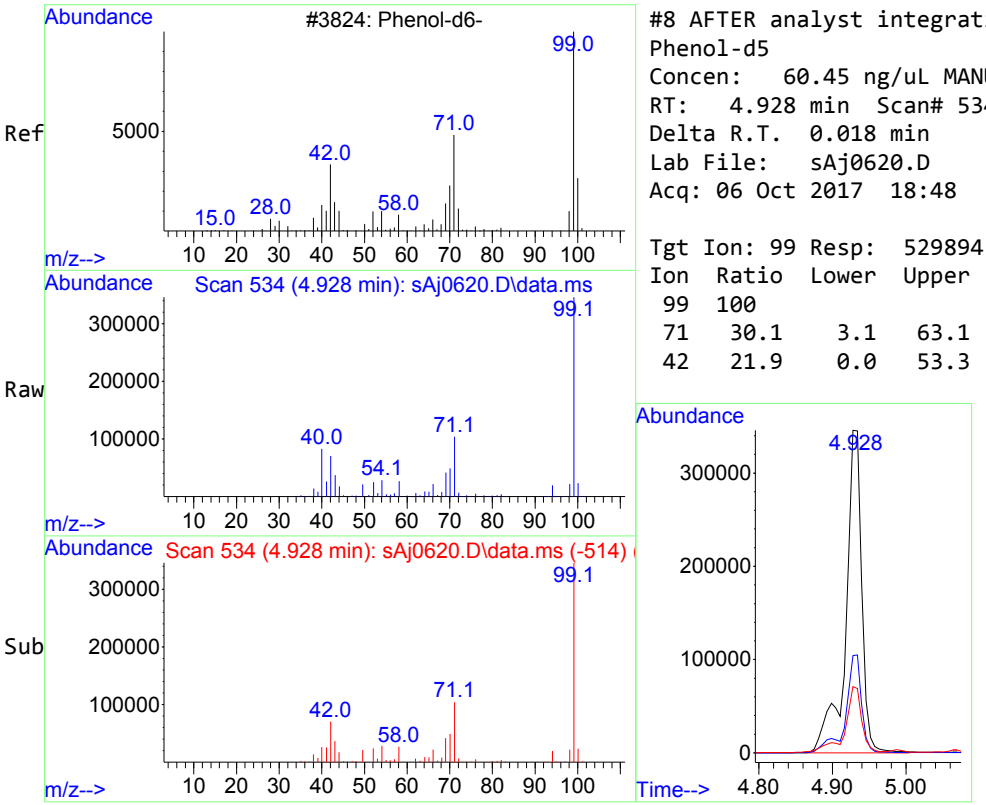




#8 BEFORE analyst integration
Phenol-d5
Concen: 13.73 ng/uL
RT: 4.899 min Scan# 529
Delta R.T. -0.012 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 99 Resp: 82611

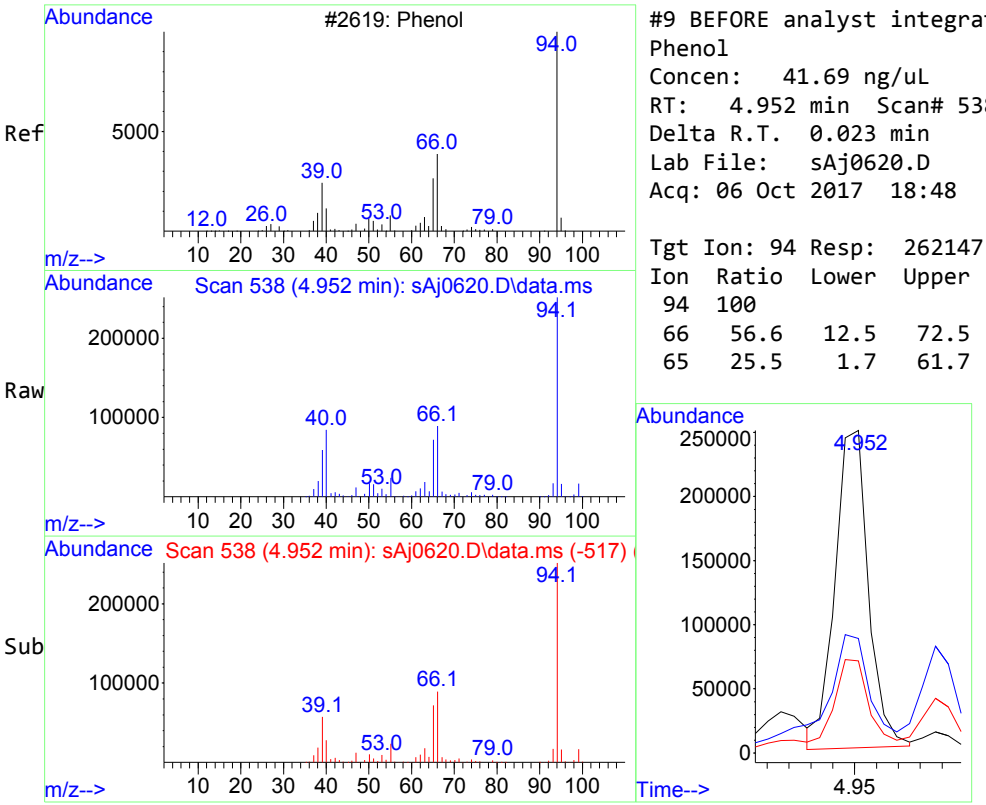
Ion	Ratio	Lower	Upper
99	100		
71	31.1	3.1	63.1
42	23.1	0.0	53.3



#8 AFTER analyst integration
Phenol-d5 AP
Concen: 60.45 ng/uL MANUALLY INTEGRATED
RT: 4.928 min Scan# 534
Delta R.T. 0.018 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 99 Resp: 529894

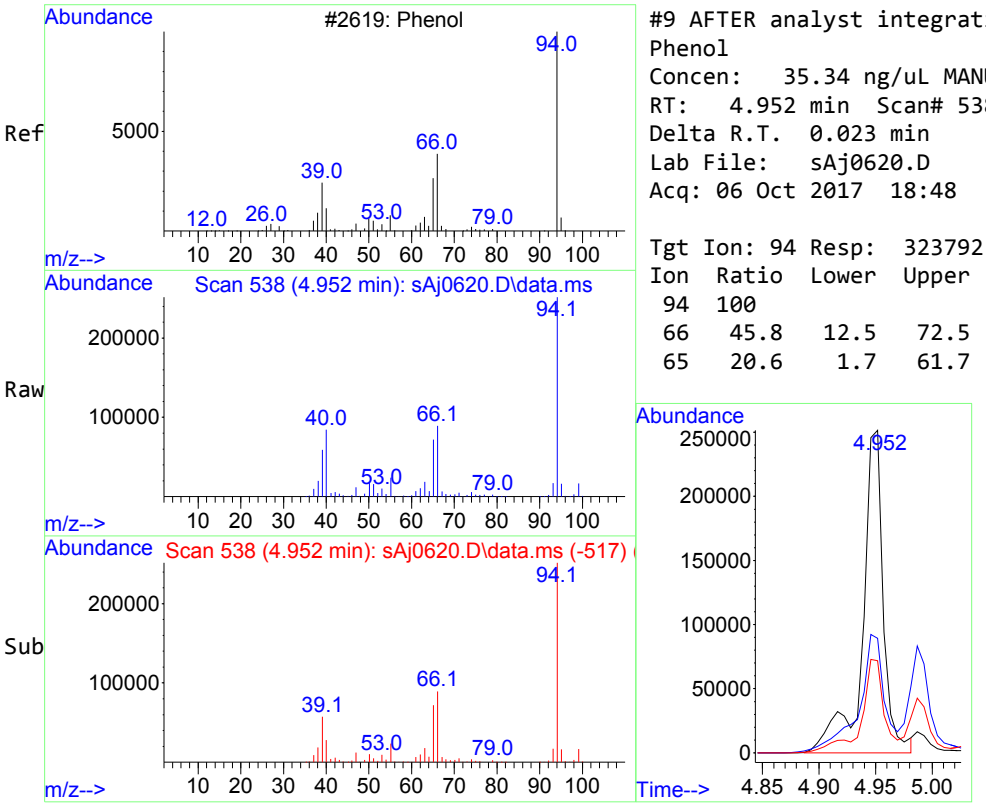
Ion	Ratio	Lower	Upper
99	100		
71	30.1	3.1	63.1
42	21.9	0.0	53.3



#9 BEFORE analyst integration
Phenol
Concen: 41.69 ng/uL
RT: 4.952 min Scan# 538
Delta R.T. 0.023 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 94 Resp: 262147

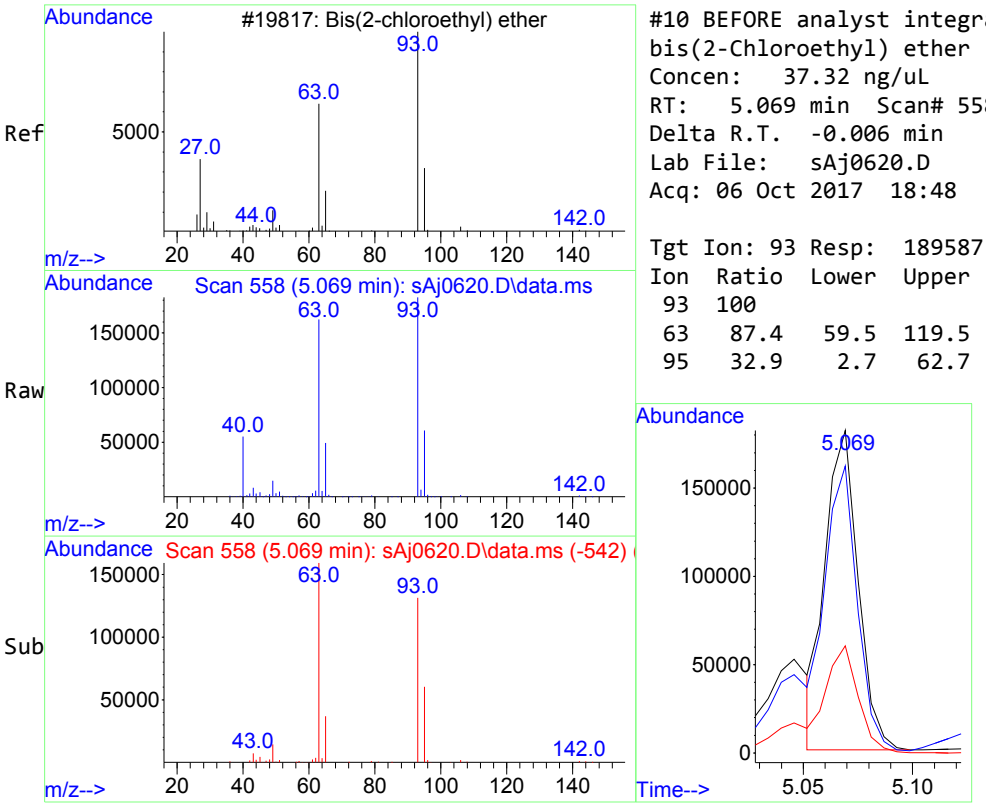
Ion	Ratio	Lower	Upper
94	100		
66	56.6	12.5	72.5
65	25.5	1.7	61.7



#9 AFTER analyst integration
Phenol AB
Concen: 35.34 ng/uL MANUALLY INTEGRATED
RT: 4.952 min Scan# 538
Delta R.T. 0.023 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 94 Resp: 323792

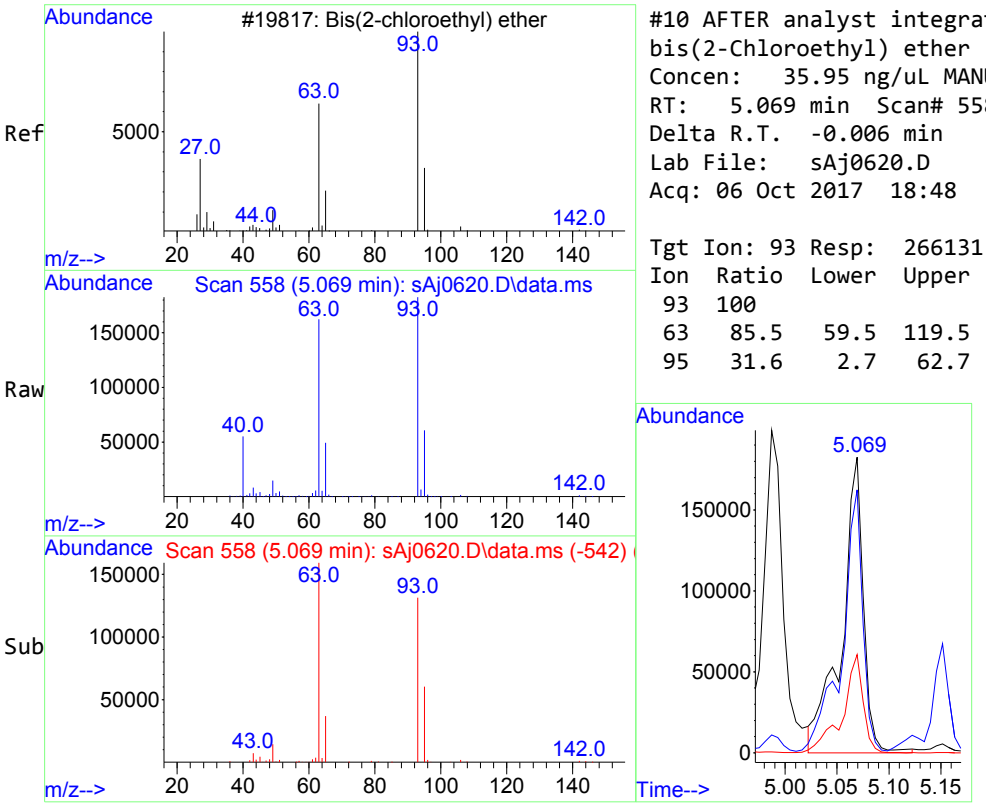
Ion	Ratio	Lower	Upper
94	100		
66	45.8	12.5	72.5
65	20.6	1.7	61.7



#10 BEFORE analyst integration
bis(2-Chloroethyl) ether
Concen: 37.32 ng/uL
RT: 5.069 min Scan# 558
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 93 Resp: 189587

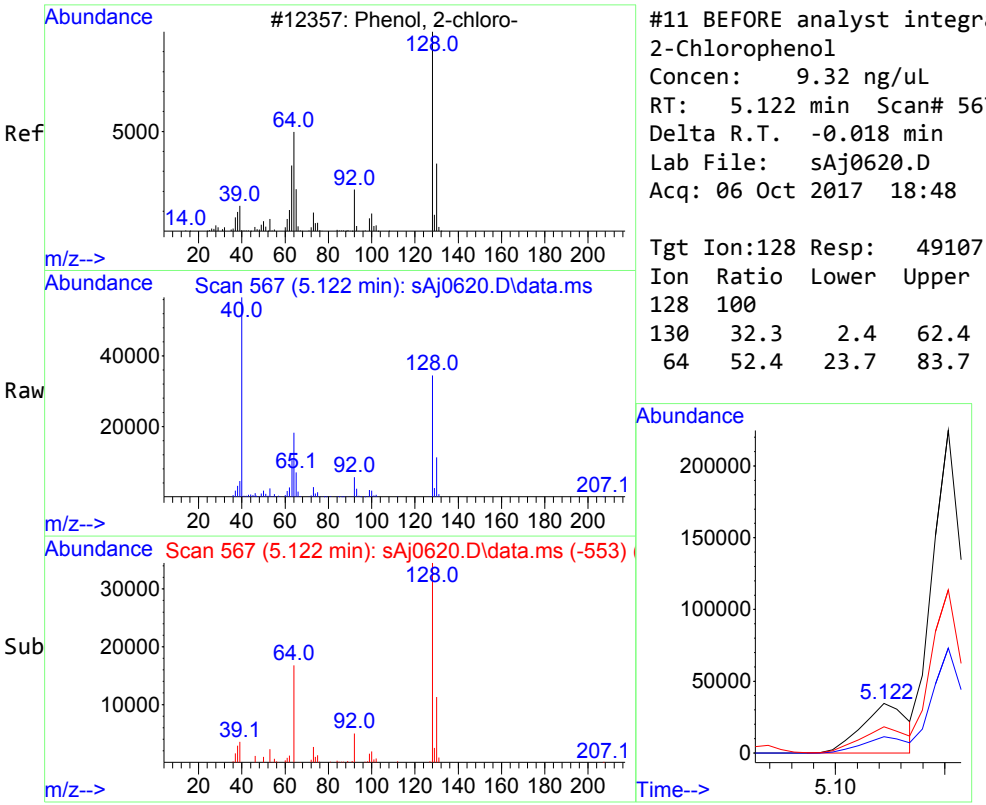
Ion	Ratio	Lower	Upper
93	100		
63	87.4	59.5	119.5
95	32.9	2.7	62.7



#10 AFTER analyst integration
bis(2-Chloroethyl) ether AB
Concen: 35.95 ng/uL MANUALLY INTEGRATED
RT: 5.069 min Scan# 558
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 93 Resp: 266131

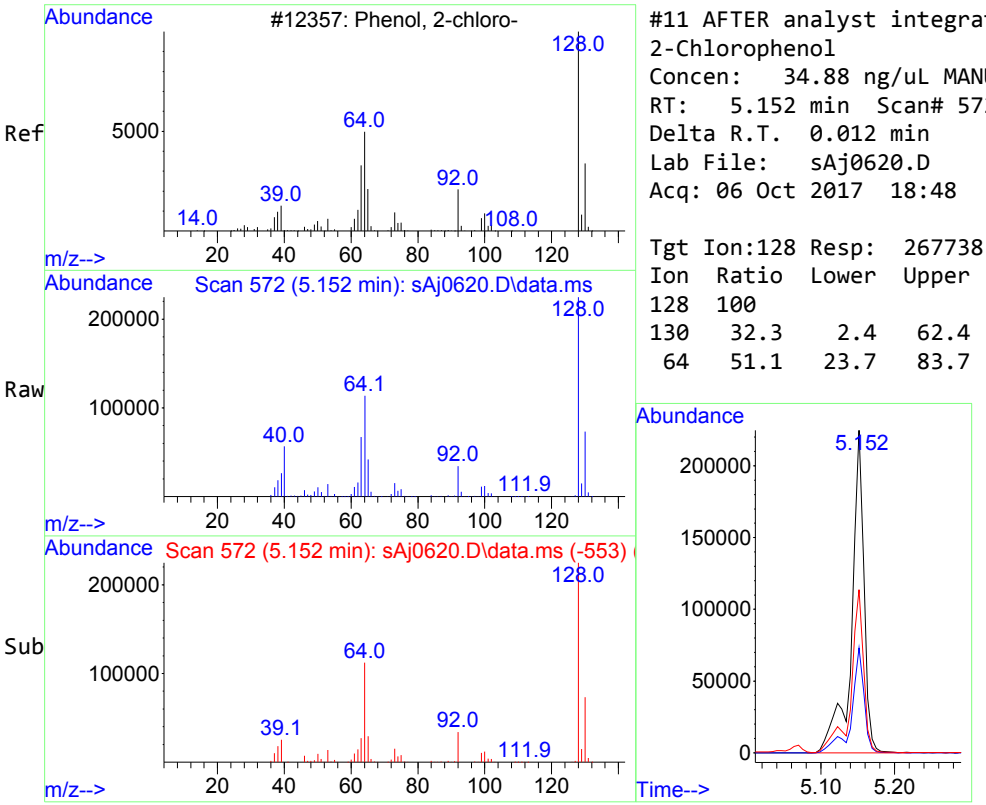
Ion	Ratio	Lower	Upper
93	100		
63	85.5	59.5	119.5
95	31.6	2.7	62.7



#11 BEFORE analyst integration
2-Chlorophenol
Concen: 9.32 ng/uL
RT: 5.122 min Scan# 567
Delta R.T. -0.018 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:128 Resp: 49107

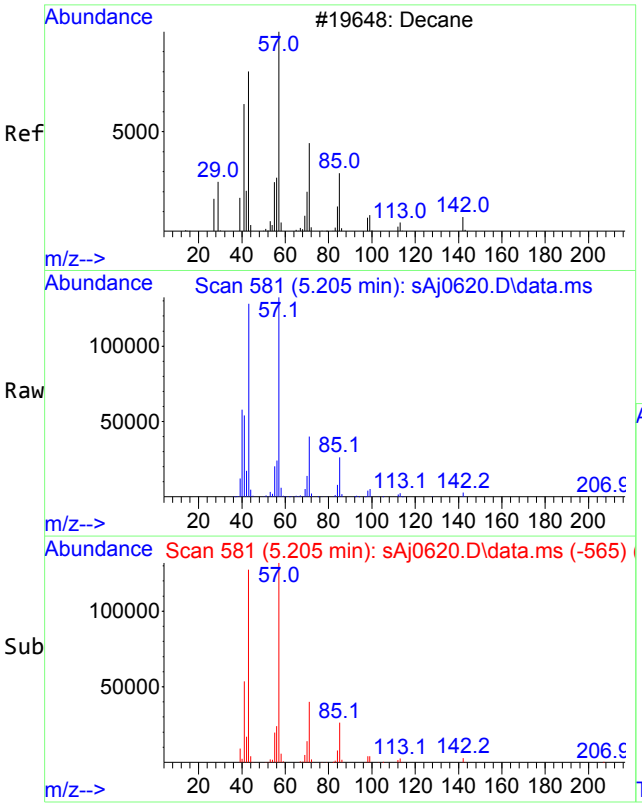
Ion	Ratio	Lower	Upper
128	100		
130	32.3	2.4	62.4
64	52.4	23.7	83.7



#11 AFTER analyst integration
2-Chlorophenol AP
Concen: 34.88 ng/uL MANUALLY INTEGRATED
RT: 5.152 min Scan# 572
Delta R.T. 0.012 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:128 Resp: 267738

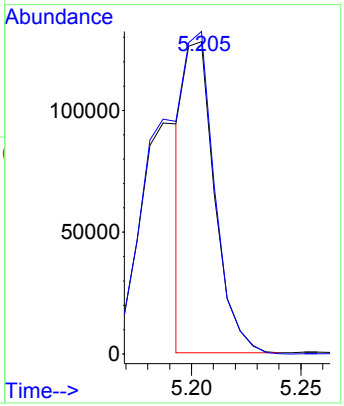
Ion	Ratio	Lower	Upper
128	100		
130	32.3	2.4	62.4
64	51.1	23.7	83.7

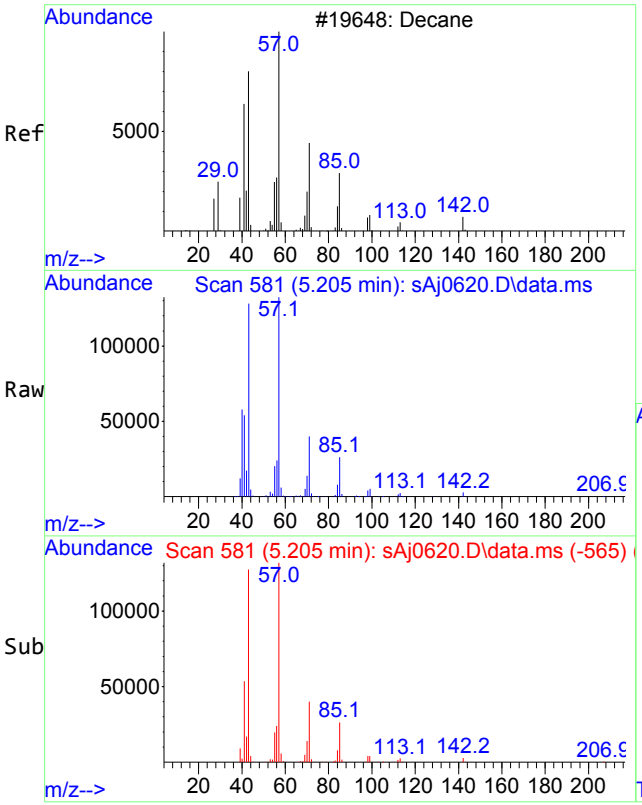


#12 BEFORE analyst integration
n-Decane
Concen: 15.59 ng/uL
RT: 5.205 min Scan# 581
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 43 Resp: 124801

Ion	Ratio	Lower	Upper
43	100		
57	103.4	69.9	129.9

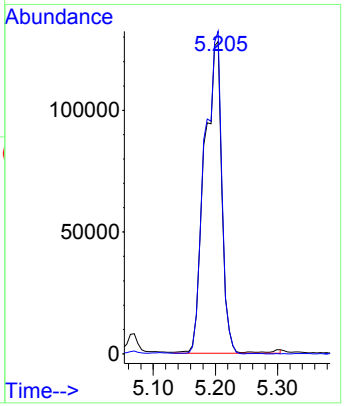


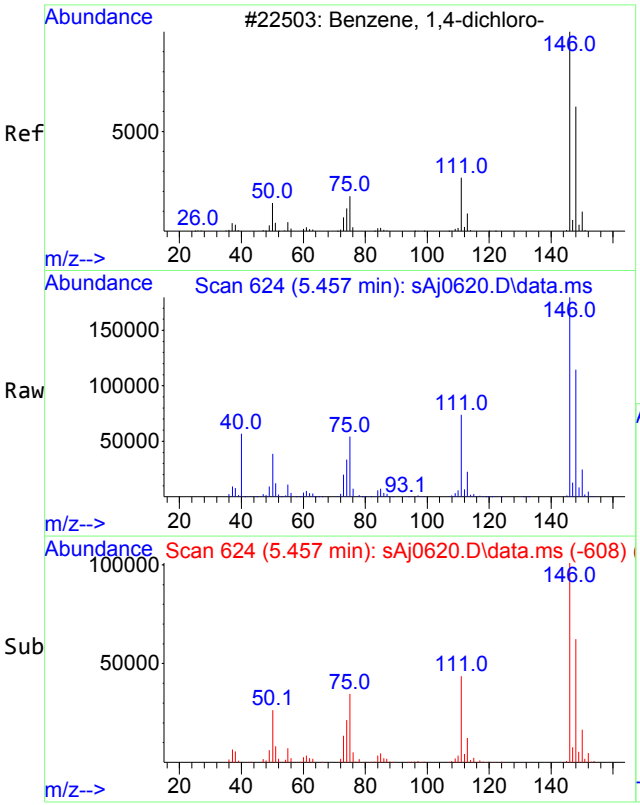


#12 AFTER analyst integration
n-Decane AB
Concen: 21.27 ng/uL MANUALLY INTEGRATED
RT: 5.205 min Scan# 581
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 43 Resp: 248061

Ion	Ratio	Lower	Upper
43	100		
57	101.4	69.9	129.9

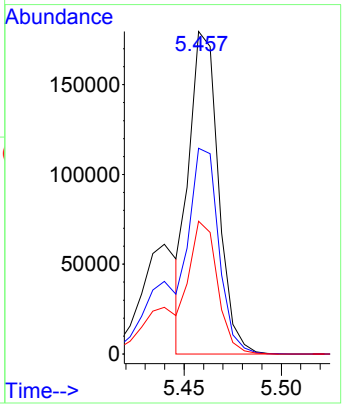


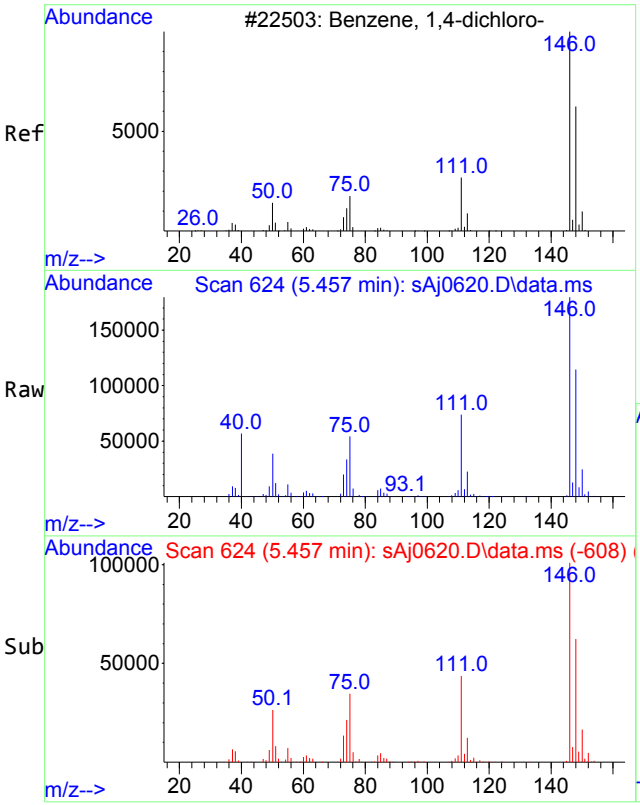


#14 BEFORE analyst integration
1,4-Dichlorobenzene
Concen: 30.96 ng/uL
RT: 5.457 min Scan# 624
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:146 Resp: 188619

Ion	Ratio	Lower	Upper
146	100		
148	64.4	34.4	94.4
111	40.1	11.8	71.8

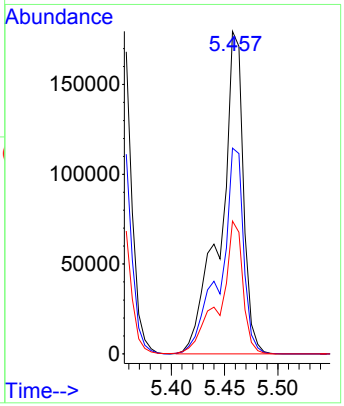


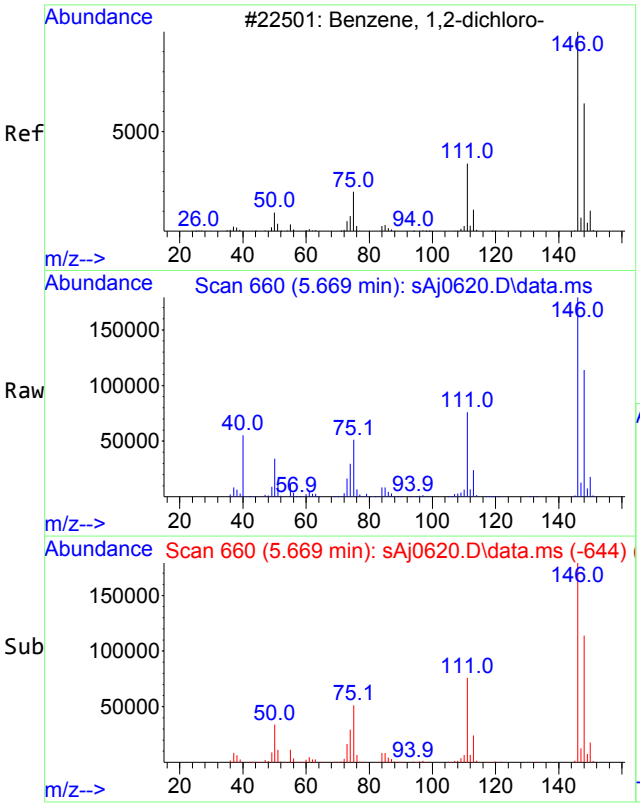


#14 AFTER analyst integration
1,4-Dichlorobenzene AB
Concen: 30.25 ng/uL MANUALLY INTEGRATED
RT: 5.457 min Scan# 624
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:146 Resp: 268500

Ion	Ratio	Lower	Upper
146	100		
148	64.3	34.4	94.4
111	41.0	11.8	71.8

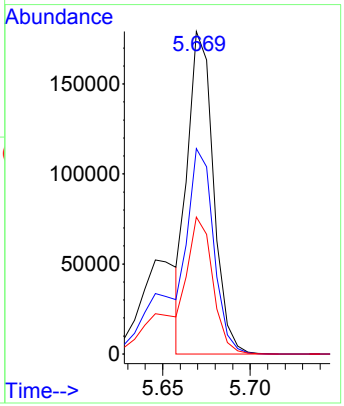


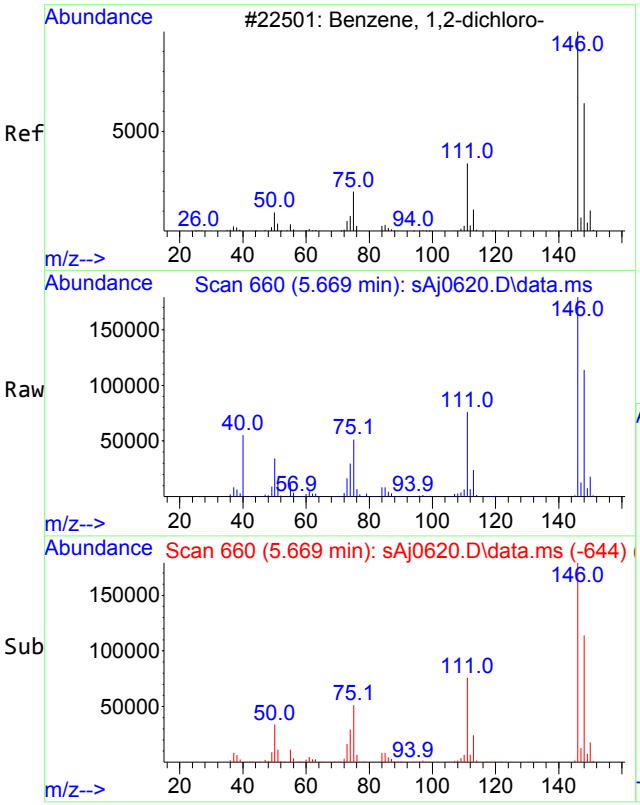


#15 BEFORE analyst integration
1,2-Dichlorobenzene
Concen: 32.03 ng/uL
RT: 5.669 min Scan# 660
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:146 Resp: 184727

Ion	Ratio	Lower	Upper
146	100		
148	64.2	34.2	94.2
111	41.9	12.9	72.9

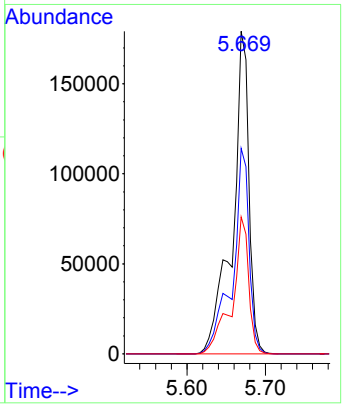


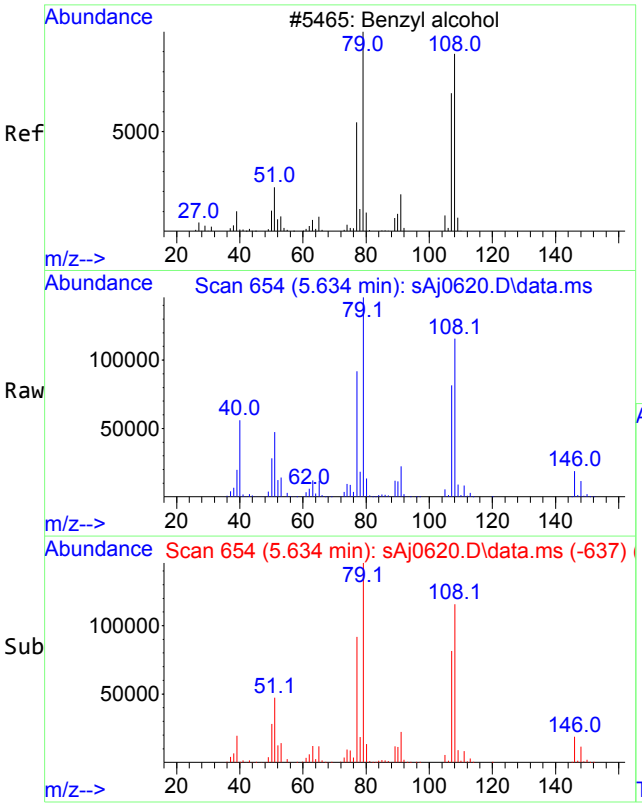


#15 AFTER analyst integration
1,2-Dichlorobenzene AB
Concen: 31.17 ng/uL MANUALLY INTEGRATED
RT: 5.669 min Scan# 660
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:146 Resp: 261911

Ion	Ratio	Lower	Upper
146	100		
148	63.8	34.2	94.2
111	42.1	12.9	72.9

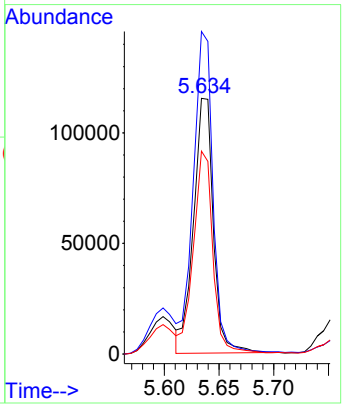


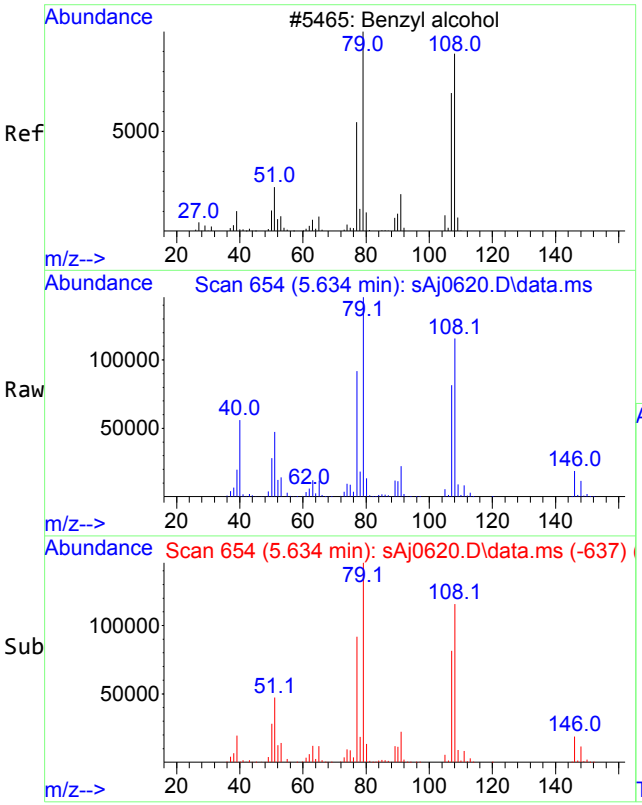


#17 BEFORE analyst integration
Benzyl alcohol
Concen: 43.35 ng/uL
RT: 5.634 min Scan# 654
Delta R.T. -0.000 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:108 Resp: 146213

Ion	Ratio	Lower	Upper
108	100		
79	124.4	102.5	162.5
77	77.5	52.4	112.4

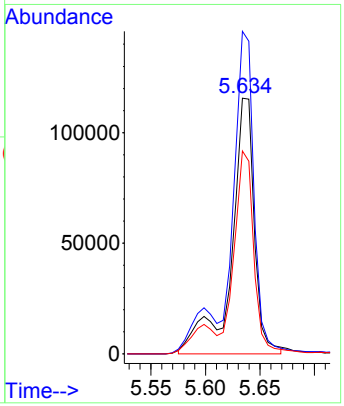


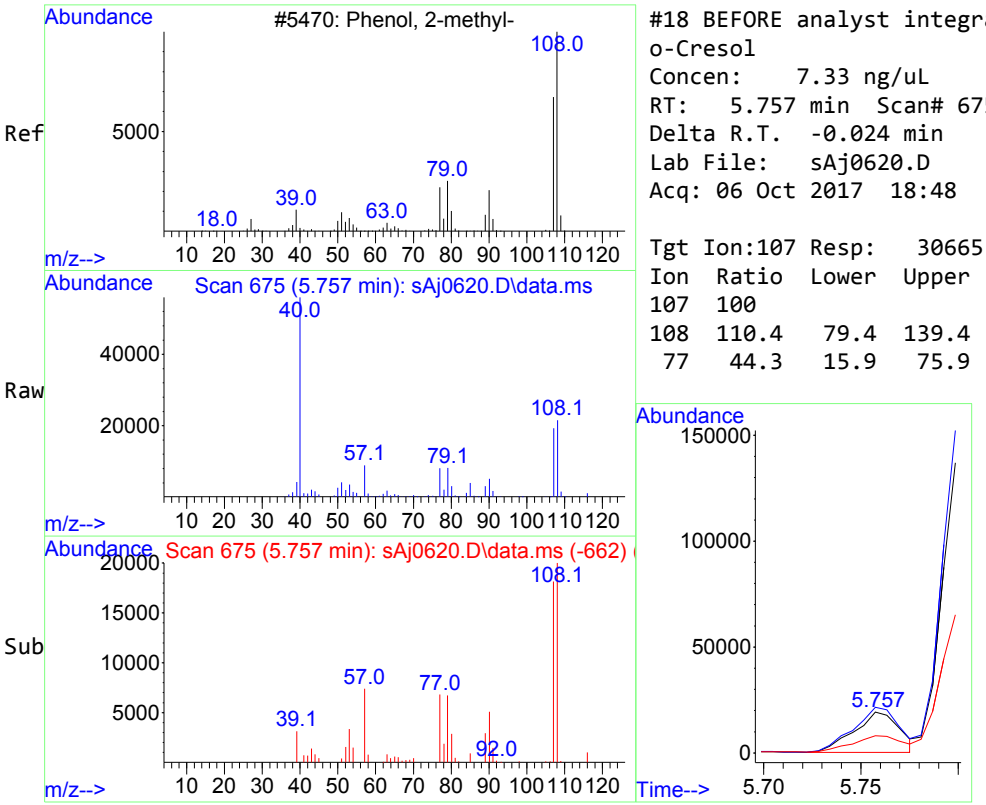


#17 AFTER analyst integration
Benzyl alcohol AB
Concen: 34.88 ng/uL MANUALLY INTEGRATED
RT: 5.634 min Scan# 654
Delta R.T. -0.000 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:108 Resp: 171426

Ion	Ratio	Lower	Upper
108	100		
79	125.5	102.5	162.5
77	77.2	52.4	112.4

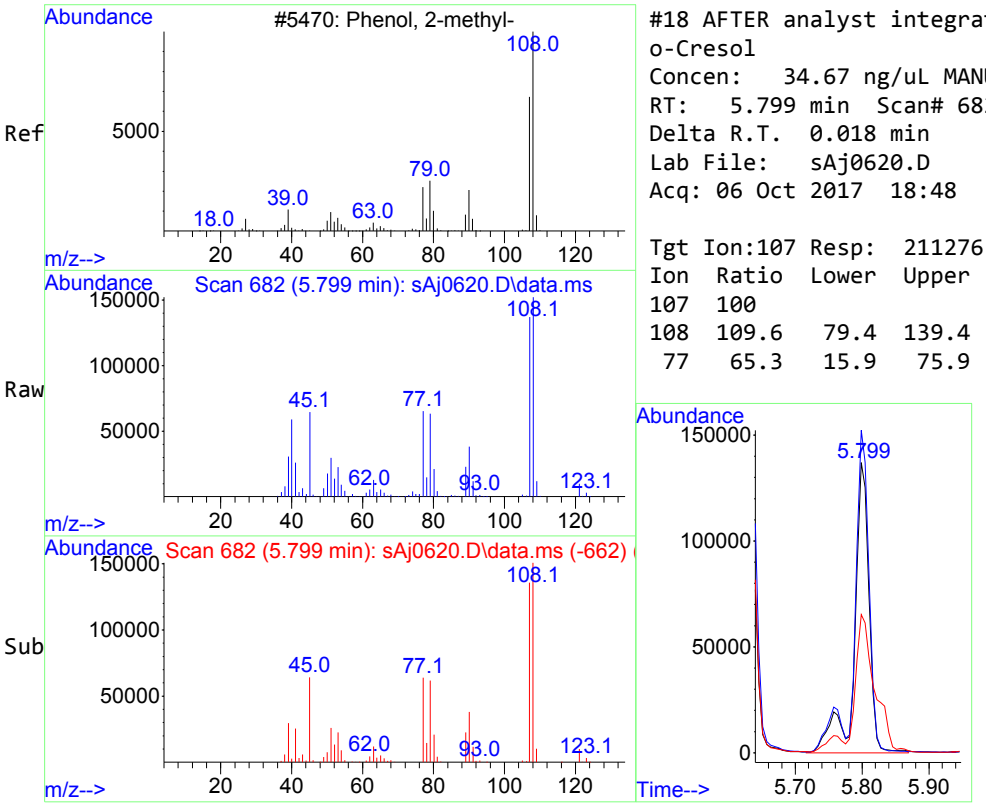




#18 BEFORE analyst integration
o-Cresol
Concen: 7.33 ng/uL
RT: 5.757 min Scan# 675
Delta R.T. -0.024 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:107 Resp: 30665

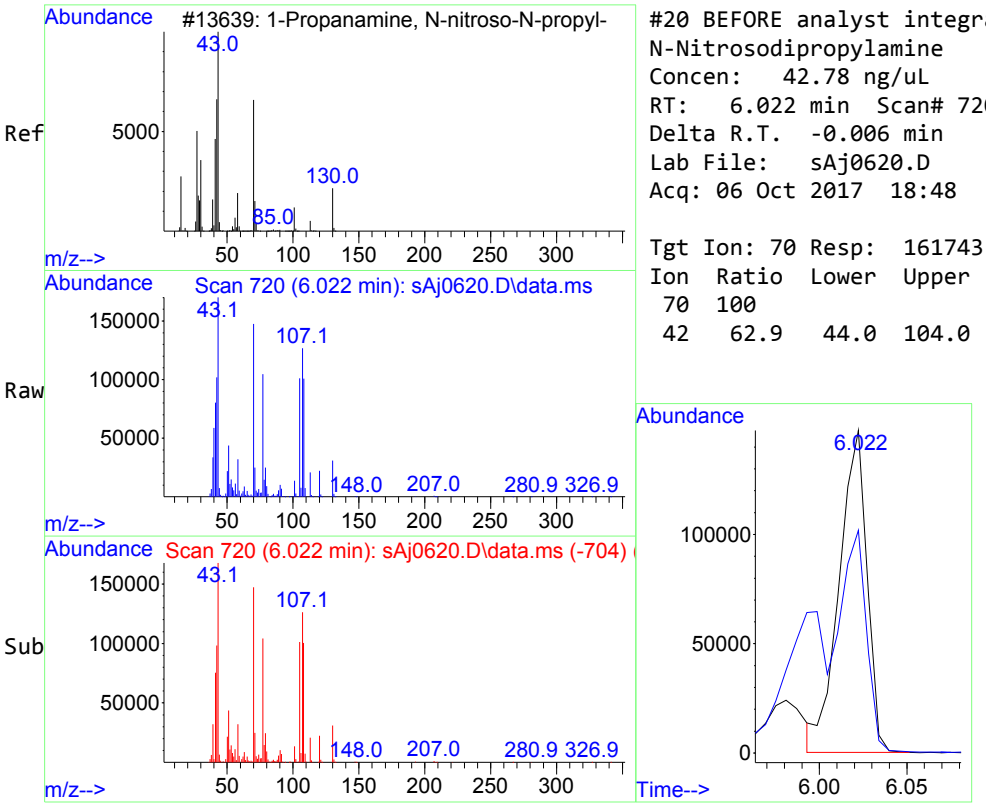
Ion	Ratio	Lower	Upper
107	100		
108	110.4	79.4	139.4
77	44.3	15.9	75.9



#18 AFTER analyst integration
o-Cresol AP
Concen: 34.67 ng/uL MANUALLY INTEGRATED
RT: 5.799 min Scan# 682
Delta R.T. 0.018 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:107 Resp: 211276

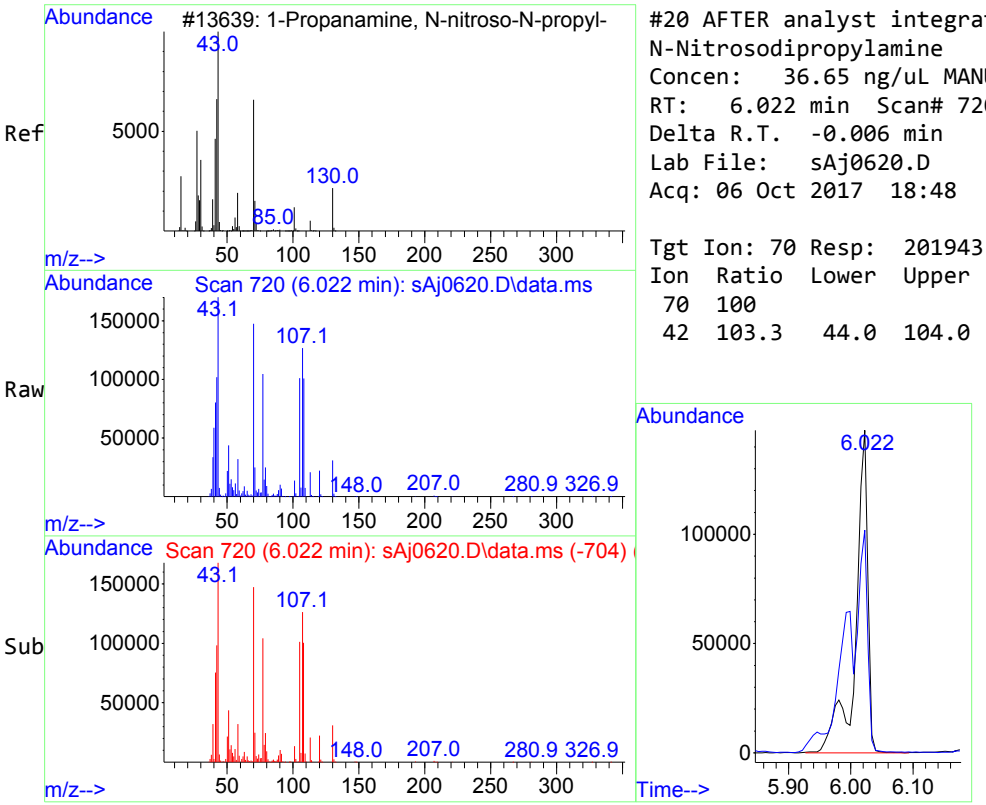
Ion	Ratio	Lower	Upper
107	100		
108	109.6	79.4	139.4
77	65.3	15.9	75.9



#20 BEFORE analyst integration
N-Nitrosodipropylamine
Concen: 42.78 ng/uL
RT: 6.022 min Scan# 720
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 70 Resp: 161743

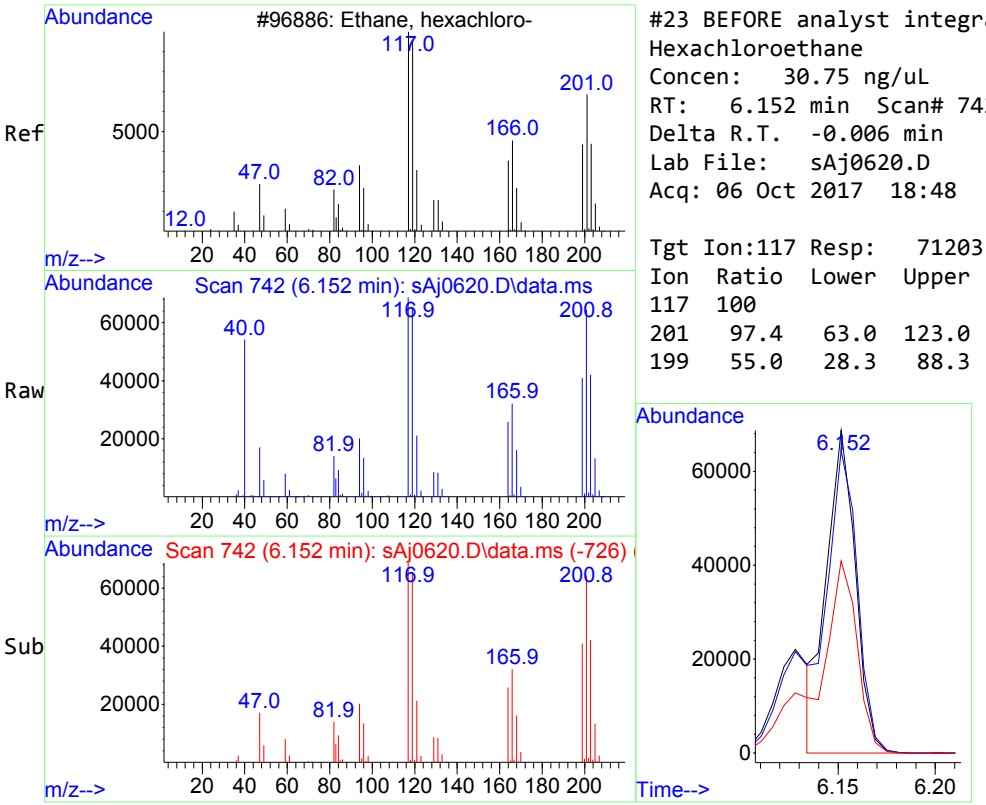
Ion	Ratio	Lower	Upper
70	100		
42	62.9	44.0	104.0



#20 AFTER analyst integration
N-Nitrosodipropylamine AB
Concen: 36.65 ng/uL MANUALLY INTEGRATED
RT: 6.022 min Scan# 720
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 70 Resp: 201943

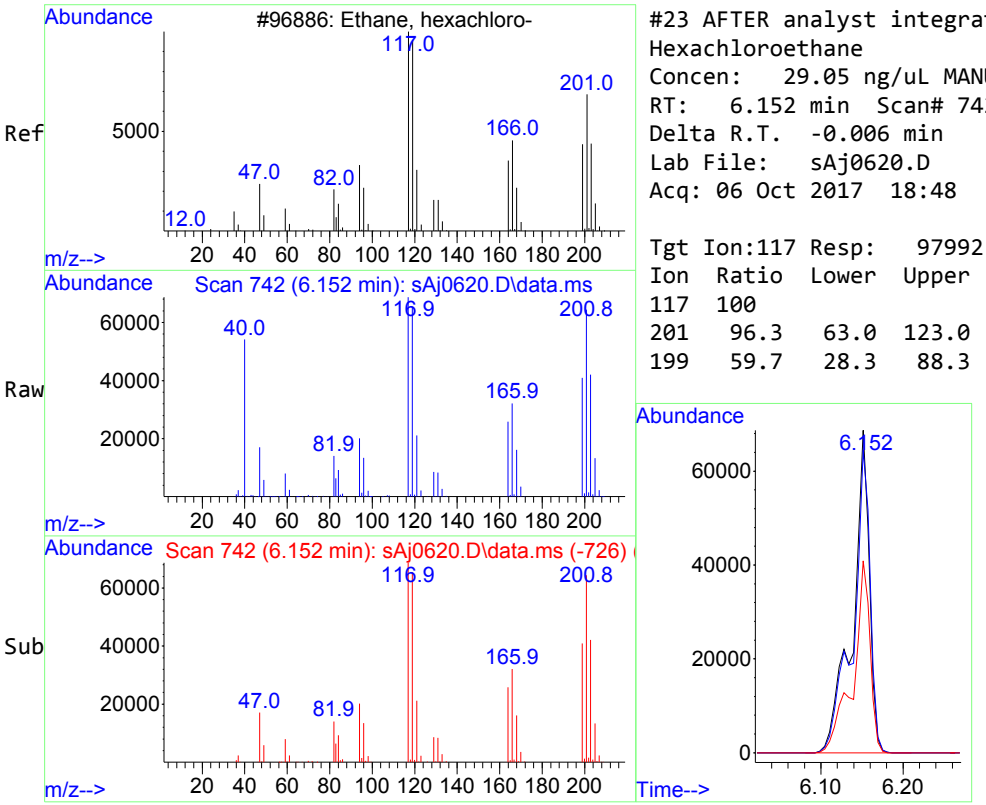
Ion	Ratio	Lower	Upper
70	100		
42	103.3	44.0	104.0



#23 BEFORE analyst integration
Hexachloroethane
Concen: 30.75 ng/uL
RT: 6.152 min Scan# 742
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:117 Resp: 71203

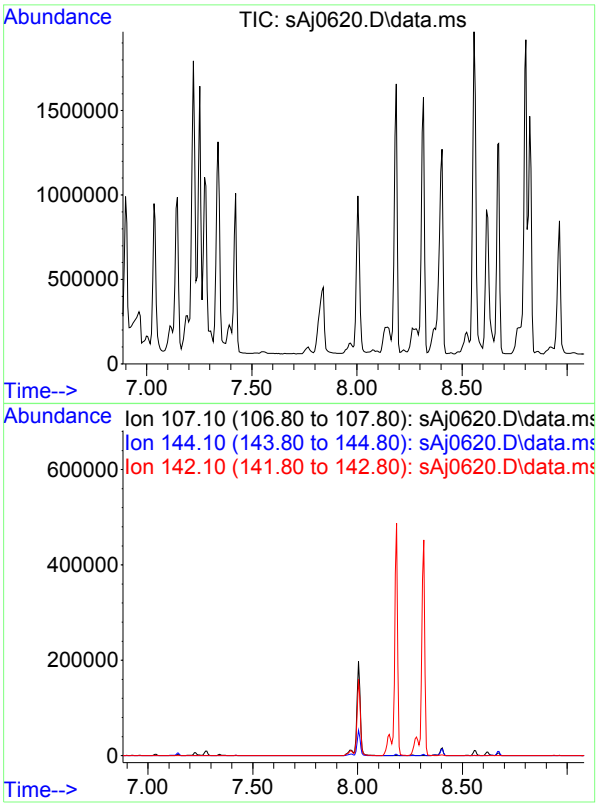
Ion	Ratio	Lower	Upper
117	100		
201	97.4	63.0	123.0
199	55.0	28.3	88.3



#23 AFTER analyst integration
Hexachloroethane AB
Concen: 29.05 ng/uL MANUALLY INTEGRATED
RT: 6.152 min Scan# 742
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:117 Resp: 97992

Ion	Ratio	Lower	Upper
117	100		
201	96.3	63.0	123.0
199	59.7	28.3	88.3

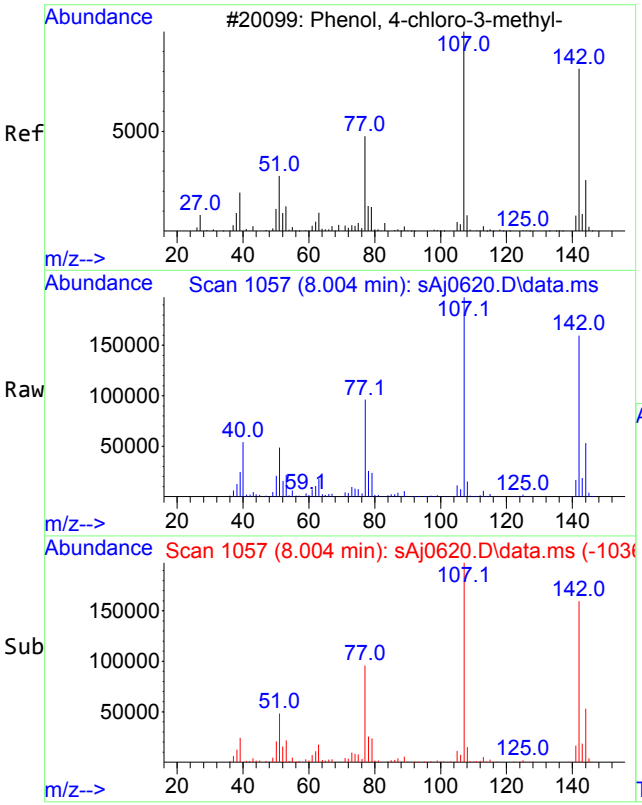


#38 BEFORE analyst integration
4-Chloro-3-methylphenol
Concen: Below Cal
Expected RT: 7.98 min

Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion: 107

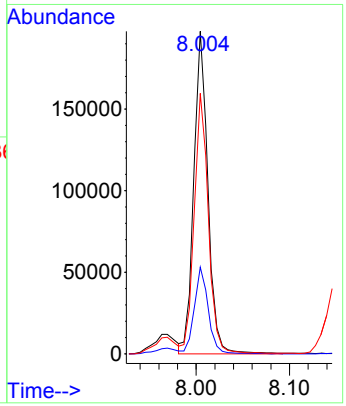
Sig	Exp Ratio
107	100
144	25.3
142	79.2

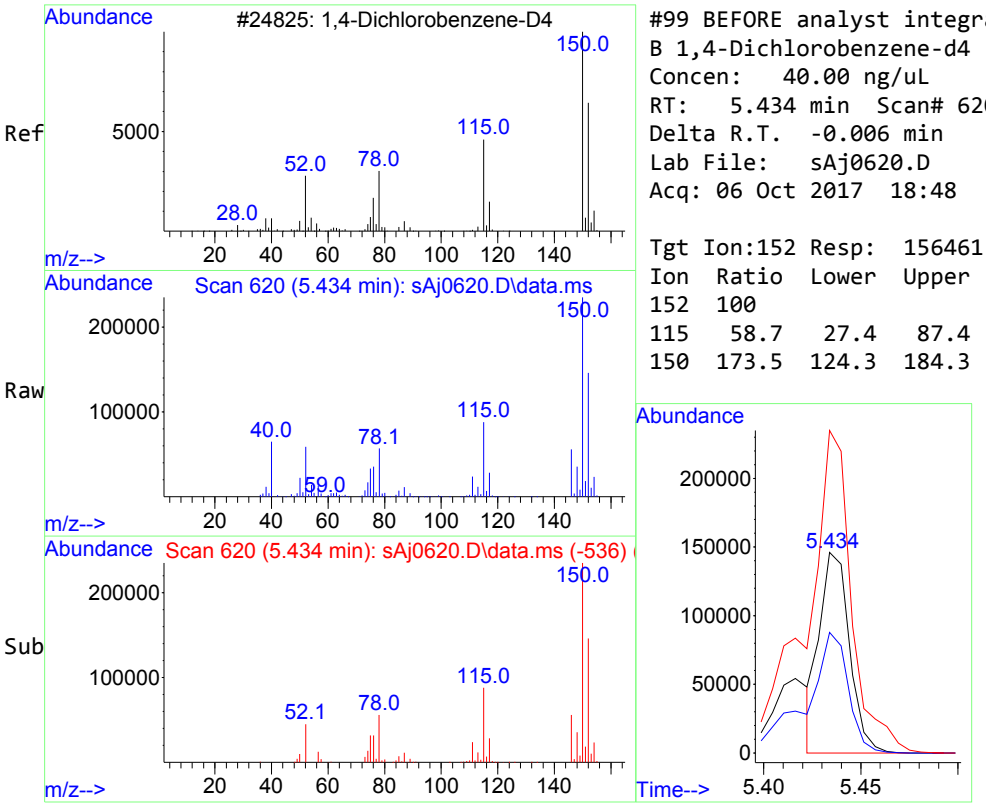


#38 AFTER analyst integration
4-Chloro-3-methylphenol AP
Concen: 41.49 ng/uL MANUALLY INTEGRATED
RT: 8.004 min Scan# 1057
Delta R.T. 0.023 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:107 Resp: 208659

Ion	Ratio	Lower	Upper
107	100		
144	26.3	0.0	55.3
142	75.2	49.2	109.2

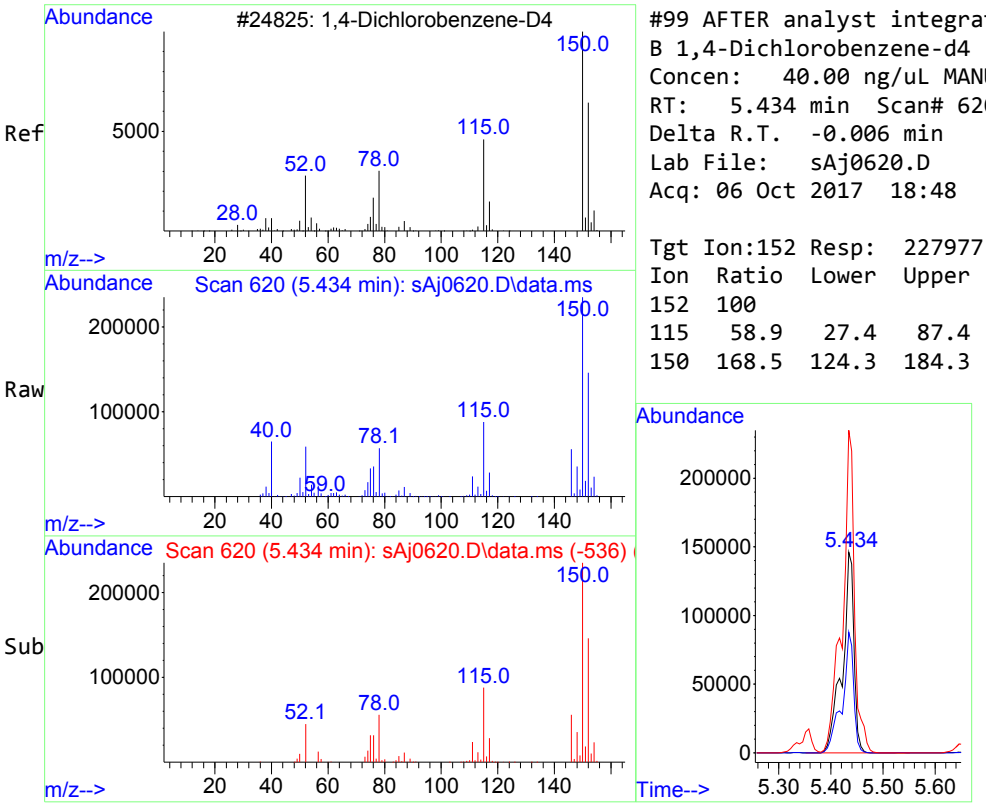




#99 BEFORE analyst integration
B 1,4-Dichlorobenzene-d4
Concen: 40.00 ng/uL
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 156461

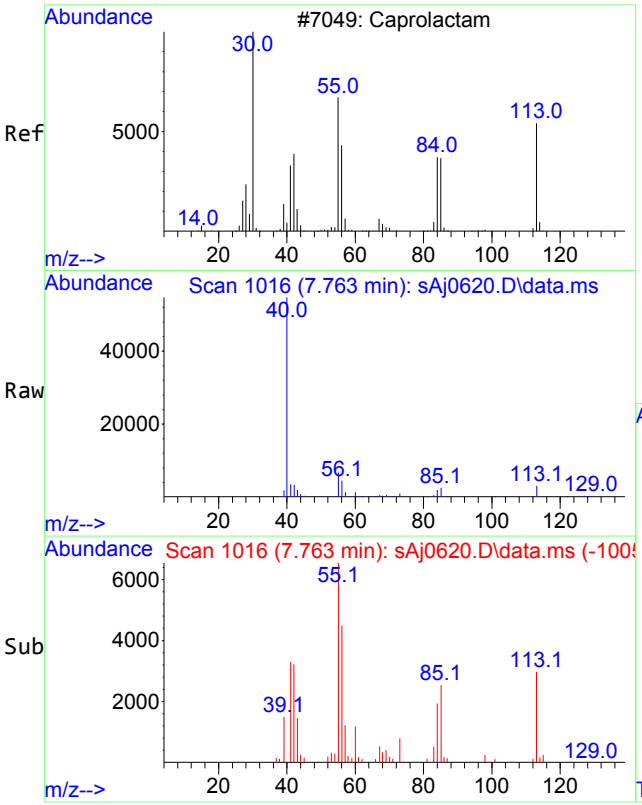
Ion	Ratio	Lower	Upper
152	100		
115	58.7	27.4	87.4
150	173.5	124.3	184.3



#99 AFTER analyst integration
B 1,4-Dichlorobenzene-d4 AB
Concen: 40.00 ng/uL MANUALLY INTEGRATED
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 227977

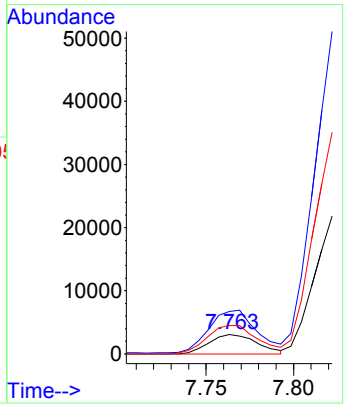
Ion	Ratio	Lower	Upper
152	100		
115	58.9	27.4	87.4
150	168.5	124.3	184.3

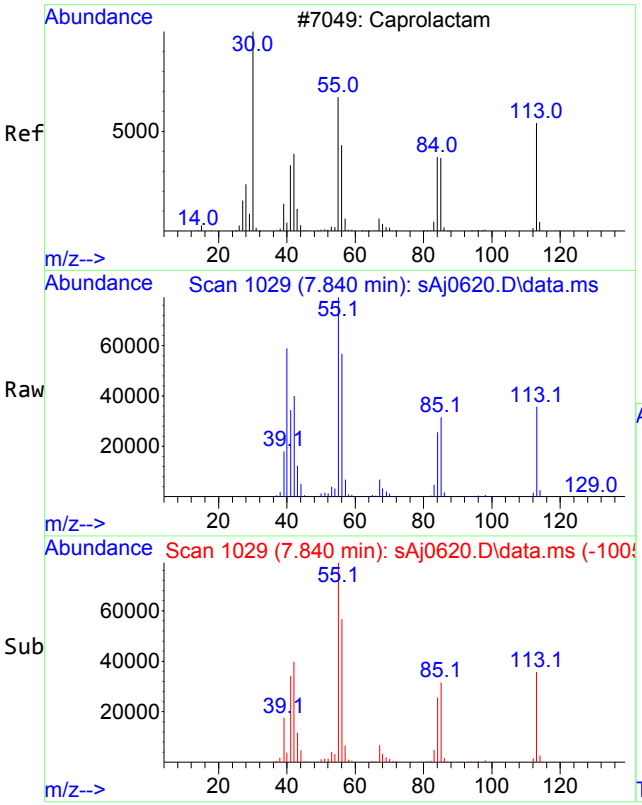


#120 BEFORE analyst integration
Caprolactam
Concen: 3.82 ng/uL
RT: 7.763 min Scan# 1016
Delta R.T. -0.035 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:113 Resp: 5854

Ion	Ratio	Lower	Upper
113	100		
55	217.9	259.0	319.0#
56	155.0	182.0	242.0#

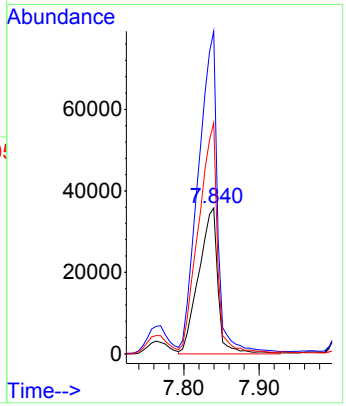


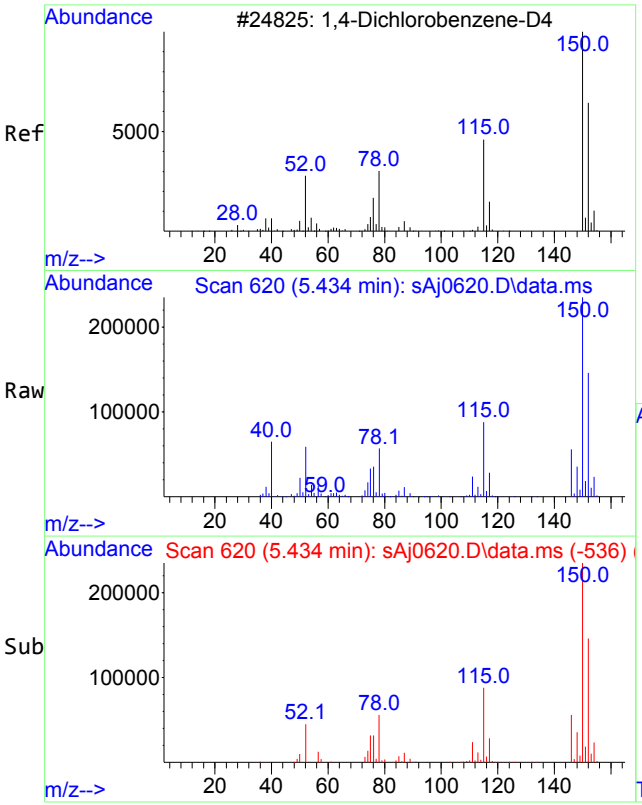


#120 AFTER analyst integration
Caprolactam AP
Concen: 41.69 ng/uL MANUALLY INTEGRATED
RT: 7.840 min Scan# 1029
Delta R.T. 0.041 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:113 Resp: 63974

Ion	Ratio	Lower	Upper
113	100		
55	216.1	259.0	319.0#
56	154.1	182.0	242.0#

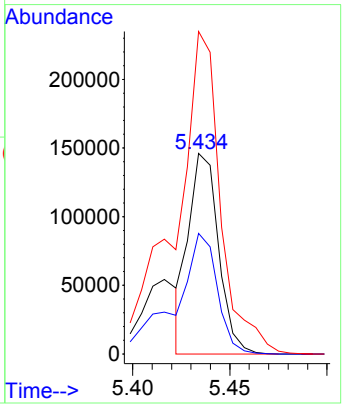


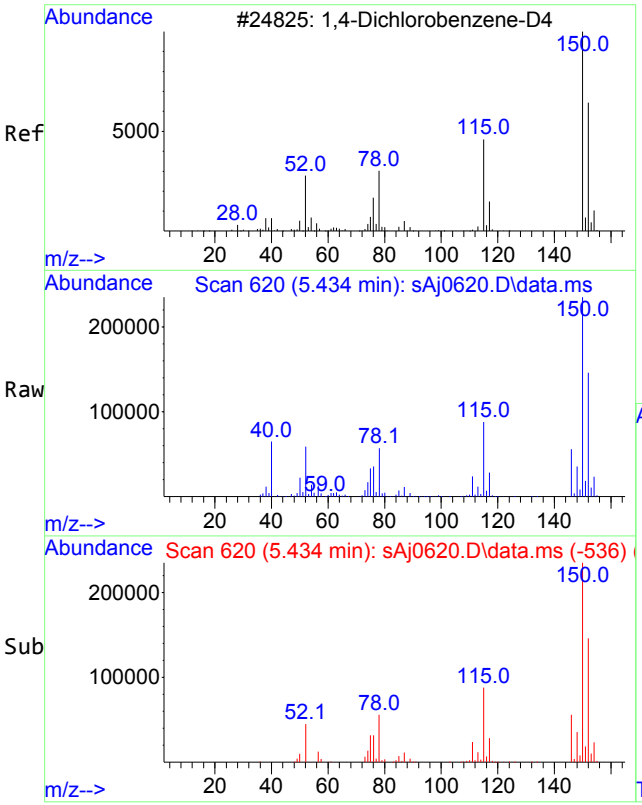


#159 BEFORE analyst integration
D 1,4-Dichlorobenzene-d4
Concen: 40.00 ng/uL
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 156461

Ion	Ratio	Lower	Upper
152	100		
115	58.7	37.4	77.4
150	173.5	134.3	174.3

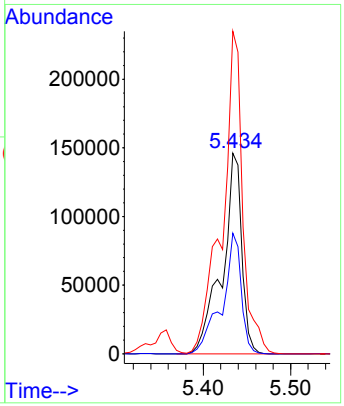




#159 AFTER analyst integration
D 1,4-Dichlorobenzene-d4 AB
Concen: 40.00 ng/uL MANUALLY INTEGRATED
RT: 5.434 min Scan# 620
Delta R.T. -0.006 min
Lab File: sAj0620.D
Acq: 06 Oct 2017 18:48

Tgt Ion:152 Resp: 228002

Ion	Ratio	Lower	Upper
152	100		
115	58.8	37.4	77.4
150	168.2	134.3	174.3



Miscellaneous

Prep Logbook

Automated Soxhlet Extraction

Batch ID: **1707072** **Verified by:** _____

Analyst: **Desiree Buggs**

Method: **SW846 3541**

Lab SOP: **GL-OA-E-066 REV# 8**

Instrument: **Semi-Volatiles Manual**

Sample ID	Prep Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1203890201 MB	06-OCT-2017 09:27:00	31.03	1	0.03223
1203890202 LCS	06-OCT-2017 09:27:00	31.04	1	0.03222
433642001	06-OCT-2017 09:27:00	30.21	1	0.0331
433718018	06-OCT-2017 09:27:00	30.09	1	0.03323
1203890203 MS (433718018)	06-OCT-2017 09:27:00	30.32	1	0.03298
1203890204 MSD (433718018)	06-OCT-2017 09:27:00	30.07	1	0.03326
433718019	06-OCT-2017 09:27:00	30.26	1	0.03305
433718020	06-OCT-2017 09:27:00	30.25	1	0.03306
434104001	06-OCT-2017 09:27:00	31.231	1	0.03202
434104002	06-OCT-2017 09:27:00	31.015	4.3	0.13864

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1203890202	BNA LCS w/o Benzidine/Atrazine 50ppm	WE170809-40	1	mL
LCS	1203890202	BENZIDINE/Atrazine LCS	WE171004-48	1	mL
MS	1203890203	BNA LCS w/o Benzidine/Atrazine 50ppm	WE170809-40	1	mL
MS	1203890203	BENZIDINE/Atrazine LCS	WE171004-48	1	mL
MSD	1203890204	BNA LCS w/o Benzidine/Atrazine 50ppm	WE170809-40	1	mL
MSD	1203890204	BENZIDINE/Atrazine LCS	WE171004-48	1	mL
SURR	All	BNA for all Surrogate	UE170925-15	1	mL
REGNT	All	Acetone	2597509-B4	60	mL
REGNT	All	Sand pure 40-100 mesh	2600642-A	31	g
REGNT	All	Methylene Chloride	2603901	60	mL

Comments:

Sample 434104002 appeared oily while on TurboVap and final volume was taken.

Soxtherm Unit:: 5,6

Final Solvent: CH2Cl2

Start Time:: 9:35

End Time:: 10:36

Verified by: MD

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

GEL ORGANIC RUN LOG

DATE: 15-Sep-17 METHOD: See Data OPERATOR: JMB3 Sequence Number: 091517.S

Multiplier Voltage: 1174
Internal Std ID: UBN170214-01.3
Internal Std ID: WBN170324-99 (SIM)
Solvent Reference ID: 2403002

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
09/15/2017	08:47	sAI1501.D	WBN170717-99	DFTPP	DFTPP	1	1	JMB3	√
09/15/2017	09:07	sAI1502.D	WBN170822-08	M-1	duse	1	2	JMB3	DUSE
09/15/2017	09:38	sAI1503.D	WBN170822-07	M-2	duse	1	3	JMB3	DUSE
09/15/2017	10:10	sAI1504.D	WBN170822-06	M-3	duse	1	4	JMB3	DUSE
09/15/2017	10:40	sAI1505.D	WBN170822-05.1	M-4	ICAL	1	5	JMB3	√
09/15/2017	11:45	sAI1506.D	WBN170822-04	M-5	ICAL	1	6	JMB3	√
09/15/2017	12:16	sAI1507.D	WBN170822-03	M-6	ICAL	1	7	JMB3	√
09/15/2017	12:47	sAI1508.D	WBN170822-02	M-7	ICAL	1	8	JMB3	√
09/15/2017	13:18	sAI1509.D	WBN170822-01	M-8	ICAL	1	9	JMB3	√
09/15/2017	13:49	sAI1510.D	WBN170822-08	M-1	ICAL	1	10	JMB3	√
09/15/2017	14:20	sAI1511.D	WBN170822-07	M-2	ICAL	1	11	JMB3	√
09/15/2017	14:51	sAI1512.D	WBN170822-06	M-3	ICAL	1	12	JMB3	√
09/15/2017	15:24	sAI1513.D	WBN170831-09.1	M-ICV	ICV	1	13	JMB3	√
09/15/2017	15:56	sAI1514.D	WBN170717-99	DFTPP	DFTPP	1	1	JMB3	√
09/15/2017	16:11	sAI1515.D	WBN170822-17	A-2	ICAL	1	14	JMB3	√
09/15/2017	16:38	sAI1516.D	WBN170822-16	A-3	ICAL	1	15	JMB3	√
09/15/2017	17:04	sAI1517.D	WBN170822-18	A-9	ICAL	1	16	JMB3	√
09/15/2017	17:31	sAI1518.D	WBN170822-15.1	A-4	ICAL	1	17	JMB3	√
09/15/2017	17:58	sAI1519.D	WBN170822-14	A-5	ICAL	1	18	JMB3	√
09/15/2017	18:25	sAI1520.D	WBN170822-19	A-10	ICAL	1	19	JMB3	√
09/15/2017	18:51	sAI1521.D	WBN170822-13	A-6	ICAL	1	20	JMB3	√
09/15/2017	19:18	sAI1522.D	WBN170822-12	A-7	ICAL	1	21	JMB3	√
09/15/2017	19:44	sAI1523.D	WBN170822-11	A-8	ICAL	1	22	JMB3	√
09/15/2017	20:11	sAI1524.D	WBN170831-18	A-ICV	duse	1	23	JMB3	DUSE: Methyapyrilene low - see sAi1550
09/15/2017	20:39	sAI1525.D	WBN170827-43	B-2	ICAL	1	24	JMB3	√
09/15/2017	21:01	sAI1526.D	WBN170827-44	B-3	ICAL	1	25	JMB3	√
09/15/2017	21:24	sAI1527.D	WBN170827-45.1	B-4	ICAL	1	26	JMB3	√
09/15/2017	21:46	sAI1528.D	WBN170827-46	B-5	ICAL	1	27	JMB3	√
09/15/2017	22:09	sAI1529.D	WBN170827-47	B-6	ICAL	1	28	JMB3	√
09/15/2017	22:31	sAI1530.D	WBN170827-48	B-7	ICAL	1	29	JMB3	√
09/15/2017	22:54	sAI1531.D	WBN170827-49	B-8	ICAL	1	30	JMB3	√
09/15/2017	23:16	sAI1532.D	WBN170827-50.2	B-ICV	ICV	1	31	JMB3	√

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

GEL ORGANIC RUN LOG

09/15/2017 23:40	sAI1533.D	WBN170717-99	DFTPP	DFTPP	1	32	JMB3	√
09/15/2017 23:55	sAI1534.D	WBN170627-25	P-2	ICAL	1	33	JMB3	√
09/16/2017 00:17	sAI1535.D	WBN170627-24	P-3	ICAL	1	34	JMB3	√
09/16/2017 00:40	sAI1536.D	WBN170627-23.1	P-4	ICAL	1	35	JMB3	√
09/16/2017 01:02	sAI1537.D	WBN170627-22	P-5	ICAL	1	36	JMB3	√
09/16/2017 01:25	sAI1538.D	WBN170627-21	P-6	ICAL	1	37	JMB3	√
09/16/2017 01:47	sAI1539.D	WBN170627-20	P-7	ICAL	1	38	JMB3	√
09/16/2017 02:10	sAI1540.D	WBN170627-19	P-8	ICAL	1	39	JMB3	√
09/16/2017 02:32	sAI1541.D	WBN170628-26.1	P-ICV	ICAL	1	40	JMB3	√
09/16/2017 02:55	sAI1542.D	WBN170830-31	H-2	ICAL	1	41	JMB3	√
09/16/2017 03:17	sAI1543.D	WBN170830-32	H-3	ICAL	1	42	JMB3	√
09/16/2017 03:40	sAI1544.D	WBN170830-33.1	H-4	ICAL	1	43	JMB3	√
09/16/2017 04:02	sAI1545.D	WBN170830-34	H-5	ICAL	1	44	JMB3	√
09/16/2017 04:25	sAI1546.D	WBN170830-35	H-6	ICAL	1	45	JMB3	√
09/16/2017 04:47	sAI1547.D	WBN170830-36	H-7	ICAL	1	46	JMB3	√
09/16/2017 05:10	sAI1548.D	WBN170915-38	H-ICV	ICV	1	47	JMB3	√
Instrument idle at C until next injection								
09/18/2017 09:45	sAI1549.D	WBN170717-99	DFTPP	DFTPP	1	48	JMB3	√
09/18/2017 09:59	sAI1550.D	WBN170918-18	A-ICV	ICV	1	49	JMB3	√

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

GEL ORGANIC RUN LOG

DATE: 6-Oct-17 METHOD: See Data OPERATOR: JMB3 Sequence Number: 100617.S

Multiplier Voltage: 1174
Internal Std ID: UBN170214-01.3
Internal Std ID: WBN170-99 (SIM)
Solvent Reference ID: 2593125

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
10/06/2017	08:16	sAj0601.D	WBN170928-99	DFTPP	DFTPP	1	1	JMB3	√
10/06/2017	08:33	sAj0602.D	WBN170809-05.5	M-CCV	CCV	1	2	JMB3	√ IS1: 226706
10/06/2017	09:05	sAj0603.D	WBN170827-45.1	B-CCV	CCV	1	3	JMB3	√
10/06/2017	09:29	sAj0604.D	WBN171002-15.1	A-CCV	CCV	1	4	JMB3	√
10/06/2017	11:28	sAj0605.D	WBN170827-23.2	P-CCV	CCV	1	5	JMB3	√
10/06/2017	11:52	sAj0606.D	WBN170915-38	H-CCV	CCV	1	6	JMB3	√
10/06/2017	12:53	sAj0607.D	1203890186	MB	1707069	1	7	JMB3	Report
10/06/2017	13:19	sAj0608.D	1203890187	LCS	1707069	1	8	JMB3	Report
10/06/2017	13:45	sAj0609.D	434350002	UCOR	1707069	1	9	JMB3	Report
10/06/2017	14:11	sAj0610.D	1203890207	MS	1707069	1	10	JMB3	Report
10/06/2017	14:38	sAj0611.D	1203890208	MSD	1707069	1	11	JMB3	Report
10/06/2017	15:04	sAj0612.D	434291001	WASP	1707069	1	12	JMB3	Report
10/06/2017	15:30	sAj0613.D	1203890194	MS	1707069	1	13	JMB3	Report
10/06/2017	15:56	sAj0614.D	1203890195	MSD	1707069	1	14	JMB3	Report
10/06/2017	16:24	sAj0615.D	1203890201	MB	1707073	1	15	JMB3	Report
10/06/2017	16:56	sAj0616.D	1203890202	LCS	1707073	1	16	JMB3	Report
10/06/2017	17:24	sAj0617.D	433642001	LLNL	1707073	1	17	JMB3	Report
10/06/2017	17:56	sAj0618.D	433718018	URSC	1707073	1	18	JMB3	Report
10/06/2017	18:22	sAj0619.D	1203890203	MS	1707073	1	19	JMB3	Report
10/06/2017	18:48	sAj0620.D	1203890204	MSD	1707073	1	20	JMB3	Report
10/06/2017	19:14	sAj0621.D	434104001	MECP	1707073	20	21	JMB3	Report
10/06/2017	19:41	sAj0622.D	434104002	MECP	1707073	20	22	JMB3	DUSE: failed IS3/4/5 very low, IS6 @ 0% - see sAj0925 for 200x results
10/06/2017	20:13	sAj0623.D	434104002	MECPrr	1707073	20	22	JMB3	DUSE: failed IS3/4/5 very low, IS6 @ 0% - see sAj0924 for 500x results

JMB
10/10/2017

ORGANIC RUN LOG - INSTRUMENT ID#MSDA

GEL ORGANIC RUN LOG

DATE: 9-Oct-17 METHOD: See Data OPERATOR: JMB3 Sequence Number: 100917A.S

Multiplier Voltage: 1174
Internal Std ID: UBN170214-01.3
Internal Std ID: WBN170-99 (SIM)
Solvent Reference ID: 2593125

Calibration Information:
Initial Calibration Dates: See Calibration History
Initial Calibration Std ID's: See Associated Data and Run Log
GEL SOP: GL-OA-E-009

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Dil. Factor	AS Slot #	Analyst	Comments
10/09/2017	14:32	sAj0912.D	WBN170928-99	DFTPP	DFTPP	1	1	JMB3	√
10/09/2017	14:57	sAj0913.D	WBN171002-15.2	A-CCV	CCV	1	3	JMB3	√
10/09/2017	15:22	sAj0914.D	WBN171003-05.1	M-CCV	CCV	1	2	JMB3	√ IS1: 114377
10/09/2017	15:55	sAj0915.D	WBN170827-45.1	B-CCV	CCV	1	4	JMB3	√
10/09/2017	16:17	sAj0916.D	WBN170827-23.2	P-CCV	CCV	1	5	JMB3	√
10/09/2017	16:41	sAj0917.D	434362002	ARSL	1707069	1	6	JMB3	Report
10/09/2017	17:07	sAj0918.D	434370001	ARSL	1707069	1	7	JMB3	Report
10/09/2017	17:34	sAj0919.D	433718019	URSC	1707073	1	8	JMB3	Report
10/09/2017	18:00	sAj0920.D	433718020	URSC	1707073	1	9	JMB3	Report
10/09/2017	18:26	sAj0921.D	434104001	MECP	1707073	1000	10	JMB3	DUSE: see sAj0925 for 200x results
10/09/2017	18:52	sAj0922.D	434104002	MECP	1707073	1000	11	JMB3	DUSE: see sAj0924 for 500x results
10/09/2017	19:18	sAj0923.D	434104001	MECP	1707073	500	12	JMB3	DUSE: see sAj0925 for 200x results
10/09/2017	19:45	sAj0924.D	434104002	MECP	1707073	500	13	JMB3	Report: all IS passed except IS6 @ 0% - email PM
10/09/2017	20:11	sAj0925.D	434104001	MECP	1707073	200	14	JMB3	Report
10/09/2017	20:37	sAj0926.D	434104002	MECP	1707073	200	15	JMB3	DUSE: see sAj0924 for 500x results (tributyl results/peak better)
10/09/2017	21:04	sAj0927.D	WBN170928-99	DFTPP	DFTPP	1	1	JMB3	DUSE: post sequence screen - ok
10/09/2017	21:19	sAj0928.D	WBN171003-05.1	M-CCV	CCV	1	2	JMB3	DUSE: post sequence screen - ok
10/09/2017	21:51	sAj0929.D	WBN171002-15.2	A-CCV	CCV	1	3	JMB3	DUSE: post sequence screen - ok
10/09/2017	22:19	sAj0930.D	WBN170827-23.1	P-CCV	CCV	1	4	JMB3	DUSE: post sequence screen - ok
10/09/2017	22:41	sAj0931.D	WBN170827-45.2	B-CCV	CCV	1	5	JMB3	DUSE: post sequence screen - ok

Metals Analysis

Case Narrative

Metals
Technical Case Narrative
URS Energy & Construction (URSC)
SDG #: 433718

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010C
Analytical Procedure: GL-MA-E-013 REV# 29
Analytical Batch: 1704451

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020
Analytical Procedure: GL-MA-E-014 REV# 31
Analytical Batch: 1704457

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471A
Analytical Procedure: GL-MA-E-010 REV# 35
Analytical Batch: 1705897

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 26
Preparation Batches: 1704450 and 1704456

Preparation Method: SW846 7471A Prep
Preparation Procedure: GL-MA-E-010 REV# 35
Preparation Batch: 1705893

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
433718018	G2ESOL01
433718019	G2ESOL02
433718020	G2ESOL03
1203884246	Method Blank (MB)**ICP**
1203884247	Laboratory Control Sample (LCS)
1203884250	433718018(G2ESOL01L) Serial Dilution (SD)
1203884248	433718018(G2ESOL01D) Sample Duplicate (DUP)
1203884249	433718018(G2ESOL01S) Matrix Spike (MS)
1203885640	433718018(G2ESOL01PS) Post Spike (PS)
1203884261	Method Blank (MB)**ICP-MS**
1203884262	Laboratory Control Sample (LCS)
1203884265	433718018(G2ESOL01L) Serial Dilution (SD)
1203884263	433718018(G2ESOL01D) Sample Duplicate (DUP)
1203884264	433718018(G2ESOL01S) Matrix Spike (MS)
1203887571	Method Blank (MB)**CVAA**
1203887572	Laboratory Control Sample (LCS)
1203887575	433360001(NonSDGL) Serial Dilution (SD)
1203887573	433360001(NonSDGD) Sample Duplicate (DUP)
1203887574	433360001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1203884249 (G2ESOL01MS)	Thallium	71.9* (75%-125%)
	Zinc	53.7* (75%-125%)

The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte.

Sample	Analyte	Value
1203884264 (G2ESOL01MS)	Arsenic	55.5* (75%-125%)
	Selenium	73.5* (75%-125%)

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the IDL/MDL for CVAA, 50X the IDL/MDL for ICP and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. Not all the applicable analytes were within the established acceptance criteria. Matrix suppression may be suspected. The data has been qualified.

Analyte	Sample	Value
Zinc	1203884250 (G2ESOL01SDILT)	14.5 *(0%-10%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. The ICPMS solid samples in this SDG were diluted the standard two times. ICP-MS.

Analyte	433718		
	018	**019**	**020**
Arsenic	2X 1X	2X 1X	2X 1X
Selenium	2X 1X	2X 1X	2X 1X
Thallium	2X 1X	2X 1X	2X 1X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

URSC013 URS Energy & Construction (2012-SC-SPRU-29463-171)

Client SDG: 433718 GEL Work Order: 433718

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
J Value is estimated
N Metals--The Matrix spike sample recovery is not within specified control limits
Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
Q Quality Issue: temp on receipt was 22C Sample was received out of temperature specification > 12C.
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: Nik-Cole A. Elmore **Name: Nik-Cole Elmore**

Date: 11 OCT 2017 **Title: Data Validator**

Sample Data Summary

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 433718 **METHOD TYPE:** SW846

SAMPLE ID: 433718018 **CLIENT ID:** G2ESOL01

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 27−SEP−17 **LEVEL:** Low **%SOLIDS:** 94

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7440−36−0	Antimony	0.342	mg/kg	U		P	0.342	1	OPTIMA3	092817A−1
7440−38−2	Arsenic	7.81	mg/kg		N	MS	0.349	2	ICPMS11	171010−3
7440−38−2	Arsenic	8.35	mg/kg		N	P	0.518	1	OPTIMA3	092817A−1
7440−39−3	Barium	59.9	mg/kg			P	0.104	1	OPTIMA3	092817A−1
7440−43−9	Cadmium	0.104	mg/kg	U		P	0.104	1	OPTIMA3	092817A−1
7440−47−3	Chromium	13	mg/kg			P	0.155	1	OPTIMA3	092817A−1
7440−48−4	Cobalt	10.1	mg/kg			P	0.155	1	OPTIMA3	092817A−1
7439−89−6	Iron	24200	mg/kg			P	8.28	1	OPTIMA3	092817A−1
7439−92−1	Lead	2.53	mg/kg			P	0.342	1	OPTIMA3	092917A−2
7439−96−5	Manganese	430	mg/kg			P	0.207	1	OPTIMA3	092817A−1
7439−97−6	Mercury	0.0217	mg/kg			AV	0.00389	1	HG3	100417S1−4
7440−02−0	Nickel	23.4	mg/kg			P	0.155	1	OPTIMA3	092817A−1
7782−49−2	Selenium	1.72	mg/kg	B	N	P	0.518	1	OPTIMA3	092817A−1
7782−49−2	Selenium	1.66	mg/kg		N	MS	0.372	2	ICPMS11	171010−3
7440−22−4	Silver	0.136	mg/kg	B		P	0.104	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.518	mg/kg	U	N	P	0.518	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.145	mg/kg	U	N	MS	0.145	2	ICPMS11	171010−3
7440−66−6	Zinc	55.6	mg/kg		EN	P	0.414	1	OPTIMA3	092917A−2

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 433718 **METHOD TYPE:** SW846

SAMPLE ID: 433718019 **CLIENT ID:** G2ESOL02

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 27−SEP−17 **LEVEL:** Low **%SOLIDS:** 92.7

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7440−36−0	Antimony	0.346	mg/kg	U		P	0.346	1	OPTIMA3	092817A−1
7440−38−2	Arsenic	9.47	mg/kg		N	P	0.525	1	OPTIMA3	092817A−1
7440−38−2	Arsenic	7.05	mg/kg		N	MS	0.34	2	ICPMS11	171010−3
7440−39−3	Barium	56	mg/kg			P	0.105	1	OPTIMA3	092817A−1
7440−43−9	Cadmium	0.117	mg/kg	B		P	0.105	1	OPTIMA3	092817A−1
7440−47−3	Chromium	13	mg/kg			P	0.157	1	OPTIMA3	092817A−1
7440−48−4	Cobalt	13.5	mg/kg			P	0.157	1	OPTIMA3	092817A−1
7439−89−6	Iron	24600	mg/kg			P	8.4	1	OPTIMA3	092817A−1
7439−92−1	Lead	3.76	mg/kg			P	0.346	1	OPTIMA3	092917A−2
7439−96−5	Manganese	538	mg/kg			P	0.21	1	OPTIMA3	092817A−1
7439−97−6	Mercury	0.0661	mg/kg			AV	0.00392	1	HG3	100417S1−4
7440−02−0	Nickel	26	mg/kg			P	0.157	1	OPTIMA3	092817A−1
7782−49−2	Selenium	2.84	mg/kg	B	N	P	0.525	1	OPTIMA3	092817A−1
7782−49−2	Selenium	1.61	mg/kg		N	MS	0.362	2	ICPMS11	171010−3
7440−22−4	Silver	0.15	mg/kg	B		P	0.105	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.525	mg/kg	U	N	P	0.525	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.141	mg/kg	U	N	MS	0.141	2	ICPMS11	171010−3
7440−66−6	Zinc	338	mg/kg		EN	P	0.42	1	OPTIMA3	092917A−2

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

METALS
−1−
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 433718 **METHOD TYPE:** SW846

SAMPLE ID: 433718020 **CLIENT ID:** G2ESOL03

CONTRACT: URSC00114

MATRIX: Soil **DATE RECEIVED** 27−SEP−17 **LEVEL:** Low **%SOLIDS:** 93.8

CAS No	Analyte	Result	Units	C	Qual	M*	MDL	DF	Inst ID	Analytical Run
7440−36−0	Antimony	0.343	mg/kg	U		P	0.343	1	OPTIMA3	092817A−1
7440−38−2	Arsenic	8.42	mg/kg		N	P	0.52	1	OPTIMA3	092817A−1
7440−38−2	Arsenic	6.9	mg/kg		N	MS	0.347	2	ICPMS11	171010−3
7440−39−3	Barium	50.1	mg/kg			P	0.104	1	OPTIMA3	092817A−1
7440−43−9	Cadmium	0.104	mg/kg	U		P	0.104	1	OPTIMA3	092817A−1
7440−47−3	Chromium	12.9	mg/kg			P	0.156	1	OPTIMA3	092817A−1
7440−48−4	Cobalt	11.2	mg/kg			P	0.156	1	OPTIMA3	092817A−1
7439−89−6	Iron	24400	mg/kg			P	8.33	1	OPTIMA3	092817A−1
7439−92−1	Lead	4.19	mg/kg			P	0.343	1	OPTIMA3	092917A−2
7439−96−5	Manganese	577	mg/kg			P	0.208	1	OPTIMA3	092817A−1
7439−97−6	Mercury	0.028	mg/kg			AV	0.00385	1	HG3	100417S1−4
7440−02−0	Nickel	25.3	mg/kg			P	0.156	1	OPTIMA3	092817A−1
7782−49−2	Selenium	2.53	mg/kg	B	N	P	0.52	1	OPTIMA3	092817A−1
7782−49−2	Selenium	1.48	mg/kg		N	MS	0.37	2	ICPMS11	171010−3
7440−22−4	Silver	0.104	mg/kg	U		P	0.104	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.52	mg/kg	U	N	P	0.52	1	OPTIMA3	092817A−1
7440−28−0	Thallium	0.144	mg/kg	U	N	MS	0.144	2	ICPMS11	171010−3
7440−66−6	Zinc	49.4	mg/kg		EN	P	0.416	1	OPTIMA3	092917A−2

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

Quality Control Summary

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
ICV01										
	Antimony	487	ug/L	500	ug/L	97.3	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Arsenic	501	ug/L	500	ug/L	100.3	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Barium	508	ug/L	500	ug/L	101.7	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Cadmium	508	ug/L	500	ug/L	101.6	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Chromium	503	ug/L	500	ug/L	100.6	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Cobalt	510	ug/L	500	ug/L	102	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Iron	5030	ug/L	5000	ug/L	100.5	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Nickel	509	ug/L	500	ug/L	101.8	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Selenium	2570	ug/L	2500	ug/L	102.8	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Silver	250	ug/L	250	ug/L	100.1	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Thallium	506	ug/L	500	ug/L	101.1	90.0 − 110.0	P	28−SEP−17 10:15	092817A−1
	Lead	510	ug/L	500	ug/L	101.9	90.0 − 110.0	P	29−SEP−17 05:59	092917A−2
	Thallium	508	ug/L	500	ug/L	101.6	90.0 − 110.0	P	29−SEP−17 05:59	092917A−2
	Zinc	504	ug/L	500	ug/L	100.9	90.0 − 110.0	P	29−SEP−17 05:59	092917A−2
	Mercury	4.57	ug/L	5	ug/L	91.4	90.0 − 110.0	AV	04−OCT−17 09:48	100417S1−4
	Arsenic	49.9	ug/L	50	ug/L	99.7	90.0 − 110.0	MS	10−OCT−17 23:41	171010−3
	Selenium	50.3	ug/L	50	ug/L	100.6	90.0 − 110.0	MS	10−OCT−17 23:41	171010−3
	Thallium	51.1	ug/L	50	ug/L	102.1	90.0 − 110.0	MS	10−OCT−17 23:41	171010−3
CCV01										
	Antimony	491	ug/L	500	ug/L	98.1	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Arsenic	503	ug/L	500	ug/L	100.6	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Barium	492	ug/L	500	ug/L	98.3	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Cadmium	497	ug/L	500	ug/L	99.3	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Chromium	492	ug/L	500	ug/L	98.5	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Cobalt	496	ug/L	500	ug/L	99.3	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Iron	4950	ug/L	5000	ug/L	99	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Manganese	493	ug/L	500	ug/L	98.7	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Nickel	505	ug/L	500	ug/L	101.1	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Selenium	498	ug/L	500	ug/L	99.7	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Silver	492	ug/L	500	ug/L	98.4	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Thallium	494	ug/L	500	ug/L	98.8	90.0 − 110.0	P	28−SEP−17 10:37	092817A−1
	Lead	485	ug/L	500	ug/L	97	90.0 − 110.0	P	29−SEP−17 06:21	092917A−2
	Thallium	492	ug/L	500	ug/L	98.5	90.0 − 110.0	P	29−SEP−17 06:21	092917A−2
	Zinc	483	ug/L	500	ug/L	96.7	90.0 − 110.0	P	29−SEP−17 06:21	092917A−2
	Mercury	4.86	ug/L	5	ug/L	97.3	80.0 − 120.0	AV	04−OCT−17 09:54	100417S1−4
	Arsenic	50.8	ug/L	50	ug/L	101.6	90.0 − 110.0	MS	10−OCT−17 23:51	171010−3
	Selenium	50.7	ug/L	50	ug/L	101.3	90.0 − 110.0	MS	10−OCT−17 23:51	171010−3
	Thallium	51.3	ug/L	50	ug/L	102.6	90.0 − 110.0	MS	10−OCT−17 23:51	171010−3
CCV02										
	Antimony	483	ug/L	500	ug/L	96.6	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Arsenic	493	ug/L	500	ug/L	98.7	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Barium	489	ug/L	500	ug/L	97.8	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Cadmium	486	ug/L	500	ug/L	97.2	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Chromium	488	ug/L	500	ug/L	97.5	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Iron	4950	ug/L	5000	ug/L	98.9	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Manganese	490	ug/L	500	ug/L	98	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Nickel	500	ug/L	500	ug/L	100	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Selenium	493	ug/L	500	ug/L	98.6	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Silver	492	ug/L	500	ug/L	98.4	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Thallium	484	ug/L	500	ug/L	96.8	90.0 − 110.0	P	28−SEP−17 10:51	092817A−1
	Lead	483	ug/L	500	ug/L	96.6	90.0 − 110.0	P	29−SEP−17 06:31	092917A−2
	Thallium	487	ug/L	500	ug/L	97.4	90.0 − 110.0	P	29−SEP−17 06:31	092917A−2
	Zinc	483	ug/L	500	ug/L	96.6	90.0 − 110.0	P	29−SEP−17 06:31	092917A−2
	Mercury	4.78	ug/L	5	ug/L	95.6	80.0 − 120.0	AV	04−OCT−17 11:04	100417S1−4
	Arsenic	51.4	ug/L	50	ug/L	102.8	90.0 − 110.0	MS	11−OCT−17 00:11	171010−3
	Selenium	53	ug/L	50	ug/L	105.9	90.0 − 110.0	MS	11−OCT−17 00:11	171010−3
	Thallium	52.3	ug/L	50	ug/L	104.6	90.0 − 110.0	MS	11−OCT−17 00:11	171010−3
CCV03										
	Antimony	489	ug/L	500	ug/L	97.8	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Arsenic	490	ug/L	500	ug/L	98	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
	Barium	492	ug/L	500	ug/L	98.4	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Cadmium	488	ug/L	500	ug/L	97.5	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Chromium	490	ug/L	500	ug/L	98.1	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Cobalt	495	ug/L	500	ug/L	99	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Manganese	495	ug/L	500	ug/L	98.9	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Nickel	502	ug/L	500	ug/L	100.4	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Selenium	490	ug/L	500	ug/L	98	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Silver	497	ug/L	500	ug/L	99.4	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Thallium	485	ug/L	500	ug/L	96.9	90.0 − 110.0	P	28−SEP−17 16:37	092817A−1
	Lead	487	ug/L	500	ug/L	97.5	90.0 − 110.0	P	29−SEP−17 10:46	092917A−2
	Thallium	487	ug/L	500	ug/L	97.3	90.0 − 110.0	P	29−SEP−17 10:46	092917A−2
	Zinc	487	ug/L	500	ug/L	97.4	90.0 − 110.0	P	29−SEP−17 10:46	092917A−2
	Mercury	4.83	ug/L	5	ug/L	96.6	80.0 − 120.0	AV	04−OCT−17 11:24	100417S1−4
CCV04										
	Antimony	492	ug/L	500	ug/L	98.3	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Arsenic	495	ug/L	500	ug/L	99.1	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Barium	494	ug/L	500	ug/L	98.8	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Cadmium	491	ug/L	500	ug/L	98.3	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Chromium	491	ug/L	500	ug/L	98.3	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Manganese	497	ug/L	500	ug/L	99.4	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Nickel	505	ug/L	500	ug/L	101	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Selenium	497	ug/L	500	ug/L	99.4	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Silver	498	ug/L	500	ug/L	99.7	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Thallium	489	ug/L	500	ug/L	97.8	90.0 − 110.0	P	28−SEP−17 17:08	092817A−1
	Lead	486	ug/L	500	ug/L	97.2	90.0 − 110.0	P	29−SEP−17 11:21	092917A−2
	Thallium	490	ug/L	500	ug/L	98.1	90.0 − 110.0	P	29−SEP−17 11:21	092917A−2
	Zinc	485	ug/L	500	ug/L	97	90.0 − 110.0	P	29−SEP−17 11:21	092917A−2
	Mercury	4.83	ug/L	5	ug/L	96.6	80.0 − 120.0	AV	04−OCT−17 11:44	100417S1−4

METALS
−2a−
Initial and Continuing Calibration Verification

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M*	Analysis Date/Time	Run Number
CCV05										
	Mercury	4.74	ug/L	5	ug/L	94.9	80.0 − 120.0	AV	04−OCT−17 11:56	100417S1−4

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

METALS
−2b−
CRDL Standard for ICP & ICPMS

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.179	ug/L	.2	ug/L	89.5	70.0 − 130.0	AV	04−OCT−17 09:52	100417S1−4
	Arsenic	5.18	ug/L	5	ug/L	103.6	70.0 − 130.0	MS	10−OCT−17 23:45	171010−3
	Selenium	4.95	ug/L	5	ug/L	99	70.0 − 130.0	MS	10−OCT−17 23:45	171010−3
	Thallium	2.08	ug/L	2	ug/L	104.2	70.0 − 130.0	MS	10−OCT−17 23:45	171010−3
PQL01										
	Antimony	8.95	ug/L	10	ug/L	89.5	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Arsenic	29.2	ug/L	30	ug/L	97.4	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Barium	4.87	ug/L	5	ug/L	97.5	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Cobalt	5.21	ug/L	5	ug/L	104.2	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Chromium	4.86	ug/L	5	ug/L	97.1	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Cadmium	5.13	ug/L	5	ug/L	102.7	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Iron	97.2	ug/L	100	ug/L	97.2	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Nickel	5.25	ug/L	5	ug/L	105.1	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Silver	5.02	ug/L	5	ug/L	100.3	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Thallium	20	ug/L	20	ug/L	99.8	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Selenium	29.6	ug/L	30	ug/L	98.6	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Manganese	10.4	ug/L	10	ug/L	103.9	70.0 − 130.0	P	28−SEP−17 10:21	092817A−1
	Lead	7.78	ug/L	10	ug/L	77.8	70.0 − 130.0	P	29−SEP−17 06:05	092917A−2
	Thallium	19.8	ug/L	20	ug/L	98.8	70.0 − 130.0	P	29−SEP−17 06:05	092917A−2
	Zinc	9.75	ug/L	10	ug/L	97.5	70.0 − 130.0	P	29−SEP−17 06:05	092917A−2
PQL02										
	Thallium	19.2	ug/L	20	ug/L	95.8	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Iron	105	ug/L	100	ug/L	105.5	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Manganese	10	ug/L	10	ug/L	100	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Selenium	27.8	ug/L	30	ug/L	92.7	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Silver	5.03	ug/L	5	ug/L	100.6	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Nickel	4.84	ug/L	5	ug/L	96.8	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Cobalt	5	ug/L	5	ug/L	100	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Chromium	4.62	ug/L	5	ug/L	92.5	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Cadmium	4.77	ug/L	5	ug/L	95.4	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Barium	4.85	ug/L	5	ug/L	97	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Arsenic	29.7	ug/L	30	ug/L	98.9	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1

METALS
−2b−
CRDL Standard for ICP & ICPMS

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
	Antimony	9.64	ug/L	10	ug/L	96.4	70.0 − 130.0	P	28−SEP−17 12:45	092817A−1
	Lead	10.5	ug/L	10	ug/L	104.8	70.0 − 130.0	P	29−SEP−17 07:56	092917A−2
	Thallium	22.2	ug/L	20	ug/L	111	70.0 − 130.0	P	29−SEP−17 07:56	092917A−2
	Zinc	10.1	ug/L	10	ug/L	100.9	70.0 − 130.0	P	29−SEP−17 07:56	092917A−2
PQL03										
	Antimony	10.2	ug/L	10	ug/L	101.5	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Arsenic	27.2	ug/L	30	ug/L	90.7	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Barium	4.77	ug/L	5	ug/L	95.3	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Cadmium	4.71	ug/L	5	ug/L	94.3	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Chromium	4.62	ug/L	5	ug/L	92.3	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Cobalt	4.76	ug/L	5	ug/L	95.1	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Iron	103	ug/L	100	ug/L	103.1	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Manganese	10	ug/L	10	ug/L	100.2	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Nickel	4.59	ug/L	5	ug/L	91.7	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Selenium	24.5	ug/L	30	ug/L	81.8	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Silver	4.38	ug/L	5	ug/L	87.6	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Thallium	20.2	ug/L	20	ug/L	100.9	70.0 − 130.0	P	28−SEP−17 14:01	092817A−1
	Lead	10.8	ug/L	10	ug/L	107.8	70.0 − 130.0	P	29−SEP−17 09:16	092917A−2
	Zinc	10.5	ug/L	10	ug/L	104.5	70.0 − 130.0	P	29−SEP−17 09:16	092917A−2
	Thallium	19.8	ug/L	20	ug/L	98.8	70.0 − 130.0	P	29−SEP−17 09:16	092917A−2
PQL04										
	Antimony	9.44	ug/L	10	ug/L	94.4	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Arsenic	28.7	ug/L	30	ug/L	95.7	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Barium	4.96	ug/L	5	ug/L	99.2	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Cadmium	5.05	ug/L	5	ug/L	100.9	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Chromium	4.66	ug/L	5	ug/L	93.2	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Cobalt	4.78	ug/L	5	ug/L	95.7	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Iron	102	ug/L	100	ug/L	102.3	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Manganese	10.2	ug/L	10	ug/L	102.1	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Nickel	4.86	ug/L	5	ug/L	97.2	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Selenium	22.6	ug/L	30	ug/L	75.3	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Silver	5.08	ug/L	5	ug/L	101.7	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1

METALS
−2b−
CRDL Standard for ICP & ICPMS

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
	Thallium	17.6	ug/L	20	ug/L	88	70.0 − 130.0	P	28−SEP−17 15:53	092817A−1
	Lead	11	ug/L	10	ug/L	109.5	70.0 − 130.0	P	29−SEP−17 10:10	092917A−2
	Thallium	21	ug/L	20	ug/L	105.1	70.0 − 130.0	P	29−SEP−17 10:10	092917A−2
	Zinc	10.8	ug/L	10	ug/L	107.5	70.0 − 130.0	P	29−SEP−17 10:10	092917A−2
PQL05										
	Antimony	10.2	ug/L	10	ug/L	102.4	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Arsenic	32	ug/L	30	ug/L	106.8	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Chromium	5.24	ug/L	5	ug/L	104.8	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Iron	99.5	ug/L	100	ug/L	99.5	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Nickel	4.92	ug/L	5	ug/L	98.3	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Thallium	17.8	ug/L	20	ug/L	89	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Silver	5.33	ug/L	5	ug/L	106.6	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Selenium	28.3	ug/L	30	ug/L	94.2	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Manganese	10.4	ug/L	10	ug/L	104.2	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Cobalt	5.01	ug/L	5	ug/L	100.2	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Barium	4.97	ug/L	5	ug/L	99.5	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Cadmium	4.96	ug/L	5	ug/L	99.2	70.0 − 130.0	P	28−SEP−17 16:30	092817A−1
	Lead	11.1	ug/L	10	ug/L	111.1	70.0 − 130.0	P	29−SEP−17 10:36	092917A−2
	Thallium	21.4	ug/L	20	ug/L	106.8	70.0 − 130.0	P	29−SEP−17 10:36	092917A−2
	Zinc	9.73	ug/L	10	ug/L	97.3	70.0 − 130.0	P	29−SEP−17 10:36	092917A−2
PQL06										
	Antimony	11.9	ug/L	10	ug/L	119.1	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Chromium	5.25	ug/L	5	ug/L	104.9	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Iron	114	ug/L	100	ug/L	114.5	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Nickel	4.66	ug/L	5	ug/L	93.2	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Silver	4.9	ug/L	5	ug/L	97.9	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Thallium	19.6	ug/L	20	ug/L	98	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Selenium	27.6	ug/L	30	ug/L	92.1	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Manganese	10.7	ug/L	10	ug/L	106.8	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Cobalt	5.19	ug/L	5	ug/L	103.8	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Cadmium	5.19	ug/L	5	ug/L	103.8	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Arsenic	31.6	ug/L	30	ug/L	105.5	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1

METALS
−2b−
CRDL Standard for ICP & ICPMS

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument ID: HG3,ICPMS11,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M*	Analysis Date/Time	Run Number
	Barium	4.96	ug/L	5	ug/L	99.3	70.0 − 130.0	P	28−SEP−17 17:11	092817A−1
	Lead	8.63	ug/L	10	ug/L	86.3	70.0 − 130.0	P	29−SEP−17 11:25	092917A−2
	Thallium	23.8	ug/L	20	ug/L	118.9	70.0 − 130.0	P	29−SEP−17 11:25	092917A−2
	Zinc	9.91	ug/L	10	ug/L	99.1	70.0 − 130.0	P	29−SEP−17 11:25	092917A−2

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 433718

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
ICB01										
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	28−SEP−17 10:18	092817A−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:18	092817A−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	28−SEP−17 10:18	092817A−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	28−SEP−17 10:18	092817A−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Selenium	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:18	092817A−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:18	092817A−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	28−SEP−17 10:18	092817A−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	29−SEP−17 06:02	092917A−2
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	29−SEP−17 06:02	092917A−2
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	29−SEP−17 06:02	092917A−2
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 09:50	100417S1−4
	Arsenic	1.69	+/−5	U	1.69	5.0	SOL	MS	10−OCT−17 23:43	171010−3
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	10−OCT−17 23:43	171010−3
	Thallium	0.7	+/−2	U	0.7	2.0	SOL	MS	10−OCT−17 23:43	171010−3
CCB01										
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	28−SEP−17 10:40	092817A−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:40	092817A−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:40	092817A−1
	Cadmium	1.66	+/−5	B	1.0	5.0	SOL	P	28−SEP−17 10:40	092817A−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:40	092817A−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:40	092817A−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	28−SEP−17 10:40	092817A−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	28−SEP−17 10:40	092817A−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:40	092817A−1
	Selenium	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:40	092817A−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:40	092817A−1

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 433718

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	28−SEP−17 10:40	092817A−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	29−SEP−17 06:24	092917A−2
	Thallium	5.29	+/−20	B	5.0	20.0	SOL	P	29−SEP−17 06:24	092917A−2
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	29−SEP−17 06:24	092917A−2
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 09:55	100417S1−4
	Arsenic	1.69	+/−5	U	1.69	5.0	SOL	MS	10−OCT−17 23:53	171010−3
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	10−OCT−17 23:53	171010−3
	Thallium	0.7	+/−2	U	0.7	2.0	SOL	MS	10−OCT−17 23:53	171010−3
CCB02										
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	28−SEP−17 10:54	092817A−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:54	092817A−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	28−SEP−17 10:54	092817A−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	28−SEP−17 10:54	092817A−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Selenium	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 10:54	092817A−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 10:54	092817A−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	28−SEP−17 10:54	092817A−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	29−SEP−17 06:35	092917A−2
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	29−SEP−17 06:35	092917A−2
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	29−SEP−17 06:35	092917A−2
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 11:05	100417S1−4
	Arsenic	1.69	+/−5	U	1.69	5.0	SOL	MS	11−OCT−17 00:13	171010−3
	Selenium	1.8	+/−5	U	1.8	5.0	SOL	MS	11−OCT−17 00:13	171010−3
	Thallium	0.7	+/−2	U	0.7	2.0	SOL	MS	11−OCT−17 00:13	171010−3
CCB03										
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	28−SEP−17 16:40	092817A−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 16:40	092817A−1

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 433718

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	28−SEP−17 16:40	092817A−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	28−SEP−17 16:40	092817A−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Selenium	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 16:40	092817A−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 16:40	092817A−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	28−SEP−17 16:40	092817A−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	29−SEP−17 10:49	092917A−2
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	29−SEP−17 10:49	092917A−2
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	29−SEP−17 10:49	092917A−2
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 11:26	100417S1−4
CCB04										
	Antimony	3.3	+/−10	U	3.3	10.0	SOL	P	28−SEP−17 17:15	092817A−1
	Arsenic	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 17:15	092817A−1
	Barium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Cadmium	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Chromium	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Cobalt	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Iron	80.0	+/−250	U	80.0	250	SOL	P	28−SEP−17 17:15	092817A−1
	Manganese	2.0	+/−10	U	2.0	10.0	SOL	P	28−SEP−17 17:15	092817A−1
	Nickel	1.5	+/−5	U	1.5	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Selenium	5.0	+/−30	U	5.0	30.0	SOL	P	28−SEP−17 17:15	092817A−1
	Silver	1.0	+/−5	U	1.0	5.0	SOL	P	28−SEP−17 17:15	092817A−1
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	28−SEP−17 17:15	092817A−1
	Lead	3.3	+/−10	U	3.3	10.0	SOL	P	29−SEP−17 11:28	092917A−2
	Thallium	5.0	+/−20	U	5.0	20.0	SOL	P	29−SEP−17 11:28	092917A−2
	Zinc	4.0	+/−10	U	4.0	10.0	SOL	P	29−SEP−17 11:28	092917A−2
	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 11:46	100417S1−4

Metals
−3a−
Initial and Continuing Calibration Blank Summary

SDG No.: 433718

Contract: URSC00114

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M*	Analysis Date/Time	Run
CCB05	Mercury	0.067	+/−.2	U	0.067	0.2	SOL	AV	04−OCT−17 11:58	100417S1−4

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

METALS
−3b−
PREPARATION BLANK SUMMARY

SDG NO. 433718

Contract: URSC00114

Matrix: Soil

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M*	MDL	RDL
1203884246								
	Antimony	0.299	mg/kg	+/−0.907	U	P	0.299	0.907
	Arsenic	0.454	mg/kg	+/−2.72	U	P	0.454	2.72
	Barium	0.0907	mg/kg	+/−0.454	U	P	0.0907	0.454
	Cadmium	0.0907	mg/kg	+/−0.454	U	P	0.0907	0.454
	Chromium	0.136	mg/kg	+/−0.454	U	P	0.136	0.454
	Cobalt	0.136	mg/kg	+/−0.454	U	P	0.136	0.454
	Iron	7.26	mg/kg	+/−22.7	U	P	7.26	22.7
	Lead	0.299	mg/kg	+/−0.907	U	P	0.299	0.907
	Manganese	0.181	mg/kg	+/−0.907	U	P	0.181	0.907
	Nickel	0.136	mg/kg	+/−0.454	U	P	0.136	0.454
	Selenium	0.454	mg/kg	+/−2.72	U	P	0.454	2.72
	Silver	0.0907	mg/kg	+/−0.454	U	P	0.0907	0.454
	Thallium	0.454	mg/kg	+/−1.81	U	P	0.454	1.81
	Zinc	0.363	mg/kg	+/−0.907	U	P	0.363	0.907
1203884261								
	Arsenic	0.33	mg/kg	+/−0.977	U	MS	0.33	0.977
	Selenium	0.352	mg/kg	+/−0.977	U	MS	0.352	0.977
	Thallium	0.137	mg/kg	+/−0.391	U	MS	0.137	0.391
1203887571								
	Mercury	0.004	mg/kg	+/−0.0119	U	AV	0.004	0.0119

***Analytical Methods:**

P	**SW846 3050B/6010C**
MS	**SW846 3050B/6020**
AV	**SW846 7471A**

METALS
−4−
Interference Check Sample

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	−0.673	ug/L					28−SEP−17 10:24	092817A−1
	Arsenic	9.67	ug/L					28−SEP−17 10:24	092817A−1
	Barium	−0.133	ug/L					28−SEP−17 10:24	092817A−1
	Cadmium	0.502	ug/L					28−SEP−17 10:24	092817A−1
	Chromium	−0.688	ug/L					28−SEP−17 10:24	092817A−1
	Cobalt	−0.645	ug/L					28−SEP−17 10:24	092817A−1
	Iron	183000	ug/L	200000	ug/L	91.6	80.0 − 120.0	28−SEP−17 10:24	092817A−1
	Manganese	−0.43	ug/L					28−SEP−17 10:24	092817A−1
	Nickel	0.348	ug/L					28−SEP−17 10:24	092817A−1
	Selenium	−0.0002	ug/L					28−SEP−17 10:24	092817A−1
	Silver	−0.128	ug/L					28−SEP−17 10:24	092817A−1
	Thallium	−1.98	ug/L					28−SEP−17 10:24	092817A−1
ICSAB01									
	Antimony	480	ug/L	500	ug/L	95.9	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Arsenic	522	ug/L	500	ug/L	104	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Barium	484	ug/L	500	ug/L	96.9	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Cadmium	466	ug/L	500	ug/L	93.2	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Chromium	466	ug/L	500	ug/L	93.1	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Cobalt	453	ug/L	500	ug/L	90.6	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Iron	185000	ug/L	200000	ug/L	92.5	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Manganese	442	ug/L	500	ug/L	88.4	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Nickel	444	ug/L	500	ug/L	88.9	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Selenium	2370	ug/L	2500	ug/L	94.7	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Silver	262	ug/L	250	ug/L	105	80.0 − 120.0	28−SEP−17 10:28	092817A−1
	Thallium	438	ug/L	500	ug/L	87.7	80.0 − 120.0	28−SEP−17 10:28	092817A−1

METALS
−4−
Interference Check Sample

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Lead	3.06	ug/L					29−SEP−17 06:08	092917A−2
	Thallium	−1.72	ug/L					29−SEP−17 06:08	092917A−2
	Zinc	−0.0003	ug/L					29−SEP−17 06:08	092917A−2
ICSAB01									
	Lead	459	ug/L	500	ug/L	91.8	80.0 − 120.0	29−SEP−17 06:12	092917A−2
	Thallium	440	ug/L	500	ug/L	88	80.0 − 120.0	29−SEP−17 06:12	092917A−2
	Zinc	428	ug/L	500	ug/L	85.6	80.0 − 120.0	29−SEP−17 06:12	092917A−2
ICSA02									
	Lead	0.353	ug/L					29−SEP−17 08:35	092917A−2
	Thallium	−1.88	ug/L					29−SEP−17 08:35	092917A−2
	Zinc	−9.67	ug/L					29−SEP−17 08:35	092917A−2
ICSAB02									
	Lead	459	ug/L	500	ug/L	91.9	80.0 − 120.0	29−SEP−17 08:38	092917A−2
	Thallium	433	ug/L	500	ug/L	86.6	80.0 − 120.0	29−SEP−17 08:38	092917A−2
	Zinc	419	ug/L	500	ug/L	83.8	80.0 − 120.0	29−SEP−17 08:38	092917A−2

METALS
−4−
Interference Check Sample

SDG No: 433718

Contract: URSC00114 **Lab Code:** GEL

Instrument: ICPMS11

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	0.409	ug/L					10−OCT−17 23:47	171010−3
	Selenium	0.669	ug/L					10−OCT−17 23:47	171010−3
	Thallium	0.045	ug/L					10−OCT−17 23:47	171010−3
ICSAB01									
	Arsenic	19.7	ug/L	20	ug/L	98.3	80.0 − 120.0	10−OCT−17 23:49	171010−3
	Selenium	20.6	ug/L	20	ug/L	103	80.0 − 120.0	10−OCT−17 23:49	171010−3
	Thallium	18.6	ug/L	20	ug/L	92.9	80.0 − 120.0	10−OCT−17 23:49	171010−3

METALS
−5a−

Matrix Spike Summary

SDG NO. 433718 **Client ID** G2ESOL01S

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 94

Sample ID: 433718018 **Spike ID:** 1203884249

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Antimony	mg/kg	75−125	41.2		0.342	U	51.9	79.4		P
Arsenic	mg/kg	75−125	54.3		8.35		51.9	88.6		P
Barium	mg/kg	75−125	116		59.9		51.9	109		P
Cadmium	mg/kg	75−125	42.4		0.104	U	51.9	81.7		P
Chromium	mg/kg	75−125	56.4		13		51.9	83.7		P
Cobalt	mg/kg	75−125	52		10.1		51.9	80.8		P
Iron	mg/kg		24800		24200		519	104	N/A	P
Lead	mg/kg	75−125	46.3		2.53		51.9	84.5		P
Manganese	mg/kg		479		430		51.9	94.6	N/A	P
Nickel	mg/kg	75−125	63.4		23.4		51.9	77.1		P
Selenium	mg/kg	75−125	45.7		1.72	B	51.9	84.7		P
Silver	mg/kg	75−125	45.6		0.136	B	51.9	87.6		P
Thallium	mg/kg	75−125	37.3		0.518	U	51.9	71.9	N	P
Zinc	mg/kg	75−125	83.5		55.6		51.9	53.7	N	P

***Analytical Methods:**

P **SW846 3050B/6010C**

METALS
−5a−

Matrix Spike Summary

SDG NO. 433718 **Client ID** G2ESOL01S

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 94

Sample ID: 433718018 **Spike ID:** 1203884264

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Arsenic	mg/kg	75−125	10.7		7.81		5.18	55.5	N	MS
Selenium	mg/kg	75−125	5.47		1.66		5.18	73.5	N	MS
Thallium	mg/kg	75−125	4.56		0.145	U	5.18	85.5		MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−5a−

Spike Summary

SDG NO. 433718 **Client ID** G2ESOL01PS

Contract: URSC00114 **Level:** Low

Matrix: SOIL **% Solids:** 94

Sample ID: 433718018 **Spike ID:** 1203885640

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Thallium	ug/L	75−125	435		0.518	U	500	87		P
Zinc	ug/L	75−125	998		537		500	92.2		P

***Analytical Methods:**

P **SW846 3050B/6010C**

METALS
−5a−

Matrix Spike Summary

SDG NO.	433718	**Client ID**	DRM5344.1709001−001S
Contract:	URSC00114	**Level:**	Low
Matrix:	SOIL	**% Solids:**	96.6
Sample ID:	433360001	**Spike ID:**	1203887574

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M*
Mercury	mg/kg	80−120	.149	Q	0.0376	Q	.115	97.1		AV

***Analytical Methods:**

AV **SW846 7471B**

Metals
−6−
Duplicate Sample Summary

SDG No.: 433718 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** G2ESOL01D

Matrix: SOIL **Level:** Low

Sample ID: 433718018 **Duplicate ID:** 1203884248 **Percent Solids for Dup:** 94

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Antimony	mg/kg		0.342	U	0.35	U			P
Arsenic	mg/kg	+/−3.18	8.35		7.87		5.97		P
Barium	mg/kg	+/−20%	59.9		58.3		2.71		P
Cadmium	mg/kg		0.104	U	0.106	U			P
Chromium	mg/kg	+/−20%	13		12.8		1.63		P
Cobalt	mg/kg	+/−20%	10.1		9.68		3.86		P
Iron	mg/kg	+/−20%	24200		23200		4.11		P
Lead	mg/kg	+/−1.06	2.53		2.74		7.87		P
Manganese	mg/kg	+/−20%	430		420		2.34		P
Nickel	mg/kg	+/−20%	23.4		22.8		2.87		P
Selenium	mg/kg	+/−3.18	1.72	B	2.45	B	35		P
Silver	mg/kg		0.136	B	0.106	U	200		P
Thallium	mg/kg		0.518	U	0.53	U			P
Zinc	mg/kg	+/−20%	55.6		47		16.7		P

***Analytical Methods:**
P SW846 3050B/6010C

Metals
−6−
Duplicate Sample Summary

SDG No.: 433718 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** G2ESOL01D

Matrix: SOIL **Level:** Low

Sample ID: 433718018 **Duplicate ID:** 1203884263 **Percent Solids for Dup:** 94

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Arsenic	mg/kg	+/−20%	7.81		6.6		16.9		MS
Selenium	mg/kg	+/−1.04	1.66		1.62		2.69		MS
Thallium	mg/kg		0.145	U	0.146	U			MS

***Analytical Methods:**
MS SW846 3050B/6020

Metals
−6−
Duplicate Sample Summary

SDG No.: 433718 **Lab Code:** GEL

Contract: URSC00114 **Client ID:** DRM5344.1709001−001D

Matrix: SOIL **Level:** Low

Sample ID: 433360001 **Duplicate ID:** 1203887573 **Percent Solids for Dup:** 96.6

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M*
Mercury	mg/kg	+/−.0113	0.0376	Q	0.0374	Q	.394		AV

***Analytical Methods:**
AV SW846 7471B

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 433718

Contract: URSC00114

Aqueous LCS Source: **Solid LCS Source:** OS2I

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1203884247								
	Antimony	mg/kg	49.2	45.6		92.7	80−120	P
	Arsenic	mg/kg	49.2	45.9		93.4	80−120	P
	Barium	mg/kg	49.2	46.6		94.7	80−120	P
	Cadmium	mg/kg	49.2	46.4		94.3	80−120	P
	Chromium	mg/kg	49.2	45.7		92.9	80−120	P
	Cobalt	mg/kg	49.2	47.3		96.2	80−120	P
	Iron	mg/kg	492	488		99.1	80−120	P
	Lead	mg/kg	49.2	46.8		95.1	80−120	P
	Manganese	mg/kg	49.2	47		95.4	80−120	P
	Nickel	mg/kg	49.2	44.6		90.5	80−120	P
	Selenium	mg/kg	49.2	46.7		94.9	80−120	P
	Silver	mg/kg	49.2	46.5		94.5	80−120	P
	Thallium	mg/kg	49.2	45.3		92.1	80−120	P
	Zinc	mg/kg	49.2	45.7		92.9	80−120	P

***Analytical Methods:**

P **SW846 3050B/6010C**

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 433718

Contract: URSC00114

Aqueous LCS Source:

Solid LCS Source: Inorganic Ventures

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1203884262								
	Arsenic	mg/kg	4.59	4.31		93.9	80−120	MS
	Selenium	mg/kg	4.59	3.97		86.5	80−120	MS
	Thallium	mg/kg	4.59	4.64		101	80−120	MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−7−
Laboratory Control Sample Summary

SDG NO. 433718

Contract: URSC00114

Aqueous LCS Source: **Solid LCS Source:** GEL

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M*
1203887572								
	Mercury	mg/kg	.117	.114		97.8	80−120	AV

***Analytical Methods:**

AV **SW846 7471A**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 433718 **Client ID** G2ESOL01L

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 433718018 **Serial Dilution ID:** 1203884250

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Antimony	3.3	U	16.5	U				P
Arsenic	80.7		97.1	B	20.328			P
Barium	579		589		1.865		10	P
Cadmium	1	U	5	U				P
Chromium	125		128		2.419		10	P
Cobalt	97.2		102		5.058		10	P
Iron	234000		245000		4.65		10	P
Lead	24.5		25.3	B	3.337			P
Manganese	4160		4480		7.773		10	P
Nickel	226		238		5.237		10	P
Selenium	16.6	B	25	U	59.881			P
Silver	1.31	B	5	U	36.025			P
Thallium	5	U	25	U				P
Zinc	537		615		14.549	E	10	P

***Analytical Methods:**

P **SW846 3050B/6010C**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 433718 **Client ID** G2ESOL01L

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 433718018 **Serial Dilution ID:** 1203884265

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Arsenic	37.8		38.2		.992			MS
Selenium	8.05		10.9	B	34.957			MS
Thallium	.7	U	3.5	U				MS

***Analytical Methods:**

MS **SW846 3050B/6020**

METALS
−9−
Serial Dilution Sample Summary

SDG NO. 433718 **Client ID** DRM5344.1709001−001L

Contract: URSC00114

Matrix: SOLID **Level:** Low

Sample ID: 433360001 **Serial Dilution ID:** 1203887575

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M*
Mercury	.664	QQ	.645	B	2.861			AV

***Analytical Methods:**

AV **SW846 7471B**

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 433718 **Method Type:** P

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1704450							
1203884246	MB for batch 1704450	MB	S	27−SEP−17	.551g	50mL	
1203884247	LCS for batch 1704450	LCS	S	27−SEP−17	.508g	50mL	
1203884249	G2ESOL01S	MS	S	27−SEP−17	.513g	50mL	94
1203884248	G2ESOL01D	DUP	S	27−SEP−17	.502g	50mL	94
433718018	G2ESOL01	SAMPLE	S	27−SEP−17	.514g	50mL	94
433718019	G2ESOL02	SAMPLE	S	27−SEP−17	.514g	50mL	92.7
433718020	G2ESOL03	SAMPLE	S	27−SEP−17	.512g	50mL	93.8

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 433718 **Method Type:** MS

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1704456							
1203884261	MB for batch 1704456	MB	S	27−SEP−17	.512g	50mL	
1203884262	LCS for batch 1704456	LCS	S	27−SEP−17	.545g	50mL	
1203884264	G2ESOL01S	MS	S	27−SEP−17	.514g	50mL	94
1203884263	G2ESOL01D	DUP	S	27−SEP−17	.512g	50mL	94
433718018	G2ESOL01	SAMPLE	S	27−SEP−17	.515g	50mL	94
433718019	G2ESOL02	SAMPLE	S	27−SEP−17	.537g	50mL	92.7
433718020	G2ESOL03	SAMPLE	S	27−SEP−17	.519g	50mL	93.8

METALS
−13−
SAMPLE PREPARATION SUMMARY

SDG No: 433718 **Method Type:** AV

Contract: URSC00114 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 1705893							
1203887571	MB for batch 1705893	MB	S	03−OCT−17	.503g	30mL	
1203887572	LCS for batch 1705893	LCS	S	03−OCT−17	.515g	30mL	
1203887574	DRM5344.1709001−001S	MS	S	03−OCT−17	.541g	30mL	96.6
1203887573	DRM5344.1709001−001D	DUP	S	03−OCT−17	.552g	30mL	96.6
433718018	G2ESOL01	SAMPLE	S	03−OCT−17	.55g	30mL	94
433718019	G2ESOL02	SAMPLE	S	03−OCT−17	.553g	30mL	92.7
433718020	G2ESOL03	SAMPLE	S	03−OCT−17	.557g	30mL	93.8

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 28-SEP-17

End Date: 28-SEP-17

Data File: 092817A-1

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
S0.0	1	10:01:44	X	X	X	X	X	X	X		X		X	X	X	X	
S0.1	1	10:04:59	X	X	X	X	X	X			X		X	X	X	X	
S0.5	1	10:07:07	X	X	X	X	X	X			X		X	X	X	X	
SCAL	1	10:10:16	X	X	X	X	X	X	X		X		X	X	X	X	
S10	1	10:13:30							X								
ICV01	1	10:15:36	X	X	X	X	X	X	X		X		X	X	X	X	
ICB01	1	10:18:43	X	X	X	X	X	X	X		X		X	X	X	X	
PQL01	1	10:21:50	X	X	X	X	X	X	X		X		X	X	X	X	
ICSA01	1	10:24:57	X	X	X	X	X	X	X		X		X	X	X	X	
ICSAB01	1	10:28:05	X	X	X	X	X	X	X		X		X	X	X	X	
LR01	1	10:31:13	X	X	X	X	X	X	X		X		X	X	X	X	
LR02	1	10:33:36	X	X	X	X	X	X	X		X		X	X	X	X	
CCV01	1	10:37:11	X	X	X	X	X	X	X		X		X	X	X	X	
CCB01	1	10:40:22	X	X	X	X	X	X	X		X		X	X	X	X	
LR03	1	10:45:12	X	X	X	X	X	X	X		X		X	X	X	X	
LR04	1	10:48:28	X	X	X	X	X	X	X		X		X	X	X	X	
CCV02	1	10:51:49	X	X	X	X	X	X	X		X		X	X	X	X	
CCB02	1	10:54:59	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	11:06:51															
ZZZZZZ	1	11:10:06															
ZZZZZZ	1	11:13:15															
ZZZZZZ	1	11:16:21															
ZZZZZZ	1	11:19:30															
ZZZZZZ	5	11:22:39															
CCV	1	11:25:45	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	11:28:56	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	11:32:02															
ZZZZZZ	1	11:35:11															
ZZZZZZ	1	11:38:17															
ZZZZZZ	1	11:41:23															
ZZZZZZ	1	11:44:29															
ZZZZZZ	1	11:47:35															
ZZZZZZ	1	11:50:41															
CCV	1	11:53:47	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	11:56:58	X	X	X	X	X	X	X		X		X	X	X	X	
CCV	1	12:13:56	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	12:17:13	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	12:20:19															
ZZZZZZ	1	12:23:27															
ZZZZZZ	1	12:26:36															
ZZZZZZ	1	12:29:42															

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 28-SEP-17

End Date: 28-SEP-17

Data File: 092817A-1

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
ZZZZZZ	1	12:32:48															
ZZZZZZ	1	12:35:54															
ZZZZZZ	5	12:39:03															
CCV	1	12:42:10	X	X	X	X	X	X	X		X		X	X	X	X	
PQL02	1	12:45:22	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	12:48:29	X	X	X	X	X	X	X		X		X	X	X	X	
CCV	1	12:51:36	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	12:54:46	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	12:57:53															
ZZZZZZ	1	13:01:02															
ZZZZZZ	1	13:04:23															
ZZZZZZ	1	13:07:29															
ZZZZZZ	1	13:10:38															
ZZZZZZ	5	13:13:47															
ZZZZZZ	1	13:16:53															
ZZZZZZ	1	13:19:59															
ZZZZZZ	1	13:23:05															
ZZZZZZ	1	13:26:11															
CCV	1	13:29:17	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	13:32:29	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	13:35:36															
ZZZZZZ	1	13:38:45															
ZZZZZZ	1	13:41:54															
ZZZZZZ	1	13:45:17															
ZZZZZZ	1	13:48:40															
ZZZZZZ	1	13:52:03															
ZZZZZZ	5	13:55:27															
CCV	1	13:58:33	X	X	X	X	X	X	X		X		X	X	X	X	
PQL03	1	14:01:44	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	14:04:51	X	X	X	X	X	X	X		X		X	X	X	X	
CCV	1	14:07:58	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	14:11:08	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	14:14:16															
ZZZZZZ	1	14:17:24															
ZZZZZZ	1	14:20:33															
ZZZZZZ	1	14:23:39															
ZZZZZZ	1	14:26:45															
ZZZZZZ	5	14:29:54															
ZZZZZZ	1	14:33:00															
ZZZZZZ	1	14:36:06															
ZZZZZZ	1	14:39:12															

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 28-SEP-17

End Date: 28-SEP-17

Data File: 092817A-1

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
CCV	1	14:42:18	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	14:45:30	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	14:48:38															
ZZZZZZ	1	14:51:47															
ZZZZZZ	1	14:54:56															
ZZZZZZ	1	14:58:22															
ZZZZZZ	1	15:01:48															
ZZZZZZ	5	15:05:14															
ZZZZZZ	1	15:08:36															
ZZZZZZ	1	15:11:44															
ZZZZZZ	1	15:15:09															
ZZZZZZ	1	15:18:32															
CCV	1	15:21:55	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	15:25:07	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	15:28:15															
ZZZZZZ	1	15:31:24															
ZZZZZZ	1	15:34:33															
ZZZZZZ	1	15:37:39															
ZZZZZZ	1	15:40:45															
ZZZZZZ	1	15:43:51															
ZZZZZZ	5	15:47:00															
CCV	1	15:50:06	X	X	X	X	X	X	X		X		X	X	X	X	
PQL04	1	15:53:16	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	15:56:23	X	X	X	X	X	X	X		X		X	X	X	X	
CCV	1	15:59:30	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	16:02:39	X	X	X	X	X	X	X		X		X	X	X	X	
ZZZZZZ	1	16:05:46															
ZZZZZZ	1	16:08:53															
ZZZZZZ	1	16:11:59															
ZZZZZZ	1	16:15:08															
ZZZZZZ	1	16:18:14															
ZZZZZZ	1	16:21:21															
ZZZZZZ	5	16:24:28															
CCV	1	16:27:34	X	X	X	X	X	X	X		X		X	X	X	X	
PQL05	1	16:30:45	X	X	X	X	X	X	X		X		X	X	X	X	
CCB	1	16:33:54	X	X	X	X	X	X	X		X		X	X	X	X	
CCV03	1	16:37:03	X	X	X	X	X	X	X		X		X	X	X	X	
CCB03	1	16:40:13	X	X	X	X	X	X	X		X		X	X	X	X	
1203884246	1	16:43:20	X	X	X	X	X	X	X		X		X	X	X	X	
1203884247	1	16:46:29	X	X	X	X	X	X	X		X		X	X	X	X	
433718019	1	16:49:38	X	X	X	X	X	X	X		X		X	X	X	X	

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 28-SEP-17

End Date: 28-SEP-17

Data File: 092817A-1

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
433718020	1	16:52:50	X	X	X	X	X	X	X		X		X	X	X	X	
433718018	1	16:56:02	X	X	X	X	X	X	X		X		X	X	X	X	
1203884248	1	16:59:14	X	X	X	X	X	X	X		X		X	X	X	X	
1203884249	1	17:02:26	X	X	X	X	X	X	X		X		X	X	X	X	
1203884250	5	17:05:39	X	X	X	X	X	X	X		X		X	X	X	X	
CCV04	1	17:08:46	X	X	X	X	X	X	X		X		X	X	X	X	
PQL06	1	17:11:58	X	X	X	X	X	X	X		X		X	X	X	X	
CCB04	1	17:15:07	X	X	X	X	X	X	X		X		X	X	X	X	

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 29-SEP-17

End Date: 29-SEP-17

Data File: 092917A-2

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
S0.0	1	05:45:45								X						X	X
S0.1	1	05:49:00								X						X	X
S0.5	1	05:51:08								X						X	X
SCAL	1	05:54:17								X						X	X
S10	1	05:57:31															
ICV01	1	05:59:37								X						X	X
ICB01	1	06:02:44								X						X	X
PQL01	1	06:05:51								X						X	X
ICSA01	1	06:08:58								X						X	X
ICSAB01	1	06:12:06								X						X	X
LR01	1	06:15:14								X						X	X
LR02	1	06:17:37								X						X	X
CCV01	1	06:21:12								X						X	X
CCB01	1	06:24:24								X						X	X
LR03	1	06:28:22								X						X	X
CCV02	1	06:31:51								X						X	X
CCB02	1	06:35:01								X						X	X
ZZZZZZ	1	06:45:16															
ZZZZZZ	1	06:48:31															
ZZZZZZ	1	06:51:37															
ZZZZZZ	1	06:54:45															
ZZZZZZ	1	06:57:51															
ZZZZZZ	1	07:00:57															
ZZZZZZ	5	07:04:04															
CCV	1	07:07:10								X						X	X
CCB	1	07:10:22								X						X	X
ZZZZZZ	1	07:21:43															
ZZZZZZ	1	07:24:57															
ZZZZZZ	1	07:28:06															
ZZZZZZ	1	07:31:13															
ZZZZZZ	1	07:34:20															
ZZZZZZ	1	07:37:27															
ZZZZZZ	1	07:40:34															
ZZZZZZ	1	07:43:40															
ZZZZZZ	1	07:46:48															
ZZZZZZ	5	07:49:56															
CCV	1	07:53:02								X						X	X
PQL02	1	07:56:14								X						X	X
CCB	1	07:59:22								X						X	X
ZZZZZZ	10	08:02:29															
CCV	1	08:05:37								X						X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 29-SEP-17

End Date: 29-SEP-17

Data File: 092917A-2

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
CCB	1	08:08:47								X						X	X
ZZZZZZ	1	08:13:44															
ZZZZZZ	1	08:16:58															
ZZZZZZ	1	08:20:07															
ZZZZZZ	1	08:23:13															
ZZZZZZ	1	08:26:19															
ZZZZZZ	5	08:29:28															
ZZZZZZ	1	08:32:34															
ICSA02	1	08:35:41								X						X	X
ICSAB02	1	08:38:51								X						X	X
CCV	1	08:41:59								X						X	X
CCB	1	08:45:10								X						X	X
ZZZZZZ	1	08:48:33															
ZZZZZZ	1	08:51:47															
ZZZZZZ	1	08:54:56															
ZZZZZZ	1	08:58:02															
ZZZZZZ	1	09:01:08															
ZZZZZZ	1	09:04:14															
ZZZZZZ	1	09:07:20															
ZZZZZZ	5	09:10:29															
CCV	1	09:13:36								X						X	X
PQL03	1	09:16:48								X						X	X
CCB	1	09:19:56								X						X	X
ZZZZZZ	10	09:23:03															
CCV	1	09:26:10								X						X	X
CCB	1	09:29:20								X						X	X
ZZZZZZ	1	09:39:01															
ZZZZZZ	1	09:42:16															
ZZZZZZ	1	09:45:25															
ZZZZZZ	1	09:48:31															
ZZZZZZ	1	09:51:37															
ZZZZZZ	1	09:54:43															
ZZZZZZ	1	09:57:49															
ZZZZZZ	1	10:00:55															
ZZZZZZ	5	10:04:04															
CCV	1	10:07:11								X						X	X
PQL04	1	10:10:23								X						X	X
CCB	1	10:13:31								X						X	X
ZZZZZZ	10	10:16:38															
CCV	1	10:19:46								X						X	X
CCB	1	10:22:56								X						X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: OPTIMA3

Instrument Type: P

Start Date: 29-SEP-17

End Date: 29-SEP-17

Data File: 092917A-2

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
ZZZZZZ	1	10:27:15															
ZZZZZZ	5	10:30:30															
CCV	1	10:33:37								X						X	X
PQL05	1	10:36:48								X						X	X
CCB	1	10:39:56								X						X	X
ZZZZZZ	10	10:43:03															
CCV03	1	10:46:11								X						X	X
CCB03	1	10:49:21								X						X	X
1203884246	1	10:52:57								X							X
1203884247	1	10:56:12								X							X
433718019	1	10:59:21								X							X
433718020	1	11:02:33								X							X
433718018	1	11:05:56								X							X
1203884248	1	11:09:08								X							X
1203884249	1	11:12:20								X							X
1203885640	1	11:15:33														X	
1203884250	5	11:18:46								X							X
CCV04	1	11:21:53								X						X	X
PQL06	1	11:25:05								X						X	X
CCB04	1	11:28:13								X						X	X

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: HG3

Instrument Type: AV

Start Date: 04-OCT-17

End Date: 04-OCT-17

Data File: 100417S1-4

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
S0.0	1	09:38:00										X					
S0.2	1	09:40:00										X					
S0.5	1	09:42:00										X					
S2.0	1	09:43:00										X					
S5.0	1	09:45:00										X					
S10.0	1	09:47:00										X					
ICV01	1	09:48:00										X					
ICB01	1	09:50:00										X					
CRDL01	1	09:52:00										X					
CCV01	1	09:54:00										X					
CCB01	1	09:55:00										X					
CCV	1	09:57:00										X					
CCB	1	09:58:00										X					
ZZZZZZ	1	10:13:00															
ZZZZZZ	1	10:15:00															
ZZZZZZ	1	10:16:00															
ZZZZZZ	1	10:18:00															
ZZZZZZ	1	10:20:00															
ZZZZZZ	5	10:21:00															
ZZZZZZ	1	10:23:00															
ZZZZZZ	1	10:25:00															
ZZZZZZ	1	10:26:00															
ZZZZZZ	1	10:28:00															
CCV	1	10:30:00										X					
CCB	1	10:31:00										X					
ZZZZZZ	1	10:33:00															
ZZZZZZ	1	10:35:00															
ZZZZZZ	1	10:36:00															
ZZZZZZ	1	10:38:00															
ZZZZZZ	1	10:40:00															
ZZZZZZ	1	10:42:00															
ZZZZZZ	1	10:43:00															
ZZZZZZ	1	10:45:00															
ZZZZZZ	1	10:47:00															
ZZZZZZ	1	10:48:00															
CCV	1	10:50:00										X					
CCB	1	10:52:00										X					
ZZZZZZ	1	10:53:00															
ZZZZZZ	1	10:55:00															
ZZZZZZ	1	10:57:00															
ZZZZZZ	1	10:58:00															

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: HG3

Instrument Type: AV

Start Date: 04-OCT-17

End Date: 04-OCT-17

Data File: 100417S1-4

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
ZZZZZZ	1	11:00:00															
ZZZZZZ	1	11:02:00															
CCV02	1	11:04:00										X					
CCB02	1	11:05:00										X					
1203887571	1	11:07:00										X					
1203887572	1	11:09:00										X					
ZZZZZZ	1	11:10:00															
1203887573	1	11:12:00										X					
1203887574	1	11:14:00										X					
1203887575	5	11:15:00										X					
ZZZZZZ	1	11:17:00															
ZZZZZZ	1	11:19:00															
ZZZZZZ	1	11:21:00															
ZZZZZZ	1	11:22:00															
CCV03	1	11:24:00										X					
CCB03	1	11:26:00										X					
ZZZZZZ	1	11:27:00															
ZZZZZZ	1	11:29:00															
ZZZZZZ	1	11:31:00															
ZZZZZZ	1	11:32:00															
ZZZZZZ	1	11:34:00															
ZZZZZZ	1	11:36:00															
ZZZZZZ	1	11:37:00															
ZZZZZZ	1	11:39:00															
ZZZZZZ	1	11:41:00															
ZZZZZZ	1	11:42:00															
CCV04	1	11:44:00										X					
CCB04	1	11:46:00										X					
433718018	1	11:47:00										X					
433718019	1	11:49:00										X					
433718020	1	11:51:00										X					
ZZZZZZ	1	11:53:00															
ZZZZZZ	1	11:54:00															
CCV05	1	11:56:00										X					
CCB05	1	11:58:00										X					

Metals
-14-
Analysis Run Log

Contract: URSC00114

Lab Code : GEL

Client Sdg: 433718

Inst Name: ICPMS11

Instrument Type: MS

Start Date: 10-OCT-17

End Date: 11-OCT-17

Data File: 171010-3

Samp ID	D/F	Run Time	Sb	As	Ba	Cd	Cr	Co	Fe	Pb	Mn	Hg	Ni	Se	Ag	Tl	Zn
S0.0	1	23:35:03		X										X		X	
S10	1	23:37:05		X										X		X	
S100	1	23:39:06		X										X		X	
ICV01	1	23:41:08		X										X		X	
ICB01	1	23:43:10		X										X		X	
CRDL01	1	23:45:11		X										X		X	
ICSA01	1	23:47:12		X										X		X	
ICSAB01	1	23:49:12		X										X		X	
CCV01	1	23:51:14		X										X		X	
CCB01	1	23:53:16		X										X		X	
1203884261	2	23:55:18		X										X		X	
1203884262	2	23:57:18		X										X		X	
433718018	2	23:59:19		X										X		X	
1203884263	2	00:01:20		X										X		X	
1203884264	2	00:03:21		X										X		X	
1203884265	10	00:05:22		X										X		X	
433718019	2	00:07:23		X										X		X	
433718020	2	00:09:23		X										X		X	
CCV02	1	00:11:26		X										X		X	
CCB02	1	00:13:27		X										X		X	

Standards

METALS
−10−
Instrument Detection Limits

SDG NO. 433718

Contract: URSC00114 **Lab Code: GEL** **MDL Effective Date:** 01−SEP−16

Instrument(s): ICPMS11 **Verified on:** 25−SEP−17

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Arsenic		1.69	5.0
	Barium		0.5	2.0
	Cadmium		0.1	1.0
	Chromium		1.0	3.0
	Cobalt		0.3	1.0
	Iron		33.0	100
	Lead		0.5	2.0
	Manganese		1.0	5.0
	Nickel		0.5	2.0
	Selenium		1.8	5.0
	Silver		0.3	1.0
	Thallium		0.7	2.0
	Zinc		4.0	10.0

METALS
−10−
Instrument Detection Limits

SDG NO. 433718

Contract: URSC00114 **Lab Code: GEL** **MDL Effective Date:** 01−MAY−12

Instrument(s):	**Verified on:**
HG3	11−JUL−17
HG3	11−JUL−17

MERCURY	**Analyte**	**Wavelength (nm)**	**MDL ug/L**	**RDL ug/L**
SOLID	Mercury		0.067	0.2

METALS
−10−
Instrument Detection Limits

SDG NO. 433718

Contract: URSC00114 **Lab Code: GEL** **MDL Effective Date:** 23−JAN−11

Instrument(s): OPTIMA3 **Verified on:** 09−AUG−17

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Antimony	206.836	3.3	10.0
	Arsenic	188.979	5.0	30.0
	Barium	233.527	1.0	5.0
	Cadmium	226.502	1.0	5.0
	Chromium	267.716	1.5	5.0
	Cobalt	228.616	1.5	5.0
	Iron	238.204	80.0	250
	Lead	220.353	3.3	10.0
	Manganese	257.61	2.0	10.0
	Nickel	231.604	1.5	5.0
	Selenium	196.026	5.0	30.0
	Silver	328.068	1.0	5.0
	Thallium	190.801	5.0	20.0
	Zinc	213.857	4.0	10.0

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 433718
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 02−AUG−17
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.03426	0.00000	0.00000	0.00000	0.00000
Arsenic	**188.979**	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	**228.616**	0.00000	0.00000	0.00000	−0.75902	0.00000
Copper	**324.752**	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.11412	0.00000	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	−0.16569	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	−1.78177	0.00000
Selenium	**196.026**	0.03386	0.00000	0.00000	0.00000	0.00000
Silicon	**251.611**	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.07287	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	**189.927**	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	**292.402**	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	**213.857**	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 433718
Effective Dates: 02−AUG−17

Parmname	Wavelength	Boron	Cadmium	Calcium	Chromium	Cobalt
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	24.1559	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	−3.05322	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	−0.00894	−0.22185	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	3.68775
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	−0.18057
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.29779	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.08379	0.00000	−2.13345
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	−0.22016
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	−0.36969	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.03375	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.35076	6.14587
Tin	189.927	0.00000	0.00000	−0.00362	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	−0.05338	0.36509	0.00000
Uranium	367.007	0.00000	0.00000	0.16426	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	−1.93574	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 433718
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 02−AUG−17
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Copper	Iron	Lead	Magnesium	Manganese
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.00000	0.02705	0.00000	0.00000	0.00000
Arsenic	**188.979**	0.00000	0.07818	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.02847	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	−3.88331	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	0.10779	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	−0.01198	0.00000	−0.02128	0.42232
Cobalt	**228.616**	0.00000	0.07175	0.00000	0.00000	0.00000
Copper	**324.752**	0.00000	−0.06450	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	−0.22335	0.14097	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	−0.05215	0.00000	0.03530	0.00000
Molybdenum	**202.031**	0.00000	−0.05175	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.05567	0.00000	0.00000	0.00000
Phosphorous	**214.914**	12.4286	0.92843	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	−0.41227	0.00000	0.00000	0.00000
Silicon	**251.611**	0.00000	0.16011	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	−0.15844	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	−0.30635	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.00000	−0.07553	0.00000	0.00000	1.20261
Thallium	**190.801**	0.00000	−0.01651	0.00000	0.00000	0.00000
Tin	**189.927**	0.00000	−0.00193	0.00000	0.01838	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	4.92049	0.00000	0.00000	0.00000
Vanadium	**292.402**	0.00000	−0.13014	0.00000	0.00000	0.00000
Zinc	**213.857**	0.48772	0.10291	0.00000	0.05796	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
Contract: URSC00114
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 433718
Effective Dates: 02−AUG−17

Parmname	Wavelength	Molybdenum	Nickel	Phosphorous	Potassium	Selenium
Aluminum	**396.153**	44.9983	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	−13.1242	0.00000	0.00000	0.00000	0.00000
Arsenic	**188.979**	−6.24778	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	−0.35287	0.00000	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	**228.616**	−1.65167	0.00000	0.00000	0.00000	0.00000
Copper	**324.752**	0.44665	0.00000	0.00000	0.00000	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	8.87571	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	**251.611**	21.6176	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	−0.52871	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	**189.927**	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	**292.402**	−9.30128	0.00000	0.00000	0.00000	0.00000
Zinc	**213.857**	0.00000	0.66913	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 433718
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 02−AUG−17
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silicon	Silver	Sodium	Strontium	Sulfur
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Calcium	317.933	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	367.007	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 433718
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 02−AUG−17
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Thallium	Tin	Titanium	Uranium	Vanadium
Aluminum	**396.153**	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	**206.836**	0.00000	−3.06882	−1.43187	0.00000	−0.16945
Arsenic	**188.979**	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	**233.527**	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	**313.107**	0.00000	0.00000	0.00000	−0.23522	0.00000
Boron	**249.677**	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	**226.502**	0.00000	0.00000	0.15479	0.00000	0.00000
Calcium	**317.933**	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	**267.716**	0.00000	0.00000	0.00000	0.72435	−0.44716
Cobalt	**228.616**	0.00000	0.00000	2.00513	0.00000	0.00000
Copper	**324.752**	0.00000	0.00000	0.00000	−0.61884	0.00000
Iron	**238.204**	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	**220.353**	0.00000	0.00000	0.00000	0.71542	0.00000
Magnesium	**279.077**	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	**257.61**	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	**202.031**	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	**231.604**	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	**214.914**	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	**766.49**	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	**196.026**	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	**251.611**	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	**328.068**	0.00000	0.00000	0.00000	0.46955	−1.56053
Sodium	**589.592**	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	**421.552**	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	**181.975**	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	**190.801**	0.00000	0.00000	−0.53886	−0.26138	0.39780
Tin	**189.927**	0.00000	0.00000	−3.37995	0.00000	0.00000
Titanium	**334.94**	0.00000	0.00000	0.00000	0.47345	0.00000
Uranium	**367.007**	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	**292.402**	0.00000	0.00000	0.76305	−0.55826	0.00000
Zinc	**213.857**	0.00000	0.00000	−0.33222	0.00000	0.00000

METALS
−11−
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 433718
Contract: URSC00114
Instrument: OPTIMA3
Effective Dates: 02−AUG−17
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Zinc
Aluminum	396.153	0.00000
Antimony	206.836	0.00000
Arsenic	188.979	0.00000
Barium	233.527	0.00000
Beryllium	313.107	0.00000
Boron	249.677	0.00000
Cadmium	226.502	0.00000
Calcium	317.933	0.00000
Chromium	267.716	0.00000
Cobalt	228.616	0.00000
Copper	324.752	0.00000
Iron	238.204	0.00000
Lead	220.353	0.00000
Magnesium	279.077	0.00000
Manganese	257.61	0.00000
Molybdenum	202.031	0.00000
Nickel	231.604	0.00000
Phosphorous	214.914	0.00000
Potassium	766.49	0.00000
Selenium	196.026	0.00000
Silicon	251.611	0.00000
Silver	328.068	0.00000
Sodium	589.592	0.00000
Strontium	421.552	0.00000
Sulfur	181.975	0.00000
Thallium	190.801	0.00000
Tin	189.927	0.00000
Titanium	334.94	0.00000
Uranium	367.007	0.00000
Vanadium	292.402	0.00000
Zinc	213.857	0.00000

METALS
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Linear Ranges

SDG NO. 433718

Contract: URSC00114 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Antimony	20	10000	ug/L	01−AUG−17
Arsenic	20	10000	ug/L	01−AUG−17
Barium	20	15000	ug/L	01−AUG−17
Cadmium	20	10000	ug/L	01−AUG−17
Chromium	20	25000	ug/L	01−AUG−17
Cobalt	20	10000	ug/L	01−AUG−17
Iron	20	500000	ug/L	01−AUG−17
Lead	20	25000	ug/L	01−AUG−17
Manganese	20	10000	ug/L	01−AUG−17
Nickel	20	10000	ug/L	01−AUG−17
Selenium	20	10000	ug/L	01−AUG−17
Silver	20	1000	ug/L	01−AUG−17
Thallium	20	10000	ug/L	01−AUG−17
Zinc	20	15000	ug/L	01−AUG−17

METALS
−12−
Linear Ranges

SDG NO. 433718

Contract: URSC00114 **Lab Code: GEL**

Instrument ID ICPMS11

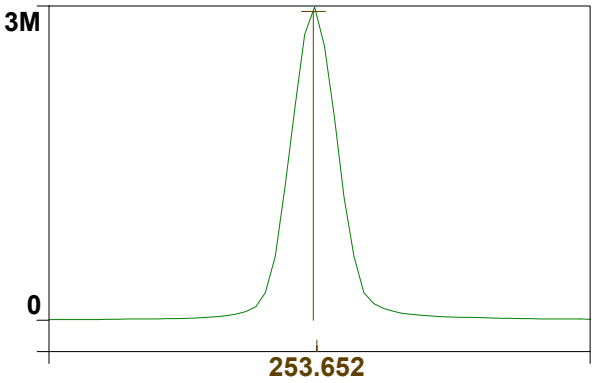
Analyte	Integration Time (msec)	LDR	Units	Effective Date
Cadmium	1000	1000	ug/L	01−AUG−17
Chromium	1000	1000	ug/L	01−AUG−17
Cobalt	1000	1000	ug/L	01−AUG−17
Iron	500	50000	ug/L	01−AUG−17
Lead	1000	5000	ug/L	01−AUG−17
Manganese	1000	1000	ug/L	01−AUG−17
Nickel	1000	1000	ug/L	01−AUG−17
Selenium	1000	500	ug/L	01−AUG−17
Silver	1000	250	ug/L	01−AUG−17
Thallium	1000	500	ug/L	01−AUG−17
Zinc	1000	2500	ug/L	01−AUG−17
Antimony	1000	250	ug/L	01−AUG−17
Arsenic	1000	1000	ug/L	01−AUG−17
Barium	1000	1000	ug/L	01−AUG−17

Raw Data

Method: Hg_ReAlign
Result: 092817

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**



Intensity: 3243956.1
Conc:

1

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 092817
Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 092817A
Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 9/28/2017 10:01:44**
Analyst: **Data Type: Reprocessed on 9/28/2017 11:05:25**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	396519.9	396519.9	99.966	%	10:03:40
1	Sc RADIAL	4060.0	4060.0	99.9	%	10:02:23
1	Y 371.029	411132.4	411132.4	99.953	%	10:03:40
1	Ag 328.068†	-462.6	-462.8	[0.00]	µg/L	10:03:40
1	Al 396.153Radial†	-199.3	-199.4	[0.00]	µg/L	10:02:23
1	As 188.979†	-5.2	-5.2	[0.00]	µg/L	10:04:00
1	B 249.677†	49.8	49.8	[0.00]	µg/L	10:03:40
1	Ba 233.527†	-24.5	-24.6	[0.00]	µg/L	10:04:00
1	Be 313.107†	-6415.9	-6418.1	[0.00]	µg/L	10:03:40
1	Ca 317.933Radial†	57.1	57.2	[0.00]	µg/L	10:02:43
1	Cd 226.502†	-172.5	-172.5	[0.00]	µg/L	10:04:00
1	Co 228.616†	-210.7	-210.8	[0.00]	µg/L	10:04:00
1	Cr 267.716†	154.6	154.6	[0.00]	µg/L	10:04:00
1	Cu 324.752†	2301.7	2302.5	[0.00]	µg/L	10:03:40
1	Fe 238.204 Radial†	-1.9	-1.9	[0.00]	µg/L	10:02:43
1	K 766.490 Radial†	176.7	176.8	[0.00]	µg/L	10:02:23
1	Mg 279.077 IEC†	0.1	0.1	[0.00]	µg/L	10:02:43
1	Mn 257.610†	344.7	344.8	[0.00]	µg/L	10:03:40
1	Mo 202.031†	12.2	12.2	[0.00]	µg/L	10:04:00
1	Na 589.592 Radial†	-2.2	-2.2	[0.00]	µg/L	10:02:43
1	Ni 231.604†	-72.4	-72.4	[0.00]	µg/L	10:04:00
1	P 214.914†	42.4	42.4	[0.00]	µg/L	10:04:00
1	Pb 220.353†	104.1	104.1	[0.00]	µg/L	10:04:00
1	S 181.975 Axial†	41.0	41.0	[0.00]	µg/L	10:04:00
1	Sb 206.836†	48.1	48.1	[0.00]	µg/L	10:04:00
1	Se 196.026†	-28.8	-28.9	[0.00]	µg/L	10:04:00
1	SiO2†	1168.1	1168.5	[0.00]	µg/L	10:03:40
1	Si 251.611†	206.8	206.9	[0.00]	µg/L	10:04:00
1	Sn 189.927†	7.0	7.0	[0.00]	µg/L	10:04:00
1	Sr 421.552†	12.1	12.1	[0.00]	µg/L	10:02:23
1	Ti 334.940†	-405.5	-405.6	[0.00]	µg/L	10:03:40
1	Tl 190.801†	-65.8	-65.8	[0.00]	µg/L	10:04:00
1	U 367.007†	1093.9	1094.2	[0.00]	µg/L	10:03:40
1	V 292.402†	48.1	48.1	[0.00]	µg/L	10:03:40
1	Zn 213.857†	410.8	410.9	[0.00]	µg/L	10:04:00
2	Sc 361.383	395693.8	395693.8	99.757	%	10:04:05
2	Sc RADIAL	4041.3	4041.3	99.5	%	10:02:48
2	Y 371.029	410376.9	410376.9	99.769	%	10:04:05
2	Ag 328.068†	-501.9	-503.2	[0.00]	µg/L	10:04:05
2	Al 396.153Radial†	-190.2	-191.2	[0.00]	µg/L	10:02:48
2	As 188.979†	-11.2	-11.2	[0.00]	µg/L	10:04:25
2	B 249.677†	110.4	110.6	[0.00]	µg/L	10:04:05
2	Ba 233.527†	-28.3	-28.4	[0.00]	µg/L	10:04:25
2	Be 313.107†	-6380.5	-6396.1	[0.00]	µg/L	10:04:05
2	Ca 317.933Radial†	53.4	53.7	[0.00]	µg/L	10:03:08
2	Cd 226.502†	-168.0	-168.4	[0.00]	µg/L	10:04:25
2	Co 228.616†	-203.7	-204.2	[0.00]	µg/L	10:04:25
2	Cr 267.716†	159.3	159.7	[0.00]	µg/L	10:04:25

2	Cu 324.752†	2333.2	2338.9	[0.00]	µg/L	10:04:05
2	Fe 238.204 Radial†	3.1	3.2	[0.00]	µg/L	10:03:08
2	K 766.490 Radial†	133.1	133.8	[0.00]	µg/L	10:02:48
2	Mg 279.077 IEC†	2.2	2.2	[0.00]	µg/L	10:03:08
2	Mn 257.610†	339.1	340.0	[0.00]	µg/L	10:04:05
2	Mo 202.031†	6.9	6.9	[0.00]	µg/L	10:04:25
2	Na 589.592 Radial†	-1.6	-1.6	[0.00]	µg/L	10:03:08
2	Ni 231.604†	-60.2	-60.4	[0.00]	µg/L	10:04:25
2	P 214.914†	31.1	31.2	[0.00]	µg/L	10:04:25
2	Pb 220.353†	105.5	105.7	[0.00]	µg/L	10:04:25
2	S 181.975 Axial†	43.3	43.4	[0.00]	µg/L	10:04:25
2	Sb 206.836†	54.6	54.7	[0.00]	µg/L	10:04:25
2	Se 196.026†	-32.3	-32.4	[0.00]	µg/L	10:04:25
2	SiO2†	1101.5	1104.2	[0.00]	µg/L	10:04:05
2	Si 251.611†	222.1	222.6	[0.00]	µg/L	10:04:25
2	Sn 189.927†	16.7	16.8	[0.00]	µg/L	10:04:25
2	Sr 421.552†	26.8	26.9	[0.00]	µg/L	10:02:48
2	Ti 334.940†	-486.2	-487.4	[0.00]	µg/L	10:04:05
2	Tl 190.801†	-61.2	-61.4	[0.00]	µg/L	10:04:25
2	U 367.007†	1087.7	1090.4	[0.00]	µg/L	10:04:05
2	V 292.402†	40.1	40.2	[0.00]	µg/L	10:04:05
2	Zn 213.857†	420.7	421.8	[0.00]	µg/L	10:04:25
3	Sc 361.383	397755.9	397755.9	100.28	%	10:04:31
3	Sc RADIAL	4086.9	4086.9	101	%	10:03:13
3	Y 371.029	412470.8	412470.8	100.28	%	10:04:31
3	Ag 328.068†	-456.4	-455.1	[0.00]	µg/L	10:04:31
3	Al 396.153Radial†	-203.7	-202.5	[0.00]	µg/L	10:03:13
3	As 188.979†	-3.1	-3.1	[0.00]	µg/L	10:04:51
3	B 249.677†	132.4	132.0	[0.00]	µg/L	10:04:31
3	Ba 233.527†	-4.6	-4.6	[0.00]	µg/L	10:04:51
3	Be 313.107†	-6391.6	-6373.9	[0.00]	µg/L	10:04:31
3	Ca 317.933Radial†	51.4	51.1	[0.00]	µg/L	10:03:33
3	Cd 226.502†	-161.2	-160.7	[0.00]	µg/L	10:04:51
3	Co 228.616†	-195.8	-195.2	[0.00]	µg/L	10:04:51
3	Cr 267.716†	140.4	140.0	[0.00]	µg/L	10:04:51
3	Cu 324.752†	2376.6	2370.0	[0.00]	µg/L	10:04:31
3	Fe 238.204 Radial†	2.3	2.3	[0.00]	µg/L	10:03:33
3	K 766.490 Radial†	60.6	60.3	[0.00]	µg/L	10:03:13
3	Mg 279.077 IEC†	5.0	5.0	[0.00]	µg/L	10:03:33
3	Mn 257.610†	346.9	345.9	[0.00]	µg/L	10:04:31
3	Mo 202.031†	15.6	15.6	[0.00]	µg/L	10:04:51
3	Na 589.592 Radial†	-0.1	-0.1	[0.00]	µg/L	10:03:33
3	Ni 231.604†	-71.2	-71.0	[0.00]	µg/L	10:04:51
3	P 214.914†	34.7	34.6	[0.00]	µg/L	10:04:51
3	Pb 220.353†	105.9	105.6	[0.00]	µg/L	10:04:51
3	S 181.975 Axial†	39.5	39.4	[0.00]	µg/L	10:04:51
3	Sb 206.836†	51.5	51.4	[0.00]	µg/L	10:04:51
3	Se 196.026†	-27.4	-27.3	[0.00]	µg/L	10:04:51
3	SiO2†	1163.5	1160.3	[0.00]	µg/L	10:04:31
3	Si 251.611†	216.1	215.5	[0.00]	µg/L	10:04:51
3	Sn 189.927†	11.3	11.2	[0.00]	µg/L	10:04:51
3	Sr 421.552†	19.3	19.2	[0.00]	µg/L	10:03:13
3	Ti 334.940†	-462.2	-460.9	[0.00]	µg/L	10:04:31
3	Tl 190.801†	-57.6	-57.5	[0.00]	µg/L	10:04:51
3	U 367.007†	1070.4	1067.4	[0.00]	µg/L	10:04:31
3	V 292.402†	67.9	67.7	[0.00]	µg/L	10:04:31
3	Zn 213.857†	411.6	410.5	[0.00]	µg/L	10:04:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	396656.5	1037.82	0.26%	100.00	%
Sc RADIAL	4062.7	22.90	0.56%	100	%
Y 371.029	411326.7	1060.39	0.26%	100.00	%
Ag 328.068†	-473.7	25.80	5.45%	[0.00]	µg/L
Al 396.153Radial†	-197.7	5.83	2.95%	[0.00]	µg/L
As 188.979†	-6.5	4.23	64.99%	[0.00]	µg/L
B 249.677†	97.5	42.65	43.74%	[0.00]	µg/L
Ba 233.527†	-19.2	12.76	66.46%	[0.00]	µg/L
Be 313.107†	-6396.0	22.06	0.34%	[0.00]	µg/L

Ca 317.933Radial†	54.0	3.02	5.60%	[0.00]	µg/L
Cd 226.502†	-167.2	5.98	3.58%	[0.00]	µg/L
Co 228.616†	-203.4	7.82	3.84%	[0.00]	µg/L
Cr 267.716†	151.4	10.23	6.76%	[0.00]	µg/L
Cu 324.752†	2337.1	33.77	1.45%	[0.00]	µg/L
Fe 238.204 Radial†	1.2	2.72	229.56%	[0.00]	µg/L
K 766.490 Radial†	123.7	58.94	47.66%	[0.00]	µg/L
Mg 279.077 IEC†	2.4	2.46	102.14%	[0.00]	µg/L
Mn 257.610†	343.6	3.17	0.92%	[0.00]	µg/L
Mo 202.031†	11.6	4.38	37.91%	[0.00]	µg/L
Na 589.592 Radial†	-1.3	1.10	84.94%	[0.00]	µg/L
Ni 231.604†	-67.9	6.58	9.68%	[0.00]	µg/L
P 214.914†	36.1	5.73	15.88%	[0.00]	µg/L
Pb 220.353†	105.1	0.89	0.84%	[0.00]	µg/L
S 181.975 Axial†	41.3	2.02	4.89%	[0.00]	µg/L
Sb 206.836†	51.4	3.30	6.43%	[0.00]	µg/L
Se 196.026†	-29.5	2.62	8.89%	[0.00]	µg/L
SiO2†	1144.3	35.00	3.06%	[0.00]	µg/L
Si 251.611†	215.0	7.89	3.67%	[0.00]	µg/L
Sn 189.927†	11.7	4.88	41.83%	[0.00]	µg/L
Sr 421.552†	19.4	7.39	38.03%	[0.00]	µg/L
Ti 334.940†	-451.3	41.76	9.25%	[0.00]	µg/L
Tl 190.801†	-61.6	4.18	6.79%	[0.00]	µg/L
U 367.007†	1084.0	14.50	1.34%	[0.00]	µg/L
V 292.402†	52.0	14.15	27.22%	[0.00]	µg/L
Zn 213.857†	414.4	6.39	1.54%	[0.00]	µg/L

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Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 9/28/2017 10:04:59
Data Type: Reprocessed on 9/28/2017 11:05:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	396506.5	396506.5	99.962	%	10:05:47
1	Sc RADIAL	4056.2	4056.2	99.8	%	10:05:30
1	Y 371.029	409335.5	409335.5	99.516	%	10:05:47
1	Ag 328.068†	11930.8	12409.0	[100]	µg/L	10:05:47
1	As 188.979†	122.8	129.3	[100]	µg/L	10:06:07
1	B 249.677†	2736.0	2639.5	[100]	µg/L	10:05:47
1	Ba 233.527†	9197.8	9220.5	[100]	µg/L	10:05:47
1	Be 313.107†	128852.6	135297.4	[100]	µg/L	10:05:47
1	Cd 226.502†	7098.9	7268.8	[100]	µg/L	10:05:47
1	Co 228.616†	3380.2	3584.9	[100]	µg/L	10:06:07
1	Cr 267.716†	4693.2	4543.6	[100]	µg/L	10:05:47
1	Cu 324.752†	17745.9	15415.5	[100]	µg/L	10:05:47
1	K 766.490 Radial†	1438.1	1316.8	[1000]	µg/L	10:05:30
1	Mn 257.610†	59892.5	59571.6	[100]	µg/L	10:05:47
1	Mo 202.031†	1197.0	1185.9	[100]	µg/L	10:06:07
1	Ni 231.604†	2946.3	3015.3	[100]	µg/L	10:05:47
1	P 214.914†	548.1	512.3	[500]	µg/L	10:06:07
1	Pb 220.353†	675.2	570.4	[100]	µg/L	10:06:07
1	S 181.975 Axial†	133.4	92.2	[200]	µg/L	10:06:07
1	Sb 206.836†	274.1	222.8	[100]	µg/L	10:06:07
1	Se 196.026†	96.5	126.1	[100]	µg/L	10:06:07
1	SiO2†	7483.1	6341.6	[1069.5]	µg/L	10:05:47
1	Si 251.611†	7905.5	7693.5	[500]	µg/L	10:05:47
1	Sn 189.927†	480.7	469.2	[100]	µg/L	10:06:07
1	Sr 421.552†	1935.7	1919.4	[100]	µg/L	10:05:30
1	Ti 334.940†	26228.8	26690.1	[100]	µg/L	10:05:47
1	Tl 190.801†	235.0	296.6	[100]	µg/L	10:06:07
1	U 367.007†	1409.8	326.4	[100]	µg/L	10:05:47
1	V 292.402†	8231.4	8182.5	[100]	µg/L	10:05:47
1	Zn 213.857†	10536.1	10125.7	[100]	µg/L	10:05:47
2	Sc 361.383	396751.8	396751.8	100.02	%	10:06:13
2	Sc RADIAL	4092.4	4092.4	101	%	10:05:35
2	Y 371.029	409905.8	409905.8	99.655	%	10:06:13
2	Ag 328.068†	11886.1	12357.0	[100]	µg/L	10:06:13
2	As 188.979†	126.9	133.4	[100]	µg/L	10:06:33
2	B 249.677†	2772.2	2674.0	[100]	µg/L	10:06:13
2	Ba 233.527†	9215.4	9232.4	[100]	µg/L	10:06:13
2	Be 313.107†	129480.0	135844.9	[100]	µg/L	10:06:13
2	Cd 226.502†	7111.8	7277.3	[100]	µg/L	10:06:13
2	Co 228.616†	3361.7	3564.3	[100]	µg/L	10:06:33
2	Cr 267.716†	4694.2	4541.7	[100]	µg/L	10:06:13
2	Cu 324.752†	17790.4	15449.0	[100]	µg/L	10:06:13
2	K 766.490 Radial†	1460.5	1326.3	[1000]	µg/L	10:05:35
2	Mn 257.610†	60251.3	59893.2	[100]	µg/L	10:06:13
2	Mo 202.031†	1206.7	1194.8	[100]	µg/L	10:06:33
2	Ni 231.604†	2933.8	3001.0	[100]	µg/L	10:06:13
2	P 214.914†	555.4	519.2	[500]	µg/L	10:06:33
2	Pb 220.353†	715.5	610.2	[100]	µg/L	10:06:33
2	S 181.975 Axial†	132.0	90.6	[200]	µg/L	10:06:33
2	Sb 206.836†	287.5	236.0	[100]	µg/L	10:06:33
2	Se 196.026†	83.5	113.0	[100]	µg/L	10:06:33
2	SiO2†	7523.7	6377.6	[1069.5]	µg/L	10:06:13
2	Si 251.611†	7992.8	7775.9	[500]	µg/L	10:06:13
2	Sn 189.927†	489.0	477.2	[100]	µg/L	10:06:33
2	Sr 421.552†	1989.5	1955.7	[100]	µg/L	10:05:35
2	Ti 334.940†	26260.1	26705.1	[100]	µg/L	10:06:13
2	Tl 190.801†	241.5	303.0	[100]	µg/L	10:06:33

2	U 367.007†	1490.9	406.5	[100]	µg/L	10:06:13
2	V 292.402†	8376.2	8322.2	[100]	µg/L	10:06:13
2	Zn 213.857†	10609.3	10192.4	[100]	µg/L	10:06:13
3	Sc 361.383	398500.5	398500.5	100.46	%	10:06:38
3	Sc RADIAL	4085.6	4085.6	101	%	10:05:40
3	Y 371.029	411313.7	411313.7	99.997	%	10:06:38
3	Ag 328.068†	11882.5	12301.3	[100]	µg/L	10:06:38
3	As 188.979†	130.0	135.9	[100]	µg/L	10:06:58
3	B 249.677†	2796.9	2686.4	[100]	µg/L	10:06:38
3	Ba 233.527†	9254.9	9231.3	[100]	µg/L	10:06:38
3	Be 313.107†	130159.7	135953.4	[100]	µg/L	10:06:38
3	Cd 226.502†	7185.5	7319.5	[100]	µg/L	10:06:38
3	Co 228.616†	3380.7	3568.4	[100]	µg/L	10:06:58
3	Cr 267.716†	4739.7	4566.3	[100]	µg/L	10:06:38
3	Cu 324.752†	17778.2	15358.9	[100]	µg/L	10:06:38
3	K 766.490 Radial†	1422.2	1290.6	[1000]	µg/L	10:05:40
3	Mn 257.610†	60591.4	59967.5	[100]	µg/L	10:06:38
3	Mo 202.031†	1197.4	1180.3	[100]	µg/L	10:06:58
3	Ni 231.604†	3000.9	3054.9	[100]	µg/L	10:06:38
3	P 214.914†	557.3	518.6	[500]	µg/L	10:06:58
3	Pb 220.353†	702.2	593.8	[100]	µg/L	10:06:58
3	S 181.975 Axial†	125.4	83.5	[200]	µg/L	10:06:58
3	Sb 206.836†	271.4	218.7	[100]	µg/L	10:06:58
3	Se 196.026†	80.7	109.8	[100]	µg/L	10:06:58
3	SiO2†	7576.8	6397.4	[1069.5]	µg/L	10:06:38
3	Si 251.611†	7977.6	7725.6	[500]	µg/L	10:06:38
3	Sn 189.927†	486.0	472.0	[100]	µg/L	10:06:58
3	Sr 421.552†	1991.8	1961.2	[100]	µg/L	10:05:40
3	Ti 334.940†	26433.5	26762.5	[100]	µg/L	10:06:38
3	Tl 190.801†	232.5	293.0	[100]	µg/L	10:06:58
3	U 367.007†	1498.0	407.1	[100]	µg/L	10:06:38
3	V 292.402†	8398.0	8307.2	[100]	µg/L	10:06:38
3	Zn 213.857†	10631.1	10167.5	[100]	µg/L	10:06:38

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	397252.9	1087.34	0.27%	100.15	%
Sc RADIAL	4078.0	19.25	0.47%	100	%
Y 371.029	410185.0	1018.21	0.25%	99.722	%
Ag 328.068†	12355.7	53.87	0.44%	[100]	µg/L
As 188.979†	132.9	3.32	2.50%	[100]	µg/L
B 249.677†	2666.7	24.29	0.91%	[100]	µg/L
Ba 233.527†	9228.0	6.58	0.07%	[100]	µg/L
Be 313.107†	135698.6	351.63	0.26%	[100]	µg/L
Cd 226.502†	7288.5	27.12	0.37%	[100]	µg/L
Co 228.616†	3572.6	10.90	0.31%	[100]	µg/L
Cr 267.716†	4550.5	13.72	0.30%	[100]	µg/L
Cu 324.752†	15407.8	45.56	0.30%	[100]	µg/L
K 766.490 Radial†	1311.2	18.50	1.41%	[1000]	µg/L
Mn 257.610†	59810.8	210.46	0.35%	[100]	µg/L
Mo 202.031†	1187.0	7.31	0.62%	[100]	µg/L
Ni 231.604†	3023.8	27.91	0.92%	[100]	µg/L
P 214.914†	516.7	3.84	0.74%	[500]	µg/L
Pb 220.353†	591.5	20.04	3.39%	[100]	µg/L
S 181.975 Axial†	88.8	4.63	5.22%	[200]	µg/L
Sb 206.836†	225.8	9.02	3.99%	[100]	µg/L
Se 196.026†	116.3	8.61	7.40%	[100]	µg/L
SiO2†	6372.2	28.30	0.44%	[1069.5]	µg/L
Si 251.611†	7731.7	41.56	0.54%	[500]	µg/L
Sn 189.927†	472.8	4.09	0.86%	[100]	µg/L
Sr 421.552†	1945.4	22.73	1.17%	[100]	µg/L
Ti 334.940†	26719.2	38.24	0.14%	[100]	µg/L
Tl 190.801†	297.5	5.04	1.69%	[100]	µg/L
U 367.007†	380.0	46.44	12.22%	[100]	µg/L
V 292.402†	8270.6	76.66	0.93%	[100]	µg/L
Zn 213.857†	10161.9	33.72	0.33%	[100]	µg/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 9/28/2017 10:07:07
Data Type: Reprocessed on 9/28/2017 11:05:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	396971.5	396971.5	100.08	%	10:08:55
1	Sc RADIAL	3976.3	3976.3	97.9	%	10:07:57
1	Y 371.029	406468.9	406468.9	98.819	%	10:08:55
1	Ag 328.068†	59291.4	59718.1	[500]	µg/L	10:08:55
1	Al 396.153Radial†	5540.2	5858.3	[5000]	µg/L	10:07:37
1	As 188.979†	651.5	657.5	[500]	µg/L	10:09:15
1	B 249.677†	13292.1	13184.1	[500]	µg/L	10:08:55
1	Ba 233.527†	44342.7	44326.7	[500]	µg/L	10:08:55
1	Be 313.107†	656128.1	662003.6	[500]	µg/L	10:08:55
1	Ca 317.933Radial†	5115.4	5172.5	[5000]	µg/L	10:07:57
1	Cd 226.502†	34912.5	35052.0	[500]	µg/L	10:08:55
1	Co 228.616†	17199.7	17389.4	[500]	µg/L	10:08:55
1	Cr 267.716†	21998.5	21829.6	[500]	µg/L	10:08:55
1	Cu 324.752†	76401.3	74003.6	[500]	µg/L	10:08:55
1	K 766.490 Radial†	6560.1	6578.9	[5000]	µg/L	10:07:37
1	Mg 279.077 IEC†	320.6	325.1	[5000]	µg/L	10:07:57
1	Mn 257.610†	282575.7	282008.0	[500]	µg/L	10:08:55
1	Mo 202.031†	5755.4	5739.3	[500]	µg/L	10:09:15
1	Ni 231.604†	14217.5	14274.2	[500]	µg/L	10:08:55
1	P 214.914†	2548.2	2510.1	[2500]	µg/L	10:09:15
1	Pb 220.353†	3039.3	2931.8	[500]	µg/L	10:09:15
1	S 181.975 Axial†	463.2	421.5	[1000]	µg/L	10:09:15
1	Sb 206.836†	1138.8	1086.5	[500]	µg/L	10:09:15
1	Se 196.026†	569.8	598.9	[500]	µg/L	10:09:15
1	SiO2†	32692.2	31521.9	[5347.5]	µg/L	10:08:55
1	Si 251.611†	38582.9	38337.3	[2500]	µg/L	10:08:55
1	Sn 189.927†	2268.5	2255.0	[500]	µg/L	10:09:15
1	Sr 421.552†	9297.8	9480.4	[500]	µg/L	10:07:37
1	Ti 334.940†	129901.7	130249.9	[500]	µg/L	10:08:55
1	Tl 190.801†	1376.0	1436.5	[500]	µg/L	10:09:15
1	U 367.007†	2800.5	1714.2	[500]	µg/L	10:08:55
1	V 292.402†	40580.1	40495.9	[500]	µg/L	10:08:55
1	Zn 213.857†	45418.7	44968.2	[500]	µg/L	10:08:55
2	Sc 361.383	396531.1	396531.1	99.968	%	10:09:21
2	Sc RADIAL	3974.4	3974.4	97.8	%	10:08:22
2	Y 371.029	406106.8	406106.8	98.731	%	10:09:21
2	Ag 328.068†	59229.4	59721.8	[500]	µg/L	10:09:21
2	Al 396.153Radial†	5514.0	5834.2	[5000]	µg/L	10:08:02
2	As 188.979†	653.2	659.9	[500]	µg/L	10:09:41
2	B 249.677†	13306.8	13213.5	[500]	µg/L	10:09:21
2	Ba 233.527†	44185.2	44218.3	[500]	µg/L	10:09:21
2	Be 313.107†	654459.8	661062.8	[500]	µg/L	10:09:21
2	Ca 317.933Radial†	5147.2	5207.6	[5000]	µg/L	10:08:22
2	Cd 226.502†	34886.7	35065.0	[500]	µg/L	10:09:21
2	Co 228.616†	17042.8	17251.6	[500]	µg/L	10:09:21
2	Cr 267.716†	21929.5	21785.0	[500]	µg/L	10:09:21
2	Cu 324.752†	76329.2	74016.2	[500]	µg/L	10:09:21
2	K 766.490 Radial†	6448.0	6467.6	[5000]	µg/L	10:08:02
2	Mg 279.077 IEC†	318.4	323.1	[5000]	µg/L	10:08:22
2	Mn 257.610†	281914.1	281659.7	[500]	µg/L	10:09:21
2	Mo 202.031†	5761.2	5751.5	[500]	µg/L	10:09:41
2	Ni 231.604†	14146.2	14218.6	[500]	µg/L	10:09:21
2	P 214.914†	2551.6	2516.3	[2500]	µg/L	10:09:41
2	Pb 220.353†	3047.4	2943.2	[500]	µg/L	10:09:41
2	S 181.975 Axial†	478.9	437.7	[1000]	µg/L	10:09:41
2	Sb 206.836†	1145.9	1094.8	[500]	µg/L	10:09:41
2	Se 196.026†	560.2	589.9	[500]	µg/L	10:09:41

2	SiO2†	32563.3	31429.3	[5347.5]	µg/L	10:09:21
2	Si 251.611†	38532.8	38330.0	[2500]	µg/L	10:09:21
2	Sn 189.927†	2261.3	2250.3	[500]	µg/L	10:09:41
2	Sr 421.552†	9311.3	9498.8	[500]	µg/L	10:08:02
2	Ti 334.940†	129678.2	130170.6	[500]	µg/L	10:09:21
2	Tl 190.801†	1372.2	1434.2	[500]	µg/L	10:09:41
2	U 367.007†	2788.9	1705.8	[500]	µg/L	10:09:21
2	V 292.402†	40436.6	40397.4	[500]	µg/L	10:09:21
2	Zn 213.857†	45315.4	44915.4	[500]	µg/L	10:09:21
3	Sc 361.383	398016.0	398016.0	100.34	%	10:09:47
3	Sc RADIAL	3956.1	3956.1	97.4	%	10:08:47
3	Y 371.029	407772.8	407772.8	99.136	%	10:09:47
3	Ag 328.068†	59511.0	59781.5	[500]	µg/L	10:09:47
3	Al 396.153Radial†	5553.3	5900.7	[5000]	µg/L	10:08:27
3	As 188.979†	645.5	649.8	[500]	µg/L	10:10:07
3	B 249.677†	13382.0	13238.8	[500]	µg/L	10:09:47
3	Ba 233.527†	44465.6	44333.0	[500]	µg/L	10:09:47
3	Be 313.107†	657908.5	662057.3	[500]	µg/L	10:09:47
3	Ca 317.933Radial†	5123.8	5207.9	[5000]	µg/L	10:08:47
3	Cd 226.502†	35055.0	35102.5	[500]	µg/L	10:09:47
3	Co 228.616†	17162.5	17307.3	[500]	µg/L	10:09:47
3	Cr 267.716†	21999.1	21772.5	[500]	µg/L	10:09:47
3	Cu 324.752†	76501.5	73903.1	[500]	µg/L	10:09:47
3	K 766.490 Radial†	6368.4	6416.3	[5000]	µg/L	10:08:27
3	Mg 279.077 IEC†	318.4	324.5	[5000]	µg/L	10:08:47
3	Mn 257.610†	283035.1	281724.8	[500]	µg/L	10:09:47
3	Mo 202.031†	5753.9	5722.7	[500]	µg/L	10:10:07
3	Ni 231.604†	14228.8	14248.1	[500]	µg/L	10:09:47
3	P 214.914†	2563.4	2518.6	[2500]	µg/L	10:10:07
3	Pb 220.353†	3017.4	2902.0	[500]	µg/L	10:10:07
3	S 181.975 Axial†	459.7	416.8	[1000]	µg/L	10:10:07
3	Sb 206.836†	1131.8	1076.5	[500]	µg/L	10:10:07
3	Se 196.026†	561.4	589.0	[500]	µg/L	10:10:07
3	SiO2†	32635.9	31380.1	[5347.5]	µg/L	10:09:47
3	Si 251.611†	38684.2	38337.1	[2500]	µg/L	10:09:47
3	Sn 189.927†	2252.7	2233.3	[500]	µg/L	10:10:07
3	Sr 421.552†	9386.5	9620.0	[500]	µg/L	10:08:27
3	Ti 334.940†	130297.3	130303.6	[500]	µg/L	10:09:47
3	Tl 190.801†	1367.7	1424.6	[500]	µg/L	10:10:07
3	U 367.007†	2846.6	1752.9	[500]	µg/L	10:09:47
3	V 292.402†	40779.1	40587.8	[500]	µg/L	10:09:47
3	Zn 213.857†	45621.4	45051.2	[500]	µg/L	10:09:47

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	397172.8	762.66	0.19%	100.13	%
Sc RADIAL	3969.0	11.16	0.28%	97.7	%
Y 371.029	406782.8	876.26	0.22%	98.895	%
Ag 328.068†	59740.5	35.56	0.06%	[500]	µg/L
Al 396.153Radial†	5864.4	33.66	0.57%	[5000]	µg/L
As 188.979†	655.7	5.25	0.80%	[500]	µg/L
B 249.677†	13212.1	27.41	0.21%	[500]	µg/L
Ba 233.527†	44292.7	64.46	0.15%	[500]	µg/L
Be 313.107†	661707.9	559.33	0.08%	[500]	µg/L
Ca 317.933Radial†	5196.0	20.36	0.39%	[5000]	µg/L
Cd 226.502†	35073.2	26.22	0.07%	[500]	µg/L
Co 228.616†	17316.1	69.36	0.40%	[500]	µg/L
Cr 267.716†	21795.7	30.02	0.14%	[500]	µg/L
Cu 324.752†	73974.3	61.98	0.08%	[500]	µg/L
K 766.490 Radial†	6487.6	83.14	1.28%	[5000]	µg/L
Mg 279.077 IEC†	324.2	1.05	0.32%	[5000]	µg/L
Mn 257.610†	281797.5	185.18	0.07%	[500]	µg/L
Mo 202.031†	5737.8	14.47	0.25%	[500]	µg/L
Ni 231.604†	14247.0	27.79	0.20%	[500]	µg/L
P 214.914†	2515.0	4.37	0.17%	[2500]	µg/L
Pb 220.353†	2925.7	21.28	0.73%	[500]	µg/L
S 181.975 Axial†	425.4	10.97	2.58%	[1000]	µg/L
Sb 206.836†	1085.9	9.15	0.84%	[500]	µg/L
Se 196.026†	592.6	5.44	0.92%	[500]	µg/L

SiO2†	31443.8	71.99	0.23%	[5347.5]	µg/L
Si 251.611†	38334.8	4.16	0.01%	[2500]	µg/L
Sn 189.927†	2246.2	11.42	0.51%	[500]	µg/L
Sr 421.552†	9533.1	75.84	0.80%	[500]	µg/L
Ti 334.940†	130241.3	66.91	0.05%	[500]	µg/L
Tl 190.801†	1431.8	6.32	0.44%	[500]	µg/L
U 367.007†	1724.3	25.13	1.46%	[500]	µg/L
V 292.402†	40493.7	95.23	0.24%	[500]	µg/L
Zn 213.857†	44978.3	68.45	0.15%	[500]	µg/L

==========

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 9/28/2017 10:10:16
Data Type: Reprocessed on 9/28/2017 11:05:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	395832.5	395832.5	99.792	%	10:12:05
1	Sc RADIAL	4021.0	4021.0	99.0	%	10:11:06
1	Y 371.029	404397.9	404397.9	98.315	%	10:12:05
1	Ag 328.068†	121636.6	122363.5	[1000]	µg/L	10:12:05
1	Al 396.153Radial†	11473.6	11790.3	[10000]	µg/L	10:10:46
1	As 188.979†	1348.7	1358.1	[1000]	µg/L	10:12:26
1	B 249.677†	27287.0	27246.3	[1000]	µg/L	10:12:05
1	Ba 233.527†	90669.4	90877.4	[1000]	µg/L	10:12:05
1	Be 313.107†	1356807.6	1366028.0	[1000]	µg/L	10:12:05
1	Ca 317.933Radial†	10773.2	10831.0	[10000]	µg/L	10:11:06
1	Cd 226.502†	71764.4	72081.0	[1000]	µg/L	10:12:05
1	Co 228.616†	34889.4	35165.5	[1000]	µg/L	10:12:05
1	Cr 267.716†	44878.2	44820.1	[1000]	µg/L	10:12:05
1	Cu 324.752†	153248.0	151229.9	[1000]	µg/L	10:12:05
1	Fe 238.204 Radial†	2170.5	2191.8	[10000]	µg/L	10:11:06
1	K 766.490 Radial†	13210.6	13224.0	[10000]	µg/L	10:10:46
1	Mg 279.077 IEC†	648.7	653.0	[10000]	µg/L	10:11:06
1	Mn 257.610†	574688.0	575540.7	[1000]	µg/L	10:12:05
1	Mo 202.031†	11946.1	11959.4	[1000]	µg/L	10:12:26
1	Na 589.592 Radial†	106.5	108.9	[10000]	µg/L	10:11:06
1	Ni 231.604†	28303.6	28430.4	[1000]	µg/L	10:12:26
1	P 214.914†	5288.8	5263.7	[5000]	µg/L	10:12:26
1	Pb 220.353†	6151.7	6059.4	[1000]	µg/L	10:12:26
1	S 181.975 Axial†	922.1	882.7	[2000]	µg/L	10:12:26
1	Sb 206.836†	2283.9	2237.3	[1000]	µg/L	10:12:26
1	Se 196.026†	1178.8	1210.8	[1000]	µg/L	10:12:26
1	SiO2†	64795.8	63786.3	[10695]	µg/L	10:12:05
1	Si 251.611†	77821.6	77768.6	[5000]	µg/L	10:12:05
1	Sn 189.927†	4685.7	4683.8	[1000]	µg/L	10:12:26
1	Sr 421.552†	18900.4	19076.9	[1000]	µg/L	10:10:46
1	Ti 334.940†	268838.5	269849.5	[1000]	µg/L	10:12:05
1	Tl 190.801†	2895.7	2963.3	[1000]	µg/L	10:12:26
1	U 367.007†	4742.8	3668.6	[1000]	µg/L	10:12:05
1	V 292.402†	83604.2	83726.2	[1000]	µg/L	10:12:05
1	Zn 213.857†	94128.5	93910.1	[1000]	µg/L	10:12:05
2	Sc 361.383	396446.0	396446.0	99.947	%	10:12:33
2	Sc RADIAL	4043.7	4043.7	99.5	%	10:11:31
2	Y 371.029	404538.8	404538.8	98.350	%	10:12:33
2	Ag 328.068†	121704.4	122242.7	[1000]	µg/L	10:12:33
2	Al 396.153Radial†	11552.8	11804.9	[10000]	µg/L	10:11:11
2	As 188.979†	1344.2	1351.4	[1000]	µg/L	10:12:53
2	B 249.677†	27322.8	27239.8	[1000]	µg/L	10:12:33
2	Ba 233.527†	90780.8	90848.2	[1000]	µg/L	10:12:33
2	Be 313.107†	1360100.0	1367218.1	[1000]	µg/L	10:12:33
2	Ca 317.933Radial†	10807.1	10804.0	[10000]	µg/L	10:11:31
2	Cd 226.502†	71894.7	72100.1	[1000]	µg/L	10:12:33
2	Co 228.616†	34952.9	35174.9	[1000]	µg/L	10:12:33
2	Cr 267.716†	44822.4	44694.8	[1000]	µg/L	10:12:33
2	Cu 324.752†	153504.8	151249.2	[1000]	µg/L	10:12:33
2	Fe 238.204 Radial†	2182.6	2191.7	[10000]	µg/L	10:11:31
2	K 766.490 Radial†	13382.7	13322.0	[10000]	µg/L	10:11:11
2	Mg 279.077 IEC†	656.0	656.7	[10000]	µg/L	10:11:31
2	Mn 257.610†	575518.3	575480.3	[1000]	µg/L	10:12:33
2	Mo 202.031†	11954.4	11949.2	[1000]	µg/L	10:12:53
2	Na 589.592 Radial†	106.6	108.4	[10000]	µg/L	10:11:31
2	Ni 231.604†	28275.5	28358.4	[1000]	µg/L	10:12:53
2	P 214.914†	5293.3	5260.0	[5000]	µg/L	10:12:53

2	Pb 220.353†	6160.3	6058.5	[1000]	µg/L	10:12:53
2	S 181.975 Axial†	931.3	890.4	[2000]	µg/L	10:12:53
2	Sb 206.836†	2296.0	2245.8	[1000]	µg/L	10:12:53
2	Se 196.026†	1183.8	1213.9	[1000]	µg/L	10:12:53
2	SiO2†	64940.6	63830.7	[10695]	µg/L	10:12:33
2	Si 251.611†	77954.3	77780.6	[5000]	µg/L	10:12:33
2	Sn 189.927†	4688.1	4679.0	[1000]	µg/L	10:12:53
2	Sr 421.552†	19083.2	19153.6	[1000]	µg/L	10:11:11
2	Ti 334.940†	269326.7	269921.0	[1000]	µg/L	10:12:33
2	Tl 190.801†	2896.6	2959.7	[1000]	µg/L	10:12:53
2	U 367.007†	4753.4	3671.9	[1000]	µg/L	10:12:33
2	V 292.402†	83810.2	83802.8	[1000]	µg/L	10:12:33
2	Zn 213.857†	94204.4	93840.0	[1000]	µg/L	10:12:33
3	Sc 361.383	396765.0	396765.0	100.03	%	10:13:01
3	Sc RADIAL	4026.3	4026.3	99.1	%	10:11:56
3	Y 371.029	405364.2	405364.2	98.550	%	10:13:01
3	Ag 328.068†	121978.4	122418.7	[1000]	µg/L	10:13:01
3	Al 396.153Radial†	11572.0	11874.5	[10000]	µg/L	10:11:36
3	As 188.979†	1338.4	1344.5	[1000]	µg/L	10:13:21
3	B 249.677†	27382.9	27277.9	[1000]	µg/L	10:13:01
3	Ba 233.527†	90953.7	90948.1	[1000]	µg/L	10:13:01
3	Be 313.107†	1359745.3	1365769.6	[1000]	µg/L	10:13:01
3	Ca 317.933Radial†	10750.1	10793.6	[10000]	µg/L	10:11:56
3	Cd 226.502†	71770.9	71918.5	[1000]	µg/L	10:13:01
3	Co 228.616†	34881.3	35075.2	[1000]	µg/L	10:13:01
3	Cr 267.716†	44847.2	44683.5	[1000]	µg/L	10:13:01
3	Cu 324.752†	153824.3	151445.1	[1000]	µg/L	10:13:01
3	Fe 238.204 Radial†	2179.9	2198.5	[10000]	µg/L	10:11:56
3	K 766.490 Radial†	13316.8	13313.8	[10000]	µg/L	10:11:36
3	Mg 279.077 IEC†	648.3	651.7	[10000]	µg/L	10:11:56
3	Mn 257.610†	575890.9	575389.9	[1000]	µg/L	10:13:01
3	Mo 202.031†	11915.3	11900.5	[1000]	µg/L	10:13:21
3	Na 589.592 Radial†	107.6	109.8	[10000]	µg/L	10:11:56
3	Ni 231.604†	28244.8	28305.0	[1000]	µg/L	10:13:21
3	P 214.914†	5288.0	5250.5	[5000]	µg/L	10:13:21
3	Pb 220.353†	6115.3	6008.5	[1000]	µg/L	10:13:21
3	S 181.975 Axial†	934.2	892.6	[2000]	µg/L	10:13:21
3	Sb 206.836†	2304.6	2252.6	[1000]	µg/L	10:13:21
3	Se 196.026†	1179.8	1209.0	[1000]	µg/L	10:13:21
3	SiO2†	64858.9	63696.8	[10695]	µg/L	10:13:01
3	Si 251.611†	78043.3	77806.9	[5000]	µg/L	10:13:01
3	Sn 189.927†	4674.1	4661.2	[1000]	µg/L	10:13:21
3	Sr 421.552†	19064.2	19217.5	[1000]	µg/L	10:11:36
3	Ti 334.940†	269388.3	269765.9	[1000]	µg/L	10:13:01
3	Tl 190.801†	2863.3	2924.0	[1000]	µg/L	10:13:21
3	U 367.007†	4602.9	3517.6	[1000]	µg/L	10:13:01
3	V 292.402†	83882.8	83807.8	[1000]	µg/L	10:13:01
3	Zn 213.857†	94326.2	93886.0	[1000]	µg/L	10:13:01

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	396347.8	473.92	0.12%	99.922	%
Sc RADIAL	4030.3	11.87	0.29%	99.2	%
Y 371.029	404767.0	522.00	0.13%	98.405	%
Ag 328.068†	122341.6	90.03	0.07%	[1000]	µg/L
Al 396.153Radial†	11823.2	45.02	0.38%	[10000]	µg/L
As 188.979†	1351.3	6.76	0.50%	[1000]	µg/L
B 249.677†	27254.7	20.42	0.07%	[1000]	µg/L
Ba 233.527†	90891.2	51.37	0.06%	[1000]	µg/L
Be 313.107†	1366338.6	772.58	0.06%	[1000]	µg/L
Ca 317.933Radial†	10809.5	19.30	0.18%	[10000]	µg/L
Cd 226.502†	72033.2	99.78	0.14%	[1000]	µg/L
Co 228.616†	35138.5	55.06	0.16%	[1000]	µg/L
Cr 267.716†	44732.8	75.83	0.17%	[1000]	µg/L
Cu 324.752†	151308.1	119.06	0.08%	[1000]	µg/L
Fe 238.204 Radial†	2194.0	3.89	0.18%	[10000]	µg/L
K 766.490 Radial†	13286.6	54.41	0.41%	[10000]	µg/L
Mg 279.077 IEC†	653.8	2.56	0.39%	[10000]	µg/L
Mn 257.610†	575470.3	75.89	0.01%	[1000]	µg/L

Mo 202.031†	11936.4	31.50	0.26%	[1000]	µg/L
Na 589.592 Radial†	109.0	0.75	0.69%	[10000]	µg/L
Ni 231.604†	28364.6	62.93	0.22%	[1000]	µg/L
P 214.914†	5258.1	6.80	0.13%	[5000]	µg/L
Pb 220.353†	6042.1	29.11	0.48%	[1000]	µg/L
S 181.975 Axial†	888.6	5.20	0.58%	[2000]	µg/L
Sb 206.836†	2245.2	7.68	0.34%	[1000]	µg/L
Se 196.026†	1211.2	2.51	0.21%	[1000]	µg/L
SiO2†	63771.3	68.22	0.11%	[10695]	µg/L
Si 251.611†	77785.4	19.62	0.03%	[5000]	µg/L
Sn 189.927†	4674.6	11.90	0.25%	[1000]	µg/L
Sr 421.552†	19149.4	70.36	0.37%	[1000]	µg/L
Ti 334.940†	269845.5	77.61	0.03%	[1000]	µg/L
Tl 190.801†	2949.0	21.69	0.74%	[1000]	µg/L
U 367.007†	3619.4	88.16	2.44%	[1000]	µg/L
V 292.402†	83778.9	45.71	0.05%	[1000]	µg/L
Zn 213.857†	93878.7	35.59	0.04%	[1000]	µg/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 9/28/2017 10:13:30
Data Type: Reprocessed on 9/28/2017 11:05:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	392822.5	392822.5	99.033	%	10:15:17
1	Sc RADIAL	4085.7	4085.7	101	%	10:14:20
1	Y 371.029	399584.6	399584.6	97.145	%	10:15:17
1	Al 396.153Radial†	56755.5	56634.3	[50000]	µg/L	10:14:00
1	Ca 317.933Radial†	50688.6	50349.8	[50000]	µg/L	10:14:00
1	Fe 238.204 Radial†	4435.8	4409.7	[20000]	µg/L	10:14:20
1	Mg 279.077 IEC†	3140.9	3120.8	[50000]	µg/L	10:14:20
1	Na 589.592 Radial†	239.6	239.6	[20000]	µg/L	10:14:20
2	Sc 361.383	388906.5	388906.5	98.046	%	10:15:23
2	Sc RADIAL	4077.4	4077.4	100	%	10:14:45
2	Y 371.029	395822.0	395822.0	96.231	%	10:15:23
2	Al 396.153Radial†	57274.7	57266.9	[50000]	µg/L	10:14:25
2	Ca 317.933Radial†	51227.6	50989.7	[50000]	µg/L	10:14:25
2	Fe 238.204 Radial†	4417.1	4400.0	[20000]	µg/L	10:14:45
2	Mg 279.077 IEC†	3137.6	3123.9	[50000]	µg/L	10:14:45
2	Na 589.592 Radial†	236.8	237.2	[20000]	µg/L	10:14:45
3	Sc 361.383	389667.7	389667.7	98.238	%	10:15:29
3	Sc RADIAL	4051.6	4051.6	99.7	%	10:15:10
3	Y 371.029	396389.0	396389.0	96.368	%	10:15:29
3	Al 396.153Radial†	57123.4	57478.1	[50000]	µg/L	10:14:50
3	Ca 317.933Radial†	50962.0	51048.2	[50000]	µg/L	10:14:50
3	Fe 238.204 Radial†	4402.9	4413.8	[20000]	µg/L	10:15:10
3	Mg 279.077 IEC†	3121.0	3127.2	[50000]	µg/L	10:15:10
3	Na 589.592 Radial†	234.5	236.4	[20000]	µg/L	10:15:10

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	390465.6	2076.33	0.53%	98.439	%
Sc RADIAL	4071.5	17.78	0.44%	100	%
Y 371.029	397265.2	2028.57	0.51%	96.581	%
Al 396.153Radial†	57126.5	439.11	0.77%	[50000]	µg/L
Ca 317.933Radial†	50795.9	387.45	0.76%	[50000]	µg/L
Fe 238.204 Radial†	4407.8	7.07	0.16%	[20000]	µg/L
Mg 279.077 IEC†	3124.0	3.19	0.10%	[50000]	µg/L
Na 589.592 Radial†	237.8	1.64	0.69%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	121.8	0.00000	0.999955	
Al 396.153Radial	3	Lin Thru 0	0.0	1.144	0.00000	0.999975	
As 188.979	3	Lin Thru 0	0.0	1.343	0.00000	0.999930	
B 249.677	3	Lin Thru 0	0.0	27.09	0.00000	0.999924	
Ba 233.527	3	Lin Thru 0	0.0	90.44	0.00000	0.999947	
Be 313.107	3	Lin Thru 0	0.0	1358	0.00000	0.999921	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.019	0.00000	0.999923	
Cd 226.502	3	Lin Thru 0	0.0	71.67	0.00000	0.999944	
Co 228.616	3	Lin Thru 0	0.0	35.04	0.00000	0.999982	
Cr 267.716	3	Lin Thru 0	0.0	44.51	0.00000	0.999946	
Cu 324.752	3	Lin Thru 0	0.0	150.7	0.00000	0.999958	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.2202	0.00000	0.999998	
K 766.490 Radial	3	Lin Thru 0	0.0	1.322	0.00000	0.999956	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0626	0.00000	0.999955	
Mn 257.610	3	Lin Thru 0	0.0	573.3	0.00000	0.999958	

Mo 202.031	3	Lin Thru 0	0.0	11.84	0.00000	0.999880
Na 589.592 Radia	2	Lin Thru 0	0.0	0.0117	0.00000	0.999432
Ni 231.604	3	Lin Thru 0	0.0	28.41	0.00000	0.999982
P 214.914	3	Lin Thru 0	0.0	1.042	0.00000	0.999848
Pb 220.353	3	Lin Thru 0	0.0	6.003	0.00000	0.999919
S 181.975 Axial	3	Lin Thru 0	0.0	0.4405	0.00000	0.999853
Sb 206.836	3	Lin Thru 0	0.0	2.231	0.00000	0.999914
Se 196.026	3	Lin Thru 0	0.0	1.206	0.00000	0.999958
SiO2	3	Lin Thru 0	0.0	5.946	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	15.51	0.00000	0.999984
Sn 189.927	3	Lin Thru 0	0.0	4.639	0.00000	0.999876
Sr 421.552	3	Lin Thru 0	0.0	19.14	0.00000	0.999997
Ti 334.940	3	Lin Thru 0	0.0	268.0	0.00000	0.999903
Tl 190.801	3	Lin Thru 0	0.0	2.932	0.00000	0.999932
U 367.007	3	Lin Thru 0	0.0	3.587	0.00000	0.999806
V 292.402	3	Lin Thru 0	0.0	83.22	0.00000	0.999911
Zn 213.857	3	Lin Thru 0	0.0	93.16	0.00000	0.999826

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Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 9
Date Collected: 9/28/2017 10:15:36
Data Type: Reprocessed on 9/28/2017 11:05:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	396151.2	396151.2	99.873	%			10:17:24
1	Sc RADIAL	3953.9	3953.9	97.3	%			10:16:27
1	Y 371.029	406539.3	406539.3	98.836	%			10:17:24
1	Ag 328.068†	29816.3	30328.0	250.32	µg/L	250.32	ppb	10:17:24
1	Al 396.153Radial†	5657.9	6011.4	5231.3	µg/L	5231.3	ppb	10:16:07
1	As 188.979†	656.8	664.1	499.63	µg/L	499.63	ppb	10:17:44
1	B 249.677†	13302.5	13222.0	507.66	µg/L	507.66	ppb	10:17:44
1	Ba 233.527†	45837.8	45915.5	507.52	µg/L	507.52	ppb	10:17:24
1	Be 313.107†	331642.2	338461.3	249.56	µg/L	249.56	ppb	10:17:24
1	Ca 317.933Radial†	5405.3	5500.1	5399.5	µg/L	5399.5	ppb	10:16:27
1	Cd 226.502†	36218.8	36432.2	507.97	µg/L	507.97	ppb	10:17:24
1	Co 228.616†	17506.7	17732.4	506.07	µg/L	506.07	ppb	10:17:44
1	Cr 267.716†	22379.3	22256.4	499.81	µg/L	499.81	ppb	10:17:44
1	Cu 324.752†	79728.7	77493.3	514.77	µg/L	514.77	ppb	10:17:24
1	Fe 238.204 Radial†	1070.4	1098.6	4989.4	µg/L	4989.4	ppb	10:16:27
1	K 766.490 Radial†	3438.4	3409.4	2579.5	µg/L	2579.5	ppb	10:16:07
1	Mg 279.077 IEC†	324.2	330.8	5282.6	µg/L	5282.6	ppb	10:16:27
1	Mn 257.610†	289017.9	289043.0	504.25	µg/L	504.25	ppb	10:17:24
1	Mo 202.031†	5770.7	5766.5	487.06	µg/L	487.06	ppb	10:17:44
1	Na 589.592 Radial†	28.4	30.5	2612.9	µg/L	2612.9	ppb	10:16:27
1	Ni 231.604†	14264.0	14350.2	505.35	µg/L	505.35	ppb	10:17:44
1	P 214.914†	2589.6	2556.9	2438.4	µg/L	2438.4	ppb	10:17:44
1	Pb 220.353†	3144.8	3043.7	506.12	µg/L	506.12	ppb	10:17:44
1	S 181.975 Axial†	1105.2	1065.3	2417.3	µg/L	2417.3	ppb	10:17:44
1	Sb 206.836†	1132.1	1082.1	481.37	µg/L	481.37	ppb	10:17:44
1	Se 196.026†	3037.6	3071.0	2549.9	µg/L	2549.9	ppb	10:17:44
1	SiO2†	64380.8	63318.6	10652	µg/L	10652	ppb	10:17:24
1	Si 251.611†	77136.7	77020.1	4953.9	µg/L	4953.9	ppb	10:17:24
1	Sn 189.927†	2247.1	2238.3	483.98	µg/L	483.98	ppb	10:17:44
1	Sr 421.552†	9188.3	9421.8	492.19	µg/L	492.19	ppb	10:16:07
1	Ti 334.940†	132247.5	132867.5	495.70	µg/L	495.70	ppb	10:17:24
1	Tl 190.801†	1417.1	1480.4	501.88	µg/L	501.88	ppb	10:17:44
1	U 367.007†	2899.4	1819.0	481.9	µg/L	481.9	ppb	10:17:24
1	V 292.402†	41280.1	41280.7	502.11	µg/L	502.11	ppb	10:17:24
1	Zn 213.857†	47642.5	47288.9	505.55	µg/L	505.55	ppb	10:17:24
2	Sc 361.383	394411.4	394411.4	99.434	%			10:17:49
2	Sc RADIAL	3933.4	3933.4	96.8	%			10:16:52
2	Y 371.029	404903.6	404903.6	98.438	%			10:17:49
2	Ag 328.068†	29697.5	30340.2	250.43	µg/L	250.43	ppb	10:17:49
2	Al 396.153Radial†	5710.5	6096.0	5304.9	µg/L	5304.9	ppb	10:16:32
2	As 188.979†	659.0	669.2	503.50	µg/L	503.50	ppb	10:18:09
2	B 249.677†	13436.9	13415.9	515.03	µg/L	515.03	ppb	10:18:09
2	Ba 233.527†	45699.7	45979.0	508.22	µg/L	508.22	ppb	10:17:49
2	Be 313.107†	330377.6	338654.2	249.70	µg/L	249.70	ppb	10:17:49
2	Ca 317.933Radial†	5388.4	5511.6	5410.8	µg/L	5410.8	ppb	10:16:52
2	Cd 226.502†	36024.1	36396.4	507.47	µg/L	507.47	ppb	10:17:49
2	Co 228.616†	17674.3	17978.3	513.09	µg/L	513.09	ppb	10:18:09
2	Cr 267.716†	22548.4	22525.3	505.86	µg/L	505.86	ppb	10:18:09
2	Cu 324.752†	79540.3	77655.9	515.84	µg/L	515.84	ppb	10:17:49
2	Fe 238.204 Radial†	1076.5	1110.7	5044.1	µg/L	5044.1	ppb	10:16:52
2	K 766.490 Radial†	3328.2	3314.0	2507.4	µg/L	2507.4	ppb	10:16:32
2	Mg 279.077 IEC†	324.1	332.3	5307.8	µg/L	5307.8	ppb	10:16:52
2	Mn 257.610†	288027.7	289323.7	504.74	µg/L	504.74	ppb	10:17:49
2	Mo 202.031†	5819.7	5841.2	493.37	µg/L	493.37	ppb	10:18:09
2	Na 589.592 Radial†	30.6	32.9	2823.3	µg/L	2823.3	ppb	10:16:52
2	Ni 231.604†	14388.6	14538.4	511.98	µg/L	511.98	ppb	10:18:09
2	P 214.914†	2629.6	2608.5	2487.7	µg/L	2487.7	ppb	10:18:09

2	Pb 220.353†	3170.1	3083.0	512.68 µg/L	512.68 ppb		10:18:09
2	S 181.975 Axial†	1123.7	1088.8	2470.7 µg/L	2470.7 ppb		10:18:09
2	Sb 206.836†	1137.7	1092.7	486.08 µg/L	486.08 ppb		10:18:09
2	Se 196.026†	3062.2	3109.1	2581.5 µg/L	2581.5 ppb		10:18:09
2	SiO2†	64063.5	63283.9	10646 µg/L	10646 ppb		10:17:49
2	Si 251.611†	76672.9	76894.3	4945.6 µg/L	4945.6 ppb		10:17:49
2	Sn 189.927†	2273.5	2274.8	491.84 µg/L	491.84 ppb		10:18:09
2	Sr 421.552†	9276.7	9562.2	499.53 µg/L	499.53 ppb		10:16:32
2	Ti 334.940†	131737.0	132938.2	495.97 µg/L	495.97 ppb		10:17:49
2	Tl 190.801†	1428.8	1498.5	507.99 µg/L	507.99 ppb		10:18:09
2	U 367.007†	2838.5	1770.6	468.1 µg/L	468.1 ppb		10:17:49
2	V 292.402†	41272.2	41455.2	504.28 µg/L	504.28 ppb		10:17:49
2	Zn 213.857†	47483.8	47339.7	506.07 µg/L	506.07 ppb		10:17:49
3	Sc 361.383	396104.3	396104.3	99.861 %			10:18:15
3	Sc RADIAL	3925.9	3925.9	96.6 %			10:17:17
3	Y 371.029	406348.4	406348.4	98.790 %			10:18:15
3	Ag 328.068†	29786.2	30301.4	250.12 µg/L	250.12 ppb		10:18:15
3	Al 396.153Radial†	5709.2	6105.9	5313.7 µg/L	5313.7 ppb		10:16:57
3	As 188.979†	658.3	665.7	500.89 µg/L	500.89 ppb		10:18:35
3	B 249.677†	13412.5	13333.7	512.00 µg/L	512.00 ppb		10:18:35
3	Ba 233.527†	45961.8	46045.0	508.95 µg/L	508.95 ppb		10:18:15
3	Be 313.107†	331998.1	338857.0	249.85 µg/L	249.85 ppb		10:18:15
3	Ca 317.933Radial†	5372.6	5505.8	5405.2 µg/L	5405.2 ppb		10:17:17
3	Cd 226.502†	36222.5	36440.2	508.08 µg/L	508.08 ppb		10:18:15
3	Co 228.616†	17661.2	17889.2	510.55 µg/L	510.55 ppb		10:18:35
3	Cr 267.716†	22511.5	22391.5	502.86 µg/L	502.86 ppb		10:18:35
3	Cu 324.752†	79709.6	77483.5	514.69 µg/L	514.69 ppb		10:18:15
3	Fe 238.204 Radial†	1074.5	1110.8	5044.6 µg/L	5044.6 ppb		10:17:17
3	K 766.490 Radial†	3471.8	3469.1	2624.8 µg/L	2624.8 ppb		10:16:57
3	Mg 279.077 IEC†	324.3	333.2	5321.4 µg/L	5321.4 ppb		10:17:17
3	Mn 257.610†	289481.2	289541.2	505.12 µg/L	505.12 ppb		10:18:15
3	Mo 202.031†	5817.0	5813.5	491.03 µg/L	491.03 ppb		10:18:35
3	Na 589.592 Radial†	24.7	26.9	2306.0 µg/L	2306.0 ppb		10:17:17
3	Ni 231.604†	14393.0	14481.0	509.96 µg/L	509.96 ppb		10:18:35
3	P 214.914†	2615.2	2582.8	2463.1 µg/L	2463.1 ppb		10:18:35
3	Pb 220.353†	3168.6	3067.9	510.16 µg/L	510.16 ppb		10:18:35
3	S 181.975 Axial†	1113.4	1073.6	2436.2 µg/L	2436.2 ppb		10:18:35
3	Sb 206.836†	1155.9	1106.1	492.10 µg/L	492.10 ppb		10:18:35
3	Se 196.026†	3072.1	3105.9	2578.9 µg/L	2578.9 ppb		10:18:35
3	SiO2†	64281.6	63226.9	10636 µg/L	10636 ppb		10:18:15
3	Si 251.611†	77227.4	77120.1	4960.2 µg/L	4960.2 ppb		10:18:15
3	Sn 189.927†	2264.8	2256.3	487.84 µg/L	487.84 ppb		10:18:35
3	Sr 421.552†	9290.5	9594.8	501.24 µg/L	501.24 ppb		10:16:57
3	Ti 334.940†	132276.8	132912.5	495.88 µg/L	495.88 ppb		10:18:15
3	Tl 190.801†	1431.4	1495.0	506.82 µg/L	506.82 ppb		10:18:35
3	U 367.007†	2808.8	1728.7	456.4 µg/L	456.4 ppb		10:18:15
3	V 292.402†	41445.2	41450.9	504.19 µg/L	504.19 ppb		10:18:15
3	Zn 213.857†	47881.8	47534.2	508.16 µg/L	508.16 ppb		10:18:15

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	395555.6	99.722	%	0.2499				0.25%
Sc RADIAL	3937.8	96.9	%	0.36				0.37%
Y 371.029	405930.4	98.688	%	0.2174				0.22%
Ag 328.068†	30323.2	250.29	µg/L	0.158	250.29	ppb	0.158	0.06%
QC value within limits for Ag 328.068 Recovery = 100.12%								
Al 396.153Radial†	6071.1	5283.3	µg/L	45.25	5283.3	ppb	45.25	0.86%
QC value within limits for Al 396.153Radial Recovery = 105.67%								
As 188.979†	666.3	501.34	µg/L	1.975	501.34	ppb	1.975	0.39%
QC value within limits for As 188.979 Recovery = 100.27%								
B 249.677†	13323.9	511.56	µg/L	3.703	511.56	ppb	3.703	0.72%
QC value within limits for B 249.677 Recovery = 102.31%								
Ba 233.527†	45979.8	508.23	µg/L	0.715	508.23	ppb	0.715	0.14%
QC value within limits for Ba 233.527 Recovery = 101.65%								
Be 313.107†	338657.5	249.70	µg/L	0.143	249.70	ppb	0.143	0.06%
QC value within limits for Be 313.107 Recovery = 99.88%								
Ca 317.933Radial†	5505.8	5405.2	µg/L	5.64	5405.2	ppb	5.64	0.10%
QC value within limits for Ca 317.933Radial Recovery = 108.10%								
Cd 226.502†	36422.9	507.84	µg/L	0.326	507.84	ppb	0.326	0.06%

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   QC value within limits for Cd 226.502  Recovery = 101.57%
Co 228.616†            17866.7      509.90 µg/L         3.557      509.90 ppb          3.557   0.70%
   QC value within limits for Co 228.616  Recovery = 101.98%
Cr 267.716†            22391.1      502.84 µg/L         3.026      502.84 ppb          3.026   0.60%
   QC value within limits for Cr 267.716  Recovery = 100.57%
Cu 324.752†            77544.2      515.10 µg/L         0.643      515.10 ppb          0.643   0.12%
   QC value within limits for Cu 324.752  Recovery = 103.02%
Fe 238.204 Radial†      1106.7      5026.0 µg/L         31.71      5026.0 ppb          31.71   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.52%
K 766.490 Radial†       3397.5      2570.6 µg/L         59.18      2570.6 ppb          59.18   2.30%
   QC value within limits for K 766.490 Radial  Recovery = 102.82%
Mg 279.077 IEC†          332.1      5304.0 µg/L         19.69      5304.0 ppb          19.69   0.37%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.08%
Mn 257.610†           289302.6      504.71 µg/L         0.436      504.71 ppb          0.436   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.94%
Mo 202.031†             5807.1      490.49 µg/L         3.190      490.49 ppb          3.190   0.65%
   QC value within limits for Mo 202.031  Recovery = 98.10%
Na 589.592 Radial†        30.1      2580.7 µg/L        260.15      2580.7 ppb         260.15  10.08%
   QC value within limits for Na 589.592 Radial  Recovery = 103.23%
Ni 231.604†            14456.5      509.10 µg/L         3.398      509.10 ppb          3.398   0.67%
   QC value within limits for Ni 231.604  Recovery = 101.82%
P 214.914†              2582.7      2463.1 µg/L         24.69      2463.1 ppb          24.69   1.00%
   QC value within limits for P 214.914  Recovery = 98.52%
Pb 220.353†             3064.9      509.66 µg/L         3.311      509.66 ppb          3.311   0.65%
   QC value within limits for Pb 220.353  Recovery = 101.93%
S 181.975 Axial†        1075.9      2441.4 µg/L         27.06      2441.4 ppb          27.06   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 97.66%
Sb 206.836†             1093.7      486.52 µg/L         5.377      486.52 ppb          5.377   1.11%
   QC value within limits for Sb 206.836  Recovery = 97.30%
Se 196.026†             3095.3      2570.1 µg/L         17.57      2570.1 ppb          17.57   0.68%
   QC value within limits for Se 196.026  Recovery = 102.80%
SiO2†                  63276.5       10645 µg/L          7.78       10645 ppb           7.78   0.07%
   QC value within limits for SiO2  Recovery = 99.53%
Si 251.611†            77011.5      4953.2 µg/L          7.32      4953.2 ppb           7.32   0.15%
   QC value within limits for Si 251.611  Recovery = 99.06%
Sn 189.927†             2256.5      487.89 µg/L         3.929      487.89 ppb          3.929   0.81%
   QC value within limits for Sn 189.927  Recovery = 97.58%
Sr 421.552†             9526.3      497.65 µg/L         4.804      497.65 ppb          4.804   0.97%
   QC value within limits for Sr 421.552  Recovery = 99.53%
Ti 334.940†           132906.1      495.85 µg/L         0.137      495.85 ppb          0.137   0.03%
   QC value within limits for Ti 334.940  Recovery = 99.17%
Tl 190.801†             1491.3      505.56 µg/L         3.245      505.56 ppb          3.245   0.64%
   QC value within limits for Tl 190.801  Recovery = 101.11%
U 367.007†              1772.8       468.8 µg/L         12.75       468.8 ppb          12.75   2.72%
   QC value within limits for U 367.007  Recovery = 93.76%
V 292.402†             41395.6      503.53 µg/L         1.227      503.53 ppb          1.227   0.24%
   QC value within limits for V 292.402  Recovery = 100.71%
Zn 213.857†            47387.6      506.60 µg/L         1.382      506.60 ppb          1.382   0.27%
   QC value within limits for Zn 213.857  Recovery = 101.32%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 10
Date Collected: 9/28/2017 10:18:43
Data Type: Reprocessed on 9/28/2017 11:05:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	398962.9	398962.9	100.58	%			10:20:30
1	Sc RADIAL	4086.0	4086.0	101	%			10:19:13
1	Y 371.029	413530.3	413530.3	100.54	%			10:20:30
1	Ag 328.068†	-463.5	12.9	0.0983	µg/L	0.0983	ppb	10:20:30
1	Al 396.153Radial†	-188.5	10.3	8.9967	µg/L	8.9967	ppb	10:19:13
1	As 188.979†	-12.7	-6.1	-4.5586	µg/L	-4.5586	ppb	10:20:50
1	B 249.677†	181.7	83.1	3.0976	µg/L	3.0976	ppb	10:20:30
1	Ba 233.527†	-4.1	15.1	0.1669	µg/L	0.1669	ppb	10:20:50
1	Be 313.107†	-6207.1	224.8	0.1697	µg/L	0.1697	ppb	10:20:30
1	Ca 317.933Radial†	42.7	-11.5	-11.317	µg/L	-11.317	ppb	10:19:33
1	Cd 226.502†	-125.6	42.3	0.5898	µg/L	0.5898	ppb	10:20:50
1	Co 228.616†	-209.5	-4.9	-0.1391	µg/L	-0.1391	ppb	10:20:50
1	Cr 267.716†	164.8	12.4	0.2682	µg/L	0.2682	ppb	10:20:50
1	Cu 324.752†	2213.0	-137.0	-0.8975	µg/L	-0.8975	ppb	10:20:30
1	Fe 238.204 Radial†	2.6	1.4	6.5508	µg/L	6.5508	ppb	10:19:33
1	K 766.490 Radial†	176.0	51.4	38.846	µg/L	38.846	ppb	10:19:13
1	Mg 279.077 IEC†	7.8	5.4	85.775	µg/L	85.775	ppb	10:19:33
1	Mn 257.610†	347.6	2.1	0.0009	µg/L	0.0009	ppb	10:20:30
1	Mo 202.031†	7.3	-4.3	-0.3600	µg/L	-0.3600	ppb	10:20:50
1	Na 589.592 Radial†	-0.3	1.0	84.671	µg/L	84.671	ppb	10:19:33
1	Ni 231.604†	-74.6	-6.3	-0.2206	µg/L	-0.2206	ppb	10:20:50
1	P 214.914†	39.1	2.8	2.6784	µg/L	2.6784	ppb	10:20:50
1	Pb 220.353†	101.3	-4.4	-0.7524	µg/L	-0.7524	ppb	10:20:50
1	S 181.975 Axial†	41.4	-0.2	-0.3912	µg/L	-0.3912	ppb	10:20:50
1	Sb 206.836†	47.1	-4.6	-2.0533	µg/L	-2.0533	ppb	10:20:50
1	Se 196.026†	-34.4	-4.7	-3.8607	µg/L	-3.8607	ppb	10:20:50
1	SiO2†	1147.8	-3.2	-0.5239	µg/L	-0.5239	ppb	10:20:30
1	Si 251.611†	246.4	30.0	1.9395	µg/L	1.9395	ppb	10:20:50
1	Sn 189.927†	17.4	5.6	1.2012	µg/L	1.2012	ppb	10:20:50
1	Sr 421.552†	39.8	20.1	1.0514	µg/L	1.0514	ppb	10:19:13
1	Ti 334.940†	-555.6	-101.1	-0.3863	µg/L	-0.3863	ppb	10:20:30
1	Tl 190.801†	-64.7	-2.8	-0.9406	µg/L	-0.9406	ppb	10:20:50
1	U 367.007†	1154.3	63.6	17.71	µg/L	17.71	ppb	10:20:30
1	V 292.402†	55.3	3.0	0.0437	µg/L	0.0437	ppb	10:20:30
1	Zn 213.857†	359.7	-56.7	-0.6067	µg/L	-0.6067	ppb	10:20:50
2	Sc 361.383	398949.7	398949.7	100.58	%			10:20:55
2	Sc RADIAL	4056.0	4056.0	99.8	%			10:19:38
2	Y 371.029	413433.6	413433.6	100.51	%			10:20:55
2	Ag 328.068†	-424.8	51.4	0.4151	µg/L	0.4151	ppb	10:20:55
2	Al 396.153Radial†	-183.4	14.1	12.314	µg/L	12.314	ppb	10:19:38
2	As 188.979†	-3.5	3.0	2.2673	µg/L	2.2673	ppb	10:21:15
2	B 249.677†	133.0	34.8	1.3474	µg/L	1.3474	ppb	10:20:55
2	Ba 233.527†	-8.4	10.9	0.1200	µg/L	0.1200	ppb	10:21:15
2	Be 313.107†	-6432.8	0.2	0.0043	µg/L	0.0043	ppb	10:20:55
2	Ca 317.933Radial†	42.4	-11.5	-11.276	µg/L	-11.276	ppb	10:19:58
2	Cd 226.502†	-153.1	15.0	0.2070	µg/L	0.2070	ppb	10:21:15
2	Co 228.616†	-222.3	-17.6	-0.5037	µg/L	-0.5037	ppb	10:21:15
2	Cr 267.716†	170.7	18.3	0.3966	µg/L	0.3966	ppb	10:21:15
2	Cu 324.752†	2260.2	-89.9	-0.5849	µg/L	-0.5849	ppb	10:20:55
2	Fe 238.204 Radial†	4.3	3.2	14.371	µg/L	14.371	ppb	10:19:58
2	K 766.490 Radial†	82.7	-40.8	-30.865	µg/L	-30.865	ppb	10:19:38
2	Mg 279.077 IEC†	0.0	-2.4	-38.203	µg/L	-38.203	ppb	10:19:58
2	Mn 257.610†	415.0	69.1	0.1226	µg/L	0.1226	ppb	10:20:55
2	Mo 202.031†	5.7	-5.9	-0.5004	µg/L	-0.5004	ppb	10:21:15
2	Na 589.592 Radial†	-6.2	-5.0	-424.39	µg/L	-424.39	ppb	10:19:58
2	Ni 231.604†	-68.8	-0.5	-0.0178	µg/L	-0.0178	ppb	10:21:15
2	P 214.914†	16.4	-19.8	-18.989	µg/L	-18.989	ppb	10:21:15

2	Pb 220.353†	104.2	-1.5	-0.2639	µg/L	-0.2639	ppb	10:21:15
2	S 181.975 Axial†	41.1	-0.4	-0.9475	µg/L	-0.9475	ppb	10:21:15
2	Sb 206.836†	55.2	3.5	1.5372	µg/L	1.5372	ppb	10:21:15
2	Se 196.026†	-35.8	-6.1	-5.0536	µg/L	-5.0536	ppb	10:21:15
2	SiO2†	1174.3	23.2	3.9102	µg/L	3.9102	ppb	10:20:55
2	Si 251.611†	249.0	32.6	2.1088	µg/L	2.1088	ppb	10:21:15
2	Sn 189.927†	7.5	-4.2	-0.8971	µg/L	-0.8971	ppb	10:21:15
2	Sr 421.552†	25.9	6.6	0.3436	µg/L	0.3436	ppb	10:19:38
2	Ti 334.940†	-425.2	28.5	0.0973	µg/L	0.0973	ppb	10:20:55
2	Tl 190.801†	-60.4	1.5	0.5195	µg/L	0.5195	ppb	10:21:15
2	U 367.007†	1154.3	63.6	17.67	µg/L	17.67	ppb	10:20:55
2	V 292.402†	13.1	-39.0	-0.4604	µg/L	-0.4604	ppb	10:20:55
2	Zn 213.857†	370.5	-46.0	-0.5007	µg/L	-0.5007	ppb	10:21:15
3	Sc 361.383	399705.4	399705.4	100.77	%			10:21:21
3	Sc RADIAL	4060.0	4060.0	99.9	%			10:20:03
3	Y 371.029	414627.1	414627.1	100.80	%			10:21:21
3	Ag 328.068†	-497.9	-20.4	-0.1725	µg/L	-0.1725	ppb	10:21:21
3	Al 396.153Radial†	-247.1	-49.6	-43.317	µg/L	-43.317	ppb	10:20:03
3	As 188.979†	-5.2	1.4	1.0121	µg/L	1.0121	ppb	10:21:41
3	B 249.677†	124.4	25.9	1.0036	µg/L	1.0036	ppb	10:21:21
3	Ba 233.527†	-24.3	-4.9	-0.0543	µg/L	-0.0543	ppb	10:21:41
3	Be 313.107†	-6321.1	123.1	0.0940	µg/L	0.0940	ppb	10:21:21
3	Ca 317.933Radial†	32.4	-21.6	-21.207	µg/L	-21.207	ppb	10:20:23
3	Cd 226.502†	-129.3	38.9	0.5416	µg/L	0.5416	ppb	10:21:41
3	Co 228.616†	-191.0	13.9	0.3954	µg/L	0.3954	ppb	10:21:41
3	Cr 267.716†	151.7	-0.9	-0.0303	µg/L	-0.0303	ppb	10:21:41
3	Cu 324.752†	2311.0	-43.8	-0.2806	µg/L	-0.2806	ppb	10:21:21
3	Fe 238.204 Radial†	3.7	2.5	11.260	µg/L	11.260	ppb	10:20:23
3	K 766.490 Radial†	159.1	35.6	26.897	µg/L	26.897	ppb	10:20:03
3	Mg 279.077 IEC†	3.6	1.2	18.882	µg/L	18.882	ppb	10:20:23
3	Mn 257.610†	376.4	30.0	0.0522	µg/L	0.0522	ppb	10:21:21
3	Mo 202.031†	10.8	-0.8	-0.0688	µg/L	-0.0688	ppb	10:21:41
3	Na 589.592 Radial†	0.3	1.6	139.37	µg/L	139.37	ppb	10:20:23
3	Ni 231.604†	-67.8	0.6	0.0225	µg/L	0.0225	ppb	10:21:41
3	P 214.914†	27.4	-8.9	-8.5619	µg/L	-8.5619	ppb	10:21:41
3	Pb 220.353†	84.9	-20.9	-3.4844	µg/L	-3.4844	ppb	10:21:41
3	S 181.975 Axial†	39.2	-2.4	-5.3911	µg/L	-5.3911	ppb	10:21:41
3	Sb 206.836†	55.3	3.5	1.5689	µg/L	1.5689	ppb	10:21:41
3	Se 196.026†	-17.6	12.1	10.036	µg/L	10.036	ppb	10:21:41
3	SiO2†	1237.0	83.2	14.000	µg/L	14.000	ppb	10:21:21
3	Si 251.611†	230.3	13.6	0.8745	µg/L	0.8745	ppb	10:21:41
3	Sn 189.927†	16.5	4.7	1.0225	µg/L	1.0225	ppb	10:21:41
3	Sr 421.552†	36.6	17.2	0.9020	µg/L	0.9020	ppb	10:20:03
3	Ti 334.940†	-398.3	56.0	0.2009	µg/L	0.2009	ppb	10:21:21
3	Tl 190.801†	-59.6	2.4	0.8358	µg/L	0.8358	ppb	10:21:41
3	U 367.007†	1146.2	53.5	14.86	µg/L	14.86	ppb	10:21:21
3	V 292.402†	81.6	29.0	0.3572	µg/L	0.3572	ppb	10:21:21
3	Zn 213.857†	360.3	-56.9	-0.6136	µg/L	-0.6136	ppb	10:21:41

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	399206.0	100.64	%	0.109				0.11%
Sc RADIAL	4067.4	100	%	0.40				0.40%
Y 371.029	413863.7	100.62	%	0.161				0.16%
Ag 328.068†	14.6	0.1137	µg/L	0.29408	0.1137	ppb	0.29408	258.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.4	-7.3356	µg/L	31.20498	-7.3356	ppb	31.20498	425.39%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.4264	µg/L	3.63320	-0.4264	ppb	3.63320	852.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	47.9	1.8162	µg/L	1.12298	1.8162	ppb	1.12298	61.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.0775	µg/L	0.11656	0.0775	ppb	0.11656	150.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	116.0	0.0893	µg/L	0.08282	0.0893	ppb	0.08282	92.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.9	-14.600	µg/L	5.7216	-14.600	ppb	5.7216	39.19%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	32.1	0.4461	µg/L	0.20852	0.4461	ppb	0.20852	46.74%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -2.9     -0.0825 µg/L       0.45223     -0.0825 ppb        0.45223 548.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.9      0.2115 µg/L       0.21902      0.2115 ppb        0.21902 103.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -90.2     -0.5877 µg/L       0.30845     -0.5877 ppb        0.30845  52.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.4      10.727 µg/L        3.9373      10.727 ppb         3.9373  36.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          15.4      11.626 µg/L       37.2803      11.626 ppb        37.2803 320.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      22.151 µg/L       62.0539      22.151 ppb        62.0539 280.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                33.7      0.0586 µg/L       0.06111      0.0586 ppb        0.06111 104.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.7     -0.3097 µg/L       0.22015     -0.3097 ppb        0.22015  71.08%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -0.8     -66.782 µg/L      310.9017     -66.782 ppb       310.9017 465.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.0     -0.0720 µg/L       0.13028     -0.0720 ppb        0.13028 181.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.6     -8.2909 µg/L      10.83640     -8.2909 ppb       10.83640 130.70%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -8.9     -1.5002 µg/L       1.73563     -1.5002 ppb        1.73563 115.69%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.0     -2.2433 µg/L       2.74026     -2.2433 ppb        2.74026 122.16%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.3509 µg/L       2.08216      0.3509 ppb        2.08216 593.32%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.4      0.3738 µg/L       8.38876      0.3738 ppb        8.38876 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.4      5.7953 µg/L       7.44309      5.7953 ppb        7.44309 128.43%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                25.4      1.6409 µg/L       0.66913      1.6409 ppb        0.66913  40.78%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.1      0.4422 µg/L       1.16330      0.4422 ppb        1.16330 263.06%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                14.6      0.7657 µg/L       0.37311      0.7657 ppb        0.37311  48.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -5.5     -0.0294 µg/L       0.31343     -0.0294 ppb        0.31343 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.1383 µg/L       0.94758      0.1383 ppb        0.94758 685.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 60.3       16.75 µg/L         1.635       16.75 ppb          1.635   9.77%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 -2.3     -0.0198 µg/L       0.41246     -0.0198 ppb        0.41246 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -53.2     -0.5737 µg/L       0.06324     -0.5737 ppb        0.06324  11.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

==========

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 101
Date Collected: 9/28/2017 10:21:50
Data Type: Reprocessed on 9/28/2017 11:05:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	395763.9	395763.9	99.775	%			10:23:37
1	Sc RADIAL	4110.4	4110.4	101	%			10:22:20
1	Y 371.029	410342.9	410342.9	99.761	%			10:23:37
1	Ag 328.068†	176.0	650.1	5.3315	µg/L	5.3315	ppb	10:23:37
1	Al 396.153Radial†	51.6	248.7	216.93	µg/L	216.93	ppb	10:22:20
1	As 188.979†	35.8	42.4	31.672	µg/L	31.672	ppb	10:23:57
1	B 249.677†	1396.2	1301.9	48.439	µg/L	48.439	ppb	10:23:37
1	Ba 233.527†	424.1	444.2	4.9087	µg/L	4.9087	ppb	10:23:57
1	Be 313.107†	209.7	6606.2	4.8820	µg/L	4.8820	ppb	10:23:37
1	Ca 317.933Radial†	295.6	238.2	233.87	µg/L	233.87	ppb	10:22:40
1	Cd 226.502†	189.9	357.5	4.9797	µg/L	4.9797	ppb	10:23:57
1	Co 228.616†	-25.0	178.4	5.0987	µg/L	5.0987	ppb	10:23:57
1	Cr 267.716†	351.0	200.4	4.4688	µg/L	4.4688	ppb	10:23:57
1	Cu 324.752†	3935.6	1607.4	10.705	µg/L	10.705	ppb	10:23:37
1	Fe 238.204 Radial†	21.5	20.1	91.292	µg/L	91.292	ppb	10:22:40
1	K 766.490 Radial†	367.7	239.8	181.35	µg/L	181.35	ppb	10:22:20
1	Mg 279.077 IEC†	24.5	21.8	348.27	µg/L	348.27	ppb	10:22:40
1	Mn 257.610†	6316.1	5986.8	10.435	µg/L	10.435	ppb	10:23:37
1	Mo 202.031†	125.0	113.8	9.6084	µg/L	9.6084	ppb	10:23:57
1	Na 589.592 Radial†	0.2	1.5	131.08	µg/L	131.08	ppb	10:22:40
1	Ni 231.604†	78.9	147.0	5.1758	µg/L	5.1758	ppb	10:23:57
1	P 214.914†	184.5	148.9	142.53	µg/L	142.53	ppb	10:23:57
1	Pb 220.353†	159.0	54.3	8.9538	µg/L	8.9538	ppb	10:23:57
1	S 181.975 Axial†	83.4	42.3	96.015	µg/L	96.015	ppb	10:23:57
1	Sb 206.836†	77.9	26.7	12.005	µg/L	12.005	ppb	10:23:57
1	Se 196.026†	4.2	33.8	28.050	µg/L	28.050	ppb	10:23:57
1	SiO2†	2390.1	1251.2	210.39	µg/L	210.39	ppb	10:23:37
1	Si 251.611†	1661.1	1449.8	93.244	µg/L	93.244	ppb	10:23:57
1	Sn 189.927†	66.4	54.9	11.841	µg/L	11.841	ppb	10:23:57
1	Sr 421.552†	134.4	113.5	5.9220	µg/L	5.9220	ppb	10:22:20
1	Ti 334.940†	901.5	1354.9	5.0401	µg/L	5.0401	ppb	10:23:37
1	Tl 190.801†	-10.9	50.7	17.265	µg/L	17.265	ppb	10:23:57
1	U 367.007†	1284.6	203.5	56.25	µg/L	56.25	ppb	10:23:37
1	V 292.402†	403.3	352.2	4.3698	µg/L	4.3698	ppb	10:23:37
1	Zn 213.857†	1814.2	1403.9	15.046	µg/L	15.046	ppb	10:23:57
2	Sc 361.383	397376.0	397376.0	100.18	%			10:24:02
2	Sc RADIAL	4088.3	4088.3	101	%			10:22:45
2	Y 371.029	411800.0	411800.0	100.12	%			10:24:02
2	Ag 328.068†	112.3	585.8	4.8090	µg/L	4.8090	ppb	10:24:02
2	Al 396.153Radial†	6.1	203.7	177.59	µg/L	177.59	ppb	10:22:45
2	As 188.979†	28.5	35.0	26.146	µg/L	26.146	ppb	10:24:22
2	B 249.677†	1447.6	1347.4	50.152	µg/L	50.152	ppb	10:24:02
2	Ba 233.527†	416.2	434.6	4.8028	µg/L	4.8028	ppb	10:24:22
2	Be 313.107†	385.1	6780.4	5.0090	µg/L	5.0090	ppb	10:24:02
2	Ca 317.933Radial†	302.7	246.8	242.28	µg/L	242.28	ppb	10:23:05
2	Cd 226.502†	199.2	366.0	5.0982	µg/L	5.0982	ppb	10:24:22
2	Co 228.616†	-15.3	188.1	5.3773	µg/L	5.3773	ppb	10:24:22
2	Cr 267.716†	388.4	236.3	5.2806	µg/L	5.2806	ppb	10:24:22
2	Cu 324.752†	3953.2	1608.9	10.712	µg/L	10.712	ppb	10:24:02
2	Fe 238.204 Radial†	23.1	21.8	98.933	µg/L	98.933	ppb	10:23:05
2	K 766.490 Radial†	353.2	227.4	171.97	µg/L	171.97	ppb	10:22:45
2	Mg 279.077 IEC†	25.0	22.4	357.64	µg/L	357.64	ppb	10:23:05
2	Mn 257.610†	6289.1	5934.2	10.344	µg/L	10.344	ppb	10:24:02
2	Mo 202.031†	133.6	121.8	10.285	µg/L	10.285	ppb	10:24:22
2	Na 589.592 Radial†	1.1	2.3	200.78	µg/L	200.78	ppb	10:23:05
2	Ni 231.604†	82.5	150.3	5.2919	µg/L	5.2919	ppb	10:24:22
2	P 214.914†	203.9	167.4	160.33	µg/L	160.33	ppb	10:24:22

2	Pb 220.353†	150.7	45.3	7.4744 µg/L	7.4744 ppb	10:24:22
2	S 181.975 Axial†	89.2	47.8	108.41 µg/L	108.41 ppb	10:24:22
2	Sb 206.836†	72.8	21.3	9.5836 µg/L	9.5836 ppb	10:24:22
2	Se 196.026†	3.6	33.2	27.565 µg/L	27.565 ppb	10:24:22
2	SiO2†	2417.3	1268.6	213.33 µg/L	213.33 ppb	10:24:02
2	Si 251.611†	1685.3	1467.3	94.352 µg/L	94.352 ppb	10:24:22
2	Sn 189.927†	54.8	43.0	9.2752 µg/L	9.2752 ppb	10:24:22
2	Sr 421.552†	117.2	97.1	5.0644 µg/L	5.0644 ppb	10:22:45
2	Ti 334.940†	927.4	1377.1	5.1262 µg/L	5.1262 ppb	10:24:02
2	Tl 190.801†	6.4	68.0	23.172 µg/L	23.172 ppb	10:24:22
2	U 367.007†	1266.3	180.0	49.66 µg/L	49.66 ppb	10:24:02
2	V 292.402†	455.9	403.1	4.9869 µg/L	4.9869 ppb	10:24:02
2	Zn 213.857†	1826.5	1408.8	15.096 µg/L	15.096 ppb	10:24:22
3	Sc 361.383	397774.1	397774.1	100.28 %		10:24:28
3	Sc RADIAL	4090.6	4090.6	101 %		10:23:10
3	Y 371.029	412204.4	412204.4	100.21 %		10:24:28
3	Ag 328.068†	125.4	598.8	4.9108 µg/L	4.9108 ppb	10:24:28
3	Al 396.153Radial†	51.9	249.3	217.45 µg/L	217.45 ppb	10:23:10
3	As 188.979†	33.6	40.0	29.858 µg/L	29.858 ppb	10:24:48
3	B 249.677†	1408.6	1307.1	48.673 µg/L	48.673 ppb	10:24:28
3	Ba 233.527†	426.4	444.4	4.9106 µg/L	4.9106 ppb	10:24:48
3	Be 313.107†	336.5	6731.6	4.9753 µg/L	4.9753 ppb	10:24:28
3	Ca 317.933Radial†	298.4	242.4	237.97 µg/L	237.97 ppb	10:23:30
3	Cd 226.502†	215.4	382.0	5.3208 µg/L	5.3208 ppb	10:24:48
3	Co 228.616†	-22.9	180.6	5.1600 µg/L	5.1600 ppb	10:24:48
3	Cr 267.716†	368.5	216.0	4.8162 µg/L	4.8162 ppb	10:24:48
3	Cu 324.752†	3919.0	1570.8	10.466 µg/L	10.466 ppb	10:24:28
3	Fe 238.204 Radial†	23.6	22.3	101.21 µg/L	101.21 ppb	10:23:30
3	K 766.490 Radial†	395.4	269.0	203.49 µg/L	203.49 ppb	10:23:10
3	Mg 279.077 IEC†	19.8	17.2	275.35 µg/L	275.35 ppb	10:23:30
3	Mn 257.610†	6313.9	5952.6	10.379 µg/L	10.379 ppb	10:24:28
3	Mo 202.031†	121.6	109.7	9.2665 µg/L	9.2665 ppb	10:24:48
3	Na 589.592 Radial†	3.6	4.9	417.42 µg/L	417.42 ppb	10:23:30
3	Ni 231.604†	82.6	150.3	5.2927 µg/L	5.2927 ppb	10:24:48
3	P 214.914†	195.2	158.6	151.91 µg/L	151.91 ppb	10:24:48
3	Pb 220.353†	149.5	43.9	7.2270 µg/L	7.2270 ppb	10:24:48
3	S 181.975 Axial†	90.2	48.7	110.50 µg/L	110.50 ppb	10:24:48
3	Sb 206.836†	63.2	11.6	5.2518 µg/L	5.2518 ppb	10:24:48
3	Se 196.026†	10.4	39.9	33.142 µg/L	33.142 ppb	10:24:48
3	SiO2†	2371.9	1220.9	205.31 µg/L	205.31 ppb	10:24:28
3	Si 251.611†	1673.1	1453.4	93.480 µg/L	93.480 ppb	10:24:48
3	Sn 189.927†	63.4	51.5	11.115 µg/L	11.115 ppb	10:24:48
3	Sr 421.552†	113.1	92.9	4.8452 µg/L	4.8452 ppb	10:23:10
3	Ti 334.940†	928.0	1376.7	5.1199 µg/L	5.1199 ppb	10:24:28
3	Tl 190.801†	-4.5	57.1	19.455 µg/L	19.455 ppb	10:24:48
3	U 367.007†	1303.7	216.0	59.70 µg/L	59.70 ppb	10:24:28
3	V 292.402†	443.4	390.2	4.8270 µg/L	4.8270 ppb	10:24:28
3	Zn 213.857†	1828.1	1408.6	15.088 µg/L	15.088 ppb	10:24:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396971.3	100.08	%	0.268				0.27%
Sc RADIAL	4096.5	101	%	0.30				0.30%
Y 371.029	411449.1	100.03	%	0.238				0.24%
Ag 328.068†	611.5	5.0171	µg/L	0.27699	5.0171	ppb	0.27699	5.52%
QC value within limits for Ag 328.068 Recovery = 100.34%								
Al 396.153Radial†	233.9	203.99	µg/L	22.867	203.99	ppb	22.867	11.21%
QC value within limits for Al 396.153Radial Recovery = 102.00%								
As 188.979†	39.1	29.225	µg/L	2.8167	29.225	ppb	2.8167	9.64%
QC value within limits for As 188.979 Recovery = 97.42%								
B 249.677†	1318.8	49.088	µg/L	0.9287	49.088	ppb	0.9287	1.89%
QC value within limits for B 249.677 Recovery = 98.18%								
Ba 233.527†	441.1	4.8741	µg/L	0.06174	4.8741	ppb	0.06174	1.27%
QC value within limits for Ba 233.527 Recovery = 97.48%								
Be 313.107†	6706.1	4.9554	µg/L	0.06580	4.9554	ppb	0.06580	1.33%
QC value within limits for Be 313.107 Recovery = 99.11%								
Ca 317.933Radial†	242.5	238.04	µg/L	4.201	238.04	ppb	4.201	1.76%
QC value within limits for Ca 317.933Radial Recovery = 119.02%								
Cd 226.502†	368.5	5.1329	µg/L	0.17317	5.1329	ppb	0.17317	3.37%

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   QC value within limits for Cd 226.502  Recovery = 102.66%
Co 228.616†              182.4      5.2120 µg/L       0.14643      5.2120 ppb        0.14643   2.81%
   QC value within limits for Co 228.616  Recovery = 104.24%
Cr 267.716†              217.6      4.8552 µg/L       0.40729      4.8552 ppb        0.40729   8.39%
   QC value within limits for Cr 267.716  Recovery = 97.10%
Cu 324.752†             1595.7      10.628 µg/L        0.1402      10.628 ppb         0.1402   1.32%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†        21.4      97.145 µg/L        5.1951      97.145 ppb         5.1951   5.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.15%
K 766.490 Radial†        245.4      185.60 µg/L        16.182      185.60 ppb         16.182   8.72%
   QC value within limits for K 766.490 Radial  Recovery = 123.74%
Mg 279.077 IEC†           20.5      327.09 µg/L        45.052      327.09 ppb         45.052  13.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.03%
Mn 257.610†             5957.8      10.386 µg/L        0.0463      10.386 ppb         0.0463   0.45%
   QC value within limits for Mn 257.610  Recovery = 103.86%
Mo 202.031†              115.1      9.7199 µg/L       0.51825      9.7199 ppb        0.51825   5.33%
   QC value within limits for Mo 202.031  Recovery = 97.20%
Na 589.592 Radial†         2.9      249.76 µg/L       149.324      249.76 ppb        149.324  59.79%
   QC value within limits for Na 589.592 Radial  Recovery = 83.25%
Ni 231.604†              149.2      5.2535 µg/L       0.06728      5.2535 ppb        0.06728   1.28%
   QC value within limits for Ni 231.604  Recovery = 105.07%
P 214.914†               158.3      151.59 µg/L         8.904      151.59 ppb          8.904   5.87%
   QC value within limits for P 214.914  Recovery = 101.06%
Pb 220.353†               47.8      7.8851 µg/L       0.93379      7.8851 ppb        0.93379  11.84%
   QC value within limits for Pb 220.353  Recovery = 78.85%
S 181.975 Axial†          46.3      104.97 µg/L         7.829      104.97 ppb          7.829   7.46%
   QC value within limits for S 181.975 Axial  Recovery = 104.97%
Sb 206.836†               19.9      8.9468 µg/L       3.42137      8.9468 ppb        3.42137  38.24%
   QC value within limits for Sb 206.836  Recovery = 89.47%
Se 196.026†               35.6      29.585 µg/L        3.0892      29.585 ppb         3.0892  10.44%
   QC value within limits for Se 196.026  Recovery = 98.62%
SiO2†                    1246.9      209.68 µg/L         4.055      209.68 ppb          4.055   1.93%
   QC value within limits for SiO2  Recovery = 98.44%
Si 251.611†              1456.9      93.692 µg/L        0.5840      93.692 ppb         0.5840   0.62%
   QC value within limits for Si 251.611  Recovery = 93.69%
Sn 189.927†               49.8      10.744 µg/L        1.3223      10.744 ppb         1.3223  12.31%
   QC value within limits for Sn 189.927  Recovery = 107.44%
Sr 421.552†              101.1      5.2772 µg/L       0.56907      5.2772 ppb        0.56907  10.78%
   QC value within limits for Sr 421.552  Recovery = 105.54%
Ti 334.940†              1369.5      5.0954 µg/L       0.04800      5.0954 ppb        0.04800   0.94%
   QC value within limits for Ti 334.940  Recovery = 101.91%
Tl 190.801†               58.6      19.964 µg/L        2.9863      19.964 ppb         2.9863  14.96%
   QC value within limits for Tl 190.801  Recovery = 99.82%
U 367.007†               199.8       55.20 µg/L         5.101       55.20 ppb          5.101   9.24%
   QC value within limits for U 367.007  Recovery = 110.40%
V 292.402†               381.8      4.7279 µg/L       0.32028      4.7279 ppb        0.32028   6.77%
   QC value within limits for V 292.402  Recovery = 94.56%
Zn 213.857†              1407.1      15.077 µg/L        0.0269      15.077 ppb         0.0269   0.18%
   QC value greater than the upper limit for Zn 213.857  Recovery = 150.77%
QC Failed.  Continue with analysis.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 103
Date Collected: 9/28/2017 10:24:57
Data Type: Reprocessed on 9/28/2017 11:05:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	362427.8	362427.8	91.371	%			10:26:45
1	Sc RADIAL	3750.9	3750.9	92.3	%			10:25:48
1	Y 371.029	366527.3	366527.3	89.109	%			10:26:45
1	Ag 328.068†	-3508.6	-3366.3	-0.7962	µg/L	-0.7962	ppb	10:26:45
1	Al 396.153Radial†	526298.3	570254.0	498330	µg/L	498330	ppb	10:25:28
1	As 188.979†	-19.4	-14.8	12.971	µg/L	12.971	ppb	10:27:06
1	B 249.677†	-19608.5	-21557.8	-16.597	µg/L	-16.597	ppb	10:26:45
1	Ba 233.527†	412.9	471.1	0.0266	µg/L	0.0266	ppb	10:27:06
1	Be 313.107†	-12570.5	-7361.7	-0.8991	µg/L	-0.8991	ppb	10:26:45
1	Ca 317.933Radial†	452699.1	490283.8	481320	µg/L	481320	ppb	10:25:28
1	Cd 226.502†	1282.5	1570.8	0.5520	µg/L	0.5520	ppb	10:27:06
1	Co 228.616†	-204.5	-20.4	-0.5428	µg/L	-0.5428	ppb	10:27:06
1	Cr 267.716†	-470.8	-666.7	-0.6211	µg/L	-0.6211	ppb	10:27:06
1	Cu 324.752†	576.3	-1706.4	1.0080	µg/L	1.0080	ppb	10:27:06
1	Fe 238.204 Radial†	37003.3	40078.7	182020	µg/L	182020	ppb	10:25:28
1	K 766.490 Radial†	-95.8	-227.4	-139.06	µg/L	-139.06	ppb	10:25:28
1	Mg 279.077 IEC†	27699.4	30000.0	479140	µg/L	479140	ppb	10:25:28
1	Mn 257.610†	3942.6	3971.4	-0.4946	µg/L	-0.4946	ppb	10:26:45
1	Mo 202.031†	-69.8	-87.9	0.0181	µg/L	0.0181	ppb	10:27:06
1	Na 589.592 Radial†	-3.6	-2.6	40.848	µg/L	40.848	ppb	10:25:48
1	Ni 231.604†	-101.5	-43.2	0.2136	µg/L	0.2136	ppb	10:27:06
1	P 214.914†	77.0	48.2	-39.972	µg/L	-39.972	ppb	10:27:06
1	Pb 220.353†	745.9	711.2	-2.8795	µg/L	-2.8795	ppb	10:27:06
1	S 181.975 Axial†	62.6	27.2	11.988	µg/L	11.988	ppb	10:27:06
1	Sb 206.836†	63.7	18.3	-6.8782	µg/L	-6.8782	ppb	10:27:06
1	Se 196.026†	-138.7	-122.3	2.7887	µg/L	2.7887	ppb	10:27:06
1	SiO2†	1325.2	306.0	51.282	µg/L	51.282	ppb	10:27:06
1	Si 251.611†	737.8	592.5	9.2118	µg/L	9.2118	ppb	10:27:06
1	Sn 189.927†	55.4	48.9	-4.6592	µg/L	-4.6592	ppb	10:27:06
1	Sr 421.552†	273.5	276.8	-1.9563	µg/L	-1.9563	ppb	10:25:48
1	Ti 334.940†	-6504.5	-6667.5	0.3641	µg/L	0.3641	ppb	10:27:06
1	Tl 190.801†	-87.0	-33.7	-8.2248	µg/L	-8.2248	ppb	10:27:06
1	U 367.007†	4117.6	3422.5	-2.690	µg/L	-2.690	ppb	10:26:45
1	V 292.402†	-1871.4	-2100.1	-1.2325	µg/L	-1.2325	ppb	10:27:06
1	Zn 213.857†	4438.4	4443.2	2.1313	µg/L	2.1313	ppb	10:27:06
2	Sc 361.383	360900.2	360900.2	90.986	%			10:27:11
2	Sc RADIAL	3738.1	3738.1	92.0	%			10:26:14
2	Y 371.029	364844.3	364844.3	88.699	%			10:27:11
2	Ag 328.068†	-3389.3	-3251.4	0.4601	µg/L	0.4601	ppb	10:27:11
2	Al 396.153Radial†	527670.1	573689.4	501330	µg/L	501330	ppb	10:25:54
2	As 188.979†	-29.5	-26.0	4.9357	µg/L	4.9357	ppb	10:27:31
2	B 249.677†	-19438.2	-21461.5	-4.0782	µg/L	-4.0782	ppb	10:27:11
2	Ba 233.527†	394.8	453.1	-0.2320	µg/L	-0.2320	ppb	10:27:31
2	Be 313.107†	-12486.9	-7328.1	-0.8475	µg/L	-0.8475	ppb	10:27:11
2	Ca 317.933Radial†	453972.9	493340.7	484320	µg/L	484320	ppb	10:25:54
2	Cd 226.502†	1303.0	1599.4	0.7048	µg/L	0.7048	ppb	10:27:31
2	Co 228.616†	-198.4	-14.6	-0.3776	µg/L	-0.3776	ppb	10:27:31
2	Cr 267.716†	-457.4	-654.2	-0.2879	µg/L	-0.2879	ppb	10:27:31
2	Cu 324.752†	602.4	-1675.1	1.3506	µg/L	1.3506	ppb	10:27:31
2	Fe 238.204 Radial†	37301.7	40539.7	184110	µg/L	184110	ppb	10:25:54
2	K 766.490 Radial†	-25.9	-151.8	-81.629	µg/L	-81.629	ppb	10:25:54
2	Mg 279.077 IEC†	27703.8	30107.1	480850	µg/L	480850	ppb	10:25:54
2	Mn 257.610†	3954.7	4002.9	-0.3909	µg/L	-0.3909	ppb	10:27:11
2	Mo 202.031†	-59.2	-76.6	1.0570	µg/L	1.0570	ppb	10:27:31
2	Na 589.592 Radial†	-3.7	-2.7	32.818	µg/L	32.818	ppb	10:26:14
2	Ni 231.604†	-107.3	-50.0	-0.0073	µg/L	-0.0073	ppb	10:27:31
2	P 214.914†	88.9	61.7	-28.508	µg/L	-28.508	ppb	10:27:31

2	Pb 220.353†	760.4	730.6	-0.5154	µg/L	-0.5154	ppb	10:27:31
2	S 181.975 Axial†	57.1	21.4	-1.4897	µg/L	-1.4897	ppb	10:27:31
2	Sb 206.836†	87.4	44.7	4.8287	µg/L	4.8287	ppb	10:27:31
2	Se 196.026†	-137.7	-121.9	4.3562	µg/L	4.3562	ppb	10:27:31
2	SiO2†	1295.3	279.3	46.785	µg/L	46.785	ppb	10:27:31
2	Si 251.611†	683.7	536.4	5.2434	µg/L	5.2434	ppb	10:27:31
2	Sn 189.927†	65.1	59.8	-2.3788	µg/L	-2.3788	ppb	10:27:31
2	Sr 421.552†	288.3	294.0	-1.1613	µg/L	-1.1613	ppb	10:26:14
2	Ti 334.940†	-6499.2	-6691.8	0.4336	µg/L	0.4336	ppb	10:27:31
2	Tl 190.801†	-61.7	-6.3	1.1602	µg/L	1.1602	ppb	10:27:31
2	U 367.007†	4099.2	3421.3	-13.71	µg/L	-13.71	ppb	10:27:11
2	V 292.402†	-1933.6	-2177.2	-1.8782	µg/L	-1.8782	ppb	10:27:31
2	Zn 213.857†	4449.2	4475.6	1.7661	µg/L	1.7661	ppb	10:27:31
3	Sc 361.383	360956.8	360956.8	91.000	%			10:27:36
3	Sc RADIAL	3749.9	3749.9	92.3	%			10:26:39
3	Y 371.029	365184.5	365184.5	88.782	%			10:27:36
3	Ag 328.068†	-3439.4	-3305.8	-0.0484	µg/L	-0.0484	ppb	10:27:36
3	Al 396.153Radial†	527950.0	572185.3	500020	µg/L	500020	ppb	10:26:19
3	As 188.979†	-21.9	-17.6	11.095	µg/L	11.095	ppb	10:27:56
3	B 249.677†	-19321.8	-21330.3	-1.2003	µg/L	-1.2003	ppb	10:27:36
3	Ba 233.527†	396.9	455.3	-0.1941	µg/L	-0.1941	ppb	10:27:56
3	Be 313.107†	-12416.8	-7248.9	-0.8061	µg/L	-0.8061	ppb	10:27:36
3	Ca 317.933Radial†	454063.7	491884.3	482890	µg/L	482890	ppb	10:26:19
3	Cd 226.502†	1269.9	1562.7	0.2479	µg/L	0.2479	ppb	10:27:56
3	Co 228.616†	-218.6	-36.8	-1.0138	µg/L	-1.0138	ppb	10:27:56
3	Cr 267.716†	-492.1	-692.2	-1.1563	µg/L	-1.1563	ppb	10:27:56
3	Cu 324.752†	600.0	-1677.8	1.2932	µg/L	1.2932	ppb	10:27:56
3	Fe 238.204 Radial†	37326.1	40438.4	183650	µg/L	183650	ppb	10:26:19
3	K 766.490 Radial†	-23.3	-149.0	-79.596	µg/L	-79.596	ppb	10:26:19
3	Mg 279.077 IEC†	27740.9	30052.4	479970	µg/L	479970	ppb	10:26:19
3	Mn 257.610†	3944.3	3990.9	-0.4050	µg/L	-0.4050	ppb	10:27:36
3	Mo 202.031†	-86.1	-106.2	-1.4585	µg/L	-1.4585	ppb	10:27:56
3	Na 589.592 Radial†	-4.8	-4.0	-73.668	µg/L	-73.668	ppb	10:26:39
3	Ni 231.604†	-85.4	-25.9	0.8365	µg/L	0.8365	ppb	10:27:56
3	P 214.914†	73.4	44.6	-44.694	µg/L	-44.694	ppb	10:27:56
3	Pb 220.353†	780.0	752.0	3.3941	µg/L	3.3941	ppb	10:27:56
3	S 181.975 Axial†	57.6	22.0	0.0259	µg/L	0.0259	ppb	10:27:56
3	Sb 206.836†	77.6	33.9	0.0296	µg/L	0.0296	ppb	10:27:56
3	Se 196.026†	-150.1	-135.4	-7.1455	µg/L	-7.1455	ppb	10:27:56
3	SiO2†	1328.1	315.1	52.819	µg/L	52.819	ppb	10:27:56
3	Si 251.611†	696.4	550.3	6.2642	µg/L	6.2642	ppb	10:27:56
3	Sn 189.927†	62.5	57.0	-2.9542	µg/L	-2.9542	ppb	10:27:56
3	Sr 421.552†	280.6	284.6	-1.6008	µg/L	-1.6008	ppb	10:26:39
3	Ti 334.940†	-6490.5	-6681.1	0.4058	µg/L	0.4058	ppb	10:27:56
3	Tl 190.801†	-61.8	-6.3	1.1364	µg/L	1.1364	ppb	10:27:56
3	U 367.007†	4044.4	3360.4	-28.25	µg/L	-28.25	ppb	10:27:36
3	V 292.402†	-1957.6	-2203.3	-2.2856	µg/L	-2.2856	ppb	10:27:56
3	Zn 213.857†	4459.2	4485.8	2.0069	µg/L	2.0069	ppb	10:27:56

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	361428.3	91.119	%	0.2183				0.24%
Sc RADIAL	3746.3	92.2	%	0.17				0.19%
Y 371.029	365518.7	88.863	%	0.2163				0.24%
Ag 328.068†	-3307.8	-0.1281	µg/L	0.63194	-0.1281	ppb	0.63194	493.21%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	572042.9	499890	µg/L	1504.89	499890	ppb	1504.89	0.30%
QC value within limits for Al 396.153Radial Recovery = 99.98%								
As 188.979†	-19.4	9.6674	µg/L	4.20377	9.6674	ppb	4.20377	43.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21449.9	-7.2918	µg/L	8.18603	-7.2918	ppb	8.18603	112.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	459.8	-0.1331	µg/L	0.13967	-0.1331	ppb	0.13967	104.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-7312.9	-0.8509	µg/L	0.04657	-0.8509	ppb	0.04657	5.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	491836.3	482850	µg/L	1501.09	482850	ppb	1501.09	0.31%
QC value within limits for Ca 317.933Radial Recovery = 96.57%								
Cd 226.502†	1577.6	0.5016	µg/L	0.23262	0.5016	ppb	0.23262	46.38%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -23.9     -0.6447 µg/L       0.33010     -0.6447 ppb        0.33010  51.20%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -671.0     -0.6884 µg/L       0.43810     -0.6884 ppb        0.43810  63.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -1686.4      1.2173 µg/L       0.18352      1.2173 ppb        0.18352  15.08%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     40352.3      183260 µg/L       1100.31      183260 ppb        1100.31   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.63%
K 766.490 Radial†       -176.1     -100.10 µg/L        33.761     -100.10 ppb         33.761  33.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        30053.2      479990 µg/L        855.71      479990 ppb         855.71   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.00%
Mn 257.610†             3988.4     -0.4302 µg/L       0.05624     -0.4302 ppb        0.05624  13.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -90.3     -0.1278 µg/L       1.26408     -0.1278 ppb        1.26408 988.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -3.1     -0.0007 µg/L      63.92395     -0.0007 ppb       63.92395 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -39.7      0.3476 µg/L       0.43758      0.3476 ppb        0.43758 125.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                51.5     -37.724 µg/L        8.3236     -37.724 ppb         8.3236  22.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              731.3     -0.0003 µg/L       3.16840     -0.0003 ppb        3.16840 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          23.6      3.5081 µg/L       7.38285      3.5081 ppb        7.38285 210.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               32.3     -0.6733 µg/L       5.88500     -0.6733 ppb        5.88500 874.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -126.5     -0.0002 µg/L       6.23743     -0.0002 ppb        6.23743 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    300.1      50.295 µg/L        3.1357      50.295 ppb         3.1357   6.23%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              559.7      6.9065 µg/L       2.06065      6.9065 ppb        2.06065  29.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               55.3     -3.3307 µg/L       1.18588     -3.3307 ppb        1.18588  35.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              285.1     -1.5728 µg/L       0.39827     -1.5728 ppb        0.39827  25.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -6680.1      0.4012 µg/L       0.03495      0.4012 ppb        0.03495   8.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -15.4     -1.9761 µg/L       5.41159     -1.9761 ppb        5.41159 273.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†              3401.4      -14.88 µg/L        12.820      -14.88 ppb         12.820  86.15%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†             -2160.2     -1.7988 µg/L       0.53102     -1.7988 ppb        0.53102  29.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             4468.2      1.9681 µg/L       0.18569      1.9681 ppb        0.18569   9.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 104
Date Collected: 9/28/2017 10:28:05
Data Type: Reprocessed on 9/28/2017 11:05:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	362349.6	362349.6	91.351	%			10:29:53
1	Sc RADIAL	3770.1	3770.1	92.8	%			10:28:55
1	Y 371.029	367517.0	367517.0	89.349	%			10:29:53
1	Ag 328.068†	25549.7	28442.5	261.28	µg/L	261.28	ppb	10:29:53
1	Al 396.153Radial†	536255.7	578073.0	505140	µg/L	505140	ppb	10:28:35
1	As 188.979†	606.3	670.2	527.80	µg/L	527.80	ppb	10:30:13
1	B 249.677†	-6230.3	-6917.7	531.67	µg/L	531.67	ppb	10:29:53
1	Ba 233.527†	40302.9	44137.9	482.77	µg/L	482.77	ppb	10:29:53
1	Be 313.107†	288154.5	321832.7	241.82	µg/L	241.82	ppb	10:29:53
1	Ca 317.933Radial†	460128.9	495786.2	486720	µg/L	486720	ppb	10:28:35
1	Cd 226.502†	31627.4	34789.0	463.97	µg/L	463.97	ppb	10:29:53
1	Co 228.616†	14333.5	15893.9	453.65	µg/L	453.65	ppb	10:30:13
1	Cr 267.716†	18521.0	20123.1	466.28	µg/L	466.28	ppb	10:30:13
1	Cu 324.752†	74153.0	78836.6	535.81	µg/L	535.81	ppb	10:29:53
1	Fe 238.204 Radial†	37642.8	40563.1	184220	µg/L	184220	ppb	10:28:35
1	K 766.490 Radial†	6510.9	6892.6	5246.6	µg/L	5246.6	ppb	10:28:35
1	Mg 279.077 IEC†	28113.6	30293.2	483820	µg/L	483820	ppb	10:28:35
1	Mn 257.610†	235185.1	257108.6	441.00	µg/L	441.00	ppb	10:29:53
1	Mo 202.031†	5370.1	5867.0	502.87	µg/L	502.87	ppb	10:30:13
1	Na 589.592 Radial†	50.9	56.2	5072.4	µg/L	5072.4	ppb	10:28:55
1	Ni 231.604†	11397.4	12544.5	443.48	µg/L	443.48	ppb	10:30:13
1	P 214.914†	2482.4	2681.4	2474.0	µg/L	2474.0	ppb	10:30:13
1	Pb 220.353†	3315.9	3524.8	465.03	µg/L	465.03	ppb	10:30:13
1	S 181.975 Axial†	1090.7	1152.7	2565.8	µg/L	2565.8	ppb	10:30:13
1	Sb 206.836†	1058.9	1107.8	478.89	µg/L	478.89	ppb	10:30:13
1	Se 196.026†	2460.6	2723.1	2364.1	µg/L	2364.1	ppb	10:30:13
1	SiO2†	57720.3	62040.9	10436	µg/L	10436	ppb	10:29:53
1	Si 251.611†	69909.5	76313.5	4879.4	µg/L	4879.4	ppb	10:29:53
1	Sn 189.927†	2047.8	2230.1	467.07	µg/L	467.07	ppb	10:30:13
1	Sr 421.552†	8634.3	9285.0	468.62	µg/L	468.62	ppb	10:28:35
1	Ti 334.940†	116446.5	127922.9	502.52	µg/L	502.52	ppb	10:29:53
1	Tl 190.801†	1105.4	1271.6	434.20	µg/L	434.20	ppb	10:30:13
1	U 367.007†	5670.2	5123.0	459.9	µg/L	459.9	ppb	10:29:53
1	V 292.402†	36172.6	39545.4	504.96	µg/L	504.96	ppb	10:29:53
1	Zn 213.857†	42217.4	45800.1	445.08	µg/L	445.08	ppb	10:29:53
2	Sc 361.383	362074.0	362074.0	91.281	%			10:30:19
2	Sc RADIAL	3763.3	3763.3	92.6	%			10:29:21
2	Y 371.029	366871.8	366871.8	89.192	%			10:30:19
2	Ag 328.068†	25678.7	28605.0	262.81	µg/L	262.81	ppb	10:30:19
2	Al 396.153Radial†	537483.2	580452.5	507220	µg/L	507220	ppb	10:29:01
2	As 188.979†	600.6	664.5	523.69	µg/L	523.69	ppb	10:30:39
2	B 249.677†	-6272.9	-6969.6	535.37	µg/L	535.37	ppb	10:30:19
2	Ba 233.527†	40411.9	44290.9	484.42	µg/L	484.42	ppb	10:30:19
2	Be 313.107†	288542.3	322497.7	242.33	µg/L	242.33	ppb	10:30:19
2	Ca 317.933Radial†	461606.1	498285.6	489180	µg/L	489180	ppb	10:29:01
2	Cd 226.502†	31776.8	34979.1	466.47	µg/L	466.47	ppb	10:30:19
2	Co 228.616†	14294.7	15863.4	452.77	µg/L	452.77	ppb	10:30:39
2	Cr 267.716†	18485.3	20099.5	465.84	µg/L	465.84	ppb	10:30:39
2	Cu 324.752†	74237.6	78991.0	536.93	µg/L	536.93	ppb	10:30:19
2	Fe 238.204 Radial†	37841.6	40851.7	185530	µg/L	185530	ppb	10:29:01
2	K 766.490 Radial†	6560.0	6958.4	5296.5	µg/L	5296.5	ppb	10:29:01
2	Mg 279.077 IEC†	28259.4	30505.8	487220	µg/L	487220	ppb	10:29:01
2	Mn 257.610†	235788.3	257965.5	442.45	µg/L	442.45	ppb	10:30:19
2	Mo 202.031†	5310.3	5806.0	497.77	µg/L	497.77	ppb	10:30:39
2	Na 589.592 Radial†	54.5	60.2	5415.0	µg/L	5415.0	ppb	10:29:21
2	Ni 231.604†	11414.7	12572.9	444.49	µg/L	444.49	ppb	10:30:39
2	P 214.914†	2473.5	2673.7	2465.8	µg/L	2465.8	ppb	10:30:39

2	Pb 220.353†	3305.9	3516.5	463.03 µg/L	463.03 ppb		10:30:39
2	S 181.975 Axial†	1079.4	1141.2	2539.5 µg/L	2539.5 ppb		10:30:39
2	Sb 206.836†	1064.7	1115.0	481.97 µg/L	481.97 ppb		10:30:39
2	Se 196.026†	2464.9	2729.8	2370.4 µg/L	2370.4 ppb		10:30:39
2	SiO2†	57802.0	62178.5	10459 µg/L	10459 ppb		10:30:19
2	Si 251.611†	70098.3	76578.6	4896.4 µg/L	4896.4 ppb		10:30:19
2	Sn 189.927†	2040.2	2223.4	465.54 µg/L	465.54 ppb		10:30:39
2	Sr 421.552†	8652.8	9322.0	470.47 µg/L	470.47 ppb		10:29:01
2	Ti 334.940†	116578.6	128164.7	503.55 µg/L	503.55 ppb		10:30:19
2	Tl 190.801†	1132.8	1302.6	444.79 µg/L	444.79 ppb		10:30:39
2	U 367.007†	5700.3	5160.7	463.6 µg/L	463.6 ppb		10:30:19
2	V 292.402†	36241.9	39651.4	506.36 µg/L	506.36 ppb		10:30:19
2	Zn 213.857†	42271.9	45895.0	445.76 µg/L	445.76 ppb		10:30:19
3	Sc 361.383	363485.7	363485.7	91.637 %			10:30:44
3	Sc RADIAL	3764.9	3764.9	92.7 %			10:29:46
3	Y 371.029	367964.0	367964.0	89.458 %			10:30:44
3	Ag 328.068†	25661.0	28476.5	261.71 µg/L	261.71 ppb		10:30:44
3	Al 396.153Radial†	536728.0	579377.6	506280 µg/L	506280 ppb		10:29:26
3	As 188.979†	591.5	652.0	514.33 µg/L	514.33 ppb		10:31:04
3	B 249.677†	-6290.6	-6962.2	534.18 µg/L	534.18 ppb		10:30:44
3	Ba 233.527†	40673.3	44404.3	485.68 µg/L	485.68 ppb		10:30:44
3	Be 313.107†	290187.9	323065.8	242.73 µg/L	242.73 ppb		10:30:44
3	Ca 317.933Radial†	459368.8	495648.1	486590 µg/L	486590 ppb		10:29:26
3	Cd 226.502†	31991.6	35078.3	467.90 µg/L	467.90 ppb		10:30:44
3	Co 228.616†	14354.5	15867.9	452.90 µg/L	452.90 ppb		10:31:04
3	Cr 267.716†	18527.7	20067.0	465.02 µg/L	465.02 ppb		10:31:04
3	Cu 324.752†	74383.8	78834.8	535.86 µg/L	535.86 ppb		10:30:44
3	Fe 238.204 Radial†	37788.9	40776.6	185190 µg/L	185190 ppb		10:29:26
3	K 766.490 Radial†	6516.1	6907.8	5258.1 µg/L	5258.1 ppb		10:29:26
3	Mg 279.077 IEC†	28094.9	30314.6	484160 µg/L	484160 ppb		10:29:26
3	Mn 257.610†	236828.3	258097.1	442.77 µg/L	442.77 ppb		10:30:44
3	Mo 202.031†	5369.7	5848.1	501.32 µg/L	501.32 ppb		10:31:04
3	Na 589.592 Radial†	51.5	56.9	5133.0 µg/L	5133.0 ppb		10:29:46
3	Ni 231.604†	11479.0	12594.5	445.25 µg/L	445.25 ppb		10:31:04
3	P 214.914†	2475.4	2665.3	2457.9 µg/L	2457.9 ppb		10:31:04
3	Pb 220.353†	3310.1	3507.1	461.83 µg/L	461.83 ppb		10:31:04
3	S 181.975 Axial†	1081.8	1139.2	2535.0 µg/L	2535.0 ppb		10:31:04
3	Sb 206.836†	1060.6	1106.0	478.05 µg/L	478.05 ppb		10:31:04
3	Se 196.026†	2468.0	2722.7	2364.3 µg/L	2364.3 ppb		10:31:04
3	SiO2†	58065.2	62219.8	10466 µg/L	10466 ppb		10:30:44
3	Si 251.611†	70350.1	76555.1	4894.9 µg/L	4894.9 ppb		10:30:44
3	Sn 189.927†	2048.1	2223.3	465.60 µg/L	465.60 ppb		10:31:04
3	Sr 421.552†	8664.5	9330.4	471.00 µg/L	471.00 ppb		10:29:26
3	Ti 334.940†	116972.3	128098.3	503.17 µg/L	503.17 ppb		10:30:44
3	Tl 190.801†	1113.1	1276.2	435.79 µg/L	435.79 ppb		10:31:04
3	U 367.007†	5718.1	5155.9	464.3 µg/L	464.3 ppb		10:30:44
3	V 292.402†	36443.4	39717.1	507.14 µg/L	507.14 ppb		10:30:44
3	Zn 213.857†	42532.0	45999.0	446.86 µg/L	446.86 ppb		10:30:44

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	362636.4	91.423	%	0.1886				0.21%
Sc RADIAL	3766.1	92.7	%	0.09				0.10%
Y 371.029	367451.0	89.333	%	0.1335				0.15%
Ag 328.068†	28508.0	261.93	µg/L	0.789	261.93	ppb	0.789	0.30%
QC value within limits for Ag 328.068 Recovery = 104.77%								
Al 396.153Radial†	579301.1	506210	µg/L	1041.41	506210	ppb	1041.41	0.21%
QC value within limits for Al 396.153Radial Recovery = 101.24%								
As 188.979†	662.2	521.94	µg/L	6.904	521.94	ppb	6.904	1.32%
QC value within limits for As 188.979 Recovery = 104.39%								
B 249.677†	-6949.8	533.74	µg/L	1.889	533.74	ppb	1.889	0.35%
QC value within limits for B 249.677 Recovery = 106.75%								
Ba 233.527†	44277.7	484.29	µg/L	1.463	484.29	ppb	1.463	0.30%
QC value within limits for Ba 233.527 Recovery = 96.86%								
Be 313.107†	322465.4	242.29	µg/L	0.456	242.29	ppb	0.456	0.19%
QC value within limits for Be 313.107 Recovery = 96.92%								
Ca 317.933Radial†	496573.3	487500	µg/L	1457.40	487500	ppb	1457.40	0.30%
QC value within limits for Ca 317.933Radial Recovery = 97.50%								
Cd 226.502†	34948.8	466.11	µg/L	1.986	466.11	ppb	1.986	0.43%

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   QC value within limits for Cd 226.502  Recovery = 93.22%
Co 228.616†            15875.1      453.11 µg/L         0.474      453.11 ppb          0.474   0.10%
   QC value within limits for Co 228.616  Recovery = 90.62%
Cr 267.716†            20096.5      465.71 µg/L         0.639      465.71 ppb          0.639   0.14%
   QC value within limits for Cr 267.716  Recovery = 93.14%
Cu 324.752†            78887.5      536.20 µg/L         0.630      536.20 ppb          0.630   0.12%
   QC value within limits for Cu 324.752  Recovery = 107.24%
Fe 238.204 Radial†     40730.5      184980 µg/L        679.90      184980 ppb         679.90   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.49%
K 766.490 Radial†       6919.6      5267.1 µg/L         26.15      5267.1 ppb          26.15   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 105.34%
Mg 279.077 IEC†        30371.2      485070 µg/L       1869.80      485070 ppb        1869.80   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.01%
Mn 257.610†           257723.7      442.07 µg/L         0.939      442.07 ppb          0.939   0.21%
   QC value within limits for Mn 257.610  Recovery = 88.41%
Mo 202.031†             5840.4      500.65 µg/L         2.612      500.65 ppb          2.612   0.52%
   QC value within limits for Mo 202.031  Recovery = 100.13%
Na 589.592 Radial†        57.8      5206.8 µg/L        182.82      5206.8 ppb         182.82   3.51%
   QC value within limits for Na 589.592 Radial  Recovery = 104.14%
Ni 231.604†            12570.6      444.41 µg/L         0.889      444.41 ppb          0.889   0.20%
   QC value within limits for Ni 231.604  Recovery = 88.88%
P 214.914†              2673.4      2465.9 µg/L          8.06      2465.9 ppb           8.06   0.33%
   QC value within limits for P 214.914  Recovery = 98.64%
Pb 220.353†             3516.1      463.29 µg/L         1.619      463.29 ppb          1.619   0.35%
   QC value within limits for Pb 220.353  Recovery = 92.66%
S 181.975 Axial†        1144.4      2546.8 µg/L         16.63      2546.8 ppb          16.63   0.65%
   QC value within limits for S 181.975 Axial  Recovery = 101.87%
Sb 206.836†             1109.6      479.64 µg/L         2.065      479.64 ppb          2.065   0.43%
   QC value within limits for Sb 206.836  Recovery = 95.93%
Se 196.026†             2725.2      2366.2 µg/L          3.56      2366.2 ppb           3.56   0.15%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  62146.4       10454 µg/L         15.76       10454 ppb          15.76   0.15%
   QC value within limits for SiO2  Recovery = 97.74%
Si 251.611†            76482.4      4890.2 µg/L          9.40      4890.2 ppb           9.40   0.19%
   QC value within limits for Si 251.611  Recovery = 97.80%
Sn 189.927†             2225.6      466.07 µg/L         0.866      466.07 ppb          0.866   0.19%
   QC value within limits for Sn 189.927  Recovery = 93.21%
Sr 421.552†             9312.4      470.03 µg/L         1.249      470.03 ppb          1.249   0.27%
   QC value within limits for Sr 421.552  Recovery = 94.01%
Ti 334.940†           128061.9      503.08 µg/L         0.520      503.08 ppb          0.520   0.10%
   QC value within limits for Ti 334.940  Recovery = 100.62%
Tl 190.801†             1283.5      438.26 µg/L         5.711      438.26 ppb          5.711   1.30%
   QC value within limits for Tl 190.801  Recovery = 87.65%
U 367.007†              5146.6       462.6 µg/L          2.38       462.6 ppb           2.38   0.52%
   QC value within limits for U 367.007  Recovery = 92.52%
V 292.402†             39638.0      506.15 µg/L         1.103      506.15 ppb          1.103   0.22%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            45898.0      445.90 µg/L         0.898      445.90 ppb          0.898   0.20%
   QC value within limits for Zn 213.857  Recovery = 89.18%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 105
Date Collected: 9/28/2017 10:31:13
Data Type: Reprocessed on 9/28/2017 11:05:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	358146.8	358146.8	90.291	%			10:32:16
1	Sc RADIAL	3683.0	3683.0	90.7	%			10:31:48
1	Y 371.029	359883.1	359883.1	87.493	%			10:32:16
1	Ag 328.068†	-6890.8	-7158.1	-1.7844	µg/L	-1.7844	ppb	10:32:16
1	Al 396.153Radial†	503175.0	555254.5	485220	µg/L	485220	ppb	10:31:43
1	As 188.979†	-46.8	-45.3	23.065	µg/L	23.065	ppb	10:32:36
1	B 249.677†	-47478.8	-52681.4	-103.31	µg/L	-103.31	ppb	10:32:16
1	Ba 233.527†	985.2	1110.3	0.0303	µg/L	0.0303	ppb	10:32:36
1	Be 313.107†	-16845.5	-12260.8	-1.1149	µg/L	-1.1149	ppb	10:32:16
1	Ca 317.933Radial†	430267.1	474577.4	465900	µg/L	465900	ppb	10:31:43
1	Cd 226.502†	3374.4	3904.4	3.9827	µg/L	3.9827	ppb	10:32:36
1	Co 228.616†	-113.1	78.1	2.2306	µg/L	2.2306	ppb	10:32:36
1	Cr 267.716†	24.4	-124.4	-0.1938	µg/L	-0.1938	ppb	10:32:36
1	Cu 324.752†	-2680.7	-5306.1	2.4040	µg/L	2.4040	ppb	10:32:16
1	Fe 238.204 Radial†	85862.7	94714.7	430140	µg/L	430140	ppb	10:31:43
1	K 766.490 Radial†	361655.0	398821.1	301630	µg/L	301630	ppb	10:31:43
1	Mg 279.077 IEC†	26342.4	29056.1	464060	µg/L	464060	ppb	10:31:48
1	Mn 257.610†	-12499.6	-14187.1	-18.697	µg/L	-18.697	ppb	10:32:16
1	Mo 202.031†	-136.4	-162.6	3.8616	µg/L	3.8616	ppb	10:32:36
1	Na 589.592 Radial†	4386.1	4839.6	414590	µg/L	414590	ppb	10:31:48
1	Ni 231.604†	-115.1	-59.6	1.9992	µg/L	1.9992	ppb	10:32:36
1	P 214.914†	365.4	368.6	35.207	µg/L	35.207	ppb	10:32:36
1	Pb 220.353†	641.9	605.8	-62.146	µg/L	-62.146	ppb	10:32:36
1	S 181.975 Axial†	19790.7	21877.4	49613	µg/L	49613	ppb	10:32:36
1	Sb 206.836†	59.6	14.6	-20.848	µg/L	-20.848	ppb	10:32:36
1	Se 196.026†	-288.5	-290.0	0.9105	µg/L	0.9105	ppb	10:32:36
1	SiO2†	971.3	-68.6	-11.445	µg/L	-11.445	ppb	10:32:36
1	Si 251.611†	18.3	-194.8	-81.131	µg/L	-81.131	ppb	10:32:36
1	Sn 189.927†	58.6	53.2	-6.5690	µg/L	-6.5690	ppb	10:32:36
1	Sr 421.552†	106.4	98.0	-10.775	µg/L	-10.775	ppb	10:31:48
1	Ti 334.940†	-4206.9	-4207.9	1.6149	µg/L	1.6149	ppb	10:32:36
1	Tl 190.801†	-88.0	-35.9	-0.9684	µg/L	-0.9684	ppb	10:32:36
1	U 367.007†	52640.0	57216.1	13780	µg/L	13780	ppb	10:32:16
1	V 292.402†	-5273.4	-5892.4	-6.3694	µg/L	-6.3694	ppb	10:32:36
1	Zn 213.857†	6350.4	6618.8	-69.824	µg/L	-69.824	ppb	10:32:36
2	Sc 361.383	357267.7	357267.7	90.070	%			10:32:42
2	Sc RADIAL	3660.5	3660.5	90.1	%			10:31:59
2	Y 371.029	358993.3	358993.3	87.277	%			10:32:42
2	Ag 328.068†	-6960.8	-7254.5	-1.5420	µg/L	-1.5420	ppb	10:32:42
2	Al 396.153Radial†	507599.4	563576.1	492490	µg/L	492490	ppb	10:31:54
2	As 188.979†	-47.6	-46.3	23.246	µg/L	23.246	ppb	10:33:02
2	B 249.677†	-47794.6	-53161.4	-90.500	µg/L	-90.500	ppb	10:32:42
2	Ba 233.527†	992.9	1121.6	-0.0481	µg/L	-0.0481	ppb	10:33:02
2	Be 313.107†	-16630.5	-12068.0	-0.8920	µg/L	-0.8920	ppb	10:32:42
2	Ca 317.933Radial†	434085.4	481732.0	472930	µg/L	472930	ppb	10:31:54
2	Cd 226.502†	3388.7	3929.6	3.4964	µg/L	3.4964	ppb	10:33:02
2	Co 228.616†	-132.4	56.4	1.6124	µg/L	1.6124	ppb	10:33:02
2	Cr 267.716†	42.6	-104.1	0.2910	µg/L	0.2910	ppb	10:33:02
2	Cu 324.752†	-2790.3	-5435.1	2.0549	µg/L	2.0549	ppb	10:32:42
2	Fe 238.204 Radial†	86753.0	96284.9	437270	µg/L	437270	ppb	10:31:54
2	K 766.490 Radial†	365210.4	405218.9	306470	µg/L	306470	ppb	10:31:54
2	Mg 279.077 IEC†	26350.3	29243.4	467050	µg/L	467050	ppb	10:31:59
2	Mn 257.610†	-12600.1	-14332.8	-18.685	µg/L	-18.685	ppb	10:32:42
2	Mo 202.031†	-130.1	-156.0	4.7082	µg/L	4.7082	ppb	10:33:02
2	Na 589.592 Radial†	4400.0	4884.8	418460	µg/L	418460	ppb	10:31:59
2	Ni 231.604†	-102.7	-46.1	2.5426	µg/L	2.5426	ppb	10:33:02
2	P 214.914†	426.7	437.7	96.043	µg/L	96.043	ppb	10:33:02

2	Pb 220.353†	691.3	662.4	-55.152	µg/L	-55.152	ppb	10:33:02
2	S 181.975 Axial†	19796.1	21937.3	49748	µg/L	49748	ppb	10:33:02
2	Sb 206.836†	66.3	22.2	-17.931	µg/L	-17.931	ppb	10:33:02
2	Se 196.026†	-296.8	-300.0	-3.3394	µg/L	-3.3394	ppb	10:33:02
2	SiO2†	1002.1	-31.7	-5.2397	µg/L	-5.2397	ppb	10:33:02
2	Si 251.611†	-14.9	-231.6	-84.659	µg/L	-84.659	ppb	10:33:02
2	Sn 189.927†	40.5	33.3	-11.052	µg/L	-11.052	ppb	10:33:02
2	Sr 421.552†	106.6	98.9	-10.967	µg/L	-10.967	ppb	10:31:59
2	Ti 334.940†	-4276.3	-4296.4	1.6232	µg/L	1.6232	ppb	10:33:02
2	Tl 190.801†	-90.4	-38.8	-1.8021	µg/L	-1.8021	ppb	10:33:02
2	U 367.007†	52758.2	57490.8	13820	µg/L	13820	ppb	10:32:42
2	V 292.402†	-5290.7	-5926.0	-5.8012	µg/L	-5.8012	ppb	10:33:02
2	Zn 213.857†	6389.3	6679.4	-71.744	µg/L	-71.744	ppb	10:33:02
3	Sc 361.383	357642.9	357642.9	90.164	%			10:33:07
3	Sc RADIAL	3644.9	3644.9	89.7	%			10:32:09
3	Y 371.029	359532.8	359532.8	87.408	%			10:33:07
3	Ag 328.068†	-6895.5	-7173.9	-0.0908	µg/L	-0.0908	ppb	10:33:07
3	Al 396.153Radial†	510641.8	569379.0	497560	µg/L	497560	ppb	10:32:04
3	As 188.979†	-45.5	-44.0	25.662	µg/L	25.662	ppb	10:33:27
3	B 249.677†	-47722.7	-53026.1	-62.689	µg/L	-62.689	ppb	10:33:07
3	Ba 233.527†	992.7	1120.2	-0.2154	µg/L	-0.2154	ppb	10:33:27
3	Be 313.107†	-16601.2	-12016.1	-0.8023	µg/L	-0.8023	ppb	10:33:07
3	Ca 317.933Radial†	436909.2	486942.1	478040	µg/L	478040	ppb	10:32:04
3	Cd 226.502†	3381.7	3917.8	2.7056	µg/L	2.7056	ppb	10:33:27
3	Co 228.616†	-117.3	73.3	2.0941	µg/L	2.0941	ppb	10:33:27
3	Cr 267.716†	12.7	-137.4	-0.4242	µg/L	-0.4242	ppb	10:33:27
3	Cu 324.752†	-2870.9	-5521.2	1.8420	µg/L	1.8420	ppb	10:33:07
3	Fe 238.204 Radial†	87435.9	97458.3	442600	µg/L	442600	ppb	10:32:04
3	K 766.490 Radial†	367702.6	409732.1	309890	µg/L	309890	ppb	10:32:04
3	Mg 279.077 IEC†	26339.0	29356.0	468850	µg/L	468850	ppb	10:32:09
3	Mn 257.610†	-12759.2	-14494.6	-18.753	µg/L	-18.753	ppb	10:33:07
3	Mo 202.031†	-121.1	-145.9	5.7792	µg/L	5.7792	ppb	10:33:27
3	Na 589.592 Radial†	4418.6	4926.4	422030	µg/L	422030	ppb	10:32:09
3	Ni 231.604†	-130.2	-76.4	1.5256	µg/L	1.5256	ppb	10:33:27
3	P 214.914†	386.8	393.0	49.062	µg/L	49.062	ppb	10:33:27
3	Pb 220.353†	657.3	623.8	-63.305	µg/L	-63.305	ppb	10:33:27
3	S 181.975 Axial†	19855.9	21980.5	49846	µg/L	49846	ppb	10:33:27
3	Sb 206.836†	65.4	21.2	-18.689	µg/L	-18.689	ppb	10:33:27
3	Se 196.026†	-302.6	-306.1	-5.3857	µg/L	-5.3857	ppb	10:33:27
3	SiO2†	978.5	-59.1	-9.8555	µg/L	-9.8555	ppb	10:33:27
3	Si 251.611†	-1.6	-216.8	-84.575	µg/L	-84.575	ppb	10:33:27
3	Sn 189.927†	35.0	27.1	-12.489	µg/L	-12.489	ppb	10:33:27
3	Sr 421.552†	95.6	87.2	-11.753	µg/L	-11.753	ppb	10:32:09
3	Ti 334.940†	-4041.2	-4030.7	2.8762	µg/L	2.8762	ppb	10:33:27
3	Tl 190.801†	-103.7	-53.4	-6.7007	µg/L	-6.7007	ppb	10:33:27
3	U 367.007†	52894.5	57580.5	13820	µg/L	13820	ppb	10:33:07
3	V 292.402†	-5237.2	-5860.5	-4.3049	µg/L	-4.3049	ppb	10:33:27
3	Zn 213.857†	6380.0	6661.6	-73.875	µg/L	-73.875	ppb	10:33:27

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	357685.8	90.175	%	0.1112				0.12%
Sc RADIAL	3662.8	90.2	%	0.47				0.52%
Y 371.029	359469.7	87.393	%	0.1090				0.12%
Ag 328.068†	-7195.5	-1.1391	µg/L	0.91585	-1.1391	ppb	0.91585	80.40%
Al 396.153Radial†	562736.5	491760	µg/L	6204.11	491760	ppb	6204.11	1.26%
QC value within limits for Al 396.153Radial Recovery = 98.35%								
As 188.979†	-45.2	23.991	µg/L	1.4501	23.991	ppb	1.4501	6.04%
B 249.677†	-52956.3	-85.500	µg/L	20.7676	-85.500	ppb	20.7676	24.29%
Ba 233.527†	1117.3	-0.0777	µg/L	0.12548	-0.0777	ppb	0.12548	161.42%
Be 313.107†	-12115.0	-0.9364	µg/L	0.16096	-0.9364	ppb	0.16096	17.19%
Ca 317.933Radial†	481083.9	472290	µg/L	6094.34	472290	ppb	6094.34	1.29%
QC value within limits for Ca 317.933Radial Recovery = 94.46%								
Cd 226.502†	3917.3	3.3949	µg/L	0.64456	3.3949	ppb	0.64456	18.99%
Co 228.616†	69.3	1.9791	µg/L	0.32477	1.9791	ppb	0.32477	16.41%
Cr 267.716†	-122.0	-0.1090	µg/L	0.36506	-0.1090	ppb	0.36506	334.96%
Cu 324.752†	-5420.8	2.1003	µg/L	0.28375	2.1003	ppb	0.28375	13.51%
Fe 238.204 Radial†	96152.6	436670	µg/L	6251.51	436670	ppb	6251.51	1.43%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 87.33%								

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K 766.490 Radial†     404590.7      306000 µg/L       4146.49      306000 ppb        4146.49   1.36%
   QC value within limits for K 766.490 Radial  Recovery = 102.00%
Mg 279.077 IEC†        29218.5      466660 µg/L       2419.39      466660 ppb        2419.39   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 93.33%
Mn 257.610†           -14338.2     -18.712 µg/L        0.0362     -18.712 ppb         0.0362   0.19%
Mo 202.031†             -154.8      4.7830 µg/L       0.96102      4.7830 ppb        0.96102  20.09%
Na 589.592 Radial†      4883.6      418360 µg/L       3720.46      418360 ppb        3720.46   0.89%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 83.67%
Ni 231.604†              -60.7      2.0225 µg/L       0.50889      2.0225 ppb        0.50889  25.16%
P 214.914†               399.8      60.104 µg/L       31.8856      60.104 ppb        31.8856  53.05%
Pb 220.353†              630.7     -60.201 µg/L        4.4107     -60.201 ppb         4.4107   7.33%
S 181.975 Axial†       21931.8       49736 µg/L        116.93       49736 ppb         116.93   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 99.47%
Sb 206.836†               19.3     -19.156 µg/L        1.5130     -19.156 ppb         1.5130   7.90%
Se 196.026†             -298.7     -2.6049 µg/L       3.21169     -2.6049 ppb        3.21169 123.29%
SiO2†                    -53.1     -8.8467 µg/L       3.22328     -8.8467 ppb        3.22328  36.43%
Si 251.611†             -214.4     -83.455 µg/L        2.0130     -83.455 ppb         2.0130   2.41%
Sn 189.927†               37.9     -10.037 µg/L        3.0880     -10.037 ppb         3.0880  30.77%
Sr 421.552†               94.7     -11.165 µg/L        0.5181     -11.165 ppb         0.5181   4.64%
Ti 334.940†            -4178.4      2.0381 µg/L       0.72583      2.0381 ppb        0.72583  35.61%
Tl 190.801†              -42.7     -3.1571 µg/L       3.09705     -3.1571 ppb        3.09705  98.10%
U 367.007†             57429.1       13800 µg/L         22.94       13800 ppb          22.94   0.17%
   QC value within limits for U 367.007  Recovery = 92.02%
V 292.402†             -5893.0     -5.4918 µg/L       1.06646     -5.4918 ppb        1.06646  19.42%
Zn 213.857†             6653.3     -71.814 µg/L        2.0265     -71.814 ppb         2.0265   2.82%
QC Failed.  Continue with analysis.
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Sequence No.: 12 **Autosampler Location: 108**
Sample ID: LR2 **Date Collected: 9/28/2017 10:33:36**
Analyst: **Data Type: Reprocessed on 9/28/2017 11:05:37**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	403813.7	403813.7	101.80	%			10:35:28
1	Sc RADIAL	4128.4	4128.4	102	%			10:34:08
1	Y 371.029	416076.0	416076.0	101.15	%			10:35:28
1	Ag 328.068†	-2166.0	-1654.0	1.6273	µg/L	1.6273	ppb	10:35:34
1	Al 396.153Radial†	477.0	667.2	150.89	µg/L	150.89	ppb	10:34:08
1	As 188.979†	13050.9	12826.1	9683.4	µg/L	9683.4	ppb	10:35:34
1	B 249.677†	135570.0	133069.6	4875.4	µg/L	4875.4	ppb	10:35:34
1	Ba 233.527†	448933.0	440995.3	4875.9	µg/L	4875.9	ppb	10:35:34
1	Be 313.107†	3098298.2	3049780.2	2251.6	µg/L	2251.6	ppb	10:35:28
1	Ca 317.933Radial†	254.4	196.4	192.78	µg/L	192.78	ppb	10:34:28
1	Cd 226.502†	715833.1	703312.9	9817.7	µg/L	9817.7	ppb	10:35:28
1	Co 228.616†	363955.6	357708.3	10201	µg/L	10201	ppb	10:35:28
1	Cr 267.716†	1109111.8	1089302.5	24472	µg/L	24472	ppb	10:35:28
1	Cu 324.752†	3198453.8	3139427.4	20833	µg/L	20833	ppb	10:35:28
1	Fe 238.204 Radial†	5.8	4.5	20.323	µg/L	20.323	ppb	10:34:28
1	K 766.490 Radial†	471.5	340.3	266.06	µg/L	266.06	ppb	10:34:08
1	Mg 279.077 IEC†	3.0	0.5	7.8564	µg/L	7.8564	ppb	10:34:28
1	Mn 257.610†	5693736.8	5592477.7	9755.0	µg/L	9755.0	ppb	10:35:28
1	Mo 202.031†	115812.7	113748.5	9603.6	µg/L	9603.6	ppb	10:35:34
1	Na 589.592 Radial†	-1.2	0.1	6.5402	µg/L	6.5402	ppb	10:34:28
1	Ni 231.604†	289985.4	284913.6	10033	µg/L	10033	ppb	10:35:34
1	P 214.914†	15127.2	14823.0	13876	µg/L	13876	ppb	10:35:34
1	Pb 220.353†	152409.3	149602.9	24947	µg/L	24947	ppb	10:35:34
1	S 181.975 Axial†	27.2	-14.6	-39.890	µg/L	-39.890	ppb	10:35:54
1	Sb 206.836†	22477.1	22027.3	9454.2	µg/L	9454.2	ppb	10:35:34
1	Se 196.026†	11595.2	11419.2	9471.1	µg/L	9471.1	ppb	10:35:54
1	SiO2†	607504.6	595592.9	100470	µg/L	100470	ppb	10:35:28
1	Si 251.611†	739792.2	726465.2	46625	µg/L	46625	ppb	10:35:28
1	Sn 189.927†	45376.9	44561.0	9638.5	µg/L	9638.5	ppb	10:35:34
1	Sr 421.552†	178567.7	175707.6	9182.4	µg/L	9182.4	ppb	10:34:08
1	Ti 334.940†	2634547.0	2588303.7	9650.1	µg/L	9650.1	ppb	10:35:28
1	Tl 190.801†	30003.1	29532.9	10002	µg/L	10002	ppb	10:35:34
1	U 367.007†	1036.2	-66.2	-18.57	µg/L	-18.57	ppb	10:35:34
1	V 292.402†	825049.9	810374.7	9867.5	µg/L	9867.5	ppb	10:35:28
1	Zn 213.857†	1342892.9	1318677.2	14142	µg/L	14142	ppb	10:35:28
2	Sc 361.383	399698.5	399698.5	100.77	%			10:36:03
2	Sc RADIAL	4061.0	4061.0	100.0	%			10:34:33
2	Y 371.029	412162.3	412162.3	100.20	%			10:36:03
2	Ag 328.068†	-2187.9	-1697.6	1.2625	µg/L	1.2625	ppb	10:36:08
2	Al 396.153Radial†	436.2	634.1	116.89	µg/L	116.89	ppb	10:34:33
2	As 188.979†	13063.3	12970.3	9791.6	µg/L	9791.6	ppb	10:36:08
2	B 249.677†	135868.4	134736.9	4937.0	µg/L	4937.0	ppb	10:36:08
2	Ba 233.527†	448823.4	445426.7	4924.9	µg/L	4924.9	ppb	10:36:08
2	Be 313.107†	3063396.0	3046477.5	2249.2	µg/L	2249.2	ppb	10:36:03
2	Ca 317.933Radial†	224.7	170.8	167.69	µg/L	167.69	ppb	10:34:53
2	Cd 226.502†	707217.0	702001.8	9799.4	µg/L	9799.4	ppb	10:36:03
2	Co 228.616†	359532.8	356999.9	10181	µg/L	10181	ppb	10:36:03
2	Cr 267.716†	1099458.7	1090939.6	24509	µg/L	24509	ppb	10:36:03
2	Cu 324.752†	3168666.9	3142214.1	20851	µg/L	20851	ppb	10:36:03
2	Fe 238.204 Radial†	1.1	-0.1	-0.4655	µg/L	-0.4655	ppb	10:34:53
2	K 766.490 Radial†	451.0	327.5	256.46	µg/L	256.46	ppb	10:34:33
2	Mg 279.077 IEC†	2.3	-0.1	-1.4700	µg/L	-1.4700	ppb	10:34:53
2	Mn 257.610†	5631409.5	5588207.2	9747.5	µg/L	9747.5	ppb	10:36:03
2	Mo 202.031†	115988.7	115094.4	9717.2	µg/L	9717.2	ppb	10:36:08
2	Na 589.592 Radial†	-2.8	-1.5	-128.00	µg/L	-128.00	ppb	10:34:53
2	Ni 231.604†	290560.2	288416.7	10156	µg/L	10156	ppb	10:36:08
2	P 214.914†	15218.0	15066.1	14108	µg/L	14108	ppb	10:36:08

2	Pb 220.353†	152538.2	151272.2	25225	µg/L	25225	ppb	10:36:08
2	S 181.975 Axial†	36.5	-5.1	-18.140	µg/L	-18.140	ppb	10:36:28
2	Sb 206.836†	22493.7	22271.1	9564.4	µg/L	9564.4	ppb	10:36:08
2	Se 196.026†	11654.9	11595.7	9617.5	µg/L	9617.5	ppb	10:36:28
2	SiO2†	604731.1	598984.3	101040	µg/L	101040	ppb	10:36:03
2	Si 251.611†	736887.5	731064.2	46919	µg/L	46919	ppb	10:36:03
2	Sn 189.927†	45477.6	45119.9	9759.0	µg/L	9759.0	ppb	10:36:08
2	Sr 421.552†	179547.4	179605.8	9386.1	µg/L	9386.1	ppb	10:34:33
2	Ti 334.940†	2609065.7	2589660.3	9655.2	µg/L	9655.2	ppb	10:36:03
2	Tl 190.801†	29966.1	29799.6	10093	µg/L	10093	ppb	10:36:08
2	U 367.007†	990.0	-101.6	-28.34	µg/L	-28.34	ppb	10:36:08
2	V 292.402†	816192.9	809929.1	9863.2	µg/L	9863.2	ppb	10:36:03
2	Zn 213.857†	1328404.1	1317879.7	14133	µg/L	14133	ppb	10:36:03
3	Sc 361.383	401253.6	401253.6	101.16	%			10:36:37
3	Sc RADIAL	4056.4	4056.4	99.8	%			10:34:58
3	Y 371.029	413549.4	413549.4	100.54	%			10:36:37
3	Ag 328.068†	-2157.8	-1659.4	1.6115	µg/L	1.6115	ppb	10:36:42
3	Al 396.153Radial†	444.5	643.0	120.07	µg/L	120.07	ppb	10:34:58
3	As 188.979†	13263.2	13117.8	9902.1	µg/L	9902.1	ppb	10:36:42
3	B 249.677†	137953.0	136274.9	4993.6	µg/L	4993.6	ppb	10:36:42
3	Ba 233.527†	453538.0	448361.1	4957.3	µg/L	4957.3	ppb	10:36:42
3	Be 313.107†	3085243.1	3056292.0	2256.4	µg/L	2256.4	ppb	10:36:37
3	Ca 317.933Radial†	210.4	156.8	153.89	µg/L	153.89	ppb	10:35:18
3	Cd 226.502†	713474.6	705467.6	9847.9	µg/L	9847.9	ppb	10:36:37
3	Co 228.616†	362179.3	358233.2	10216	µg/L	10216	ppb	10:36:37
3	Cr 267.716†	1104672.4	1091864.9	24530	µg/L	24530	ppb	10:36:37
3	Cu 324.752†	3185872.4	3147035.3	20883	µg/L	20883	ppb	10:36:37
3	Fe 238.204 Radial†	-0.2	-1.4	-6.4677	µg/L	-6.4677	ppb	10:35:18
3	K 766.490 Radial†	437.9	314.9	246.97	µg/L	246.97	ppb	10:34:58
3	Mg 279.077 IEC†	3.0	0.6	10.215	µg/L	10.215	ppb	10:35:18
3	Mn 257.610†	5670789.0	5605476.1	9777.7	µg/L	9777.7	ppb	10:36:37
3	Mo 202.031†	117648.5	116289.1	9818.0	µg/L	9818.0	ppb	10:36:42
3	Na 589.592 Radial†	-3.9	-2.6	-225.14	µg/L	-225.14	ppb	10:35:18
3	Ni 231.604†	294789.7	291480.3	10264	µg/L	10264	ppb	10:36:42
3	P 214.914†	15478.1	15264.7	14297	µg/L	14297	ppb	10:36:42
3	Pb 220.353†	155462.6	153576.4	25609	µg/L	25609	ppb	10:36:42
3	S 181.975 Axial†	29.2	-12.4	-34.775	µg/L	-34.775	ppb	10:37:02
3	Sb 206.836†	22789.8	22477.3	9658.0	µg/L	9658.0	ppb	10:36:42
3	Se 196.026†	11581.3	11478.1	9519.9	µg/L	9519.9	ppb	10:37:02
3	SiO2†	611536.9	603386.2	101780	µg/L	101780	ppb	10:36:37
3	Si 251.611†	745298.3	736544.5	47270	µg/L	47270	ppb	10:36:37
3	Sn 189.927†	46164.7	45624.1	9867.8	µg/L	9867.8	ppb	10:36:42
3	Sr 421.552†	178535.1	178793.3	9343.6	µg/L	9343.6	ppb	10:34:58
3	Ti 334.940†	2625221.7	2595596.2	9677.3	µg/L	9677.3	ppb	10:36:37
3	Tl 190.801†	30492.7	30205.0	10231	µg/L	10231	ppb	10:36:42
3	U 367.007†	1028.9	-66.9	-18.63	µg/L	-18.63	ppb	10:36:42
3	V 292.402†	821595.3	812130.5	9890.6	µg/L	9890.6	ppb	10:36:37
3	Zn 213.857†	1337900.2	1322157.7	14179	µg/L	14179	ppb	10:36:37

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401588.6	101.24	%	0.524				0.52%
Sc RADIAL	4081.9	100	%	0.99				0.99%
Y 371.029	413929.2	100.63	%	0.482				0.48%
Ag 328.068†	-1670.3	1.5004	µg/L	0.20624	1.5004	ppb	0.20624	13.75%
Al 396.153Radial†	648.1	129.28	µg/L	18.781	129.28	ppb	18.781	14.53%
As 188.979†	12971.4	9792.4	µg/L	109.34	9792.4	ppb	109.34	1.12%
QC value within limits for As 188.979 Recovery = 97.92%								
B 249.677†	134693.8	4935.3	µg/L	59.10	4935.3	ppb	59.10	1.20%
QC value within limits for B 249.677 Recovery = 98.71%								
Ba 233.527†	444927.7	4919.3	µg/L	41.00	4919.3	ppb	41.00	0.83%
QC value less than the lower limit for Ba 233.527 Recovery = 32.80%								
Be 313.107†	3050849.9	2252.4	µg/L	3.68	2252.4	ppb	3.68	0.16%
QC value less than the lower limit for Be 313.107 Recovery = 75.08%								
Ca 317.933Radial†	174.6	171.45	µg/L	19.716	171.45	ppb	19.716	11.50%
Cd 226.502†	703594.1	9821.7	µg/L	24.44	9821.7	ppb	24.44	0.25%
QC value within limits for Cd 226.502 Recovery = 98.22%								
Co 228.616†	357647.1	10199	µg/L	17.72	10199	ppb	17.72	0.17%
QC value within limits for Co 228.616 Recovery = 101.99%								

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Cr 267.716†          1090702.3       24504 µg/L         29.15       24504 ppb          29.15   0.12%
   QC value within limits for Cr 267.716  Recovery = 98.01%
Cu 324.752†          3142892.3       20856 µg/L         25.50       20856 ppb          25.50   0.12%
   QC value within limits for Cu 324.752  Recovery = 104.28%
Fe 238.204 Radial†         1.0      4.4634 µg/L      14.05925      4.4634 ppb       14.05925 314.99%
K 766.490 Radial†        327.6      256.50 µg/L         9.544      256.50 ppb          9.544   3.72%
Mg 279.077 IEC†            0.3      5.5339 µg/L       6.17913      5.5339 ppb        6.17913 111.66%
Mn 257.610†          5595387.0      9760.1 µg/L         15.69      9760.1 ppb          15.69   0.16%
   QC value within limits for Mn 257.610  Recovery = 97.60%
Mo 202.031†           115044.0      9712.9 µg/L        107.31      9712.9 ppb         107.31   1.10%
   QC value within limits for Mo 202.031  Recovery = 97.13%
Na 589.592 Radial†        -1.4     -115.54 µg/L       116.344     -115.54 ppb        116.344 100.70%
Ni 231.604†           288270.2       10151 µg/L        115.68       10151 ppb         115.68   1.14%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†             15051.3       14093 µg/L        210.98       14093 ppb         210.98   1.50%
   QC value within limits for P 214.914  Recovery = 93.96%
Pb 220.353†           151483.8       25260 µg/L        332.38       25260 ppb         332.38   1.32%
   QC value within limits for Pb 220.353  Recovery = 101.04%
S 181.975 Axial†         -10.7     -30.935 µg/L       11.3719     -30.935 ppb        11.3719  36.76%
Sb 206.836†            22258.6      9558.9 µg/L        102.05      9558.9 ppb         102.05   1.07%
   QC value within limits for Sb 206.836  Recovery = 95.59%
Se 196.026†            11497.7      9536.2 µg/L         74.52      9536.2 ppb          74.52   0.78%
   QC value within limits for Se 196.026  Recovery = 95.36%
SiO2†                 599321.1      101100 µg/L        656.50      101100 ppb         656.50   0.65%
   QC value within limits for SiO2  Recovery = 94.49%
Si 251.611†           731358.0       46938 µg/L        322.99       46938 ppb         322.99   0.69%
   QC value within limits for Si 251.611  Recovery = 93.88%
Sn 189.927†            45101.6      9755.1 µg/L        114.68      9755.1 ppb         114.68   1.18%
   QC value within limits for Sn 189.927  Recovery = 97.55%
Sr 421.552†           178035.6      9304.0 µg/L        107.48      9304.0 ppb         107.48   1.16%
   QC value within limits for Sr 421.552  Recovery = 93.04%
Ti 334.940†          2591186.8      9660.9 µg/L         14.46      9660.9 ppb          14.46   0.15%
   QC value within limits for Ti 334.940  Recovery = 96.61%
Tl 190.801†            29845.8       10108 µg/L        115.34       10108 ppb         115.34   1.14%
   QC value within limits for Tl 190.801  Recovery = 101.08%
U 367.007†               -78.2      -21.85 µg/L         5.623      -21.85 ppb          5.623  25.74%
V 292.402†            810811.4      9873.8 µg/L         14.76      9873.8 ppb          14.76   0.15%
   QC value within limits for V 292.402  Recovery = 98.74%
Zn 213.857†          1319571.5       14151 µg/L         24.36       14151 ppb          24.36   0.17%
   QC value within limits for Zn 213.857  Recovery = 94.34%
QC Failed.  Continue with analysis.
```

==========

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 9/28/2017 10:37:11
Data Type: Reprocessed on 9/28/2017 11:05:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	401320.9	401320.9	101.18	%			10:39:01
1	Sc RADIAL	4019.5	4019.5	98.9	%			10:38:04
1	Y 371.029	411502.0	411502.0	100.04	%			10:39:01
1	Ag 328.068†	60059.0	59834.7	492.59	µg/L	492.59	ppb	10:39:01
1	Al 396.153Radial†	5621.1	5879.3	5115.6	µg/L	5115.6	ppb	10:37:43
1	As 188.979†	670.2	668.9	503.24	µg/L	503.24	ppb	10:39:21
1	B 249.677†	13686.0	13429.4	515.18	µg/L	515.18	ppb	10:39:01
1	Ba 233.527†	45026.7	44522.5	492.12	µg/L	492.12	ppb	10:39:01
1	Be 313.107†	665403.0	664065.4	489.36	µg/L	489.36	ppb	10:39:01
1	Ca 317.933Radial†	5181.4	5183.2	5088.4	µg/L	5088.4	ppb	10:38:04
1	Cd 226.502†	35876.8	35627.0	496.74	µg/L	496.74	ppb	10:39:01
1	Co 228.616†	17410.0	17411.1	496.92	µg/L	496.92	ppb	10:39:01
1	Cr 267.716†	22358.7	21947.4	492.87	µg/L	492.87	ppb	10:39:01
1	Cu 324.752†	77297.0	74061.4	491.97	µg/L	491.97	ppb	10:39:01
1	Fe 238.204 Radial†	1079.5	1090.0	4950.1	µg/L	4950.1	ppb	10:38:04
1	K 766.490 Radial†	6569.0	6516.0	4928.9	µg/L	4928.9	ppb	10:37:43
1	Mg 279.077 IEC†	319.4	320.4	5117.4	µg/L	5117.4	ppb	10:38:04
1	Mn 257.610†	286557.4	282883.4	493.51	µg/L	493.51	ppb	10:39:01
1	Mo 202.031†	5915.4	5835.1	492.85	µg/L	492.85	ppb	10:39:21
1	Na 589.592 Radial†	105.0	107.4	9195.6	µg/L	9195.6	ppb	10:38:04
1	Ni 231.604†	14462.4	14362.2	505.78	µg/L	505.78	ppb	10:39:01
1	P 214.914†	2635.4	2568.7	2450.0	µg/L	2450.0	ppb	10:39:21
1	Pb 220.353†	3079.1	2938.2	488.58	µg/L	488.58	ppb	10:39:21
1	S 181.975 Axial†	483.0	436.1	989.11	µg/L	989.11	ppb	10:39:21
1	Sb 206.836†	1179.7	1114.6	496.19	µg/L	496.19	ppb	10:39:21
1	Se 196.026†	574.0	596.9	497.81	µg/L	497.81	ppb	10:39:21
1	SiO2†	34839.7	33290.4	5601.7	µg/L	5601.7	ppb	10:39:01
1	Si 251.611†	41377.6	40681.7	2611.1	µg/L	2611.1	ppb	10:39:01
1	Sn 189.927†	2347.5	2308.6	499.10	µg/L	499.10	ppb	10:39:21
1	Sr 421.552†	9333.2	9414.2	491.81	µg/L	491.81	ppb	10:37:43
1	Ti 334.940†	131795.6	130715.2	487.66	µg/L	487.66	ppb	10:39:01
1	Tl 190.801†	1421.8	1466.8	497.29	µg/L	497.29	ppb	10:39:21
1	U 367.007†	2878.4	1760.9	465.9	µg/L	465.9	ppb	10:39:01
1	V 292.402†	41156.1	40625.8	494.27	µg/L	494.27	ppb	10:39:01
1	Zn 213.857†	46384.7	45431.2	485.63	µg/L	485.63	ppb	10:39:01
2	Sc 361.383	404290.5	404290.5	101.92	%			10:39:27
2	Sc RADIAL	4025.5	4025.5	99.1	%			10:38:29
2	Y 371.029	414465.0	414465.0	100.76	%			10:39:27
2	Ag 328.068†	60382.6	59716.1	491.62	µg/L	491.62	ppb	10:39:27
2	Al 396.153Radial†	5642.9	5892.9	5127.6	µg/L	5127.6	ppb	10:38:09
2	As 188.979†	676.7	670.5	504.35	µg/L	504.35	ppb	10:39:47
2	B 249.677†	13770.7	13413.1	514.50	µg/L	514.50	ppb	10:39:27
2	Ba 233.527†	45312.5	44476.1	491.61	µg/L	491.61	ppb	10:39:27
2	Be 313.107†	670751.8	664482.4	489.67	µg/L	489.67	ppb	10:39:27
2	Ca 317.933Radial†	5199.2	5193.3	5098.4	µg/L	5098.4	ppb	10:38:29
2	Cd 226.502†	36133.7	35618.6	496.63	µg/L	496.63	ppb	10:39:27
2	Co 228.616†	17533.1	17405.5	496.75	µg/L	496.75	ppb	10:39:27
2	Cr 267.716†	22501.3	21925.0	492.38	µg/L	492.38	ppb	10:39:27
2	Cu 324.752†	77902.3	74094.2	492.18	µg/L	492.18	ppb	10:39:27
2	Fe 238.204 Radial†	1076.9	1085.7	4930.5	µg/L	4930.5	ppb	10:38:29
2	K 766.490 Radial†	6606.4	6543.9	4949.9	µg/L	4949.9	ppb	10:38:09
2	Mg 279.077 IEC†	327.5	328.1	5240.2	µg/L	5240.2	ppb	10:38:29
2	Mn 257.610†	288609.5	282816.3	493.39	µg/L	493.39	ppb	10:39:27
2	Mo 202.031†	5926.5	5803.0	490.14	µg/L	490.14	ppb	10:39:47
2	Na 589.592 Radial†	106.1	108.4	9278.0	µg/L	9278.0	ppb	10:38:29
2	Ni 231.604†	14592.0	14384.4	506.56	µg/L	506.56	ppb	10:39:27
2	P 214.914†	2618.0	2532.5	2415.3	µg/L	2415.3	ppb	10:39:47

2	Pb 220.353†	3093.1	2929.5	487.15 µg/L	487.15 ppb		10:39:47
2	S 181.975 Axial†	484.3	433.8	983.90 µg/L	983.90 ppb		10:39:47
2	Sb 206.836†	1161.4	1088.1	484.27 µg/L	484.27 ppb		10:39:47
2	Se 196.026†	577.6	596.2	497.28 µg/L	497.28 ppb		10:39:47
2	SiO2†	34474.9	32679.6	5499.0 µg/L	5499.0 ppb		10:39:27
2	Si 251.611†	40874.9	39888.1	2560.0 µg/L	2560.0 ppb		10:39:27
2	Sn 189.927†	2328.6	2272.9	491.42 µg/L	491.42 ppb		10:39:47
2	Sr 421.552†	9363.9	9431.2	492.69 µg/L	492.69 ppb		10:38:09
2	Ti 334.940†	132666.1	130612.3	487.29 µg/L	487.29 ppb		10:39:27
2	Tl 190.801†	1421.1	1455.8	493.53 µg/L	493.53 ppb		10:39:47
2	U 367.007†	2847.3	1709.5	451.7 µg/L	451.7 ppb		10:39:27
2	V 292.402†	41445.1	40610.5	494.05 µg/L	494.05 ppb		10:39:27
2	Zn 213.857†	46772.3	45474.8	486.11 µg/L	486.11 ppb		10:39:27
3	Sc 361.383	402431.5	402431.5	101.46 %			10:39:53
3	Sc RADIAL	4007.3	4007.3	98.6 %			10:38:54
3	Y 371.029	412519.7	412519.7	100.29 %			10:39:53
3	Ag 328.068†	60174.7	59784.9	492.19 µg/L	492.19 ppb		10:39:53
3	Al 396.153Radial†	5597.7	5872.9	5110.2 µg/L	5110.2 ppb		10:38:34
3	As 188.979†	668.9	665.8	500.90 µg/L	500.90 ppb		10:40:14
3	B 249.677†	13749.1	13454.3	516.18 µg/L	516.18 ppb		10:39:53
3	Ba 233.527†	45058.8	44431.4	491.11 µg/L	491.11 ppb		10:39:53
3	Be 313.107†	666822.8	663649.7	489.06 µg/L	489.06 ppb		10:39:53
3	Ca 317.933Radial†	5174.3	5191.9	5097.0 µg/L	5097.0 ppb		10:38:54
3	Cd 226.502†	35957.0	35608.2	496.48 µg/L	496.48 ppb		10:39:53
3	Co 228.616†	17415.3	17368.8	495.70 µg/L	495.70 ppb		10:39:53
3	Cr 267.716†	22377.5	21904.9	491.93 µg/L	491.93 ppb		10:39:53
3	Cu 324.752†	77504.8	74055.5	491.93 µg/L	491.93 ppb		10:39:53
3	Fe 238.204 Radial†	1080.0	1093.7	4967.1 µg/L	4967.1 ppb		10:38:54
3	K 766.490 Radial†	6649.0	6617.4	5005.5 µg/L	5005.5 ppb		10:38:34
3	Mg 279.077 IEC†	322.8	324.9	5188.7 µg/L	5188.7 ppb		10:38:54
3	Mn 257.610†	287024.4	282561.9	492.95 µg/L	492.95 ppb		10:39:53
3	Mo 202.031†	5876.3	5780.4	488.23 µg/L	488.23 ppb		10:40:14
3	Na 589.592 Radial†	109.0	111.8	9566.4 µg/L	9566.4 ppb		10:38:54
3	Ni 231.604†	14436.3	14297.1	503.48 µg/L	503.48 ppb		10:39:53
3	P 214.914†	2601.9	2528.5	2411.4 µg/L	2411.4 ppb		10:40:14
3	Pb 220.353†	3077.9	2928.6	486.98 µg/L	486.98 ppb		10:40:14
3	S 181.975 Axial†	487.1	438.8	995.17 µg/L	995.17 ppb		10:40:14
3	Sb 206.836†	1172.2	1104.0	491.40 µg/L	491.40 ppb		10:40:14
3	Se 196.026†	578.2	599.4	499.91 µg/L	499.91 ppb		10:40:14
3	SiO2†	33937.5	32306.1	5436.2 µg/L	5436.2 ppb		10:39:53
3	Si 251.611†	40249.0	39456.4	2532.2 µg/L	2532.2 ppb		10:39:53
3	Sn 189.927†	2332.0	2286.8	494.41 µg/L	494.41 ppb		10:40:14
3	Sr 421.552†	9312.1	9421.5	492.19 µg/L	492.19 ppb		10:38:34
3	Ti 334.940†	132057.1	130613.4	487.29 µg/L	487.29 ppb		10:39:53
3	Tl 190.801†	1408.5	1449.9	491.53 µg/L	491.53 ppb		10:40:14
3	U 367.007†	2852.2	1727.2	456.5 µg/L	456.5 ppb		10:39:53
3	V 292.402†	41296.7	40652.1	494.54 µg/L	494.54 ppb		10:39:53
3	Zn 213.857†	46404.2	45323.9	484.47 µg/L	484.47 ppb		10:39:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	402681.0	101.52	%	0.378				0.37%
Sc RADIAL	4017.4	98.9	%	0.23				0.23%
Y 371.029	412828.9	100.37	%	0.366				0.36%
Ag 328.068†	59778.6	492.14	µg/L	0.488	492.14	ppb	0.488	0.10%
QC value within limits for Ag 328.068 Recovery = 98.43%								
Al 396.153Radial†	5881.7	5117.8	µg/L	8.88	5117.8	ppb	8.88	0.17%
QC value within limits for Al 396.153Radial Recovery = 102.36%								
As 188.979†	668.4	502.83	µg/L	1.765	502.83	ppb	1.765	0.35%
QC value within limits for As 188.979 Recovery = 100.57%								
B 249.677†	13432.3	515.29	µg/L	0.845	515.29	ppb	0.845	0.16%
QC value within limits for B 249.677 Recovery = 103.06%								
Ba 233.527†	44476.7	491.61	µg/L	0.504	491.61	ppb	0.504	0.10%
QC value within limits for Ba 233.527 Recovery = 98.32%								
Be 313.107†	664065.8	489.36	µg/L	0.306	489.36	ppb	0.306	0.06%
QC value within limits for Be 313.107 Recovery = 97.87%								
Ca 317.933Radial†	5189.5	5094.6	µg/L	5.40	5094.6	ppb	5.40	0.11%
QC value within limits for Ca 317.933Radial Recovery = 101.89%								
Cd 226.502†	35618.0	496.61	µg/L	0.133	496.61	ppb	0.133	0.03%

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   QC value within limits for Cd 226.502  Recovery = 99.32%
Co 228.616†            17395.1      496.46 µg/L         0.659      496.46 ppb          0.659   0.13%
   QC value within limits for Co 228.616  Recovery = 99.29%
Cr 267.716†            21925.8      492.39 µg/L         0.473      492.39 ppb          0.473   0.10%
   QC value within limits for Cr 267.716  Recovery = 98.48%
Cu 324.752†            74070.4      492.03 µg/L         0.134      492.03 ppb          0.134   0.03%
   QC value within limits for Cu 324.752  Recovery = 98.41%
Fe 238.204 Radial†      1089.8      4949.2 µg/L         18.32      4949.2 ppb          18.32   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.98%
K 766.490 Radial†       6559.1      4961.4 µg/L         39.59      4961.4 ppb          39.59   0.80%
   QC value within limits for K 766.490 Radial  Recovery = 99.23%
Mg 279.077 IEC†          324.5      5182.1 µg/L         61.69      5182.1 ppb          61.69   1.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.64%
Mn 257.610†           282753.9      493.28 µg/L         0.296      493.28 ppb          0.296   0.06%
   QC value within limits for Mn 257.610  Recovery = 98.66%
Mo 202.031†             5806.2      490.41 µg/L         2.322      490.41 ppb          2.322   0.47%
   QC value within limits for Mo 202.031  Recovery = 98.08%
Na 589.592 Radial†       109.2      9346.7 µg/L        194.72      9346.7 ppb         194.72   2.08%
   QC value within limits for Na 589.592 Radial  Recovery = 93.47%
Ni 231.604†            14347.9      505.27 µg/L         1.599      505.27 ppb          1.599   0.32%
   QC value within limits for Ni 231.604  Recovery = 101.05%
P 214.914†              2543.3      2425.5 µg/L         21.25      2425.5 ppb          21.25   0.88%
   QC value within limits for P 214.914  Recovery = 97.02%
Pb 220.353†             2932.1      487.57 µg/L         0.879      487.57 ppb          0.879   0.18%
   QC value within limits for Pb 220.353  Recovery = 97.51%
S 181.975 Axial†         436.2      989.39 µg/L         5.639      989.39 ppb          5.639   0.57%
   QC value within limits for S 181.975 Axial  Recovery = 98.94%
Sb 206.836†             1102.2      490.62 µg/L         6.001      490.62 ppb          6.001   1.22%
   QC value within limits for Sb 206.836  Recovery = 98.12%
Se 196.026†              597.5      498.33 µg/L         1.393      498.33 ppb          1.393   0.28%
   QC value within limits for Se 196.026  Recovery = 99.67%
SiO2†                  32758.7      5512.3 µg/L         83.55      5512.3 ppb          83.55   1.52%
   QC value within limits for SiO2  Recovery = 103.08%
Si 251.611†            40008.7      2567.8 µg/L         40.02      2567.8 ppb          40.02   1.56%
   QC value within limits for Si 251.611  Recovery = 102.71%
Sn 189.927†             2289.5      494.98 µg/L         3.874      494.98 ppb          3.874   0.78%
   QC value within limits for Sn 189.927  Recovery = 99.00%
Sr 421.552†             9422.3      492.23 µg/L         0.443      492.23 ppb          0.443   0.09%
   QC value within limits for Sr 421.552  Recovery = 98.45%
Ti 334.940†           130647.0      487.41 µg/L         0.217      487.41 ppb          0.217   0.04%
   QC value within limits for Ti 334.940  Recovery = 97.48%
Tl 190.801†             1457.5      494.12 µg/L         2.929      494.12 ppb          2.929   0.59%
   QC value within limits for Tl 190.801  Recovery = 98.82%
U 367.007†              1732.5       458.0 µg/L          7.24       458.0 ppb           7.24   1.58%
   QC value within limits for U 367.007  Recovery = 91.61%
V 292.402†             40629.5      494.29 µg/L         0.245      494.29 ppb          0.245   0.05%
   QC value within limits for V 292.402  Recovery = 98.86%
Zn 213.857†            45410.0      485.40 µg/L         0.840      485.40 ppb          0.840   0.17%
   QC value within limits for Zn 213.857  Recovery = 97.08%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 9/28/2017 10:40:22
Data Type: Reprocessed on 9/28/2017 11:05:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	403912.3	403912.3	101.83	%			10:42:09
1	Sc RADIAL	4115.9	4115.9	101	%			10:40:52
1	Y 371.029	419188.3	419188.3	101.91	%			10:42:09
1	Ag 328.068†	-439.3	42.3	0.3495	µg/L	0.3495	ppb	10:42:09
1	Al 396.153Radial†	-179.6	20.4	17.848	µg/L	17.848	ppb	10:40:52
1	As 188.979†	-5.4	1.2	0.8922	µg/L	0.8922	ppb	10:42:29
1	B 249.677†	186.8	85.9	3.1920	µg/L	3.1920	ppb	10:42:09
1	Ba 233.527†	-1.8	17.4	0.1923	µg/L	0.1923	ppb	10:42:29
1	Be 313.107†	-6251.6	256.7	0.1884	µg/L	0.1884	ppb	10:42:09
1	Ca 317.933Radial†	62.0	7.2	7.0449	µg/L	7.0449	ppb	10:41:12
1	Cd 226.502†	-38.0	129.9	1.8127	µg/L	1.8127	ppb	10:42:29
1	Co 228.616†	-213.5	-6.3	-0.1794	µg/L	-0.1794	ppb	10:42:29
1	Cr 267.716†	168.3	13.9	0.3127	µg/L	0.3127	ppb	10:42:29
1	Cu 324.752†	2460.2	78.9	0.5217	µg/L	0.5217	ppb	10:42:09
1	Fe 238.204 Radial†	2.2	1.0	4.4587	µg/L	4.4587	ppb	10:41:12
1	K 766.490 Radial†	136.5	11.0	8.3553	µg/L	8.3553	ppb	10:40:52
1	Mg 279.077 IEC†	0.8	-1.6	-26.137	µg/L	-26.137	ppb	10:41:12
1	Mn 257.610†	470.2	118.2	0.2074	µg/L	0.2074	ppb	10:42:09
1	Mo 202.031†	12.0	0.2	0.0162	µg/L	0.0162	ppb	10:42:29
1	Na 589.592 Radial†	0.7	2.0	171.33	µg/L	171.33	ppb	10:41:12
1	Ni 231.604†	-54.0	14.9	0.5240	µg/L	0.5240	ppb	10:42:29
1	P 214.914†	34.6	-2.1	-2.0148	µg/L	-2.0148	ppb	10:42:29
1	Pb 220.353†	108.6	1.5	0.2561	µg/L	0.2561	ppb	10:42:29
1	S 181.975 Axial†	51.2	9.0	20.414	µg/L	20.414	ppb	10:42:29
1	Sb 206.836†	61.8	9.3	4.1507	µg/L	4.1507	ppb	10:42:29
1	Se 196.026†	-24.7	5.2	4.3494	µg/L	4.3494	ppb	10:42:29
1	SiO2†	1472.3	301.5	50.705	µg/L	50.705	ppb	10:42:09
1	Si 251.611†	462.4	239.1	15.414	µg/L	15.414	ppb	10:42:29
1	Sn 189.927†	10.8	-1.1	-0.2340	µg/L	-0.2340	ppb	10:42:29
1	Sr 421.552†	34.8	14.9	0.7787	µg/L	0.7787	ppb	10:40:52
1	Ti 334.940†	-400.0	58.5	0.2201	µg/L	0.2201	ppb	10:42:09
1	Tl 190.801†	-46.5	15.9	5.4251	µg/L	5.4251	ppb	10:42:29
1	U 367.007†	1091.3	-12.3	-3.456	µg/L	-3.456	ppb	10:42:09
1	V 292.402†	36.0	-16.6	-0.2004	µg/L	-0.2004	ppb	10:42:09
1	Zn 213.857†	661.1	234.8	2.5172	µg/L	2.5172	ppb	10:42:29
2	Sc 361.383	400067.1	400067.1	100.86	%			10:42:34
2	Sc RADIAL	4098.7	4098.7	101	%			10:41:17
2	Y 371.029	414681.3	414681.3	100.82	%			10:42:34
2	Ag 328.068†	-516.5	-38.4	-0.3157	µg/L	-0.3157	ppb	10:42:34
2	Al 396.153Radial†	-233.5	-33.8	-29.522	µg/L	-29.522	ppb	10:41:17
2	As 188.979†	-4.6	1.9	1.4205	µg/L	1.4205	ppb	10:42:55
2	B 249.677†	178.1	79.0	2.9564	µg/L	2.9564	ppb	10:42:34
2	Ba 233.527†	-8.4	10.9	0.1197	µg/L	0.1197	ppb	10:42:55
2	Be 313.107†	-6259.1	190.3	0.1412	µg/L	0.1412	ppb	10:42:34
2	Ca 317.933Radial†	60.3	5.8	5.6766	µg/L	5.6766	ppb	10:41:37
2	Cd 226.502†	-44.7	122.9	1.7143	µg/L	1.7143	ppb	10:42:55
2	Co 228.616†	-216.0	-10.7	-0.3067	µg/L	-0.3067	ppb	10:42:55
2	Cr 267.716†	181.0	28.0	0.6272	µg/L	0.6272	ppb	10:42:55
2	Cu 324.752†	2372.8	15.5	0.1054	µg/L	0.1054	ppb	10:42:34
2	Fe 238.204 Radial†	3.1	1.9	8.6538	µg/L	8.6538	ppb	10:41:37
2	K 766.490 Radial†	172.1	47.0	35.514	µg/L	35.514	ppb	10:41:17
2	Mg 279.077 IEC†	3.3	0.9	14.427	µg/L	14.427	ppb	10:41:37
2	Mn 257.610†	441.7	94.3	0.1645	µg/L	0.1645	ppb	10:42:34
2	Mo 202.031†	18.6	6.9	0.5801	µg/L	0.5801	ppb	10:42:55
2	Na 589.592 Radial†	-1.6	-0.3	-24.648	µg/L	-24.648	ppb	10:41:37
2	Ni 231.604†	-64.7	3.8	0.1321	µg/L	0.1321	ppb	10:42:55
2	P 214.914†	46.0	9.6	9.1773	µg/L	9.1773	ppb	10:42:55

2	Pb 220.353†	75.1	-30.7	-5.1096	µg/L	-5.1096	ppb	10:42:55
2	S 181.975 Axial†	48.6	6.9	15.647	µg/L	15.647	ppb	10:42:55
2	Sb 206.836†	57.4	5.5	2.4661	µg/L	2.4661	ppb	10:42:55
2	Se 196.026†	-38.1	-8.3	-6.8571	µg/L	-6.8571	ppb	10:42:55
2	SiO2†	1339.7	183.9	30.939	µg/L	30.939	ppb	10:42:34
2	Si 251.611†	447.6	228.8	14.734	µg/L	14.734	ppb	10:42:55
2	Sn 189.927†	12.5	0.7	0.1590	µg/L	0.1590	ppb	10:42:55
2	Sr 421.552†	28.2	8.5	0.4461	µg/L	0.4461	ppb	10:41:17
2	Ti 334.940†	-307.7	146.3	0.5441	µg/L	0.5441	ppb	10:42:34
2	Tl 190.801†	-52.5	9.6	3.2602	µg/L	3.2602	ppb	10:42:55
2	U 367.007†	1106.9	13.5	3.716	µg/L	3.716	ppb	10:42:34
2	V 292.402†	48.5	-3.9	-0.0376	µg/L	-0.0376	ppb	10:42:34
2	Zn 213.857†	655.1	235.1	2.5211	µg/L	2.5211	ppb	10:42:55
3	Sc 361.383	400978.2	400978.2	101.09	%			10:43:00
3	Sc RADIAL	4084.5	4084.5	101	%			10:41:42
3	Y 371.029	415519.9	415519.9	101.02	%			10:43:00
3	Ag 328.068†	-484.2	-5.2	-0.0507	µg/L	-0.0507	ppb	10:43:00
3	Al 396.153Radial†	-212.1	-13.2	-11.578	µg/L	-11.578	ppb	10:41:42
3	As 188.979†	1.0	7.5	5.5690	µg/L	5.5690	ppb	10:43:20
3	B 249.677†	197.3	97.7	3.5865	µg/L	3.5865	ppb	10:43:00
3	Ba 233.527†	-13.8	5.5	0.0613	µg/L	0.0613	ppb	10:43:20
3	Be 313.107†	-6300.7	163.2	0.1232	µg/L	0.1232	ppb	10:43:00
3	Ca 317.933Radial†	58.9	4.6	4.4923	µg/L	4.4923	ppb	10:42:02
3	Cd 226.502†	-64.1	103.9	1.4498	µg/L	1.4498	ppb	10:43:20
3	Co 228.616†	-201.9	3.7	0.1056	µg/L	0.1056	ppb	10:43:20
3	Cr 267.716†	145.4	-7.6	-0.1790	µg/L	-0.1790	ppb	10:43:20
3	Cu 324.752†	2321.2	-40.9	-0.2640	µg/L	-0.2640	ppb	10:43:00
3	Fe 238.204 Radial†	0.1	-1.1	-4.8283	µg/L	-4.8283	ppb	10:42:02
3	K 766.490 Radial†	18.5	-105.2	-79.590	µg/L	-79.590	ppb	10:41:42
3	Mg 279.077 IEC†	3.6	1.2	19.418	µg/L	19.418	ppb	10:42:02
3	Mn 257.610†	459.4	110.9	0.1926	µg/L	0.1926	ppb	10:43:00
3	Mo 202.031†	14.0	2.3	0.1944	µg/L	0.1944	ppb	10:43:20
3	Na 589.592 Radial†	-0.4	0.9	76.352	µg/L	76.352	ppb	10:42:02
3	Ni 231.604†	-60.4	8.2	0.2875	µg/L	0.2875	ppb	10:43:20
3	P 214.914†	44.7	8.2	7.8771	µg/L	7.8771	ppb	10:43:20
3	Pb 220.353†	116.3	9.9	1.6382	µg/L	1.6382	ppb	10:43:20
3	S 181.975 Axial†	43.6	1.8	4.1368	µg/L	4.1368	ppb	10:43:20
3	Sb 206.836†	48.1	-3.8	-1.7043	µg/L	-1.7043	ppb	10:43:20
3	Se 196.026†	-38.2	-8.3	-6.8732	µg/L	-6.8732	ppb	10:43:20
3	SiO2†	1320.7	162.1	27.263	µg/L	27.263	ppb	10:43:00
3	Si 251.611†	417.1	197.6	12.732	µg/L	12.732	ppb	10:43:20
3	Sn 189.927†	12.4	0.6	0.1294	µg/L	0.1294	ppb	10:43:20
3	Sr 421.552†	31.4	11.8	0.6173	µg/L	0.6173	ppb	10:41:42
3	Ti 334.940†	-400.7	54.9	0.1991	µg/L	0.1991	ppb	10:43:00
3	Tl 190.801†	-65.4	-3.1	-1.0498	µg/L	-1.0498	ppb	10:43:20
3	U 367.007†	1142.7	46.3	12.94	µg/L	12.94	ppb	10:43:00
3	V 292.402†	5.8	-46.3	-0.5479	µg/L	-0.5479	ppb	10:43:00
3	Zn 213.857†	654.0	232.5	2.4988	µg/L	2.4988	ppb	10:43:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401652.5	101.26	%	0.507				0.50%
Sc RADIAL	4099.7	101	%	0.39				0.38%
Y 371.029	416463.2	101.25	%	0.583				0.58%
Ag 328.068†	-0.4	-0.0056	µg/L	0.33488	-0.0056	ppb	0.33488	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-8.9	-7.7507	µg/L	23.91600	-7.7507	ppb	23.91600	308.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.5	2.6273	µg/L	2.56130	2.6273	ppb	2.56130	97.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	87.6	3.2450	µg/L	0.31835	3.2450	ppb	0.31835	9.81%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.3	0.1244	µg/L	0.06564	0.1244	ppb	0.06564	52.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	203.4	0.1510	µg/L	0.03364	0.1510	ppb	0.03364	22.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.8	5.7379	µg/L	1.27740	5.7379	ppb	1.27740	22.26%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	118.9	1.6589	µg/L	0.18770	1.6589	ppb	0.18770	11.31%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -4.4     -0.1268 µg/L       0.21110     -0.1268 ppb        0.21110 166.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.4      0.2536 µg/L       0.40632      0.2536 ppb        0.40632 160.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                17.8      0.1210 µg/L       0.39312      0.1210 ppb        0.39312 324.81%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      2.7614 µg/L       6.89944      2.7614 ppb        6.89944 249.85%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -15.7     -11.907 µg/L       60.1678     -11.907 ppb        60.1678 505.33%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      2.5693 µg/L      24.98542      2.5693 ppb       24.98542 972.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               107.8      0.1882 µg/L       0.02178      0.1882 ppb        0.02178  11.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.1      0.2636 µg/L       0.28826      0.2636 ppb        0.28826 109.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          0.9      74.344 µg/L       98.0031      74.344 ppb        98.0031 131.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.9      0.3146 µg/L       0.19733      0.3146 ppb        0.19733  62.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.2      5.0132 µg/L       6.12103      5.0132 ppb        6.12103 122.10%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.4     -1.0718 µg/L       3.56450     -1.0718 ppb        3.56450 332.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.9      13.399 µg/L        8.3683      13.399 ppb         8.3683  62.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.7      1.6375 µg/L       3.01418      1.6375 ppb        3.01418 184.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.8     -3.1270 µg/L       6.47476     -3.1270 ppb        6.47476 207.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     215.9      36.302 µg/L       12.6075      36.302 ppb        12.6075  34.73%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               221.8      14.293 µg/L        1.3939      14.293 ppb         1.3939   9.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0181 µg/L       0.21888      0.0181 ppb        0.21888 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.8      0.6140 µg/L       0.16631      0.6140 ppb        0.16631  27.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                86.5      0.3211 µg/L       0.19343      0.3211 ppb        0.19343  60.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.5      2.5452 µg/L       3.29615      2.5452 ppb        3.29615 129.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 15.8       4.399 µg/L        8.2180       4.399 ppb         8.2180 186.81%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -22.3     -0.2620 µg/L       0.26070     -0.2620 ppb        0.26070  99.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               234.2      2.5124 µg/L       0.01193      2.5124 ppb        0.01193   0.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR3
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 113
Date Collected: 9/28/2017 10:45:12
Data Type: Reprocessed on 9/28/2017 11:05:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR3

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	384310.6	384310.6	96.888	%			10:47:08
1	Sc RADIAL	3958.7	3958.7	97.4	%			10:46:10
1	Y 371.029	389887.3	389887.3	94.788	%			10:47:08
1	Ag 328.068†	-7932.5	-7713.6	1.8875	µg/L	1.8875	ppb	10:47:08
1	Al 396.153Radial†	-202.6	-10.1	-8.2059	µg/L	-8.2059	ppb	10:45:50
1	As 188.979†	-36.8	-31.5	34.716	µg/L	34.716	ppb	10:47:28
1	B 249.677†	-49077.7	-50751.8	13.840	µg/L	13.840	ppb	10:47:08
1	Ba 233.527†	853.0	899.6	-2.6043	µg/L	-2.6043	ppb	10:47:28
1	Be 313.107†	-6464.0	-275.6	0.2371	µg/L	0.2371	ppb	10:47:08
1	Ca 317.933Radial†	193.1	144.2	141.53	µg/L	141.53	ppb	10:46:10
1	Cd 226.502†	3567.1	3848.9	1.9462	µg/L	1.9462	ppb	10:47:08
1	Co 228.616†	-109.3	90.6	2.5543	µg/L	2.5543	ppb	10:47:28
1	Cr 267.716†	-230.5	-389.4	-10.841	µg/L	-10.841	ppb	10:47:28
1	Cu 324.752†	-1639.4	-4029.1	2.8602	µg/L	2.8602	ppb	10:47:08
1	Fe 238.204 Radial†	94591.4	97075.9	440870	µg/L	440870	ppb	10:45:50
1	K 766.490 Radial†	144.4	24.5	18.558	µg/L	18.558	ppb	10:45:50
1	Mg 279.077 IEC†	-1.2	-3.7	-58.922	µg/L	-58.922	ppb	10:46:10
1	Mn 257.610†	-11247.7	-11952.6	2.1433	µg/L	2.1433	ppb	10:47:08
1	Mo 202.031†	-157.7	-174.3	3.3088	µg/L	3.3088	ppb	10:47:28
1	Na 589.592 Radial†	4617.5	4740.1	406090	µg/L	406090	ppb	10:45:50
1	Ni 231.604†	-109.1	-44.7	2.6267	µg/L	2.6267	ppb	10:47:28
1	P 214.914†	512.6	493.0	64.124	µg/L	64.124	ppb	10:47:28
1	Pb 220.353†	-105.9	-214.4	-97.022	µg/L	-97.022	ppb	10:47:28
1	S 181.975 Axial†	28.4	-12.0	-25.205	µg/L	-25.205	ppb	10:47:28
1	Sb 206.836†	72.5	23.5	-11.098	µg/L	-11.098	ppb	10:47:28
1	Se 196.026†	-293.1	-273.0	17.542	µg/L	17.542	ppb	10:47:28
1	SiO2†	1151.9	44.6	7.5059	µg/L	7.5059	ppb	10:47:28
1	Si 251.611†	-520.9	-752.6	-118.79	µg/L	-118.79	ppb	10:47:08
1	Sn 189.927†	-25.0	-37.5	-13.881	µg/L	-13.881	ppb	10:47:28
1	Sr 421.552†	36.1	17.7	0.9190	µg/L	0.9190	ppb	10:46:10
1	Ti 334.940†	-476.7	-40.7	-1.0284	µg/L	-1.0284	ppb	10:47:08
1	Tl 190.801†	-77.5	-18.4	1.5127	µg/L	1.5127	ppb	10:47:28
1	U 367.007†	7563.5	6722.5	-293.2	µg/L	-293.2	ppb	10:47:08
1	V 292.402†	-4952.2	-5163.2	-4.1105	µg/L	-4.1105	ppb	10:47:08
1	Zn 213.857†	5334.3	5091.3	-113.38	µg/L	-113.38	ppb	10:47:28
2	Sc 361.383	386715.5	386715.5	97.494	%			10:47:33
2	Sc RADIAL	3926.6	3926.6	96.6	%			10:46:35
2	Y 371.029	392189.7	392189.7	95.347	%			10:47:33
2	Ag 328.068†	-8115.0	-7849.9	1.1713	µg/L	1.1713	ppb	10:47:33
2	Al 396.153Radial†	-175.9	15.7	14.386	µg/L	14.386	ppb	10:46:15
2	As 188.979†	-33.6	-27.9	37.723	µg/L	37.723	ppb	10:47:53
2	B 249.677†	-49361.2	-50727.6	26.156	µg/L	26.156	ppb	10:47:33
2	Ba 233.527†	885.2	927.1	-2.3764	µg/L	-2.3764	ppb	10:47:53
2	Be 313.107†	-6541.6	-313.7	0.2080	µg/L	0.2080	ppb	10:47:33
2	Ca 317.933Radial†	198.4	151.2	148.48	µg/L	148.48	ppb	10:46:35
2	Cd 226.502†	3605.1	3865.0	1.8572	µg/L	1.8572	ppb	10:47:33
2	Co 228.616†	-95.3	105.7	2.9832	µg/L	2.9832	ppb	10:47:53
2	Cr 267.716†	-248.2	-406.0	-11.214	µg/L	-11.214	ppb	10:47:53
2	Cu 324.752†	-1729.0	-4110.5	2.4891	µg/L	2.4891	ppb	10:47:33
2	Fe 238.204 Radial†	94392.3	97663.3	443530	µg/L	443530	ppb	10:46:15
2	K 766.490 Radial†	272.9	158.7	120.04	µg/L	120.04	ppb	10:46:15
2	Mg 279.077 IEC†	3.2	0.9	14.681	µg/L	14.681	ppb	10:46:35
2	Mn 257.610†	-11487.5	-12126.3	1.9768	µg/L	1.9768	ppb	10:47:33
2	Mo 202.031†	-158.2	-173.9	3.4574	µg/L	3.4574	ppb	10:47:53
2	Na 589.592 Radial†	4586.1	4746.3	406630	µg/L	406630	ppb	10:46:15
2	Ni 231.604†	-143.4	-79.1	1.4401	µg/L	1.4401	ppb	10:47:53
2	P 214.914†	529.7	507.3	75.337	µg/L	75.337	ppb	10:47:53

2	Pb 220.353†	-123.6	-231.9	-100.29	µg/L	-100.29	ppb	10:47:53
2	S 181.975 Axial†	27.0	-13.6	-28.798	µg/L	-28.798	ppb	10:47:53
2	Sb 206.836†	75.0	25.5	-10.290	µg/L	-10.290	ppb	10:47:53
2	Se 196.026†	-292.3	-270.3	21.282	µg/L	21.282	ppb	10:47:53
2	SiO2†	1109.0	-6.8	-1.1428	µg/L	-1.1428	ppb	10:47:53
2	Si 251.611†	-498.8	-726.6	-117.54	µg/L	-117.54	ppb	10:47:33
2	Sn 189.927†	-32.3	-44.8	-15.502	µg/L	-15.502	ppb	10:47:53
2	Sr 421.552†	31.4	13.0	0.6763	µg/L	0.6763	ppb	10:46:35
2	Ti 334.940†	-400.8	40.2	-0.7239	µg/L	-0.7239	ppb	10:47:33
2	Tl 190.801†	-76.4	-16.8	2.0801	µg/L	2.0801	ppb	10:47:53
2	U 367.007†	7594.5	6705.7	-311.0	µg/L	-311.0	ppb	10:47:33
2	V 292.402†	-4993.4	-5173.7	-3.8945	µg/L	-3.8945	ppb	10:47:33
2	Zn 213.857†	5371.3	5095.0	-114.35	µg/L	-114.35	ppb	10:47:53
3	Sc 361.383	384633.2	384633.2	96.969	%			10:47:59
3	Sc RADIAL	3906.9	3906.9	96.2	%			10:47:00
3	Y 371.029	390539.3	390539.3	94.946	%			10:47:59
3	Ag 328.068†	-7876.3	-7648.8	3.3188	µg/L	3.3188	ppb	10:47:59
3	Al 396.153Radial†	-217.3	-28.3	-24.063	µg/L	-24.063	ppb	10:46:40
3	As 188.979†	-32.2	-26.7	39.093	µg/L	39.093	ppb	10:48:19
3	B 249.677†	-49002.1	-50631.4	43.762	µg/L	43.762	ppb	10:47:59
3	Ba 233.527†	830.7	875.9	-3.0363	µg/L	-3.0363	ppb	10:48:19
3	Be 313.107†	-6490.3	-297.2	0.2176	µg/L	0.2176	ppb	10:47:59
3	Ca 317.933Radial†	199.3	153.2	150.44	µg/L	150.44	ppb	10:47:00
3	Cd 226.502†	3488.4	3764.6	0.0723	µg/L	0.0723	ppb	10:47:59
3	Co 228.616†	-112.8	87.0	2.4517	µg/L	2.4517	ppb	10:48:19
3	Cr 267.716†	-271.2	-431.1	-11.777	µg/L	-11.777	ppb	10:48:19
3	Cu 324.752†	-1566.3	-3952.4	3.7437	µg/L	3.7437	ppb	10:47:59
3	Fe 238.204 Radial†	94614.2	98386.0	446820	µg/L	446820	ppb	10:46:40
3	K 766.490 Radial†	137.8	19.6	14.859	µg/L	14.859	ppb	10:46:40
3	Mg 279.077 IEC†	1.0	-1.4	-22.159	µg/L	-22.159	ppb	10:47:00
3	Mn 257.610†	-11388.1	-12087.6	2.2167	µg/L	2.2167	ppb	10:47:59
3	Mo 202.031†	-153.5	-169.8	3.9322	µg/L	3.9322	ppb	10:48:19
3	Na 589.592 Radial†	4586.3	4770.5	408700	µg/L	408700	ppb	10:46:40
3	Ni 231.604†	-119.2	-55.0	2.3217	µg/L	2.3217	ppb	10:48:19
3	P 214.914†	501.9	481.6	47.589	µg/L	47.589	ppb	10:48:19
3	Pb 220.353†	-104.0	-212.3	-97.469	µg/L	-97.469	ppb	10:48:19
3	S 181.975 Axial†	31.3	-9.1	-18.482	µg/L	-18.482	ppb	10:48:19
3	Sb 206.836†	56.0	6.3	-19.054	µg/L	-19.054	ppb	10:48:19
3	Se 196.026†	-310.3	-290.5	6.3235	µg/L	6.3235	ppb	10:48:19
3	SiO2†	1161.8	53.8	9.0361	µg/L	9.0361	ppb	10:48:19
3	Si 251.611†	-493.8	-724.3	-117.92	µg/L	-117.92	ppb	10:47:59
3	Sn 189.927†	-22.8	-35.2	-13.460	µg/L	-13.460	ppb	10:48:19
3	Sr 421.552†	34.4	16.4	0.8493	µg/L	0.8493	ppb	10:47:00
3	Ti 334.940†	-414.5	23.9	-0.7796	µg/L	-0.7796	ppb	10:47:59
3	Tl 190.801†	-73.2	-13.9	3.1225	µg/L	3.1225	ppb	10:48:19
3	U 367.007†	7517.9	6668.9	-337.4	µg/L	-337.4	ppb	10:47:59
3	V 292.402†	-5019.5	-5228.4	-4.1304	µg/L	-4.1304	ppb	10:47:59
3	Zn 213.857†	5337.0	5089.5	-115.66	µg/L	-115.66	ppb	10:48:19

Mean Data: LR3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	385219.8	97.117	%	0.3291				0.34%
Sc RADIAL	3930.7	96.8	%	0.64				0.66%
Y 371.029	390872.1	95.027	%	0.2885				0.30%
Ag 328.068†	-7737.4	2.1259	µg/L	1.09342	2.1259	ppb	1.09342	51.43%
Al 396.153Radial†	-7.6	-5.9611	µg/L	19.32236	-5.9611	ppb	19.32236	324.14%
As 188.979†	-28.7	37.178	µg/L	2.2391	37.178	ppb	2.2391	6.02%
B 249.677†	-50703.6	27.920	µg/L	15.0387	27.920	ppb	15.0387	53.86%
Ba 233.527†	900.9	-2.6723	µg/L	0.33520	-2.6723	ppb	0.33520	12.54%
Be 313.107†	-295.5	0.2209	µg/L	0.01485	0.2209	ppb	0.01485	6.72%
Ca 317.933Radial†	149.5	146.82	µg/L	4.682	146.82	ppb	4.682	3.19%
Cd 226.502†	3826.2	1.2919	µg/L	1.05713	1.2919	ppb	1.05713	81.83%
Co 228.616†	94.4	2.6631	µg/L	0.28192	2.6631	ppb	0.28192	10.59%
Cr 267.716†	-408.8	-11.277	µg/L	0.4710	-11.277	ppb	0.4710	4.18%
Cu 324.752†	-4030.7	3.0310	µg/L	0.64451	3.0310	ppb	0.64451	21.26%
Fe 238.204 Radial†	97708.4	443740	µg/L	2980.20	443740	ppb	2980.20	0.67%
QC value within limits for Fe 238.204 Radial Recovery = 98.61%								
K 766.490 Radial†	67.6	51.154	µg/L	59.6896	51.154	ppb	59.6896	116.69%
Mg 279.077 IEC†	-1.4	-22.133	µg/L	36.8013	-22.133	ppb	36.8013	166.27%

Mn 257.610†	-12055.5	2.1123	µg/L	0.12295	2.1123	ppb	0.12295	5.82%
Mo 202.031†	-172.7	3.5662	µg/L	0.32561	3.5662	ppb	0.32561	9.13%
Na 589.592 Radial†	4752.3	407140	µg/L	1376.02	407140	ppb	1376.02	0.34%
QC value within limits for Na 589.592 Radial Recovery = 90.48%								
Ni 231.604†	-59.6	2.1295	µg/L	0.61624	2.1295	ppb	0.61624	28.94%
P 214.914†	494.0	62.350	µg/L	13.9585	62.350	ppb	13.9585	22.39%
Pb 220.353†	-219.5	-98.259	µg/L	1.7703	-98.259	ppb	1.7703	1.80%
S 181.975 Axial†	-11.6	-24.162	µg/L	5.2364	-24.162	ppb	5.2364	21.67%
Sb 206.836†	18.4	-13.481	µg/L	4.8439	-13.481	ppb	4.8439	35.93%
Se 196.026†	-277.9	15.049	µg/L	7.7848	15.049	ppb	7.7848	51.73%
SiO2†	30.5	5.1331	µg/L	5.48862	5.1331	ppb	5.48862	106.93%
Si 251.611†	-734.5	-118.08	µg/L	0.638	-118.08	ppb	0.638	0.54%
Sn 189.927†	-39.2	-14.281	µg/L	1.0783	-14.281	ppb	1.0783	7.55%
Sr 421.552†	15.7	0.8149	µg/L	0.12496	0.8149	ppb	0.12496	15.34%
Ti 334.940†	7.8	-0.8440	µg/L	0.16215	-0.8440	ppb	0.16215	19.21%
Tl 190.801†	-16.4	2.2384	µg/L	0.81647	2.2384	ppb	0.81647	36.47%
U 367.007†	6699.0	-313.8	µg/L	22.23	-313.8	ppb	22.23	7.08%
V 292.402†	-5188.5	-4.0451	µg/L	0.13086	-4.0451	ppb	0.13086	3.24%
Zn 213.857†	5091.9	-114.46	µg/L	1.147	-114.46	ppb	1.147	1.00%

All analyte(s) passed QC.

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Sequence No.: 16
Sample ID: LR4
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 114
Date Collected: 9/28/2017 10:48:28
Data Type: Reprocessed on 9/28/2017 11:05:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR4

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	401123.0	401123.0	101.13	%			10:50:15
1	Sc RADIAL	4058.9	4058.9	99.9	%			10:48:58
1	Y 371.029	417581.2	417581.2	101.52	%			10:50:15
1	Ag 328.068†	-357.1	120.6	0.9974	µg/L	0.9974	ppb	10:50:20
1	Al 396.153Radial†	-219.4	-21.8	-19.046	µg/L	-19.046	ppb	10:48:58
1	As 188.979†	2.1	8.6	6.4021	µg/L	6.4021	ppb	10:50:40
1	B 249.677†	92.5	-6.0	0.1207	µg/L	0.1207	ppb	10:50:20
1	Ba 233.527†	958004.7	947356.5	10474	µg/L	10474	ppb	10:50:15
1	Be 313.107†	-6193.3	271.7	0.2019	µg/L	0.2019	ppb	10:50:20
1	Ca 317.933Radial†	70.3	16.4	16.122	µg/L	16.122	ppb	10:49:18
1	Cd 226.502†	-119.2	49.3	0.6785	µg/L	0.6785	ppb	10:50:40
1	Co 228.616†	-539.7	-330.3	-1.4756	µg/L	-1.4756	ppb	10:50:40
1	Cr 267.716†	162.5	9.2	0.2022	µg/L	0.2022	ppb	10:50:40
1	Cu 324.752†	2388.1	24.4	0.1708	µg/L	0.1708	ppb	10:50:20
1	Fe 238.204 Radial†	17.0	15.8	71.826	µg/L	71.826	ppb	10:49:18
1	K 766.490 Radial†	151.4	27.9	39.779	µg/L	39.779	ppb	10:48:58
1	Mg 279.077 IEC†	2.1	-0.3	-5.3798	µg/L	-5.3798	ppb	10:49:18
1	Mn 257.610†	432.1	83.8	0.1500	µg/L	0.1500	ppb	10:50:20
1	Mo 202.031†	1.9	-9.6	-0.8115	µg/L	-0.8115	ppb	10:50:40
1	Na 589.592 Radial†	1.6	2.9	246.58	µg/L	246.58	ppb	10:49:18
1	Ni 231.604†	-56.5	12.1	0.4233	µg/L	0.4233	ppb	10:50:40
1	P 214.914†	51.2	14.6	13.912	µg/L	13.912	ppb	10:50:40
1	Pb 220.353†	85.8	-20.3	-3.4094	µg/L	-3.4094	ppb	10:50:40
1	S 181.975 Axial†	48.0	6.2	14.086	µg/L	14.086	ppb	10:50:40
1	Sb 206.836†	45.0	-6.9	-3.1259	µg/L	-3.1259	ppb	10:50:40
1	Se 196.026†	-34.5	-4.6	-3.8041	µg/L	-3.8041	ppb	10:50:40
1	SiO2†	1173.1	15.7	2.6528	µg/L	2.6528	ppb	10:50:20
1	Si 251.611†	301.6	83.3	5.3735	µg/L	5.3735	ppb	10:50:40
1	Sn 189.927†	8.9	-2.9	-0.6204	µg/L	-0.6204	ppb	10:50:40
1	Sr 421.552†	37.1	17.7	0.9264	µg/L	0.9264	ppb	10:48:58
1	Ti 334.940†	-470.6	-14.0	-0.0547	µg/L	-0.0547	ppb	10:50:20
1	Tl 190.801†	-53.7	8.4	2.9331	µg/L	2.9331	ppb	10:50:40
1	U 367.007†	1120.4	24.0	6.324	µg/L	6.324	ppb	10:50:20
1	V 292.402†	42.5	-10.0	-0.1141	µg/L	-0.1141	ppb	10:50:20
1	Zn 213.857†	840.1	416.4	4.4416	µg/L	4.4416	ppb	10:50:40
2	Sc 361.383	400555.1	400555.1	100.98	%			10:50:45
2	Sc RADIAL	4074.2	4074.2	100	%			10:49:23
2	Y 371.029	416802.2	416802.2	101.33	%			10:50:45
2	Ag 328.068†	-348.9	128.2	1.0599	µg/L	1.0599	ppb	10:50:50
2	Al 396.153Radial†	-231.3	-32.9	-28.725	µg/L	-28.725	ppb	10:49:23
2	As 188.979†	-7.2	-0.6	-0.4611	µg/L	-0.4611	ppb	10:51:10
2	B 249.677†	115.3	16.7	0.8874	µg/L	0.8874	ppb	10:50:50
2	Ba 233.527†	957311.9	948013.5	10482	µg/L	10482	ppb	10:50:45
2	Be 313.107†	-6380.8	77.3	0.0578	µg/L	0.0578	ppb	10:50:50
2	Ca 317.933Radial†	84.0	29.8	29.269	µg/L	29.269	ppb	10:49:43
2	Cd 226.502†	-123.8	44.6	0.6144	µg/L	0.6144	ppb	10:51:10
2	Co 228.616†	-557.7	-348.8	-1.9992	µg/L	-1.9992	ppb	10:51:10
2	Cr 267.716†	148.9	-4.0	-0.0915	µg/L	-0.0915	ppb	10:51:10
2	Cu 324.752†	2311.4	-48.2	-0.3150	µg/L	-0.3150	ppb	10:50:50
2	Fe 238.204 Radial†	13.3	12.1	54.846	µg/L	54.846	ppb	10:49:43
2	K 766.490 Radial†	138.1	14.0	29.290	µg/L	29.290	ppb	10:49:23
2	Mg 279.077 IEC†	1.0	-1.4	-22.903	µg/L	-22.903	ppb	10:49:43
2	Mn 257.610†	454.5	106.6	0.1895	µg/L	0.1895	ppb	10:50:50
2	Mo 202.031†	10.4	-1.2	-0.1011	µg/L	-0.1011	ppb	10:51:10
2	Na 589.592 Radial†	-1.1	0.2	15.284	µg/L	15.284	ppb	10:49:43
2	Ni 231.604†	-68.8	-0.2	-0.0084	µg/L	-0.0084	ppb	10:51:10
2	P 214.914†	19.4	-16.9	-16.222	µg/L	-16.222	ppb	10:51:10

2	Pb 220.353†	99.9	-6.2	-1.0694	µg/L	-1.0694	ppb	10:51:10
2	S 181.975 Axial†	47.7	6.0	13.560	µg/L	13.560	ppb	10:51:10
2	Sb 206.836†	49.6	-2.3	-1.0111	µg/L	-1.0111	ppb	10:51:10
2	Se 196.026†	-24.5	5.2	4.3627	µg/L	4.3627	ppb	10:51:10
2	SiO2†	1243.6	87.2	14.656	µg/L	14.656	ppb	10:50:50
2	Si 251.611†	291.5	73.7	4.7444	µg/L	4.7444	ppb	10:51:10
2	Sn 189.927†	11.0	-0.8	-0.1647	µg/L	-0.1647	ppb	10:51:10
2	Sr 421.552†	39.7	20.1	1.0512	µg/L	1.0512	ppb	10:49:23
2	Ti 334.940†	-416.4	38.9	0.1456	µg/L	0.1456	ppb	10:50:50
2	Tl 190.801†	-65.8	-3.6	-1.1779	µg/L	-1.1779	ppb	10:51:10
2	U 367.007†	1104.0	9.2	2.303	µg/L	2.303	ppb	10:50:50
2	V 292.402†	84.6	31.8	0.3889	µg/L	0.3889	ppb	10:50:50
2	Zn 213.857†	845.4	422.8	4.5164	µg/L	4.5164	ppb	10:51:10
3	Sc 361.383	401809.5	401809.5	101.30	%			10:51:16
3	Sc RADIAL	4078.7	4078.7	100	%			10:49:48
3	Y 371.029	417791.0	417791.0	101.57	%			10:51:16
3	Ag 328.068†	-476.6	3.2	0.0350	µg/L	0.0350	ppb	10:51:21
3	Al 396.153Radial†	-247.1	-48.4	-42.375	µg/L	-42.375	ppb	10:49:48
3	As 188.979†	-6.2	0.4	0.2949	µg/L	0.2949	ppb	10:51:41
3	B 249.677†	150.7	51.2	2.0414	µg/L	2.0414	ppb	10:51:21
3	Ba 233.527†	961684.5	949370.7	10497	µg/L	10497	ppb	10:51:16
3	Be 313.107†	-6398.1	80.0	0.0563	µg/L	0.0563	ppb	10:51:21
3	Ca 317.933Radial†	72.6	18.3	18.013	µg/L	18.013	ppb	10:50:08
3	Cd 226.502†	-137.3	31.7	0.4370	µg/L	0.4370	ppb	10:51:41
3	Co 228.616†	-532.0	-321.8	-1.2130	µg/L	-1.2130	ppb	10:51:41
3	Cr 267.716†	159.5	6.1	0.1430	µg/L	0.1430	ppb	10:51:41
3	Cu 324.752†	2279.4	-86.9	-0.5832	µg/L	-0.5832	ppb	10:51:21
3	Fe 238.204 Radial†	7.2	6.0	27.105	µg/L	27.105	ppb	10:50:08
3	K 766.490 Radial†	177.5	53.1	58.862	µg/L	58.862	ppb	10:49:48
3	Mg 279.077 IEC†	0.2	-2.2	-35.839	µg/L	-35.839	ppb	10:50:08
3	Mn 257.610†	509.7	159.6	0.2811	µg/L	0.2811	ppb	10:51:21
3	Mo 202.031†	24.3	12.4	1.0507	µg/L	1.0507	ppb	10:51:41
3	Na 589.592 Radial†	-0.5	0.8	65.642	µg/L	65.642	ppb	10:50:08
3	Ni 231.604†	-70.3	-1.5	-0.0548	µg/L	-0.0548	ppb	10:51:41
3	P 214.914†	17.9	-18.4	-17.666	µg/L	-17.666	ppb	10:51:41
3	Pb 220.353†	95.2	-11.2	-1.8703	µg/L	-1.8703	ppb	10:51:41
3	S 181.975 Axial†	41.6	-0.3	-0.5814	µg/L	-0.5814	ppb	10:51:41
3	Sb 206.836†	56.1	4.0	1.7842	µg/L	1.7842	ppb	10:51:41
3	Se 196.026†	-29.5	0.4	0.3090	µg/L	0.3090	ppb	10:51:41
3	SiO2†	1210.5	50.6	8.5031	µg/L	8.5031	ppb	10:51:21
3	Si 251.611†	283.0	64.4	4.1243	µg/L	4.1243	ppb	10:51:41
3	Sn 189.927†	16.6	4.7	1.0103	µg/L	1.0103	ppb	10:51:41
3	Sr 421.552†	37.2	17.6	0.9200	µg/L	0.9200	ppb	10:49:48
3	Ti 334.940†	-441.3	15.7	0.0652	µg/L	0.0652	ppb	10:51:21
3	Tl 190.801†	-67.3	-4.9	-1.6194	µg/L	-1.6194	ppb	10:51:41
3	U 367.007†	1054.9	-42.6	-12.01	µg/L	-12.01	ppb	10:51:21
3	V 292.402†	4.7	-47.4	-0.5626	µg/L	-0.5626	ppb	10:51:21
3	Zn 213.857†	847.9	422.7	4.5250	µg/L	4.5250	ppb	10:51:41

Mean Data: LR4

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401162.5	101.14	%	0.158				0.16%
Sc RADIAL	4070.6	100	%	0.26				0.25%
Y 371.029	417391.5	101.47	%	0.127				0.12%
Ag 328.068†	84.0	0.6974	µg/L	0.57455	0.6974	ppb	0.57455	82.38%
Al 396.153Radial†	-34.4	-30.049	µg/L	11.7206	-30.049	ppb	11.7206	39.01%
As 188.979†	2.8	2.0786	µg/L	3.76323	2.0786	ppb	3.76323	181.04%
B 249.677†	20.6	1.0165	µg/L	0.96680	1.0165	ppb	0.96680	95.11%
Ba 233.527†	948246.9	10484	µg/L	11.36	10484	ppb	11.36	0.11%
QC value within limits for Ba 233.527 Recovery = 104.84%								
Be 313.107†	143.0	0.1053	µg/L	0.08361	0.1053	ppb	0.08361	79.38%
Ca 317.933Radial†	21.5	21.135	µg/L	7.1076	21.135	ppb	7.1076	33.63%
Cd 226.502†	41.9	0.5766	µg/L	0.12507	0.5766	ppb	0.12507	21.69%
Co 228.616†	-333.6	-1.5626	µg/L	0.40024	-1.5626	ppb	0.40024	25.61%
Cr 267.716†	3.8	0.0845	µg/L	0.15533	0.0845	ppb	0.15533	183.75%
Cu 324.752†	-36.9	-0.2425	µg/L	0.38221	-0.2425	ppb	0.38221	157.64%
Fe 238.204 Radial†	11.3	51.259	µg/L	22.5750	51.259	ppb	22.5750	44.04%
K 766.490 Radial†	31.7	42.644	µg/L	14.9925	42.644	ppb	14.9925	35.16%
Mg 279.077 IEC†	-1.3	-21.374	µg/L	15.2872	-21.374	ppb	15.2872	71.52%

Mn 257.610†	116.6	0.2069	µg/L	0.06721	0.2069	ppb	0.06721	32.49%
Mo 202.031†	0.5	0.0460	µg/L	0.93974	0.0460	ppb	0.93974	>999.9%
Na 589.592 Radial†	1.3	109.17	µg/L	121.639	109.17	ppb	121.639	111.42%
Ni 231.604†	3.5	0.1200	µg/L	0.26365	0.1200	ppb	0.26365	219.66%
P 214.914†	-6.9	-6.6585	µg/L	17.82948	-6.6585	ppb	17.82948	267.77%
Pb 220.353†	-12.6	-2.1164	µg/L	1.18927	-2.1164	ppb	1.18927	56.19%
S 181.975 Axial†	4.0	9.0216	µg/L	8.32066	9.0216	ppb	8.32066	92.23%
Sb 206.836†	-1.7	-0.7843	µg/L	2.46292	-0.7843	ppb	2.46292	314.04%
Se 196.026†	0.3	0.2892	µg/L	4.08346	0.2892	ppb	4.08346	>999.9%
SiO2†	51.2	8.6040	µg/L	6.00224	8.6040	ppb	6.00224	69.76%
Si 251.611†	73.8	4.7474	µg/L	0.62461	4.7474	ppb	0.62461	13.16%
Sn 189.927†	0.3	0.0751	µg/L	0.84133	0.0751	ppb	0.84133	>999.9%
Sr 421.552†	18.5	0.9659	µg/L	0.07398	0.9659	ppb	0.07398	7.66%
Ti 334.940†	13.5	0.0521	µg/L	0.10079	0.0521	ppb	0.10079	193.62%
Tl 190.801†	-0.0	0.0453	µg/L	2.51068	0.0453	ppb	2.51068	>999.9%
U 367.007†	-3.1	-1.128	µg/L	9.6368	-1.128	ppb	9.6368	854.31%
V 292.402†	-8.5	-0.0959	µg/L	0.47602	-0.0959	ppb	0.47602	496.22%
Zn 213.857†	420.6	4.4944	µg/L	0.04586	4.4944	ppb	0.04586	1.02%

All analyte(s) passed QC.

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Sequence No.: 17
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 9/28/2017 10:51:49
Data Type: Reprocessed on 9/28/2017 11:05:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	397299.9	397299.9	100.16	%			10:53:38
1	Sc RADIAL	3969.6	3969.6	97.7	%			10:52:41
1	Y 371.029	407001.8	407001.8	98.949	%			10:53:38
1	Ag 328.068†	59310.2	59687.8	491.37	µg/L	491.37	ppb	10:53:38
1	Al 396.153Radial†	5546.4	5874.3	5111.7	µg/L	5111.7	ppb	10:52:21
1	As 188.979†	644.8	650.3	489.28	µg/L	489.28	ppb	10:53:58
1	B 249.677†	13291.1	13172.1	505.55	µg/L	505.55	ppb	10:53:38
1	Ba 233.527†	44363.5	44310.8	489.78	µg/L	489.78	ppb	10:53:38
1	Be 313.107†	655347.1	660681.8	486.87	µg/L	486.87	ppb	10:53:38
1	Ca 317.933Radial†	5082.7	5148.0	5053.9	µg/L	5053.9	ppb	10:52:41
1	Cd 226.502†	34966.0	35076.6	489.06	µg/L	489.06	ppb	10:53:38
1	Co 228.616†	17121.9	17297.6	493.66	µg/L	493.66	ppb	10:53:38
1	Cr 267.716†	21855.1	21668.3	486.59	µg/L	486.59	ppb	10:53:38
1	Cu 324.752†	76518.0	74057.0	491.95	µg/L	491.95	ppb	10:53:38
1	Fe 238.204 Radial†	1058.8	1082.5	4916.2	µg/L	4916.2	ppb	10:52:41
1	K 766.490 Radial†	6515.3	6544.5	4950.4	µg/L	4950.4	ppb	10:52:21
1	Mg 279.077 IEC†	312.4	317.4	5068.8	µg/L	5068.8	ppb	10:52:41
1	Mn 257.610†	282134.2	281333.8	490.81	µg/L	490.81	ppb	10:53:38
1	Mo 202.031†	5724.5	5703.6	481.75	µg/L	481.75	ppb	10:53:58
1	Na 589.592 Radial†	105.2	109.0	9328.7	µg/L	9328.7	ppb	10:52:41
1	Ni 231.604†	14233.8	14278.7	502.84	µg/L	502.84	ppb	10:53:38
1	P 214.914†	2524.2	2484.0	2368.8	µg/L	2368.8	ppb	10:53:58
1	Pb 220.353†	2983.9	2873.9	477.86	µg/L	477.86	ppb	10:53:58
1	S 181.975 Axial†	463.3	421.2	955.27	µg/L	955.27	ppb	10:53:58
1	Sb 206.836†	1130.5	1077.2	479.40	µg/L	479.40	ppb	10:53:58
1	Se 196.026†	549.1	577.7	481.91	µg/L	481.91	ppb	10:53:58
1	SiO2†	32683.8	31486.5	5298.3	µg/L	5298.3	ppb	10:53:38
1	Si 251.611†	38638.0	38360.4	2461.7	µg/L	2461.7	ppb	10:53:38
1	Sn 189.927†	2253.5	2238.2	483.92	µg/L	483.92	ppb	10:53:58
1	Sr 421.552†	9272.3	9470.4	494.75	µg/L	494.75	ppb	10:52:21
1	Ti 334.940†	129969.1	130210.0	485.77	µg/L	485.77	ppb	10:53:38
1	Tl 190.801†	1365.4	1424.8	482.98	µg/L	482.98	ppb	10:53:58
1	U 367.007†	2899.1	1810.4	479.9	µg/L	479.9	ppb	10:53:38
1	V 292.402†	40575.0	40457.3	492.14	µg/L	492.14	ppb	10:53:38
1	Zn 213.857†	45349.2	44861.4	479.52	µg/L	479.52	ppb	10:53:38
2	Sc 361.383	393283.0	393283.0	99.150	%			10:54:04
2	Sc RADIAL	3955.6	3955.6	97.4	%			10:53:06
2	Y 371.029	403074.3	403074.3	97.994	%			10:54:04
2	Ag 328.068†	58865.1	59843.7	492.67	µg/L	492.67	ppb	10:54:04
2	Al 396.153Radial†	5562.5	5910.9	5143.5	µg/L	5143.5	ppb	10:52:46
2	As 188.979†	647.6	659.7	496.31	µg/L	496.31	ppb	10:54:24
2	B 249.677†	13178.3	13193.9	506.49	µg/L	506.49	ppb	10:54:04
2	Ba 233.527†	43867.7	44263.2	489.25	µg/L	489.25	ppb	10:54:04
2	Be 313.107†	647405.5	659354.9	485.89	µg/L	485.89	ppb	10:54:04
2	Ca 317.933Radial†	5087.0	5170.8	5076.3	µg/L	5076.3	ppb	10:53:06
2	Cd 226.502†	34393.2	34855.5	485.97	µg/L	485.97	ppb	10:54:04
2	Co 228.616†	16937.7	17286.4	493.35	µg/L	493.35	ppb	10:54:04
2	Cr 267.716†	21690.3	21725.0	487.89	µg/L	487.89	ppb	10:54:04
2	Cu 324.752†	75704.7	74017.0	491.67	µg/L	491.67	ppb	10:54:04
2	Fe 238.204 Radial†	1061.8	1089.4	4947.3	µg/L	4947.3	ppb	10:53:06
2	K 766.490 Radial†	6411.7	6461.7	4887.8	µg/L	4887.8	ppb	10:52:46
2	Mg 279.077 IEC†	315.3	321.4	5133.5	µg/L	5133.5	ppb	10:53:06
2	Mn 257.610†	279129.6	281180.4	490.54	µg/L	490.54	ppb	10:54:04
2	Mo 202.031†	5712.2	5749.7	485.64	µg/L	485.64	ppb	10:54:24
2	Na 589.592 Radial†	105.8	109.9	9409.9	µg/L	9409.9	ppb	10:53:06
2	Ni 231.604†	13988.7	14176.7	499.24	µg/L	499.24	ppb	10:54:04
2	P 214.914†	2513.4	2498.9	2383.0	µg/L	2383.0	ppb	10:54:24

2	Pb 220.353†	2991.5	2912.0	484.22 µg/L	484.22 ppb	10:54:24
2	S 181.975 Axial†	473.6	436.4	989.74 µg/L	989.74 ppb	10:54:24
2	Sb 206.836†	1130.8	1089.1	484.78 µg/L	484.78 ppb	10:54:24
2	Se 196.026†	562.9	597.2	498.12 µg/L	498.12 ppb	10:54:24
2	SiO2†	32308.4	31441.2	5290.7 µg/L	5290.7 ppb	10:54:04
2	Si 251.611†	38275.8	38389.1	2463.5 µg/L	2463.5 ppb	10:54:04
2	Sn 189.927†	2251.4	2259.0	488.42 µg/L	488.42 ppb	10:54:24
2	Sr 421.552†	9328.6	9561.9	499.53 µg/L	499.53 ppb	10:52:46
2	Ti 334.940†	128984.4	130542.2	487.03 µg/L	487.03 ppb	10:54:04
2	Tl 190.801†	1348.1	1421.2	481.75 µg/L	481.75 ppb	10:54:24
2	U 367.007†	2769.1	1708.8	451.4 µg/L	451.4 ppb	10:54:04
2	V 292.402†	40003.3	40294.4	490.21 µg/L	490.21 ppb	10:54:04
2	Zn 213.857†	44851.6	44822.0	479.09 µg/L	479.09 ppb	10:54:04
3	Sc 361.383	392888.5	392888.5	99.050 %		10:54:31
3	Sc RADIAL	3951.2	3951.2	97.3 %		10:53:31
3	Y 371.029	402834.9	402834.9	97.936 %		10:54:31
3	Ag 328.068†	58697.6	59734.2	491.77 µg/L	491.77 ppb	10:54:31
3	Al 396.153Radial†	5580.4	5935.6	5165.0 µg/L	5165.0 ppb	10:53:11
3	As 188.979†	645.1	657.8	494.89 µg/L	494.89 ppb	10:54:51
3	B 249.677†	13160.2	13188.9	506.43 µg/L	506.43 ppb	10:54:31
3	Ba 233.527†	43707.9	44146.3	487.96 µg/L	487.96 ppb	10:54:31
3	Be 313.107†	645480.9	658067.5	484.94 µg/L	484.94 ppb	10:54:31
3	Ca 317.933Radial†	5087.1	5176.7	5082.1 µg/L	5082.1 ppb	10:53:31
3	Cd 226.502†	34173.6	34668.6	483.36 µg/L	483.36 ppb	10:54:31
3	Co 228.616†	16861.4	17226.5	491.65 µg/L	491.65 ppb	10:54:31
3	Cr 267.716†	21692.0	21748.6	488.42 µg/L	488.42 ppb	10:54:31
3	Cu 324.752†	75657.1	74045.6	491.86 µg/L	491.86 ppb	10:54:31
3	Fe 238.204 Radial†	1066.6	1095.5	4975.3 µg/L	4975.3 ppb	10:53:31
3	K 766.490 Radial†	6388.4	6445.1	4875.2 µg/L	4875.2 ppb	10:53:11
3	Mg 279.077 IEC†	315.1	321.5	5135.5 µg/L	5135.5 ppb	10:53:31
3	Mn 257.610†	277759.2	280079.5	488.62 µg/L	488.62 ppb	10:54:31
3	Mo 202.031†	5740.8	5784.3	488.56 µg/L	488.56 ppb	10:54:51
3	Na 589.592 Radial†	105.8	110.1	9422.6 µg/L	9422.6 ppb	10:53:31
3	Ni 231.604†	13931.9	14133.5	497.72 µg/L	497.72 ppb	10:54:31
3	P 214.914†	2517.9	2506.0	2389.8 µg/L	2389.8 ppb	10:54:51
3	Pb 220.353†	2999.9	2923.5	486.12 µg/L	486.12 ppb	10:54:51
3	S 181.975 Axial†	464.0	427.2	968.88 µg/L	968.88 ppb	10:54:51
3	Sb 206.836†	1128.5	1087.9	484.26 µg/L	484.26 ppb	10:54:51
3	Se 196.026†	563.7	598.6	499.28 µg/L	499.28 ppb	10:54:51
3	SiO2†	32225.2	31389.9	5282.0 µg/L	5282.0 ppb	10:54:31
3	Si 251.611†	38082.8	38233.0	2453.4 µg/L	2453.4 ppb	10:54:31
3	Sn 189.927†	2258.6	2268.6	490.46 µg/L	490.46 ppb	10:54:51
3	Sr 421.552†	9354.2	9598.8	501.46 µg/L	501.46 ppb	10:53:11
3	Ti 334.940†	128315.6	129997.5	484.99 µg/L	484.99 ppb	10:54:31
3	Tl 190.801†	1361.7	1436.4	486.93 µg/L	486.93 ppb	10:54:51
3	U 367.007†	2768.9	1711.5	452.0 µg/L	452.0 ppb	10:54:31
3	V 292.402†	39934.3	40265.3	489.89 µg/L	489.89 ppb	10:54:31
3	Zn 213.857†	44596.6	44609.9	476.81 µg/L	476.81 ppb	10:54:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	394490.4	99.454	%	0.6154				0.62%
Sc RADIAL	3958.8	97.4	%	0.24				0.24%
Y 371.029	404303.7	98.293	%	0.5688				0.58%
Ag 328.068†	59755.3	491.94	µg/L	0.663	491.94	ppb	0.663	0.13%
QC value within limits for Ag 328.068 Recovery = 98.39%								
Al 396.153Radial†	5907.0	5140.1	µg/L	26.80	5140.1	ppb	26.80	0.52%
QC value within limits for Al 396.153Radial Recovery = 102.80%								
As 188.979†	655.9	493.49	µg/L	3.717	493.49	ppb	3.717	0.75%
QC value within limits for As 188.979 Recovery = 98.70%								
B 249.677†	13184.9	506.16	µg/L	0.526	506.16	ppb	0.526	0.10%
QC value within limits for B 249.677 Recovery = 101.23%								
Ba 233.527†	44240.1	489.00	µg/L	0.937	489.00	ppb	0.937	0.19%
QC value within limits for Ba 233.527 Recovery = 97.80%								
Be 313.107†	659368.1	485.90	µg/L	0.966	485.90	ppb	0.966	0.20%
QC value within limits for Be 313.107 Recovery = 97.18%								
Ca 317.933Radial†	5165.2	5070.8	µg/L	14.89	5070.8	ppb	14.89	0.29%
QC value within limits for Ca 317.933Radial Recovery = 101.42%								
Cd 226.502†	34866.9	486.13	µg/L	2.854	486.13	ppb	2.854	0.59%

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   QC value within limits for Cd 226.502  Recovery = 97.23%
Co 228.616†            17270.2      492.88 µg/L         1.085      492.88 ppb          1.085   0.22%
   QC value within limits for Co 228.616  Recovery = 98.58%
Cr 267.716†            21714.0      487.63 µg/L         0.940      487.63 ppb          0.940   0.19%
   QC value within limits for Cr 267.716  Recovery = 97.53%
Cu 324.752†            74039.8      491.83 µg/L         0.144      491.83 ppb          0.144   0.03%
   QC value within limits for Cu 324.752  Recovery = 98.37%
Fe 238.204 Radial†      1089.1      4946.2 µg/L         29.60      4946.2 ppb          29.60   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.92%
K 766.490 Radial†       6483.8      4904.5 µg/L         40.28      4904.5 ppb          40.28   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†          320.1      5112.6 µg/L         37.96      5112.6 ppb          37.96   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.25%
Mn 257.610†           280864.6      489.99 µg/L         1.193      489.99 ppb          1.193   0.24%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†             5745.9      485.32 µg/L         3.420      485.32 ppb          3.420   0.70%
   QC value within limits for Mo 202.031  Recovery = 97.06%
Na 589.592 Radial†       109.7      9387.1 µg/L         50.95      9387.1 ppb          50.95   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 93.87%
Ni 231.604†            14196.3      499.93 µg/L         2.626      499.93 ppb          2.626   0.53%
   QC value within limits for Ni 231.604  Recovery = 99.99%
P 214.914†              2496.3      2380.6 µg/L         10.70      2380.6 ppb          10.70   0.45%
   QC value within limits for P 214.914  Recovery = 95.22%
Pb 220.353†             2903.1      482.73 µg/L         4.325      482.73 ppb          4.325   0.90%
   QC value within limits for Pb 220.353  Recovery = 96.55%
S 181.975 Axial†         428.3      971.30 µg/L        17.364      971.30 ppb         17.364   1.79%
   QC value within limits for S 181.975 Axial  Recovery = 97.13%
Sb 206.836†             1084.8      482.81 µg/L         2.967      482.81 ppb          2.967   0.61%
   QC value within limits for Sb 206.836  Recovery = 96.56%
Se 196.026†              591.2      493.10 µg/L         9.712      493.10 ppb          9.712   1.97%
   QC value within limits for Se 196.026  Recovery = 98.62%
SiO2†                  31439.2      5290.3 µg/L          8.15      5290.3 ppb           8.15   0.15%
   QC value within limits for SiO2  Recovery = 98.93%
Si 251.611†            38327.5      2459.5 µg/L          5.41      2459.5 ppb           5.41   0.22%
   QC value within limits for Si 251.611  Recovery = 98.38%
Sn 189.927†             2255.3      487.60 µg/L         3.347      487.60 ppb          3.347   0.69%
   QC value within limits for Sn 189.927  Recovery = 97.52%
Sr 421.552†             9543.7      498.58 µg/L         3.453      498.58 ppb          3.453   0.69%
   QC value within limits for Sr 421.552  Recovery = 99.72%
Ti 334.940†           130249.9      485.93 µg/L         1.026      485.93 ppb          1.026   0.21%
   QC value within limits for Ti 334.940  Recovery = 97.19%
Tl 190.801†             1427.5      483.89 µg/L         2.708      483.89 ppb          2.708   0.56%
   QC value within limits for Tl 190.801  Recovery = 96.78%
U 367.007†              1743.6       461.1 µg/L         16.27       461.1 ppb          16.27   3.53%
   QC value within limits for U 367.007  Recovery = 92.22%
V 292.402†             40339.0      490.74 µg/L         1.217      490.74 ppb          1.217   0.25%
   QC value within limits for V 292.402  Recovery = 98.15%
Zn 213.857†            44764.4      478.47 µg/L         1.460      478.47 ppb          1.460   0.31%
   QC value within limits for Zn 213.857  Recovery = 95.69%
All analyte(s) passed QC.
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Sequence No.: 18
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 9/28/2017 10:54:59
Data Type: Reprocessed on 9/28/2017 11:05:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	392030.0	392030.0	98.834	%			10:56:46
1	Sc RADIAL	4001.3	4001.3	98.5	%			10:55:29
1	Y 371.029	407154.2	407154.2	98.986	%			10:56:46
1	Ag 328.068†	-557.8	-90.7	-0.7508	µg/L	-0.7508	ppb	10:56:46
1	Al 396.153Radial†	-200.6	-6.0	-5.1882	µg/L	-5.1882	ppb	10:55:29
1	As 188.979†	-6.6	-0.2	-0.1278	µg/L	-0.1278	ppb	10:57:06
1	B 249.677†	151.8	56.1	2.0204	µg/L	2.0204	ppb	10:56:46
1	Ba 233.527†	8.0	27.3	0.3024	µg/L	0.3024	ppb	10:57:06
1	Be 313.107†	-5932.9	393.1	0.2921	µg/L	0.2921	ppb	10:56:46
1	Ca 317.933Radial†	58.0	4.9	4.8405	µg/L	4.8405	ppb	10:55:49
1	Cd 226.502†	-133.0	32.6	0.4565	µg/L	0.4565	ppb	10:57:06
1	Co 228.616†	-187.3	13.9	0.3968	µg/L	0.3968	ppb	10:57:06
1	Cr 267.716†	144.4	-5.3	-0.1258	µg/L	-0.1258	ppb	10:57:06
1	Cu 324.752†	2263.6	-46.9	-0.3049	µg/L	-0.3049	ppb	10:56:46
1	Fe 238.204 Radial†	-1.3	-2.5	-11.503	µg/L	-11.503	ppb	10:55:49
1	K 766.490 Radial†	52.3	-70.5	-53.325	µg/L	-53.325	ppb	10:55:29
1	Mg 279.077 IEC†	3.2	0.9	13.892	µg/L	13.892	ppb	10:55:49
1	Mn 257.610†	341.8	2.3	0.0029	µg/L	0.0029	ppb	10:56:46
1	Mo 202.031†	4.6	-6.9	-0.5844	µg/L	-0.5844	ppb	10:57:06
1	Na 589.592 Radial†	-0.3	1.0	81.637	µg/L	81.637	ppb	10:55:49
1	Ni 231.604†	-65.7	1.4	0.0510	µg/L	0.0510	ppb	10:57:06
1	P 214.914†	35.2	-0.5	-0.4151	µg/L	-0.4151	ppb	10:57:06
1	Pb 220.353†	108.4	4.6	0.7574	µg/L	0.7574	ppb	10:57:06
1	S 181.975 Axial†	40.1	-0.8	-1.7390	µg/L	-1.7390	ppb	10:57:06
1	Sb 206.836†	56.6	5.9	2.6344	µg/L	2.6344	ppb	10:57:06
1	Se 196.026†	-30.9	-1.7	-1.4326	µg/L	-1.4326	ppb	10:57:06
1	SiO2†	1170.5	40.0	6.7290	µg/L	6.7290	ppb	10:56:46
1	Si 251.611†	282.0	70.3	4.5487	µg/L	4.5487	ppb	10:57:06
1	Sn 189.927†	17.2	5.8	1.2456	µg/L	1.2456	ppb	10:57:06
1	Sr 421.552†	24.8	5.7	0.2999	µg/L	0.2999	ppb	10:55:29
1	Ti 334.940†	-397.1	49.6	0.1803	µg/L	0.1803	ppb	10:56:46
1	Tl 190.801†	-62.5	-1.7	-0.5695	µg/L	-0.5695	ppb	10:57:06
1	U 367.007†	1108.8	37.9	10.62	µg/L	10.62	ppb	10:56:46
1	V 292.402†	80.1	29.0	0.3475	µg/L	0.3475	ppb	10:56:46
1	Zn 213.857†	476.6	67.9	0.7336	µg/L	0.7336	ppb	10:57:06
2	Sc 361.383	392801.3	392801.3	99.028	%			10:57:11
2	Sc RADIAL	4072.6	4072.6	100	%			10:55:54
2	Y 371.029	407272.4	407272.4	99.014	%			10:57:11
2	Ag 328.068†	-505.8	-37.1	-0.3017	µg/L	-0.3017	ppb	10:57:11
2	Al 396.153Radial†	-183.3	14.9	13.057	µg/L	13.057	ppb	10:55:54
2	As 188.979†	-6.0	0.4	0.3158	µg/L	0.3158	ppb	10:57:32
2	B 249.677†	138.4	42.3	1.6404	µg/L	1.6404	ppb	10:57:11
2	Ba 233.527†	0.1	19.3	0.2130	µg/L	0.2130	ppb	10:57:32
2	Be 313.107†	-6175.3	160.1	0.1185	µg/L	0.1185	ppb	10:57:11
2	Ca 317.933Radial†	51.5	-2.6	-2.5218	µg/L	-2.5218	ppb	10:56:14
2	Cd 226.502†	-122.1	43.9	0.6105	µg/L	0.6105	ppb	10:57:32
2	Co 228.616†	-213.1	-11.8	-0.3363	µg/L	-0.3363	ppb	10:57:32
2	Cr 267.716†	157.3	7.4	0.1661	µg/L	0.1661	ppb	10:57:32
2	Cu 324.752†	2254.0	-61.0	-0.4018	µg/L	-0.4018	ppb	10:57:11
2	Fe 238.204 Radial†	5.2	4.0	18.334	µg/L	18.334	ppb	10:56:14
2	K 766.490 Radial†	175.3	51.2	38.748	µg/L	38.748	ppb	10:55:54
2	Mg 279.077 IEC†	3.8	1.4	22.679	µg/L	22.679	ppb	10:56:14
2	Mn 257.610†	369.8	29.9	0.0522	µg/L	0.0522	ppb	10:57:11
2	Mo 202.031†	5.9	-5.6	-0.4692	µg/L	-0.4692	ppb	10:57:32
2	Na 589.592 Radial†	-1.9	-0.6	-50.548	µg/L	-50.548	ppb	10:56:14
2	Ni 231.604†	-67.4	-0.2	-0.0053	µg/L	-0.0053	ppb	10:57:32
2	P 214.914†	42.9	7.2	6.9222	µg/L	6.9222	ppb	10:57:32

2	Pb 220.353†	102.0	-2.1	-0.3529	µg/L	-0.3529	ppb	10:57:32
2	S 181.975 Axial†	44.7	3.9	8.7649	µg/L	8.7649	ppb	10:57:32
2	Sb 206.836†	53.3	2.4	1.0829	µg/L	1.0829	ppb	10:57:32
2	Se 196.026†	-32.5	-3.3	-2.7473	µg/L	-2.7473	ppb	10:57:32
2	SiO2†	1155.8	22.8	3.8400	µg/L	3.8400	ppb	10:57:11
2	Si 251.611†	256.5	44.1	2.8475	µg/L	2.8475	ppb	10:57:32
2	Sn 189.927†	9.7	-1.9	-0.4150	µg/L	-0.4150	ppb	10:57:32
2	Sr 421.552†	39.5	19.9	1.0420	µg/L	1.0420	ppb	10:55:54
2	Ti 334.940†	-465.0	-18.2	-0.0695	µg/L	-0.0695	ppb	10:57:11
2	Tl 190.801†	-62.7	-1.7	-0.5832	µg/L	-0.5832	ppb	10:57:32
2	U 367.007†	1082.8	9.5	2.545	µg/L	2.545	ppb	10:57:11
2	V 292.402†	130.2	79.5	0.9554	µg/L	0.9554	ppb	10:57:11
2	Zn 213.857†	491.6	82.0	0.8745	µg/L	0.8745	ppb	10:57:32
3	Sc 361.383	394673.4	394673.4	99.500	%			10:57:37
3	Sc RADIAL	4022.0	4022.0	99.0	%			10:56:19
3	Y 371.029	409425.8	409425.8	99.538	%			10:57:37
3	Ag 328.068†	-398.4	73.3	0.5894	µg/L	0.5894	ppb	10:57:37
3	Al 396.153Radial†	-196.2	-0.5	-0.4421	µg/L	-0.4421	ppb	10:56:19
3	As 188.979†	-5.1	1.4	1.0543	µg/L	1.0543	ppb	10:57:57
3	B 249.677†	108.1	11.2	0.4535	µg/L	0.4535	ppb	10:57:37
3	Ba 233.527†	1.9	21.1	0.2332	µg/L	0.2332	ppb	10:57:57
3	Be 313.107†	-6167.6	197.4	0.1523	µg/L	0.1523	ppb	10:57:37
3	Ca 317.933Radial†	57.7	4.3	4.2627	µg/L	4.2627	ppb	10:56:39
3	Cd 226.502†	-147.6	18.9	0.2622	µg/L	0.2622	ppb	10:57:57
3	Co 228.616†	-200.1	2.4	0.0679	µg/L	0.0679	ppb	10:57:57
3	Cr 267.716†	143.3	-7.4	-0.1873	µg/L	-0.1873	ppb	10:57:57
3	Cu 324.752†	2286.2	-39.5	-0.2434	µg/L	-0.2434	ppb	10:57:37
3	Fe 238.204 Radial†	3.2	2.1	9.5210	µg/L	9.5210	ppb	10:56:39
3	K 766.490 Radial†	113.5	-9.1	-6.8433	µg/L	-6.8433	ppb	10:56:19
3	Mg 279.077 IEC†	3.7	1.3	21.180	µg/L	21.180	ppb	10:56:39
3	Mn 257.610†	345.2	3.4	0.0057	µg/L	0.0057	ppb	10:57:37
3	Mo 202.031†	15.6	4.1	0.3464	µg/L	0.3464	ppb	10:57:57
3	Na 589.592 Radial†	-0.6	0.7	60.452	µg/L	60.452	ppb	10:56:39
3	Ni 231.604†	-56.0	11.7	0.4110	µg/L	0.4110	ppb	10:57:57
3	P 214.914†	51.9	16.1	15.434	µg/L	15.434	ppb	10:57:57
3	Pb 220.353†	98.8	-5.8	-0.9885	µg/L	-0.9885	ppb	10:57:57
3	S 181.975 Axial†	53.4	12.4	28.142	µg/L	28.142	ppb	10:57:57
3	Sb 206.836†	53.1	2.0	0.9137	µg/L	0.9137	ppb	10:57:57
3	Se 196.026†	-29.6	-0.2	-0.1883	µg/L	-0.1883	ppb	10:57:57
3	SiO2†	1198.0	59.7	10.036	µg/L	10.036	ppb	10:57:37
3	Si 251.611†	289.4	75.8	4.8791	µg/L	4.8791	ppb	10:57:57
3	Sn 189.927†	23.9	12.4	2.6626	µg/L	2.6626	ppb	10:57:57
3	Sr 421.552†	36.3	17.3	0.9022	µg/L	0.9022	ppb	10:56:19
3	Ti 334.940†	-436.9	12.2	0.0321	µg/L	0.0321	ppb	10:57:37
3	Tl 190.801†	-57.4	3.9	1.3417	µg/L	1.3417	ppb	10:57:57
3	U 367.007†	1182.9	104.8	29.18	µg/L	29.18	ppb	10:57:37
3	V 292.402†	50.3	-1.5	0.0026	µg/L	0.0026	ppb	10:57:37
3	Zn 213.857†	497.8	85.9	0.9197	µg/L	0.9197	ppb	10:57:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	393168.2	99.121	%	0.3427				0.35%
Sc RADIAL	4032.0	99.2	%	0.90				0.91%
Y 371.029	407950.8	99.179	%	0.3109				0.31%
Ag 328.068†	-18.2	-0.1544	µg/L	0.68216	-0.1544	ppb	0.68216	441.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.8	2.4756	µg/L	9.46615	2.4756	ppb	9.46615	382.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.4141	µg/L	0.59714	0.4141	ppb	0.59714	144.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	36.5	1.3714	µg/L	0.81738	1.3714	ppb	0.81738	59.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	22.6	0.2496	µg/L	0.04687	0.2496	ppb	0.04687	18.78%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	250.2	0.1876	µg/L	0.09200	0.1876	ppb	0.09200	49.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.2	2.1938	µg/L	4.09401	2.1938	ppb	4.09401	186.62%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	31.8	0.4431	µg/L	0.17451	0.4431	ppb	0.17451	39.39%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                1.5      0.0428 µg/L       0.36721      0.0428 ppb        0.36721 858.19%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.8     -0.0490 µg/L       0.18880     -0.0490 ppb        0.18880 385.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -49.1     -0.3167 µg/L       0.07986     -0.3167 ppb        0.07986  25.22%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      5.4506 µg/L      15.32945      5.4506 ppb       15.32945 281.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -9.4     -7.1402 µg/L      46.03695     -7.1402 ppb       46.03695 644.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.2      19.250 µg/L        4.7004      19.250 ppb         4.7004  24.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               11.9      0.0203 µg/L       0.02772      0.0203 ppb        0.02772 136.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.8     -0.2357 µg/L       0.50740     -0.2357 ppb        0.50740 215.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         0.4      30.514 µg/L       70.9961      30.514 ppb        70.9961 232.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                4.3      0.1522 µg/L       0.22589      0.1522 ppb        0.22589 148.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 7.6      7.3136 µg/L       7.93156      7.3136 ppb        7.93156 108.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.1     -0.1946 µg/L       0.88364     -0.1946 ppb        0.88364 453.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.2      11.723 µg/L       15.1584      11.723 ppb        15.1584 129.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.4      1.5437 µg/L       0.94836      1.5437 ppb        0.94836  61.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.8     -1.4561 µg/L       1.27966     -1.4561 ppb        1.27966  87.89%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     40.8      6.8685 µg/L       3.10061      6.8685 ppb        3.10061  45.14%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               63.4      4.0918 µg/L       1.09019      4.0918 ppb        1.09019  26.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.4      1.1644 µg/L       1.54037      1.1644 ppb        1.54037 132.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               14.3      0.7480 µg/L       0.39436      0.7480 ppb        0.39436  52.72%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               14.5      0.0476 µg/L       0.12562      0.0476 ppb        0.12562 263.84%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.2      0.0630 µg/L       1.10739      0.0630 ppb        1.10739 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                50.7       14.11 µg/L        13.657       14.11 ppb         13.657  96.75%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                35.7      0.4352 µg/L       0.48244      0.4352 ppb        0.48244 110.86%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               78.6      0.8426 µg/L       0.09709      0.8426 ppb        0.09709  11.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 11 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/28/2017 12:45:22**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3936.3	3936.3	96.9	%			12:45:53
1	Al 396.153Radial†	43.3	242.4	211.45	µg/L	211.45	ppb	12:45:53
1	Ca 317.933Radial†	284.3	239.4	235.04	µg/L	235.04	ppb	12:46:13
1	Fe 238.204 Radial†	24.0	23.6	107.34	µg/L	107.34	ppb	12:46:13
1	K 766.490 Radial†	261.2	146.0	110.41	µg/L	110.41	ppb	12:45:53
1	Mg 279.077 IEC†	17.4	15.5	247.62	µg/L	247.62	ppb	12:46:13
1	Na 589.592 Radial†	1.2	2.5	215.51	µg/L	215.51	ppb	12:46:13
1	Sr 421.552†	122.9	107.4	5.6044	µg/L	5.6044	ppb	12:45:53
1	Sc 361.383	379224.0	379224.0	95.605	%			12:47:10
1	Y 371.029	393026.8	393026.8	95.551	%			12:47:10
1	Ag 328.068†	95.6	573.7	4.7151	µg/L	4.7151	ppb	12:47:10
1	As 188.979†	28.3	36.1	26.927	µg/L	26.927	ppb	12:47:30
1	B 249.677†	1291.2	1253.1	46.706	µg/L	46.706	ppb	12:47:10
1	Ba 233.527†	395.5	432.8	4.7826	µg/L	4.7826	ppb	12:47:30
1	Be 313.107†	407.5	6822.3	5.0373	µg/L	5.0373	ppb	12:47:10
1	Cd 226.502†	168.0	342.9	4.7745	µg/L	4.7745	ppb	12:47:30
1	Co 228.616†	-36.5	165.2	4.7230	µg/L	4.7230	ppb	12:47:30
1	Cr 267.716†	340.2	204.4	4.5678	µg/L	4.5678	ppb	12:47:30
1	Cu 324.752†	3644.5	1475.0	9.8177	µg/L	9.8177	ppb	12:47:10
1	Mn 257.610†	5800.6	5723.7	9.9808	µg/L	9.9808	ppb	12:47:10
1	Mo 202.031†	114.4	108.1	9.1279	µg/L	9.1279	ppb	12:47:30
1	Ni 231.604†	72.1	143.3	5.0470	µg/L	5.0470	ppb	12:47:30
1	P 214.914†	164.1	135.6	129.84	µg/L	129.84	ppb	12:47:30
1	Pb 220.353†	151.8	53.7	8.8694	µg/L	8.8694	ppb	12:47:30
1	S 181.975 Axial†	83.2	45.7	103.81	µg/L	103.81	ppb	12:47:30
1	Sb 206.836†	66.0	17.7	7.9539	µg/L	7.9539	ppb	12:47:30
1	Se 196.026†	1.2	30.8	25.594	µg/L	25.594	ppb	12:47:30
1	SiO2†	2254.7	1214.0	204.15	µg/L	204.15	ppb	12:47:10
1	Si 251.611†	1571.6	1428.8	91.895	µg/L	91.895	ppb	12:47:30
1	Sn 189.927†	55.2	46.1	9.9383	µg/L	9.9383	ppb	12:47:30
1	Ti 334.940†	759.2	1245.5	4.6395	µg/L	4.6395	ppb	12:47:10
1	Tl 190.801†	-0.3	61.2	20.860	µg/L	20.860	ppb	12:47:30
1	U 367.007†	1175.4	145.4	39.98	µg/L	39.98	ppb	12:47:10
1	V 292.402†	409.8	376.7	4.6530	µg/L	4.6530	ppb	12:47:10
1	Zn 213.857†	1674.1	1336.7	14.313	µg/L	14.313	ppb	12:47:30
2	Sc RADIAL	3916.7	3916.7	96.4	%			12:46:18
2	Al 396.153Radial†	13.3	211.5	184.41	µg/L	184.41	ppb	12:46:18
2	Ca 317.933Radial†	281.0	237.5	233.15	µg/L	233.15	ppb	12:46:38
2	Fe 238.204 Radial†	24.6	24.3	110.47	µg/L	110.47	ppb	12:46:38
2	K 766.490 Radial†	227.7	112.5	85.086	µg/L	85.086	ppb	12:46:18
2	Mg 279.077 IEC†	24.5	23.0	367.17	µg/L	367.17	ppb	12:46:38
2	Na 589.592 Radial†	1.0	2.4	201.25	µg/L	201.25	ppb	12:46:38
2	Sr 421.552†	122.1	107.2	5.5953	µg/L	5.5953	ppb	12:46:18
2	Sc 361.383	377094.2	377094.2	95.068	%			12:47:35
2	Y 371.029	391776.9	391776.9	95.247	%			12:47:35
2	Ag 328.068†	184.5	667.8	5.4835	µg/L	5.4835	ppb	12:47:35
2	As 188.979†	36.7	45.1	33.698	µg/L	33.698	ppb	12:47:55
2	B 249.677†	1303.5	1273.7	47.478	µg/L	47.478	ppb	12:47:35
2	Ba 233.527†	388.6	427.9	4.7280	µg/L	4.7280	ppb	12:47:55
2	Be 313.107†	371.3	6786.6	5.0133	µg/L	5.0133	ppb	12:47:35
2	Cd 226.502†	170.4	346.5	4.8233	µg/L	4.8233	ppb	12:47:55
2	Co 228.616†	-23.7	178.5	5.1013	µg/L	5.1013	ppb	12:47:55
2	Cr 267.716†	346.2	212.7	4.7515	µg/L	4.7515	ppb	12:47:55
2	Cu 324.752†	3664.7	1517.7	10.107	µg/L	10.107	ppb	12:47:35
2	Mn 257.610†	5808.8	5766.6	10.051	µg/L	10.051	ppb	12:47:35
2	Mo 202.031†	115.5	110.0	9.2891	µg/L	9.2891	ppb	12:47:55
2	Ni 231.604†	64.7	136.0	4.7910	µg/L	4.7910	ppb	12:47:55
2	P 214.914†	178.7	151.9	145.47	µg/L	145.47	ppb	12:47:55

2	Pb 220.353†	155.2	58.1	9.6012 µg/L	9.6012 ppb	12:47:55
2	S 181.975 Axial†	76.3	39.0	88.502 µg/L	88.502 ppb	12:47:55
2	Sb 206.836†	65.9	17.9	8.0598 µg/L	8.0598 ppb	12:47:55
2	Se 196.026†	1.2	30.8	25.580 µg/L	25.580 ppb	12:47:55
2	SiO2†	2284.2	1258.3	211.60 µg/L	211.60 ppb	12:47:35
2	Si 251.611†	1585.6	1452.8	93.439 µg/L	93.439 ppb	12:47:55
2	Sn 189.927†	59.2	50.6	10.908 µg/L	10.908 ppb	12:47:55
2	Ti 334.940†	828.9	1323.2	4.9250 µg/L	4.9250 ppb	12:47:35
2	Tl 190.801†	-9.7	51.4	17.511 µg/L	17.511 ppb	12:47:55
2	U 367.007†	1200.3	178.6	49.21 µg/L	49.21 ppb	12:47:35
2	V 292.402†	393.9	362.3	4.4879 µg/L	4.4879 ppb	12:47:35
2	Zn 213.857†	1671.5	1343.8	14.395 µg/L	14.395 ppb	12:47:55
3	Sc RADIAL	3952.8	3952.8	97.3 %		12:46:43
3	Al 396.153Radial†	50.2	249.3	217.47 µg/L	217.47 ppb	12:46:43
3	Ca 317.933Radial†	278.1	231.9	227.62 µg/L	227.62 ppb	12:47:03
3	Fe 238.204 Radial†	22.3	21.7	98.524 µg/L	98.524 ppb	12:47:03
3	K 766.490 Radial†	374.4	261.1	197.51 µg/L	197.51 ppb	12:46:43
3	Mg 279.077 IEC†	22.1	20.3	324.42 µg/L	324.42 ppb	12:47:03
3	Na 589.592 Radial†	2.3	3.6	309.44 µg/L	309.44 ppb	12:47:03
3	Sr 421.552†	134.6	118.9	6.2059 µg/L	6.2059 ppb	12:46:43
3	Sc 361.383	378186.0	378186.0	95.343 %		12:48:01
3	Y 371.029	391765.3	391765.3	95.244 %		12:48:01
3	Ag 328.068†	117.3	596.8	4.8962 µg/L	4.8962 ppb	12:48:01
3	As 188.979†	30.0	38.0	28.336 µg/L	28.336 ppb	12:48:21
3	B 249.677†	1358.8	1327.6	49.420 µg/L	49.420 ppb	12:48:01
3	Ba 233.527†	416.1	455.6	5.0344 µg/L	5.0344 ppb	12:48:21
3	Be 313.107†	292.7	6703.0	4.9532 µg/L	4.9532 ppb	12:48:01
3	Cd 226.502†	163.6	338.9	4.7186 µg/L	4.7186 ppb	12:48:21
3	Co 228.616†	-21.1	181.3	5.1819 µg/L	5.1819 ppb	12:48:21
3	Cr 267.716†	338.8	203.9	4.5481 µg/L	4.5481 ppb	12:48:21
3	Cu 324.752†	3748.1	1594.1	10.618 µg/L	10.618 ppb	12:48:01
3	Mn 257.610†	5781.8	5720.6	9.9722 µg/L	9.9722 ppb	12:48:01
3	Mo 202.031†	111.1	105.0	8.8701 µg/L	8.8701 ppb	12:48:21
3	Ni 231.604†	61.9	132.9	4.6802 µg/L	4.6802 ppb	12:48:21
3	P 214.914†	169.6	141.8	135.80 µg/L	135.80 ppb	12:48:21
3	Pb 220.353†	147.4	49.5	8.1603 µg/L	8.1603 ppb	12:48:21
3	S 181.975 Axial†	81.3	43.9	99.691 µg/L	99.691 ppb	12:48:21
3	Sb 206.836†	76.4	28.7	12.905 µg/L	12.905 ppb	12:48:21
3	Se 196.026†	8.9	38.8	32.247 µg/L	32.247 ppb	12:48:21
3	SiO2†	2261.5	1227.6	206.43 µg/L	206.43 ppb	12:48:01
3	Si 251.611†	1569.9	1431.6	92.079 µg/L	92.079 ppb	12:48:21
3	Sn 189.927†	47.6	38.2	8.2499 µg/L	8.2499 ppb	12:48:21
3	Ti 334.940†	812.3	1303.3	4.8475 µg/L	4.8475 ppb	12:48:01
3	Tl 190.801†	-5.2	56.1	19.129 µg/L	19.129 ppb	12:48:21
3	U 367.007†	1226.6	202.5	55.93 µg/L	55.93 ppb	12:48:01
3	V 292.402†	444.3	414.0	5.1068 µg/L	5.1068 ppb	12:48:01
3	Zn 213.857†	1662.7	1329.6	14.244 µg/L	14.244 ppb	12:48:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	378168.1	95.339	%	0.2685				0.28%
Sc RADIAL	3935.3	96.9	%	0.44				0.46%
Y 371.029	392189.7	95.347	%	0.1763				0.18%
Ag 328.068†	612.8	5.0316	µg/L	0.40165	5.0316	ppb	0.40165	7.98%
QC value within limits for Ag 328.068 Recovery = 100.63%								
Al 396.153Radial†	234.4	204.44	µg/L	17.612	204.44	ppb	17.612	8.61%
QC value within limits for Al 396.153Radial Recovery = 102.22%								
As 188.979†	39.7	29.654	µg/L	3.5727	29.654	ppb	3.5727	12.05%
QC value within limits for As 188.979 Recovery = 98.85%								
B 249.677†	1284.8	47.868	µg/L	1.3985	47.868	ppb	1.3985	2.92%
QC value within limits for B 249.677 Recovery = 95.74%								
Ba 233.527†	438.8	4.8483	µg/L	0.16343	4.8483	ppb	0.16343	3.37%
QC value within limits for Ba 233.527 Recovery = 96.97%								
Be 313.107†	6770.6	5.0013	µg/L	0.04336	5.0013	ppb	0.04336	0.87%
QC value within limits for Be 313.107 Recovery = 100.03%								
Ca 317.933Radial†	236.3	231.94	µg/L	3.855	231.94	ppb	3.855	1.66%
QC value within limits for Ca 317.933Radial Recovery = 115.97%								
Cd 226.502†	342.8	4.7722	µg/L	0.05241	4.7722	ppb	0.05241	1.10%
QC value within limits for Cd 226.502 Recovery = 95.44%								

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Co 228.616†              175.0      5.0021 µg/L       0.24498      5.0021 ppb        0.24498   4.90%
   QC value within limits for Co 228.616  Recovery = 100.04%
Cr 267.716†              207.0      4.6225 µg/L       0.11218      4.6225 ppb        0.11218   2.43%
   QC value within limits for Cr 267.716  Recovery = 92.45%
Cu 324.752†             1528.9      10.181 µg/L        0.4050      10.181 ppb         0.4050   3.98%
   QC value within limits for Cu 324.752  Recovery = 101.81%
Fe 238.204 Radial†        23.2      105.45 µg/L         6.196      105.45 ppb          6.196   5.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.45%
K 766.490 Radial†        173.2      131.00 µg/L        58.972      131.00 ppb         58.972  45.02%
   QC value within limits for K 766.490 Radial  Recovery = 87.34%
Mg 279.077 IEC†           19.6      313.07 µg/L        60.578      313.07 ppb         60.578  19.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.36%
Mn 257.610†             5737.0      10.001 µg/L        0.0435      10.001 ppb         0.0435   0.43%
   QC value within limits for Mn 257.610  Recovery = 100.01%
Mo 202.031†              107.7      9.0957 µg/L       0.21135      9.0957 ppb        0.21135   2.32%
   QC value within limits for Mo 202.031  Recovery = 90.96%
Na 589.592 Radial†         2.8      242.07 µg/L        58.783      242.07 ppb         58.783  24.28%
   QC value within limits for Na 589.592 Radial  Recovery = 80.69%
Ni 231.604†              137.4      4.8394 µg/L       0.18812      4.8394 ppb        0.18812   3.89%
   QC value within limits for Ni 231.604  Recovery = 96.79%
P 214.914†               143.1      137.04 µg/L         7.891      137.04 ppb          7.891   5.76%
   QC value within limits for P 214.914  Recovery = 91.36%
Pb 220.353†               53.8      8.8770 µg/L       0.72045      8.8770 ppb        0.72045   8.12%
   QC value within limits for Pb 220.353  Recovery = 88.77%
S 181.975 Axial†          42.9      97.333 µg/L        7.9196      97.333 ppb         7.9196   8.14%
   QC value within limits for S 181.975 Axial  Recovery = 97.33%
Sb 206.836†               21.4      9.6396 µg/L       2.82841      9.6396 ppb        2.82841  29.34%
   QC value within limits for Sb 206.836  Recovery = 96.40%
Se 196.026†               33.5      27.807 µg/L        3.8450      27.807 ppb         3.8450  13.83%
   QC value within limits for Se 196.026  Recovery = 92.69%
SiO2†                    1233.3      207.39 µg/L         3.818      207.39 ppb          3.818   1.84%
   QC value within limits for SiO2  Recovery = 97.37%
Si 251.611†              1437.7      92.471 µg/L        0.8433      92.471 ppb         0.8433   0.91%
   QC value within limits for Si 251.611  Recovery = 92.47%
Sn 189.927†               45.0      9.6986 µg/L       1.34499      9.6986 ppb        1.34499  13.87%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†              111.2      5.8019 µg/L       0.34992      5.8019 ppb        0.34992   6.03%
   QC value within limits for Sr 421.552  Recovery = 116.04%
Ti 334.940†              1290.7      4.8040 µg/L       0.14762      4.8040 ppb        0.14762   3.07%
   QC value within limits for Ti 334.940  Recovery = 96.08%
Tl 190.801†               56.3      19.166 µg/L        1.6750      19.166 ppb         1.6750   8.74%
   QC value within limits for Tl 190.801  Recovery = 95.83%
U 367.007†               175.5       48.37 µg/L         8.008       48.37 ppb          8.008  16.55%
   QC value within limits for U 367.007  Recovery = 96.75%
V 292.402†               384.3      4.7492 µg/L       0.32045      4.7492 ppb        0.32045   6.75%
   QC value within limits for V 292.402  Recovery = 94.98%
Zn 213.857†              1336.7      14.317 µg/L        0.0756      14.317 ppb         0.0756   0.53%
   QC value greater than the upper limit for Zn 213.857  Recovery = 143.17%
QC Failed.  Continue with analysis.
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Sequence No.: 35 **Autosampler Location: 101**
Sample ID: PQL **Date Collected: 9/28/2017 14:01:44**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4078.8	4078.8	100	%			14:02:15
1	Al 396.153Radial†	27.7	225.4	196.53	µg/L	196.53	ppb	14:02:15
1	Ca 317.933Radial†	264.5	209.4	205.61	µg/L	205.61	ppb	14:02:35
1	Fe 238.204 Radial†	23.4	22.1	100.34	µg/L	100.34	ppb	14:02:35
1	K 766.490 Radial†	299.0	174.2	131.74	µg/L	131.74	ppb	14:02:15
1	Mg 279.077 IEC†	26.0	23.5	375.06	µg/L	375.06	ppb	14:02:35
1	Na 589.592 Radial†	1.7	3.0	255.91	µg/L	255.91	ppb	14:02:35
1	Sr 421.552†	127.1	107.1	5.5923	µg/L	5.5923	ppb	14:02:15
1	Sc 361.383	394827.2	394827.2	99.539	%			14:03:32
1	Y 371.029	408596.1	408596.1	99.336	%			14:03:32
1	Ag 328.068†	131.6	605.9	4.9755	µg/L	4.9755	ppb	14:03:32
1	As 188.979†	34.9	41.6	31.065	µg/L	31.065	ppb	14:03:52
1	B 249.677†	1446.1	1355.3	50.450	µg/L	50.450	ppb	14:03:32
1	Ba 233.527†	408.8	429.9	4.7499	µg/L	4.7499	ppb	14:03:52
1	Be 313.107†	309.4	6706.9	4.9535	µg/L	4.9535	ppb	14:03:32
1	Cd 226.502†	174.4	342.4	4.7680	µg/L	4.7680	ppb	14:03:52
1	Co 228.616†	-32.5	170.7	4.8791	µg/L	4.8791	ppb	14:03:52
1	Cr 267.716†	362.2	212.5	4.7493	µg/L	4.7493	ppb	14:03:52
1	Cu 324.752†	3780.5	1460.9	9.7273	µg/L	9.7273	ppb	14:03:32
1	Mn 257.610†	6088.5	5773.2	10.062	µg/L	10.062	ppb	14:03:32
1	Mo 202.031†	119.8	108.8	9.1902	µg/L	9.1902	ppb	14:03:52
1	Ni 231.604†	65.7	133.9	4.7162	µg/L	4.7162	ppb	14:03:52
1	P 214.914†	187.8	152.6	146.11	µg/L	146.11	ppb	14:03:52
1	Pb 220.353†	169.6	65.3	10.805	µg/L	10.805	ppb	14:03:52
1	S 181.975 Axial†	112.4	71.6	162.53	µg/L	162.53	ppb	14:03:52
1	Sb 206.836†	62.6	11.4	5.1667	µg/L	5.1667	ppb	14:03:52
1	Se 196.026†	5.4	35.0	29.055	µg/L	29.055	ppb	14:03:52
1	SiO2†	2346.8	1213.4	204.04	µg/L	204.04	ppb	14:03:32
1	Si 251.611†	1645.9	1438.5	92.522	µg/L	92.522	ppb	14:03:52
1	Sn 189.927†	60.1	48.7	10.498	µg/L	10.498	ppb	14:03:52
1	Ti 334.940†	903.3	1358.8	5.0581	µg/L	5.0581	ppb	14:03:32
1	Tl 190.801†	-0.9	60.7	20.689	µg/L	20.689	ppb	14:03:52
1	U 367.007†	1243.8	165.6	45.64	µg/L	45.64	ppb	14:03:32
1	V 292.402†	433.1	383.1	4.7335	µg/L	4.7335	ppb	14:03:32
1	Zn 213.857†	1382.8	974.8	10.438	µg/L	10.438	ppb	14:03:52
2	Sc RADIAL	4079.7	4079.7	100	%			14:02:40
2	Al 396.153Radial†	-12.8	184.9	161.24	µg/L	161.24	ppb	14:02:40
2	Ca 317.933Radial†	259.1	204.1	200.33	µg/L	200.33	ppb	14:03:00
2	Fe 238.204 Radial†	25.2	24.0	108.79	µg/L	108.79	ppb	14:03:00
2	K 766.490 Radial†	262.9	138.1	104.48	µg/L	104.48	ppb	14:02:40
2	Mg 279.077 IEC†	22.3	19.8	316.40	µg/L	316.40	ppb	14:03:00
2	Na 589.592 Radial†	2.8	4.1	346.87	µg/L	346.87	ppb	14:03:00
2	Sr 421.552†	116.7	96.8	5.0515	µg/L	5.0515	ppb	14:02:40
2	Sc 361.383	398260.3	398260.3	100.40	%			14:03:57
2	Y 371.029	411881.1	411881.1	100.13	%			14:03:57
2	Ag 328.068†	-11.3	462.4	3.8052	µg/L	3.8052	ppb	14:03:57
2	As 188.979†	27.1	33.5	25.045	µg/L	25.045	ppb	14:04:17
2	B 249.677†	1425.0	1321.8	49.249	µg/L	49.249	ppb	14:03:57
2	Ba 233.527†	412.6	430.1	4.7525	µg/L	4.7525	ppb	14:04:17
2	Be 313.107†	281.1	6676.0	4.9272	µg/L	4.9272	ppb	14:03:57
2	Cd 226.502†	179.2	345.6	4.8120	µg/L	4.8120	ppb	14:04:17
2	Co 228.616†	-46.1	157.5	4.5016	µg/L	4.5016	ppb	14:04:17
2	Cr 267.716†	357.1	204.3	4.5735	µg/L	4.5735	ppb	14:04:17
2	Cu 324.752†	3741.2	1389.0	9.2420	µg/L	9.2420	ppb	14:03:57
2	Mn 257.610†	6091.3	5723.2	9.9775	µg/L	9.9775	ppb	14:03:57
2	Mo 202.031†	112.1	100.1	8.4581	µg/L	8.4581	ppb	14:04:17
2	Ni 231.604†	67.3	135.0	4.7530	µg/L	4.7530	ppb	14:04:17
2	P 214.914†	185.5	148.7	142.41	µg/L	142.41	ppb	14:04:17

2	Pb 220.353†	170.3	64.5	10.681 µg/L	10.681 ppb	14:04:17
2	S 181.975 Axial†	115.1	73.4	166.54 µg/L	166.54 ppb	14:04:17
2	Sb 206.836†	74.4	22.7	10.192 µg/L	10.192 ppb	14:04:17
2	Se 196.026†	-3.5	26.0	21.657 µg/L	21.657 ppb	14:04:17
2	SiO2†	2339.4	1185.6	199.38 µg/L	199.38 ppb	14:03:57
2	Si 251.611†	1628.5	1407.0	90.503 µg/L	90.503 ppb	14:04:17
2	Sn 189.927†	48.2	36.3	7.8354 µg/L	7.8354 ppb	14:04:17
2	Ti 334.940†	861.5	1309.3	4.8802 µg/L	4.8802 ppb	14:03:57
2	Tl 190.801†	-8.5	53.1	18.100 µg/L	18.100 ppb	14:04:17
2	U 367.007†	1202.3	113.5	31.07 µg/L	31.07 ppb	14:03:57
2	V 292.402†	410.4	356.8	4.4029 µg/L	4.4029 ppb	14:03:57
2	Zn 213.857†	1389.1	969.2	10.372 µg/L	10.372 ppb	14:04:17
3	Sc RADIAL	4049.9	4049.9	99.7 %		14:03:05
3	Al 396.153Radial†	20.8	218.6	190.63 µg/L	190.63 ppb	14:03:05
3	Ca 317.933Radial†	257.0	203.8	200.09 µg/L	200.09 ppb	14:03:25
3	Fe 238.204 Radial†	23.1	22.0	100.04 µg/L	100.04 ppb	14:03:25
3	K 766.490 Radial†	274.2	151.4	114.49 µg/L	114.49 ppb	14:03:05
3	Mg 279.077 IEC†	26.7	24.4	388.92 µg/L	388.92 ppb	14:03:25
3	Na 589.592 Radial†	4.2	5.5	469.88 µg/L	469.88 ppb	14:03:25
3	Sr 421.552†	125.7	106.7	5.5697 µg/L	5.5697 ppb	14:03:05
3	Sc 361.383	396615.0	396615.0	99.990 %		14:04:23
3	Y 371.029	410463.9	410463.9	99.790 %		14:04:23
3	Ag 328.068†	57.0	530.7	4.3620 µg/L	4.3620 ppb	14:04:23
3	As 188.979†	27.6	34.1	25.483 µg/L	25.483 ppb	14:04:43
3	B 249.677†	1453.0	1355.6	50.460 µg/L	50.460 ppb	14:04:23
3	Ba 233.527†	414.5	433.8	4.7933 µg/L	4.7933 ppb	14:04:43
3	Be 313.107†	178.3	6574.3	4.8540 µg/L	4.8540 ppb	14:04:23
3	Cd 226.502†	160.3	327.6	4.5607 µg/L	4.5607 ppb	14:04:43
3	Co 228.616†	-32.3	171.1	4.8902 µg/L	4.8902 ppb	14:04:43
3	Cr 267.716†	353.6	202.2	4.5242 µg/L	4.5242 ppb	14:04:43
3	Cu 324.752†	3836.7	1500.0	9.9823 µg/L	9.9823 ppb	14:04:23
3	Mn 257.610†	6099.0	5756.1	10.032 µg/L	10.032 ppb	14:04:23
3	Mo 202.031†	118.9	107.3	9.0658 µg/L	9.0658 ppb	14:04:43
3	Ni 231.604†	53.8	121.7	4.2863 µg/L	4.2863 ppb	14:04:43
3	P 214.914†	199.2	163.2	156.25 µg/L	156.25 ppb	14:04:43
3	Pb 220.353†	141.1	36.0	5.9324 µg/L	5.9324 ppb	14:04:43
3	S 181.975 Axial†	111.6	70.3	159.49 µg/L	159.49 ppb	14:04:43
3	Sb 206.836†	84.9	33.5	15.076 µg/L	15.076 ppb	14:04:43
3	Se 196.026†	-2.0	27.6	22.915 µg/L	22.915 ppb	14:04:43
3	SiO2†	2376.6	1232.6	207.26 µg/L	207.26 ppb	14:04:23
3	Si 251.611†	1623.3	1408.5	90.587 µg/L	90.587 ppb	14:04:43
3	Sn 189.927†	58.0	46.3	9.9906 µg/L	9.9906 ppb	14:04:43
3	Ti 334.940†	827.8	1279.2	4.7645 µg/L	4.7645 ppb	14:04:23
3	Tl 190.801†	2.2	63.8	21.732 µg/L	21.732 ppb	14:04:43
3	U 367.007†	1222.5	138.6	38.14 µg/L	38.14 ppb	14:04:23
3	V 292.402†	441.4	389.4	4.8034 µg/L	4.8034 ppb	14:04:23
3	Zn 213.857†	1400.1	985.8	10.557 µg/L	10.557 ppb	14:04:43

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	396567.5	99.978	%	0.4329				0.43%
Sc RADIAL	4069.5	100	%	0.42				0.42%
Y 371.029	410313.7	99.754	%	0.4006				0.40%
Ag 328.068†	533.0	4.3809	µg/L	0.58538	4.3809	ppb	0.58538	13.36%
QC value within limits for Ag 328.068 Recovery = 87.62%								
Al 396.153Radial†	209.6	182.80	µg/L	18.902	182.80	ppb	18.902	10.34%
QC value within limits for Al 396.153Radial Recovery = 91.40%								
As 188.979†	36.4	27.198	µg/L	3.3565	27.198	ppb	3.3565	12.34%
QC value within limits for As 188.979 Recovery = 90.66%								
B 249.677†	1344.2	50.053	µg/L	0.6963	50.053	ppb	0.6963	1.39%
QC value within limits for B 249.677 Recovery = 100.11%								
Ba 233.527†	431.3	4.7652	µg/L	0.02435	4.7652	ppb	0.02435	0.51%
QC value within limits for Ba 233.527 Recovery = 95.30%								
Be 313.107†	6652.4	4.9115	µg/L	0.05155	4.9115	ppb	0.05155	1.05%
QC value within limits for Be 313.107 Recovery = 98.23%								
Ca 317.933Radial†	205.8	202.01	µg/L	3.117	202.01	ppb	3.117	1.54%
QC value within limits for Ca 317.933Radial Recovery = 101.00%								
Cd 226.502†	338.5	4.7136	µg/L	0.13421	4.7136	ppb	0.13421	2.85%
QC value within limits for Cd 226.502 Recovery = 94.27%								

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Co 228.616†              166.4      4.7570 µg/L       0.22119      4.7570 ppb        0.22119   4.65%
   QC value within limits for Co 228.616  Recovery = 95.14%
Cr 267.716†              206.3      4.6157 µg/L       0.11834      4.6157 ppb        0.11834   2.56%
   QC value within limits for Cr 267.716  Recovery = 92.31%
Cu 324.752†             1450.0      9.6505 µg/L       0.37606      9.6505 ppb        0.37606   3.90%
   QC value within limits for Cu 324.752  Recovery = 96.50%
Fe 238.204 Radial†        22.7      103.06 µg/L         4.970      103.06 ppb          4.970   4.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.06%
K 766.490 Radial†        154.6      116.90 µg/L        13.787      116.90 ppb         13.787  11.79%
   QC value within limits for K 766.490 Radial  Recovery = 77.94%
Mg 279.077 IEC†           22.5      360.12 µg/L        38.500      360.12 ppb         38.500  10.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 120.04%
Mn 257.610†             5750.8      10.024 µg/L        0.0429      10.024 ppb         0.0429   0.43%
   QC value within limits for Mn 257.610  Recovery = 100.24%
Mo 202.031†              105.4      8.9047 µg/L       0.39175      8.9047 ppb        0.39175   4.40%
   QC value within limits for Mo 202.031  Recovery = 89.05%
Na 589.592 Radial†         4.2      357.55 µg/L       107.386      357.55 ppb        107.386  30.03%
   QC value within limits for Na 589.592 Radial  Recovery = 119.18%
Ni 231.604†              130.2      4.5851 µg/L       0.25949      4.5851 ppb        0.25949   5.66%
   QC value within limits for Ni 231.604  Recovery = 91.70%
P 214.914†               154.8      148.25 µg/L         7.167      148.25 ppb          7.167   4.83%
   QC value within limits for P 214.914  Recovery = 98.84%
Pb 220.353†               55.3      9.1396 µg/L       2.77821      9.1396 ppb        2.77821  30.40%
   QC value within limits for Pb 220.353  Recovery = 91.40%
S 181.975 Axial†          71.8      162.85 µg/L         3.538      162.85 ppb          3.538   2.17%
   QC value greater than the upper limit for S 181.975 Axial  Recovery = 162.85%
Sb 206.836†               22.6      10.145 µg/L        4.9548      10.145 ppb         4.9548  48.84%
   QC value within limits for Sb 206.836  Recovery = 101.45%
Se 196.026†               29.5      24.542 µg/L        3.9584      24.542 ppb         3.9584  16.13%
   QC value within limits for Se 196.026  Recovery = 81.81%
SiO2†                   1210.5      203.56 µg/L         3.964      203.56 ppb          3.964   1.95%
   QC value within limits for SiO2  Recovery = 95.57%
Si 251.611†             1418.0      91.204 µg/L        1.1422      91.204 ppb         1.1422   1.25%
   QC value within limits for Si 251.611  Recovery = 91.20%
Sn 189.927†               43.8      9.4414 µg/L       1.41383      9.4414 ppb        1.41383  14.97%
   QC value within limits for Sn 189.927  Recovery = 94.41%
Sr 421.552†              103.5      5.4045 µg/L       0.30591      5.4045 ppb        0.30591   5.66%
   QC value within limits for Sr 421.552  Recovery = 108.09%
Ti 334.940†             1315.8      4.9009 µg/L       0.14789      4.9009 ppb        0.14789   3.02%
   QC value within limits for Ti 334.940  Recovery = 98.02%
Tl 190.801†               59.2      20.174 µg/L        1.8696      20.174 ppb         1.8696   9.27%
   QC value within limits for Tl 190.801  Recovery = 100.87%
U 367.007†               139.2       38.28 µg/L         7.289       38.28 ppb          7.289  19.04%
   QC value within limits for U 367.007  Recovery = 76.57%
V 292.402†               376.4      4.6466 µg/L       0.21393      4.6466 ppb        0.21393   4.60%
   QC value within limits for V 292.402  Recovery = 92.93%
Zn 213.857†              976.6      10.456 µg/L        0.0942      10.456 ppb         0.0942   0.90%
   QC value within limits for Zn 213.857  Recovery = 104.56%
QC Failed.  Continue with analysis.
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Sequence No.: 70 **Autosampler Location: 101**
Sample ID: PQL **Date Collected: 9/28/2017 15:53:16**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4011.5	4011.5	98.7	%			15:53:47
1	Al 396.153Radial†	34.3	232.5	202.77	µg/L	202.77	ppb	15:53:47
1	Ca 317.933Radial†	259.1	208.5	204.64	µg/L	204.64	ppb	15:54:07
1	Fe 238.204 Radial†	23.3	22.4	101.79	µg/L	101.79	ppb	15:54:07
1	K 766.490 Radial†	266.2	146.0	110.43	µg/L	110.43	ppb	15:53:47
1	Mg 279.077 IEC†	22.7	20.6	329.31	µg/L	329.31	ppb	15:54:07
1	Na 589.592 Radial†	9.5	11.0	937.89	µg/L	937.89	ppb	15:54:07
1	Sr 421.552†	118.6	100.7	5.2558	µg/L	5.2558	ppb	15:53:47
1	Sc 361.383	389300.9	389300.9	98.146	%			15:55:04
1	Y 371.029	402968.5	402968.5	97.968	%			15:55:04
1	Ag 328.068†	137.0	613.3	5.0360	µg/L	5.0360	ppb	15:55:04
1	As 188.979†	30.0	37.1	27.671	µg/L	27.671	ppb	15:55:24
1	B 249.677†	1382.1	1310.7	48.809	µg/L	48.809	ppb	15:55:04
1	Ba 233.527†	422.2	449.4	4.9657	µg/L	4.9657	ppb	15:55:24
1	Be 313.107†	318.6	6720.6	4.9640	µg/L	4.9640	ppb	15:55:04
1	Cd 226.502†	181.7	352.4	4.9067	µg/L	4.9067	ppb	15:55:24
1	Co 228.616†	-30.7	172.1	4.9195	µg/L	4.9195	ppb	15:55:24
1	Cr 267.716†	361.1	216.5	4.8379	µg/L	4.8379	ppb	15:55:24
1	Cu 324.752†	3833.5	1568.9	10.445	µg/L	10.445	ppb	15:55:04
1	Mn 257.610†	6113.7	5885.7	10.260	µg/L	10.260	ppb	15:55:04
1	Mo 202.031†	119.6	110.3	9.3181	µg/L	9.3181	ppb	15:55:24
1	Ni 231.604†	80.4	149.8	5.2757	µg/L	5.2757	ppb	15:55:24
1	P 214.914†	196.1	163.7	156.78	µg/L	156.78	ppb	15:55:24
1	Pb 220.353†	159.8	57.7	9.5430	µg/L	9.5430	ppb	15:55:24
1	S 181.975 Axial†	83.6	43.9	99.599	µg/L	99.599	ppb	15:55:24
1	Sb 206.836†	71.2	21.1	9.4874	µg/L	9.4874	ppb	15:55:24
1	Se 196.026†	-1.6	27.9	23.168	µg/L	23.168	ppb	15:55:24
1	SiO2†	2339.9	1239.7	208.47	µg/L	208.47	ppb	15:55:04
1	Si 251.611†	1667.5	1484.0	95.448	µg/L	95.448	ppb	15:55:24
1	Sn 189.927†	55.9	45.2	9.7604	µg/L	9.7604	ppb	15:55:24
1	Ti 334.940†	872.3	1340.1	4.9876	µg/L	4.9876	ppb	15:55:04
1	Tl 190.801†	-1.0	60.6	20.633	µg/L	20.633	ppb	15:55:24
1	U 367.007†	1232.2	171.5	47.28	µg/L	47.28	ppb	15:55:04
1	V 292.402†	421.8	377.8	4.6717	µg/L	4.6717	ppb	15:55:04
1	Zn 213.857†	1403.8	1016.0	10.876	µg/L	10.876	ppb	15:55:24
2	Sc RADIAL	4007.2	4007.2	98.6	%			15:54:12
2	Al 396.153Radial†	-4.3	193.4	168.59	µg/L	168.59	ppb	15:54:12
2	Ca 317.933Radial†	262.1	211.7	207.85	µg/L	207.85	ppb	15:54:32
2	Fe 238.204 Radial†	23.4	22.5	102.16	µg/L	102.16	ppb	15:54:32
2	K 766.490 Radial†	341.3	222.4	168.21	µg/L	168.21	ppb	15:54:12
2	Mg 279.077 IEC†	24.8	22.7	363.02	µg/L	363.02	ppb	15:54:32
2	Na 589.592 Radial†	3.1	4.4	380.51	µg/L	380.51	ppb	15:54:32
2	Sr 421.552†	136.7	119.2	6.2212	µg/L	6.2212	ppb	15:54:12
2	Sc 361.383	389642.6	389642.6	98.232	%			15:55:29
2	Y 371.029	402919.4	402919.4	97.956	%			15:55:29
2	Ag 328.068†	149.1	625.5	5.1346	µg/L	5.1346	ppb	15:55:29
2	As 188.979†	29.5	36.5	27.245	µg/L	27.245	ppb	15:55:49
2	B 249.677†	1369.1	1296.2	48.277	µg/L	48.277	ppb	15:55:29
2	Ba 233.527†	430.1	457.0	5.0499	µg/L	5.0499	ppb	15:55:49
2	Be 313.107†	333.0	6735.0	4.9757	µg/L	4.9757	ppb	15:55:29
2	Cd 226.502†	206.6	377.5	5.2572	µg/L	5.2572	ppb	15:55:49
2	Co 228.616†	-35.4	167.3	4.7823	µg/L	4.7823	ppb	15:55:49
2	Cr 267.716†	347.6	202.4	4.5180	µg/L	4.5180	ppb	15:55:49
2	Cu 324.752†	3789.5	1520.6	10.128	µg/L	10.128	ppb	15:55:29
2	Mn 257.610†	6061.3	5826.9	10.156	µg/L	10.156	ppb	15:55:29
2	Mo 202.031†	117.0	107.5	9.0844	µg/L	9.0844	ppb	15:55:49
2	Ni 231.604†	63.5	132.6	4.6686	µg/L	4.6686	ppb	15:55:49
2	P 214.914†	191.6	159.0	152.26	µg/L	152.26	ppb	15:55:49

2	Pb 220.353†	155.1	52.7	8.7111 µg/L	8.7111 ppb	15:55:49
2	S 181.975 Axial†	83.5	43.7	99.274 µg/L	99.274 ppb	15:55:49
2	Sb 206.836†	69.5	19.4	8.7250 µg/L	8.7250 ppb	15:55:49
2	Se 196.026†	-4.0	25.4	21.131 µg/L	21.131 ppb	15:55:49
2	SiO2†	2346.7	1244.6	209.29 µg/L	209.29 ppb	15:55:29
2	Si 251.611†	1671.8	1486.9	95.645 µg/L	95.645 ppb	15:55:49
2	Sn 189.927†	56.5	45.9	9.8984 µg/L	9.8984 ppb	15:55:49
2	Ti 334.940†	922.7	1390.7	5.1740 µg/L	5.1740 ppb	15:55:29
2	Tl 190.801†	-8.3	53.1	18.111 µg/L	18.111 ppb	15:55:49
2	U 367.007†	1251.3	189.8	52.40 µg/L	52.40 ppb	15:55:29
2	V 292.402†	464.4	420.7	5.1880 µg/L	5.1880 ppb	15:55:29
2	Zn 213.857†	1403.9	1014.8	10.866 µg/L	10.866 ppb	15:55:49
3	Sc RADIAL	4035.9	4035.9	99.3 %		15:54:37
3	Al 396.153Radial†	36.0	234.0	203.99 µg/L	203.99 ppb	15:54:37
3	Ca 317.933Radial†	259.1	206.8	203.03 µg/L	203.03 ppb	15:54:57
3	Fe 238.204 Radial†	23.7	22.6	102.78 µg/L	102.78 ppb	15:54:57
3	K 766.490 Radial†	292.9	171.1	129.45 µg/L	129.45 ppb	15:54:37
3	Mg 279.077 IEC†	23.7	21.4	342.51 µg/L	342.51 ppb	15:54:57
3	Na 589.592 Radial†	1.1	2.4	205.68 µg/L	205.68 ppb	15:54:57
3	Sr 421.552†	121.7	103.1	5.3800 µg/L	5.3800 ppb	15:54:37
3	Sc 361.383	389314.9	389314.9	98.149 %		15:55:55
3	Y 371.029	402902.1	402902.1	97.952 %		15:55:55
3	Ag 328.068†	142.6	619.0	5.0820 µg/L	5.0820 ppb	15:55:55
3	As 188.979†	34.7	41.8	31.237 µg/L	31.237 ppb	15:56:15
3	B 249.677†	1407.8	1336.9	49.780 µg/L	49.780 ppb	15:55:55
3	Ba 233.527†	413.6	440.6	4.8689 µg/L	4.8689 ppb	15:56:15
3	Be 313.107†	338.1	6740.5	4.9794 µg/L	4.9794 ppb	15:55:55
3	Cd 226.502†	186.5	357.2	4.9745 µg/L	4.9745 ppb	15:56:15
3	Co 228.616†	-40.2	162.5	4.6462 µg/L	4.6462 ppb	15:56:15
3	Cr 267.716†	351.7	206.9	4.6204 µg/L	4.6204 ppb	15:56:15
3	Cu 324.752†	3751.9	1485.6	9.8939 µg/L	9.8939 ppb	15:55:55
3	Mn 257.610†	6085.1	5856.3	10.209 µg/L	10.209 ppb	15:55:55
3	Mo 202.031†	130.0	120.9	10.208 µg/L	10.208 ppb	15:56:15
3	Ni 231.604†	62.4	131.5	4.6311 µg/L	4.6311 ppb	15:56:15
3	P 214.914†	198.3	166.0	158.95 µg/L	158.95 ppb	15:56:15
3	Pb 220.353†	163.9	61.9	10.231 µg/L	10.231 ppb	15:56:15
3	S 181.975 Axial†	87.6	47.9	108.72 µg/L	108.72 ppb	15:56:15
3	Sb 206.836†	72.5	22.4	10.118 µg/L	10.118 ppb	15:56:15
3	Se 196.026†	-1.3	28.2	23.432 µg/L	23.432 ppb	15:56:15
3	SiO2†	2340.8	1240.6	208.61 µg/L	208.61 ppb	15:55:55
3	Si 251.611†	1673.4	1490.0	95.817 µg/L	95.817 ppb	15:56:15
3	Sn 189.927†	62.4	51.9	11.186 µg/L	11.186 ppb	15:56:15
3	Ti 334.940†	897.9	1366.1	5.0830 µg/L	5.0830 ppb	15:55:55
3	Tl 190.801†	-20.0	41.2	14.042 µg/L	14.042 ppb	15:56:15
3	U 367.007†	1244.4	183.9	50.73 µg/L	50.73 ppb	15:55:55
3	V 292.402†	447.5	403.9	4.9960 µg/L	4.9960 ppb	15:55:55
3	Zn 213.857†	1411.0	1023.3	10.956 µg/L	10.956 ppb	15:56:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	389419.5	98.175	%	0.0487				0.05%
Sc RADIAL	4018.2	98.9	%	0.38				0.39%
Y 371.029	402930.0	97.959	%	0.0084				0.01%
Ag 328.068†	619.3	5.0842	µg/L	0.04932	5.0842	ppb	0.04932	0.97%
QC value within limits for Ag 328.068 Recovery = 101.68%								
Al 396.153Radial†	220.0	191.78	µg/L	20.094	191.78	ppb	20.094	10.48%
QC value within limits for Al 396.153Radial Recovery = 95.89%								
As 188.979†	38.5	28.717	µg/L	2.1922	28.717	ppb	2.1922	7.63%
QC value within limits for As 188.979 Recovery = 95.72%								
B 249.677†	1314.6	48.955	µg/L	0.7626	48.955	ppb	0.7626	1.56%
QC value within limits for B 249.677 Recovery = 97.91%								
Ba 233.527†	449.0	4.9615	µg/L	0.09056	4.9615	ppb	0.09056	1.83%
QC value within limits for Ba 233.527 Recovery = 99.23%								
Be 313.107†	6732.0	4.9730	µg/L	0.00806	4.9730	ppb	0.00806	0.16%
QC value within limits for Be 313.107 Recovery = 99.46%								
Ca 317.933Radial†	209.0	205.18	µg/L	2.454	205.18	ppb	2.454	1.20%
QC value within limits for Ca 317.933Radial Recovery = 102.59%								
Cd 226.502†	362.4	5.0461	µg/L	0.18592	5.0461	ppb	0.18592	3.68%
QC value within limits for Cd 226.502 Recovery = 100.92%								

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Co 228.616†              167.3      4.7827 µg/L       0.13666      4.7827 ppb        0.13666   2.86%
   QC value within limits for Co 228.616  Recovery = 95.65%
Cr 267.716†              208.6      4.6588 µg/L       0.16338      4.6588 ppb        0.16338   3.51%
   QC value within limits for Cr 267.716  Recovery = 93.18%
Cu 324.752†             1525.0      10.156 µg/L        0.2766      10.156 ppb         0.2766   2.72%
   QC value within limits for Cu 324.752  Recovery = 101.56%
Fe 238.204 Radial†        22.5      102.25 µg/L         0.501      102.25 ppb          0.501   0.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.25%
K 766.490 Radial†        179.8      136.03 µg/L        29.448      136.03 ppb         29.448  21.65%
   QC value within limits for K 766.490 Radial  Recovery = 90.69%
Mg 279.077 IEC†           21.6      344.95 µg/L        16.987      344.95 ppb         16.987   4.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.98%
Mn 257.610†             5856.3      10.208 µg/L        0.0519      10.208 ppb         0.0519   0.51%
   QC value within limits for Mn 257.610  Recovery = 102.08%
Mo 202.031†              112.9      9.5367 µg/L       0.59272      9.5367 ppb        0.59272   6.22%
   QC value within limits for Mo 202.031  Recovery = 95.37%
Na 589.592 Radial†         5.9      508.03 µg/L       382.399      508.03 ppb        382.399  75.27%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 169.34%
Ni 231.604†              137.9      4.8585 µg/L       0.36183      4.8585 ppb        0.36183   7.45%
   QC value within limits for Ni 231.604  Recovery = 97.17%
P 214.914†               162.9      156.00 µg/L         3.413      156.00 ppb          3.413   2.19%
   QC value within limits for P 214.914  Recovery = 104.00%
Pb 220.353†               57.5      9.4951 µg/L       0.76121      9.4951 ppb        0.76121   8.02%
   QC value within limits for Pb 220.353  Recovery = 94.95%
S 181.975 Axial†          45.2      102.53 µg/L         5.362      102.53 ppb          5.362   5.23%
   QC value within limits for S 181.975 Axial  Recovery = 102.53%
Sb 206.836†               21.0      9.4434 µg/L       0.69739      9.4434 ppb        0.69739   7.38%
   QC value within limits for Sb 206.836  Recovery = 94.43%
Se 196.026†               27.2      22.577 µg/L        1.2591      22.577 ppb         1.2591   5.58%
   QC value within limits for Se 196.026  Recovery = 75.26%
SiO2†                   1241.6      208.79 µg/L         0.436      208.79 ppb          0.436   0.21%
   QC value within limits for SiO2  Recovery = 98.02%
Si 251.611†             1487.0      95.637 µg/L        0.1845      95.637 ppb         0.1845   0.19%
   QC value within limits for Si 251.611  Recovery = 95.64%
Sn 189.927†               47.7      10.282 µg/L        0.7864      10.282 ppb         0.7864   7.65%
   QC value within limits for Sn 189.927  Recovery = 102.82%
Sr 421.552†              107.7      5.6190 µg/L       0.52520      5.6190 ppb        0.52520   9.35%
   QC value within limits for Sr 421.552  Recovery = 112.38%
Ti 334.940†             1365.6      5.0815 µg/L       0.09325      5.0815 ppb        0.09325   1.84%
   QC value within limits for Ti 334.940  Recovery = 101.63%
Tl 190.801†               51.6      17.595 µg/L        3.3256      17.595 ppb         3.3256  18.90%
   QC value within limits for Tl 190.801  Recovery = 87.98%
U 367.007†               181.7       50.13 µg/L         2.609       50.13 ppb          2.609   5.20%
   QC value within limits for U 367.007  Recovery = 100.27%
V 292.402†               400.8      4.9519 µg/L       0.26094      4.9519 ppb        0.26094   5.27%
   QC value within limits for V 292.402  Recovery = 99.04%
Zn 213.857†             1018.0      10.899 µg/L        0.0491      10.899 ppb         0.0491   0.45%
   QC value within limits for Zn 213.857  Recovery = 108.99%
QC Failed.  Continue with analysis.
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Sequence No.: 82 **Autosampler Location: 109**
Sample ID: PQL **Date Collected: 9/28/2017 16:30:45**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4015.8	4015.8	98.8	%			16:31:17
1	Al 396.153Radial†	30.0	228.1	198.90	µg/L	198.90	ppb	16:31:17
1	Ca 317.933Radial†	565.0	517.7	508.19	µg/L	508.19	ppb	16:31:37
1	Fe 238.204 Radial†	20.5	19.5	88.672	µg/L	88.672	ppb	16:31:37
1	K 766.490 Radial†	347.5	227.9	172.40	µg/L	172.40	ppb	16:31:17
1	Mg 279.077 IEC†	22.8	20.6	329.42	µg/L	329.42	ppb	16:31:37
1	Na 589.592 Radial†	0.6	1.9	166.42	µg/L	166.42	ppb	16:31:37
1	Sr 421.552†	117.7	99.6	5.1895	µg/L	5.1895	ppb	16:31:17
1	Sc 361.383	390139.2	390139.2	98.357	%			16:32:34
1	Y 371.029	403656.3	403656.3	98.135	%			16:32:34
1	Ag 328.068†	131.3	607.2	4.9927	µg/L	4.9927	ppb	16:32:34
1	As 188.979†	37.9	45.1	33.625	µg/L	33.625	ppb	16:32:54
1	B 249.677†	1416.5	1342.7	49.934	µg/L	49.934	ppb	16:32:34
1	Ba 233.527†	419.4	445.6	4.9246	µg/L	4.9246	ppb	16:32:54
1	Be 313.107†	481.5	6885.5	5.0837	µg/L	5.0837	ppb	16:32:34
1	Cd 226.502†	200.7	371.2	5.1714	µg/L	5.1714	ppb	16:32:54
1	Co 228.616†	-27.5	175.5	5.0157	µg/L	5.0157	ppb	16:32:54
1	Cr 267.716†	380.7	235.6	5.2813	µg/L	5.2813	ppb	16:32:54
1	Cu 324.752†	3850.6	1577.8	10.491	µg/L	10.491	ppb	16:32:34
1	Mn 257.610†	6214.0	5974.3	10.414	µg/L	10.414	ppb	16:32:34
1	Mo 202.031†	121.0	111.5	9.4181	µg/L	9.4181	ppb	16:32:54
1	Ni 231.604†	56.1	124.9	4.4003	µg/L	4.4003	ppb	16:32:54
1	P 214.914†	180.7	147.7	141.43	µg/L	141.43	ppb	16:32:54
1	Pb 220.353†	156.1	53.6	8.8367	µg/L	8.8367	ppb	16:32:54
1	S 181.975 Axial†	82.2	42.3	95.937	µg/L	95.937	ppb	16:32:54
1	Sb 206.836†	82.3	32.3	14.513	µg/L	14.513	ppb	16:32:54
1	Se 196.026†	4.4	34.0	28.251	µg/L	28.251	ppb	16:32:54
1	SiO2†	2433.5	1329.8	223.62	µg/L	223.62	ppb	16:32:34
1	Si 251.611†	1748.4	1562.6	100.52	µg/L	100.52	ppb	16:32:54
1	Sn 189.927†	64.6	54.0	11.638	µg/L	11.638	ppb	16:32:54
1	Ti 334.940†	846.4	1311.9	4.9073	µg/L	4.9073	ppb	16:32:34
1	Tl 190.801†	-14.3	47.0	16.011	µg/L	16.011	ppb	16:32:54
1	U 367.007†	1166.9	102.4	28.05	µg/L	28.05	ppb	16:32:34
1	V 292.402†	425.5	380.6	4.6949	µg/L	4.6949	ppb	16:32:34
1	Zn 213.857†	4056.1	3709.4	39.794	µg/L	39.794	ppb	16:32:54
2	Sc RADIAL	3988.7	3988.7	98.2	%			16:31:42
2	Al 396.153Radial†	17.9	216.0	188.32	µg/L	188.32	ppb	16:31:42
2	Ca 317.933Radial†	572.3	529.0	519.29	µg/L	519.29	ppb	16:32:02
2	Fe 238.204 Radial†	23.7	22.9	104.22	µg/L	104.22	ppb	16:32:02
2	K 766.490 Radial†	322.4	204.7	154.84	µg/L	154.84	ppb	16:31:42
2	Mg 279.077 IEC†	23.6	21.6	344.81	µg/L	344.81	ppb	16:32:02
2	Na 589.592 Radial†	2.9	4.3	364.89	µg/L	364.89	ppb	16:32:02
2	Sr 421.552†	121.1	104.0	5.4162	µg/L	5.4162	ppb	16:31:42
2	Sc 361.383	390475.9	390475.9	98.442	%			16:33:00
2	Y 371.029	404183.6	404183.6	98.263	%			16:33:00
2	Ag 328.068†	243.2	720.7	5.9206	µg/L	5.9206	ppb	16:33:00
2	As 188.979†	33.1	40.2	29.979	µg/L	29.979	ppb	16:33:20
2	B 249.677†	1436.5	1361.7	50.702	µg/L	50.702	ppb	16:33:00
2	Ba 233.527†	427.8	453.8	5.0141	µg/L	5.0141	ppb	16:33:20
2	Be 313.107†	452.0	6855.2	5.0648	µg/L	5.0648	ppb	16:33:00
2	Cd 226.502†	197.4	367.7	5.1203	µg/L	5.1203	ppb	16:33:20
2	Co 228.616†	-29.8	173.1	4.9464	µg/L	4.9464	ppb	16:33:20
2	Cr 267.716†	374.0	228.5	5.1113	µg/L	5.1113	ppb	16:33:20
2	Cu 324.752†	3750.1	1472.3	9.8016	µg/L	9.8016	ppb	16:33:00
2	Mn 257.610†	6227.3	5982.3	10.428	µg/L	10.428	ppb	16:33:00
2	Mo 202.031†	113.3	103.5	8.7458	µg/L	8.7458	ppb	16:33:20
2	Ni 231.604†	78.4	147.6	5.1976	µg/L	5.1976	ppb	16:33:20
2	P 214.914†	195.0	162.0	155.19	µg/L	155.19	ppb	16:33:20

2	Pb 220.353†	149.7	47.0	7.7267 µg/L	7.7267 ppb		16:33:20
2	S 181.975 Axial†	87.6	47.7	108.22 µg/L	108.22 ppb		16:33:20
2	Sb 206.836†	68.5	18.2	8.1651 µg/L	8.1651 ppb		16:33:20
2	Se 196.026†	-1.8	27.7	23.014 µg/L	23.014 ppb		16:33:20
2	SiO2†	2414.4	1308.3	220.01 µg/L	220.01 ppb		16:33:00
2	Si 251.611†	1736.0	1548.5	99.618 µg/L	99.618 ppb		16:33:20
2	Sn 189.927†	58.4	47.7	10.281 µg/L	10.281 ppb		16:33:20
2	Ti 334.940†	940.7	1407.0	5.2559 µg/L	5.2559 ppb		16:33:00
2	Tl 190.801†	-14.2	47.2	16.076 µg/L	16.076 ppb		16:33:20
2	U 367.007†	1219.2	154.4	42.48 µg/L	42.48 ppb		16:33:00
2	V 292.402†	427.3	382.1	4.7161 µg/L	4.7161 ppb		16:33:00
2	Zn 213.857†	4048.9	3698.6	39.672 µg/L	39.672 ppb		16:33:20
3	Sc RADIAL	3977.8	3977.8	97.9 %			16:32:08
3	Al 396.153Radial†	52.1	250.9	218.86 µg/L	218.86 ppb		16:32:08
3	Ca 317.933Radial†	570.2	528.4	518.73 µg/L	518.73 ppb		16:32:28
3	Fe 238.204 Radial†	23.9	23.2	105.48 µg/L	105.48 ppb		16:32:28
3	K 766.490 Radial†	381.1	265.6	200.88 µg/L	200.88 ppb		16:32:08
3	Mg 279.077 IEC†	25.4	23.6	376.60 µg/L	376.60 ppb		16:32:28
3	Na 589.592 Radial†	2.7	4.0	343.02 µg/L	343.02 ppb		16:32:28
3	Sr 421.552†	111.9	94.9	4.9421 µg/L	4.9421 ppb		16:32:08
3	Sc 361.383	387839.7	387839.7	97.777 %			16:33:25
3	Y 371.029	401231.5	401231.5	97.546 %			16:33:25
3	Ag 328.068†	141.6	618.5	5.0807 µg/L	5.0807 ppb		16:33:25
3	As 188.979†	36.2	43.5	32.477 µg/L	32.477 ppb		16:33:45
3	B 249.677†	1423.4	1358.2	50.580 µg/L	50.580 ppb		16:33:25
3	Ba 233.527†	422.0	450.8	4.9817 µg/L	4.9817 ppb		16:33:45
3	Be 313.107†	248.8	6650.5	4.9159 µg/L	4.9159 ppb		16:33:25
3	Cd 226.502†	158.4	329.2	4.5833 µg/L	4.5833 ppb		16:33:45
3	Co 228.616†	-25.4	177.4	5.0697 µg/L	5.0697 ppb		16:33:45
3	Cr 267.716†	381.4	238.6	5.3340 µg/L	5.3340 ppb		16:33:45
3	Cu 324.752†	3779.7	1528.5	10.179 µg/L	10.179 ppb		16:33:25
3	Mn 257.610†	6180.8	5977.7	10.419 µg/L	10.419 ppb		16:33:25
3	Mo 202.031†	115.6	106.7	9.0110 µg/L	9.0110 ppb		16:33:45
3	Ni 231.604†	76.6	146.3	5.1517 µg/L	5.1517 ppb		16:33:45
3	P 214.914†	201.2	169.8	162.58 µg/L	162.58 ppb		16:33:45
3	Pb 220.353†	155.0	53.4	8.7856 µg/L	8.7856 ppb		16:33:45
3	S 181.975 Axial†	95.6	56.4	128.09 µg/L	128.09 ppb		16:33:45
3	Sb 206.836†	67.8	17.9	8.0421 µg/L	8.0421 ppb		16:33:45
3	Se 196.026†	10.6	40.4	33.532 µg/L	33.532 ppb		16:33:45
3	SiO2†	2407.5	1317.9	221.63 µg/L	221.63 ppb		16:33:25
3	Si 251.611†	1736.8	1561.3	100.44 µg/L	100.44 ppb		16:33:45
3	Sn 189.927†	60.2	49.9	10.754 µg/L	10.754 ppb		16:33:45
3	Ti 334.940†	837.2	1307.5	4.8812 µg/L	4.8812 ppb		16:33:25
3	Tl 190.801†	0.9	62.5	21.280 µg/L	21.280 ppb		16:33:45
3	U 367.007†	1237.2	181.3	49.96 µg/L	49.96 ppb		16:33:25
3	V 292.402†	557.0	517.6	6.3526 µg/L	6.3526 ppb		16:33:25
3	Zn 213.857†	4037.0	3714.4	39.842 µg/L	39.842 ppb		16:33:45

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	389484.9	98.192	%	0.3617				0.37%
Sc RADIAL	3994.1	98.3	%	0.48				0.49%
Y 371.029	403023.8	97.981	%	0.3828				0.39%
Ag 328.068†	648.8	5.3313	µg/L	0.51220	5.3313	ppb	0.51220	9.61%
QC value within limits for Ag 328.068 Recovery = 106.63%								
Al 396.153Radial†	231.7	202.03	µg/L	15.506	202.03	ppb	15.506	7.68%
QC value within limits for Al 396.153Radial Recovery = 101.01%								
As 188.979†	42.9	32.027	µg/L	1.8645	32.027	ppb	1.8645	5.82%
QC value within limits for As 188.979 Recovery = 106.76%								
B 249.677†	1354.2	50.405	µg/L	0.4129	50.405	ppb	0.4129	0.82%
QC value within limits for B 249.677 Recovery = 100.81%								
Ba 233.527†	450.1	4.9734	µg/L	0.04530	4.9734	ppb	0.04530	0.91%
QC value within limits for Ba 233.527 Recovery = 99.47%								
Be 313.107†	6797.1	5.0215	µg/L	0.09193	5.0215	ppb	0.09193	1.83%
QC value within limits for Be 313.107 Recovery = 100.43%								
Ca 317.933Radial†	525.0	515.40	µg/L	6.252	515.40	ppb	6.252	1.21%
QC value greater than the upper limit for Ca 317.933Radial Recovery = 257.70%								
Cd 226.502†	356.0	4.9583	µg/L	0.32577	4.9583	ppb	0.32577	6.57%
QC value within limits for Cd 226.502 Recovery = 99.17%								

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Co 228.616†              175.3      5.0106 µg/L       0.06183      5.0106 ppb        0.06183   1.23%
   QC value within limits for Co 228.616  Recovery = 100.21%
Cr 267.716†              234.3      5.2422 µg/L       0.11643      5.2422 ppb        0.11643   2.22%
   QC value within limits for Cr 267.716  Recovery = 104.84%
Cu 324.752†             1526.2      10.157 µg/L        0.3454      10.157 ppb         0.3454   3.40%
   QC value within limits for Cu 324.752  Recovery = 101.57%
Fe 238.204 Radial†        21.9      99.457 µg/L        9.3610      99.457 ppb         9.3610   9.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.46%
K 766.490 Radial†        232.7      176.04 µg/L        23.232      176.04 ppb         23.232  13.20%
   QC value within limits for K 766.490 Radial  Recovery = 117.36%
Mg 279.077 IEC†           21.9      350.28 µg/L        24.063      350.28 ppb         24.063   6.87%
   QC value within limits for Mg 279.077 IEC  Recovery = 116.76%
Mn 257.610†             5978.1      10.420 µg/L        0.0072      10.420 ppb         0.0072   0.07%
   QC value within limits for Mn 257.610  Recovery = 104.20%
Mo 202.031†              107.2      9.0583 µg/L       0.33864      9.0583 ppb        0.33864   3.74%
   QC value within limits for Mo 202.031  Recovery = 90.58%
Na 589.592 Radial†         3.4      291.44 µg/L       108.829      291.44 ppb        108.829  37.34%
   QC value within limits for Na 589.592 Radial  Recovery = 97.15%
Ni 231.604†              139.6      4.9165 µg/L       0.44763      4.9165 ppb        0.44763   9.10%
   QC value within limits for Ni 231.604  Recovery = 98.33%
P 214.914†               159.8      153.06 µg/L        10.733      153.06 ppb         10.733   7.01%
   QC value within limits for P 214.914  Recovery = 102.04%
Pb 220.353†               51.3      8.4497 µg/L       0.62664      8.4497 ppb        0.62664   7.42%
   QC value within limits for Pb 220.353  Recovery = 84.50%
S 181.975 Axial†          48.8      110.75 µg/L        16.225      110.75 ppb         16.225  14.65%
   QC value within limits for S 181.975 Axial  Recovery = 110.75%
Sb 206.836†               22.8      10.240 µg/L        3.7011      10.240 ppb         3.7011  36.14%
   QC value within limits for Sb 206.836  Recovery = 102.40%
Se 196.026†               34.0      28.266 µg/L        5.2592      28.266 ppb         5.2592  18.61%
   QC value within limits for Se 196.026  Recovery = 94.22%
SiO2†                    1318.7      221.76 µg/L         1.806      221.76 ppb          1.806   0.81%
   QC value within limits for SiO2  Recovery = 104.11%
Si 251.611†              1557.5      100.19 µg/L         0.498      100.19 ppb          0.498   0.50%
   QC value within limits for Si 251.611  Recovery = 100.19%
Sn 189.927†               50.5      10.891 µg/L        0.6889      10.891 ppb         0.6889   6.33%
   QC value within limits for Sn 189.927  Recovery = 108.91%
Sr 421.552†               99.5      5.1826 µg/L       0.23715      5.1826 ppb        0.23715   4.58%
   QC value within limits for Sr 421.552  Recovery = 103.65%
Ti 334.940†              1342.1      5.0148 µg/L       0.20922      5.0148 ppb        0.20922   4.17%
   QC value within limits for Ti 334.940  Recovery = 100.30%
Tl 190.801†               52.2      17.789 µg/L        3.0236      17.789 ppb         3.0236  17.00%
   QC value within limits for Tl 190.801  Recovery = 88.94%
U 367.007†               146.1       40.16 µg/L        11.134       40.16 ppb         11.134  27.72%
   QC value within limits for U 367.007  Recovery = 80.33%
V 292.402†               426.8      5.2545 µg/L       0.95100      5.2545 ppb        0.95100  18.10%
   QC value within limits for V 292.402  Recovery = 105.09%
Zn 213.857†              3707.5      39.769 µg/L        0.0878      39.769 ppb         0.0878   0.22%
   QC value greater than the upper limit for Zn 213.857  Recovery = 397.69%
QC Failed.  Continue with analysis.
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Sequence No.: 84 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/28/2017 16:37:03**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3888.8	3888.8	95.7	%			16:37:54
1	Al 396.153Radial†	5529.9	5975.0	5199.3	µg/L	5199.3	ppb	16:37:34
1	Ca 317.933Radial†	5073.9	5246.8	5150.9	µg/L	5150.9	ppb	16:37:54
1	Fe 238.204 Radial†	1068.5	1115.1	5064.1	µg/L	5064.1	ppb	16:37:54
1	K 766.490 Radial†	6399.6	6562.2	4963.8	µg/L	4963.8	ppb	16:37:34
1	Mg 279.077 IEC†	318.6	330.5	5278.3	µg/L	5278.3	ppb	16:37:54
1	Na 589.592 Radial†	109.9	116.1	9940.0	µg/L	9940.0	ppb	16:37:54
1	Sr 421.552†	9570.1	9978.7	521.31	µg/L	521.31	ppb	16:37:34
1	Sc 361.383	384985.0	384985.0	97.058	%			16:38:51
1	Y 371.029	394054.3	394054.3	95.801	%			16:38:51
1	Ag 328.068†	58027.4	60260.3	496.11	µg/L	496.11	ppb	16:38:51
1	As 188.979†	626.7	652.2	490.74	µg/L	490.74	ppb	16:39:11
1	B 249.677†	12956.9	13252.2	509.14	µg/L	509.14	ppb	16:38:51
1	Ba 233.527†	43054.4	44378.9	490.53	µg/L	490.53	ppb	16:38:51
1	Be 313.107†	637719.6	663449.3	488.91	µg/L	488.91	ppb	16:38:51
1	Cd 226.502†	33720.7	34910.2	486.72	µg/L	486.72	ppb	16:38:51
1	Co 228.616†	16596.1	17302.6	493.81	µg/L	493.81	ppb	16:38:51
1	Cr 267.716†	21276.1	21769.7	488.88	µg/L	488.88	ppb	16:38:51
1	Cu 324.752†	75081.8	75021.0	498.35	µg/L	498.35	ppb	16:38:51
1	Mn 257.610†	274879.1	282869.0	493.49	µg/L	493.49	ppb	16:38:51
1	Mo 202.031†	5648.9	5808.6	490.61	µg/L	490.61	ppb	16:39:11
1	Ni 231.604†	13766.4	14251.7	501.89	µg/L	501.89	ppb	16:38:51
1	P 214.914†	2515.1	2555.3	2436.9	µg/L	2436.9	ppb	16:39:11
1	Pb 220.353†	2950.9	2935.3	488.05	µg/L	488.05	ppb	16:39:11
1	S 181.975 Axial†	464.6	437.4	992.11	µg/L	992.11	ppb	16:39:11
1	Sb 206.836†	1118.3	1100.8	490.04	µg/L	490.04	ppb	16:39:11
1	Se 196.026†	545.6	591.7	493.61	µg/L	493.61	ppb	16:39:11
1	SiO2†	31970.7	31795.7	5350.3	µg/L	5350.3	ppb	16:38:51
1	Si 251.611†	37662.2	38589.0	2476.3	µg/L	2476.3	ppb	16:38:51
1	Sn 189.927†	2211.9	2267.3	490.21	µg/L	490.21	ppb	16:39:11
1	Ti 334.940†	127124.0	131429.3	490.33	µg/L	490.33	ppb	16:38:51
1	Tl 190.801†	1330.5	1432.4	485.58	µg/L	485.58	ppb	16:39:11
1	U 367.007†	2768.5	1768.5	467.5	µg/L	467.5	ppb	16:38:51
1	V 292.402†	39663.8	40814.3	496.52	µg/L	496.52	ppb	16:38:51
1	Zn 213.857†	44041.7	44962.6	480.56	µg/L	480.56	ppb	16:38:51
2	Sc RADIAL	3881.9	3881.9	95.6	%			16:38:19
2	Al 396.153Radial†	5494.3	5947.9	5175.7	µg/L	5175.7	ppb	16:37:59
2	Ca 317.933Radial†	5072.1	5254.3	5158.3	µg/L	5158.3	ppb	16:38:19
2	Fe 238.204 Radial†	1071.5	1120.2	5087.3	µg/L	5087.3	ppb	16:38:19
2	K 766.490 Radial†	6390.3	6564.2	4965.3	µg/L	4965.3	ppb	16:37:59
2	Mg 279.077 IEC†	312.9	325.1	5192.3	µg/L	5192.3	ppb	16:38:19
2	Na 589.592 Radial†	114.4	121.0	10355	µg/L	10355	ppb	16:38:19
2	Sr 421.552†	9603.1	10030.9	524.03	µg/L	524.03	ppb	16:37:59
2	Sc 361.383	390186.1	390186.1	98.369	%			16:39:18
2	Y 371.029	399513.8	399513.8	97.128	%			16:39:18
2	Ag 328.068†	59017.7	60470.1	497.83	µg/L	497.83	ppb	16:39:18
2	As 188.979†	635.0	652.0	490.62	µg/L	490.62	ppb	16:39:38
2	B 249.677†	13174.9	13295.9	510.85	µg/L	510.85	ppb	16:39:18
2	Ba 233.527†	43822.7	44568.6	492.63	µg/L	492.63	ppb	16:39:18
2	Be 313.107†	648695.4	665848.6	490.68	µg/L	490.68	ppb	16:39:18
2	Cd 226.502†	34221.0	34955.7	487.35	µg/L	487.35	ppb	16:39:18
2	Co 228.616†	16887.4	17370.9	495.75	µg/L	495.75	ppb	16:39:18
2	Cr 267.716†	21611.2	21818.1	489.96	µg/L	489.96	ppb	16:39:18
2	Cu 324.752†	76280.0	75207.8	499.60	µg/L	499.60	ppb	16:39:18
2	Mn 257.610†	279312.5	283600.8	494.77	µg/L	494.77	ppb	16:39:18
2	Mo 202.031†	5694.9	5777.7	488.01	µg/L	488.01	ppb	16:39:38
2	Ni 231.604†	13938.9	14238.0	501.40	µg/L	501.40	ppb	16:39:18
2	P 214.914†	2519.4	2525.1	2407.9	µg/L	2407.9	ppb	16:39:38

2	Pb 220.353†	2989.3	2933.7	487.79 µg/L	487.79 ppb	16:39:38
2	S 181.975 Axial†	459.0	425.3	964.57 µg/L	964.57 ppb	16:39:38
2	Sb 206.836†	1138.8	1106.3	492.47 µg/L	492.47 ppb	16:39:38
2	Se 196.026†	546.5	585.1	488.12 µg/L	488.12 ppb	16:39:38
2	SiO2†	32347.6	31739.7	5340.9 µg/L	5340.9 ppb	16:39:18
2	Si 251.611†	38247.3	38666.6	2481.3 µg/L	2481.3 ppb	16:39:18
2	Sn 189.927†	2240.1	2265.6	489.84 µg/L	489.84 ppb	16:39:38
2	Ti 334.940†	129165.8	131759.0	491.56 µg/L	491.56 ppb	16:39:18
2	Tl 190.801†	1337.7	1421.5	481.83 µg/L	481.83 ppb	16:39:38
2	U 367.007†	2837.2	1800.3	476.2 µg/L	476.2 ppb	16:39:18
2	V 292.402†	40367.6	40985.0	498.56 µg/L	498.56 ppb	16:39:18
2	Zn 213.857†	44798.9	45127.4	482.32 µg/L	482.32 ppb	16:39:18
3	Sc RADIAL	3890.9	3890.9	95.8 %		16:38:44
3	Al 396.153Radial†	5461.6	5900.5	5134.2 µg/L	5134.2 ppb	16:38:24
3	Ca 317.933Radial†	5070.4	5240.3	5144.5 µg/L	5144.5 ppb	16:38:44
3	Fe 238.204 Radial†	1071.7	1117.8	5076.4 µg/L	5076.4 ppb	16:38:44
3	K 766.490 Radial†	6296.9	6451.2	4879.9 µg/L	4879.9 ppb	16:38:24
3	Mg 279.077 IEC†	318.5	330.1	5272.8 µg/L	5272.8 ppb	16:38:44
3	Na 589.592 Radial†	104.7	110.6	9471.0 µg/L	9471.0 ppb	16:38:44
3	Sr 421.552†	9528.4	9929.7	518.75 µg/L	518.75 ppb	16:38:24
3	Sc 361.383	387129.1	387129.1	97.598 %		16:39:44
3	Y 371.029	396150.2	396150.2	96.310 %		16:39:44
3	Ag 328.068†	58529.7	60443.8	497.64 µg/L	497.64 ppb	16:39:44
3	As 188.979†	627.7	649.6	488.85 µg/L	488.85 ppb	16:40:04
3	B 249.677†	13097.8	13322.6	511.79 µg/L	511.79 ppb	16:39:44
3	Ba 233.527†	43482.7	44572.1	492.67 µg/L	492.67 ppb	16:39:44
3	Be 313.107†	643694.9	665932.5	490.73 µg/L	490.73 ppb	16:39:44
3	Cd 226.502†	34068.1	35073.8	489.00 µg/L	489.00 ppb	16:39:44
3	Co 228.616†	16721.9	17336.9	494.79 µg/L	494.79 ppb	16:39:44
3	Cr 267.716†	21532.2	21910.7	492.08 µg/L	492.08 ppb	16:39:44
3	Cu 324.752†	75499.9	75020.9	498.33 µg/L	498.33 ppb	16:39:44
3	Mn 257.610†	277427.5	283911.5	495.31 µg/L	495.31 ppb	16:39:44
3	Mo 202.031†	5673.4	5801.5	490.01 µg/L	490.01 ppb	16:40:04
3	Ni 231.604†	13862.9	14272.0	502.60 µg/L	502.60 ppb	16:39:44
3	P 214.914†	2515.9	2541.7	2423.9 µg/L	2423.9 ppb	16:40:04
3	Pb 220.353†	2980.4	2948.6	490.31 µg/L	490.31 ppb	16:40:04
3	S 181.975 Axial†	467.6	437.8	993.02 µg/L	993.02 ppb	16:40:04
3	Sb 206.836†	1113.7	1089.7	484.98 µg/L	484.98 ppb	16:40:04
3	Se 196.026†	542.3	585.2	488.19 µg/L	488.19 ppb	16:40:04
3	SiO2†	32234.6	31883.6	5365.1 µg/L	5365.1 ppb	16:39:44
3	Si 251.611†	37944.5	38663.3	2481.1 µg/L	2481.1 ppb	16:39:44
3	Sn 189.927†	2219.4	2262.3	489.13 µg/L	489.13 ppb	16:40:04
3	Ti 334.940†	128139.7	131744.6	491.53 µg/L	491.53 ppb	16:39:44
3	Tl 190.801†	1340.5	1435.1	486.48 µg/L	486.48 ppb	16:40:04
3	U 367.007†	2642.3	1623.3	426.9 µg/L	426.9 ppb	16:39:44
3	V 292.402†	39988.1	40920.2	497.77 µg/L	497.77 ppb	16:39:44
3	Zn 213.857†	44488.2	45168.7	482.77 µg/L	482.77 ppb	16:39:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	387433.4	97.675	%	0.6590				0.67%
Sc RADIAL	3887.2	95.7	%	0.12				0.12%
Y 371.029	396572.8	96.413	%	0.6696				0.69%
Ag 328.068†	60391.4	497.19	µg/L	0.945	497.19	ppb	0.945	0.19%
QC value within limits for Ag 328.068 Recovery = 99.44%								
Al 396.153Radial†	5941.1	5169.7	µg/L	32.96	5169.7	ppb	32.96	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.39%								
As 188.979†	651.3	490.07	µg/L	1.061	490.07	ppb	1.061	0.22%
QC value within limits for As 188.979 Recovery = 98.01%								
B 249.677†	13290.2	510.59	µg/L	1.342	510.59	ppb	1.342	0.26%
QC value within limits for B 249.677 Recovery = 102.12%								
Ba 233.527†	44506.5	491.94	µg/L	1.222	491.94	ppb	1.222	0.25%
QC value within limits for Ba 233.527 Recovery = 98.39%								
Be 313.107†	665076.8	490.11	µg/L	1.037	490.11	ppb	1.037	0.21%
QC value within limits for Be 313.107 Recovery = 98.02%								
Ca 317.933Radial†	5247.2	5151.3	µg/L	6.90	5151.3	ppb	6.90	0.13%
QC value within limits for Ca 317.933Radial Recovery = 103.03%								
Cd 226.502†	34979.9	487.69	µg/L	1.178	487.69	ppb	1.178	0.24%
QC value within limits for Cd 226.502 Recovery = 97.54%								

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Co 228.616†            17336.8      494.78 µg/L         0.971      494.78 ppb          0.971   0.20%
   QC value within limits for Co 228.616  Recovery = 98.96%
Cr 267.716†            21832.8      490.31 µg/L         1.627      490.31 ppb          1.627   0.33%
   QC value within limits for Cr 267.716  Recovery = 98.06%
Cu 324.752†            75083.2      498.76 µg/L         0.728      498.76 ppb          0.728   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.75%
Fe 238.204 Radial†      1117.7      5075.9 µg/L         11.58      5075.9 ppb          11.58   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.52%
K 766.490 Radial†       6525.9      4936.3 µg/L         48.89      4936.3 ppb          48.89   0.99%
   QC value within limits for K 766.490 Radial  Recovery = 98.73%
Mg 279.077 IEC†          328.6      5247.8 µg/L         48.15      5247.8 ppb          48.15   0.92%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.96%
Mn 257.610†           283460.4      494.52 µg/L         0.935      494.52 ppb          0.935   0.19%
   QC value within limits for Mn 257.610  Recovery = 98.90%
Mo 202.031†             5795.9      489.55 µg/L         1.363      489.55 ppb          1.363   0.28%
   QC value within limits for Mo 202.031  Recovery = 97.91%
Na 589.592 Radial†       115.9      9922.0 µg/L        442.35      9922.0 ppb         442.35   4.46%
   QC value within limits for Na 589.592 Radial  Recovery = 99.22%
Ni 231.604†            14253.9      501.96 µg/L         0.603      501.96 ppb          0.603   0.12%
   QC value within limits for Ni 231.604  Recovery = 100.39%
P 214.914†              2540.7      2422.9 µg/L         14.53      2422.9 ppb          14.53   0.60%
   QC value within limits for P 214.914  Recovery = 96.92%
Pb 220.353†             2939.2      488.72 µg/L         1.387      488.72 ppb          1.387   0.28%
   QC value within limits for Pb 220.353  Recovery = 97.74%
S 181.975 Axial†         433.5      983.23 µg/L        16.167      983.23 ppb         16.167   1.64%
   QC value within limits for S 181.975 Axial  Recovery = 98.32%
Sb 206.836†             1098.9      489.16 µg/L         3.821      489.16 ppb          3.821   0.78%
   QC value within limits for Sb 206.836  Recovery = 97.83%
Se 196.026†              587.3      489.97 µg/L         3.148      489.97 ppb          3.148   0.64%
   QC value within limits for Se 196.026  Recovery = 97.99%
SiO2†                  31806.3      5352.1 µg/L         12.21      5352.1 ppb          12.21   0.23%
   QC value within limits for SiO2  Recovery = 100.09%
Si 251.611†            38639.6      2479.6 µg/L          2.85      2479.6 ppb           2.85   0.11%
   QC value within limits for Si 251.611  Recovery = 99.18%
Sn 189.927†             2265.1      489.73 µg/L         0.547      489.73 ppb          0.547   0.11%
   QC value within limits for Sn 189.927  Recovery = 97.95%
Sr 421.552†             9979.8      521.36 µg/L         2.645      521.36 ppb          2.645   0.51%
   QC value within limits for Sr 421.552  Recovery = 104.27%
Ti 334.940†           131644.3      491.14 µg/L         0.699      491.14 ppb          0.699   0.14%
   QC value within limits for Ti 334.940  Recovery = 98.23%
Tl 190.801†             1429.7      484.63 µg/L         2.465      484.63 ppb          2.465   0.51%
   QC value within limits for Tl 190.801  Recovery = 96.93%
U 367.007†              1730.7       456.9 µg/L         26.29       456.9 ppb          26.29   5.75%
   QC value within limits for U 367.007  Recovery = 91.38%
V 292.402†             40906.5      497.62 µg/L         1.027      497.62 ppb          1.027   0.21%
   QC value within limits for V 292.402  Recovery = 99.52%
Zn 213.857†            45086.2      481.88 µg/L         1.166      481.88 ppb          1.166   0.24%
   QC value within limits for Zn 213.857  Recovery = 96.38%
All analyte(s) passed QC.
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Sequence No.: 85 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 9/28/2017 16:40:13**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4088.4	4088.4	101	%			16:40:43
1	Al 396.153Radial†	-225.0	-25.9	-22.575	µg/L	-22.575	ppb	16:40:43
1	Ca 317.933Radial†	65.3	10.9	10.693	µg/L	10.693	ppb	16:41:03
1	Fe 238.204 Radial†	3.0	1.8	8.3303	µg/L	8.3303	ppb	16:41:03
1	K 766.490 Radial†	63.4	-60.7	-45.883	µg/L	-45.883	ppb	16:40:43
1	Mg 279.077 IEC†	2.8	0.3	5.4547	µg/L	5.4547	ppb	16:41:03
1	Na 589.592 Radial†	-3.0	-1.7	-144.24	µg/L	-144.24	ppb	16:41:03
1	Sr 421.552†	32.1	12.4	0.6495	µg/L	0.6495	ppb	16:40:43
1	Sc 361.383	387321.3	387321.3	97.647	%			16:42:00
1	Y 371.029	401067.2	401067.2	97.506	%			16:42:00
1	Ag 328.068†	-406.2	57.7	0.4722	µg/L	0.4722	ppb	16:42:00
1	As 188.979†	-4.9	1.5	1.0941	µg/L	1.0941	ppb	16:42:20
1	B 249.677†	122.8	28.3	1.0780	µg/L	1.0780	ppb	16:42:00
1	Ba 233.527†	-21.0	-2.3	-0.0261	µg/L	-0.0261	ppb	16:42:20
1	Be 313.107†	-6088.5	160.8	0.1203	µg/L	0.1203	ppb	16:42:00
1	Cd 226.502†	-169.4	-6.3	-0.0885	µg/L	-0.0885	ppb	16:42:20
1	Co 228.616†	-186.3	12.6	0.3580	µg/L	0.3580	ppb	16:42:20
1	Cr 267.716†	131.5	-16.8	-0.3817	µg/L	-0.3817	ppb	16:42:20
1	Cu 324.752†	2250.7	-32.1	-0.2075	µg/L	-0.2075	ppb	16:42:00
1	Mn 257.610†	331.8	-3.8	-0.0064	µg/L	-0.0064	ppb	16:42:20
1	Mo 202.031†	-2.3	-13.9	-1.1697	µg/L	-1.1697	ppb	16:42:20
1	Ni 231.604†	-86.2	-20.3	-0.7154	µg/L	-0.7154	ppb	16:42:20
1	P 214.914†	51.2	16.4	15.718	µg/L	15.718	ppb	16:42:20
1	Pb 220.353†	95.0	-7.8	-1.3118	µg/L	-1.3118	ppb	16:42:20
1	S 181.975 Axial†	38.3	-2.1	-4.6744	µg/L	-4.6744	ppb	16:42:20
1	Sb 206.836†	50.4	0.2	0.0845	µg/L	0.0845	ppb	16:42:20
1	Se 196.026†	-40.0	-11.4	-9.4746	µg/L	-9.4746	ppb	16:42:20
1	SiO2†	1151.0	34.4	5.7844	µg/L	5.7844	ppb	16:42:00
1	Si 251.611†	247.8	38.7	2.5218	µg/L	2.5218	ppb	16:42:20
1	Sn 189.927†	15.5	4.2	0.9108	µg/L	0.9108	ppb	16:42:20
1	Ti 334.940†	-383.0	59.1	0.2177	µg/L	0.2177	ppb	16:42:00
1	Tl 190.801†	-56.2	4.0	1.3647	µg/L	1.3647	ppb	16:42:20
1	U 367.007†	1085.9	28.1	7.779	µg/L	7.779	ppb	16:42:00
1	V 292.402†	85.2	35.2	0.4168	µg/L	0.4168	ppb	16:42:00
1	Zn 213.857†	519.9	118.1	1.2650	µg/L	1.2650	ppb	16:42:20
2	Sc RADIAL	4049.8	4049.8	99.7	%			16:41:08
2	Al 396.153Radial†	-229.9	-32.9	-28.717	µg/L	-28.717	ppb	16:41:08
2	Ca 317.933Radial†	59.9	6.1	5.9711	µg/L	5.9711	ppb	16:41:28
2	Fe 238.204 Radial†	1.5	0.3	1.4502	µg/L	1.4502	ppb	16:41:28
2	K 766.490 Radial†	-19.2	-142.9	-108.08	µg/L	-108.08	ppb	16:41:08
2	Mg 279.077 IEC†	3.0	0.6	9.8906	µg/L	9.8906	ppb	16:41:28
2	Na 589.592 Radial†	-2.5	-1.2	-105.81	µg/L	-105.81	ppb	16:41:28
2	Sr 421.552†	42.3	23.0	1.2011	µg/L	1.2011	ppb	16:41:08
2	Sc 361.383	384797.8	384797.8	97.010	%			16:42:25
2	Y 371.029	398136.6	398136.6	96.793	%			16:42:25
2	Ag 328.068†	-490.2	-31.6	-0.2641	µg/L	-0.2641	ppb	16:42:25
2	As 188.979†	-1.4	5.0	3.7336	µg/L	3.7336	ppb	16:42:45
2	B 249.677†	161.8	69.3	2.5644	µg/L	2.5644	ppb	16:42:25
2	Ba 233.527†	-32.8	-14.6	-0.1617	µg/L	-0.1617	ppb	16:42:45
2	Be 313.107†	-6005.1	205.9	0.1537	µg/L	0.1537	ppb	16:42:25
2	Cd 226.502†	-150.7	11.9	0.1660	µg/L	0.1660	ppb	16:42:45
2	Co 228.616†	-199.2	-2.0	-0.0565	µg/L	-0.0565	ppb	16:42:45
2	Cr 267.716†	152.8	6.1	0.1317	µg/L	0.1317	ppb	16:42:45
2	Cu 324.752†	2145.2	-125.8	-0.8298	µg/L	-0.8298	ppb	16:42:25
2	Mn 257.610†	325.2	-8.3	-0.0148	µg/L	-0.0148	ppb	16:42:45
2	Mo 202.031†	10.1	-1.1	-0.0967	µg/L	-0.0967	ppb	16:42:45
2	Ni 231.604†	-79.4	-14.0	-0.4918	µg/L	-0.4918	ppb	16:42:45
2	P 214.914†	55.0	20.7	19.816	µg/L	19.816	ppb	16:42:45

2	Pb 220.353†	107.6	5.8	0.9656	µg/L	0.9656	ppb	16:42:45
2	S 181.975 Axial†	45.2	5.3	12.021	µg/L	12.021	ppb	16:42:45
2	Sb 206.836†	61.8	12.3	5.5059	µg/L	5.5059	ppb	16:42:45
2	Se 196.026†	-21.2	7.7	6.3880	µg/L	6.3880	ppb	16:42:45
2	SiO2†	1137.1	27.8	4.6805	µg/L	4.6805	ppb	16:42:25
2	Si 251.611†	266.8	60.0	3.8685	µg/L	3.8685	ppb	16:42:45
2	Sn 189.927†	14.0	2.8	0.5995	µg/L	0.5995	ppb	16:42:45
2	Ti 334.940†	-458.0	-20.8	-0.0814	µg/L	-0.0814	ppb	16:42:25
2	Tl 190.801†	-60.8	-1.1	-0.3788	µg/L	-0.3788	ppb	16:42:45
2	U 367.007†	1080.8	30.1	8.383	µg/L	8.383	ppb	16:42:25
2	V 292.402†	18.7	-32.7	-0.3888	µg/L	-0.3888	ppb	16:42:25
2	Zn 213.857†	521.8	123.5	1.3267	µg/L	1.3267	ppb	16:42:45
3	Sc RADIAL	4038.8	4038.8	99.4	%			16:41:33
3	Al 396.153Radial†	-210.6	-14.1	-12.286	µg/L	-12.286	ppb	16:41:33
3	Ca 317.933Radial†	58.0	4.4	4.2800	µg/L	4.2800	ppb	16:41:53
3	Fe 238.204 Radial†	4.9	3.8	17.059	µg/L	17.059	ppb	16:41:53
3	K 766.490 Radial†	88.2	-35.0	-26.433	µg/L	-26.433	ppb	16:41:33
3	Mg 279.077 IEC†	4.6	2.2	35.082	µg/L	35.082	ppb	16:41:53
3	Na 589.592 Radial†	-3.2	-2.0	-168.64	µg/L	-168.64	ppb	16:41:53
3	Sr 421.552†	22.2	2.9	0.1535	µg/L	0.1535	ppb	16:41:33
3	Sc 361.383	387887.9	387887.9	97.789	%			16:42:51
3	Y 371.029	401553.4	401553.4	97.624	%			16:42:51
3	Ag 328.068†	-478.8	-15.9	-0.1205	µg/L	-0.1205	ppb	16:42:51
3	As 188.979†	-8.1	-1.8	-1.3204	µg/L	-1.3204	ppb	16:43:11
3	B 249.677†	204.6	111.7	4.1988	µg/L	4.1988	ppb	16:42:51
3	Ba 233.527†	-21.5	-2.7	-0.0308	µg/L	-0.0308	ppb	16:43:11
3	Be 313.107†	-6109.8	148.1	0.1050	µg/L	0.1050	ppb	16:42:51
3	Cd 226.502†	-177.8	-14.6	-0.2059	µg/L	-0.2059	ppb	16:43:11
3	Co 228.616†	-214.4	-15.9	-0.4549	µg/L	-0.4549	ppb	16:43:11
3	Cr 267.716†	164.5	16.8	0.3913	µg/L	0.3913	ppb	16:43:11
3	Cu 324.752†	2237.0	-49.6	-0.3385	µg/L	-0.3385	ppb	16:42:51
3	Mn 257.610†	311.5	-25.0	-0.0439	µg/L	-0.0439	ppb	16:43:11
3	Mo 202.031†	1.5	-10.0	-0.8477	µg/L	-0.8477	ppb	16:43:11
3	Ni 231.604†	-80.7	-14.6	-0.5149	µg/L	-0.5149	ppb	16:43:11
3	P 214.914†	40.6	5.4	5.2181	µg/L	5.2181	ppb	16:43:11
3	Pb 220.353†	84.9	-18.3	-3.0373	µg/L	-3.0373	ppb	16:43:11
3	S 181.975 Axial†	40.0	-0.4	-0.8618	µg/L	-0.8618	ppb	16:43:11
3	Sb 206.836†	44.8	-5.6	-2.5156	µg/L	-2.5156	ppb	16:43:11
3	Se 196.026†	-31.8	-3.0	-2.4547	µg/L	-2.4547	ppb	16:43:11
3	SiO2†	1179.8	62.2	10.468	µg/L	10.468	ppb	16:42:51
3	Si 251.611†	254.5	45.2	2.9298	µg/L	2.9298	ppb	16:43:11
3	Sn 189.927†	7.7	-3.8	-0.8160	µg/L	-0.8160	ppb	16:43:11
3	Ti 334.940†	-437.9	3.5	0.0216	µg/L	0.0216	ppb	16:42:51
3	Tl 190.801†	-70.4	-10.4	-3.5397	µg/L	-3.5397	ppb	16:43:11
3	U 367.007†	998.2	-63.2	-17.71	µg/L	-17.71	ppb	16:42:51
3	V 292.402†	12.4	-39.3	-0.4870	µg/L	-0.4870	ppb	16:42:51
3	Zn 213.857†	487.7	84.3	0.9008	µg/L	0.9008	ppb	16:43:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	386669.0	97.482	%	0.4147				0.43%
Sc RADIAL	4059.0	99.9	%	0.64				0.64%
Y 371.029	400252.4	97.308	%	0.4494				0.46%
Ag 328.068†	3.4	0.0292	µg/L	0.39029	0.0292	ppb	0.39029	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-24.3	-21.193	µg/L	8.3021	-21.193	ppb	8.3021	39.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	1.1691	µg/L	2.52784	1.1691	ppb	2.52784	216.22%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	69.8	2.6137	µg/L	1.56096	2.6137	ppb	1.56096	59.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.6	-0.0729	µg/L	0.07699	-0.0729	ppb	0.07699	105.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.6	0.1263	µg/L	0.02488	0.1263	ppb	0.02488	19.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	6.9814	µg/L	3.32374	6.9814	ppb	3.32374	47.61%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.0	-0.0428	µg/L	0.19013	-0.0428	ppb	0.19013	444.05%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                -1.7     -0.0511 µg/L       0.40647     -0.0511 ppb        0.40647 794.86%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.1      0.0471 µg/L       0.39337      0.0471 ppb        0.39337 835.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.2     -0.4586 µg/L       0.32807     -0.4586 ppb        0.32807  71.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      8.9464 µg/L       7.82258      8.9464 ppb        7.82258  87.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -79.5     -60.131 µg/L       42.6464     -60.131 ppb        42.6464  70.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      16.809 µg/L       15.9794      16.809 ppb        15.9794  95.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -12.4     -0.0217 µg/L       0.01970     -0.0217 ppb        0.01970  90.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -8.4     -0.7047 µg/L       0.55062     -0.7047 ppb        0.55062  78.13%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -1.6     -139.56 µg/L        31.675     -139.56 ppb         31.675  22.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -16.3     -0.5740 µg/L       0.12295     -0.5740 ppb        0.12295  21.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.2      13.584 µg/L        7.5291      13.584 ppb         7.5291  55.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.8     -1.1278 µg/L       2.00778     -1.1278 ppb        2.00778 178.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.0      2.1616 µg/L       8.74868      2.1616 ppb        8.74868 404.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.3      1.0249 µg/L       4.09263      1.0249 ppb        4.09263 399.32%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.8471 µg/L       7.94874     -1.8471 ppb        7.94874 430.33%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      41.4      6.9775 µg/L       3.07264      6.9775 ppb        3.07264  44.04%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                48.0      3.1067 µg/L       0.69059      3.1067 ppb        0.69059  22.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.1      0.2314 µg/L       0.92034      0.2314 ppb        0.92034 397.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.8      0.6681 µg/L       0.52405      0.6681 ppb        0.52405  78.44%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                13.9      0.0526 µg/L       0.15194      0.0526 ppb        0.15194 288.88%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.5     -0.8513 µg/L       2.48611     -0.8513 ppb        2.48611 292.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 -1.7      -0.516 µg/L       14.8934      -0.516 ppb        14.8934 >999.9%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -12.3     -0.1530 µg/L       0.49591     -0.1530 ppb        0.49591 324.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               108.6      1.1642 µg/L       0.23012      1.1642 ppb        0.23012  19.77%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 86 **Autosampler Location: 358**
Sample ID: 1203884246|1704451|1| **Date Collected: 9/28/2017 16:43:20**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1203884246|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3938.6	3938.6	96.9	%			16:43:53
1	Al 396.153Radial†	-206.8	-15.6	-13.591	µg/L	-13.591	ppb	16:43:53
1	Ca 317.933Radial†	102.6	51.8	50.860	µg/L	50.860	ppb	16:44:13
1	Fe 238.204 Radial†	3.8	2.8	12.552	µg/L	12.552	ppb	16:44:13
1	K 766.490 Radial†	66.8	-54.8	-41.424	µg/L	-41.424	ppb	16:43:53
1	Mg 279.077 IEC†	-1.0	-3.4	-54.674	µg/L	-54.674	ppb	16:44:13
1	Na 589.592 Radial†	1.2	2.5	214.37	µg/L	214.37	ppb	16:44:13
1	Sr 421.552†	34.8	16.5	0.8603	µg/L	0.8603	ppb	16:43:53
1	Sc 361.383	379194.1	379194.1	95.598	%			16:45:10
1	Y 371.029	391661.0	391661.0	95.219	%			16:45:10
1	Ag 328.068†	-442.3	11.0	0.0785	µg/L	0.0785	ppb	16:45:10
1	As 188.979†	-9.2	-3.2	-2.3541	µg/L	-2.3541	ppb	16:45:30
1	B 249.677†	164.3	74.4	2.8009	µg/L	2.8009	ppb	16:45:10
1	Ba 233.527†	-0.1	19.1	0.2103	µg/L	0.2103	ppb	16:45:30
1	Be 313.107†	-6028.4	90.0	0.0733	µg/L	0.0733	ppb	16:45:10
1	Cd 226.502†	-160.4	-0.6	-0.0098	µg/L	-0.0098	ppb	16:45:30
1	Co 228.616†	-206.8	-12.9	-0.3694	µg/L	-0.3694	ppb	16:45:30
1	Cr 267.716†	192.2	49.6	1.0925	µg/L	1.0925	ppb	16:45:30
1	Cu 324.752†	2117.0	-122.6	-0.7964	µg/L	-0.7964	ppb	16:45:10
1	Mn 257.610†	520.4	200.8	0.3528	µg/L	0.3528	ppb	16:45:10
1	Mo 202.031†	5.2	-6.1	-0.5128	µg/L	-0.5128	ppb	16:45:30
1	Ni 231.604†	-56.2	9.2	0.3230	µg/L	0.3230	ppb	16:45:30
1	P 214.914†	50.2	16.4	15.761	µg/L	15.761	ppb	16:45:30
1	Pb 220.353†	100.8	0.3	0.0285	µg/L	0.0285	ppb	16:45:30
1	S 181.975 Axial†	75.0	37.1	84.309	µg/L	84.309	ppb	16:45:30
1	Sb 206.836†	54.9	6.0	2.6709	µg/L	2.6709	ppb	16:45:30
1	Se 196.026†	-37.5	-9.7	-8.0188	µg/L	-8.0188	ppb	16:45:30
1	SiO2†	1251.3	164.6	27.703	µg/L	27.703	ppb	16:45:10
1	Si 251.611†	359.9	161.5	10.420	µg/L	10.420	ppb	16:45:30
1	Sn 189.927†	18.2	7.3	1.5847	µg/L	1.5847	ppb	16:45:30
1	Ti 334.940†	-465.3	-35.4	-0.1426	µg/L	-0.1426	ppb	16:45:10
1	Tl 190.801†	-60.1	-1.3	-0.4424	µg/L	-0.4424	ppb	16:45:30
1	U 367.007†	1127.7	95.6	26.58	µg/L	26.58	ppb	16:45:10
1	V 292.402†	-14.7	-67.4	-0.7956	µg/L	-0.7956	ppb	16:45:10
1	Zn 213.857†	562.7	174.2	1.8624	µg/L	1.8624	ppb	16:45:30
2	Sc RADIAL	3989.3	3989.3	98.2	%			16:44:18
2	Al 396.153Radial†	-215.0	-21.2	-18.495	µg/L	-18.495	ppb	16:44:18
2	Ca 317.933Radial†	101.8	49.7	48.748	µg/L	48.748	ppb	16:44:38
2	Fe 238.204 Radial†	2.7	1.6	7.2575	µg/L	7.2575	ppb	16:44:38
2	K 766.490 Radial†	16.1	-107.2	-81.099	µg/L	-81.099	ppb	16:44:18
2	Mg 279.077 IEC†	-0.4	-2.9	-45.557	µg/L	-45.557	ppb	16:44:38
2	Na 589.592 Radial†	3.9	5.2	448.11	µg/L	448.11	ppb	16:44:38
2	Sr 421.552†	29.2	10.3	0.5357	µg/L	0.5357	ppb	16:44:18
2	Sc 361.383	383303.7	383303.7	96.634	%			16:45:35
2	Y 371.029	395783.6	395783.6	96.221	%			16:45:35
2	Ag 328.068†	-447.6	10.5	0.0793	µg/L	0.0793	ppb	16:45:35
2	As 188.979†	-5.5	0.8	0.6028	µg/L	0.6028	ppb	16:45:55
2	B 249.677†	184.1	93.0	3.4665	µg/L	3.4665	ppb	16:45:35
2	Ba 233.527†	-10.4	8.4	0.0929	µg/L	0.0929	ppb	16:45:55
2	Be 313.107†	-6080.5	103.7	0.0812	µg/L	0.0812	ppb	16:45:35
2	Cd 226.502†	-166.9	-5.5	-0.0776	µg/L	-0.0776	ppb	16:45:55
2	Co 228.616†	-201.5	-5.1	-0.1465	µg/L	-0.1465	ppb	16:45:55
2	Cr 267.716†	153.3	7.2	0.1464	µg/L	0.1464	ppb	16:45:55
2	Cu 324.752†	2198.0	-62.5	-0.4026	µg/L	-0.4026	ppb	16:45:35
2	Mn 257.610†	456.8	129.2	0.2274	µg/L	0.2274	ppb	16:45:35
2	Mo 202.031†	0.5	-11.0	-0.9272	µg/L	-0.9272	ppb	16:45:55
2	Ni 231.604†	-61.3	4.5	0.1597	µg/L	0.1597	ppb	16:45:55
2	P 214.914†	58.3	24.3	23.325	µg/L	23.325	ppb	16:45:55

2	Pb 220.353†	95.9	-5.8	-0.9903 µg/L	-0.9903 ppb		16:45:55
2	S 181.975 Axial†	81.0	42.5	96.579 µg/L	96.579 ppb		16:45:55
2	Sb 206.836†	63.2	14.0	6.2633 µg/L	6.2633 ppb		16:45:55
2	Se 196.026†	-34.8	-6.5	-5.3837 µg/L	-5.3837 ppb		16:45:55
2	SiO2†	1191.6	88.8	14.949 µg/L	14.949 ppb		16:45:35
2	Si 251.611†	361.7	159.3	10.287 µg/L	10.287 ppb		16:45:55
2	Sn 189.927†	23.5	12.6	2.7274 µg/L	2.7274 ppb		16:45:55
2	Ti 334.940†	-370.6	67.9	0.2469 µg/L	0.2469 ppb		16:45:35
2	Tl 190.801†	-55.4	4.3	1.4616 µg/L	1.4616 ppb		16:45:55
2	U 367.007†	1112.5	67.3	18.71 µg/L	18.71 ppb		16:45:35
2	V 292.402†	69.1	19.5	0.2372 µg/L	0.2372 ppb		16:45:35
2	Zn 213.857†	559.1	164.2	1.7573 µg/L	1.7573 ppb		16:45:55
3	Sc RADIAL	3917.0	3917.0	96.4 %			16:44:43
3	Al 396.153Radial†	-205.2	-15.1	-13.150 µg/L	-13.150 ppb		16:44:43
3	Ca 317.933Radial†	109.0	59.1	58.037 µg/L	58.037 ppb		16:45:03
3	Fe 238.204 Radial†	2.8	1.7	7.9388 µg/L	7.9388 ppb		16:45:03
3	K 766.490 Radial†	149.7	31.6	23.923 µg/L	23.923 ppb		16:44:43
3	Mg 279.077 IEC†	6.4	4.3	68.257 µg/L	68.257 ppb		16:45:03
3	Na 589.592 Radial†	0.3	1.6	134.86 µg/L	134.86 ppb		16:45:03
3	Sr 421.552†	38.4	20.4	1.0626 µg/L	1.0626 ppb		16:44:43
3	Sc 361.383	383415.8	383415.8	96.662 %			16:46:00
3	Y 371.029	395948.4	395948.4	96.261 %			16:46:00
3	Ag 328.068†	-446.6	11.7	0.0974 µg/L	0.0974 ppb		16:46:00
3	As 188.979†	-0.6	5.9	4.4097 µg/L	4.4097 ppb		16:46:20
3	B 249.677†	205.3	114.9	4.2784 µg/L	4.2784 ppb		16:46:00
3	Ba 233.527†	-2.6	16.5	0.1819 µg/L	0.1819 ppb		16:46:20
3	Be 313.107†	-6025.9	162.0	0.1200 µg/L	0.1200 ppb		16:46:00
3	Cd 226.502†	-165.1	-3.6	-0.0512 µg/L	-0.0512 ppb		16:46:20
3	Co 228.616†	-214.8	-18.8	-0.5372 µg/L	-0.5372 ppb		16:46:20
3	Cr 267.716†	169.2	23.6	0.5319 µg/L	0.5319 ppb		16:46:20
3	Cu 324.752†	2212.0	-48.8	-0.3228 µg/L	-0.3228 ppb		16:46:00
3	Mn 257.610†	513.8	188.0	0.3259 µg/L	0.3259 ppb		16:46:00
3	Mo 202.031†	4.7	-6.7	-0.5614 µg/L	-0.5614 ppb		16:46:20
3	Ni 231.604†	-68.9	-3.4	-0.1187 µg/L	-0.1187 ppb		16:46:20
3	P 214.914†	41.4	6.8	6.5296 µg/L	6.5296 ppb		16:46:20
3	Pb 220.353†	71.2	-31.5	-5.2517 µg/L	-5.2517 ppb		16:46:20
3	S 181.975 Axial†	75.8	37.1	84.314 µg/L	84.314 ppb		16:46:20
3	Sb 206.836†	44.6	-5.3	-2.3794 µg/L	-2.3794 ppb		16:46:20
3	Se 196.026†	-30.2	-1.7	-1.4056 µg/L	-1.4056 ppb		16:46:20
3	SiO2†	1162.0	57.8	9.7362 µg/L	9.7362 ppb		16:46:00
3	Si 251.611†	355.9	153.1	9.8832 µg/L	9.8832 ppb		16:46:20
3	Sn 189.927†	21.3	10.4	2.2381 µg/L	2.2381 ppb		16:46:20
3	Ti 334.940†	-383.7	54.3	0.2056 µg/L	0.2056 ppb		16:46:00
3	Tl 190.801†	-75.3	-16.4	-5.5753 µg/L	-5.5753 ppb		16:46:20
3	U 367.007†	1048.7	0.9	0.216 µg/L	0.216 ppb		16:46:00
3	V 292.402†	58.0	8.0	0.0934 µg/L	0.0934 ppb		16:46:00
3	Zn 213.857†	569.0	174.3	1.8715 µg/L	1.8715 ppb		16:46:20

Mean Data: 1203884246|1704451|1|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	381971.2	96.298	%	0.6065				0.63%
Sc RADIAL	3948.3	97.2	%	0.91				0.94%
Y 371.029	394464.3	95.900	%	0.5906				0.62%
Ag 328.068†	11.1	0.0851	µg/L	0.01071	0.0851	ppb	0.01071	12.59%
Al 396.153Radial†	-17.3	-15.079	µg/L	2.9669	-15.079	ppb	2.9669	19.68%
As 188.979†	1.2	0.8861	µg/L	3.39080	0.8861	ppb	3.39080	382.64%
B 249.677†	94.1	3.5153	µg/L	0.73992	3.5153	ppb	0.73992	21.05%
Ba 233.527†	14.6	0.1617	µg/L	0.06125	0.1617	ppb	0.06125	37.89%
Be 313.107†	118.5	0.0915	µg/L	0.02501	0.0915	ppb	0.02501	27.33%
Ca 317.933Radial†	53.5	52.549	µg/L	4.8693	52.549	ppb	4.8693	9.27%
Cd 226.502†	-3.2	-0.0462	µg/L	0.03418	-0.0462	ppb	0.03418	73.96%
Co 228.616†	-12.3	-0.3510	µg/L	0.19598	-0.3510	ppb	0.19598	55.83%
Cr 267.716†	26.8	0.5903	µg/L	0.47570	0.5903	ppb	0.47570	80.59%
Cu 324.752†	-78.0	-0.5073	µg/L	0.25357	-0.5073	ppb	0.25357	49.99%
Fe 238.204 Radial†	2.0	9.2494	µg/L	2.88024	9.2494	ppb	2.88024	31.14%
K 766.490 Radial†	-43.5	-32.867	µg/L	53.0311	-32.867	ppb	53.0311	161.35%
Mg 279.077 IEC†	-0.7	-10.658	µg/L	68.4941	-10.658	ppb	68.4941	642.65%
Mn 257.610†	172.7	0.3020	µg/L	0.06606	0.3020	ppb	0.06606	21.87%
Mo 202.031†	-7.9	-0.6671	µg/L	0.22658	-0.6671	ppb	0.22658	33.96%

Na 589.592 Radial†	3.1	265.78	µg/L	162.831	265.78	ppb	162.831 61.27%
Ni 231.604†	3.4	0.1213	µg/L	0.22336	0.1213	ppb	0.22336 184.10%
P 214.914†	15.8	15.205	µg/L	8.4114	15.205	ppb	8.4114 55.32%
Pb 220.353†	-12.3	-2.0712	µg/L	2.80113	-2.0712	ppb	2.80113 135.24%
S 181.975 Axial†	38.9	88.401	µg/L	7.0826	88.401	ppb	7.0826 8.01%
Sb 206.836†	4.9	2.1849	µg/L	4.34179	2.1849	ppb	4.34179 198.72%
Se 196.026†	-6.0	-4.9360	µg/L	3.32927	-4.9360	ppb	3.32927 67.45%
SiO2†	103.7	17.463	µg/L	9.2436	17.463	ppb	9.2436 52.93%
Si 251.611†	158.0	10.197	µg/L	0.2794	10.197	ppb	0.2794 2.74%
Sn 189.927†	10.1	2.1834	µg/L	0.57332	2.1834	ppb	0.57332 26.26%
Sr 421.552†	15.7	0.8195	µg/L	0.26580	0.8195	ppb	0.26580 32.43%
Ti 334.940†	28.9	0.1033	µg/L	0.21394	0.1033	ppb	0.21394 207.13%
Tl 190.801†	-4.5	-1.5187	µg/L	3.63985	-1.5187	ppb	3.63985 239.67%
U 367.007†	54.6	15.17	µg/L	13.535	15.17	ppb	13.535 89.23%
V 292.402†	-13.3	-0.1550	µg/L	0.55944	-0.1550	ppb	0.55944 360.94%
Zn 213.857†	170.9	1.8304	µg/L	0.06346	1.8304	ppb	0.06346 3.47%

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Sequence No.: 87 **Autosampler Location: 359**
Sample ID: 1203884247|1704451|1| **Date Collected: 9/28/2017 16:46:29**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1203884247|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3855.8	3855.8	94.9	%			16:47:19
1	Al 396.153Radial†	5097.7	5569.0	4845.7	µg/L	4845.7	ppb	16:46:59
1	Ca 317.933Radial†	4795.3	4998.6	4907.2	µg/L	4907.2	ppb	16:47:19
1	Fe 238.204 Radial†	1033.5	1087.8	4940.0	µg/L	4940.0	ppb	16:47:19
1	K 766.490 Radial†	5907.1	6100.4	4614.5	µg/L	4614.5	ppb	16:46:59
1	Mg 279.077 IEC†	303.2	317.1	5064.3	µg/L	5064.3	ppb	16:47:19
1	Na 589.592 Radial†	49.4	53.4	4574.2	µg/L	4574.2	ppb	16:47:19
1	Sr 421.552†	9023.3	9488.1	495.68	µg/L	495.68	ppb	16:46:59
1	Sc 361.383	382283.8	382283.8	96.377	%			16:48:17
1	Y 371.029	392070.6	392070.6	95.319	%			16:48:17
1	Ag 328.068†	54801.9	57336.0	472.03	µg/L	472.03	ppb	16:48:17
1	As 188.979†	597.2	626.2	471.13	µg/L	471.13	ppb	16:48:37
1	B 249.677†	12473.2	12844.6	493.61	µg/L	493.61	ppb	16:48:17
1	Ba 233.527†	41285.7	42857.1	473.71	µg/L	473.71	ppb	16:48:17
1	Be 313.107†	620735.5	650469.2	479.34	µg/L	479.34	ppb	16:48:17
1	Cd 226.502†	32462.7	33850.5	471.93	µg/L	471.93	ppb	16:48:17
1	Co 228.616†	16021.1	16826.8	480.23	µg/L	480.23	ppb	16:48:17
1	Cr 267.716†	20071.3	20674.5	464.26	µg/L	464.26	ppb	16:48:17
1	Cu 324.752†	71793.9	72156.0	479.34	µg/L	479.34	ppb	16:48:17
1	Mn 257.610†	263641.7	273210.2	476.64	µg/L	476.64	ppb	16:48:17
1	Mo 202.031†	5318.2	5506.5	465.11	µg/L	465.11	ppb	16:48:37
1	Ni 231.604†	12369.5	12902.5	454.38	µg/L	454.38	ppb	16:48:37
1	P 214.914†	527.3	511.1	476.44	µg/L	476.44	ppb	16:48:37
1	Pb 220.353†	2834.5	2835.9	471.55	µg/L	471.55	ppb	16:48:37
1	S 181.975 Axial†	2002.1	2036.1	4621.0	µg/L	4621.0	ppb	16:48:37
1	Sb 206.836†	1063.5	1052.1	468.38	µg/L	468.38	ppb	16:48:37
1	Se 196.026†	522.7	571.8	477.05	µg/L	477.05	ppb	16:48:37
1	SiO2†	48311.2	48983.2	8240.6	µg/L	8240.6	ppb	16:48:17
1	Si 251.611†	57472.1	59417.9	3819.6	µg/L	3819.6	ppb	16:48:17
1	Sn 189.927†	2105.0	2172.5	469.70	µg/L	469.70	ppb	16:48:37
1	Ti 334.940†	120759.8	125751.3	469.14	µg/L	469.14	ppb	16:48:17
1	Tl 190.801†	1260.3	1369.3	464.13	µg/L	464.13	ppb	16:48:37
1	U 367.007†	2770.6	1790.8	474.3	µg/L	474.3	ppb	16:48:17
1	V 292.402†	37332.5	38684.1	470.64	µg/L	470.64	ppb	16:48:17
1	Zn 213.857†	41540.6	42688.0	456.22	µg/L	456.22	ppb	16:48:17
2	Sc RADIAL	3854.6	3854.6	94.9	%			16:47:44
2	Al 396.153Radial†	5252.5	5733.9	4989.8	µg/L	4989.8	ppb	16:47:24
2	Ca 317.933Radial†	4797.3	5002.4	4911.0	µg/L	4911.0	ppb	16:47:44
2	Fe 238.204 Radial†	1038.6	1093.5	4966.2	µg/L	4966.2	ppb	16:47:44
2	K 766.490 Radial†	5913.4	6109.1	4621.1	µg/L	4621.1	ppb	16:47:24
2	Mg 279.077 IEC†	297.3	310.9	4965.6	µg/L	4965.6	ppb	16:47:44
2	Na 589.592 Radial†	56.0	60.3	5163.6	µg/L	5163.6	ppb	16:47:44
2	Sr 421.552†	9321.8	9805.9	512.28	µg/L	512.28	ppb	16:47:24
2	Sc 361.383	380741.4	380741.4	95.988	%			16:48:43
2	Y 371.029	390197.2	390197.2	94.863	%			16:48:43
2	Ag 328.068†	54555.2	57309.3	471.84	µg/L	471.84	ppb	16:48:43
2	As 188.979†	586.8	617.8	464.93	µg/L	464.93	ppb	16:49:03
2	B 249.677†	12439.7	12862.2	494.36	µg/L	494.36	ppb	16:48:43
2	Ba 233.527†	40986.5	42719.0	472.18	µg/L	472.18	ppb	16:48:43
2	Be 313.107†	617660.3	649874.8	478.90	µg/L	478.90	ppb	16:48:43
2	Cd 226.502†	32231.5	33746.0	470.47	µg/L	470.47	ppb	16:48:43
2	Co 228.616†	16003.0	16875.4	481.61	µg/L	481.61	ppb	16:48:43
2	Cr 267.716†	20036.7	20722.8	465.37	µg/L	465.37	ppb	16:48:43
2	Cu 324.752†	71604.2	72260.2	480.01	µg/L	480.01	ppb	16:48:43
2	Mn 257.610†	262875.9	273520.6	477.19	µg/L	477.19	ppb	16:48:43
2	Mo 202.031†	5305.6	5515.8	465.89	µg/L	465.89	ppb	16:49:03
2	Ni 231.604†	12314.6	12897.3	454.20	µg/L	454.20	ppb	16:49:03
2	P 214.914†	533.6	519.9	484.82	µg/L	484.82	ppb	16:49:03

2	Pb 220.353†	2798.4	2810.2	467.28 µg/L	467.28 ppb		16:49:03
2	S 181.975 Axial†	2002.3	2044.7	4640.5 µg/L	4640.5 ppb		16:49:03
2	Sb 206.836†	1053.3	1045.9	465.57 µg/L	465.57 ppb		16:49:03
2	Se 196.026†	520.0	571.3	476.61 µg/L	476.61 ppb		16:49:03
2	SiO2†	48180.2	49049.8	8251.8 µg/L	8251.8 ppb		16:48:43
2	Si 251.611†	57350.0	59532.2	3826.9 µg/L	3826.9 ppb		16:48:43
2	Sn 189.927†	2084.7	2160.2	467.05 µg/L	467.05 ppb		16:49:03
2	Ti 334.940†	120255.2	125733.3	469.09 µg/L	469.09 ppb		16:48:43
2	Tl 190.801†	1251.1	1365.0	462.66 µg/L	462.66 ppb		16:49:03
2	U 367.007†	2631.6	1657.5	437.1 µg/L	437.1 ppb		16:48:43
2	V 292.402†	37108.8	38608.0	469.72 µg/L	469.72 ppb		16:48:43
2	Zn 213.857†	41372.0	42687.0	456.19 µg/L	456.19 ppb		16:48:43
3	Sc RADIAL	3875.4	3875.4	95.4 %			16:48:09
3	Al 396.153Radial†	5217.4	5667.3	4931.7 µg/L	4931.7 ppb		16:47:49
3	Ca 317.933Radial†	4842.5	5022.7	4930.9 µg/L	4930.9 ppb		16:48:09
3	Fe 238.204 Radial†	1043.6	1092.8	4963.1 µg/L	4963.1 ppb		16:48:09
3	K 766.490 Radial†	5929.2	6092.1	4608.3 µg/L	4608.3 ppb		16:47:49
3	Mg 279.077 IEC†	301.4	313.6	5008.0 µg/L	5008.0 ppb		16:48:09
3	Na 589.592 Radial†	59.9	64.1	5493.3 µg/L	5493.3 ppb		16:48:09
3	Sr 421.552†	9284.1	9713.6	507.46 µg/L	507.46 ppb		16:47:49
3	Sc 361.383	384548.7	384548.7	96.948 %			16:49:09
3	Y 371.029	394010.6	394010.6	95.790 %			16:49:09
3	Ag 328.068†	55256.3	57469.8	473.15 µg/L	473.15 ppb		16:49:09
3	As 188.979†	591.8	616.9	464.24 µg/L	464.24 ppb		16:49:29
3	B 249.677†	12578.1	12876.6	494.89 µg/L	494.89 ppb		16:49:09
3	Ba 233.527†	41584.4	42912.9	474.32 µg/L	474.32 ppb		16:49:09
3	Be 313.107†	624090.1	650136.1	479.09 µg/L	479.09 ppb		16:49:09
3	Cd 226.502†	32664.8	33860.5	472.07 µg/L	472.07 ppb		16:49:09
3	Co 228.616†	16143.6	16855.3	481.04 µg/L	481.04 ppb		16:49:09
3	Cr 267.716†	20191.5	20675.8	464.32 µg/L	464.32 ppb		16:49:09
3	Cu 324.752†	72398.4	72340.8	480.55 µg/L	480.55 ppb		16:49:09
3	Mn 257.610†	265743.3	273766.9	477.62 µg/L	477.62 ppb		16:49:09
3	Mo 202.031†	5324.7	5480.8	462.93 µg/L	462.93 ppb		16:49:29
3	Ni 231.604†	12306.8	12762.2	449.45 µg/L	449.45 ppb		16:49:29
3	P 214.914†	516.8	497.1	462.97 µg/L	462.97 ppb		16:49:29
3	Pb 220.353†	2811.9	2795.3	464.80 µg/L	464.80 ppb		16:49:29
3	S 181.975 Axial†	1996.5	2018.0	4580.0 µg/L	4580.0 ppb		16:49:29
3	Sb 206.836†	1043.3	1024.7	456.09 µg/L	456.09 ppb		16:49:29
3	Se 196.026†	517.7	563.5	470.16 µg/L	470.16 ppb		16:49:29
3	SiO2†	48749.0	49139.5	8266.9 µg/L	8266.9 ppb		16:49:09
3	Si 251.611†	57888.1	59495.8	3824.7 µg/L	3824.7 ppb		16:49:09
3	Sn 189.927†	2098.1	2152.5	465.39 µg/L	465.39 ppb		16:49:29
3	Ti 334.940†	121581.8	125861.2	469.56 µg/L	469.56 ppb		16:49:09
3	Tl 190.801†	1241.5	1342.1	454.87 µg/L	454.87 ppb		16:49:29
3	U 367.007†	2655.1	1654.7	436.3 µg/L	436.3 ppb		16:49:09
3	V 292.402†	37504.2	38633.1	469.99 µg/L	469.99 ppb		16:49:09
3	Zn 213.857†	41783.3	42684.5	456.17 µg/L	456.17 ppb		16:49:09

Mean Data: 1203884247|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	382524.6	96.437	%	0.4828				0.50%
Sc RADIAL	3861.9	95.1	%	0.29				0.30%
Y 371.029	392092.8	95.324	%	0.4636				0.49%
Ag 328.068†	57371.7	472.34	µg/L	0.711	472.34	ppb	0.711	0.15%
Al 396.153Radial†	5656.8	4922.4	µg/L	72.50	4922.4	ppb	72.50	1.47%
As 188.979†	620.3	466.77	µg/L	3.795	466.77	ppb	3.795	0.81%
B 249.677†	12861.1	494.29	µg/L	0.642	494.29	ppb	0.642	0.13%
Ba 233.527†	42829.7	473.40	µg/L	1.104	473.40	ppb	1.104	0.23%
Be 313.107†	650160.0	479.11	µg/L	0.224	479.11	ppb	0.224	0.05%
Ca 317.933Radial†	5007.9	4916.4	µg/L	12.71	4916.4	ppb	12.71	0.26%
Cd 226.502†	33819.0	471.49	µg/L	0.885	471.49	ppb	0.885	0.19%
Co 228.616†	16852.5	480.96	µg/L	0.695	480.96	ppb	0.695	0.14%
Cr 267.716†	20691.0	464.65	µg/L	0.625	464.65	ppb	0.625	0.13%
Cu 324.752†	72252.4	479.97	µg/L	0.604	479.97	ppb	0.604	0.13%
Fe 238.204 Radial†	1091.4	4956.4	µg/L	14.29	4956.4	ppb	14.29	0.29%
K 766.490 Radial†	6100.5	4614.6	µg/L	6.40	4614.6	ppb	6.40	0.14%
Mg 279.077 IEC†	313.9	5012.6	µg/L	49.51	5012.6	ppb	49.51	0.99%
Mn 257.610†	273499.2	477.15	µg/L	0.488	477.15	ppb	0.488	0.10%
Mo 202.031†	5501.0	464.64	µg/L	1.531	464.64	ppb	1.531	0.33%

Na 589.592 Radial†	59.3	5077.0	µg/L	465.65	5077.0	ppb	465.65	9.17%
Ni 231.604†	12854.0	452.68	µg/L	2.799	452.68	ppb	2.799	0.62%
P 214.914†	509.3	474.75	µg/L	11.023	474.75	ppb	11.023	2.32%
Pb 220.353†	2813.8	467.87	µg/L	3.413	467.87	ppb	3.413	0.73%
S 181.975 Axial†	2032.9	4613.8	µg/L	30.90	4613.8	ppb	30.90	0.67%
Sb 206.836†	1040.9	463.35	µg/L	6.442	463.35	ppb	6.442	1.39%
Se 196.026†	568.9	474.61	µg/L	3.856	474.61	ppb	3.856	0.81%
SiO2†	49057.5	8253.1	µg/L	13.21	8253.1	ppb	13.21	0.16%
Si 251.611†	59482.0	3823.7	µg/L	3.76	3823.7	ppb	3.76	0.10%
Sn 189.927†	2161.7	467.38	µg/L	2.175	467.38	ppb	2.175	0.47%
Sr 421.552†	9669.2	505.14	µg/L	8.542	505.14	ppb	8.542	1.69%
Ti 334.940†	125781.9	469.26	µg/L	0.263	469.26	ppb	0.263	0.06%
Tl 190.801†	1358.8	460.55	µg/L	4.978	460.55	ppb	4.978	1.08%
U 367.007†	1701.0	449.2	µg/L	21.75	449.2	ppb	21.75	4.84%
V 292.402†	38641.7	470.12	µg/L	0.474	470.12	ppb	0.474	0.10%
Zn 213.857†	42686.5	456.19	µg/L	0.023	456.19	ppb	0.023	0.01%

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Sequence No.: 88 **Autosampler Location: 360**
Sample ID: 433718019|1704451|1| **Date Collected: 9/28/2017 16:49:38**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 433718019|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3999.8	3999.8	98.5	%			16:50:28
1	Al 396.153Radial†	93174.1	94838.2	82876	µg/L	82876	ppb	16:50:08
1	Ca 317.933Radial†	236205.7	239869.1	235490	µg/L	235490	ppb	16:50:08
1	Fe 238.204 Radial†	50257.8	51047.5	231830	µg/L	231830	ppb	16:50:08
1	K 766.490 Radial†	10624.9	10668.5	8084.9	µg/L	8084.9	ppb	16:50:08
1	Mg 279.077 IEC†	5191.9	5271.2	84188	µg/L	84188	ppb	16:50:28
1	Na 589.592 Radial†	13.3	14.8	1598.9	µg/L	1598.9	ppb	16:50:28
1	Sr 421.552†	14497.6	14706.3	760.51	µg/L	760.51	ppb	16:50:08
1	Sc 361.383	391151.3	391151.3	98.612	%			16:51:27
1	Y 371.029	431271.8	431271.8	104.85	%			16:51:27
1	Ag 328.068†	-4438.7	-4027.5	1.4567	µg/L	1.4567	ppb	16:51:27
1	As 188.979†	77.9	85.5	94.708	µg/L	94.708	ppb	16:51:47
1	B 249.677†	-24441.7	-24883.2	73.430	µg/L	73.430	ppb	16:51:27
1	Ba 233.527†	47972.5	48666.9	531.48	µg/L	531.48	ppb	16:51:27
1	Be 313.107†	-2507.1	3853.6	5.2213	µg/L	5.2213	ppb	16:51:27
1	Cd 226.502†	1866.9	2060.4	1.4494	µg/L	1.4494	ppb	16:51:47
1	Co 228.616†	4338.5	4603.0	129.22	µg/L	129.22	ppb	16:51:47
1	Cr 267.716†	5590.1	5517.4	123.40	µg/L	123.40	ppb	16:51:47
1	Cu 324.752†	48138.2	46478.6	324.11	µg/L	324.11	ppb	16:51:27
1	Mn 257.610†	2892726.7	2933096.7	5125.3	µg/L	5125.3	ppb	16:51:27
1	Mo 202.031†	38.0	27.0	11.757	µg/L	11.757	ppb	16:51:47
1	Ni 231.604†	6824.2	6988.1	248.25	µg/L	248.25	ppb	16:51:47
1	P 214.914†	4778.8	4810.0	4408.9	µg/L	4408.9	ppb	16:51:47
1	Pb 220.353†	678.1	582.6	36.385	µg/L	36.385	ppb	16:51:47
1	S 181.975 Axial†	7332.8	7394.7	16772	µg/L	16772	ppb	16:51:47
1	Sb 206.836†	75.8	25.4	-2.1428	µg/L	-2.1428	ppb	16:51:47
1	Se 196.026†	-145.4	-117.9	31.117	µg/L	31.117	ppb	16:51:47
1	SiO2†	74495.6	74399.8	12514	µg/L	12514	ppb	16:51:27
1	Si 251.611†	89400.4	90443.6	5793.4	µg/L	5793.4	ppb	16:51:27
1	Sn 189.927†	47.2	36.2	6.3922	µg/L	6.3922	ppb	16:51:47
1	Ti 334.940†	329570.4	334660.2	1260.9	µg/L	1260.9	ppb	16:51:27
1	Tl 190.801†	-98.0	-37.8	-9.0027	µg/L	-9.0027	ppb	16:51:47
1	U 367.007†	4841.3	3825.4	-103.6	µg/L	-103.6	ppb	16:51:27
1	V 292.402†	11365.8	11473.8	167.78	µg/L	167.78	ppb	16:51:47
1	Zn 213.857†	300267.0	304078.7	3179.9	µg/L	3179.9	ppb	16:51:27
2	Sc RADIAL	4001.3	4001.3	98.5	%			16:50:53
2	Al 396.153Radial†	94999.5	96656.9	84465	µg/L	84465	ppb	16:50:33
2	Ca 317.933Radial†	239832.9	243463.9	239010	µg/L	239010	ppb	16:50:33
2	Fe 238.204 Radial†	51160.7	51945.6	235910	µg/L	235910	ppb	16:50:33
2	K 766.490 Radial†	10794.9	10837.1	8212.7	µg/L	8212.7	ppb	16:50:33
2	Mg 279.077 IEC†	5193.3	5270.7	84180	µg/L	84180	ppb	16:50:53
2	Na 589.592 Radial†	17.5	19.1	1971.6	µg/L	1971.6	ppb	16:50:53
2	Sr 421.552†	14874.8	15084.0	780.13	µg/L	780.13	ppb	16:50:33
2	Sc 361.383	393123.3	393123.3	99.109	%			16:51:54
2	Y 371.029	433469.6	433469.6	105.38	%			16:51:54
2	Ag 328.068†	-4473.2	-4039.7	1.9709	µg/L	1.9709	ppb	16:51:54
2	As 188.979†	67.7	74.8	87.253	µg/L	87.253	ppb	16:52:14
2	B 249.677†	-24724.4	-25044.1	84.955	µg/L	84.955	ppb	16:51:54
2	Ba 233.527†	48483.4	48938.4	534.37	µg/L	534.37	ppb	16:51:54
2	Be 313.107†	-2576.6	3796.3	5.2098	µg/L	5.2098	ppb	16:51:54
2	Cd 226.502†	1863.9	2047.9	0.7954	µg/L	0.7954	ppb	16:52:14
2	Co 228.616†	4323.5	4565.7	128.16	µg/L	128.16	ppb	16:52:14
2	Cr 267.716†	5638.0	5537.2	123.84	µg/L	123.84	ppb	16:52:14
2	Cu 324.752†	48346.1	46443.5	324.13	µg/L	324.13	ppb	16:51:54
2	Mn 257.610†	2912228.0	2938058.2	5134.2	µg/L	5134.2	ppb	16:51:54
2	Mo 202.031†	52.8	41.7	13.168	µg/L	13.168	ppb	16:52:14
2	Ni 231.604†	6825.5	6954.8	247.12	µg/L	247.12	ppb	16:52:14
2	P 214.914†	4808.0	4815.1	4410.3	µg/L	4410.3	ppb	16:52:14

2	Pb 220.353†	663.4	564.3	32.317	µg/L	32.317	ppb	16:52:14
2	S 181.975 Axial†	7378.4	7403.5	16792	µg/L	16792	ppb	16:52:14
2	Sb 206.836†	80.8	30.1	-0.2717	µg/L	-0.2717	ppb	16:52:14
2	Se 196.026†	-149.6	-121.4	30.444	µg/L	30.444	ppb	16:52:14
2	SiO2†	74636.9	74163.4	12474	µg/L	12474	ppb	16:51:54
2	Si 251.611†	89612.6	90203.0	5777.2	µg/L	5777.2	ppb	16:51:54
2	Sn 189.927†	52.4	41.2	7.4072	µg/L	7.4072	ppb	16:52:14
2	Ti 334.940†	331280.2	334708.9	1261.3	µg/L	1261.3	ppb	16:51:54
2	Tl 190.801†	-87.4	-26.6	-5.1174	µg/L	-5.1174	ppb	16:52:14
2	U 367.007†	4853.4	3813.0	-127.5	µg/L	-127.5	ppb	16:51:54
2	V 292.402†	11460.1	11511.1	168.77	µg/L	168.77	ppb	16:52:14
2	Zn 213.857†	302889.2	305197.0	3190.4	µg/L	3190.4	ppb	16:51:54
3	Sc RADIAL	4018.3	4018.3	98.9	%			16:51:18
3	Al 396.153Radial†	95178.9	96428.9	84266	µg/L	84266	ppb	16:50:58
3	Ca 317.933Radial†	239828.8	242426.2	238000	µg/L	238000	ppb	16:50:58
3	Fe 238.204 Radial†	51090.6	51654.3	234590	µg/L	234590	ppb	16:50:58
3	K 766.490 Radial†	10700.9	10695.5	8105.6	µg/L	8105.6	ppb	16:50:58
3	Mg 279.077 IEC†	5200.5	5255.5	83938	µg/L	83938	ppb	16:51:18
3	Na 589.592 Radial†	5.9	7.2	957.50	µg/L	957.50	ppb	16:51:18
3	Sr 421.552†	14847.6	14992.3	775.37	µg/L	775.37	ppb	16:50:58
3	Sc 361.383	393747.3	393747.3	99.267	%			16:52:21
3	Y 371.029	434047.7	434047.7	105.52	%			16:52:21
3	Ag 328.068†	-4589.0	-4149.2	0.8723	µg/L	0.8723	ppb	16:52:21
3	As 188.979†	70.1	77.1	88.856	µg/L	88.856	ppb	16:52:41
3	B 249.677†	-24761.7	-25042.1	79.363	µg/L	79.363	ppb	16:52:21
3	Ba 233.527†	48526.2	48903.9	534.03	µg/L	534.03	ppb	16:52:21
3	Be 313.107†	-2508.8	3868.7	5.2542	µg/L	5.2542	ppb	16:52:21
3	Cd 226.502†	1878.0	2059.0	1.1067	µg/L	1.1067	ppb	16:52:41
3	Co 228.616†	4343.5	4579.0	128.54	µg/L	128.54	ppb	16:52:41
3	Cr 267.716†	5632.9	5523.0	123.52	µg/L	123.52	ppb	16:52:41
3	Cu 324.752†	48299.3	46319.0	323.22	µg/L	323.22	ppb	16:52:21
3	Mn 257.610†	2915483.8	2936681.0	5131.7	µg/L	5131.7	ppb	16:52:21
3	Mo 202.031†	62.6	51.5	13.937	µg/L	13.937	ppb	16:52:41
3	Ni 231.604†	6827.5	6945.9	246.79	µg/L	246.79	ppb	16:52:41
3	P 214.914†	4805.9	4805.3	4402.1	µg/L	4402.1	ppb	16:52:41
3	Pb 220.353†	681.2	581.1	35.404	µg/L	35.404	ppb	16:52:41
3	S 181.975 Axial†	7350.7	7363.7	16701	µg/L	16701	ppb	16:52:41
3	Sb 206.836†	68.9	18.0	-5.5785	µg/L	-5.5785	ppb	16:52:41
3	Se 196.026†	-161.8	-133.5	19.728	µg/L	19.728	ppb	16:52:41
3	SiO2†	75086.5	74496.9	12530	µg/L	12530	ppb	16:52:21
3	Si 251.611†	89951.7	90401.3	5790.2	µg/L	5790.2	ppb	16:52:21
3	Sn 189.927†	64.1	52.9	9.9545	µg/L	9.9545	ppb	16:52:41
3	Ti 334.940†	331399.8	334299.6	1259.7	µg/L	1259.7	ppb	16:52:21
3	Tl 190.801†	-98.2	-37.3	-8.8077	µg/L	-8.8077	ppb	16:52:41
3	U 367.007†	4864.0	3815.9	-120.1	µg/L	-120.1	ppb	16:52:21
3	V 292.402†	11446.1	11478.7	168.21	µg/L	168.21	ppb	16:52:41
3	Zn 213.857†	303253.9	305080.1	3189.6	µg/L	3189.6	ppb	16:52:21

Mean Data: 433718019|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	392674.0	98.996	%	0.3416				0.35%
Sc RADIAL	4006.4	98.6	%	0.25				0.26%
Y 371.029	432929.7	105.25	%	0.356				0.34%
Ag 328.068†	-4072.1	1.4333	µg/L	0.54964	1.4333	ppb	0.54964	38.35%
Al 396.153Radial†	95974.7	83869	µg/L	865.78	83869	ppb	865.78	1.03%
As 188.979†	79.1	90.272	µg/L	3.9241	90.272	ppb	3.9241	4.35%
B 249.677†	-24989.8	79.249	µg/L	5.7632	79.249	ppb	5.7632	7.27%
Ba 233.527†	48836.4	533.29	µg/L	1.577	533.29	ppb	1.577	0.30%
Be 313.107†	3839.5	5.2284	µg/L	0.02304	5.2284	ppb	0.02304	0.44%
Ca 317.933Radial†	241919.7	237500	µg/L	1816.31	237500	ppb	1816.31	0.76%
Cd 226.502†	2055.8	1.1172	µg/L	0.32716	1.1172	ppb	0.32716	29.28%
Co 228.616†	4582.6	128.64	µg/L	0.537	128.64	ppb	0.537	0.42%
Cr 267.716†	5525.9	123.59	µg/L	0.228	123.59	ppb	0.228	0.18%
Cu 324.752†	46413.7	323.82	µg/L	0.519	323.82	ppb	0.519	0.16%
Fe 238.204 Radial†	51549.1	234110	µg/L	2080.64	234110	ppb	2080.64	0.89%
K 766.490 Radial†	10733.7	8134.4	µg/L	68.60	8134.4	ppb	68.60	0.84%
Mg 279.077 IEC†	5265.8	84102	µg/L	142.08	84102	ppb	142.08	0.17%
Mn 257.610†	2935945.3	5130.4	µg/L	4.58	5130.4	ppb	4.58	0.09%
Mo 202.031†	40.1	12.954	µg/L	1.1057	12.954	ppb	1.1057	8.54%

Na 589.592 Radial†	13.7	1509.3	µg/L	512.95	1509.3	ppb	512.95	33.99%
Ni 231.604†	6962.9	247.39	µg/L	0.767	247.39	ppb	0.767	0.31%
P 214.914†	4810.2	4407.1	µg/L	4.41	4407.1	ppb	4.41	0.10%
Pb 220.353†	576.0	34.702	µg/L	2.1231	34.702	ppb	2.1231	6.12%
S 181.975 Axial†	7387.3	16755	µg/L	47.50	16755	ppb	47.50	0.28%
Sb 206.836†	24.5	-2.6643	µg/L	2.69159	-2.6643	ppb	2.69159	101.02%
Se 196.026†	-124.3	27.096	µg/L	6.3899	27.096	ppb	6.3899	23.58%
SiO2†	74353.4	12506	µg/L	28.84	12506	ppb	28.84	0.23%
Si 251.611†	90349.3	5786.9	µg/L	8.57	5786.9	ppb	8.57	0.15%
Sn 189.927†	43.4	7.9179	µg/L	1.83525	7.9179	ppb	1.83525	23.18%
Sr 421.552†	14927.5	772.00	µg/L	10.233	772.00	ppb	10.233	1.33%
Ti 334.940†	334556.2	1260.6	µg/L	0.83	1260.6	ppb	0.83	0.07%
Tl 190.801†	-33.9	-7.6426	µg/L	2.18906	-7.6426	ppb	2.18906	28.64%
U 367.007†	3818.1	-117.1	µg/L	12.27	-117.1	ppb	12.27	10.48%
Concentration less than lower limit for U 367.007.								
V 292.402†	11487.9	168.25	µg/L	0.495	168.25	ppb	0.495	0.29%
Zn 213.857†	304785.3	3186.6	µg/L	5.83	3186.6	ppb	5.83	0.18%

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Sequence No.: 89 **Autosampler Location: 401**
Sample ID: 433718020|1704451|1|1 **Date Collected: 9/28/2017 16:52:50**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 433718020|1704451|1|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4035.3	4035.3	99.3	%			16:53:40
1	Al 396.153Radial†	94874.8	95716.5	83644	µg/L	83644	ppb	16:53:20
1	Ca 317.933Radial†	190459.0	191697.8	188190	µg/L	188190	ppb	16:53:20
1	Fe 238.204 Radial†	50962.7	51307.5	233010	µg/L	233010	ppb	16:53:20
1	K 766.490 Radial†	10197.5	10143.1	7684.3	µg/L	7684.3	ppb	16:53:20
1	Mg 279.077 IEC†	4666.4	4695.6	74995	µg/L	74995	ppb	16:53:40
1	Na 589.592 Radial†	9.6	10.9	1270.5	µg/L	1270.5	ppb	16:53:40
1	Sr 421.552†	13798.7	13872.9	718.57	µg/L	718.57	ppb	16:53:20
1	Sc 361.383	396527.0	396527.0	99.967	%			16:54:39
1	Y 371.029	437106.7	437106.7	106.27	%			16:54:39
1	Ag 328.068†	-4649.6	-4177.5	0.4048	µg/L	0.4048	ppb	16:54:39
1	As 188.979†	64.8	71.3	84.310	µg/L	84.310	ppb	16:54:59
1	B 249.677†	-25161.9	-25267.6	64.371	µg/L	64.371	ppb	16:54:39
1	Ba 233.527†	44063.5	44097.1	480.93	µg/L	480.93	ppb	16:54:39
1	Be 313.107†	-1863.8	4531.6	5.2937	µg/L	5.2937	ppb	16:54:39
1	Cd 226.502†	1817.5	1985.3	0.2832	µg/L	0.2832	ppb	16:54:59
1	Co 228.616†	3649.8	3854.4	108.15	µg/L	108.15	ppb	16:54:59
1	Cr 267.716†	5702.4	5552.8	123.73	µg/L	123.73	ppb	16:54:59
1	Cu 324.752†	43403.4	41080.4	288.34	µg/L	288.34	ppb	16:54:39
1	Mn 257.610†	3175233.5	3175926.9	5549.3	µg/L	5549.3	ppb	16:54:39
1	Mo 202.031†	40.3	28.8	11.955	µg/L	11.955	ppb	16:54:59
1	Ni 231.604†	6773.6	6843.7	243.18	µg/L	243.18	ppb	16:54:59
1	P 214.914†	4777.9	4743.4	4344.5	µg/L	4344.5	ppb	16:54:59
1	Pb 220.353†	697.7	592.8	41.681	µg/L	41.681	ppb	16:54:59
1	S 181.975 Axial†	4882.3	4842.6	10978	µg/L	10978	ppb	16:54:59
1	Sb 206.836†	72.0	20.6	-4.6430	µg/L	-4.6430	ppb	16:54:59
1	Se 196.026†	-152.9	-123.4	27.162	µg/L	27.162	ppb	16:54:59
1	SiO2†	69030.2	67908.4	11422	µg/L	11422	ppb	16:54:39
1	Si 251.611†	82540.8	82352.7	5271.6	µg/L	5271.6	ppb	16:54:39
1	Sn 189.927†	43.8	32.1	5.2650	µg/L	5.2650	ppb	16:54:59
1	Ti 334.940†	289673.1	290219.1	1092.5	µg/L	1092.5	ppb	16:54:39
1	Tl 190.801†	-97.9	-36.4	-8.4801	µg/L	-8.4801	ppb	16:54:59
1	U 367.007†	4841.5	3759.1	-121.8	µg/L	-121.8	ppb	16:54:39
1	V 292.402†	11183.8	11135.5	163.98	µg/L	163.98	ppb	16:54:59
1	Zn 213.857†	53751.4	53354.5	487.70	µg/L	487.70	ppb	16:54:39
2	Sc RADIAL	4052.9	4052.9	99.8	%			16:54:05
2	Al 396.153Radial†	96125.7	96556.9	84378	µg/L	84378	ppb	16:53:45
2	Ca 317.933Radial†	192222.2	192635.1	189110	µg/L	189110	ppb	16:53:45
2	Fe 238.204 Radial†	51496.7	51620.6	234430	µg/L	234430	ppb	16:53:45
2	K 766.490 Radial†	10420.0	10321.7	7819.4	µg/L	7819.4	ppb	16:53:45
2	Mg 279.077 IEC†	4702.2	4711.2	75244	µg/L	75244	ppb	16:54:05
2	Na 589.592 Radial†	6.9	8.2	1036.5	µg/L	1036.5	ppb	16:54:05
2	Sr 421.552†	14039.1	14053.8	727.99	µg/L	727.99	ppb	16:53:45
2	Sc 361.383	397357.9	397357.9	100.18	%			16:55:06
2	Y 371.029	438210.7	438210.7	106.54	%			16:55:06
2	Ag 328.068†	-4674.4	-4192.5	0.4870	µg/L	0.4870	ppb	16:55:06
2	As 188.979†	53.2	59.6	75.761	µg/L	75.761	ppb	16:55:26
2	B 249.677†	-25120.9	-25174.0	73.919	µg/L	73.919	ppb	16:55:06
2	Ba 233.527†	44110.6	44052.0	480.39	µg/L	480.39	ppb	16:55:06
2	Be 313.107†	-1953.7	4445.7	5.2424	µg/L	5.2424	ppb	16:55:06
2	Cd 226.502†	1794.2	1958.2	-0.2622	µg/L	-0.2622	ppb	16:55:26
2	Co 228.616†	3612.3	3809.4	106.86	µg/L	106.86	ppb	16:55:26
2	Cr 267.716†	5705.7	5544.2	123.54	µg/L	123.54	ppb	16:55:26
2	Cu 324.752†	43412.3	40998.5	287.90	µg/L	287.90	ppb	16:55:06
2	Mn 257.610†	3178858.4	3172903.8	5544.1	µg/L	5544.1	ppb	16:55:06
2	Mo 202.031†	38.4	26.8	11.847	µg/L	11.847	ppb	16:55:26
2	Ni 231.604†	6779.6	6835.5	242.90	µg/L	242.90	ppb	16:55:26
2	P 214.914†	4759.8	4715.4	4316.4	µg/L	4316.4	ppb	16:55:26

2	Pb 220.353†	698.0	591.7	41.135	µg/L	41.135	ppb	16:55:26
2	S 181.975 Axial†	4869.0	4819.1	10925	µg/L	10925	ppb	16:55:26
2	Sb 206.836†	76.7	25.2	-2.6674	µg/L	-2.6674	ppb	16:55:26
2	Se 196.026†	-162.8	-133.0	20.033	µg/L	20.033	ppb	16:55:26
2	SiO2†	68893.8	67627.9	11375	µg/L	11375	ppb	16:55:06
2	Si 251.611†	82173.6	81813.5	5236.6	µg/L	5236.6	ppb	16:55:06
2	Sn 189.927†	49.1	37.3	6.3641	µg/L	6.3641	ppb	16:55:26
2	Ti 334.940†	290893.7	290831.5	1094.9	µg/L	1094.9	ppb	16:55:06
2	Tl 190.801†	-97.0	-35.3	-8.0594	µg/L	-8.0594	ppb	16:55:26
2	U 367.007†	4909.2	3816.5	-112.9	µg/L	-112.9	ppb	16:55:06
2	V 292.402†	11184.3	11112.6	163.90	µg/L	163.90	ppb	16:55:26
2	Zn 213.857†	53825.9	53316.5	486.76	µg/L	486.76	ppb	16:55:06
3	Sc RADIAL	4051.6	4051.6	99.7	%			16:54:30
3	Al 396.153Radial†	96365.9	96829.5	84616	µg/L	84616	ppb	16:54:10
3	Ca 317.933Radial†	192542.3	193019.5	189490	µg/L	189490	ppb	16:54:10
3	Fe 238.204 Radial†	51581.4	51722.6	234900	µg/L	234900	ppb	16:54:10
3	K 766.490 Radial†	10345.0	10249.9	7765.2	µg/L	7765.2	ppb	16:54:10
3	Mg 279.077 IEC†	4719.3	4729.9	75543	µg/L	75543	ppb	16:54:30
3	Na 589.592 Radial†	4.5	5.8	836.45	µg/L	836.45	ppb	16:54:30
3	Sr 421.552†	14069.5	14088.9	729.81	µg/L	729.81	ppb	16:54:10
3	Sc 361.383	397448.1	397448.1	100.20	%			16:55:33
3	Y 371.029	438715.4	438715.4	106.66	%			16:55:33
3	Ag 328.068†	-4589.4	-4106.6	1.2617	µg/L	1.2617	ppb	16:55:33
3	As 188.979†	62.4	68.8	82.679	µg/L	82.679	ppb	16:55:54
3	B 249.677†	-25074.5	-25122.1	77.816	µg/L	77.816	ppb	16:55:33
3	Ba 233.527†	44225.7	44156.8	481.53	µg/L	481.53	ppb	16:55:33
3	Be 313.107†	-1860.5	4539.2	5.3147	µg/L	5.3147	ppb	16:55:33
3	Cd 226.502†	1795.9	1959.5	-0.2987	µg/L	-0.2987	ppb	16:55:54
3	Co 228.616†	3651.5	3847.6	107.95	µg/L	107.95	ppb	16:55:54
3	Cr 267.716†	5714.4	5551.6	123.71	µg/L	123.71	ppb	16:55:54
3	Cu 324.752†	43621.1	41197.1	289.25	µg/L	289.25	ppb	16:55:33
3	Mn 257.610†	3181286.4	3174606.4	5547.1	µg/L	5547.1	ppb	16:55:33
3	Mo 202.031†	33.4	21.8	11.443	µg/L	11.443	ppb	16:55:54
3	Ni 231.604†	6786.9	6841.3	243.11	µg/L	243.11	ppb	16:55:54
3	P 214.914†	4773.1	4727.5	4327.7	µg/L	4327.7	ppb	16:55:54
3	Pb 220.353†	688.0	581.5	39.321	µg/L	39.321	ppb	16:55:54
3	S 181.975 Axial†	4894.0	4843.0	10979	µg/L	10979	ppb	16:55:54
3	Sb 206.836†	72.0	20.4	-4.8231	µg/L	-4.8231	ppb	16:55:54
3	Se 196.026†	-156.4	-126.5	25.638	µg/L	25.638	ppb	16:55:54
3	SiO2†	68473.8	67193.1	11302	µg/L	11302	ppb	16:55:33
3	Si 251.611†	81928.4	81550.2	5219.6	µg/L	5219.6	ppb	16:55:33
3	Sn 189.927†	38.5	26.8	4.0784	µg/L	4.0784	ppb	16:55:54
3	Ti 334.940†	291162.1	291033.5	1095.6	µg/L	1095.6	ppb	16:55:33
3	Tl 190.801†	-94.1	-32.4	-7.0751	µg/L	-7.0751	ppb	16:55:54
3	U 367.007†	4910.8	3817.0	-115.0	µg/L	-115.0	ppb	16:55:33
3	V 292.402†	11175.5	11101.2	163.82	µg/L	163.82	ppb	16:55:54
3	Zn 213.857†	53766.7	53245.2	485.83	µg/L	485.83	ppb	16:55:33

Mean Data: 433718020|1704451|1|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397111.0	100.11	%	0.128				0.13%
Sc RADIAL	4046.6	99.6	%	0.24				0.24%
Y 371.029	438010.9	106.49	%	0.200				0.19%
Ag 328.068†	-4158.8	0.7178	µg/L	0.47278	0.7178	ppb	0.47278	65.86%
Al 396.153Radial†	96367.6	84213	µg/L	506.95	84213	ppb	506.95	0.60%
As 188.979†	66.6	80.917	µg/L	4.5386	80.917	ppb	4.5386	5.61%
B 249.677†	-25187.9	72.036	µg/L	6.9176	72.036	ppb	6.9176	9.60%
Ba 233.527†	44102.0	480.95	µg/L	0.573	480.95	ppb	0.573	0.12%
Be 313.107†	4505.5	5.2836	µg/L	0.03720	5.2836	ppb	0.03720	0.70%
Ca 317.933Radial†	192450.8	188930	µg/L	667.45	188930	ppb	667.45	0.35%
Cd 226.502†	1967.7	-0.0926	µg/L	0.32594	-0.0926	ppb	0.32594	352.16%
Co 228.616†	3837.1	107.65	µg/L	0.694	107.65	ppb	0.694	0.65%
Cr 267.716†	5549.5	123.66	µg/L	0.107	123.66	ppb	0.107	0.09%
Cu 324.752†	41092.0	288.50	µg/L	0.687	288.50	ppb	0.687	0.24%
Fe 238.204 Radial†	51550.2	234110	µg/L	982.38	234110	ppb	982.38	0.42%
K 766.490 Radial†	10238.2	7756.3	µg/L	68.01	7756.3	ppb	68.01	0.88%
Mg 279.077 IEC†	4712.2	75260	µg/L	274.25	75260	ppb	274.25	0.36%
Mn 257.610†	3174479.0	5546.8	µg/L	2.61	5546.8	ppb	2.61	0.05%
Mo 202.031†	25.8	11.749	µg/L	0.2697	11.749	ppb	0.2697	2.30%

Na 589.592 Radial†	8.3	1047.8	µg/L	217.25	1047.8	ppb	217.25	20.73%
Ni 231.604†	6840.2	243.06	µg/L	0.144	243.06	ppb	0.144	0.06%
P 214.914†	4728.8	4329.5	µg/L	14.14	4329.5	ppb	14.14	0.33%
Pb 220.353†	588.6	40.712	µg/L	1.2357	40.712	ppb	1.2357	3.04%
S 181.975 Axial†	4834.9	10961	µg/L	31.08	10961	ppb	31.08	0.28%
Sb 206.836†	22.1	-4.0445	µg/L	1.19598	-4.0445	ppb	1.19598	29.57%
Se 196.026†	-127.7	24.278	µg/L	3.7545	24.278	ppb	3.7545	15.46%
SiO2†	67576.4	11367	µg/L	60.61	11367	ppb	60.61	0.53%
Si 251.611†	81905.5	5242.6	µg/L	26.52	5242.6	ppb	26.52	0.51%
Sn 189.927†	32.1	5.2358	µg/L	1.14311	5.2358	ppb	1.14311	21.83%
Sr 421.552†	14005.2	725.46	µg/L	6.035	725.46	ppb	6.035	0.83%
Ti 334.940†	290694.7	1094.4	µg/L	1.61	1094.4	ppb	1.61	0.15%
Tl 190.801†	-34.7	-7.8715	µg/L	0.72109	-7.8715	ppb	0.72109	9.16%
U 367.007†	3797.5	-116.6	µg/L	4.64	-116.6	ppb	4.64	3.98%
Concentration less than lower limit for U 367.007.								
V 292.402†	11116.4	163.90	µg/L	0.083	163.90	ppb	0.083	0.05%
Zn 213.857†	53305.4	486.76	µg/L	0.932	486.76	ppb	0.932	0.19%

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Sequence No.: 90 **Autosampler Location: 402**
Sample ID: 433718018|1704451|1| **Date Collected: 9/28/2017 16:56:02**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 433718018|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4002.3	4002.3	98.5	%			16:56:52
1	Al 396.153Radial†	95496.8	97136.4	84885	µg/L	84885	ppb	16:56:32
1	Ca 317.933Radial†	237327.4	240856.8	236450	µg/L	236450	ppb	16:56:32
1	Fe 238.204 Radial†	50223.1	50980.2	231520	µg/L	231520	ppb	16:56:32
1	K 766.490 Radial†	12533.0	12598.6	9544.7	µg/L	9544.7	ppb	16:56:32
1	Mg 279.077 IEC†	5746.8	5831.1	93130	µg/L	93130	ppb	16:56:52
1	Na 589.592 Radial†	4.4	5.8	827.68	µg/L	827.68	ppb	16:56:52
1	Sr 421.552†	17487.3	17731.9	918.59	µg/L	918.59	ppb	16:56:32
1	Sc 361.383	392516.9	392516.9	98.956	%			16:57:51
1	Y 371.029	432833.9	432833.9	105.23	%			16:57:51
1	Ag 328.068†	-4483.6	-4057.2	1.1713	µg/L	1.1713	ppb	16:57:51
1	As 188.979†	57.7	64.8	79.227	µg/L	79.227	ppb	16:58:11
1	B 249.677†	-24438.7	-24794.0	75.533	µg/L	75.533	ppb	16:57:51
1	Ba 233.527†	52382.7	52954.4	578.90	µg/L	578.90	ppb	16:57:51
1	Be 313.107†	-2414.7	3955.9	5.3054	µg/L	5.3054	ppb	16:57:51
1	Cd 226.502†	1790.8	1976.9	0.2996	µg/L	0.2996	ppb	16:58:11
1	Co 228.616†	3247.0	3484.7	97.253	µg/L	97.253	ppb	16:58:11
1	Cr 267.716†	5683.7	5592.2	125.78	µg/L	125.78	ppb	16:58:11
1	Cu 324.752†	40760.1	38852.8	273.47	µg/L	273.47	ppb	16:57:51
1	Mn 257.610†	2351514.4	2375970.7	4153.2	µg/L	4153.2	ppb	16:57:51
1	Mo 202.031†	34.9	23.7	11.469	µg/L	11.469	ppb	16:58:11
1	Ni 231.604†	6213.7	6347.1	225.68	µg/L	225.68	ppb	16:58:11
1	P 214.914†	4771.2	4785.4	4386.6	µg/L	4386.6	ppb	16:58:11
1	Pb 220.353†	614.8	516.2	24.987	µg/L	24.987	ppb	16:58:11
1	S 181.975 Axial†	22684.9	22882.9	51930	µg/L	51930	ppb	16:58:11
1	Sb 206.836†	71.3	20.6	-4.3074	µg/L	-4.3074	ppb	16:58:11
1	Se 196.026†	-158.7	-130.8	20.203	µg/L	20.203	ppb	16:58:11
1	SiO2†	90533.3	90343.8	15195	µg/L	15195	ppb	16:57:51
1	Si 251.611†	108643.0	109573.8	7026.7	µg/L	7026.7	ppb	16:57:51
1	Sn 189.927†	52.2	41.1	7.3726	µg/L	7.3726	ppb	16:58:11
1	Ti 334.940†	341889.9	345946.9	1303.1	µg/L	1303.1	ppb	16:57:51
1	Tl 190.801†	-117.1	-56.8	-15.276	µg/L	-15.276	ppb	16:58:11
1	U 367.007†	4855.7	3822.9	-102.9	µg/L	-102.9	ppb	16:57:51
1	V 292.402†	11627.7	11698.4	170.41	µg/L	170.41	ppb	16:58:11
1	Zn 213.857†	59109.8	59318.8	553.27	µg/L	553.27	ppb	16:57:51
2	Sc RADIAL	4026.0	4026.0	99.1	%			16:57:17
2	Al 396.153Radial†	97862.5	98952.6	86472	µg/L	86472	ppb	16:56:57
2	Ca 317.933Radial†	241817.1	243968.1	239510	µg/L	239510	ppb	16:56:57
2	Fe 238.204 Radial†	51265.2	51731.5	234940	µg/L	234940	ppb	16:56:57
2	K 766.490 Radial†	12598.3	12589.5	9538.0	µg/L	9538.0	ppb	16:56:57
2	Mg 279.077 IEC†	5777.0	5827.3	93069	µg/L	93069	ppb	16:57:17
2	Na 589.592 Radial†	9.9	11.3	1304.0	µg/L	1304.0	ppb	16:57:17
2	Sr 421.552†	17960.7	18105.1	937.99	µg/L	937.99	ppb	16:56:57
2	Sc 361.383	395272.1	395272.1	99.651	%			16:58:18
2	Y 371.029	435750.5	435750.5	105.94	%			16:58:18
2	Ag 328.068†	-4533.7	-4075.9	1.5232	µg/L	1.5232	ppb	16:58:18
2	As 188.979†	63.7	70.4	83.881	µg/L	83.881	ppb	16:58:38
2	B 249.677†	-24703.4	-24887.5	86.694	µg/L	86.694	ppb	16:58:18
2	Ba 233.527†	52755.3	52959.3	578.85	µg/L	578.85	ppb	16:58:18
2	Be 313.107†	-2480.9	3906.5	5.2984	µg/L	5.2984	ppb	16:58:18
2	Cd 226.502†	1784.5	1958.0	-0.3650	µg/L	-0.3650	ppb	16:58:38
2	Co 228.616†	3242.0	3456.7	96.449	µg/L	96.449	ppb	16:58:38
2	Cr 267.716†	5644.2	5512.5	123.97	µg/L	123.97	ppb	16:58:38
2	Cu 324.752†	41017.9	38824.4	273.51	µg/L	273.51	ppb	16:58:18
2	Mn 257.610†	2370661.3	2378621.0	4158.0	µg/L	4158.0	ppb	16:58:18
2	Mo 202.031†	24.4	12.9	10.694	µg/L	10.694	ppb	16:58:38
2	Ni 231.604†	6228.0	6317.7	224.67	µg/L	224.67	ppb	16:58:38
2	P 214.914†	4753.6	4734.2	4334.5	µg/L	4334.5	ppb	16:58:38

2	Pb 220.353†	623.1	520.1	24.740	µg/L	24.740	ppb	16:58:38
2	S 181.975 Axial†	22695.9	22734.1	51592	µg/L	51592	ppb	16:58:38
2	Sb 206.836†	60.3	9.1	-9.6018	µg/L	-9.6018	ppb	16:58:38
2	Se 196.026†	-152.9	-124.0	27.819	µg/L	27.819	ppb	16:58:38
2	SiO2†	90833.4	90007.2	15139	µg/L	15139	ppb	16:58:18
2	Si 251.611†	109330.3	109498.2	7021.3	µg/L	7021.3	ppb	16:58:18
2	Sn 189.927†	50.0	38.5	6.7761	µg/L	6.7761	ppb	16:58:38
2	Ti 334.940†	344942.9	346602.3	1305.7	µg/L	1305.7	ppb	16:58:18
2	Tl 190.801†	-112.5	-51.3	-13.358	µg/L	-13.358	ppb	16:58:38
2	U 367.007†	4927.4	3860.7	-109.5	µg/L	-109.5	ppb	16:58:18
2	V 292.402†	11611.9	11600.6	169.66	µg/L	169.66	ppb	16:58:38
2	Zn 213.857†	59638.9	59433.4	553.20	µg/L	553.20	ppb	16:58:18
3	Sc RADIAL	4035.0	4035.0	99.3	%			16:57:42
3	Al 396.153Radial†	98452.7	99327.6	86799	µg/L	86799	ppb	16:57:22
3	Ca 317.933Radial†	242360.3	243973.3	239510	µg/L	239510	ppb	16:57:22
3	Fe 238.204 Radial†	51436.7	51789.3	235200	µg/L	235200	ppb	16:57:22
3	K 766.490 Radial†	12762.9	12727.0	9642.0	µg/L	9642.0	ppb	16:57:22
3	Mg 279.077 IEC†	5773.2	5810.5	92800	µg/L	92800	ppb	16:57:42
3	Na 589.592 Radial†	14.6	16.0	1709.0	µg/L	1709.0	ppb	16:57:42
3	Sr 421.552†	18141.3	18246.7	945.39	µg/L	945.39	ppb	16:57:22
3	Sc 361.383	392972.7	392972.7	99.071	%			16:58:45
3	Y 371.029	432933.2	432933.2	105.25	%			16:58:45
3	Ag 328.068†	-4546.3	-4115.3	1.2476	µg/L	1.2476	ppb	16:58:45
3	As 188.979†	56.7	63.8	78.967	µg/L	78.967	ppb	16:59:05
3	B 249.677†	-24637.9	-24966.4	84.899	µg/L	84.899	ppb	16:58:45
3	Ba 233.527†	52366.9	52877.0	577.94	µg/L	577.94	ppb	16:58:45
3	Be 313.107†	-2427.7	3945.6	5.3258	µg/L	5.3258	ppb	16:58:45
3	Cd 226.502†	1826.6	2010.9	0.3436	µg/L	0.3436	ppb	16:59:05
3	Co 228.616†	3270.9	3505.0	97.823	µg/L	97.823	ppb	16:59:05
3	Cr 267.716†	5703.5	5605.6	126.06	µg/L	126.06	ppb	16:59:05
3	Cu 324.752†	40655.0	38699.0	272.69	µg/L	272.69	ppb	16:58:45
3	Mn 257.610†	2356243.3	2377987.7	4156.9	µg/L	4156.9	ppb	16:58:45
3	Mo 202.031†	27.1	15.8	10.948	µg/L	10.948	ppb	16:59:05
3	Ni 231.604†	6297.8	6424.8	228.45	µg/L	228.45	ppb	16:59:05
3	P 214.914†	4852.7	4862.1	4457.1	µg/L	4457.1	ppb	16:59:05
3	Pb 220.353†	633.2	534.0	26.983	µg/L	26.983	ppb	16:59:05
3	S 181.975 Axial†	22978.6	23152.7	52543	µg/L	52543	ppb	16:59:05
3	Sb 206.836†	70.1	19.4	-5.0655	µg/L	-5.0655	ppb	16:59:05
3	Se 196.026†	-183.3	-155.5	1.8333	µg/L	1.8333	ppb	16:59:05
3	SiO2†	89307.7	89000.6	14970	µg/L	14970	ppb	16:58:45
3	Si 251.611†	107387.1	108178.7	6936.2	µg/L	6936.2	ppb	16:58:45
3	Sn 189.927†	54.5	43.3	7.8146	µg/L	7.8146	ppb	16:59:05
3	Ti 334.940†	343460.2	347131.2	1307.7	µg/L	1307.7	ppb	16:58:45
3	Tl 190.801†	-106.5	-45.9	-11.506	µg/L	-11.506	ppb	16:59:05
3	U 367.007†	4869.2	3830.9	-119.1	µg/L	-119.1	ppb	16:58:45
3	V 292.402†	11765.3	11823.6	172.38	µg/L	172.38	ppb	16:59:05
3	Zn 213.857†	59259.8	59401.0	552.74	µg/L	552.74	ppb	16:58:45

Mean Data: 433718018|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	393587.2	99.226	%	0.3723				0.38%
Sc RADIAL	4021.1	99.0	%	0.42				0.42%
Y 371.029	433839.2	105.47	%	0.403				0.38%
Ag 328.068†	-4082.8	1.3141	µg/L	0.18511	1.3141	ppb	0.18511	14.09%
Al 396.153Radial†	98472.2	86052	µg/L	1024.10	86052	ppb	1024.10	1.19%
As 188.979†	66.3	80.692	µg/L	2.7650	80.692	ppb	2.7650	3.43%
B 249.677†	-24882.6	82.375	µg/L	5.9930	82.375	ppb	5.9930	7.28%
Ba 233.527†	52930.2	578.56	µg/L	0.542	578.56	ppb	0.542	0.09%
Be 313.107†	3936.0	5.3099	µg/L	0.01422	5.3099	ppb	0.01422	0.27%
Ca 317.933Radial†	242932.7	238490	µg/L	1764.96	238490	ppb	1764.96	0.74%
Cd 226.502†	1981.9	0.0927	µg/L	0.39705	0.0927	ppb	0.39705	428.09%
Co 228.616†	3482.1	97.175	µg/L	0.6898	97.175	ppb	0.6898	0.71%
Cr 267.716†	5570.1	125.27	µg/L	1.134	125.27	ppb	1.134	0.91%
Cu 324.752†	38792.1	273.22	µg/L	0.463	273.22	ppb	0.463	0.17%
Fe 238.204 Radial†	51500.3	233890	µg/L	2049.88	233890	ppb	2049.88	0.88%
K 766.490 Radial†	12638.4	9574.9	µg/L	58.20	9574.9	ppb	58.20	0.61%
Mg 279.077 IEC†	5823.0	93000	µg/L	175.65	93000	ppb	175.65	0.19%
Mn 257.610†	2377526.5	4156.0	µg/L	2.52	4156.0	ppb	2.52	0.06%
Mo 202.031†	17.5	11.037	µg/L	0.3948	11.037	ppb	0.3948	3.58%

Na 589.592 Radial†	11.0	1280.2	µg/L	441.12	1280.2	ppb	441.12	34.46%
Ni 231.604†	6363.2	226.27	µg/L	1.953	226.27	ppb	1.953	0.86%
P 214.914†	4793.9	4392.7	µg/L	61.52	4392.7	ppb	61.52	1.40%
Pb 220.353†	523.4	25.570	µg/L	1.2298	25.570	ppb	1.2298	4.81%
S 181.975 Axial†	22923.2	52022	µg/L	481.71	52022	ppb	481.71	0.93%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	16.4	-6.3249	µg/L	2.86308	-6.3249	ppb	2.86308	45.27%
Se 196.026†	-136.8	16.618	µg/L	13.3585	16.618	ppb	13.3585	80.38%
SiO2†	89783.8	15101	µg/L	117.52	15101	ppb	117.52	0.78%
Si 251.611†	109083.6	6994.7	µg/L	50.77	6994.7	ppb	50.77	0.73%
Sn 189.927†	41.0	7.3211	µg/L	0.52116	7.3211	ppb	0.52116	7.12%
Sr 421.552†	18027.9	933.99	µg/L	13.839	933.99	ppb	13.839	1.48%
Ti 334.940†	346560.1	1305.5	µg/L	2.30	1305.5	ppb	2.30	0.18%
Tl 190.801†	-51.3	-13.380	µg/L	1.8848	-13.380	ppb	1.8848	14.09%
U 367.007†	3838.1	-110.5	µg/L	8.16	-110.5	ppb	8.16	7.38%
Concentration less than lower limit for U 367.007.								
V 292.402†	11707.5	170.82	µg/L	1.403	170.82	ppb	1.403	0.82%
Zn 213.857†	59384.4	553.07	µg/L	0.290	553.07	ppb	0.290	0.05%

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Sequence No.: 91 | **Autosampler Location: 403**
Sample ID: 1203884248|1704451|1| | **Date Collected: 9/28/2017 16:59:14**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203884248|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4025.0	4025.0	99.1	%			17:00:04
1	Al 396.153Radial†	89764.7	90804.2	79351	µg/L	79351	ppb	16:59:44
1	Ca 317.933Radial†	220350.7	222363.0	218300	µg/L	218300	ppb	16:59:44
1	Fe 238.204 Radial†	47456.8	47900.7	217540	µg/L	217540	ppb	16:59:44
1	K 766.490 Radial†	11463.8	11447.6	8673.0	µg/L	8673.0	ppb	16:59:44
1	Mg 279.077 IEC†	5286.5	5333.6	85185	µg/L	85185	ppb	17:00:04
1	Na 589.592 Radial†	10.2	11.5	1301.0	µg/L	1301.0	ppb	17:00:04
1	Sr 421.552†	15659.1	15786.6	817.55	µg/L	817.55	ppb	16:59:44
1	Sc 361.383	395987.3	395987.3	99.831	%			17:01:03
1	Y 371.029	435342.2	435342.2	105.84	%			17:01:03
1	Ag 328.068†	-4349.8	-3883.5	0.5145	µg/L	0.5145	ppb	17:01:03
1	As 188.979†	48.9	55.5	70.416	µg/L	70.416	ppb	17:01:23
1	B 249.677†	-23201.9	-23338.6	69.408	µg/L	69.408	ppb	17:01:03
1	Ba 233.527†	50192.3	50296.3	549.91	µg/L	549.91	ppb	17:01:03
1	Be 313.107†	-2450.3	3941.5	5.1152	µg/L	5.1152	ppb	17:01:03
1	Cd 226.502†	1672.4	1842.4	0.0704	µg/L	0.0704	ppb	17:01:23
1	Co 228.616†	3070.3	3278.9	91.477	µg/L	91.477	ppb	17:01:23
1	Cr 267.716†	5504.4	5362.3	120.51	µg/L	120.51	ppb	17:01:23
1	Cu 324.752†	38494.4	36222.3	255.07	µg/L	255.07	ppb	17:01:03
1	Mn 257.610†	2266408.4	2269895.1	3967.7	µg/L	3967.7	ppb	17:01:03
1	Mo 202.031†	14.9	3.4	9.1812	µg/L	9.1812	ppb	17:01:23
1	Ni 231.604†	5964.0	6042.0	214.80	µg/L	214.80	ppb	17:01:23
1	P 214.914†	4781.1	4753.2	4367.9	µg/L	4367.9	ppb	17:01:23
1	Pb 220.353†	608.6	504.5	27.086	µg/L	27.086	ppb	17:01:23
1	S 181.975 Axial†	20865.8	20859.8	47339	µg/L	47339	ppb	17:01:23
1	Sb 206.836†	58.7	7.4	-9.4327	µg/L	-9.4327	ppb	17:01:23
1	Se 196.026†	-152.7	-123.5	18.554	µg/L	18.554	ppb	17:01:23
1	SiO2†	62637.5	61599.0	10361	µg/L	10361	ppb	17:01:03
1	Si 251.611†	74743.8	74655.2	4777.9	µg/L	4777.9	ppb	17:01:03
1	Sn 189.927†	60.7	49.1	9.3128	µg/L	9.3128	ppb	17:01:23
1	Ti 334.940†	328840.0	329847.1	1242.1	µg/L	1242.1	ppb	17:01:03
1	Tl 190.801†	-106.4	-45.1	-11.520	µg/L	-11.520	ppb	17:01:23
1	U 367.007†	4651.1	3575.0	-100.9	µg/L	-100.9	ppb	17:01:03
1	V 292.402†	10907.9	10874.3	158.67	µg/L	158.67	ppb	17:01:23
1	Zn 213.857†	50378.4	50049.1	458.70	µg/L	458.70	ppb	17:01:03
2	Sc RADIAL	4041.8	4041.8	99.5	%			17:00:29
2	Al 396.153Radial†	90973.5	91643.2	80084	µg/L	80084	ppb	17:00:09
2	Ca 317.933Radial†	222143.7	223242.0	219160	µg/L	219160	ppb	17:00:09
2	Fe 238.204 Radial†	48092.5	48340.8	219540	µg/L	219540	ppb	17:00:09
2	K 766.490 Radial†	11589.9	11526.4	8732.6	µg/L	8732.6	ppb	17:00:09
2	Mg 279.077 IEC†	5314.5	5339.6	85280	µg/L	85280	ppb	17:00:29
2	Na 589.592 Radial†	9.2	10.5	1214.4	µg/L	1214.4	ppb	17:00:29
2	Sr 421.552†	15937.2	16000.5	828.70	µg/L	828.70	ppb	17:00:09
2	Sc 361.383	398167.7	398167.7	100.38	%			17:01:30
2	Y 371.029	437924.5	437924.5	106.47	%			17:01:30
2	Ag 328.068†	-4468.1	-3977.4	0.0417	µg/L	0.0417	ppb	17:01:30
2	As 188.979†	57.7	64.0	77.045	µg/L	77.045	ppb	17:01:50
2	B 249.677†	-23242.7	-23252.0	81.164	µg/L	81.164	ppb	17:01:30
2	Ba 233.527†	50438.5	50266.3	549.52	µg/L	549.52	ppb	17:01:30
2	Be 313.107†	-2485.7	3919.7	5.1065	µg/L	5.1065	ppb	17:01:30
2	Cd 226.502†	1672.5	1833.4	-0.2905	µg/L	-0.2905	ppb	17:01:50
2	Co 228.616†	3059.0	3250.8	90.686	µg/L	90.686	ppb	17:01:50
2	Cr 267.716†	5508.0	5335.7	119.91	µg/L	119.91	ppb	17:01:50
2	Cu 324.752†	38579.9	36096.3	254.36	µg/L	254.36	ppb	17:01:30
2	Mn 257.610†	2276076.8	2267094.6	3962.9	µg/L	3962.9	ppb	17:01:30
2	Mo 202.031†	22.0	10.4	9.8546	µg/L	9.8546	ppb	17:01:50
2	Ni 231.604†	5960.0	6005.3	213.53	µg/L	213.53	ppb	17:01:50
2	P 214.914†	4779.4	4725.2	4339.4	µg/L	4339.4	ppb	17:01:50

2	Pb 220.353†	591.7	484.3	23.305	µg/L	23.305	ppb	17:01:50
2	S 181.975 Axial†	20833.7	20713.4	47006	µg/L	47006	ppb	17:01:50
2	Sb 206.836†	73.1	21.4	-3.2762	µg/L	-3.2762	ppb	17:01:50
2	Se 196.026†	-141.3	-111.3	29.774	µg/L	29.774	ppb	17:01:50
2	SiO2†	63324.1	61939.4	10418	µg/L	10418	ppb	17:01:30
2	Si 251.611†	75782.2	75279.6	4817.8	µg/L	4817.8	ppb	17:01:30
2	Sn 189.927†	61.0	49.1	9.2727	µg/L	9.2727	ppb	17:01:50
2	Ti 334.940†	329545.4	328745.9	1238.0	µg/L	1238.0	ppb	17:01:30
2	Tl 190.801†	-110.8	-48.8	-12.761	µg/L	-12.761	ppb	17:01:50
2	U 367.007†	4673.4	3571.7	-111.8	µg/L	-111.8	ppb	17:01:30
2	V 292.402†	10862.3	10769.1	157.68	µg/L	157.68	ppb	17:01:50
2	Zn 213.857†	50679.0	50072.3	458.20	µg/L	458.20	ppb	17:01:30
3	Sc RADIAL	4033.9	4033.9	99.3	%			17:00:55
3	Al 396.153Radial†	91531.1	92382.3	80730	µg/L	80730	ppb	17:00:34
3	Ca 317.933Radial†	223638.5	225181.0	221070	µg/L	221070	ppb	17:00:34
3	Fe 238.204 Radial†	48226.9	48570.0	220580	µg/L	220580	ppb	17:00:34
3	K 766.490 Radial†	11587.2	11546.3	8747.8	µg/L	8747.8	ppb	17:00:34
3	Mg 279.077 IEC†	5313.1	5348.6	85425	µg/L	85425	ppb	17:00:55
3	Na 589.592 Radial†	8.3	9.6	1142.4	µg/L	1142.4	ppb	17:00:55
3	Sr 421.552†	16059.1	16154.3	836.68	µg/L	836.68	ppb	17:00:34
3	Sc 361.383	393764.0	393764.0	99.271	%			17:01:57
3	Y 371.029	433743.1	433743.1	105.45	%			17:01:57
3	Ag 328.068†	-4177.9	-3734.9	2.1901	µg/L	2.1901	ppb	17:01:57
3	As 188.979†	54.5	61.4	75.248	µg/L	75.248	ppb	17:02:17
3	B 249.677†	-23014.6	-23281.2	84.541	µg/L	84.541	ppb	17:01:57
3	Ba 233.527†	49957.0	50343.1	550.34	µg/L	550.34	ppb	17:01:57
3	Be 313.107†	-2473.0	3904.9	5.1135	µg/L	5.1135	ppb	17:01:57
3	Cd 226.502†	1652.4	1831.7	-0.4361	µg/L	-0.4361	ppb	17:02:17
3	Co 228.616†	3063.2	3289.1	91.772	µg/L	91.772	ppb	17:02:17
3	Cr 267.716†	5481.5	5370.3	120.69	µg/L	120.69	ppb	17:02:17
3	Cu 324.752†	38274.0	36218.0	255.23	µg/L	255.23	ppb	17:01:57
3	Mn 257.610†	2251994.2	2268193.5	3964.9	µg/L	3964.9	ppb	17:01:57
3	Mo 202.031†	42.0	30.8	11.618	µg/L	11.618	ppb	17:02:17
3	Ni 231.604†	5959.9	6071.6	215.87	µg/L	215.87	ppb	17:02:17
3	P 214.914†	4773.9	4772.9	4384.2	µg/L	4384.2	ppb	17:02:17
3	Pb 220.353†	594.1	493.3	24.433	µg/L	24.433	ppb	17:02:17
3	S 181.975 Axial†	20829.0	20940.7	47522	µg/L	47522	ppb	17:02:17
3	Sb 206.836†	64.6	13.6	-6.8099	µg/L	-6.8099	ppb	17:02:17
3	Se 196.026†	-151.0	-122.5	21.002	µg/L	21.002	ppb	17:02:17
3	SiO2†	61905.5	61215.9	10297	µg/L	10297	ppb	17:01:57
3	Si 251.611†	74011.9	74340.6	4757.1	µg/L	4757.1	ppb	17:01:57
3	Sn 189.927†	46.1	34.8	6.1698	µg/L	6.1698	ppb	17:02:17
3	Ti 334.940†	327184.7	330039.5	1242.9	µg/L	1242.9	ppb	17:01:57
3	Tl 190.801†	-104.7	-43.9	-11.091	µg/L	-11.091	ppb	17:02:17
3	U 367.007†	4632.5	3582.5	-114.1	µg/L	-114.1	ppb	17:01:57
3	V 292.402†	10848.7	10876.4	159.12	µg/L	159.12	ppb	17:02:17
3	Zn 213.857†	50149.3	50103.3	458.14	µg/L	458.14	ppb	17:01:57

Mean Data: 1203884248|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	395973.0	99.828	%	0.5551				0.56%
Sc RADIAL	4033.6	99.3	%	0.21				0.21%
Y 371.029	435670.0	105.92	%	0.513				0.48%
Ag 328.068†	-3865.3	0.9154	µg/L	1.12892	0.9154	ppb	1.12892	123.32%
Al 396.153Radial†	91609.9	80055	µg/L	689.92	80055	ppb	689.92	0.86%
As 188.979†	60.3	74.237	µg/L	3.4283	74.237	ppb	3.4283	4.62%
B 249.677†	-23290.6	78.371	µg/L	7.9436	78.371	ppb	7.9436	10.14%
Ba 233.527†	50301.9	549.92	µg/L	0.410	549.92	ppb	0.410	0.07%
Be 313.107†	3922.1	5.1117	µg/L	0.00461	5.1117	ppb	0.00461	0.09%
Ca 317.933Radial†	223595.3	219510	µg/L	1415.49	219510	ppb	1415.49	0.64%
Cd 226.502†	1835.9	-0.2187	µg/L	0.26072	-0.2187	ppb	0.26072	119.20%
Co 228.616†	3272.9	91.312	µg/L	0.5618	91.312	ppb	0.5618	0.62%
Cr 267.716†	5356.1	120.37	µg/L	0.407	120.37	ppb	0.407	0.34%
Cu 324.752†	36178.9	254.89	µg/L	0.465	254.89	ppb	0.465	0.18%
Fe 238.204 Radial†	48270.5	219220	µg/L	1544.87	219220	ppb	1544.87	0.70%
K 766.490 Radial†	11506.7	8717.8	µg/L	39.54	8717.8	ppb	39.54	0.45%
Mg 279.077 IEC†	5340.6	85297	µg/L	120.75	85297	ppb	120.75	0.14%
Mn 257.610†	2268394.4	3965.2	µg/L	2.40	3965.2	ppb	2.40	0.06%
Mo 202.031†	14.9	10.218	µg/L	1.2581	10.218	ppb	1.2581	12.31%

Na 589.592 Radial†	10.6	1219.3	µg/L	79.44	1219.3	ppb	79.44	6.52%
Ni 231.604†	6039.6	214.73	µg/L	1.174	214.73	ppb	1.174	0.55%
P 214.914†	4750.4	4363.8	µg/L	22.70	4363.8	ppb	22.70	0.52%
Pb 220.353†	494.0	24.941	µg/L	1.9414	24.941	ppb	1.9414	7.78%
S 181.975 Axial†	20837.9	47289	µg/L	261.50	47289	ppb	261.50	0.55%
Sb 206.836†	14.1	-6.5063	µg/L	3.08946	-6.5063	ppb	3.08946	47.48%
Se 196.026†	-119.1	23.110	µg/L	5.8995	23.110	ppb	5.8995	25.53%
SiO2†	61584.8	10359	µg/L	60.88	10359	ppb	60.88	0.59%
Si 251.611†	74758.4	4784.2	µg/L	30.86	4784.2	ppb	30.86	0.65%
Sn 189.927†	44.3	8.2518	µg/L	1.80313	8.2518	ppb	1.80313	21.85%
Sr 421.552†	15980.4	827.64	µg/L	9.606	827.64	ppb	9.606	1.16%
Ti 334.940†	329544.2	1241.0	µg/L	2.63	1241.0	ppb	2.63	0.21%
Tl 190.801†	-45.9	-11.791	µg/L	0.8672	-11.791	ppb	0.8672	7.35%
U 367.007†	3576.4	-108.9	µg/L	7.05	-108.9	ppb	7.05	6.47%
Concentration less than lower limit for U 367.007.								
V 292.402†	10839.9	158.49	µg/L	0.738	158.49	ppb	0.738	0.47%
Zn 213.857†	50074.9	458.35	µg/L	0.311	458.35	ppb	0.311	0.07%

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Sequence No.: 92 **Autosampler Location: 404**
Sample ID: 1203884249|1704451|1| **Date Collected: 9/28/2017 17:02:26**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1203884249|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4157.9	4157.9	102	%			17:03:16
1	Al 396.153Radial†	114751.6	112323.9	98137	µg/L	98137	ppb	17:02:56
1	Ca 317.933Radial†	252129.8	246307.3	241810	µg/L	241810	ppb	17:02:56
1	Fe 238.204 Radial†	53105.7	51889.5	235650	µg/L	235650	ppb	17:02:56
1	K 766.490 Radial†	23206.6	22552.0	17073	µg/L	17073	ppb	17:02:56
1	Mg 279.077 IEC†	6452.0	6302.0	100650	µg/L	100650	ppb	17:03:16
1	Na 589.592 Radial†	67.7	67.5	6109.9	µg/L	6109.9	ppb	17:03:16
1	Sr 421.552†	26013.6	25399.0	1319.1	µg/L	1319.1	ppb	17:02:56
1	Sc 361.383	394987.3	394987.3	99.579	%			17:04:15
1	Y 371.029	436696.5	436696.5	106.17	%			17:04:15
1	Ag 328.068†	48536.0	49214.8	439.74	µg/L	439.74	ppb	17:04:15
1	As 188.979†	653.1	662.3	528.58	µg/L	528.58	ppb	17:04:35
1	B 249.677†	-11898.0	-12045.8	562.40	µg/L	562.40	ppb	17:04:15
1	Ba 233.527†	101510.7	101958.9	1120.6	µg/L	1120.6	ppb	17:04:15
1	Be 313.107†	585578.0	594448.6	440.45	µg/L	440.45	ppb	17:04:15
1	Cd 226.502†	30939.9	31237.9	408.22	µg/L	408.22	ppb	17:04:15
1	Co 228.616†	17359.4	17636.2	500.79	µg/L	500.79	ppb	17:04:35
1	Cr 267.716†	24267.6	24218.7	544.19	µg/L	544.19	ppb	17:04:35
1	Cu 324.752†	106031.1	104142.1	707.14	µg/L	707.14	ppb	17:04:15
1	Mn 257.610†	2629648.3	2640417.2	4614.4	µg/L	4614.4	ppb	17:04:15
1	Mo 202.031†	5063.3	5073.1	437.95	µg/L	437.95	ppb	17:04:35
1	Ni 231.604†	17133.2	17273.6	610.47	µg/L	610.47	ppb	17:04:35
1	P 214.914†	5292.7	5279.0	4849.2	µg/L	4849.2	ppb	17:04:35
1	Pb 220.353†	3117.5	3025.5	441.14	µg/L	441.14	ppb	17:04:35
1	S 181.975 Axial†	23614.2	23672.7	53721	µg/L	53721	ppb	17:04:35
1	Sb 206.836†	959.0	911.6	392.48	µg/L	392.48	ppb	17:04:35
1	Se 196.026†	342.1	373.1	440.56	µg/L	440.56	ppb	17:04:35
1	SiO2†	118021.8	117376.2	19744	µg/L	19744	ppb	17:04:15
1	Si 251.611†	142440.0	142826.9	9160.5	µg/L	9160.5	ppb	17:04:15
1	Sn 189.927†	1938.2	1934.7	417.49	µg/L	417.49	ppb	17:04:35
1	Ti 334.940†	515278.1	517906.9	1944.7	µg/L	1944.7	ppb	17:04:15
1	Tl 190.801†	989.0	1054.8	361.51	µg/L	361.51	ppb	17:04:35
1	U 367.007†	6341.9	5284.7	283.7	µg/L	283.7	ppb	17:04:15
1	V 292.402†	49534.8	49692.2	632.02	µg/L	632.02	ppb	17:04:15
1	Zn 213.857†	84226.3	84167.9	818.56	µg/L	818.56	ppb	17:04:15
2	Sc RADIAL	4119.1	4119.1	101	%			17:03:41
2	Al 396.153Radial†	117417.7	116008.9	101360	µg/L	101360	ppb	17:03:21
2	Ca 317.933Radial†	256703.2	253136.9	248510	µg/L	248510	ppb	17:03:21
2	Fe 238.204 Radial†	54089.5	53348.2	242280	µg/L	242280	ppb	17:03:21
2	K 766.490 Radial†	23674.6	23227.0	17584	µg/L	17584	ppb	17:03:21
2	Mg 279.077 IEC†	6366.6	6277.1	100250	µg/L	100250	ppb	17:03:41
2	Na 589.592 Radial†	65.0	65.4	5945.2	µg/L	5945.2	ppb	17:03:41
2	Sr 421.552†	26649.3	26265.3	1364.1	µg/L	1364.1	ppb	17:03:21
2	Sc 361.383	395653.0	395653.0	99.747	%			17:04:43
2	Y 371.029	437378.3	437378.3	106.33	%			17:04:43
2	Ag 328.068†	48458.1	49054.7	439.42	µg/L	439.42	ppb	17:04:43
2	As 188.979†	645.0	653.1	522.59	µg/L	522.59	ppb	17:05:03
2	B 249.677†	-12163.6	-12291.9	581.67	µg/L	581.67	ppb	17:04:43
2	Ba 233.527†	101610.4	101887.3	1119.6	µg/L	1119.6	ppb	17:04:43
2	Be 313.107†	587471.3	595357.3	441.18	µg/L	441.18	ppb	17:04:43
2	Cd 226.502†	31026.8	31272.7	407.93	µg/L	407.93	ppb	17:04:43
2	Co 228.616†	17377.4	17624.9	500.47	µg/L	500.47	ppb	17:05:03
2	Cr 267.716†	24270.1	24180.2	543.28	µg/L	543.28	ppb	17:05:03
2	Cu 324.752†	106338.0	104270.6	708.44	µg/L	708.44	ppb	17:04:43
2	Mn 257.610†	2636227.0	2642569.6	4618.5	µg/L	4618.5	ppb	17:04:43
2	Mo 202.031†	5101.8	5103.2	440.76	µg/L	440.76	ppb	17:05:03
2	Ni 231.604†	17191.0	17302.5	611.55	µg/L	611.55	ppb	17:05:03
2	P 214.914†	5310.4	5287.9	4852.1	µg/L	4852.1	ppb	17:05:03

2	Pb 220.353†	3155.2	3058.0	444.73	µg/L	444.73	ppb	17:05:03
2	S 181.975 Axial†	23630.5	23649.1	53668	µg/L	53668	ppb	17:05:03
2	Sb 206.836†	983.5	934.6	402.44	µg/L	402.44	ppb	17:05:03
2	Se 196.026†	334.7	365.0	437.56	µg/L	437.56	ppb	17:05:03
2	SiO2†	117413.2	116566.6	19608	µg/L	19608	ppb	17:04:43
2	Si 251.611†	141755.4	141899.9	9099.6	µg/L	9099.6	ppb	17:04:43
2	Sn 189.927†	1913.0	1906.2	411.25	µg/L	411.25	ppb	17:05:03
2	Ti 334.940†	516187.0	517947.5	1945.2	µg/L	1945.2	ppb	17:04:43
2	Tl 190.801†	986.7	1050.8	360.27	µg/L	360.27	ppb	17:05:03
2	U 367.007†	6436.2	5368.5	273.6	µg/L	273.6	ppb	17:04:43
2	V 292.402†	49768.9	49843.1	634.72	µg/L	634.72	ppb	17:04:43
2	Zn 213.857†	84446.5	84246.3	816.86	µg/L	816.86	ppb	17:04:43
3	Sc RADIAL	4131.1	4131.1	102	%			17:04:06
3	Al 396.153Radial†	116308.7	114580.4	100110	µg/L	100110	ppb	17:03:46
3	Ca 317.933Radial†	252884.8	248643.2	244100	µg/L	244100	ppb	17:03:46
3	Fe 238.204 Radial†	53271.4	52388.1	237920	µg/L	237920	ppb	17:03:46
3	K 766.490 Radial†	23518.8	23005.7	17416	µg/L	17416	ppb	17:03:46
3	Mg 279.077 IEC†	6384.6	6276.5	100240	µg/L	100240	ppb	17:04:06
3	Na 589.592 Radial†	66.5	66.7	6048.2	µg/L	6048.2	ppb	17:04:06
3	Sr 421.552†	26260.4	25806.1	1340.3	µg/L	1340.3	ppb	17:03:46
3	Sc 361.383	397819.5	397819.5	100.29	%			17:05:10
3	Y 371.029	439738.7	439738.7	106.91	%			17:05:10
3	Ag 328.068†	48726.8	49058.0	438.80	µg/L	438.80	ppb	17:05:10
3	As 188.979†	644.9	649.6	519.38	µg/L	519.38	ppb	17:05:30
3	B 249.677†	-12194.2	-12256.0	564.32	µg/L	564.32	ppb	17:05:10
3	Ba 233.527†	102395.6	102115.5	1122.3	µg/L	1122.3	ppb	17:05:10
3	Be 313.107†	592102.0	596767.0	442.18	µg/L	442.18	ppb	17:05:10
3	Cd 226.502†	31292.2	31367.9	409.77	µg/L	409.77	ppb	17:05:10
3	Co 228.616†	17515.8	17668.0	501.70	µg/L	501.70	ppb	17:05:30
3	Cr 267.716†	24427.9	24205.1	543.86	µg/L	543.86	ppb	17:05:30
3	Cu 324.752†	106930.8	104281.1	708.21	µg/L	708.21	ppb	17:05:10
3	Mn 257.610†	2657340.3	2649228.0	4629.9	µg/L	4629.9	ppb	17:05:10
3	Mo 202.031†	5128.7	5102.1	440.49	µg/L	440.49	ppb	17:05:30
3	Ni 231.604†	17310.9	17328.2	612.41	µg/L	612.41	ppb	17:05:30
3	P 214.914†	5357.6	5305.9	4873.2	µg/L	4873.2	ppb	17:05:30
3	Pb 220.353†	3152.8	3038.5	442.59	µg/L	442.59	ppb	17:05:30
3	S 181.975 Axial†	23832.7	23721.7	53832	µg/L	53832	ppb	17:05:30
3	Sb 206.836†	975.2	921.0	396.58	µg/L	396.58	ppb	17:05:30
3	Se 196.026†	345.3	373.8	442.43	µg/L	442.43	ppb	17:05:30
3	SiO2†	117079.1	115592.5	19444	µg/L	19444	ppb	17:05:10
3	Si 251.611†	141175.7	140547.9	9013.2	µg/L	9013.2	ppb	17:05:10
3	Sn 189.927†	1960.0	1942.6	419.19	µg/L	419.19	ppb	17:05:30
3	Ti 334.940†	519828.7	518760.4	1948.0	µg/L	1948.0	ppb	17:05:10
3	Tl 190.801†	981.7	1040.4	356.64	µg/L	356.64	ppb	17:05:30
3	U 367.007†	6379.0	5276.3	269.9	µg/L	269.9	ppb	17:05:10
3	V 292.402†	50051.4	49853.1	634.26	µg/L	634.26	ppb	17:05:10
3	Zn 213.857†	85174.0	84510.6	821.36	µg/L	821.36	ppb	17:05:10

Mean Data: 1203884249|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396153.3	99.873	%	0.3733				0.37%
Sc RADIAL	4136.0	102	%	0.49				0.48%
Y 371.029	437937.8	106.47	%	0.388				0.36%
Ag 328.068†	49109.2	439.32	µg/L	0.479	439.32	ppb	0.479	0.11%
Al 396.153Radial†	114304.4	99868	µg/L	1623.54	99868	ppb	1623.54	1.63%
As 188.979†	655.0	523.52	µg/L	4.669	523.52	ppb	4.669	0.89%
B 249.677†	-12197.9	569.46	µg/L	10.617	569.46	ppb	10.617	1.86%
Ba 233.527†	101987.2	1120.8	µg/L	1.34	1120.8	ppb	1.34	0.12%
Be 313.107†	595524.3	441.27	µg/L	0.867	441.27	ppb	0.867	0.20%
Ca 317.933Radial†	249362.5	244800	µg/L	3407.73	244800	ppb	3407.73	1.39%
Cd 226.502†	31292.8	408.64	µg/L	0.990	408.64	ppb	0.990	0.24%
Co 228.616†	17643.0	500.99	µg/L	0.636	500.99	ppb	0.636	0.13%
Cr 267.716†	24201.3	543.77	µg/L	0.459	543.77	ppb	0.459	0.08%
Cu 324.752†	104231.3	707.93	µg/L	0.691	707.93	ppb	0.691	0.10%
Fe 238.204 Radial†	52542.0	238620	µg/L	3367.10	238620	ppb	3367.10	1.41%
K 766.490 Radial†	22928.2	17358	µg/L	260.45	17358	ppb	260.45	1.50%
Mg 279.077 IEC†	6285.2	100380	µg/L	232.30	100380	ppb	232.30	0.23%
Mn 257.610†	2644071.6	4621.0	µg/L	8.03	4621.0	ppb	8.03	0.17%
Mo 202.031†	5092.8	439.73	µg/L	1.550	439.73	ppb	1.550	0.35%

Na 589.592 Radial†	66.5	6034.4 µg/L	83.20	6034.4 ppb	83.20	1.38%
Ni 231.604†	17301.4	611.48 µg/L	0.974	611.48 ppb	0.974	0.16%
P 214.914†	5290.9	4858.2 µg/L	13.11	4858.2 ppb	13.11	0.27%
Pb 220.353†	3040.7	442.82 µg/L	1.802	442.82 ppb	1.802	0.41%
S 181.975 Axial†	23681.2	53740 µg/L	84.06	53740 ppb	84.06	0.16%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	922.4	397.17 µg/L	5.006	397.17 ppb	5.006	1.26%
Se 196.026†	370.7	440.18 µg/L	2.459	440.18 ppb	2.459	0.56%
SiO2†	116511.8	19599 µg/L	150.21	19599 ppb	150.21	0.77%
Si 251.611†	141758.3	9091.1 µg/L	74.04	9091.1 ppb	74.04	0.81%
Sn 189.927†	1927.8	415.98 µg/L	4.178	415.98 ppb	4.178	1.00%
Sr 421.552†	25823.5	1341.2 µg/L	22.53	1341.2 ppb	22.53	1.68%
Ti 334.940†	518204.9	1946.0 µg/L	1.78	1946.0 ppb	1.78	0.09%
Tl 190.801†	1048.7	359.48 µg/L	2.531	359.48 ppb	2.531	0.70%
U 367.007†	5309.9	275.7 µg/L	7.12	275.7 ppb	7.12	2.58%
V 292.402†	49796.1	633.67 µg/L	1.448	633.67 ppb	1.448	0.23%
Zn 213.857†	84308.2	818.93 µg/L	2.271	818.93 ppb	2.271	0.28%

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Sequence No.: 93 **Autosampler Location: 405**
Sample ID: 1203884250|1704451|5| **Date Collected: 9/28/2017 17:05:39**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: 1203884250|1704451|5|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4021.2	4021.2	99.0	%			17:06:29
1	Al 396.153Radial†	20186.4	20592.7	17995	µg/L	17995	ppb	17:06:09
1	Ca 317.933Radial†	49579.7	50038.1	49124	µg/L	49124	ppb	17:06:09
1	Fe 238.204 Radial†	10647.4	10756.2	48849	µg/L	48849	ppb	17:06:29
1	K 766.490 Radial†	2521.6	2424.0	1836.7	µg/L	1836.7	ppb	17:06:09
1	Mg 279.077 IEC†	1212.2	1222.3	19522	µg/L	19522	ppb	17:06:29
1	Na 589.592 Radial†	-4.7	-3.4	-222.36	µg/L	-222.36	ppb	17:06:29
1	Sr 421.552†	3783.4	3803.1	197.07	µg/L	197.07	ppb	17:06:29
1	Sc 361.383	390956.8	390956.8	98.563	%			17:07:26
1	Y 371.029	405143.8	405143.8	98.497	%			17:07:26
1	Ag 328.068†	-1261.4	-806.1	0.6459	µg/L	0.6459	ppb	17:07:26
1	As 188.979†	12.1	18.8	20.501	µg/L	20.501	ppb	17:07:46
1	B 249.677†	-4949.2	-5118.8	20.086	µg/L	20.086	ppb	17:07:26
1	Ba 233.527†	10659.5	10834.1	118.40	µg/L	118.40	ppb	17:07:46
1	Be 313.107†	-5366.1	951.7	1.2047	µg/L	1.2047	ppb	17:07:26
1	Cd 226.502†	247.1	417.9	0.0749	µg/L	0.0749	ppb	17:07:46
1	Co 228.616†	535.3	746.5	20.847	µg/L	20.847	ppb	17:07:46
1	Cr 267.716†	1285.1	1152.4	25.890	µg/L	25.890	ppb	17:07:46
1	Cu 324.752†	9714.8	7519.3	53.214	µg/L	53.214	ppb	17:07:26
1	Mn 257.610†	505723.9	512753.2	896.26	µg/L	896.26	ppb	17:07:26
1	Mo 202.031†	19.1	7.8	2.6565	µg/L	2.6565	ppb	17:07:46
1	Ni 231.604†	1254.4	1340.6	47.667	µg/L	47.667	ppb	17:07:46
1	P 214.914†	1006.0	984.6	901.52	µg/L	901.52	ppb	17:07:46
1	Pb 220.353†	192.6	90.3	2.2028	µg/L	2.2028	ppb	17:07:46
1	S 181.975 Axial†	4656.3	4682.9	10627	µg/L	10627	ppb	17:07:46
1	Sb 206.836†	53.4	2.8	-1.6018	µg/L	-1.6018	ppb	17:07:46
1	Se 196.026†	-50.4	-21.6	9.2586	µg/L	9.2586	ppb	17:07:46
1	SiO2†	20482.7	19636.9	3302.8	µg/L	3302.8	ppb	17:07:26
1	Si 251.611†	23608.5	23737.7	1522.4	µg/L	1522.4	ppb	17:07:26
1	Sn 189.927†	34.3	23.2	4.6684	µg/L	4.6684	ppb	17:07:46
1	Ti 334.940†	70293.6	71769.7	270.32	µg/L	270.32	ppb	17:07:26
1	Tl 190.801†	-71.9	-11.3	-2.9999	µg/L	-2.9999	ppb	17:07:46
1	U 367.007†	1955.4	899.9	4.417	µg/L	4.417	ppb	17:07:26
1	V 292.402†	2542.3	2527.4	36.683	µg/L	36.683	ppb	17:07:26
1	Zn 213.857†	12489.5	12257.2	113.96	µg/L	113.96	ppb	17:07:46
2	Sc RADIAL	3999.5	3999.5	98.4	%			17:06:54
2	Al 396.153Radial†	20180.5	20697.4	18087	µg/L	18087	ppb	17:06:34
2	Ca 317.933Radial†	49582.1	50312.3	49393	µg/L	49393	ppb	17:06:34
2	Fe 238.204 Radial†	10606.1	10772.7	48924	µg/L	48924	ppb	17:06:54
2	K 766.490 Radial†	2461.9	2377.2	1801.3	µg/L	1801.3	ppb	17:06:34
2	Mg 279.077 IEC†	1211.2	1228.0	19612	µg/L	19612	ppb	17:06:54
2	Na 589.592 Radial†	2.5	3.9	400.94	µg/L	400.94	ppb	17:06:54
2	Sr 421.552†	3766.5	3806.7	197.25	µg/L	197.25	ppb	17:06:54
2	Sc 361.383	392854.1	392854.1	99.041	%			17:07:52
2	Y 371.029	407506.5	407506.5	99.071	%			17:07:52
2	Ag 328.068†	-1286.7	-825.5	0.4930	µg/L	0.4930	ppb	17:07:52
2	As 188.979†	6.8	13.4	16.500	µg/L	16.500	ppb	17:08:12
2	B 249.677†	-5016.9	-5162.9	18.780	µg/L	18.780	ppb	17:07:52
2	Ba 233.527†	10662.9	10785.3	117.85	µg/L	117.85	ppb	17:08:12
2	Be 313.107†	-5321.1	1023.4	1.2620	µg/L	1.2620	ppb	17:07:52
2	Cd 226.502†	242.5	412.1	-0.0149	µg/L	-0.0149	ppb	17:08:12
2	Co 228.616†	517.7	726.1	20.265	µg/L	20.265	ppb	17:08:12
2	Cr 267.716†	1282.7	1143.7	25.690	µg/L	25.690	ppb	17:08:12
2	Cu 324.752†	9880.6	7639.2	54.020	µg/L	54.020	ppb	17:07:52
2	Mn 257.610†	508038.7	512612.3	896.01	µg/L	896.01	ppb	17:07:52
2	Mo 202.031†	3.5	-8.0	1.3232	µg/L	1.3232	ppb	17:08:12
2	Ni 231.604†	1247.0	1327.0	47.187	µg/L	47.187	ppb	17:08:12
2	P 214.914†	1011.2	984.9	901.75	µg/L	901.75	ppb	17:08:12

2	Pb 220.353†	182.7	79.4	0.3325	µg/L	0.3325	ppb	17:08:12
2	S 181.975 Axial†	4678.3	4682.3	10626	µg/L	10626	ppb	17:08:12
2	Sb 206.836†	57.6	6.7	0.1691	µg/L	0.1691	ppb	17:08:12
2	Se 196.026†	-67.1	-38.2	-4.5137	µg/L	-4.5137	ppb	17:08:12
2	SiO2†	20265.1	19317.0	3249.0	µg/L	3249.0	ppb	17:07:52
2	Si 251.611†	23193.8	23203.3	1488.0	µg/L	1488.0	ppb	17:07:52
2	Sn 189.927†	36.6	25.2	5.1078	µg/L	5.1078	ppb	17:08:12
2	Ti 334.940†	70359.9	71492.2	269.30	µg/L	269.30	ppb	17:07:52
2	Tl 190.801†	-69.1	-8.2	-1.9084	µg/L	-1.9084	ppb	17:08:12
2	U 367.007†	1996.8	932.1	12.97	µg/L	12.97	ppb	17:07:52
2	V 292.402†	2498.4	2470.6	36.004	µg/L	36.004	ppb	17:07:52
2	Zn 213.857†	12506.5	12213.1	113.46	µg/L	113.46	ppb	17:08:12
3	Sc RADIAL	4006.4	4006.4	98.6	%			17:07:19
3	Al 396.153Radial†	20294.9	20778.0	18157	µg/L	18157	ppb	17:06:59
3	Ca 317.933Radial†	50194.3	50846.3	49917	µg/L	49917	ppb	17:06:59
3	Fe 238.204 Radial†	10659.8	10808.5	49086	µg/L	49086	ppb	17:07:19
3	K 766.490 Radial†	2576.1	2488.7	1885.6	µg/L	1885.6	ppb	17:06:59
3	Mg 279.077 IEC†	1215.5	1230.2	19647	µg/L	19647	ppb	17:07:19
3	Na 589.592 Radial†	0.4	1.7	217.76	µg/L	217.76	ppb	17:07:19
3	Sr 421.552†	3804.7	3838.8	198.91	µg/L	198.91	ppb	17:07:19
3	Sc 361.383	393377.2	393377.2	99.173	%			17:08:17
3	Y 371.029	408101.2	408101.2	99.216	%			17:08:17
3	Ag 328.068†	-1358.9	-896.5	-0.0665	µg/L	-0.0665	ppb	17:08:17
3	As 188.979†	13.1	19.7	21.254	µg/L	21.254	ppb	17:08:37
3	B 249.677†	-4990.1	-5129.2	20.722	µg/L	20.722	ppb	17:08:17
3	Ba 233.527†	10632.6	10740.5	117.35	µg/L	117.35	ppb	17:08:37
3	Be 313.107†	-5285.5	1066.5	1.2979	µg/L	1.2979	ppb	17:08:17
3	Cd 226.502†	239.7	409.0	-0.0771	µg/L	-0.0771	ppb	17:08:37
3	Co 228.616†	513.9	721.6	20.143	µg/L	20.143	ppb	17:08:37
3	Cr 267.716†	1271.5	1130.7	25.401	µg/L	25.401	ppb	17:08:37
3	Cu 324.752†	9830.9	7575.8	53.608	µg/L	53.608	ppb	17:08:17
3	Mn 257.610†	508228.0	512121.1	895.16	µg/L	895.16	ppb	17:08:17
3	Mo 202.031†	19.6	8.2	2.7005	µg/L	2.7005	ppb	17:08:37
3	Ni 231.604†	1272.0	1350.5	48.017	µg/L	48.017	ppb	17:08:37
3	P 214.914†	1008.5	980.8	897.73	µg/L	897.73	ppb	17:08:37
3	Pb 220.353†	190.7	87.2	1.5602	µg/L	1.5602	ppb	17:08:37
3	S 181.975 Axial†	4677.7	4675.4	10610	µg/L	10610	ppb	17:08:37
3	Sb 206.836†	52.9	1.9	-1.9684	µg/L	-1.9684	ppb	17:08:37
3	Se 196.026†	-62.8	-33.8	-0.7446	µg/L	-0.7446	ppb	17:08:37
3	SiO2†	20319.5	19344.5	3253.6	µg/L	3253.6	ppb	17:08:17
3	Si 251.611†	23515.0	23496.0	1506.8	µg/L	1506.8	ppb	17:08:17
3	Sn 189.927†	36.9	25.6	5.1711	µg/L	5.1711	ppb	17:08:37
3	Ti 334.940†	69928.2	70962.5	267.35	µg/L	267.35	ppb	17:08:17
3	Tl 190.801†	-63.2	-2.2	0.1263	µg/L	0.1263	ppb	17:08:37
3	U 367.007†	1991.9	924.5	9.997	µg/L	9.997	ppb	17:08:17
3	V 292.402†	2436.9	2405.3	35.252	µg/L	35.252	ppb	17:08:17
3	Zn 213.857†	12487.8	12177.6	113.01	µg/L	113.01	ppb	17:08:37

Mean Data: 1203884250|1704451|5|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	392396.1	98.926	%	0.3211				0.32%
Sc RADIAL	4009.0	98.7	%	0.27				0.28%
Y 371.029	406917.1	98.928	%	0.3803				0.38%
Ag 328.068†	-842.7	0.3575	µg/L	0.37505	0.3575	ppb	0.37505	104.91%
Al 396.153Radial†	20689.4	18080	µg/L	81.21	18080	ppb	81.21	0.45%
As 188.979†	17.3	19.419	µg/L	2.5552	19.419	ppb	2.5552	13.16%
B 249.677†	-5137.0	19.862	µg/L	0.9902	19.862	ppb	0.9902	4.99%
Ba 233.527†	10786.6	117.87	µg/L	0.521	117.87	ppb	0.521	0.44%
Be 313.107†	1013.8	1.2549	µg/L	0.04698	1.2549	ppb	0.04698	3.74%
Ca 317.933Radial†	50398.9	49478	µg/L	403.49	49478	ppb	403.49	0.82%
Cd 226.502†	413.0	-0.0057	µg/L	0.07643	-0.0057	ppb	0.07643	>999.9%
Co 228.616†	731.4	20.418	µg/L	0.3760	20.418	ppb	0.3760	1.84%
Cr 267.716†	1142.2	25.660	µg/L	0.2460	25.660	ppb	0.2460	0.96%
Cu 324.752†	7578.1	53.614	µg/L	0.4032	53.614	ppb	0.4032	0.75%
Fe 238.204 Radial†	10779.1	48953	µg/L	121.45	48953	ppb	121.45	0.25%
K 766.490 Radial†	2430.0	1841.2	µg/L	42.33	1841.2	ppb	42.33	2.30%
Mg 279.077 IEC†	1226.8	19594	µg/L	64.78	19594	ppb	64.78	0.33%
Mn 257.610†	512495.6	895.81	µg/L	0.574	895.81	ppb	0.574	0.06%
Mo 202.031†	2.7	2.2267	µg/L	0.78280	2.2267	ppb	0.78280	35.16%

Na 589.592 Radial†	0.7	132.11 µg/L	320.351	132.11 ppb	320.351	242.48%
Ni 231.604†	1339.4	47.624 µg/L	0.4169	47.624 ppb	0.4169	0.88%
P 214.914†	983.4	900.33 µg/L	2.256	900.33 ppb	2.256	0.25%
Pb 220.353†	85.6	1.3652 µg/L	0.95030	1.3652 ppb	0.95030	69.61%
S 181.975 Axial†	4680.2	10621 µg/L	9.44	10621 ppb	9.44	0.09%
Sb 206.836†	3.8	-1.1337 µg/L	1.14306	-1.1337 ppb	1.14306	100.83%
Se 196.026†	-31.2	1.3334 µg/L	7.11745	1.3334 ppb	7.11745	533.77%
SiO2†	19432.8	3268.5 µg/L	29.82	3268.5 ppb	29.82	0.91%
Si 251.611†	23479.0	1505.8 µg/L	17.24	1505.8 ppb	17.24	1.14%
Sn 189.927†	24.7	4.9824 µg/L	0.27380	4.9824 ppb	0.27380	5.50%
Sr 421.552†	3816.2	197.74 µg/L	1.016	197.74 ppb	1.016	0.51%
Ti 334.940†	71408.1	268.99 µg/L	1.510	268.99 ppb	1.510	0.56%
Tl 190.801†	-7.2	-1.5940 µg/L	1.58664	-1.5940 ppb	1.58664	99.54%
U 367.007†	918.8	9.128 µg/L	4.3424	9.128 ppb	4.3424	47.57%
V 292.402†	2467.7	35.980 µg/L	0.7157	35.980 ppb	0.7157	1.99%
Zn 213.857†	12216.0	113.48 µg/L	0.471	113.48 ppb	0.471	0.41%

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Sequence No.: 94 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 9/28/2017 17:08:46**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3921.2	3921.2	96.5	%			17:09:39
1	Al 396.153Radial†	5462.4	5857.3	5096.4	µg/L	5096.4	ppb	17:09:19
1	Ca 317.933Radial†	5134.4	5265.7	5169.4	µg/L	5169.4	ppb	17:09:39
1	Fe 238.204 Radial†	1075.0	1112.6	5052.9	µg/L	5052.9	ppb	17:09:39
1	K 766.490 Radial†	6281.6	6384.6	4829.5	µg/L	4829.5	ppb	17:09:19
1	Mg 279.077 IEC†	317.3	326.3	5212.1	µg/L	5212.1	ppb	17:09:39
1	Na 589.592 Radial†	106.8	112.0	9584.0	µg/L	9584.0	ppb	17:09:39
1	Sr 421.552†	9323.0	9640.1	503.61	µg/L	503.61	ppb	17:09:19
1	Sc 361.383	394532.0	394532.0	99.464	%			17:10:37
1	Y 371.029	403386.9	403386.9	98.070	%			17:10:37
1	Ag 328.068†	59799.5	60595.2	498.86	µg/L	498.86	ppb	17:10:37
1	As 188.979†	646.4	656.4	493.93	µg/L	493.93	ppb	17:10:57
1	B 249.677†	13395.7	13370.3	513.44	µg/L	513.44	ppb	17:10:37
1	Ba 233.527†	44363.0	44621.1	493.21	µg/L	493.21	ppb	17:10:37
1	Be 313.107†	657063.6	666997.9	491.52	µg/L	491.52	ppb	17:10:37
1	Cd 226.502†	34776.1	35130.6	489.80	µg/L	489.80	ppb	17:10:37
1	Co 228.616†	17129.2	17424.8	497.30	µg/L	497.30	ppb	17:10:37
1	Cr 267.716†	21842.6	21808.8	489.76	µg/L	489.76	ppb	17:10:37
1	Cu 324.752†	77094.0	75172.0	499.35	µg/L	499.35	ppb	17:10:37
1	Mn 257.610†	283019.3	284199.8	495.81	µg/L	495.81	ppb	17:10:37
1	Mo 202.031†	5804.0	5823.7	491.89	µg/L	491.89	ppb	17:10:57
1	Ni 231.604†	14174.9	14319.2	504.26	µg/L	504.26	ppb	17:10:37
1	P 214.914†	2577.4	2555.2	2436.8	µg/L	2436.8	ppb	17:10:57
1	Pb 220.353†	3044.1	2955.3	491.42	µg/L	491.42	ppb	17:10:57
1	S 181.975 Axial†	483.1	444.4	1008.0	µg/L	1008.0	ppb	17:10:57
1	Sb 206.836†	1151.8	1106.6	492.68	µg/L	492.68	ppb	17:10:57
1	Se 196.026†	564.3	596.9	497.91	µg/L	497.91	ppb	17:10:57
1	SiO2†	32968.5	32001.7	5384.9	µg/L	5384.9	ppb	17:10:37
1	Si 251.611†	38976.1	38971.0	2500.9	µg/L	2500.9	ppb	17:10:37
1	Sn 189.927†	2270.9	2271.5	491.12	µg/L	491.12	ppb	17:10:57
1	Ti 334.940†	130855.6	132011.5	492.51	µg/L	492.51	ppb	17:10:37
1	Tl 190.801†	1370.3	1439.3	487.89	µg/L	487.89	ppb	17:10:57
1	U 367.007†	2826.4	1757.7	464.5	µg/L	464.5	ppb	17:10:37
1	V 292.402†	40797.1	40964.8	498.34	µg/L	498.34	ppb	17:10:37
1	Zn 213.857†	45355.8	45185.7	482.96	µg/L	482.96	ppb	17:10:37
2	Sc RADIAL	3909.2	3909.2	96.2	%			17:10:04
2	Al 396.153Radial†	5612.7	6030.9	5248.2	µg/L	5248.2	ppb	17:09:44
2	Ca 317.933Radial†	5138.3	5286.1	5189.5	µg/L	5189.5	ppb	17:10:04
2	Fe 238.204 Radial†	1075.0	1116.0	5068.4	µg/L	5068.4	ppb	17:10:04
2	K 766.490 Radial†	6410.2	6538.4	4945.8	µg/L	4945.8	ppb	17:09:44
2	Mg 279.077 IEC†	324.3	334.6	5344.4	µg/L	5344.4	ppb	17:10:04
2	Na 589.592 Radial†	109.7	115.4	9874.4	µg/L	9874.4	ppb	17:10:04
2	Sr 421.552†	9521.6	9876.2	515.95	µg/L	515.95	ppb	17:09:44
2	Sc 361.383	396144.3	396144.3	99.871	%			17:11:03
2	Y 371.029	404941.5	404941.5	98.448	%			17:11:03
2	Ag 328.068†	59946.7	60497.9	498.07	µg/L	498.07	ppb	17:11:03
2	As 188.979†	652.7	660.1	496.63	µg/L	496.63	ppb	17:11:23
2	B 249.677†	13402.5	13322.3	511.74	µg/L	511.74	ppb	17:11:03
2	Ba 233.527†	44669.2	44746.2	494.59	µg/L	494.59	ppb	17:11:03
2	Be 313.107†	661715.3	668966.8	492.97	µg/L	492.97	ppb	17:11:03
2	Cd 226.502†	35116.1	35328.7	492.56	µg/L	492.56	ppb	17:11:03
2	Co 228.616†	17192.5	17418.2	497.10	µg/L	497.10	ppb	17:11:03
2	Cr 267.716†	22025.9	21903.0	491.88	µg/L	491.88	ppb	17:11:03
2	Cu 324.752†	77503.6	75266.7	499.98	µg/L	499.98	ppb	17:11:03
2	Mn 257.610†	284992.1	285017.0	497.23	µg/L	497.23	ppb	17:11:03
2	Mo 202.031†	5797.9	5793.8	489.37	µg/L	489.37	ppb	17:11:23
2	Ni 231.604†	14281.6	14368.0	505.98	µg/L	505.98	ppb	17:11:03
2	P 214.914†	2568.7	2535.9	2418.3	µg/L	2418.3	ppb	17:11:23

2	Pb 220.353†	3041.1	2939.9	488.83 µg/L	488.83 ppb	17:11:23
2	S 181.975 Axial†	487.1	446.4	1012.5 µg/L	1012.5 ppb	17:11:23
2	Sb 206.836†	1153.7	1103.8	491.31 µg/L	491.31 ppb	17:11:23
2	Se 196.026†	557.9	588.2	490.68 µg/L	490.68 ppb	17:11:23
2	SiO2†	33203.7	32102.3	5401.9 µg/L	5401.9 ppb	17:11:03
2	Si 251.611†	39256.3	39092.1	2508.7 µg/L	2508.7 ppb	17:11:03
2	Sn 189.927†	2278.0	2269.2	490.63 µg/L	490.63 ppb	17:11:23
2	Ti 334.940†	131560.4	132181.8	493.14 µg/L	493.14 ppb	17:11:03
2	Tl 190.801†	1372.9	1436.2	486.86 µg/L	486.86 ppb	17:11:23
2	U 367.007†	2836.4	1756.0	464.0 µg/L	464.0 ppb	17:11:03
2	V 292.402†	41100.9	41102.0	499.97 µg/L	499.97 ppb	17:11:03
2	Zn 213.857†	45744.3	45389.0	485.14 µg/L	485.14 ppb	17:11:03
3	Sc RADIAL	3909.4	3909.4	96.2 %		17:10:29
3	Al 396.153Radial†	5641.2	6060.2	5273.5 µg/L	5273.5 ppb	17:10:09
3	Ca 317.933Radial†	5161.1	5309.6	5212.5 µg/L	5212.5 ppb	17:10:29
3	Fe 238.204 Radial†	1076.2	1117.2	5073.8 µg/L	5073.8 ppb	17:10:29
3	K 766.490 Radial†	6465.0	6595.0	4988.6 µg/L	4988.6 ppb	17:10:09
3	Mg 279.077 IEC†	318.1	328.2	5241.6 µg/L	5241.6 ppb	17:10:29
3	Na 589.592 Radial†	111.0	116.7	9989.7 µg/L	9989.7 ppb	17:10:29
3	Sr 421.552†	9492.2	9845.2	514.33 µg/L	514.33 ppb	17:10:09
3	Sc 361.383	392324.3	392324.3	98.908 %		17:11:29
3	Y 371.029	401127.6	401127.6	97.520 %		17:11:29
3	Ag 328.068†	59398.1	60527.7	498.30 µg/L	498.30 ppb	17:11:29
3	As 188.979†	644.9	658.6	495.55 µg/L	495.55 ppb	17:11:49
3	B 249.677†	13255.2	13304.0	511.08 µg/L	511.08 ppb	17:11:29
3	Ba 233.527†	44238.1	44745.7	494.59 µg/L	494.59 ppb	17:11:29
3	Be 313.107†	655213.6	668844.8	492.89 µg/L	492.89 ppb	17:11:29
3	Cd 226.502†	34727.8	35278.5	491.86 µg/L	491.86 ppb	17:11:29
3	Co 228.616†	17049.5	17441.2	497.77 µg/L	497.77 ppb	17:11:29
3	Cr 267.716†	21834.4	21924.1	492.34 µg/L	492.34 ppb	17:11:29
3	Cu 324.752†	76652.2	75161.5	499.29 µg/L	499.29 ppb	17:11:29
3	Mn 257.610†	282251.4	285024.6	497.25 µg/L	497.25 ppb	17:11:29
3	Mo 202.031†	5821.2	5873.9	496.13 µg/L	496.13 ppb	17:11:49
3	Ni 231.604†	14115.1	14338.9	504.96 µg/L	504.96 ppb	17:11:29
3	P 214.914†	2586.1	2578.6	2459.2 µg/L	2459.2 ppb	17:11:49
3	Pb 220.353†	3048.9	2977.4	495.05 µg/L	495.05 ppb	17:11:49
3	S 181.975 Axial†	484.9	449.0	1018.4 µg/L	1018.4 ppb	17:11:49
3	Sb 206.836†	1140.8	1102.0	490.61 µg/L	490.61 ppb	17:11:49
3	Se 196.026†	566.8	602.6	502.64 µg/L	502.64 ppb	17:11:49
3	SiO2†	32975.6	32195.4	5417.5 µg/L	5417.5 ppb	17:11:29
3	Si 251.611†	38850.1	39064.1	2506.8 µg/L	2506.8 ppb	17:11:29
3	Sn 189.927†	2272.4	2285.8	494.20 µg/L	494.20 ppb	17:11:49
3	Ti 334.940†	130440.0	132331.7	493.69 µg/L	493.69 ppb	17:11:29
3	Tl 190.801†	1376.6	1453.3	492.69 µg/L	492.69 ppb	17:11:49
3	U 367.007†	2901.4	1849.4	490.0 µg/L	490.0 ppb	17:11:29
3	V 292.402†	40655.8	41052.7	499.46 µg/L	499.46 ppb	17:11:29
3	Zn 213.857†	45277.5	45363.1	484.85 µg/L	484.85 ppb	17:11:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	394333.5	99.414	%	0.4835				0.49%
Sc RADIAL	3913.3	96.3	%	0.17				0.18%
Y 371.029	403152.0	98.013	%	0.4662				0.48%
Ag 328.068†	60540.3	498.41	µg/L	0.408	498.41	ppb	0.408	0.08%
QC value within limits for Ag 328.068 Recovery = 99.68%								
Al 396.153Radial†	5982.8	5206.0	µg/L	95.82	5206.0	ppb	95.82	1.84%
QC value within limits for Al 396.153Radial Recovery = 104.12%								
As 188.979†	658.3	495.37	µg/L	1.360	495.37	ppb	1.360	0.27%
QC value within limits for As 188.979 Recovery = 99.07%								
B 249.677†	13332.2	512.09	µg/L	1.217	512.09	ppb	1.217	0.24%
QC value within limits for B 249.677 Recovery = 102.42%								
Ba 233.527†	44704.3	494.13	µg/L	0.797	494.13	ppb	0.797	0.16%
QC value within limits for Ba 233.527 Recovery = 98.83%								
Be 313.107†	668269.8	492.46	µg/L	0.815	492.46	ppb	0.815	0.17%
QC value within limits for Be 313.107 Recovery = 98.49%								
Ca 317.933Radial†	5287.1	5190.5	µg/L	21.56	5190.5	ppb	21.56	0.42%
QC value within limits for Ca 317.933Radial Recovery = 103.81%								
Cd 226.502†	35245.9	491.41	µg/L	1.436	491.41	ppb	1.436	0.29%
QC value within limits for Cd 226.502 Recovery = 98.28%								

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Co 228.616†            17428.0      497.39 µg/L         0.342      497.39 ppb          0.342   0.07%
   QC value within limits for Co 228.616  Recovery = 99.48%
Cr 267.716†            21878.6      491.33 µg/L         1.373      491.33 ppb          1.373   0.28%
   QC value within limits for Cr 267.716  Recovery = 98.27%
Cu 324.752†            75200.0      499.54 µg/L         0.381      499.54 ppb          0.381   0.08%
   QC value within limits for Cu 324.752  Recovery = 99.91%
Fe 238.204 Radial†      1115.3      5065.0 µg/L         10.85      5065.0 ppb          10.85   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.30%
K 766.490 Radial†       6506.0      4921.3 µg/L         82.31      4921.3 ppb          82.31   1.67%
   QC value within limits for K 766.490 Radial  Recovery = 98.43%
Mg 279.077 IEC†          329.7      5266.1 µg/L         69.46      5266.1 ppb          69.46   1.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.32%
Mn 257.610†           284747.2      496.76 µg/L         0.826      496.76 ppb          0.826   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.35%
Mo 202.031†             5830.5      492.46 µg/L         3.417      492.46 ppb          3.417   0.69%
   QC value within limits for Mo 202.031  Recovery = 98.49%
Na 589.592 Radial†       114.7      9816.0 µg/L        209.06      9816.0 ppb         209.06   2.13%
   QC value within limits for Na 589.592 Radial  Recovery = 98.16%
Ni 231.604†            14342.0      505.07 µg/L         0.864      505.07 ppb          0.864   0.17%
   QC value within limits for Ni 231.604  Recovery = 101.01%
P 214.914†              2556.6      2438.1 µg/L         20.48      2438.1 ppb          20.48   0.84%
   QC value within limits for P 214.914  Recovery = 97.52%
Pb 220.353†             2957.6      491.77 µg/L         3.125      491.77 ppb          3.125   0.64%
   QC value within limits for Pb 220.353  Recovery = 98.35%
S 181.975 Axial†         446.6      1012.9 µg/L          5.21      1012.9 ppb           5.21   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 101.29%
Sb 206.836†             1104.1      491.53 µg/L         1.051      491.53 ppb          1.051   0.21%
   QC value within limits for Sb 206.836  Recovery = 98.31%
Se 196.026†              595.9      497.08 µg/L         6.023      497.08 ppb          6.023   1.21%
   QC value within limits for Se 196.026  Recovery = 99.42%
SiO2†                  32099.8      5401.4 µg/L         16.29      5401.4 ppb          16.29   0.30%
   QC value within limits for SiO2  Recovery = 101.01%
Si 251.611†            39042.4      2505.5 µg/L          4.09      2505.5 ppb           4.09   0.16%
   QC value within limits for Si 251.611  Recovery = 100.22%
Sn 189.927†             2275.5      491.99 µg/L         1.934      491.99 ppb          1.934   0.39%
   QC value within limits for Sn 189.927  Recovery = 98.40%
Sr 421.552†             9787.2      511.29 µg/L         6.705      511.29 ppb          6.705   1.31%
   QC value within limits for Sr 421.552  Recovery = 102.26%
Ti 334.940†           132175.0      493.11 µg/L         0.593      493.11 ppb          0.593   0.12%
   QC value within limits for Ti 334.940  Recovery = 98.62%
Tl 190.801†             1442.9      489.15 µg/L         3.113      489.15 ppb          3.113   0.64%
   QC value within limits for Tl 190.801  Recovery = 97.83%
U 367.007†              1787.7       472.8 µg/L         14.86       472.8 ppb          14.86   3.14%
   QC value within limits for U 367.007  Recovery = 94.56%
V 292.402†             41039.9      499.26 µg/L         0.833      499.26 ppb          0.833   0.17%
   QC value within limits for V 292.402  Recovery = 99.85%
Zn 213.857†            45312.6      484.32 µg/L         1.186      484.32 ppb          1.186   0.24%
   QC value within limits for Zn 213.857  Recovery = 96.86%
All analyte(s) passed QC.
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Sequence No.: 95 | **Autosampler Location: 109**
Sample ID: PQL | **Date Collected: 9/28/2017 17:11:58**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4057.6	4057.6	99.9	%			17:12:31
1	Al 396.153Radial†	76.0	273.9	238.86	µg/L	238.86	ppb	17:12:31
1	Ca 317.933Radial†	586.5	533.2	523.47	µg/L	523.47	ppb	17:12:51
1	Fe 238.204 Radial†	28.3	27.2	123.49	µg/L	123.49	ppb	17:12:51
1	K 766.490 Radial†	372.1	248.9	188.29	µg/L	188.29	ppb	17:12:31
1	Mg 279.077 IEC†	22.8	20.4	326.06	µg/L	326.06	ppb	17:12:51
1	Na 589.592 Radial†	0.9	2.2	185.22	µg/L	185.22	ppb	17:12:51
1	Sr 421.552†	109.2	89.9	4.6811	µg/L	4.6811	ppb	17:12:31
1	Sc 361.383	392414.6	392414.6	98.931	%			17:13:47
1	Y 371.029	405550.5	405550.5	98.596	%			17:13:47
1	Ag 328.068†	102.0	576.8	4.7292	µg/L	4.7292	ppb	17:13:47
1	As 188.979†	26.7	33.5	24.999	µg/L	24.999	ppb	17:14:07
1	B 249.677†	1467.1	1385.5	51.662	µg/L	51.662	ppb	17:13:47
1	Ba 233.527†	422.2	445.9	4.9269	µg/L	4.9269	ppb	17:14:07
1	Be 313.107†	478.3	6879.5	5.0894	µg/L	5.0894	ppb	17:13:47
1	Cd 226.502†	202.7	372.1	5.1801	µg/L	5.1801	ppb	17:14:07
1	Co 228.616†	-20.7	182.5	5.2162	µg/L	5.2162	ppb	17:14:07
1	Cr 267.716†	387.3	240.0	5.3487	µg/L	5.3487	ppb	17:14:07
1	Cu 324.752†	3824.5	1528.7	10.194	µg/L	10.194	ppb	17:13:47
1	Mn 257.610†	6435.2	6161.2	10.742	µg/L	10.742	ppb	17:13:47
1	Mo 202.031†	129.5	119.3	10.079	µg/L	10.079	ppb	17:14:07
1	Ni 231.604†	65.7	134.3	4.7314	µg/L	4.7314	ppb	17:14:07
1	P 214.914†	198.3	164.4	157.42	µg/L	157.42	ppb	17:14:07
1	Pb 220.353†	145.5	42.0	6.8642	µg/L	6.8642	ppb	17:14:07
1	S 181.975 Axial†	91.9	51.6	116.99	µg/L	116.99	ppb	17:14:07
1	Sb 206.836†	79.7	29.1	13.085	µg/L	13.085	ppb	17:14:07
1	Se 196.026†	7.4	37.0	30.731	µg/L	30.731	ppb	17:14:07
1	SiO2†	2486.4	1368.9	230.20	µg/L	230.20	ppb	17:13:47
1	Si 251.611†	1811.0	1615.6	103.92	µg/L	103.92	ppb	17:14:07
1	Sn 189.927†	59.5	48.4	10.445	µg/L	10.445	ppb	17:14:07
1	Ti 334.940†	938.2	1399.7	5.2157	µg/L	5.2157	ppb	17:13:47
1	Tl 190.801†	-11.4	50.0	17.051	µg/L	17.051	ppb	17:14:07
1	U 367.007†	1323.9	254.2	70.20	µg/L	70.20	ppb	17:13:47
1	V 292.402†	447.2	400.1	4.9634	µg/L	4.9634	ppb	17:13:47
1	Zn 213.857†	4125.6	3755.8	40.278	µg/L	40.278	ppb	17:14:07
2	Sc RADIAL	4042.3	4042.3	99.5	%			17:12:56
2	Al 396.153Radial†	46.5	244.4	213.20	µg/L	213.20	ppb	17:12:56
2	Ca 317.933Radial†	583.0	532.0	522.29	µg/L	522.29	ppb	17:13:16
2	Fe 238.204 Radial†	27.4	26.4	119.83	µg/L	119.83	ppb	17:13:16
2	K 766.490 Radial†	345.5	223.6	169.10	µg/L	169.10	ppb	17:12:56
2	Mg 279.077 IEC†	23.2	20.9	333.95	µg/L	333.95	ppb	17:13:16
2	Na 589.592 Radial†	3.6	4.9	422.53	µg/L	422.53	ppb	17:13:16
2	Sr 421.552†	128.4	109.7	5.7125	µg/L	5.7125	ppb	17:12:56
2	Sc 361.383	395593.7	395593.7	99.732	%			17:14:13
2	Y 371.029	409624.2	409624.2	99.586	%			17:14:13
2	Ag 328.068†	90.3	564.2	4.6315	µg/L	4.6315	ppb	17:14:13
2	As 188.979†	36.5	43.1	32.178	µg/L	32.178	ppb	17:14:33
2	B 249.677†	1456.9	1363.3	50.828	µg/L	50.828	ppb	17:14:13
2	Ba 233.527†	415.8	436.1	4.8185	µg/L	4.8185	ppb	17:14:33
2	Be 313.107†	449.5	6846.8	5.0625	µg/L	5.0625	ppb	17:14:13
2	Cd 226.502†	210.4	378.1	5.2642	µg/L	5.2642	ppb	17:14:33
2	Co 228.616†	-24.7	178.6	5.1039	µg/L	5.1039	ppb	17:14:33
2	Cr 267.716†	384.0	233.6	5.2127	µg/L	5.2127	ppb	17:14:33
2	Cu 324.752†	3837.4	1510.5	10.066	µg/L	10.066	ppb	17:14:13
2	Mn 257.610†	6418.6	6092.3	10.621	µg/L	10.621	ppb	17:14:13
2	Mo 202.031†	113.8	102.5	8.6594	µg/L	8.6594	ppb	17:14:33
2	Ni 231.604†	73.7	141.9	4.9961	µg/L	4.9961	ppb	17:14:33
2	P 214.914†	191.3	155.8	149.16	µg/L	149.16	ppb	17:14:33

2	Pb 220.353†	146.4	41.7	6.8273 µg/L	6.8273 ppb		17:14:33
2	S 181.975 Axial†	87.4	46.4	105.21 µg/L	105.21 ppb		17:14:33
2	Sb 206.836†	78.4	27.2	12.188 µg/L	12.188 ppb		17:14:33
2	Se 196.026†	2.7	32.3	26.817 µg/L	26.817 ppb		17:14:33
2	SiO2†	2515.8	1378.2	231.77 µg/L	231.77 ppb		17:14:13
2	Si 251.611†	1814.2	1604.1	103.20 µg/L	103.20 ppb		17:14:33
2	Sn 189.927†	56.5	45.0	9.7016 µg/L	9.7016 ppb		17:14:33
2	Ti 334.940†	943.3	1397.1	5.2118 µg/L	5.2118 ppb		17:14:13
2	Tl 190.801†	-3.0	58.5	19.952 µg/L	19.952 ppb		17:14:33
2	U 367.007†	1292.4	211.9	58.41 µg/L	58.41 ppb		17:14:13
2	V 292.402†	495.3	444.6	5.4783 µg/L	5.4783 ppb		17:14:13
2	Zn 213.857†	4108.9	3705.6	39.740 µg/L	39.740 ppb		17:14:33
3	Sc RADIAL	4037.0	4037.0	99.4 %			17:13:21
3	Al 396.153Radial†	11.1	208.9	182.04 µg/L	182.04 ppb		17:13:21
3	Ca 317.933Radial†	583.9	533.7	523.92 µg/L	523.92 ppb		17:13:41
3	Fe 238.204 Radial†	23.1	22.0	100.10 µg/L	100.10 ppb		17:13:41
3	K 766.490 Radial†	270.1	148.2	112.08 µg/L	112.08 ppb		17:13:21
3	Mg 279.077 IEC†	22.1	19.8	316.03 µg/L	316.03 ppb		17:13:41
3	Na 589.592 Radial†	2.5	3.8	321.97 µg/L	321.97 ppb		17:13:41
3	Sr 421.552†	146.9	128.4	6.6946 µg/L	6.6946 ppb		17:13:21
3	Sc 361.383	391142.7	391142.7	98.610 %			17:14:38
3	Y 371.029	404952.6	404952.6	98.450 %			17:14:38
3	Ag 328.068†	173.4	649.6	5.3282 µg/L	5.3282 ppb		17:14:38
3	As 188.979†	43.4	50.6	37.729 µg/L	37.729 ppb		17:14:58
3	B 249.677†	1467.8	1391.0	51.766 µg/L	51.766 ppb		17:14:38
3	Ba 233.527†	440.3	465.7	5.1457 µg/L	5.1457 ppb		17:14:58
3	Be 313.107†	480.5	6883.3	5.0893 µg/L	5.0893 ppb		17:14:38
3	Cd 226.502†	198.2	368.2	5.1275 µg/L	5.1275 ppb		17:14:58
3	Co 228.616†	-19.4	183.7	5.2515 µg/L	5.2515 ppb		17:14:58
3	Cr 267.716†	378.1	232.0	5.1768 µg/L	5.1768 ppb		17:14:58
3	Cu 324.752†	3831.2	1548.0	10.313 µg/L	10.313 ppb		17:14:38
3	Mn 257.610†	6381.4	6127.8	10.683 µg/L	10.683 ppb		17:14:38
3	Mo 202.031†	134.4	124.8	10.537 µg/L	10.537 ppb		17:14:58
3	Ni 231.604†	52.0	120.6	4.2482 µg/L	4.2482 ppb		17:14:58
3	P 214.914†	207.2	174.1	166.70 µg/L	166.70 ppb		17:14:58
3	Pb 220.353†	126.5	23.1	3.7502 µg/L	3.7502 ppb		17:14:58
3	S 181.975 Axial†	89.6	49.6	112.53 µg/L	112.53 ppb		17:14:58
3	Sb 206.836†	73.6	23.2	10.465 µg/L	10.465 ppb		17:14:58
3	Se 196.026†	0.9	30.5	25.335 µg/L	25.335 ppb		17:14:58
3	SiO2†	2476.8	1367.4	229.94 µg/L	229.94 ppb		17:14:38
3	Si 251.611†	1825.0	1635.8	105.21 µg/L	105.21 ppb		17:14:58
3	Sn 189.927†	57.8	46.9	10.124 µg/L	10.124 ppb		17:14:58
3	Ti 334.940†	882.4	1346.1	5.0217 µg/L	5.0217 ppb		17:14:38
3	Tl 190.801†	2.3	63.9	21.792 µg/L	21.792 ppb		17:14:58
3	U 367.007†	1277.6	211.6	58.42 µg/L	58.42 ppb		17:14:38
3	V 292.402†	418.2	372.1	4.6219 µg/L	4.6219 ppb		17:14:38
3	Zn 213.857†	4087.3	3730.6	40.016 µg/L	40.016 ppb		17:14:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	393050.4	99.091	%	0.5780				0.58%
Sc RADIAL	4045.6	99.6	%	0.26				0.26%
Y 371.029	406709.1	98.877	%	0.6180				0.63%
Ag 328.068†	596.9	4.8963	µg/L	0.37721	4.8963	ppb	0.37721	7.70%
QC value within limits for Ag 328.068 Recovery = 97.93%								
Al 396.153Radial†	242.4	211.37	µg/L	28.451	211.37	ppb	28.451	13.46%
QC value within limits for Al 396.153Radial Recovery = 105.68%								
As 188.979†	42.4	31.635	µg/L	6.3825	31.635	ppb	6.3825	20.18%
QC value within limits for As 188.979 Recovery = 105.45%								
B 249.677†	1379.9	51.419	µg/L	0.5138	51.419	ppb	0.5138	1.00%
QC value within limits for B 249.677 Recovery = 102.84%								
Ba 233.527†	449.2	4.9637	µg/L	0.16671	4.9637	ppb	0.16671	3.36%
QC value within limits for Ba 233.527 Recovery = 99.27%								
Be 313.107†	6869.8	5.0804	µg/L	0.01553	5.0804	ppb	0.01553	0.31%
QC value within limits for Be 313.107 Recovery = 101.61%								
Ca 317.933Radial†	533.0	523.22	µg/L	0.843	523.22	ppb	0.843	0.16%
QC value greater than the upper limit for Ca 317.933Radial Recovery = 261.61%								
Cd 226.502†	372.8	5.1906	µg/L	0.06897	5.1906	ppb	0.06897	1.33%
QC value within limits for Cd 226.502 Recovery = 103.81%								

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Co 228.616†              181.6      5.1905 µg/L       0.07704      5.1905 ppb        0.07704   1.48%
   QC value within limits for Co 228.616  Recovery = 103.81%
Cr 267.716†              235.2      5.2461 µg/L       0.09063      5.2461 ppb        0.09063   1.73%
   QC value within limits for Cr 267.716  Recovery = 104.92%
Cu 324.752†             1529.1      10.191 µg/L        0.1234      10.191 ppb         0.1234   1.21%
   QC value within limits for Cu 324.752  Recovery = 101.91%
Fe 238.204 Radial†        25.2      114.47 µg/L        12.584      114.47 ppb         12.584  10.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 114.47%
K 766.490 Radial†        206.9      156.49 µg/L        39.636      156.49 ppb         39.636  25.33%
   QC value within limits for K 766.490 Radial  Recovery = 104.33%
Mg 279.077 IEC†           20.4      325.35 µg/L         8.981      325.35 ppb          8.981   2.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.45%
Mn 257.610†             6127.1      10.682 µg/L        0.0604      10.682 ppb         0.0604   0.57%
   QC value within limits for Mn 257.610  Recovery = 106.82%
Mo 202.031†              115.5      9.7585 µg/L       0.97904      9.7585 ppb        0.97904  10.03%
   QC value within limits for Mo 202.031  Recovery = 97.58%
Na 589.592 Radial†         3.6      309.91 µg/L       119.111      309.91 ppb        119.111  38.43%
   QC value within limits for Na 589.592 Radial  Recovery = 103.30%
Ni 231.604†              132.3      4.6586 µg/L       0.37924      4.6586 ppb        0.37924   8.14%
   QC value within limits for Ni 231.604  Recovery = 93.17%
P 214.914†               164.7      157.76 µg/L         8.777      157.76 ppb          8.777   5.56%
   QC value within limits for P 214.914  Recovery = 105.17%
Pb 220.353†               35.6      5.8139 µg/L       1.78735      5.8139 ppb        1.78735  30.74%
   QC value less than the lower limit for Pb 220.353  Recovery = 58.14%
S 181.975 Axial†          49.2      111.58 µg/L         5.947      111.58 ppb          5.947   5.33%
   QC value within limits for S 181.975 Axial  Recovery = 111.58%
Sb 206.836†               26.5      11.912 µg/L        1.3315      11.912 ppb         1.3315  11.18%
   QC value within limits for Sb 206.836  Recovery = 119.12%
Se 196.026†               33.2      27.628 µg/L        2.7879      27.628 ppb         2.7879  10.09%
   QC value within limits for Se 196.026  Recovery = 92.09%
SiO2†                   1371.5      230.64 µg/L         0.994      230.64 ppb          0.994   0.43%
   QC value within limits for SiO2  Recovery = 108.28%
Si 251.611†             1618.5      104.11 µg/L         1.016      104.11 ppb          1.016   0.98%
   QC value within limits for Si 251.611  Recovery = 104.11%
Sn 189.927†               46.8      10.090 µg/L        0.3728      10.090 ppb         0.3728   3.69%
   QC value within limits for Sn 189.927  Recovery = 100.90%
Sr 421.552†              109.3      5.6961 µg/L       1.00683      5.6961 ppb        1.00683  17.68%
   QC value within limits for Sr 421.552  Recovery = 113.92%
Ti 334.940†             1381.0      5.1497 µg/L       0.11090      5.1497 ppb        0.11090   2.15%
   QC value within limits for Ti 334.940  Recovery = 102.99%
Tl 190.801†               57.5      19.598 µg/L        2.3901      19.598 ppb         2.3901  12.20%
   QC value within limits for Tl 190.801  Recovery = 97.99%
U 367.007†               225.9       62.34 µg/L         6.803       62.34 ppb          6.803  10.91%
   QC value within limits for U 367.007  Recovery = 124.69%
V 292.402†               405.6      5.0212 µg/L       0.43111      5.0212 ppb        0.43111   8.59%
   QC value within limits for V 292.402  Recovery = 100.42%
Zn 213.857†             3730.7      40.011 µg/L        0.2690      40.011 ppb         0.2690   0.67%
   QC value greater than the upper limit for Zn 213.857  Recovery = 400.11%
QC Failed.  Continue with analysis.
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Sequence No.: 96 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 9/28/2017 17:15:07**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4019.3	4019.3	98.9	%			17:15:40
1	Al 396.153Radial†	-217.5	-22.2	-19.393	µg/L	-19.393	ppb	17:15:40
1	Ca 317.933Radial†	72.0	18.8	18.476	µg/L	18.476	ppb	17:16:00
1	Fe 238.204 Radial†	3.8	2.6	11.866	µg/L	11.866	ppb	17:16:00
1	K 766.490 Radial†	67.5	-55.4	-41.930	µg/L	-41.930	ppb	17:15:40
1	Mg 279.077 IEC†	3.7	1.3	21.097	µg/L	21.097	ppb	17:16:00
1	Na 589.592 Radial†	0.4	1.7	146.64	µg/L	146.64	ppb	17:16:00
1	Sr 421.552†	28.5	9.4	0.4897	µg/L	0.4897	ppb	17:15:40
1	Sc 361.383	394233.0	394233.0	99.389	%			17:16:57
1	Y 371.029	408310.3	408310.3	99.267	%			17:16:57
1	Ag 328.068†	-540.0	-69.6	-0.5809	µg/L	-0.5809	ppb	17:16:57
1	As 188.979†	-7.3	-0.8	-0.6171	µg/L	-0.6171	ppb	17:17:17
1	B 249.677†	143.5	46.9	1.7802	µg/L	1.7802	ppb	17:16:57
1	Ba 233.527†	-9.1	10.1	0.1112	µg/L	0.1112	ppb	17:17:17
1	Be 313.107†	-6057.1	301.7	0.2286	µg/L	0.2286	ppb	17:16:57
1	Cd 226.502†	-160.5	5.7	0.0782	µg/L	0.0782	ppb	17:17:17
1	Co 228.616†	-197.3	4.9	0.1407	µg/L	0.1407	ppb	17:17:17
1	Cr 267.716†	145.5	-5.1	-0.1324	µg/L	-0.1324	ppb	17:17:17
1	Cu 324.752†	2241.4	-82.0	-0.5269	µg/L	-0.5269	ppb	17:16:57
1	Mn 257.610†	417.0	76.0	0.1325	µg/L	0.1325	ppb	17:16:57
1	Mo 202.031†	15.4	3.9	0.3301	µg/L	0.3301	ppb	17:17:17
1	Ni 231.604†	-71.1	-3.6	-0.1268	µg/L	-0.1268	ppb	17:17:17
1	P 214.914†	44.8	9.0	8.6532	µg/L	8.6532	ppb	17:17:17
1	Pb 220.353†	92.7	-11.8	-1.9915	µg/L	-1.9915	ppb	17:17:17
1	S 181.975 Axial†	50.5	9.6	21.692	µg/L	21.692	ppb	17:17:17
1	Sb 206.836†	43.9	-7.3	-3.2491	µg/L	-3.2491	ppb	17:17:17
1	Se 196.026†	-21.2	8.2	6.8107	µg/L	6.8107	ppb	17:17:17
1	SiO2†	1194.9	57.9	9.7308	µg/L	9.7308	ppb	17:16:57
1	Si 251.611†	306.4	93.3	6.0058	µg/L	6.0058	ppb	17:17:17
1	Sn 189.927†	15.8	4.2	0.9013	µg/L	0.9013	ppb	17:17:17
1	Ti 334.940†	-408.9	39.9	0.1372	µg/L	0.1372	ppb	17:16:57
1	Tl 190.801†	-69.4	-8.3	-2.8196	µg/L	-2.8196	ppb	17:17:17
1	U 367.007†	1172.4	95.6	26.60	µg/L	26.60	ppb	17:16:57
1	V 292.402†	140.9	89.8	1.0985	µg/L	1.0985	ppb	17:16:57
1	Zn 213.857†	514.0	102.8	1.1004	µg/L	1.1004	ppb	17:17:17
2	Sc RADIAL	4016.6	4016.6	98.9	%			17:16:05
2	Al 396.153Radial†	-187.3	8.3	7.3167	µg/L	7.3167	ppb	17:16:05
2	Ca 317.933Radial†	67.6	14.4	14.102	µg/L	14.102	ppb	17:16:25
2	Fe 238.204 Radial†	4.1	3.0	13.643	µg/L	13.643	ppb	17:16:25
2	K 766.490 Radial†	209.5	88.2	66.724	µg/L	66.724	ppb	17:16:05
2	Mg 279.077 IEC†	9.1	6.8	109.27	µg/L	109.27	ppb	17:16:25
2	Na 589.592 Radial†	-1.6	-0.3	-29.010	µg/L	-29.010	ppb	17:16:25
2	Sr 421.552†	11.4	-7.9	-0.4151	µg/L	-0.4151	ppb	17:16:05
2	Sc 361.383	394047.6	394047.6	99.342	%			17:17:22
2	Y 371.029	407815.2	407815.2	99.146	%			17:17:22
2	Ag 328.068†	-403.9	67.1	0.5562	µg/L	0.5562	ppb	17:17:22
2	As 188.979†	-7.5	-1.1	-0.8151	µg/L	-0.8151	ppb	17:17:42
2	B 249.677†	97.1	0.3	0.0680	µg/L	0.0680	ppb	17:17:22
2	Ba 233.527†	-10.4	8.7	0.0963	µg/L	0.0963	ppb	17:17:42
2	Be 313.107†	-6127.0	228.4	0.1664	µg/L	0.1664	ppb	17:17:22
2	Cd 226.502†	-163.8	2.3	0.0304	µg/L	0.0304	ppb	17:17:42
2	Co 228.616†	-204.4	-2.3	-0.0695	µg/L	-0.0695	ppb	17:17:42
2	Cr 267.716†	145.0	-5.5	-0.1145	µg/L	-0.1145	ppb	17:17:42
2	Cu 324.752†	2293.8	-28.2	-0.1906	µg/L	-0.1906	ppb	17:17:22
2	Mn 257.610†	422.8	82.1	0.1400	µg/L	0.1400	ppb	17:17:22
2	Mo 202.031†	-8.9	-20.5	-1.7340	µg/L	-1.7340	ppb	17:17:42
2	Ni 231.604†	-72.4	-5.0	-0.1756	µg/L	-0.1756	ppb	17:17:42
2	P 214.914†	44.7	9.0	8.6046	µg/L	8.6046	ppb	17:17:42

2	Pb 220.353†	75.0	-29.6	-4.9294 µg/L	-4.9294 ppb		17:17:42
2	S 181.975 Axial†	54.0	13.0	29.547 µg/L	29.547 ppb		17:17:42
2	Sb 206.836†	47.5	-3.6	-1.6237 µg/L	-1.6237 ppb		17:17:42
2	Se 196.026†	-35.0	-5.7	-4.7262 µg/L	-4.7262 ppb		17:17:42
2	SiO2†	1168.6	32.0	5.4056 µg/L	5.4056 ppb		17:17:22
2	Si 251.611†	309.1	96.1	6.2329 µg/L	6.2329 ppb		17:17:42
2	Sn 189.927†	21.0	9.5	2.0402 µg/L	2.0402 ppb		17:17:42
2	Ti 334.940†	-469.3	-21.1	-0.0741 µg/L	-0.0741 ppb		17:17:22
2	Tl 190.801†	-69.9	-8.8	-2.9901 µg/L	-2.9901 ppb		17:17:42
2	U 367.007†	1047.2	-29.9	-8.394 µg/L	-8.394 ppb		17:17:22
2	V 292.402†	-7.3	-59.3	-0.7318 µg/L	-0.7318 ppb		17:17:22
2	Zn 213.857†	518.9	107.9	1.1589 µg/L	1.1589 ppb		17:17:42
3	Sc RADIAL	4006.3	4006.3	98.6 %			17:16:30
3	Al 396.153Radial†	-246.3	-52.0	-45.404 µg/L	-45.404 ppb		17:16:30
3	Ca 317.933Radial†	63.4	10.3	10.127 µg/L	10.127 ppb		17:16:50
3	Fe 238.204 Radial†	3.1	1.9	8.7299 µg/L	8.7299 ppb		17:16:50
3	K 766.490 Radial†	154.8	33.3	25.168 µg/L	25.168 ppb		17:16:30
3	Mg 279.077 IEC†	5.9	3.6	57.653 µg/L	57.653 ppb		17:16:50
3	Na 589.592 Radial†	-3.0	-1.7	-148.61 µg/L	-148.61 ppb		17:16:50
3	Sr 421.552†	48.7	29.9	1.5639 µg/L	1.5639 ppb		17:16:30
3	Sc 361.383	392855.7	392855.7	99.042 %			17:17:47
3	Y 371.029	406823.0	406823.0	98.905 %			17:17:47
3	Ag 328.068†	-508.3	-39.5	-0.3231 µg/L	-0.3231 ppb		17:17:47
3	As 188.979†	-7.9	-1.4	-1.0786 µg/L	-1.0786 ppb		17:18:08
3	B 249.677†	134.4	38.2	1.4479 µg/L	1.4479 ppb		17:17:47
3	Ba 233.527†	-21.1	-2.1	-0.0233 µg/L	-0.0233 ppb		17:18:08
3	Be 313.107†	-6066.4	270.9	0.1989 µg/L	0.1989 ppb		17:17:47
3	Cd 226.502†	-164.6	1.0	0.0128 µg/L	0.0128 ppb		17:18:08
3	Co 228.616†	-196.3	5.2	0.1464 µg/L	0.1464 ppb		17:18:08
3	Cr 267.716†	145.6	-4.4	-0.0954 µg/L	-0.0954 ppb		17:18:08
3	Cu 324.752†	2248.3	-67.1	-0.4460 µg/L	-0.4460 ppb		17:17:47
3	Mn 257.610†	411.4	71.8	0.1237 µg/L	0.1237 ppb		17:17:47
3	Mo 202.031†	-1.7	-13.3	-1.1188 µg/L	-1.1188 ppb		17:18:08
3	Ni 231.604†	-69.3	-2.0	-0.0703 µg/L	-0.0703 ppb		17:18:08
3	P 214.914†	49.3	13.7	13.156 µg/L	13.156 ppb		17:18:08
3	Pb 220.353†	119.4	15.5	2.5808 µg/L	2.5808 ppb		17:18:08
3	S 181.975 Axial†	48.7	7.9	17.919 µg/L	17.919 ppb		17:18:08
3	Sb 206.836†	65.1	14.3	6.4091 µg/L	6.4091 ppb		17:18:08
3	Se 196.026†	-32.4	-3.2	-2.6332 µg/L	-2.6332 ppb		17:18:08
3	SiO2†	1235.1	102.7	17.288 µg/L	17.288 ppb		17:17:47
3	Si 251.611†	278.6	66.3	4.2949 µg/L	4.2949 ppb		17:18:08
3	Sn 189.927†	12.4	0.8	0.1764 µg/L	0.1764 ppb		17:18:08
3	Ti 334.940†	-460.5	-13.6	-0.0489 µg/L	-0.0489 ppb		17:17:47
3	Tl 190.801†	-65.8	-4.9	-1.6701 µg/L	-1.6701 ppb		17:18:08
3	U 367.007†	1063.7	-10.0	-2.844 µg/L	-2.844 ppb		17:17:47
3	V 292.402†	-5.4	-57.4	-0.7011 µg/L	-0.7011 ppb		17:17:47
3	Zn 213.857†	522.3	112.9	1.2120 µg/L	1.2120 ppb		17:18:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	393712.1	99.258	%	0.1884				0.19%
Sc RADIAL	4014.0	98.8	%	0.17				0.17%
Y 371.029	407649.5	99.106	%	0.1841				0.19%
Ag 328.068†	-14.0	-0.1159	µg/L	0.59616	-0.1159	ppb	0.59616	514.25%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-22.0	-19.160	µg/L	26.3612	-19.160	ppb	26.3612	137.58%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.8369	µg/L	0.23153	-0.8369	ppb	0.23153	27.67%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	28.4	1.0987	µg/L	0.90791	1.0987	ppb	0.90791	82.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.6	0.0614	µg/L	0.07375	0.0614	ppb	0.07375	120.13%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	267.0	0.1980	µg/L	0.03113	0.1980	ppb	0.03113	15.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	14.5	14.235	µg/L	4.1762	14.235	ppb	4.1762	29.34%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	3.0	0.0405	µg/L	0.03384	0.0405	ppb	0.03384	83.67%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                2.6      0.0725 µg/L       0.12303      0.0725 ppb        0.12303 169.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -5.0     -0.1141 µg/L       0.01852     -0.1141 ppb        0.01852  16.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -59.1     -0.3878 µg/L       0.17555     -0.3878 ppb        0.17555  45.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.5      11.413 µg/L        2.4879      11.413 ppb         2.4879  21.80%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         22.0      16.654 µg/L       54.8253      16.654 ppb        54.8253 329.20%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            3.9      62.675 µg/L       44.3029      62.675 ppb        44.3029  70.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               76.6      0.1321 µg/L       0.00815      0.1321 ppb        0.00815   6.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -10.0     -0.8409 µg/L       1.05975     -0.8409 ppb        1.05975 126.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -0.1     -10.326 µg/L      148.5107     -10.326 ppb       148.5107 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.5     -0.1242 µg/L       0.05272     -0.1242 ppb        0.05272  42.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.6      10.138 µg/L        2.6139      10.138 ppb         2.6139  25.78%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.7     -1.4467 µg/L       3.78463     -1.4467 ppb        3.78463 261.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          10.2      23.052 µg/L        5.9319      23.052 ppb         5.9319  25.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.2      0.5121 µg/L       5.17124      0.5121 ppb        5.17124 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1829 µg/L       6.14640     -0.1829 ppb        6.14640 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     64.2      10.808 µg/L        6.0141      10.808 ppb         6.0141  55.64%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               85.2      5.5112 µg/L       1.05945      5.5112 ppb        1.05945  19.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.8      1.0393 µg/L       0.93950      1.0393 ppb        0.93950  90.40%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               10.5      0.5462 µg/L       0.99069      0.5462 ppb        0.99069 181.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                1.7      0.0047 µg/L       0.11544      0.0047 ppb        0.11544 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.3     -2.4933 µg/L       0.71797     -2.4933 ppb        0.71797  28.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                18.6       5.121 µg/L       18.8088       5.121 ppb        18.8088 367.26%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -9.0     -0.1115 µg/L       1.04797     -0.1115 ppb        1.04797 940.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              107.9      1.1571 µg/L       0.05582      1.1571 ppb        0.05582   4.82%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```
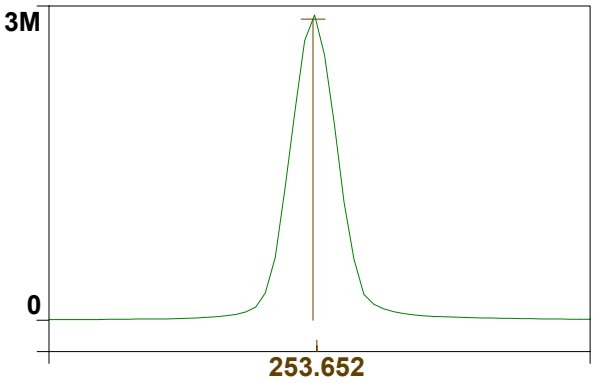

Method: Hg_ReAlign
Result: 092917

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**



Intensity: 3256691.6
Conc:

1

==========

Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 092917
Results Library (original): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 092917A
Results Library (reprocessed): C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 9/29/2017 05:45:45**
Analyst: **Data Type: Reprocessed on 9/29/2017 06:44:06**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	401690.4	401690.4	99.469	%	05:47:41
1	Sc RADIAL	4090.7	4090.7	101	%	05:46:24
1	Y 371.029	415784.2	415784.2	99.360	%	05:47:41
1	Ag 328.068†	-552.7	-555.6	[0.00]	µg/L	05:47:41
1	Al 396.153Radial†	-245.1	-243.7	[0.00]	µg/L	05:46:24
1	As 188.979†	-1.4	-1.4	[0.00]	µg/L	05:48:01
1	B 249.677†	91.9	92.4	[0.00]	µg/L	05:47:41
1	Ba 233.527†	-25.7	-25.8	[0.00]	µg/L	05:48:01
1	Be 313.107†	-6259.5	-6292.9	[0.00]	µg/L	05:47:41
1	Ca 317.933Radial†	42.4	42.1	[0.00]	µg/L	05:46:44
1	Cd 226.502†	-170.3	-171.2	[0.00]	µg/L	05:48:01
1	Co 228.616†	-214.3	-215.5	[0.00]	µg/L	05:48:01
1	Cr 267.716†	149.1	149.9	[0.00]	µg/L	05:48:01
1	Cu 324.752†	2187.1	2198.8	[0.00]	µg/L	05:47:41
1	Fe 238.204 Radial†	3.3	3.3	[0.00]	µg/L	05:46:44
1	K 766.490 Radial†	71.3	70.9	[0.00]	µg/L	05:46:24
1	Mg 279.077 IEC†	1.0	1.0	[0.00]	µg/L	05:46:44
1	Mn 257.610†	301.6	303.2	[0.00]	µg/L	05:47:41
1	Mo 202.031†	13.5	13.6	[0.00]	µg/L	05:48:01
1	Na 589.592 Radial†	-2.9	-2.9	[0.00]	µg/L	05:46:44
1	Ni 231.604†	-74.5	-74.9	[0.00]	µg/L	05:48:01
1	P 214.914†	28.1	28.3	[0.00]	µg/L	05:48:01
1	Pb 220.353†	91.1	91.6	[0.00]	µg/L	05:48:01
1	S 181.975 Axial†	40.1	40.3	[0.00]	µg/L	05:48:01
1	Sb 206.836†	43.4	43.6	[0.00]	µg/L	05:48:01
1	Se 196.026†	-23.3	-23.4	[0.00]	µg/L	05:48:01
1	SiO2†	1195.1	1201.5	[0.00]	µg/L	05:47:41
1	Si 251.611†	208.0	209.1	[0.00]	µg/L	05:48:01
1	Sn 189.927†	14.0	14.1	[0.00]	µg/L	05:48:01
1	Sr 421.552†	22.7	22.6	[0.00]	µg/L	05:46:24
1	Ti 334.940†	-459.1	-461.6	[0.00]	µg/L	05:47:41
1	Tl 190.801†	-65.1	-65.5	[0.00]	µg/L	05:48:01
1	U 367.007†	1042.9	1048.5	[0.00]	µg/L	05:47:41
1	V 292.402†	71.8	72.2	[0.00]	µg/L	05:47:41
1	Zn 213.857†	382.5	384.5	[0.00]	µg/L	05:48:01
2	Sc 361.383	404293.4	404293.4	100.11	%	05:48:07
2	Sc RADIAL	4054.2	4054.2	99.7	%	05:46:49
2	Y 371.029	419515.8	419515.8	100.25	%	05:48:07
2	Ag 328.068†	-495.8	-495.3	[0.00]	µg/L	05:48:07
2	Al 396.153Radial†	-206.1	-206.8	[0.00]	µg/L	05:46:49
2	As 188.979†	-4.1	-4.1	[0.00]	µg/L	05:48:27
2	B 249.677†	56.3	56.3	[0.00]	µg/L	05:48:07
2	Ba 233.527†	-5.1	-5.1	[0.00]	µg/L	05:48:27
2	Be 313.107†	-6354.8	-6347.6	[0.00]	µg/L	05:48:07
2	Ca 317.933Radial†	48.6	48.8	[0.00]	µg/L	05:47:09
2	Cd 226.502†	-162.3	-162.1	[0.00]	µg/L	05:48:27
2	Co 228.616†	-206.6	-206.4	[0.00]	µg/L	05:48:27
2	Cr 267.716†	139.7	139.5	[0.00]	µg/L	05:48:27

2	Cu 324.752†	2278.1	2275.5	[0.00]	µg/L	05:48:07
2	Fe 238.204 Radial†	2.7	2.7	[0.00]	µg/L	05:47:09
2	K 766.490 Radial†	113.2	113.6	[0.00]	µg/L	05:46:49
2	Mg 279.077 IEC†	2.3	2.4	[0.00]	µg/L	05:47:09
2	Mn 257.610†	339.8	339.4	[0.00]	µg/L	05:48:07
2	Mo 202.031†	5.3	5.3	[0.00]	µg/L	05:48:27
2	Na 589.592 Radial†	2.7	2.7	[0.00]	µg/L	05:47:09
2	Ni 231.604†	-73.7	-73.6	[0.00]	µg/L	05:48:27
2	P 214.914†	31.7	31.7	[0.00]	µg/L	05:48:27
2	Pb 220.353†	83.4	83.3	[0.00]	µg/L	05:48:27
2	S 181.975 Axial†	36.0	36.0	[0.00]	µg/L	05:48:27
2	Sb 206.836†	60.6	60.6	[0.00]	µg/L	05:48:27
2	Se 196.026†	-23.4	-23.4	[0.00]	µg/L	05:48:27
2	SiO2†	1139.3	1138.0	[0.00]	µg/L	05:48:07
2	Si 251.611†	217.7	217.5	[0.00]	µg/L	05:48:27
2	Sn 189.927†	10.7	10.7	[0.00]	µg/L	05:48:27
2	Sr 421.552†	9.7	9.8	[0.00]	µg/L	05:46:49
2	Ti 334.940†	-487.0	-486.4	[0.00]	µg/L	05:48:07
2	Tl 190.801†	-70.2	-70.1	[0.00]	µg/L	05:48:27
2	U 367.007†	1127.0	1125.7	[0.00]	µg/L	05:48:07
2	V 292.402†	-17.1	-17.1	[0.00]	µg/L	05:48:07
2	Zn 213.857†	375.3	374.9	[0.00]	µg/L	05:48:27
3	Sc 361.383	405522.4	405522.4	100.42	%	05:48:32
3	Sc RADIAL	4057.6	4057.6	99.8	%	05:47:14
3	Y 371.029	420083.1	420083.1	100.39	%	05:48:32
3	Ag 328.068†	-399.6	-397.9	[0.00]	µg/L	05:48:32
3	Al 396.153Radial†	-215.1	-215.6	[0.00]	µg/L	05:47:14
3	As 188.979†	-2.4	-2.4	[0.00]	µg/L	05:48:52
3	B 249.677†	119.5	119.0	[0.00]	µg/L	05:48:32
3	Ba 233.527†	-20.5	-20.4	[0.00]	µg/L	05:48:52
3	Be 313.107†	-6251.4	-6225.4	[0.00]	µg/L	05:48:32
3	Ca 317.933Radial†	45.4	45.5	[0.00]	µg/L	05:47:34
3	Cd 226.502†	-163.0	-162.3	[0.00]	µg/L	05:48:52
3	Co 228.616†	-212.4	-211.5	[0.00]	µg/L	05:48:52
3	Cr 267.716†	152.1	151.5	[0.00]	µg/L	05:48:52
3	Cu 324.752†	2220.7	2211.5	[0.00]	µg/L	05:48:32
3	Fe 238.204 Radial†	1.7	1.7	[0.00]	µg/L	05:47:34
3	K 766.490 Radial†	144.8	145.1	[0.00]	µg/L	05:47:14
3	Mg 279.077 IEC†	0.8	0.9	[0.00]	µg/L	05:47:34
3	Mn 257.610†	373.8	372.3	[0.00]	µg/L	05:48:32
3	Mo 202.031†	4.0	4.0	[0.00]	µg/L	05:48:52
3	Na 589.592 Radial†	-1.6	-1.6	[0.00]	µg/L	05:47:34
3	Ni 231.604†	-90.1	-89.7	[0.00]	µg/L	05:48:52
3	P 214.914†	25.9	25.8	[0.00]	µg/L	05:48:52
3	Pb 220.353†	100.5	100.1	[0.00]	µg/L	05:48:52
3	S 181.975 Axial†	33.6	33.5	[0.00]	µg/L	05:48:52
3	Sb 206.836†	48.9	48.7	[0.00]	µg/L	05:48:52
3	Se 196.026†	-36.6	-36.5	[0.00]	µg/L	05:48:52
3	SiO2†	1154.9	1150.1	[0.00]	µg/L	05:48:32
3	Si 251.611†	199.1	198.3	[0.00]	µg/L	05:48:52
3	Sn 189.927†	18.3	18.3	[0.00]	µg/L	05:48:52
3	Sr 421.552†	39.5	39.6	[0.00]	µg/L	05:47:14
3	Ti 334.940†	-423.6	-421.9	[0.00]	µg/L	05:48:32
3	Tl 190.801†	-54.2	-54.0	[0.00]	µg/L	05:48:52
3	U 367.007†	1075.0	1070.5	[0.00]	µg/L	05:48:32
3	V 292.402†	40.0	39.8	[0.00]	µg/L	05:48:32
3	Zn 213.857†	377.4	375.8	[0.00]	µg/L	05:48:52

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	403835.4	1956.64	0.48%	100.00	%
Sc RADIAL	4067.5	20.19	0.50%	100	%
Y 371.029	418461.0	2335.53	0.56%	100.00	%
Ag 328.068†	-482.9	79.58	16.48%	[0.00]	µg/L
Al 396.153Radial†	-222.0	19.27	8.68%	[0.00]	µg/L
As 188.979†	-2.6	1.34	51.30%	[0.00]	µg/L
B 249.677†	89.2	31.49	35.30%	[0.00]	µg/L
Ba 233.527†	-17.1	10.76	62.92%	[0.00]	µg/L
Be 313.107†	-6288.6	61.21	0.97%	[0.00]	µg/L

Ca 317.933Radial†	45.5	3.31	7.29%	[0.00]	µg/L
Cd 226.502†	-165.2	5.22	3.16%	[0.00]	µg/L
Co 228.616†	-211.1	4.56	2.16%	[0.00]	µg/L
Cr 267.716†	147.0	6.51	4.43%	[0.00]	µg/L
Cu 324.752†	2228.6	41.12	1.84%	[0.00]	µg/L
Fe 238.204 Radial†	2.6	0.84	32.66%	[0.00]	µg/L
K 766.490 Radial†	109.9	37.28	33.94%	[0.00]	µg/L
Mg 279.077 IEC†	1.4	0.83	59.25%	[0.00]	µg/L
Mn 257.610†	338.3	34.55	10.21%	[0.00]	µg/L
Mo 202.031†	7.6	5.19	68.14%	[0.00]	µg/L
Na 589.592 Radial†	-0.6	2.91	470.24%	[0.00]	µg/L
Ni 231.604†	-79.4	8.92	11.24%	[0.00]	µg/L
P 214.914†	28.6	2.97	10.39%	[0.00]	µg/L
Pb 220.353†	91.7	8.38	9.14%	[0.00]	µg/L
S 181.975 Axial†	36.6	3.47	9.48%	[0.00]	µg/L
Sb 206.836†	51.0	8.70	17.08%	[0.00]	µg/L
Se 196.026†	-27.7	7.55	27.24%	[0.00]	µg/L
SiO2†	1163.2	33.69	2.90%	[0.00]	µg/L
Si 251.611†	208.3	9.61	4.61%	[0.00]	µg/L
Sn 189.927†	14.3	3.79	26.46%	[0.00]	µg/L
Sr 421.552†	24.0	14.95	62.34%	[0.00]	µg/L
Ti 334.940†	-456.6	32.55	7.13%	[0.00]	µg/L
Tl 190.801†	-63.2	8.30	13.14%	[0.00]	µg/L
U 367.007†	1081.6	39.79	3.68%	[0.00]	µg/L
V 292.402†	31.6	45.22	142.92%	[0.00]	µg/L
Zn 213.857†	378.4	5.29	1.40%	[0.00]	µg/L

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Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 9/29/2017 05:49:00
Data Type: Reprocessed on 9/29/2017 06:44:07

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	404111.4	404111.4	100.07	%	05:49:48
1	Sc RADIAL	4130.4	4130.4	102	%	05:49:31
1	Y 371.029	416728.8	416728.8	99.586	%	05:49:48
1	Ag 328.068†	12118.9	12593.6	[100]	µg/L	05:49:48
1	As 188.979†	137.0	139.6	[100]	µg/L	05:50:08
1	B 249.677†	2744.2	2653.1	[100]	µg/L	05:49:48
1	Ba 233.527†	9354.0	9364.7	[100]	µg/L	05:49:48
1	Be 313.107†	131130.1	137329.2	[100]	µg/L	05:49:48
1	Cd 226.502†	7187.7	7348.0	[100]	µg/L	05:49:48
1	Co 228.616†	3402.8	3611.6	[100]	µg/L	05:50:08
1	Cr 267.716†	4738.2	4588.0	[100]	µg/L	05:49:48
1	Cu 324.752†	17969.8	15728.9	[100]	µg/L	05:49:48
1	K 766.490 Radial†	1432.6	1300.9	[1000]	µg/L	05:49:31
1	Mn 257.610†	60906.9	60527.1	[100]	µg/L	05:49:48
1	Mo 202.031†	1209.3	1200.9	[100]	µg/L	05:50:08
1	Ni 231.604†	3016.4	3093.8	[100]	µg/L	05:49:48
1	P 214.914†	570.6	541.6	[500]	µg/L	05:50:08
1	Pb 220.353†	721.8	629.6	[100]	µg/L	05:50:08
1	S 181.975 Axial†	135.6	98.9	[200]	µg/L	05:50:08
1	Sb 206.836†	277.2	226.1	[100]	µg/L	05:50:08
1	Se 196.026†	86.5	114.2	[100]	µg/L	05:50:08
1	SiO2†	7585.8	6417.4	[1069.5]	µg/L	05:49:48
1	Si 251.611†	8024.4	7810.7	[500]	µg/L	05:49:48
1	Sn 189.927†	481.0	466.4	[100]	µg/L	05:50:08
1	Sr 421.552†	2037.8	1982.8	[100]	µg/L	05:49:31
1	Ti 334.940†	26528.4	26966.9	[100]	µg/L	05:49:48
1	Tl 190.801†	242.8	305.8	[100]	µg/L	05:50:08
1	U 367.007†	1455.0	372.5	[100]	µg/L	05:49:48
1	V 292.402†	8412.6	8375.3	[100]	µg/L	05:49:48
1	Zn 213.857†	10917.8	10531.9	[100]	µg/L	05:49:48
2	Sc 361.383	402974.2	402974.2	99.787	%	05:50:14
2	Sc RADIAL	4085.4	4085.4	100	%	05:49:36
2	Y 371.029	415863.7	415863.7	99.379	%	05:50:14
2	Ag 328.068†	12107.5	12616.3	[100]	µg/L	05:50:14
2	As 188.979†	131.8	134.7	[100]	µg/L	05:50:34
2	B 249.677†	2757.0	2673.7	[100]	µg/L	05:50:14
2	Ba 233.527†	9364.4	9401.5	[100]	µg/L	05:50:14
2	Be 313.107†	130638.8	137206.6	[100]	µg/L	05:50:14
2	Cd 226.502†	7174.1	7354.7	[100]	µg/L	05:50:14
2	Co 228.616†	3390.4	3608.8	[100]	µg/L	05:50:34
2	Cr 267.716†	4738.9	4602.1	[100]	µg/L	05:50:14
2	Cu 324.752†	17896.4	15706.1	[100]	µg/L	05:50:14
2	K 766.490 Radial†	1430.2	1314.1	[1000]	µg/L	05:49:36
2	Mn 257.610†	60726.3	60517.8	[100]	µg/L	05:50:14
2	Mo 202.031†	1218.7	1213.7	[100]	µg/L	05:50:34
2	Ni 231.604†	2936.8	3022.5	[100]	µg/L	05:50:14
2	P 214.914†	555.7	528.3	[500]	µg/L	05:50:34
2	Pb 220.353†	734.4	644.3	[100]	µg/L	05:50:34
2	S 181.975 Axial†	118.4	82.1	[200]	µg/L	05:50:34
2	Sb 206.836†	272.6	222.2	[100]	µg/L	05:50:34
2	Se 196.026†	87.3	115.2	[100]	µg/L	05:50:34
2	SiO2†	7561.8	6414.7	[1069.5]	µg/L	05:50:14
2	Si 251.611†	8020.3	7829.2	[500]	µg/L	05:50:14
2	Sn 189.927†	491.7	478.4	[100]	µg/L	05:50:34
2	Sr 421.552†	2031.8	1998.9	[100]	µg/L	05:49:36
2	Ti 334.940†	26605.9	27119.4	[100]	µg/L	05:50:14
2	Tl 190.801†	240.1	303.8	[100]	µg/L	05:50:34

2	U 367.007†	1448.4	370.0	[100]	µg/L	05:50:14
2	V 292.402†	8499.0	8485.6	[100]	µg/L	05:50:14
2	Zn 213.857†	10819.3	10464.0	[100]	µg/L	05:50:14
3	Sc 361.383	404938.1	404938.1	100.27	%	05:50:39
3	Sc RADIAL	4069.0	4069.0	100	%	05:49:41
3	Y 371.029	417966.4	417966.4	99.882	%	05:50:39
3	Ag 328.068†	12150.9	12600.8	[100]	µg/L	05:50:39
3	As 188.979†	136.1	138.4	[100]	µg/L	05:50:59
3	B 249.677†	2753.7	2657.0	[100]	µg/L	05:50:39
3	Ba 233.527†	9349.0	9340.6	[100]	µg/L	05:50:39
3	Be 313.107†	131568.3	137498.6	[100]	µg/L	05:50:39
3	Cd 226.502†	7199.0	7344.6	[100]	µg/L	05:50:39
3	Co 228.616†	3409.3	3611.2	[100]	µg/L	05:50:59
3	Cr 267.716†	4747.5	4587.6	[100]	µg/L	05:50:39
3	Cu 324.752†	18023.9	15746.2	[100]	µg/L	05:50:39
3	K 766.490 Radial†	1506.0	1395.6	[1000]	µg/L	05:49:41
3	Mn 257.610†	61079.4	60574.8	[100]	µg/L	05:50:39
3	Mo 202.031†	1212.3	1201.4	[100]	µg/L	05:50:59
3	Ni 231.604†	3000.6	3071.8	[100]	µg/L	05:50:39
3	P 214.914†	547.6	517.5	[500]	µg/L	05:50:59
3	Pb 220.353†	717.0	623.3	[100]	µg/L	05:50:59
3	S 181.975 Axial†	128.8	91.9	[200]	µg/L	05:50:59
3	Sb 206.836†	278.9	227.2	[100]	µg/L	05:50:59
3	Se 196.026†	89.6	117.0	[100]	µg/L	05:50:59
3	SiO2†	7642.7	6458.7	[1069.5]	µg/L	05:50:39
3	Si 251.611†	8072.2	7841.9	[500]	µg/L	05:50:39
3	Sn 189.927†	486.3	470.6	[100]	µg/L	05:50:59
3	Sr 421.552†	2028.2	2003.5	[100]	µg/L	05:49:41
3	Ti 334.940†	26667.9	27051.9	[100]	µg/L	05:50:39
3	Tl 190.801†	257.1	319.6	[100]	µg/L	05:50:59
3	U 367.007†	1482.2	396.6	[100]	µg/L	05:50:39
3	V 292.402†	8383.3	8328.9	[100]	µg/L	05:50:39
3	Zn 213.857†	10875.1	10467.1	[100]	µg/L	05:50:39

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	404007.9	986.00	0.24%	100.04	%
Sc RADIAL	4094.9	31.78	0.78%	101	%
Y 371.029	416853.0	1056.86	0.25%	99.616	%
Ag 328.068†	12603.5	11.63	0.09%	[100]	µg/L
As 188.979†	137.5	2.51	1.82%	[100]	µg/L
B 249.677†	2661.3	10.92	0.41%	[100]	µg/L
Ba 233.527†	9369.0	30.68	0.33%	[100]	µg/L
Be 313.107†	137344.8	146.64	0.11%	[100]	µg/L
Cd 226.502†	7349.1	5.13	0.07%	[100]	µg/L
Co 228.616†	3610.5	1.53	0.04%	[100]	µg/L
Cr 267.716†	4592.5	8.26	0.18%	[100]	µg/L
Cu 324.752†	15727.1	20.12	0.13%	[100]	µg/L
K 766.490 Radial†	1336.9	51.30	3.84%	[1000]	µg/L
Mn 257.610†	60539.9	30.59	0.05%	[100]	µg/L
Mo 202.031†	1205.3	7.28	0.60%	[100]	µg/L
Ni 231.604†	3062.7	36.51	1.19%	[100]	µg/L
P 214.914†	529.1	12.07	2.28%	[500]	µg/L
Pb 220.353†	632.4	10.74	1.70%	[100]	µg/L
S 181.975 Axial†	91.0	8.45	9.29%	[200]	µg/L
Sb 206.836†	225.1	2.60	1.16%	[100]	µg/L
Se 196.026†	115.5	1.46	1.26%	[100]	µg/L
SiO2†	6430.3	24.63	0.38%	[1069.5]	µg/L
Si 251.611†	7827.2	15.70	0.20%	[500]	µg/L
Sn 189.927†	471.8	6.11	1.29%	[100]	µg/L
Sr 421.552†	1995.1	10.86	0.54%	[100]	µg/L
Ti 334.940†	27046.0	76.42	0.28%	[100]	µg/L
Tl 190.801†	309.7	8.57	2.77%	[100]	µg/L
U 367.007†	379.7	14.70	3.87%	[100]	µg/L
V 292.402†	8396.6	80.49	0.96%	[100]	µg/L
Zn 213.857†	10487.7	38.36	0.37%	[100]	µg/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 9/29/2017 05:51:08
Data Type: Reprocessed on 9/29/2017 06:44:08

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	402460.2	402460.2	99.659	%	05:52:56
1	Sc RADIAL	3949.5	3949.5	97.1	%	05:51:58
1	Y 371.029	412134.5	412134.5	98.488	%	05:52:56
1	Ag 328.068†	59303.0	59988.6	[500]	µg/L	05:52:56
1	Al 396.153Radial†	5478.0	5863.7	[5000]	µg/L	05:51:38
1	As 188.979†	663.9	668.8	[500]	µg/L	05:53:16
1	B 249.677†	13318.4	13274.7	[500]	µg/L	05:52:56
1	Ba 233.527†	44351.7	44520.3	[500]	µg/L	05:52:56
1	Be 313.107†	655104.6	663631.7	[500]	µg/L	05:52:56
1	Ca 317.933Radial†	5079.6	5185.9	[5000]	µg/L	05:51:58
1	Cd 226.502†	34945.9	35230.6	[500]	µg/L	05:52:56
1	Co 228.616†	17047.4	17316.8	[500]	µg/L	05:52:56
1	Cr 267.716†	21929.1	21857.0	[500]	µg/L	05:52:56
1	Cu 324.752†	76533.7	74566.6	[500]	µg/L	05:52:56
1	K 766.490 Radial†	6497.7	6582.0	[5000]	µg/L	05:51:38
1	Mg 279.077 IEC†	309.0	316.9	[5000]	µg/L	05:51:58
1	Mn 257.610†	281566.9	282190.7	[500]	µg/L	05:52:56
1	Mo 202.031†	5835.3	5847.6	[500]	µg/L	05:53:16
1	Ni 231.604†	14125.5	14253.1	[500]	µg/L	05:52:56
1	P 214.914†	2595.4	2575.6	[2500]	µg/L	05:53:16
1	Pb 220.353†	3080.6	2999.5	[500]	µg/L	05:53:16
1	S 181.975 Axial†	465.6	430.6	[1000]	µg/L	05:53:16
1	Sb 206.836†	1150.7	1103.7	[500]	µg/L	05:53:16
1	Se 196.026†	565.1	594.8	[500]	µg/L	05:53:16
1	SiO2†	32640.9	31589.3	[5347.5]	µg/L	05:52:56
1	Si 251.611†	38667.5	38591.3	[2500]	µg/L	05:52:56
1	Sn 189.927†	2300.3	2293.8	[500]	µg/L	05:53:16
1	Sr 421.552†	8914.5	9156.9	[500]	µg/L	05:51:38
1	Ti 334.940†	130026.7	130927.6	[500]	µg/L	05:52:56
1	Tl 190.801†	1390.2	1458.1	[500]	µg/L	05:53:16
1	U 367.007†	2818.5	1746.6	[500]	µg/L	05:52:56
1	V 292.402†	40543.2	40650.1	[500]	µg/L	05:52:56
1	Zn 213.857†	45450.1	45227.0	[500]	µg/L	05:52:56
2	Sc 361.383	402887.1	402887.1	99.765	%	05:53:22
2	Sc RADIAL	3922.9	3922.9	96.4	%	05:52:23
2	Y 371.029	412423.3	412423.3	98.557	%	05:53:22
2	Ag 328.068†	59589.9	60213.1	[500]	µg/L	05:53:22
2	Al 396.153Radial†	5539.5	5965.8	[5000]	µg/L	05:52:03
2	As 188.979†	665.0	669.2	[500]	µg/L	05:53:42
2	B 249.677†	13347.1	13289.3	[500]	µg/L	05:53:22
2	Ba 233.527†	44488.9	44610.7	[500]	µg/L	05:53:22
2	Be 313.107†	658153.4	665991.2	[500]	µg/L	05:53:22
2	Ca 317.933Radial†	5052.0	5192.8	[5000]	µg/L	05:52:23
2	Cd 226.502†	35225.4	35473.5	[500]	µg/L	05:53:22
2	Co 228.616†	17137.3	17388.8	[500]	µg/L	05:53:22
2	Cr 267.716†	21966.7	21871.4	[500]	µg/L	05:53:22
2	Cu 324.752†	76733.7	74685.7	[500]	µg/L	05:53:22
2	K 766.490 Radial†	6475.3	6604.2	[5000]	µg/L	05:52:03
2	Mg 279.077 IEC†	314.9	325.2	[5000]	µg/L	05:52:23
2	Mn 257.610†	283175.6	283503.9	[500]	µg/L	05:53:22
2	Mo 202.031†	5821.2	5827.2	[500]	µg/L	05:53:42
2	Ni 231.604†	14236.6	14349.5	[500]	µg/L	05:53:22
2	P 214.914†	2594.0	2571.5	[2500]	µg/L	05:53:42
2	Pb 220.353†	3057.1	2972.6	[500]	µg/L	05:53:42
2	S 181.975 Axial†	474.4	438.9	[1000]	µg/L	05:53:42
2	Sb 206.836†	1156.8	1108.5	[500]	µg/L	05:53:42
2	Se 196.026†	569.5	598.6	[500]	µg/L	05:53:42

2	SiO2†	32811.9	31725.9	[5347.5]	µg/L	05:53:22
2	Si 251.611†	38849.9	38733.0	[2500]	µg/L	05:53:22
2	Sn 189.927†	2302.8	2293.9	[500]	µg/L	05:53:42
2	Sr 421.552†	9022.9	9331.6	[500]	µg/L	05:52:03
2	Ti 334.940†	130621.2	131385.3	[500]	µg/L	05:53:22
2	Tl 190.801†	1377.2	1443.6	[500]	µg/L	05:53:42
2	U 367.007†	2798.3	1723.3	[500]	µg/L	05:53:22
2	V 292.402†	40778.2	40842.6	[500]	µg/L	05:53:22
2	Zn 213.857†	45657.6	45386.7	[500]	µg/L	05:53:22
3	Sc 361.383	405309.2	405309.2	100.36	%	05:53:48
3	Sc RADIAL	3937.7	3937.7	96.8	%	05:52:48
3	Y 371.029	414120.3	414120.3	98.963	%	05:53:48
3	Ag 328.068†	59804.4	60069.9	[500]	µg/L	05:53:48
3	Al 396.153Radial†	5471.4	5873.8	[5000]	µg/L	05:52:28
3	As 188.979†	667.6	667.8	[500]	µg/L	05:54:08
3	B 249.677†	13493.7	13355.5	[500]	µg/L	05:53:48
3	Ba 233.527†	44798.8	44653.0	[500]	µg/L	05:53:48
3	Be 313.107†	661356.5	665240.3	[500]	µg/L	05:53:48
3	Ca 317.933Radial†	5079.6	5201.5	[5000]	µg/L	05:52:48
3	Cd 226.502†	35340.0	35376.7	[500]	µg/L	05:53:48
3	Co 228.616†	17285.2	17433.4	[500]	µg/L	05:53:48
3	Cr 267.716†	22104.5	21877.1	[500]	µg/L	05:53:48
3	Cu 324.752†	77076.1	74567.3	[500]	µg/L	05:53:48
3	K 766.490 Radial†	6327.0	6425.7	[5000]	µg/L	05:52:28
3	Mg 279.077 IEC†	307.4	316.1	[5000]	µg/L	05:52:48
3	Mn 257.610†	284765.9	283392.2	[500]	µg/L	05:53:48
3	Mo 202.031†	5807.5	5778.7	[500]	µg/L	05:54:08
3	Ni 231.604†	14311.1	14338.4	[500]	µg/L	05:53:48
3	P 214.914†	2592.8	2554.8	[2500]	µg/L	05:54:08
3	Pb 220.353†	3065.3	2962.5	[500]	µg/L	05:54:08
3	S 181.975 Axial†	462.2	423.9	[1000]	µg/L	05:54:08
3	Sb 206.836†	1158.1	1103.0	[500]	µg/L	05:54:08
3	Se 196.026†	564.6	590.3	[500]	µg/L	05:54:08
3	SiO2†	33109.2	31825.6	[5347.5]	µg/L	05:53:48
3	Si 251.611†	39069.0	38718.6	[2500]	µg/L	05:53:48
3	Sn 189.927†	2300.7	2278.0	[500]	µg/L	05:54:08
3	Sr 421.552†	8913.5	9183.4	[500]	µg/L	05:52:28
3	Ti 334.940†	131422.7	131401.5	[500]	µg/L	05:53:48
3	Tl 190.801†	1389.7	1447.9	[500]	µg/L	05:54:08
3	U 367.007†	2899.6	1807.4	[500]	µg/L	05:53:48
3	V 292.402†	40939.2	40758.7	[500]	µg/L	05:53:48
3	Zn 213.857†	45894.8	45349.5	[500]	µg/L	05:53:48

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	403552.2	1536.53	0.38%	99.930	%
Sc RADIAL	3936.7	13.35	0.34%	96.8	%
Y 371.029	412892.7	1072.89	0.26%	98.669	%
Ag 328.068†	60090.5	113.67	0.19%	[500]	µg/L
Al 396.153Radial†	5901.1	56.28	0.95%	[5000]	µg/L
As 188.979†	668.6	0.72	0.11%	[500]	µg/L
B 249.677†	13306.5	43.04	0.32%	[500]	µg/L
Ba 233.527†	44594.7	67.78	0.15%	[500]	µg/L
Be 313.107†	664954.4	1205.45	0.18%	[500]	µg/L
Ca 317.933Radial†	5193.4	7.84	0.15%	[5000]	µg/L
Cd 226.502†	35360.3	122.30	0.35%	[500]	µg/L
Co 228.616†	17379.7	58.86	0.34%	[500]	µg/L
Cr 267.716†	21868.5	10.35	0.05%	[500]	µg/L
Cu 324.752†	74606.5	68.58	0.09%	[500]	µg/L
K 766.490 Radial†	6537.3	97.30	1.49%	[5000]	µg/L
Mg 279.077 IEC†	319.4	5.03	1.58%	[5000]	µg/L
Mn 257.610†	283028.9	728.06	0.26%	[500]	µg/L
Mo 202.031†	5817.9	35.38	0.61%	[500]	µg/L
Ni 231.604†	14313.7	52.75	0.37%	[500]	µg/L
P 214.914†	2567.3	11.04	0.43%	[2500]	µg/L
Pb 220.353†	2978.2	19.10	0.64%	[500]	µg/L
S 181.975 Axial†	431.1	7.53	1.75%	[1000]	µg/L
Sb 206.836†	1105.1	3.03	0.27%	[500]	µg/L
Se 196.026†	594.6	4.15	0.70%	[500]	µg/L

SiO2†	31713.6	118.64	0.37%	[5347.5]	µg/L
Si 251.611†	38681.0	77.98	0.20%	[2500]	µg/L
Sn 189.927†	2288.6	9.15	0.40%	[500]	µg/L
Sr 421.552†	9224.0	94.17	1.02%	[500]	µg/L
Ti 334.940†	131238.1	269.00	0.20%	[500]	µg/L
Tl 190.801†	1449.9	7.44	0.51%	[500]	µg/L
U 367.007†	1759.1	43.43	2.47%	[500]	µg/L
V 292.402†	40750.5	96.50	0.24%	[500]	µg/L
Zn 213.857†	45321.1	83.53	0.18%	[500]	µg/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 9/29/2017 05:54:17
Data Type: Reprocessed on 9/29/2017 06:44:09

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	405794.4	405794.4	100.49	%	05:56:06
1	Sc RADIAL	4057.1	4057.1	99.7	%	05:55:07
1	Y 371.029	414027.9	414027.9	98.941	%	05:56:06
1	Ag 328.068†	123410.9	123298.1	[1000]	µg/L	05:56:06
1	Al 396.153Radial†	11534.5	11786.1	[10000]	µg/L	05:54:47
1	As 188.979†	1372.8	1368.8	[1000]	µg/L	05:56:26
1	B 249.677†	27656.1	27433.4	[1000]	µg/L	05:56:06
1	Ba 233.527†	91961.5	91534.7	[1000]	µg/L	05:56:06
1	Be 313.107†	1374514.0	1374167.3	[1000]	µg/L	05:56:06
1	Ca 317.933Radial†	10837.8	10820.1	[10000]	µg/L	05:55:07
1	Cd 226.502†	72679.8	72494.2	[1000]	µg/L	05:56:06
1	Co 228.616†	35243.9	35284.9	[1000]	µg/L	05:56:06
1	Cr 267.716†	45333.8	44968.0	[1000]	µg/L	05:56:06
1	Cu 324.752†	155891.7	152910.5	[1000]	µg/L	05:56:06
1	Fe 238.204 Radial†	2225.0	2228.1	[10000]	µg/L	05:55:07
1	K 766.490 Radial†	13367.5	13291.8	[10000]	µg/L	05:54:47
1	Mg 279.077 IEC†	654.0	654.3	[10000]	µg/L	05:55:07
1	Mn 257.610†	581930.7	578783.1	[1000]	µg/L	05:56:06
1	Mo 202.031†	12109.1	12043.0	[1000]	µg/L	05:56:26
1	Na 589.592 Radial†	109.8	110.7	[10000]	µg/L	05:55:07
1	Ni 231.604†	28494.7	28436.6	[1000]	µg/L	05:56:26
1	P 214.914†	5354.2	5299.8	[5000]	µg/L	05:56:26
1	Pb 220.353†	6186.4	6064.9	[1000]	µg/L	05:56:26
1	S 181.975 Axial†	938.2	897.0	[2000]	µg/L	05:56:26
1	Sb 206.836†	2349.9	2287.5	[1000]	µg/L	05:56:26
1	Se 196.026†	1207.5	1229.4	[1000]	µg/L	05:56:26
1	SiO2†	65873.2	64392.0	[10695]	µg/L	05:56:06
1	Si 251.611†	79075.9	78485.8	[5000]	µg/L	05:56:06
1	Sn 189.927†	4725.0	4687.8	[1000]	µg/L	05:56:26
1	Sr 421.552†	19176.0	19201.1	[1000]	µg/L	05:54:47
1	Ti 334.940†	272925.0	272064.1	[1000]	µg/L	05:56:06
1	Tl 190.801†	2910.4	2959.5	[1000]	µg/L	05:56:26
1	U 367.007†	4684.8	3580.6	[1000]	µg/L	05:56:06
1	V 292.402†	84872.9	84431.5	[1000]	µg/L	05:56:06
1	Zn 213.857†	95580.9	94741.1	[1000]	µg/L	05:56:06
2	Sc 361.383	406224.5	406224.5	100.59	%	05:56:34
2	Sc RADIAL	4060.3	4060.3	99.8	%	05:55:32
2	Y 371.029	414430.9	414430.9	99.037	%	05:56:34
2	Ag 328.068†	123855.5	123610.0	[1000]	µg/L	05:56:34
2	Al 396.153Radial†	11529.6	11772.2	[10000]	µg/L	05:55:12
2	As 188.979†	1383.6	1378.1	[1000]	µg/L	05:56:54
2	B 249.677†	27656.2	27404.4	[1000]	µg/L	05:56:34
2	Ba 233.527†	92067.8	91543.4	[1000]	µg/L	05:56:34
2	Be 313.107†	1375359.7	1373559.6	[1000]	µg/L	05:56:34
2	Ca 317.933Radial†	10933.0	10907.1	[10000]	µg/L	05:55:32
2	Cd 226.502†	72676.3	72414.1	[1000]	µg/L	05:56:34
2	Co 228.616†	35289.7	35293.3	[1000]	µg/L	05:56:34
2	Cr 267.716†	45349.7	44936.0	[1000]	µg/L	05:56:34
2	Cu 324.752†	155953.2	152807.4	[1000]	µg/L	05:56:34
2	Fe 238.204 Radial†	2240.9	2242.4	[10000]	µg/L	05:55:32
2	K 766.490 Radial†	13401.1	13315.1	[10000]	µg/L	05:55:12
2	Mg 279.077 IEC†	658.0	657.8	[10000]	µg/L	05:55:32
2	Mn 257.610†	581991.4	578230.3	[1000]	µg/L	05:56:34
2	Mo 202.031†	12131.4	12052.4	[1000]	µg/L	05:56:54
2	Na 589.592 Radial†	110.8	111.6	[10000]	µg/L	05:55:32
2	Ni 231.604†	28601.3	28512.5	[1000]	µg/L	05:56:54
2	P 214.914†	5354.3	5294.3	[5000]	µg/L	05:56:54

2	Pb 220.353†	6226.1	6097.8	[1000]	µg/L	05:56:54
2	S 181.975 Axial†	937.8	895.7	[2000]	µg/L	05:56:54
2	Sb 206.836†	2340.6	2275.8	[1000]	µg/L	05:56:54
2	Se 196.026†	1216.5	1237.1	[1000]	µg/L	05:56:54
2	SiO2†	65963.0	64411.8	[10695]	µg/L	05:56:34
2	Si 251.611†	79177.8	78503.8	[5000]	µg/L	05:56:34
2	Sn 189.927†	4761.3	4719.0	[1000]	µg/L	05:56:54
2	Sr 421.552†	19312.4	19322.9	[1000]	µg/L	05:55:12
2	Ti 334.940†	272902.2	271753.8	[1000]	µg/L	05:56:34
2	Tl 190.801†	2925.5	2971.5	[1000]	µg/L	05:56:54
2	U 367.007†	4675.1	3566.0	[1000]	µg/L	05:56:34
2	V 292.402†	84771.6	84241.4	[1000]	µg/L	05:56:34
2	Zn 213.857†	95578.5	94638.0	[1000]	µg/L	05:56:34
3	Sc 361.383	406683.6	406683.6	100.71	%	05:57:02
3	Sc RADIAL	4059.8	4059.8	99.8	%	05:55:57
3	Y 371.029	415176.1	415176.1	99.215	%	05:57:02
3	Ag 328.068†	123991.5	123606.0	[1000]	µg/L	05:57:02
3	Al 396.153Radial†	11643.5	11887.5	[10000]	µg/L	05:55:37
3	As 188.979†	1391.8	1384.6	[1000]	µg/L	05:57:22
3	B 249.677†	27712.7	27429.4	[1000]	µg/L	05:57:02
3	Ba 233.527†	92157.0	91528.6	[1000]	µg/L	05:57:02
3	Be 313.107†	1380032.9	1376656.5	[1000]	µg/L	05:57:02
3	Ca 317.933Radial†	10872.8	10847.8	[10000]	µg/L	05:55:57
3	Cd 226.502†	72985.1	72639.2	[1000]	µg/L	05:57:02
3	Co 228.616†	35357.5	35321.0	[1000]	µg/L	05:57:02
3	Cr 267.716†	45522.8	45057.0	[1000]	µg/L	05:57:02
3	Cu 324.752†	156173.7	152851.4	[1000]	µg/L	05:57:02
3	Fe 238.204 Radial†	2226.9	2228.5	[10000]	µg/L	05:55:57
3	K 766.490 Radial†	13499.5	13415.1	[10000]	µg/L	05:55:37
3	Mg 279.077 IEC†	657.3	657.1	[10000]	µg/L	05:55:57
3	Mn 257.610†	583465.8	579041.2	[1000]	µg/L	05:57:02
3	Mo 202.031†	12160.8	12068.0	[1000]	µg/L	05:57:22
3	Na 589.592 Radial†	107.6	108.4	[10000]	µg/L	05:55:57
3	Ni 231.604†	28735.8	28614.0	[1000]	µg/L	05:57:22
3	P 214.914†	5389.7	5323.4	[5000]	µg/L	05:57:22
3	Pb 220.353†	6258.0	6122.5	[1000]	µg/L	05:57:22
3	S 181.975 Axial†	952.7	909.5	[2000]	µg/L	05:57:22
3	Sb 206.836†	2343.3	2275.9	[1000]	µg/L	05:57:22
3	Se 196.026†	1226.1	1245.2	[1000]	µg/L	05:57:22
3	SiO2†	65958.1	64333.0	[10695]	µg/L	05:57:02
3	Si 251.611†	79450.0	78685.3	[5000]	µg/L	05:57:02
3	Sn 189.927†	4771.6	4723.8	[1000]	µg/L	05:57:22
3	Sr 421.552†	19540.4	19553.4	[1000]	µg/L	05:55:37
3	Ti 334.940†	273721.1	272260.7	[1000]	µg/L	05:57:02
3	Tl 190.801†	2927.9	2970.6	[1000]	µg/L	05:57:22
3	U 367.007†	4756.5	3641.6	[1000]	µg/L	05:57:02
3	V 292.402†	85185.5	84557.3	[1000]	µg/L	05:57:02
3	Zn 213.857†	95979.0	94928.4	[1000]	µg/L	05:57:02

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	406234.2	444.70	0.11%	100.59	%
Sc RADIAL	4059.1	1.71	0.04%	99.8	%
Y 371.029	414545.0	582.53	0.14%	99.064	%
Ag 328.068†	123504.7	178.97	0.14%	[1000]	µg/L
Al 396.153Radial†	11815.2	62.96	0.53%	[10000]	µg/L
As 188.979†	1377.2	7.96	0.58%	[1000]	µg/L
B 249.677†	27422.4	15.72	0.06%	[1000]	µg/L
Ba 233.527†	91535.6	7.45	0.01%	[1000]	µg/L
Be 313.107†	1374794.5	1640.96	0.12%	[1000]	µg/L
Ca 317.933Radial†	10858.3	44.42	0.41%	[10000]	µg/L
Cd 226.502†	72515.8	114.10	0.16%	[1000]	µg/L
Co 228.616†	35299.7	18.85	0.05%	[1000]	µg/L
Cr 267.716†	44987.0	62.67	0.14%	[1000]	µg/L
Cu 324.752†	152856.4	51.76	0.03%	[1000]	µg/L
Fe 238.204 Radial†	2233.0	8.12	0.36%	[10000]	µg/L
K 766.490 Radial†	13340.7	65.51	0.49%	[10000]	µg/L
Mg 279.077 IEC†	656.4	1.84	0.28%	[10000]	µg/L
Mn 257.610†	578684.9	414.29	0.07%	[1000]	µg/L

Mo 202.031†	12054.5	12.61	0.10%	[1000]	µg/L
Na 589.592 Radial†	110.2	1.65	1.50%	[10000]	µg/L
Ni 231.604†	28521.0	89.01	0.31%	[1000]	µg/L
P 214.914†	5305.8	15.49	0.29%	[5000]	µg/L
Pb 220.353†	6095.1	28.89	0.47%	[1000]	µg/L
S 181.975 Axial†	900.7	7.60	0.84%	[2000]	µg/L
Sb 206.836†	2279.8	6.74	0.30%	[1000]	µg/L
Se 196.026†	1237.3	7.89	0.64%	[1000]	µg/L
SiO2†	64378.9	41.04	0.06%	[10695]	µg/L
Si 251.611†	78558.3	110.32	0.14%	[5000]	µg/L
Sn 189.927†	4710.2	19.54	0.41%	[1000]	µg/L
Sr 421.552†	19359.1	178.91	0.92%	[1000]	µg/L
Ti 334.940†	272026.2	255.55	0.09%	[1000]	µg/L
Tl 190.801†	2967.2	6.64	0.22%	[1000]	µg/L
U 367.007†	3596.1	40.09	1.11%	[1000]	µg/L
V 292.402†	84410.1	159.06	0.19%	[1000]	µg/L
Zn 213.857†	94769.2	147.20	0.16%	[1000]	µg/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 9/29/2017 05:57:31
Data Type: Reprocessed on 9/29/2017 06:44:10

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	398949.7	398949.7	98.790	%	05:59:18
1	Sc RADIAL	4015.0	4015.0	98.7	%	05:58:21
1	Y 371.029	405190.2	405190.2	96.829	%	05:59:18
1	Al 396.153Radial†	56758.2	57722.3	[50000]	µg/L	05:58:01
1	Ca 317.933Radial†	50328.0	50940.4	[50000]	µg/L	05:58:01
1	Fe 238.204 Radial†	4234.6	4287.4	[20000]	µg/L	05:58:21
1	Mg 279.077 IEC†	3024.7	3062.8	[50000]	µg/L	05:58:21
1	Na 589.592 Radial†	216.7	220.2	[20000]	µg/L	05:58:21
2	Sc 361.383	402349.7	402349.7	99.632	%	05:59:24
2	Sc RADIAL	4020.9	4020.9	98.9	%	05:58:46
2	Y 371.029	408956.9	408956.9	97.729	%	05:59:24
2	Al 396.153Radial†	56758.5	57638.7	[50000]	µg/L	05:58:26
2	Ca 317.933Radial†	50210.4	50747.1	[50000]	µg/L	05:58:26
2	Fe 238.204 Radial†	4257.5	4304.3	[20000]	µg/L	05:58:46
2	Mg 279.077 IEC†	3043.5	3077.4	[50000]	µg/L	05:58:46
2	Na 589.592 Radial†	214.8	217.9	[20000]	µg/L	05:58:46
3	Sc 361.383	399401.2	399401.2	98.902	%	05:59:29
3	Sc RADIAL	4005.7	4005.7	98.5	%	05:59:11
3	Y 371.029	405908.4	405908.4	97.000	%	05:59:29
3	Al 396.153Radial†	56911.3	58011.1	[50000]	µg/L	05:58:51
3	Ca 317.933Radial†	50337.3	51068.3	[50000]	µg/L	05:58:51
3	Fe 238.204 Radial†	4239.4	4302.3	[20000]	µg/L	05:59:11
3	Mg 279.077 IEC†	3050.9	3096.6	[50000]	µg/L	05:59:11
3	Na 589.592 Radial†	216.6	220.6	[20000]	µg/L	05:59:11

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	400233.6	1846.52	0.46%	99.108	%
Sc RADIAL	4013.9	7.64	0.19%	98.7	%
Y 371.029	406685.2	1999.88	0.49%	97.186	%
Al 396.153Radial†	57790.7	195.41	0.34%	[50000]	µg/L
Ca 317.933Radial†	50918.6	161.67	0.32%	[50000]	µg/L
Fe 238.204 Radial†	4298.0	9.21	0.21%	[20000]	µg/L
Mg 279.077 IEC†	3078.9	16.91	0.55%	[50000]	µg/L
Na 589.592 Radial†	219.5	1.44	0.66%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	122.9	0.00000	0.999939	
Al 396.153Radial	3	Lin Thru 0	0.0	1.157	0.00000	0.999989	
As 188.979	3	Lin Thru 0	0.0	1.369	0.00000	0.999932	
B 249.677	3	Lin Thru 0	0.0	27.26	0.00000	0.999928	
Ba 233.527	3	Lin Thru 0	0.0	91.09	0.00000	0.999944	
Be 313.107	3	Lin Thru 0	0.0	1366	0.00000	0.999914	
Ca 317.933Radial	3	Lin Thru 0	0.0	1.021	0.00000	0.999919	
Cd 226.502	3	Lin Thru 0	0.0	72.17	0.00000	0.999950	
Co 228.616	3	Lin Thru 0	0.0	35.20	0.00000	0.999979	
Cr 267.716	3	Lin Thru 0	0.0	44.75	0.00000	0.999935	
Cu 324.752	3	Lin Thru 0	0.0	152.2	0.00000	0.999950	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.2166	0.00000	0.999880	
K 766.490 Radial	3	Lin Thru 0	0.0	1.329	0.00000	0.999968	
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0618	0.00000	0.999915	
Mn 257.610	3	Lin Thru 0	0.0	576.4	0.00000	0.999952	

Mo 202.031	3	Lin Thru 0	0.0	11.97	0.00000	0.999903
Na 589.592 Radia	2	Lin Thru 0	0.0	0.0110	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	28.56	0.00000	0.999978
P 214.914	3	Lin Thru 0	0.0	1.054	0.00000	0.999916
Pb 220.353	3	Lin Thru 0	0.0	6.069	0.00000	0.999952
S 181.975 Axial	3	Lin Thru 0	0.0	0.4466	0.00000	0.999851
Sb 206.836	3	Lin Thru 0	0.0	2.266	0.00000	0.999925
Se 196.026	3	Lin Thru 0	0.0	1.227	0.00000	0.999864
SiO2	3	Lin Thru 0	0.0	6.002	0.00000	0.999983
Si 251.611	3	Lin Thru 0	0.0	15.66	0.00000	0.999981
Sn 189.927	3	Lin Thru 0	0.0	4.684	0.00000	0.999936
Sr 421.552	3	Lin Thru 0	0.0	19.18	0.00000	0.999815
Ti 334.940	3	Lin Thru 0	0.0	270.1	0.00000	0.999901
Tl 190.801	3	Lin Thru 0	0.0	2.955	0.00000	0.999949
U 367.007	3	Lin Thru 0	0.0	3.582	0.00000	0.999948
V 292.402	3	Lin Thru 0	0.0	83.83	0.00000	0.999904
Zn 213.857	3	Lin Thru 0	0.0	94.03	0.00000	0.999794

==========

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 9
Date Collected: 9/29/2017 05:59:37
Data Type: Reprocessed on 9/29/2017 06:44:11

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	407123.6	407123.6	100.81	%			06:01:25
1	Sc RADIAL	4102.0	4102.0	101	%			06:00:28
1	Y 371.029	417267.8	417267.8	99.715	%			06:01:25
1	Ag 328.068†	30103.8	30343.6	248.30	µg/L	248.30	ppb	06:01:25
1	Al 396.153Radial†	5839.6	6012.6	5174.7	µg/L	5174.7	ppb	06:00:08
1	As 188.979†	679.4	676.5	499.38	µg/L	499.38	ppb	06:01:45
1	B 249.677†	13779.6	13579.1	519.01	µg/L	519.01	ppb	06:01:25
1	Ba 233.527†	46732.0	46371.7	508.94	µg/L	508.94	ppb	06:01:25
1	Be 313.107†	337371.6	340935.4	249.89	µg/L	249.89	ppb	06:01:25
1	Ca 317.933Radial†	5583.2	5490.8	5377.2	µg/L	5377.2	ppb	06:00:28
1	Cd 226.502†	36893.7	36761.0	508.96	µg/L	508.96	ppb	06:01:25
1	Co 228.616†	17859.7	17926.6	509.34	µg/L	509.34	ppb	06:01:45
1	Cr 267.716†	22760.6	22429.7	501.07	µg/L	501.07	ppb	06:01:45
1	Cu 324.752†	80994.3	78111.6	513.77	µg/L	513.77	ppb	06:01:25
1	Fe 238.204 Radial†	1159.0	1146.7	5294.7	µg/L	5294.7	ppb	06:00:28
1	K 766.490 Radial†	3507.6	3368.3	2536.1	µg/L	2536.1	ppb	06:00:08
1	Mg 279.077 IEC†	344.8	340.5	5513.2	µg/L	5513.2	ppb	06:00:28
1	Mn 257.610†	293396.7	290688.8	504.41	µg/L	504.41	ppb	06:01:25
1	Mo 202.031†	5887.7	5832.5	487.42	µg/L	487.42	ppb	06:01:45
1	Na 589.592 Radial†	27.9	28.3	2579.3	µg/L	2579.3	ppb	06:00:28
1	Ni 231.604†	14528.5	14490.6	507.56	µg/L	507.56	ppb	06:01:45
1	P 214.914†	2660.5	2610.4	2461.1	µg/L	2461.1	ppb	06:01:45
1	Pb 220.353†	3211.8	3094.2	508.89	µg/L	508.89	ppb	06:01:45
1	S 181.975 Axial†	1125.1	1079.4	2416.3	µg/L	2416.3	ppb	06:01:45
1	Sb 206.836†	1159.1	1098.8	481.21	µg/L	481.21	ppb	06:01:45
1	Se 196.026†	3110.2	3112.8	2539.8	µg/L	2539.8	ppb	06:01:45
1	SiO2†	65460.8	63768.9	10628	µg/L	10628	ppb	06:01:25
1	Si 251.611†	78508.9	77666.5	4947.0	µg/L	4947.0	ppb	06:01:25
1	Sn 189.927†	2331.6	2298.4	492.16	µg/L	492.16	ppb	06:01:45
1	Sr 421.552†	10063.6	9955.0	518.77	µg/L	518.77	ppb	06:00:08
1	Ti 334.940†	134328.6	133700.3	494.83	µg/L	494.83	ppb	06:01:25
1	Tl 190.801†	1464.6	1516.0	510.03	µg/L	510.03	ppb	06:01:45
1	U 367.007†	2953.9	1848.5	490.3	µg/L	490.3	ppb	06:01:25
1	V 292.402†	42089.5	41717.9	503.75	µg/L	503.75	ppb	06:01:25
1	Zn 213.857†	48473.5	47703.6	504.48	µg/L	504.48	ppb	06:01:25
2	Sc 361.383	406145.8	406145.8	100.57	%			06:01:50
2	Sc RADIAL	4081.6	4081.6	100	%			06:00:53
2	Y 371.029	416711.2	416711.2	99.582	%			06:01:50
2	Ag 328.068†	30090.7	30402.5	248.78	µg/L	248.78	ppb	06:01:50
2	Al 396.153Radial†	5865.3	6067.1	5221.7	µg/L	5221.7	ppb	06:00:33
2	As 188.979†	673.4	672.2	496.21	µg/L	496.21	ppb	06:02:10
2	B 249.677†	13794.5	13626.8	520.94	µg/L	520.94	ppb	06:01:50
2	Ba 233.527†	46695.7	46447.2	509.77	µg/L	509.77	ppb	06:01:50
2	Be 313.107†	336938.5	341310.5	250.16	µg/L	250.16	ppb	06:01:50
2	Ca 317.933Radial†	5570.4	5505.7	5391.7	µg/L	5391.7	ppb	06:00:53
2	Cd 226.502†	36717.0	36673.3	507.74	µg/L	507.74	ppb	06:01:50
2	Co 228.616†	17861.8	17971.3	510.61	µg/L	510.61	ppb	06:02:10
2	Cr 267.716†	22755.6	22479.2	502.17	µg/L	502.17	ppb	06:02:10
2	Cu 324.752†	80841.7	78153.2	514.04	µg/L	514.04	ppb	06:01:50
2	Fe 238.204 Radial†	1162.7	1156.1	5338.0	µg/L	5338.0	ppb	06:00:53
2	K 766.490 Radial†	3516.9	3394.9	2556.1	µg/L	2556.1	ppb	06:00:33
2	Mg 279.077 IEC†	342.0	339.4	5495.7	µg/L	5495.7	ppb	06:00:53
2	Mn 257.610†	293093.3	291087.8	505.10	µg/L	505.10	ppb	06:01:50
2	Mo 202.031†	5891.7	5850.5	488.93	µg/L	488.93	ppb	06:02:10
2	Na 589.592 Radial†	27.6	28.1	2565.3	µg/L	2565.3	ppb	06:00:53
2	Ni 231.604†	14517.0	14513.8	508.37	µg/L	508.37	ppb	06:02:10
2	P 214.914†	2652.0	2608.3	2459.1	µg/L	2459.1	ppb	06:02:10

2	Pb 220.353†	3209.7	3099.8	509.80	µg/L	509.80	ppb	06:02:10
2	S 181.975 Axial†	1130.8	1087.8	2435.0	µg/L	2435.0	ppb	06:02:10
2	Sb 206.836†	1171.4	1113.8	487.82	µg/L	487.82	ppb	06:02:10
2	Se 196.026†	3114.2	3124.2	2549.1	µg/L	2549.1	ppb	06:02:10
2	SiO2†	65395.4	63860.2	10643	µg/L	10643	ppb	06:01:50
2	Si 251.611†	78396.1	77741.9	4951.8	µg/L	4951.8	ppb	06:01:50
2	Sn 189.927†	2327.1	2299.5	492.41	µg/L	492.41	ppb	06:02:10
2	Sr 421.552†	10101.2	10042.4	523.32	µg/L	523.32	ppb	06:00:33
2	Ti 334.940†	134121.1	133814.8	495.25	µg/L	495.25	ppb	06:01:50
2	Tl 190.801†	1449.6	1504.6	506.17	µg/L	506.17	ppb	06:02:10
2	U 367.007†	2943.5	1845.2	489.1	µg/L	489.1	ppb	06:01:50
2	V 292.402†	42003.4	41732.9	503.95	µg/L	503.95	ppb	06:01:50
2	Zn 213.857†	48370.8	47717.2	504.60	µg/L	504.60	ppb	06:01:50
3	Sc 361.383	406883.1	406883.1	100.75	%			06:02:16
3	Sc RADIAL	4053.0	4053.0	99.6	%			06:01:18
3	Y 371.029	417604.9	417604.9	99.795	%			06:02:16
3	Ag 328.068†	30234.0	30490.5	249.51	µg/L	249.51	ppb	06:02:16
3	Al 396.153Radial†	5777.0	6019.8	5181.0	µg/L	5181.0	ppb	06:00:58
3	As 188.979†	679.7	677.3	499.89	µg/L	499.89	ppb	06:02:36
3	B 249.677†	13766.7	13574.3	519.07	µg/L	519.07	ppb	06:02:16
3	Ba 233.527†	46616.3	46284.3	507.98	µg/L	507.98	ppb	06:02:16
3	Be 313.107†	336877.9	340643.2	249.67	µg/L	249.67	ppb	06:02:16
3	Ca 317.933Radial†	5531.6	5505.9	5392.0	µg/L	5392.0	ppb	06:01:18
3	Cd 226.502†	36845.1	36734.3	508.58	µg/L	508.58	ppb	06:02:16
3	Co 228.616†	17767.1	17845.1	507.02	µg/L	507.02	ppb	06:02:36
3	Cr 267.716†	22674.7	22357.8	499.48	µg/L	499.48	ppb	06:02:36
3	Cu 324.752†	80864.2	78029.9	513.21	µg/L	513.21	ppb	06:02:16
3	Fe 238.204 Radial†	1156.8	1158.3	5348.4	µg/L	5348.4	ppb	06:01:18
3	K 766.490 Radial†	3436.8	3339.3	2514.3	µg/L	2514.3	ppb	06:00:58
3	Mg 279.077 IEC†	338.1	337.9	5471.8	µg/L	5471.8	ppb	06:01:18
3	Mn 257.610†	293187.8	290653.4	504.35	µg/L	504.35	ppb	06:02:16
3	Mo 202.031†	5852.3	5800.8	484.78	µg/L	484.78	ppb	06:02:36
3	Na 589.592 Radial†	29.9	30.6	2795.9	µg/L	2795.9	ppb	06:01:18
3	Ni 231.604†	14478.8	14449.7	506.13	µg/L	506.13	ppb	06:02:36
3	P 214.914†	2649.1	2600.7	2451.8	µg/L	2451.8	ppb	06:02:36
3	Pb 220.353†	3219.2	3103.4	510.42	µg/L	510.42	ppb	06:02:36
3	S 181.975 Axial†	1125.5	1080.5	2418.5	µg/L	2418.5	ppb	06:02:36
3	Sb 206.836†	1160.2	1100.5	481.97	µg/L	481.97	ppb	06:02:36
3	Se 196.026†	3094.2	3098.8	2528.4	µg/L	2528.4	ppb	06:02:36
3	SiO2†	65406.2	63753.1	10626	µg/L	10626	ppb	06:02:16
3	Si 251.611†	78491.4	77695.2	4948.9	µg/L	4948.9	ppb	06:02:16
3	Sn 189.927†	2304.1	2272.5	486.63	µg/L	486.63	ppb	06:02:36
3	Sr 421.552†	9999.2	10011.1	521.69	µg/L	521.69	ppb	06:00:58
3	Ti 334.940†	134245.5	133696.6	494.83	µg/L	494.83	ppb	06:02:16
3	Tl 190.801†	1454.9	1507.2	507.07	µg/L	507.07	ppb	06:02:36
3	U 367.007†	2822.9	1720.2	454.2	µg/L	454.2	ppb	06:02:16
3	V 292.402†	41956.5	41610.6	502.43	µg/L	502.43	ppb	06:02:16
3	Zn 213.857†	48422.5	47681.4	504.22	µg/L	504.22	ppb	06:02:16

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	406717.5	100.71	%	0.126				0.13%
Sc RADIAL	4078.9	100	%	0.61				0.60%
Y 371.029	417194.6	99.697	%	0.1078				0.11%
Ag 328.068†	30412.2	248.86	µg/L	0.613	248.86	ppb	0.613	0.25%
QC value within limits for Ag 328.068 Recovery = 99.55%								
Al 396.153Radial†	6033.2	5192.5	µg/L	25.53	5192.5	ppb	25.53	0.49%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	675.3	498.49	µg/L	1.991	498.49	ppb	1.991	0.40%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	13593.4	519.67	µg/L	1.096	519.67	ppb	1.096	0.21%
QC value within limits for B 249.677 Recovery = 103.93%								
Ba 233.527†	46367.7	508.90	µg/L	0.895	508.90	ppb	0.895	0.18%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	340963.1	249.91	µg/L	0.249	249.91	ppb	0.249	0.10%
QC value within limits for Be 313.107 Recovery = 99.96%								
Ca 317.933Radial†	5500.8	5387.0	µg/L	8.48	5387.0	ppb	8.48	0.16%
QC value within limits for Ca 317.933Radial Recovery = 107.74%								
Cd 226.502†	36722.9	508.43	µg/L	0.624	508.43	ppb	0.624	0.12%

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   QC value within limits for Cd 226.502  Recovery = 101.69%
Co 228.616†            17914.3      508.99 µg/L         1.821      508.99 ppb          1.821   0.36%
   QC value within limits for Co 228.616  Recovery = 101.80%
Cr 267.716†            22422.3      500.91 µg/L         1.351      500.91 ppb          1.351   0.27%
   QC value within limits for Cr 267.716  Recovery = 100.18%
Cu 324.752†            78098.2      513.67 µg/L         0.422      513.67 ppb          0.422   0.08%
   QC value within limits for Cu 324.752  Recovery = 102.73%
Fe 238.204 Radial†      1153.7      5327.0 µg/L         28.46      5327.0 ppb          28.46   0.53%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.54%
K 766.490 Radial†       3367.5      2535.5 µg/L         20.94      2535.5 ppb          20.94   0.83%
   QC value within limits for K 766.490 Radial  Recovery = 101.42%
Mg 279.077 IEC†          339.3      5493.6 µg/L         20.78      5493.6 ppb          20.78   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.87%
Mn 257.610†           290810.0      504.62 µg/L         0.419      504.62 ppb          0.419   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†             5828.0      487.04 µg/L         2.101      487.04 ppb          2.101   0.43%
   QC value within limits for Mo 202.031  Recovery = 97.41%
Na 589.592 Radial†        29.0      2646.8 µg/L        129.31      2646.8 ppb         129.31   4.89%
   QC value within limits for Na 589.592 Radial  Recovery = 105.87%
Ni 231.604†            14484.7      507.35 µg/L         1.136      507.35 ppb          1.136   0.22%
   QC value within limits for Ni 231.604  Recovery = 101.47%
P 214.914†              2606.5      2457.3 µg/L          4.85      2457.3 ppb           4.85   0.20%
   QC value within limits for P 214.914  Recovery = 98.29%
Pb 220.353†             3099.1      509.70 µg/L         0.771      509.70 ppb          0.771   0.15%
   QC value within limits for Pb 220.353  Recovery = 101.94%
S 181.975 Axial†        1082.6      2423.3 µg/L         10.21      2423.3 ppb          10.21   0.42%
   QC value within limits for S 181.975 Axial  Recovery = 96.93%
Sb 206.836†             1104.3      483.66 µg/L         3.620      483.66 ppb          3.620   0.75%
   QC value within limits for Sb 206.836  Recovery = 96.73%
Se 196.026†             3111.9      2539.1 µg/L         10.39      2539.1 ppb          10.39   0.41%
   QC value within limits for Se 196.026  Recovery = 101.56%
SiO2†                  63794.1       10632 µg/L          9.63       10632 ppb           9.63   0.09%
   QC value within limits for SiO2  Recovery = 99.42%
Si 251.611†            77701.2      4949.2 µg/L          2.40      4949.2 ppb           2.40   0.05%
   QC value within limits for Si 251.611  Recovery = 98.98%
Sn 189.927†             2290.2      490.40 µg/L         3.267      490.40 ppb          3.267   0.67%
   QC value within limits for Sn 189.927  Recovery = 98.08%
Sr 421.552†            10002.8      521.26 µg/L         2.307      521.26 ppb          2.307   0.44%
   QC value within limits for Sr 421.552  Recovery = 104.25%
Ti 334.940†           133737.2      494.97 µg/L         0.244      494.97 ppb          0.244   0.05%
   QC value within limits for Ti 334.940  Recovery = 98.99%
Tl 190.801†             1509.3      507.76 µg/L         2.021      507.76 ppb          2.021   0.40%
   QC value within limits for Tl 190.801  Recovery = 101.55%
U 367.007†              1804.6       477.9 µg/L         20.51       477.9 ppb          20.51   4.29%
   QC value within limits for U 367.007  Recovery = 95.57%
V 292.402†             41687.1      503.38 µg/L         0.826      503.38 ppb          0.826   0.16%
   QC value within limits for V 292.402  Recovery = 100.68%
Zn 213.857†            47700.7      504.43 µg/L         0.196      504.43 ppb          0.196   0.04%
   QC value within limits for Zn 213.857  Recovery = 100.89%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 10
Date Collected: 9/29/2017 06:02:44
Data Type: Reprocessed on 9/29/2017 06:44:12

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	408365.9	408365.9	101.12	%			06:04:31
1	Sc RADIAL	4067.9	4067.9	100	%			06:03:14
1	Y 371.029	423521.4	423521.4	101.21	%			06:04:31
1	Ag 328.068†	-501.3	-12.8	-0.1031	µg/L	-0.1031	ppb	06:04:31
1	Al 396.153Radial†	-220.5	1.6	1.3465	µg/L	1.3465	ppb	06:03:14
1	As 188.979†	-2.8	-0.2	-0.1298	µg/L	-0.1298	ppb	06:04:51
1	B 249.677†	125.4	34.8	1.2959	µg/L	1.2959	ppb	06:04:31
1	Ba 233.527†	2.7	19.8	0.2168	µg/L	0.2168	ppb	06:04:51
1	Be 313.107†	-6193.2	164.1	0.1212	µg/L	0.1212	ppb	06:04:31
1	Ca 317.933Radial†	50.8	5.3	5.1916	µg/L	5.1916	ppb	06:03:34
1	Cd 226.502†	-148.8	18.0	0.2492	µg/L	0.2492	ppb	06:04:51
1	Co 228.616†	-187.8	25.4	0.7223	µg/L	0.7223	ppb	06:04:51
1	Cr 267.716†	132.2	-16.3	-0.3658	µg/L	-0.3658	ppb	06:04:51
1	Cu 324.752†	2277.3	23.4	0.1565	µg/L	0.1565	ppb	06:04:31
1	Fe 238.204 Radial†	3.7	1.1	5.2567	µg/L	5.2567	ppb	06:03:34
1	K 766.490 Radial†	96.5	-13.4	-10.062	µg/L	-10.062	ppb	06:03:14
1	Mg 279.077 IEC†	2.3	0.9	15.360	µg/L	15.360	ppb	06:03:34
1	Mn 257.610†	410.8	68.0	0.1177	µg/L	0.1177	ppb	06:04:31
1	Mo 202.031†	20.4	12.6	1.0494	µg/L	1.0494	ppb	06:04:51
1	Na 589.592 Radial†	-1.9	-1.3	-117.89	µg/L	-117.89	ppb	06:03:34
1	Ni 231.604†	-67.7	12.5	0.4379	µg/L	0.4379	ppb	06:04:51
1	P 214.914†	37.7	8.7	8.2014	µg/L	8.2014	ppb	06:04:51
1	Pb 220.353†	87.0	-5.7	-0.9355	µg/L	-0.9355	ppb	06:04:51
1	S 181.975 Axial†	47.0	9.9	22.196	µg/L	22.196	ppb	06:04:51
1	Sb 206.836†	54.3	2.7	1.2143	µg/L	1.2143	ppb	06:04:51
1	Se 196.026†	-29.4	-1.4	-1.1258	µg/L	-1.1258	ppb	06:04:51
1	SiO2†	1182.5	6.1	1.0057	µg/L	1.0057	ppb	06:04:31
1	Si 251.611†	207.6	-3.0	-0.2176	µg/L	-0.2176	ppb	06:04:51
1	Sn 189.927†	18.3	3.8	0.8067	µg/L	0.8067	ppb	06:04:51
1	Sr 421.552†	27.5	3.5	0.1822	µg/L	0.1822	ppb	06:03:14
1	Ti 334.940†	-389.5	71.4	0.2626	µg/L	0.2626	ppb	06:04:31
1	Tl 190.801†	-55.8	8.0	2.7092	µg/L	2.7092	ppb	06:04:51
1	U 367.007†	1110.7	16.8	4.664	µg/L	4.664	ppb	06:04:31
1	V 292.402†	152.9	119.6	1.4390	µg/L	1.4390	ppb	06:04:31
1	Zn 213.857†	435.6	52.4	0.5542	µg/L	0.5542	ppb	06:04:51
2	Sc 361.383	406646.3	406646.3	100.70	%			06:04:57
2	Sc RADIAL	4056.4	4056.4	99.7	%			06:03:39
2	Y 371.029	421238.6	421238.6	100.66	%			06:04:57
2	Ag 328.068†	-453.1	33.0	0.2688	µg/L	0.2688	ppb	06:04:57
2	Al 396.153Radial†	-237.4	-16.0	-13.844	µg/L	-13.844	ppb	06:03:39
2	As 188.979†	-5.7	-3.0	-2.2188	µg/L	-2.2188	ppb	06:05:17
2	B 249.677†	131.8	41.7	1.5292	µg/L	1.5292	ppb	06:04:57
2	Ba 233.527†	-26.1	-8.8	-0.0964	µg/L	-0.0964	ppb	06:05:17
2	Be 313.107†	-6274.0	58.0	0.0426	µg/L	0.0426	ppb	06:04:57
2	Ca 317.933Radial†	50.6	5.3	5.1537	µg/L	5.1537	ppb	06:03:59
2	Cd 226.502†	-128.1	38.0	0.5261	µg/L	0.5261	ppb	06:05:17
2	Co 228.616†	-201.6	10.9	0.3085	µg/L	0.3085	ppb	06:05:17
2	Cr 267.716†	132.1	-15.8	-0.3533	µg/L	-0.3533	ppb	06:05:17
2	Cu 324.752†	2301.9	57.4	0.3782	µg/L	0.3782	ppb	06:04:57
2	Fe 238.204 Radial†	2.6	0.0	0.1658	µg/L	0.1658	ppb	06:03:59
2	K 766.490 Radial†	178.4	69.1	51.971	µg/L	51.971	ppb	06:03:39
2	Mg 279.077 IEC†	2.3	0.9	14.061	µg/L	14.061	ppb	06:03:59
2	Mn 257.610†	451.9	110.5	0.1912	µg/L	0.1912	ppb	06:04:57
2	Mo 202.031†	3.7	-4.0	-0.3319	µg/L	-0.3319	ppb	06:05:17
2	Na 589.592 Radial†	0.9	1.5	136.17	µg/L	136.17	ppb	06:03:59
2	Ni 231.604†	-66.8	13.1	0.4578	µg/L	0.4578	ppb	06:05:17
2	P 214.914†	23.4	-5.3	-5.0446	µg/L	-5.0446	ppb	06:05:17

2	Pb 220.353†	100.2	7.8	1.2938	µg/L	1.2938	ppb	06:05:17
2	S 181.975 Axial†	35.5	-1.4	-3.0481	µg/L	-3.0481	ppb	06:05:17
2	Sb 206.836†	61.6	10.2	4.5150	µg/L	4.5150	ppb	06:05:17
2	Se 196.026†	-29.2	-1.3	-1.0250	µg/L	-1.0250	ppb	06:05:17
2	SiO2†	1127.4	-43.6	-7.2592	µg/L	-7.2592	ppb	06:04:57
2	Si 251.611†	237.6	27.7	1.7761	µg/L	1.7761	ppb	06:05:17
2	Sn 189.927†	20.1	5.6	1.2048	µg/L	1.2048	ppb	06:05:17
2	Sr 421.552†	16.2	-7.7	-0.4011	µg/L	-0.4011	ppb	06:03:39
2	Ti 334.940†	-457.3	2.5	0.0092	µg/L	0.0092	ppb	06:04:57
2	Tl 190.801†	-56.1	7.4	2.5142	µg/L	2.5142	ppb	06:05:17
2	U 367.007†	1092.7	3.6	1.002	µg/L	1.002	ppb	06:04:57
2	V 292.402†	68.2	36.1	0.4270	µg/L	0.4270	ppb	06:04:57
2	Zn 213.857†	421.5	40.2	0.4269	µg/L	0.4269	ppb	06:05:17
3	Sc 361.383	407175.3	407175.3	100.83	%			06:05:22
3	Sc RADIAL	4088.5	4088.5	101	%			06:04:04
3	Y 371.029	421756.5	421756.5	100.79	%			06:05:22
3	Ag 328.068†	-459.9	26.8	0.2211	µg/L	0.2211	ppb	06:05:22
3	Al 396.153Radial†	-215.5	7.7	6.6405	µg/L	6.6405	ppb	06:04:04
3	As 188.979†	0.5	3.1	2.2827	µg/L	2.2827	ppb	06:05:42
3	B 249.677†	90.8	0.8	0.0095	µg/L	0.0095	ppb	06:05:22
3	Ba 233.527†	-22.0	-4.7	-0.0514	µg/L	-0.0514	ppb	06:05:42
3	Be 313.107†	-6169.8	169.5	0.1227	µg/L	0.1227	ppb	06:05:22
3	Ca 317.933Radial†	48.6	2.9	2.8313	µg/L	2.8313	ppb	06:04:24
3	Cd 226.502†	-159.8	6.7	0.0942	µg/L	0.0942	ppb	06:05:42
3	Co 228.616†	-186.3	26.4	0.7498	µg/L	0.7498	ppb	06:05:42
3	Cr 267.716†	141.8	-6.3	-0.1374	µg/L	-0.1374	ppb	06:05:42
3	Cu 324.752†	2319.4	71.7	0.4674	µg/L	0.4674	ppb	06:05:22
3	Fe 238.204 Radial†	1.6	-0.9	-4.3068	µg/L	-4.3068	ppb	06:04:24
3	K 766.490 Radial†	81.9	-28.4	-21.392	µg/L	-21.392	ppb	06:04:04
3	Mg 279.077 IEC†	0.3	-1.1	-18.064	µg/L	-18.064	ppb	06:04:24
3	Mn 257.610†	363.3	22.0	0.0387	µg/L	0.0387	ppb	06:05:22
3	Mo 202.031†	9.6	1.9	0.1547	µg/L	0.1547	ppb	06:05:42
3	Na 589.592 Radial†	-1.6	-1.0	-87.442	µg/L	-87.442	ppb	06:04:24
3	Ni 231.604†	-76.2	3.8	0.1342	µg/L	0.1342	ppb	06:05:42
3	P 214.914†	30.4	1.6	1.4907	µg/L	1.4907	ppb	06:05:42
3	Pb 220.353†	67.3	-24.9	-4.0959	µg/L	-4.0959	ppb	06:05:42
3	S 181.975 Axial†	41.7	4.8	10.772	µg/L	10.772	ppb	06:05:42
3	Sb 206.836†	57.1	5.7	2.5195	µg/L	2.5195	ppb	06:05:42
3	Se 196.026†	-34.7	-6.7	-5.4290	µg/L	-5.4290	ppb	06:05:42
3	SiO2†	1164.1	-8.6	-1.4452	µg/L	-1.4452	ppb	06:05:22
3	Si 251.611†	209.9	-0.1	-0.0093	µg/L	-0.0093	ppb	06:05:42
3	Sn 189.927†	15.4	0.9	0.1931	µg/L	0.1931	ppb	06:05:42
3	Sr 421.552†	24.5	0.4	0.0222	µg/L	0.0222	ppb	06:04:04
3	Ti 334.940†	-380.1	79.7	0.2978	µg/L	0.2978	ppb	06:05:22
3	Tl 190.801†	-69.2	-5.4	-1.8396	µg/L	-1.8396	ppb	06:05:42
3	U 367.007†	1069.5	-20.8	-5.787	µg/L	-5.787	ppb	06:05:22
3	V 292.402†	61.0	28.9	0.3415	µg/L	0.3415	ppb	06:05:22
3	Zn 213.857†	421.4	39.5	0.4221	µg/L	0.4221	ppb	06:05:42

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	407395.8	100.88	%	0.218				0.22%
Sc RADIAL	4070.9	100	%	0.40				0.40%
Y 371.029	422172.2	100.89	%	0.286				0.28%
Ag 328.068†	15.7	0.1289	µg/L	0.20234	0.1289	ppb	0.20234	156.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.2	-1.9523	µg/L	10.63325	-1.9523	ppb	10.63325	544.64%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0220	µg/L	2.25268	-0.0220	ppb	2.25268	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	25.8	0.9449	µg/L	0.81841	0.9449	ppb	0.81841	86.61%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0230	µg/L	0.16938	0.0230	ppb	0.16938	736.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	130.5	0.0955	µg/L	0.04580	0.0955	ppb	0.04580	47.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.5	4.3922	µg/L	1.35189	4.3922	ppb	1.35189	30.78%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.9	0.2898	µg/L	0.21880	0.2898	ppb	0.21880	75.50%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                20.9      0.5935 µg/L       0.24721      0.5935 ppb        0.24721  41.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.8     -0.2855 µg/L       0.12839     -0.2855 ppb        0.12839  44.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                50.8      0.3340 µg/L       0.16010      0.3340 ppb        0.16010  47.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.3719 µg/L       4.78512      0.3719 ppb        4.78512 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           9.1      6.8390 µg/L      39.49360      6.8390 ppb       39.49360 577.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      3.7855 µg/L      18.93378      3.7855 ppb       18.93378 500.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                66.8      0.1158 µg/L       0.07628      0.1158 ppb        0.07628  65.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2907 µg/L       0.70063      0.2907 ppb        0.70063 240.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -0.3     -23.057 µg/L      138.7288     -23.057 ppb       138.7288 601.69%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.8      0.3433 µg/L       0.18132      0.3433 ppb        0.18132  52.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  1.6      1.5492 µg/L       6.62317      1.5492 ppb        6.62317 427.53%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.6     -1.2459 µg/L       2.70824     -1.2459 ppb        2.70824 217.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.5      9.9734 µg/L      12.64110      9.9734 ppb       12.64110 126.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.2      2.7496 µg/L       1.66234      2.7496 ppb        1.66234  60.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1     -2.5266 µg/L       2.51404     -2.5266 ppb        2.51404  99.50%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     -15.4     -2.5663 µg/L       4.24497     -2.5663 ppb        4.24497 165.41%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 8.2      0.5164 µg/L       1.09588      0.5164 ppb        1.09588 212.21%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.4      0.7349 µg/L       0.50966      0.7349 ppb        0.50966  69.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -1.3     -0.0656 µg/L       0.30140     -0.0656 ppb        0.30140 459.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                51.2      0.1899 µg/L       0.15747      0.1899 ppb        0.15747  82.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.3      1.1279 µg/L       2.57178      1.1279 ppb        2.57178 228.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 -0.1      -0.040 µg/L        5.3033      -0.040 ppb         5.3033 >999.9%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 61.5      0.7358 µg/L       0.61045      0.7358 ppb        0.61045  82.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                44.0      0.4677 µg/L       0.07493      0.4677 ppb        0.07493  16.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 101
Date Collected: 9/29/2017 06:05:51
Data Type: Reprocessed on 9/29/2017 06:44:13

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	404202.1	404202.1	100.09	%			06:07:38
1	Sc RADIAL	4069.3	4069.3	100	%			06:06:21
1	Y 371.029	418801.5	418801.5	100.08	%			06:07:38
1	Ag 328.068†	97.3	580.1	4.7128	µg/L	4.7128	ppb	06:07:38
1	Al 396.153Radial†	-9.0	213.0	183.72	µg/L	183.72	ppb	06:06:21
1	As 188.979†	33.8	36.4	26.646	µg/L	26.646	ppb	06:07:58
1	B 249.677†	1443.5	1353.0	50.074	µg/L	50.074	ppb	06:07:38
1	Ba 233.527†	434.3	451.0	4.9479	µg/L	4.9479	ppb	06:07:58
1	Be 313.107†	340.6	6628.9	4.8722	µg/L	4.8722	ppb	06:07:38
1	Ca 317.933Radial†	265.7	220.1	215.58	µg/L	215.58	ppb	06:06:41
1	Cd 226.502†	201.5	366.5	5.0684	µg/L	5.0684	ppb	06:07:58
1	Co 228.616†	-3.6	207.5	5.9030	µg/L	5.9030	ppb	06:07:58
1	Cr 267.716†	356.9	209.6	4.6431	µg/L	4.6431	ppb	06:07:58
1	Cu 324.752†	3762.8	1530.7	10.104	µg/L	10.104	ppb	06:07:38
1	Fe 238.204 Radial†	25.5	22.9	105.77	µg/L	105.77	ppb	06:06:41
1	K 766.490 Radial†	340.3	230.3	173.30	µg/L	173.30	ppb	06:06:21
1	Mg 279.077 IEC†	22.3	20.9	339.04	µg/L	339.04	ppb	06:06:41
1	Mn 257.610†	6253.7	5909.8	10.247	µg/L	10.247	ppb	06:07:38
1	Mo 202.031†	117.1	109.4	9.1391	µg/L	9.1391	ppb	06:07:58
1	Na 589.592 Radial†	2.3	2.9	261.46	µg/L	261.46	ppb	06:06:41
1	Ni 231.604†	73.0	152.3	5.3363	µg/L	5.3363	ppb	06:07:58
1	P 214.914†	167.7	139.0	131.52	µg/L	131.52	ppb	06:07:58
1	Pb 220.353†	153.2	61.4	10.026	µg/L	10.026	ppb	06:07:58
1	S 181.975 Axial†	81.5	44.8	100.39	µg/L	100.39	ppb	06:07:58
1	Sb 206.836†	68.3	17.2	7.6447	µg/L	7.6447	ppb	06:07:58
1	Se 196.026†	5.6	33.3	27.223	µg/L	27.223	ppb	06:07:58
1	SiO2†	2368.3	1203.0	200.41	µg/L	200.41	ppb	06:07:38
1	Si 251.611†	1678.3	1468.4	93.533	µg/L	93.533	ppb	06:07:58
1	Sn 189.927†	55.6	41.3	8.8146	µg/L	8.8146	ppb	06:07:58
1	Sr 421.552†	133.7	109.7	5.7091	µg/L	5.7091	ppb	06:06:21
1	Ti 334.940†	923.5	1379.3	5.0839	µg/L	5.0839	ppb	06:07:38
1	Tl 190.801†	-2.8	60.4	20.431	µg/L	20.431	ppb	06:07:58
1	U 367.007†	1326.7	243.9	67.57	µg/L	67.57	ppb	06:07:38
1	V 292.402†	412.5	380.5	4.6805	µg/L	4.6805	ppb	06:07:38
1	Zn 213.857†	1299.8	920.2	9.7347	µg/L	9.7347	ppb	06:07:58
2	Sc 361.383	407344.1	407344.1	100.87	%			06:08:03
2	Sc RADIAL	4072.9	4072.9	100	%			06:06:46
2	Y 371.029	422014.0	422014.0	100.85	%			06:08:03
2	Ag 328.068†	130.8	612.6	4.9822	µg/L	4.9822	ppb	06:08:03
2	Al 396.153Radial†	6.1	228.1	196.71	µg/L	196.71	ppb	06:06:46
2	As 188.979†	42.1	44.4	32.502	µg/L	32.502	ppb	06:08:24
2	B 249.677†	1464.2	1362.4	50.415	µg/L	50.415	ppb	06:08:03
2	Ba 233.527†	429.5	442.9	4.8591	µg/L	4.8591	ppb	06:08:24
2	Be 313.107†	370.4	6655.9	4.8900	µg/L	4.8900	ppb	06:08:03
2	Ca 317.933Radial†	256.6	210.8	206.41	µg/L	206.41	ppb	06:07:06
2	Cd 226.502†	190.8	354.4	4.9002	µg/L	4.9002	ppb	06:08:24
2	Co 228.616†	-13.8	197.5	5.6178	µg/L	5.6178	ppb	06:08:24
2	Cr 267.716†	364.1	214.0	4.7486	µg/L	4.7486	ppb	06:08:24
2	Cu 324.752†	3882.1	1620.1	10.686	µg/L	10.686	ppb	06:08:03
2	Fe 238.204 Radial†	25.3	22.7	104.74	µg/L	104.74	ppb	06:07:06
2	K 766.490 Radial†	224.6	114.5	86.154	µg/L	86.154	ppb	06:06:46
2	Mg 279.077 IEC†	24.6	23.2	374.95	µg/L	374.95	ppb	06:07:06
2	Mn 257.610†	6278.0	5885.6	10.203	µg/L	10.203	ppb	06:08:03
2	Mo 202.031†	125.2	116.5	9.7383	µg/L	9.7383	ppb	06:08:24
2	Na 589.592 Radial†	0.1	0.7	66.842	µg/L	66.842	ppb	06:07:06
2	Ni 231.604†	88.1	166.7	5.8406	µg/L	5.8406	ppb	06:08:24
2	P 214.914†	180.8	150.7	142.63	µg/L	142.63	ppb	06:08:24

2	Pb 220.353†	145.9	53.0	8.6444 µg/L	8.6444 ppb		06:08:24
2	S 181.975 Axial†	79.5	42.2	94.441 µg/L	94.441 ppb		06:08:24
2	Sb 206.836†	62.8	11.3	5.0318 µg/L	5.0318 ppb		06:08:24
2	Se 196.026†	5.7	33.4	27.282 µg/L	27.282 ppb		06:08:24
2	SiO2†	2350.7	1167.2	194.45 µg/L	194.45 ppb		06:08:03
2	Si 251.611†	1673.3	1450.5	92.378 µg/L	92.378 ppb		06:08:24
2	Sn 189.927†	56.2	41.4	8.8512 µg/L	8.8512 ppb		06:08:24
2	Sr 421.552†	117.2	93.1	4.8437 µg/L	4.8437 ppb		06:06:46
2	Ti 334.940†	938.7	1387.3	5.1166 µg/L	5.1166 ppb		06:08:03
2	Tl 190.801†	-8.4	54.8	18.532 µg/L	18.532 ppb		06:08:24
2	U 367.007†	1307.5	214.7	59.41 µg/L	59.41 ppb		06:08:03
2	V 292.402†	509.6	473.6	5.7924 µg/L	5.7924 ppb		06:08:03
2	Zn 213.857†	1327.3	937.5	9.9187 µg/L	9.9187 ppb		06:08:24
3	Sc 361.383	404317.8	404317.8	100.12 %			06:08:29
3	Sc RADIAL	4101.4	4101.4	101 %			06:07:11
3	Y 371.029	419170.0	419170.0	100.17 %			06:08:29
3	Ag 328.068†	186.1	668.8	5.4504 µg/L	5.4504 ppb		06:08:29
3	Al 396.153Radial†	66.3	287.8	248.34 µg/L	248.34 ppb		06:07:11
3	As 188.979†	36.5	39.0	28.610 µg/L	28.610 ppb		06:08:49
3	B 249.677†	1407.8	1316.9	48.769 µg/L	48.769 ppb		06:08:29
3	Ba 233.527†	428.8	445.3	4.8861 µg/L	4.8861 ppb		06:08:49
3	Be 313.107†	428.2	6716.3	4.9287 µg/L	4.9287 ppb		06:08:29
3	Ca 317.933Radial†	265.7	218.1	213.57 µg/L	213.57 ppb		06:07:31
3	Cd 226.502†	208.3	373.3	5.1621 µg/L	5.1621 ppb		06:08:49
3	Co 228.616†	-15.3	195.9	5.5729 µg/L	5.5729 ppb		06:08:49
3	Cr 267.716†	384.1	236.7	5.2712 µg/L	5.2712 ppb		06:08:49
3	Cu 324.752†	3961.8	1728.5	11.384 µg/L	11.384 ppb		06:08:29
3	Fe 238.204 Radial†	26.6	23.9	110.15 µg/L	110.15 ppb		06:07:31
3	K 766.490 Radial†	363.5	250.7	188.66 µg/L	188.66 ppb		06:07:11
3	Mg 279.077 IEC†	22.3	20.7	335.31 µg/L	335.31 ppb		06:07:31
3	Mn 257.610†	6216.9	5871.3	10.180 µg/L	10.180 ppb		06:08:29
3	Mo 202.031†	124.2	116.5	9.7330 µg/L	9.7330 ppb		06:08:49
3	Na 589.592 Radial†	4.0	4.6	420.32 µg/L	420.32 ppb		06:07:31
3	Ni 231.604†	87.0	166.3	5.8259 µg/L	5.8259 ppb		06:08:49
3	P 214.914†	172.2	143.4	135.72 µg/L	135.72 ppb		06:08:49
3	Pb 220.353†	120.6	28.8	4.6757 µg/L	4.6757 ppb		06:08:49
3	S 181.975 Axial†	77.8	41.1	92.034 µg/L	92.034 ppb		06:08:49
3	Sb 206.836†	65.9	14.8	6.5724 µg/L	6.5724 ppb		06:08:49
3	Se 196.026†	6.8	34.5	28.200 µg/L	28.200 ppb		06:08:49
3	SiO2†	2360.2	1194.2	198.96 µg/L	198.96 ppb		06:08:29
3	Si 251.611†	1666.6	1456.3	92.743 µg/L	92.743 ppb		06:08:49
3	Sn 189.927†	55.3	40.9	8.7459 µg/L	8.7459 ppb		06:08:49
3	Sr 421.552†	132.9	107.8	5.6136 µg/L	5.6136 ppb		06:07:11
3	Ti 334.940†	863.4	1319.0	4.8757 µg/L	4.8757 ppb		06:08:29
3	Tl 190.801†	-3.0	60.2	20.337 µg/L	20.337 ppb		06:08:49
3	U 367.007†	1211.2	128.2	35.24 µg/L	35.24 ppb		06:08:29
3	V 292.402†	410.2	378.0	4.6407 µg/L	4.6407 ppb		06:08:29
3	Zn 213.857†	1287.2	907.3	9.5935 µg/L	9.5935 ppb		06:08:49

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	405288.0	100.36	%	0.441				0.44%
Sc RADIAL	4081.2	100	%	0.43				0.43%
Y 371.029	419995.2	100.37	%	0.420				0.42%
Ag 328.068†	620.5	5.0485	µg/L	0.37327	5.0485	ppb	0.37327	7.39%
QC value within limits for Ag 328.068 Recovery = 100.97%								
Al 396.153Radial†	243.0	209.59	µg/L	34.182	209.59	ppb	34.182	16.31%
QC value within limits for Al 396.153Radial Recovery = 104.79%								
As 188.979†	39.9	29.253	µg/L	2.9808	29.253	ppb	2.9808	10.19%
QC value within limits for As 188.979 Recovery = 97.51%								
B 249.677†	1344.1	49.753	µg/L	0.8685	49.753	ppb	0.8685	1.75%
QC value within limits for B 249.677 Recovery = 99.51%								
Ba 233.527†	446.4	4.8977	µg/L	0.04554	4.8977	ppb	0.04554	0.93%
QC value within limits for Ba 233.527 Recovery = 97.95%								
Be 313.107†	6667.1	4.8970	µg/L	0.02890	4.8970	ppb	0.02890	0.59%
QC value within limits for Be 313.107 Recovery = 97.94%								
Ca 317.933Radial†	216.3	211.85	µg/L	4.819	211.85	ppb	4.819	2.27%
QC value within limits for Ca 317.933Radial Recovery = 105.93%								
Cd 226.502†	364.7	5.0436	µg/L	0.13266	5.0436	ppb	0.13266	2.63%

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   QC value within limits for Cd 226.502  Recovery = 100.87%
Co 228.616†              200.3      5.6979 µg/L       0.17905      5.6979 ppb        0.17905   3.14%
   QC value within limits for Co 228.616  Recovery = 113.96%
Cr 267.716†              220.1      4.8876 µg/L       0.33636      4.8876 ppb        0.33636   6.88%
   QC value within limits for Cr 267.716  Recovery = 97.75%
Cu 324.752†             1626.4      10.725 µg/L        0.6407      10.725 ppb         0.6407   5.97%
   QC value within limits for Cu 324.752  Recovery = 107.25%
Fe 238.204 Radial†        23.1      106.88 µg/L         2.873      106.88 ppb          2.873   2.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.88%
K 766.490 Radial†        198.5      149.37 µg/L        55.285      149.37 ppb         55.285  37.01%
   QC value within limits for K 766.490 Radial  Recovery = 99.58%
Mg 279.077 IEC†           21.6      349.77 µg/L        21.893      349.77 ppb         21.893   6.26%
   QC value within limits for Mg 279.077 IEC  Recovery = 116.59%
Mn 257.610†             5888.9      10.210 µg/L        0.0337      10.210 ppb         0.0337   0.33%
   QC value within limits for Mn 257.610  Recovery = 102.10%
Mo 202.031†              114.1      9.5368 µg/L       0.34445      9.5368 ppb        0.34445   3.61%
   QC value within limits for Mo 202.031  Recovery = 95.37%
Na 589.592 Radial†         2.7      249.54 µg/L       177.041      249.54 ppb        177.041  70.95%
   QC value within limits for Na 589.592 Radial  Recovery = 83.18%
Ni 231.604†              161.8      5.6676 µg/L       0.28698      5.6676 ppb        0.28698   5.06%
   QC value within limits for Ni 231.604  Recovery = 113.35%
P 214.914†               144.3      136.62 µg/L         5.608      136.62 ppb          5.608   4.10%
   QC value within limits for P 214.914  Recovery = 91.08%
Pb 220.353†               47.7      7.7821 µg/L       2.77753      7.7821 ppb        2.77753  35.69%
   QC value within limits for Pb 220.353  Recovery = 77.82%
S 181.975 Axial†          42.7      95.621 µg/L        4.3012      95.621 ppb         4.3012   4.50%
   QC value within limits for S 181.975 Axial  Recovery = 95.62%
Sb 206.836†               14.5      6.4163 µg/L       1.31345      6.4163 ppb        1.31345  20.47%
   QC value less than the lower limit for Sb 206.836  Recovery = 64.16%
Se 196.026†               33.8      27.568 µg/L        0.5477      27.568 ppb         0.5477   1.99%
   QC value within limits for Se 196.026  Recovery = 91.89%
SiO2†                    1188.1      197.94 µg/L         3.108      197.94 ppb          3.108   1.57%
   QC value within limits for SiO2  Recovery = 92.93%
Si 251.611†              1458.4      92.885 µg/L        0.5903      92.885 ppb         0.5903   0.64%
   QC value within limits for Si 251.611  Recovery = 92.88%
Sn 189.927†               41.2      8.8039 µg/L       0.05347      8.8039 ppb        0.05347   0.61%
   QC value within limits for Sn 189.927  Recovery = 88.04%
Sr 421.552†              103.5      5.3888 µg/L       0.47449      5.3888 ppb        0.47449   8.81%
   QC value within limits for Sr 421.552  Recovery = 107.78%
Ti 334.940†              1361.9      5.0254 µg/L       0.13067      5.0254 ppb        0.13067   2.60%
   QC value within limits for Ti 334.940  Recovery = 100.51%
Tl 190.801†               58.5      19.766 µg/L        1.0702      19.766 ppb         1.0702   5.41%
   QC value within limits for Tl 190.801  Recovery = 98.83%
U 367.007†               195.6       54.08 µg/L        16.812       54.08 ppb         16.812  31.09%
   QC value within limits for U 367.007  Recovery = 108.15%
V 292.402†               410.7      5.0379 µg/L       0.65373      5.0379 ppb        0.65373  12.98%
   QC value within limits for V 292.402  Recovery = 100.76%
Zn 213.857†              921.7      9.7490 µg/L       0.16305      9.7490 ppb        0.16305   1.67%
   QC value within limits for Zn 213.857  Recovery = 97.49%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 103
Date Collected: 9/29/2017 06:08:58
Data Type: Reprocessed on 9/29/2017 06:44:14

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	370406.1	370406.1	91.722	%			06:10:47
1	Sc RADIAL	3791.3	3791.3	93.2	%			06:09:49
1	Y 371.029	374548.1	374548.1	89.506	%			06:10:47
1	Ag 328.068†	-3402.5	-3226.7	1.4871	µg/L	1.4871	ppb	06:10:47
1	Al 396.153Radial†	524185.2	562604.0	486250	µg/L	486250	ppb	06:09:29
1	As 188.979†	-30.2	-30.4	2.5909	µg/L	2.5909	ppb	06:11:07
1	B 249.677†	-19464.5	-21310.4	22.838	µg/L	22.838	ppb	06:10:47
1	Ba 233.527†	424.5	479.9	-0.0822	µg/L	-0.0822	ppb	06:11:07
1	Be 313.107†	-12174.5	-6984.7	-0.6354	µg/L	-0.6354	ppb	06:10:47
1	Ca 317.933Radial†	454088.4	487131.8	477050	µg/L	477050	ppb	06:09:29
1	Cd 226.502†	1311.1	1594.7	0.0348	µg/L	0.0348	ppb	06:11:07
1	Co 228.616†	-194.0	-0.4	0.0269	µg/L	0.0269	ppb	06:11:07
1	Cr 267.716†	-427.5	-613.1	0.8331	µg/L	0.8331	ppb	06:11:07
1	Cu 324.752†	675.4	-1492.3	2.8921	µg/L	2.8921	ppb	06:11:07
1	Fe 238.204 Radial†	37942.7	40705.0	187950	µg/L	187950	ppb	06:09:29
1	K 766.490 Radial†	-156.0	-277.2	-175.96	µg/L	-175.96	ppb	06:09:29
1	Mg 279.077 IEC†	27879.7	29909.9	484330	µg/L	484330	ppb	06:09:29
1	Mn 257.610†	4357.8	4412.8	0.3600	µg/L	0.3600	ppb	06:10:47
1	Mo 202.031†	-70.9	-85.0	0.5880	µg/L	0.5880	ppb	06:11:07
1	Na 589.592 Radial†	-5.4	-5.2	-200.69	µg/L	-200.69	ppb	06:09:49
1	Ni 231.604†	-95.8	-25.1	0.9122	µg/L	0.9122	ppb	06:11:07
1	P 214.914†	62.0	39.1	-56.699	µg/L	-56.699	ppb	06:11:07
1	Pb 220.353†	746.9	722.6	-1.3528	µg/L	-1.3528	ppb	06:11:07
1	S 181.975 Axial†	45.0	12.5	-20.683	µg/L	-20.683	ppb	06:11:07
1	Sb 206.836†	59.2	13.5	-9.2485	µg/L	-9.2485	ppb	06:11:07
1	Se 196.026†	-138.7	-123.5	6.7927	µg/L	6.7927	ppb	06:11:07
1	SiO2†	1360.0	319.5	53.082	µg/L	53.082	ppb	06:11:07
1	Si 251.611†	749.4	608.8	8.9266	µg/L	8.9266	ppb	06:11:07
1	Sn 189.927†	61.9	53.1	-4.0553	µg/L	-4.0553	ppb	06:11:07
1	Sr 421.552†	296.9	294.5	-0.9226	µg/L	-0.9226	ppb	06:09:49
1	Ti 334.940†	-6428.8	-6552.4	0.7734	µg/L	0.7734	ppb	06:11:07
1	Tl 190.801†	-59.2	-1.3	2.8955	µg/L	2.8955	ppb	06:11:07
1	U 367.007†	4033.6	3316.1	-9.839	µg/L	-9.839	ppb	06:10:47
1	V 292.402†	-1917.4	-2122.1	-0.5534	µg/L	-0.5534	ppb	06:11:07
1	Zn 213.857†	7442.6	7735.9	-0.1344	µg/L	-0.1344	ppb	06:11:07
2	Sc 361.383	368264.4	368264.4	91.192	%			06:11:12
2	Sc RADIAL	3800.8	3800.8	93.4	%			06:10:15
2	Y 371.029	372094.2	372094.2	88.920	%			06:11:12
2	Ag 328.068†	-3395.5	-3240.6	1.6473	µg/L	1.6473	ppb	06:11:12
2	Al 396.153Radial†	530217.5	567652.4	490610	µg/L	490610	ppb	06:09:55
2	As 188.979†	-34.5	-35.2	-0.7293	µg/L	-0.7293	ppb	06:11:32
2	B 249.677†	-19342.4	-21299.9	30.934	µg/L	30.934	ppb	06:11:12
2	Ba 233.527†	440.6	500.3	0.0901	µg/L	0.0901	ppb	06:11:32
2	Be 313.107†	-12209.8	-7100.5	-0.6821	µg/L	-0.6821	ppb	06:11:12
2	Ca 317.933Radial†	459442.1	491642.2	481470	µg/L	481470	ppb	06:09:55
2	Cd 226.502†	1328.3	1621.8	0.1989	µg/L	0.1989	ppb	06:11:32
2	Co 228.616†	-183.1	10.3	0.3310	µg/L	0.3310	ppb	06:11:32
2	Cr 267.716†	-426.8	-615.0	0.9573	µg/L	0.9573	ppb	06:11:32
2	Cu 324.752†	719.3	-1439.9	3.3490	µg/L	3.3490	ppb	06:11:32
2	Fe 238.204 Radial†	38402.5	41095.2	189750	µg/L	189750	ppb	06:09:55
2	K 766.490 Radial†	-44.9	-157.9	-85.872	µg/L	-85.872	ppb	06:09:55
2	Mg 279.077 IEC†	28245.8	30226.8	489460	µg/L	489460	ppb	06:09:55
2	Mn 257.610†	4356.2	4438.7	0.3177	µg/L	0.3177	ppb	06:11:12
2	Mo 202.031†	-70.2	-84.5	0.6964	µg/L	0.6964	ppb	06:11:32
2	Na 589.592 Radial†	0.1	0.7	336.26	µg/L	336.26	ppb	06:10:15
2	Ni 231.604†	-92.4	-21.9	1.0417	µg/L	1.0417	ppb	06:11:32
2	P 214.914†	98.2	79.1	-19.712	µg/L	-19.712	ppb	06:11:32

2	Pb 220.353†	789.9	774.5	6.1062	µg/L	6.1062	ppb	06:11:32
2	S 181.975 Axial†	55.4	24.2	5.1570	µg/L	5.1570	ppb	06:11:32
2	Sb 206.836†	83.1	40.1	2.3513	µg/L	2.3513	ppb	06:11:32
2	Se 196.026†	-122.3	-106.4	21.795	µg/L	21.795	ppb	06:11:32
2	SiO2†	1336.5	302.4	50.226	µg/L	50.226	ppb	06:11:32
2	Si 251.611†	724.4	586.1	7.1884	µg/L	7.1884	ppb	06:11:32
2	Sn 189.927†	60.4	51.9	-4.4736	µg/L	-4.4736	ppb	06:11:32
2	Sr 421.552†	300.5	297.6	-0.9115	µg/L	-0.9115	ppb	06:10:15
2	Ti 334.940†	-6375.5	-6534.7	1.0776	µg/L	1.0776	ppb	06:11:32
2	Tl 190.801†	-78.8	-23.2	-4.4853	µg/L	-4.4853	ppb	06:11:32
2	U 367.007†	3990.2	3294.1	-24.94	µg/L	-24.94	ppb	06:11:12
2	V 292.402†	-1895.8	-2110.6	-0.1868	µg/L	-0.1868	ppb	06:11:32
2	Zn 213.857†	7468.5	7811.5	-0.1135	µg/L	-0.1135	ppb	06:11:32
3	Sc 361.383	371090.2	371090.2	91.891	%			06:11:37
3	Sc RADIAL	3778.6	3778.6	92.9	%			06:10:40
3	Y 371.029	375158.6	375158.6	89.652	%			06:11:37
3	Ag 328.068†	-3478.8	-3302.8	1.2412	µg/L	1.2412	ppb	06:11:37
3	Al 396.153Radial†	529207.6	569891.7	492550	µg/L	492550	ppb	06:10:20
3	As 188.979†	-19.7	-18.9	11.338	µg/L	11.338	ppb	06:11:58
3	B 249.677†	-19518.8	-21330.3	33.507	µg/L	33.507	ppb	06:11:37
3	Ba 233.527†	443.3	499.5	0.0575	µg/L	0.0575	ppb	06:11:58
3	Be 313.107†	-12196.0	-6983.6	-0.5625	µg/L	-0.5625	ppb	06:11:37
3	Ca 317.933Radial†	458772.4	493803.7	483580	µg/L	483580	ppb	06:10:20
3	Cd 226.502†	1323.1	1605.0	-0.1342	µg/L	-0.1342	ppb	06:11:58
3	Co 228.616†	-181.8	13.3	0.4162	µg/L	0.4162	ppb	06:11:58
3	Cr 267.716†	-410.5	-593.7	1.4323	µg/L	1.4323	ppb	06:11:58
3	Cu 324.752†	622.1	-1551.6	2.7093	µg/L	2.7093	ppb	06:11:58
3	Fe 238.204 Radial†	38352.0	41281.7	190610	µg/L	190610	ppb	06:10:20
3	K 766.490 Radial†	44.4	-62.0	-13.590	µg/L	-13.590	ppb	06:10:20
3	Mg 279.077 IEC†	28165.7	30317.8	490930	µg/L	490930	ppb	06:10:20
3	Mn 257.610†	4335.2	4379.5	0.2079	µg/L	0.2079	ppb	06:11:37
3	Mo 202.031†	-60.0	-72.9	1.7059	µg/L	1.7059	ppb	06:11:58
3	Na 589.592 Radial†	-8.9	-9.0	-542.90	µg/L	-542.90	ppb	06:10:40
3	Ni 231.604†	-71.3	1.8	1.8777	µg/L	1.8777	ppb	06:11:58
3	P 214.914†	93.8	73.5	-25.501	µg/L	-25.501	ppb	06:11:58
3	Pb 220.353†	789.6	767.6	4.4155	µg/L	4.4155	ppb	06:11:58
3	S 181.975 Axial†	46.2	13.7	-18.617	µg/L	-18.617	ppb	06:11:58
3	Sb 206.836†	72.8	28.2	-2.9587	µg/L	-2.9587	ppb	06:11:58
3	Se 196.026†	-142.2	-127.1	5.4050	µg/L	5.4050	ppb	06:11:58
3	SiO2†	1312.0	264.6	43.922	µg/L	43.922	ppb	06:11:58
3	Si 251.611†	738.4	595.3	7.6149	µg/L	7.6149	ppb	06:11:58
3	Sn 189.927†	68.8	60.5	-2.6780	µg/L	-2.6780	ppb	06:11:58
3	Sr 421.552†	302.7	301.8	-0.7652	µg/L	-0.7652	ppb	06:10:40
3	Ti 334.940†	-6417.8	-6527.4	1.1870	µg/L	1.1870	ppb	06:11:58
3	Tl 190.801†	-77.0	-20.6	-3.5639	µg/L	-3.5639	ppb	06:11:58
3	U 367.007†	4231.5	3523.3	34.77	µg/L	34.77	ppb	06:11:37
3	V 292.402†	-1860.7	-2056.6	0.6150	µg/L	0.6150	ppb	06:11:58
3	Zn 213.857†	7590.5	7881.9	0.2471	µg/L	0.2471	ppb	06:11:58

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	369920.2	91.602	%	0.3651				0.40%
Sc RADIAL	3790.2	93.2	%	0.27				0.29%
Y 371.029	373933.6	89.359	%	0.3876				0.43%
Ag 328.068†	-3256.7	1.4586	µg/L	0.20457	1.4586	ppb	0.20457	14.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	566716.0	489800	µg/L	3226.36	489800	ppb	3226.36	0.66%
QC value within limits for Al 396.153Radial Recovery = 97.96%								
As 188.979†	-28.2	4.4000	µg/L	6.23397	4.4000	ppb	6.23397	141.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21313.6	29.093	µg/L	5.5681	29.093	ppb	5.5681	19.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	493.2	0.0218	µg/L	0.09156	0.0218	ppb	0.09156	419.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-7022.9	-0.6267	µg/L	0.06031	-0.6267	ppb	0.06031	9.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	490859.2	480700	µg/L	3333.72	480700	ppb	3333.72	0.69%
QC value within limits for Ca 317.933Radial Recovery = 96.14%								
Cd 226.502†	1607.2	0.0332	µg/L	0.16655	0.0332	ppb	0.16655	501.98%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.8      0.2580 µg/L       0.20464      0.2580 ppb        0.20464  79.31%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -607.2      1.0742 µg/L       0.31624      1.0742 ppb        0.31624  29.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -1494.6      2.9834 µg/L       0.32949      2.9834 ppb        0.32949  11.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     41027.3      189430 µg/L       1358.96      189430 ppb        1358.96   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.72%
K 766.490 Radial†       -165.7     -91.808 µg/L       81.3481     -91.808 ppb        81.3481  88.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        30151.5      488240 µg/L       3466.96      488240 ppb        3466.96   0.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.65%
Mn 257.610†             4410.4      0.2952 µg/L       0.07852      0.2952 ppb        0.07852  26.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -80.8      0.9968 µg/L       0.61653      0.9968 ppb        0.61653  61.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -4.5     -135.78 µg/L       443.160     -135.78 ppb        443.160 326.38%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -15.1      1.2772 µg/L       0.52408      1.2772 ppb        0.52408  41.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                63.9     -33.971 µg/L       19.8949     -33.971 ppb        19.8949  58.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              754.9      3.0563 µg/L       3.91082      3.0563 ppb        3.91082 127.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          16.8     -11.381 µg/L       14.3597     -11.381 ppb        14.3597 126.17%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               27.3     -3.2853 µg/L       5.80681     -3.2853 ppb        5.80681 176.75%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -119.0      11.331 µg/L        9.0890      11.331 ppb         9.0890  80.21%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    295.5      49.077 µg/L        4.6871      49.077 ppb         4.6871   9.55%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              596.7      7.9099 µg/L       0.90590      7.9099 ppb        0.90590  11.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               55.2     -3.7356 µg/L       0.93954     -3.7356 ppb        0.93954  25.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              298.0     -0.8664 µg/L       0.08784     -0.8664 ppb        0.08784  10.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -6538.2      1.0127 µg/L       0.21432      1.0127 ppb        0.21432  21.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -15.0     -1.7179 µg/L       4.02175     -1.7179 ppb        4.02175 234.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†              3377.8      -0.004 µg/L       31.0493      -0.004 ppb        31.0493 >999.9%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†             -2096.4     -0.0417 µg/L       0.59758     -0.0417 ppb        0.59758 >999.9%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             7809.8     -0.0003 µg/L       0.21452     -0.0003 ppb        0.21452 >999.9%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 104
Date Collected: 9/29/2017 06:12:06
Data Type: Reprocessed on 9/29/2017 06:44:15

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	371687.0	371687.0	92.039	%			06:13:54
1	Sc RADIAL	3804.9	3804.9	93.5	%			06:12:56
1	Y 371.029	376024.4	376024.4	89.859	%			06:13:54
1	Ag 328.068†	25916.0	28640.5	261.45	µg/L	261.45	ppb	06:13:54
1	Al 396.153Radial†	530099.4	566906.5	489950	µg/L	489950	ppb	06:12:36
1	As 188.979†	606.7	661.7	512.63	µg/L	512.63	ppb	06:14:14
1	B 249.677†	-6384.6	-7026.1	546.99	µg/L	546.99	ppb	06:13:54
1	Ba 233.527†	40995.8	44558.8	483.83	µg/L	483.83	ppb	06:13:54
1	Be 313.107†	292199.8	323761.8	241.75	µg/L	241.75	ppb	06:13:54
1	Ca 317.933Radial†	457129.8	488633.3	478520	µg/L	478520	ppb	06:12:36
1	Cd 226.502†	32207.8	35158.8	465.23	µg/L	465.23	ppb	06:13:54
1	Co 228.616†	14425.7	15884.6	451.36	µg/L	451.36	ppb	06:14:14
1	Cr 267.716†	18621.1	20084.7	463.07	µg/L	463.07	ppb	06:14:14
1	Cu 324.752†	75368.3	79658.6	536.32	µg/L	536.32	ppb	06:13:54
1	Fe 238.204 Radial†	38161.0	40792.1	188350	µg/L	188350	ppb	06:12:36
1	K 766.490 Radial†	6499.9	6838.6	5180.0	µg/L	5180.0	ppb	06:12:36
1	Mg 279.077 IEC†	28022.0	29954.6	485050	µg/L	485050	ppb	06:12:36
1	Mn 257.610†	238781.4	259096.2	442.21	µg/L	442.21	ppb	06:13:54
1	Mo 202.031†	5401.9	5861.5	497.33	µg/L	497.33	ppb	06:14:14
1	Na 589.592 Radial†	53.6	57.9	5544.6	µg/L	5544.6	ppb	06:12:56
1	Ni 231.604†	11501.3	12575.5	442.23	µg/L	442.23	ppb	06:14:14
1	P 214.914†	2519.5	2708.8	2464.7	µg/L	2464.7	ppb	06:14:14
1	Pb 220.353†	3310.4	3505.0	457.20	µg/L	457.20	ppb	06:14:14
1	S 181.975 Axial†	1076.5	1133.1	2488.0	µg/L	2488.0	ppb	06:14:14
1	Sb 206.836†	1065.1	1106.2	470.52	µg/L	470.52	ppb	06:14:14
1	Se 196.026†	2485.1	2727.8	2330.7	µg/L	2330.7	ppb	06:14:14
1	SiO2†	58485.2	62380.6	10396	µg/L	10396	ppb	06:13:54
1	Si 251.611†	71042.9	76979.3	4873.8	µg/L	4873.8	ppb	06:13:54
1	Sn 189.927†	2040.8	2203.0	456.61	µg/L	456.61	ppb	06:14:14
1	Sr 421.552†	8708.3	9285.3	467.71	µg/L	467.71	ppb	06:12:36
1	Ti 334.940†	118313.3	129003.2	502.27	µg/L	502.27	ppb	06:13:54
1	Tl 190.801†	1155.8	1319.0	447.01	µg/L	447.01	ppb	06:14:14
1	U 367.007†	5769.7	5187.2	510.5	µg/L	510.5	ppb	06:13:54
1	V 292.402†	36689.6	39831.4	505.39	µg/L	505.39	ppb	06:13:54
1	Zn 213.857†	44598.8	48077.9	428.34	µg/L	428.34	ppb	06:13:54
2	Sc 361.383	372968.4	372968.4	92.357	%			06:14:20
2	Sc RADIAL	3794.1	3794.1	93.3	%			06:13:22
2	Y 371.029	377409.3	377409.3	90.190	%			06:14:20
2	Ag 328.068†	25990.2	28624.1	261.78	µg/L	261.78	ppb	06:14:20
2	Al 396.153Radial†	535624.5	574452.5	496470	µg/L	496470	ppb	06:13:02
2	As 188.979†	600.0	652.2	506.05	µg/L	506.05	ppb	06:14:40
2	B 249.677†	-6474.5	-7099.5	557.04	µg/L	557.04	ppb	06:14:20
2	Ba 233.527†	41149.1	44571.7	483.88	µg/L	483.88	ppb	06:14:20
2	Be 313.107†	293409.8	323981.2	241.96	µg/L	241.96	ppb	06:14:20
2	Ca 317.933Radial†	461744.4	494979.8	484730	µg/L	484730	ppb	06:13:02
2	Cd 226.502†	32423.0	35271.6	466.45	µg/L	466.45	ppb	06:14:20
2	Co 228.616†	14353.3	15752.3	447.60	µg/L	447.60	ppb	06:14:40
2	Cr 267.716†	18519.4	19905.1	459.30	µg/L	459.30	ppb	06:14:40
2	Cu 324.752†	75517.4	79538.6	535.71	µg/L	535.71	ppb	06:14:20
2	Fe 238.204 Radial†	38652.8	41436.2	191320	µg/L	191320	ppb	06:13:02
2	K 766.490 Radial†	6672.9	7044.0	5335.0	µg/L	5335.0	ppb	06:13:02
2	Mg 279.077 IEC†	28352.2	30394.3	492170	µg/L	492170	ppb	06:13:02
2	Mn 257.610†	239907.9	259424.5	442.69	µg/L	442.69	ppb	06:14:20
2	Mo 202.031†	5379.5	5817.1	493.74	µg/L	493.74	ppb	06:14:40
2	Na 589.592 Radial†	53.7	58.2	5569.6	µg/L	5569.6	ppb	06:13:22
2	Ni 231.604†	11414.2	12438.3	437.45	µg/L	437.45	ppb	06:14:40
2	P 214.914†	2492.8	2670.6	2426.7	µg/L	2426.7	ppb	06:14:40

2	Pb 220.353†	3320.4	3503.5	455.31 µg/L	455.31 ppb		06:14:40
2	S 181.975 Axial†	1075.0	1127.3	2474.5 µg/L	2474.5 ppb		06:14:40
2	Sb 206.836†	1073.4	1111.3	472.57 µg/L	472.57 ppb		06:14:40
2	Se 196.026†	2464.5	2696.2	2306.7 µg/L	2306.7 ppb		06:14:40
2	SiO2†	58897.9	62609.1	10434 µg/L	10434 ppb		06:14:20
2	Si 251.611†	71347.0	77043.4	4877.4 µg/L	4877.4 ppb		06:14:20
2	Sn 189.927†	2041.7	2196.4	454.97 µg/L	454.97 ppb		06:14:40
2	Sr 421.552†	8791.6	9401.3	473.55 µg/L	473.55 ppb		06:13:02
2	Ti 334.940†	118628.1	128902.5	502.24 µg/L	502.24 ppb		06:14:20
2	Tl 190.801†	1124.4	1280.7	434.11 µg/L	434.11 ppb		06:14:40
2	U 367.007†	5717.4	5109.0	473.9 µg/L	473.9 ppb		06:14:20
2	V 292.402†	36955.7	39982.5	507.52 µg/L	507.52 ppb		06:14:20
2	Zn 213.857†	44864.2	48198.8	428.32 µg/L	428.32 ppb		06:14:20
3	Sc 361.383	371098.1	371098.1	91.893 %			06:14:45
3	Sc RADIAL	3793.0	3793.0	93.3 %			06:13:47
3	Y 371.029	375333.4	375333.4	89.694 %			06:14:45
3	Ag 328.068†	25743.2	28497.1	260.70 µg/L	260.70 ppb		06:14:45
3	Al 396.153Radial†	535070.1	574021.1	496100 µg/L	496100 ppb		06:13:27
3	As 188.979†	614.8	671.6	520.20 µg/L	520.20 ppb		06:15:05
3	B 249.677†	-6265.5	-6907.4	562.77 µg/L	562.77 ppb		06:14:45
3	Ba 233.527†	40976.9	44608.9	484.30 µg/L	484.30 ppb		06:14:45
3	Be 313.107†	291277.8	323262.2	241.43 µg/L	241.43 ppb		06:14:45
3	Ca 317.933Radial†	461188.2	494524.0	484290 µg/L	484290 ppb		06:13:27
3	Cd 226.502†	32004.5	34993.1	462.63 µg/L	462.63 ppb		06:14:45
3	Co 228.616†	14421.3	15904.6	451.93 µg/L	451.93 ppb		06:15:05
3	Cr 267.716†	18594.5	20087.9	463.40 µg/L	463.40 ppb		06:15:05
3	Cu 324.752†	75244.7	79654.0	536.44 µg/L	536.44 ppb		06:14:45
3	Fe 238.204 Radial†	38580.3	41370.2	191020 µg/L	191020 ppb		06:13:27
3	K 766.490 Radial†	6501.2	6861.9	5197.9 µg/L	5197.9 ppb		06:13:27
3	Mg 279.077 IEC†	28359.8	30411.1	492440 µg/L	492440 ppb		06:13:27
3	Mn 257.610†	238389.8	259081.7	442.07 µg/L	442.07 ppb		06:14:45
3	Mo 202.031†	5399.4	5868.1	497.99 µg/L	497.99 ppb		06:15:05
3	Na 589.592 Radial†	50.3	54.5	5238.0 µg/L	5238.0 ppb		06:13:47
3	Ni 231.604†	11494.4	12587.8	442.69 µg/L	442.69 ppb		06:15:05
3	P 214.914†	2483.3	2673.8	2430.0 µg/L	2430.0 ppb		06:15:05
3	Pb 220.353†	3350.8	3554.8	463.89 µg/L	463.89 ppb		06:15:05
3	S 181.975 Axial†	1062.9	1120.1	2458.3 µg/L	2458.3 ppb		06:15:05
3	Sb 206.836†	1079.3	1123.6	477.99 µg/L	477.99 ppb		06:15:05
3	Se 196.026†	2490.9	2738.4	2340.9 µg/L	2340.9 ppb		06:15:05
3	SiO2†	58455.7	62449.3	10407 µg/L	10407 ppb		06:14:45
3	Si 251.611†	70824.7	76864.4	4866.0 µg/L	4866.0 ppb		06:14:45
3	Sn 189.927†	2053.0	2219.8	459.97 µg/L	459.97 ppb		06:15:05
3	Sr 421.552†	8837.6	9453.3	476.27 µg/L	476.27 ppb		06:13:27
3	Ti 334.940†	118065.3	128937.4	502.35 µg/L	502.35 ppb		06:14:45
3	Tl 190.801†	1131.1	1294.0	438.60 µg/L	438.60 ppb		06:15:05
3	U 367.007†	5652.4	5069.5	464.4 µg/L	464.4 ppb		06:14:45
3	V 292.402†	36600.5	39797.7	505.32 µg/L	505.32 ppb		06:14:45
3	Zn 213.857†	44492.9	48039.5	426.77 µg/L	426.77 ppb		06:14:45

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	371917.8	92.096	%	0.2368				0.26%
Sc RADIAL	3797.3	93.4	%	0.16				0.17%
Y 371.029	376255.7	89.914	%	0.2526				0.28%
Ag 328.068†	28587.2	261.31	µg/L	0.553	261.31	ppb	0.553	0.21%
QC value within limits for Ag 328.068 Recovery = 104.52%								
Al 396.153Radial†	571793.4	494170	µg/L	3662.59	494170	ppb	3662.59	0.74%
QC value within limits for Al 396.153Radial Recovery = 98.83%								
As 188.979†	661.9	512.96	µg/L	7.083	512.96	ppb	7.083	1.38%
QC value within limits for As 188.979 Recovery = 102.59%								
B 249.677†	-7011.0	555.60	µg/L	7.988	555.60	ppb	7.988	1.44%
QC value within limits for B 249.677 Recovery = 111.12%								
Ba 233.527†	44579.8	484.00	µg/L	0.259	484.00	ppb	0.259	0.05%
QC value within limits for Ba 233.527 Recovery = 96.80%								
Be 313.107†	323668.4	241.72	µg/L	0.268	241.72	ppb	0.268	0.11%
QC value within limits for Be 313.107 Recovery = 96.69%								
Ca 317.933Radial†	492712.4	482510	µg/L	3466.64	482510	ppb	3466.64	0.72%
QC value within limits for Ca 317.933Radial Recovery = 96.50%								
Cd 226.502†	35141.1	464.77	µg/L	1.952	464.77	ppb	1.952	0.42%

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   QC value within limits for Cd 226.502  Recovery = 92.95%
Co 228.616†            15847.2      450.30 µg/L         2.354      450.30 ppb          2.354   0.52%
   QC value within limits for Co 228.616  Recovery = 90.06%
Cr 267.716†            20025.9      461.92 µg/L         2.280      461.92 ppb          2.280   0.49%
   QC value within limits for Cr 267.716  Recovery = 92.38%
Cu 324.752†            79617.1      536.15 µg/L         0.391      536.15 ppb          0.391   0.07%
   QC value within limits for Cu 324.752  Recovery = 107.23%
Fe 238.204 Radial†     41199.5      190230 µg/L       1636.10      190230 ppb        1636.10   0.86%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.11%
K 766.490 Radial†       6914.8      5237.7 µg/L         84.81      5237.7 ppb          84.81   1.62%
   QC value within limits for K 766.490 Radial  Recovery = 104.75%
Mg 279.077 IEC†        30253.3      489890 µg/L       4191.32      489890 ppb        4191.32   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.98%
Mn 257.610†           259200.8      442.32 µg/L         0.324      442.32 ppb          0.324   0.07%
   QC value within limits for Mn 257.610  Recovery = 88.46%
Mo 202.031†             5848.9      496.35 µg/L         2.285      496.35 ppb          2.285   0.46%
   QC value within limits for Mo 202.031  Recovery = 99.27%
Na 589.592 Radial†        56.9      5450.7 µg/L        184.67      5450.7 ppb         184.67   3.39%
   QC value within limits for Na 589.592 Radial  Recovery = 109.01%
Ni 231.604†            12533.9      440.79 µg/L         2.898      440.79 ppb          2.898   0.66%
   QC value within limits for Ni 231.604  Recovery = 88.16%
P 214.914†              2684.4      2440.5 µg/L         21.03      2440.5 ppb          21.03   0.86%
   QC value within limits for P 214.914  Recovery = 97.62%
Pb 220.353†             3521.1      458.80 µg/L         4.508      458.80 ppb          4.508   0.98%
   QC value within limits for Pb 220.353  Recovery = 91.76%
S 181.975 Axial†        1126.8      2473.6 µg/L         14.87      2473.6 ppb          14.87   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 98.94%
Sb 206.836†             1113.7      473.69 µg/L         3.859      473.69 ppb          3.859   0.81%
   QC value within limits for Sb 206.836  Recovery = 94.74%
Se 196.026†             2720.8      2326.1 µg/L         17.57      2326.1 ppb          17.57   0.76%
   QC value within limits for Se 196.026  Recovery = 93.04%
SiO2†                  62479.6       10413 µg/L         19.52       10413 ppb          19.52   0.19%
   QC value within limits for SiO2  Recovery = 97.36%
Si 251.611†            76962.4      4872.4 µg/L          5.85      4872.4 ppb           5.85   0.12%
   QC value within limits for Si 251.611  Recovery = 97.45%
Sn 189.927†             2206.4      457.18 µg/L         2.545      457.18 ppb          2.545   0.56%
   QC value within limits for Sn 189.927  Recovery = 91.44%
Sr 421.552†             9380.0      472.51 µg/L         4.373      472.51 ppb          4.373   0.93%
   QC value within limits for Sr 421.552  Recovery = 94.50%
Ti 334.940†           128947.7      502.29 µg/L         0.057      502.29 ppb          0.057   0.01%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             1297.9      439.91 µg/L         6.548      439.91 ppb          6.548   1.49%
   QC value within limits for Tl 190.801  Recovery = 87.98%
U 367.007†              5121.9       482.9 µg/L         24.32       482.9 ppb          24.32   5.04%
   QC value within limits for U 367.007  Recovery = 96.58%
V 292.402†             39870.5      506.07 µg/L         1.252      506.07 ppb          1.252   0.25%
   QC value within limits for V 292.402  Recovery = 101.21%
Zn 213.857†            48105.4      427.81 µg/L         0.901      427.81 ppb          0.901   0.21%
   QC value within limits for Zn 213.857  Recovery = 85.56%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 105
Date Collected: 9/29/2017 06:15:14
Data Type: Reprocessed on 9/29/2017 06:44:17

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	361909.1	361909.1	89.618	%			06:16:17
1	Sc RADIAL	3723.7	3723.7	91.5	%			06:15:50
1	Y 371.029	362977.8	362977.8	86.741	%			06:16:17
1	Ag 328.068†	-6953.1	-7275.7	2.4511	µg/L	2.4511	ppb	06:16:17
1	Al 396.153Radial†	505165.6	552026.1	477110	µg/L	477110	ppb	06:15:44
1	As 188.979†	-36.2	-37.7	33.489	µg/L	33.489	ppb	06:16:37
1	B 249.677†	-47818.6	-53447.5	18.104	µg/L	18.104	ppb	06:16:17
1	Ba 233.527†	1080.0	1222.2	0.2590	µg/L	0.2590	ppb	06:16:37
1	Be 313.107†	-16215.4	-11805.3	-0.6047	µg/L	-0.6047	ppb	06:16:17
1	Ca 317.933Radial†	440771.4	481419.3	471450	µg/L	471450	ppb	06:15:44
1	Cd 226.502†	3540.9	4116.3	2.7734	µg/L	2.7734	ppb	06:16:37
1	Co 228.616†	-63.3	140.5	3.9954	µg/L	3.9954	ppb	06:16:37
1	Cr 267.716†	168.8	41.4	3.8052	µg/L	3.8052	ppb	06:16:37
1	Cu 324.752†	-2354.4	-4855.7	7.9711	µg/L	7.9711	ppb	06:16:17
1	Fe 238.204 Radial†	91650.4	100109.3	462230	µg/L	462230	ppb	06:15:44
1	K 766.490 Radial†	364690.8	398250.3	299740	µg/L	299740	ppb	06:15:44
1	Mg 279.077 IEC†	27216.0	29727.3	481370	µg/L	481370	ppb	06:15:50
1	Mn 257.610†	-11824.0	-13532.1	-16.365	µg/L	-16.365	ppb	06:16:17
1	Mo 202.031†	-104.1	-123.8	8.5620	µg/L	8.5620	ppb	06:16:37
1	Na 589.592 Radial†	4771.7	5212.8	475150	µg/L	475150	ppb	06:15:50
1	Ni 231.604†	-52.4	20.9	5.1353	µg/L	5.1353	ppb	06:16:37
1	P 214.914†	402.6	420.7	49.359	µg/L	49.359	ppb	06:16:37
1	Pb 220.353†	676.1	662.8	-57.981	µg/L	-57.981	ppb	06:16:37
1	S 181.975 Axial†	19960.0	22235.8	49745	µg/L	49745	ppb	06:16:37
1	Sb 206.836†	61.3	17.4	-21.257	µg/L	-21.257	ppb	06:16:37
1	Se 196.026†	-309.3	-317.4	0.4791	µg/L	0.4791	ppb	06:16:37
1	SiO2†	1002.5	-44.5	-7.2971	µg/L	-7.2971	ppb	06:16:37
1	Si 251.611†	121.3	-72.9	-78.443	µg/L	-78.443	ppb	06:16:37
1	Sn 189.927†	25.7	14.4	-15.816	µg/L	-15.816	ppb	06:16:37
1	Sr 421.552†	137.0	125.7	-9.5312	µg/L	-9.5312	ppb	06:15:50
1	Ti 334.940†	-4132.6	-4154.7	2.0860	µg/L	2.0860	ppb	06:16:17
1	Tl 190.801†	-109.1	-58.5	-7.9312	µg/L	-7.9312	ppb	06:16:37
1	U 367.007†	53168.0	58245.9	14010	µg/L	14010	ppb	06:16:17
1	V 292.402†	-5207.4	-5842.4	-0.8919	µg/L	-0.8919	ppb	06:16:37
1	Zn 213.857†	7298.9	7766.0	-129.81	µg/L	-129.81	ppb	06:16:37
2	Sc 361.383	362729.4	362729.4	89.821	%			06:16:43
2	Sc RADIAL	3690.7	3690.7	90.7	%			06:16:00
2	Y 371.029	364847.2	364847.2	87.188	%			06:16:43
2	Ag 328.068†	-6894.2	-7192.6	5.3299	µg/L	5.3299	ppb	06:16:43
2	Al 396.153Radial†	515200.6	568020.1	490930	µg/L	490930	ppb	06:15:55
2	As 188.979†	-49.1	-52.1	24.963	µg/L	24.963	ppb	06:17:03
2	B 249.677†	-47860.4	-53373.3	83.933	µg/L	83.933	ppb	06:16:43
2	Ba 233.527†	1011.9	1143.7	-1.0229	µg/L	-1.0229	ppb	06:17:03
2	Be 313.107†	-16250.7	-11803.6	-0.4701	µg/L	-0.4701	ppb	06:16:43
2	Ca 317.933Radial†	450108.6	496015.3	485750	µg/L	485750	ppb	06:15:55
2	Cd 226.502†	3492.9	4054.0	0.1787	µg/L	0.1787	ppb	06:17:03
2	Co 228.616†	-57.4	147.3	4.1849	µg/L	4.1849	ppb	06:17:03
2	Cr 267.716†	174.4	47.2	4.0069	µg/L	4.0069	ppb	06:17:03
2	Cu 324.752†	-2225.0	-4705.7	9.9228	µg/L	9.9228	ppb	06:16:43
2	Fe 238.204 Radial†	93734.6	103301.5	476970	µg/L	476970	ppb	06:15:55
2	K 766.490 Radial†	371902.9	409761.1	308400	µg/L	308400	ppb	06:15:55
2	Mg 279.077 IEC†	27172.0	29944.6	484890	µg/L	484890	ppb	06:16:00
2	Mn 257.610†	-11786.5	-13460.5	-15.597	µg/L	-15.597	ppb	06:16:43
2	Mo 202.031†	-118.1	-139.1	7.8873	µg/L	7.8873	ppb	06:17:03
2	Na 589.592 Radial†	4766.0	5253.2	478840	µg/L	478840	ppb	06:16:00
2	Ni 231.604†	-95.1	-26.5	3.6178	µg/L	3.6178	ppb	06:17:03
2	P 214.914†	396.2	412.5	30.254	µg/L	30.254	ppb	06:17:03

2	Pb 220.353†	684.2	670.0	-61.543	µg/L	-61.543	ppb	06:17:03
2	S 181.975 Axial†	19914.7	22135.0	49518	µg/L	49518	ppb	06:17:03
2	Sb 206.836†	63.5	19.8	-21.137	µg/L	-21.137	ppb	06:17:03
2	Se 196.026†	-294.5	-300.2	22.795	µg/L	22.795	ppb	06:17:03
2	SiO2†	1065.0	22.5	3.8826	µg/L	3.8826	ppb	06:17:03
2	Si 251.611†	88.4	-109.9	-83.136	µg/L	-83.136	ppb	06:17:03
2	Sn 189.927†	45.2	36.0	-11.508	µg/L	-11.508	ppb	06:17:03
2	Sr 421.552†	148.9	140.1	-9.2665	µg/L	-9.2665	ppb	06:16:00
2	Ti 334.940†	-4090.2	-4097.1	3.0510	µg/L	3.0510	ppb	06:16:43
2	Tl 190.801†	-88.0	-34.8	0.3412	µg/L	0.3412	ppb	06:17:03
2	U 367.007†	53364.7	58330.6	13960	µg/L	13960	ppb	06:16:43
2	V 292.402†	-5206.2	-5827.9	1.1892	µg/L	1.1892	ppb	06:17:03
2	Zn 213.857†	7261.0	7705.5	-137.39	µg/L	-137.39	ppb	06:17:03
3	Sc 361.383	359916.8	359916.8	89.125	%			06:17:09
3	Sc RADIAL	3751.7	3751.7	92.2	%			06:16:10
3	Y 371.029	361707.1	361707.1	86.437	%			06:17:09
3	Ag 328.068†	-6864.6	-7219.3	3.8052	µg/L	3.8052	ppb	06:17:09
3	Al 396.153Radial†	514329.1	557847.8	482140	µg/L	482140	ppb	06:16:05
3	As 188.979†	-48.2	-51.4	24.261	µg/L	24.261	ppb	06:17:29
3	B 249.677†	-47480.6	-53363.6	46.179	µg/L	46.179	ppb	06:17:09
3	Ba 233.527†	1014.9	1155.9	-0.6356	µg/L	-0.6356	ppb	06:17:29
3	Be 313.107†	-16015.1	-11680.7	-0.4756	µg/L	-0.4756	ppb	06:17:09
3	Ca 317.933Radial†	449094.7	486854.4	476780	µg/L	476780	ppb	06:16:05
3	Cd 226.502†	3511.1	4104.8	1.9283	µg/L	1.9283	ppb	06:17:29
3	Co 228.616†	-59.9	143.9	4.0929	µg/L	4.0929	ppb	06:17:29
3	Cr 267.716†	186.2	62.0	4.4580	µg/L	4.4580	ppb	06:17:29
3	Cu 324.752†	-2294.5	-4803.1	8.6679	µg/L	8.6679	ppb	06:17:09
3	Fe 238.204 Radial†	93504.9	101373.7	468070	µg/L	468070	ppb	06:16:05
3	K 766.490 Radial†	371333.3	402482.5	302920	µg/L	302920	ppb	06:16:05
3	Mg 279.077 IEC†	27726.9	30059.6	486750	µg/L	486750	ppb	06:16:10
3	Mn 257.610†	-11586.0	-13338.1	-15.914	µg/L	-15.914	ppb	06:17:09
3	Mo 202.031†	-101.7	-121.8	8.9669	µg/L	8.9669	ppb	06:17:29
3	Na 589.592 Radial†	4861.6	5271.5	480500	µg/L	480500	ppb	06:16:10
3	Ni 231.604†	-65.8	5.6	4.6539	µg/L	4.6539	ppb	06:17:29
3	P 214.914†	389.9	408.9	33.599	µg/L	33.599	ppb	06:17:29
3	Pb 220.353†	670.9	661.1	-60.030	µg/L	-60.030	ppb	06:17:29
3	S 181.975 Axial†	19909.1	22302.0	49892	µg/L	49892	ppb	06:17:29
3	Sb 206.836†	55.9	11.8	-24.088	µg/L	-24.088	ppb	06:17:29
3	Se 196.026†	-311.9	-322.2	-0.1303	µg/L	-0.1303	ppb	06:17:29
3	SiO2†	991.2	-51.0	-8.3667	µg/L	-8.3667	ppb	06:17:29
3	Si 251.611†	92.6	-104.4	-81.389	µg/L	-81.389	ppb	06:17:29
3	Sn 189.927†	65.5	59.2	-6.4692	µg/L	-6.4692	ppb	06:17:29
3	Sr 421.552†	143.2	131.3	-9.4228	µg/L	-9.4228	ppb	06:16:10
3	Ti 334.940†	-4130.5	-4177.9	2.3038	µg/L	2.3038	ppb	06:17:09
3	Tl 190.801†	-92.8	-40.9	-1.8785	µg/L	-1.8785	ppb	06:17:29
3	U 367.007†	52742.7	58097.0	13940	µg/L	13940	ppb	06:17:09
3	V 292.402†	-5243.6	-5915.1	-1.0246	µg/L	-1.0246	ppb	06:17:29
3	Zn 213.857†	7271.7	7780.6	-132.35	µg/L	-132.35	ppb	06:17:29

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	361518.4	89.521	%	0.3582				0.40%
Sc RADIAL	3722.1	91.5	%	0.75				0.82%
Y 371.029	363177.4	86.789	%	0.3775				0.43%
Ag 328.068†	-7229.2	3.8621	µg/L	1.44023	3.8621	ppb	1.44023	37.29%
Al 396.153Radial†	559298.0	483390	µg/L	6996.42	483390	ppb	6996.42	1.45%
QC value within limits for Al 396.153Radial Recovery = 96.68%								
As 188.979†	-47.1	27.571	µg/L	5.1367	27.571	ppb	5.1367	18.63%
B 249.677†	-53394.8	49.406	µg/L	33.0332	49.406	ppb	33.0332	66.86%
Ba 233.527†	1173.9	-0.4665	µg/L	0.65745	-0.4665	ppb	0.65745	140.94%
Be 313.107†	-11763.2	-0.5168	µg/L	0.07619	-0.5168	ppb	0.07619	14.74%
Ca 317.933Radial†	488096.3	477990	µg/L	7224.16	477990	ppb	7224.16	1.51%
QC value within limits for Ca 317.933Radial Recovery = 95.60%								
Cd 226.502†	4091.7	1.6268	µg/L	1.32337	1.6268	ppb	1.32337	81.35%
Co 228.616†	143.9	4.0911	µg/L	0.09479	4.0911	ppb	0.09479	2.32%
Cr 267.716†	50.2	4.0900	µg/L	0.33421	4.0900	ppb	0.33421	8.17%
Cu 324.752†	-4788.2	8.8539	µg/L	0.98905	8.8539	ppb	0.98905	11.17%
Fe 238.204 Radial†	101594.8	469090	µg/L	7422.41	469090	ppb	7422.41	1.58%
QC value within limits for Fe 238.204 Radial Recovery = 93.82%								

K 766.490 Radial†	403498.0	303690	µg/L	4381.99	303690	ppb	4381.99	1.44%
QC value within limits for K 766.490 Radial Recovery = 101.23%								
Mg 279.077 IEC†	29910.5	484340	µg/L	2732.89	484340	ppb	2732.89	0.56%
QC value within limits for Mg 279.077 IEC Recovery = 96.87%								
Mn 257.610†	-13443.5	-15.959	µg/L	0.3862	-15.959	ppb	0.3862	2.42%
Mo 202.031†	-128.2	8.4720	µg/L	0.54538	8.4720	ppb	0.54538	6.44%
Na 589.592 Radial†	5245.8	478160	µg/L	2738.43	478160	ppb	2738.43	0.57%
QC value within limits for Na 589.592 Radial Recovery = 95.63%								
Ni 231.604†	-0.0	4.4690	µg/L	0.77546	4.4690	ppb	0.77546	17.35%
P 214.914†	414.0	37.737	µg/L	10.2025	37.737	ppb	10.2025	27.04%
Pb 220.353†	664.6	-59.851	µg/L	1.7876	-59.851	ppb	1.7876	2.99%
S 181.975 Axial†	22224.2	49718	µg/L	188.80	49718	ppb	188.80	0.38%
QC value within limits for S 181.975 Axial Recovery = 99.44%								
Sb 206.836†	16.3	-22.161	µg/L	1.6699	-22.161	ppb	1.6699	7.54%
Se 196.026†	-313.3	7.7146	µg/L	13.06363	7.7146	ppb	13.06363	169.34%
SiO2†	-24.4	-3.9271	µg/L	6.78448	-3.9271	ppb	6.78448	172.76%
Si 251.611†	-95.8	-80.990	µg/L	2.3719	-80.990	ppb	2.3719	2.93%
Sn 189.927†	36.5	-11.264	µg/L	4.6781	-11.264	ppb	4.6781	41.53%
Sr 421.552†	132.4	-9.4068	µg/L	0.13308	-9.4068	ppb	0.13308	1.41%
Ti 334.940†	-4143.2	2.4803	µg/L	0.50615	2.4803	ppb	0.50615	20.41%
Tl 190.801†	-44.7	-3.1561	µg/L	4.28164	-3.1561	ppb	4.28164	135.66%
U 367.007†	58224.5	13970	µg/L	35.74	13970	ppb	35.74	0.26%
QC value within limits for U 367.007 Recovery = 93.15%								
V 292.402†	-5861.8	-0.2424	µg/L	1.24162	-0.2424	ppb	1.24162	512.20%
Zn 213.857†	7750.7	-133.18	µg/L	3.858	-133.18	ppb	3.858	2.90%

All analyte(s) passed QC.

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Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 108
Date Collected: 9/29/2017 06:17:37
Data Type: Reprocessed on 9/29/2017 06:44:18

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	408894.6	408894.6	101.25	%			06:19:30
1	Sc RADIAL	4141.4	4141.4	102	%			06:18:09
1	Y 371.029	421441.7	421441.7	100.71	%			06:19:30
1	Ag 328.068†	-2215.9	-1705.6	1.3617	µg/L	1.3617	ppb	06:19:35
1	Al 396.153Radial†	456.7	670.6	146.14	µg/L	146.14	ppb	06:18:09
1	As 188.979†	13177.8	13017.4	9642.4	µg/L	9642.4	ppb	06:19:35
1	B 249.677†	137043.0	135258.2	4925.0	µg/L	4925.0	ppb	06:19:35
1	Ba 233.527†	442797.8	437336.2	4801.3	µg/L	4801.3	ppb	06:19:35
1	Be 313.107†	3093340.1	3061355.3	2246.8	µg/L	2246.8	ppb	06:19:30
1	Ca 317.933Radial†	276.6	226.2	221.50	µg/L	221.50	ppb	06:18:29
1	Cd 226.502†	716573.3	707872.4	9812.7	µg/L	9812.7	ppb	06:19:30
1	Co 228.616†	363879.7	359588.6	10209	µg/L	10209	ppb	06:19:30
1	Cr 267.716†	1112289.7	1098380.5	24547	µg/L	24547	ppb	06:19:30
1	Cu 324.752†	3219676.2	3177611.0	20878	µg/L	20878	ppb	06:19:30
1	Fe 238.204 Radial†	7.2	4.5	20.711	µg/L	20.711	ppb	06:18:29
1	K 766.490 Radial†	472.9	354.6	275.45	µg/L	275.45	ppb	06:18:09
1	Mg 279.077 IEC†	4.2	2.7	44.316	µg/L	44.316	ppb	06:18:29
1	Mn 257.610†	5702947.8	5632047.7	9771.2	µg/L	9771.2	ppb	06:19:30
1	Mo 202.031†	116774.2	115321.8	9633.1	µg/L	9633.1	ppb	06:19:35
1	Na 589.592 Radial†	-1.7	-1.0	-93.094	µg/L	-93.094	ppb	06:18:29
1	Ni 231.604†	291359.3	287833.7	10081	µg/L	10081	ppb	06:19:35
1	P 214.914†	15196.9	14980.3	13863	µg/L	13863	ppb	06:19:35
1	Pb 220.353†	153202.4	151215.2	24941	µg/L	24941	ppb	06:19:35
1	S 181.975 Axial†	27.2	-9.7	-28.526	µg/L	-28.526	ppb	06:19:55
1	Sb 206.836†	22649.7	22318.5	9429.0	µg/L	9429.0	ppb	06:19:35
1	Se 196.026†	11637.3	11521.1	9389.3	µg/L	9389.3	ppb	06:19:55
1	SiO2†	610667.6	601948.7	100610	µg/L	100610	ppb	06:19:30
1	Si 251.611†	743661.5	734252.0	46668	µg/L	46668	ppb	06:19:30
1	Sn 189.927†	45669.0	45089.6	9659.3	µg/L	9659.3	ppb	06:19:35
1	Sr 421.552†	182002.4	178730.2	9317.1	µg/L	9317.1	ppb	06:18:09
1	Ti 334.940†	2649743.0	2617414.7	9680.9	µg/L	9680.9	ppb	06:19:30
1	Tl 190.801†	30127.8	29818.3	10021	µg/L	10021	ppb	06:19:35
1	U 367.007†	1044.6	-49.9	-14.04	µg/L	-14.04	ppb	06:19:35
1	V 292.402†	828606.7	818322.9	9891.5	µg/L	9891.5	ppb	06:19:30
1	Zn 213.857†	1344604.3	1327589.2	14106	µg/L	14106	ppb	06:19:30
2	Sc 361.383	408411.4	408411.4	101.13	%			06:20:04
2	Sc RADIAL	4123.7	4123.7	101	%			06:18:34
2	Y 371.029	420823.2	420823.2	100.56	%			06:20:04
2	Ag 328.068†	-2275.7	-1767.3	0.8619	µg/L	0.8619	ppb	06:20:09
2	Al 396.153Radial†	453.1	668.9	143.16	µg/L	143.16	ppb	06:18:34
2	As 188.979†	13172.1	13027.1	9649.7	µg/L	9649.7	ppb	06:20:09
2	B 249.677†	137094.4	135469.1	4932.6	µg/L	4932.6	ppb	06:20:09
2	Ba 233.527†	443818.3	438862.6	4818.1	µg/L	4818.1	ppb	06:20:09
2	Be 313.107†	3089790.7	3061460.0	2246.8	µg/L	2246.8	ppb	06:20:04
2	Ca 317.933Radial†	266.8	217.7	213.15	µg/L	213.15	ppb	06:18:54
2	Cd 226.502†	716441.1	708579.0	9822.5	µg/L	9822.5	ppb	06:20:04
2	Co 228.616†	363894.0	360027.9	10221	µg/L	10221	ppb	06:20:04
2	Cr 267.716†	1111176.2	1098579.1	24551	µg/L	24551	ppb	06:20:04
2	Cu 324.752†	3213837.3	3175599.5	20865	µg/L	20865	ppb	06:20:04
2	Fe 238.204 Radial†	0.2	-2.4	-10.853	µg/L	-10.853	ppb	06:18:54
2	K 766.490 Radial†	505.8	389.1	301.40	µg/L	301.40	ppb	06:18:34
2	Mg 279.077 IEC†	4.4	3.0	48.356	µg/L	48.356	ppb	06:18:54
2	Mn 257.610†	5698989.9	5634797.7	9776.0	µg/L	9776.0	ppb	06:20:04
2	Mo 202.031†	117048.2	115729.1	9667.1	µg/L	9667.1	ppb	06:20:09
2	Na 589.592 Radial†	1.4	2.0	179.46	µg/L	179.46	ppb	06:18:54
2	Ni 231.604†	292133.6	288939.8	10120	µg/L	10120	ppb	06:20:09
2	P 214.914†	15339.9	15139.4	14014	µg/L	14014	ppb	06:20:09

2	Pb 220.353†	153534.2	151722.3	25024	µg/L	25024	ppb	06:20:09
2	S 181.975 Axial†	31.5	-5.5	-18.951	µg/L	-18.951	ppb	06:20:29
2	Sb 206.836†	22700.1	22394.8	9463.1	µg/L	9463.1	ppb	06:20:09
2	Se 196.026†	11614.7	11512.3	9382.1	µg/L	9382.1	ppb	06:20:29
2	SiO2†	614459.8	606411.9	101350	µg/L	101350	ppb	06:20:04
2	Si 251.611†	748353.9	739760.7	47019	µg/L	47019	ppb	06:20:04
2	Sn 189.927†	45658.9	45133.0	9668.5	µg/L	9668.5	ppb	06:20:09
2	Sr 421.552†	184933.0	182391.3	9507.9	µg/L	9507.9	ppb	06:18:34
2	Ti 334.940†	2645565.0	2616379.5	9677.1	µg/L	9677.1	ppb	06:20:04
2	Tl 190.801†	30257.9	29982.1	10077	µg/L	10077	ppb	06:20:09
2	U 367.007†	959.2	-133.1	-37.11	µg/L	-37.11	ppb	06:20:09
2	V 292.402†	827424.7	818122.2	9889.4	µg/L	9889.4	ppb	06:20:04
2	Zn 213.857†	1344715.0	1329269.8	14124	µg/L	14124	ppb	06:20:04
3	Sc 361.383	403104.7	403104.7	99.819	%			06:20:38
3	Sc RADIAL	4053.0	4053.0	99.6	%			06:18:59
3	Y 371.029	415290.2	415290.2	99.242	%			06:20:38
3	Ag 328.068†	-2190.3	-1711.3	1.3048	µg/L	1.3048	ppb	06:20:43
3	Al 396.153Radial†	400.7	624.2	102.83	µg/L	102.83	ppb	06:18:59
3	As 188.979†	13067.9	13094.2	9698.7	µg/L	9698.7	ppb	06:20:43
3	B 249.677†	136066.7	136224.1	4960.4	µg/L	4960.4	ppb	06:20:43
3	Ba 233.527†	442061.4	442879.8	4862.2	µg/L	4862.2	ppb	06:20:43
3	Be 313.107†	3046758.5	3058569.9	2244.7	µg/L	2244.7	ppb	06:20:38
3	Ca 317.933Radial†	266.9	222.4	217.83	µg/L	217.83	ppb	06:19:19
3	Cd 226.502†	705413.1	706857.0	9798.6	µg/L	9798.6	ppb	06:20:38
3	Co 228.616†	358705.3	359566.7	10208	µg/L	10208	ppb	06:20:38
3	Cr 267.716†	1093994.1	1095830.2	24490	µg/L	24490	ppb	06:20:38
3	Cu 324.752†	3176245.3	3179774.2	20892	µg/L	20892	ppb	06:20:38
3	Fe 238.204 Radial†	0.5	-2.1	-9.5398	µg/L	-9.5398	ppb	06:19:19
3	K 766.490 Radial†	317.3	208.5	165.62	µg/L	165.62	ppb	06:18:59
3	Mg 279.077 IEC†	-2.5	-4.0	-64.014	µg/L	-64.014	ppb	06:19:19
3	Mn 257.610†	5629005.8	5638871.0	9783.1	µg/L	9783.1	ppb	06:20:38
3	Mo 202.031†	115970.2	116172.8	9704.2	µg/L	9704.2	ppb	06:20:43
3	Na 589.592 Radial†	1.4	2.0	182.80	µg/L	182.80	ppb	06:19:19
3	Ni 231.604†	289334.5	289938.4	10155	µg/L	10155	ppb	06:20:43
3	P 214.914†	15161.2	15160.1	14033	µg/L	14033	ppb	06:20:43
3	Pb 220.353†	152500.7	152685.5	25183	µg/L	25183	ppb	06:20:43
3	S 181.975 Axial†	36.4	-0.1	-6.9207	µg/L	-6.9207	ppb	06:21:03
3	Sb 206.836†	22561.8	22551.7	9534.5	µg/L	9534.5	ppb	06:20:43
3	Se 196.026†	11481.1	11529.7	9396.3	µg/L	9396.3	ppb	06:21:03
3	SiO2†	609270.8	609212.0	101820	µg/L	101820	ppb	06:20:38
3	Si 251.611†	741481.5	742617.2	47200	µg/L	47200	ppb	06:20:38
3	Sn 189.927†	45379.0	45447.0	9735.6	µg/L	9735.6	ppb	06:20:43
3	Sr 421.552†	180286.6	180908.6	9430.6	µg/L	9430.6	ppb	06:18:59
3	Ti 334.940†	2613892.8	2619087.6	9687.1	µg/L	9687.1	ppb	06:20:38
3	Tl 190.801†	29973.3	30090.8	10114	µg/L	10114	ppb	06:20:43
3	U 367.007†	1035.7	-44.0	-12.26	µg/L	-12.26	ppb	06:20:43
3	V 292.402†	816622.4	818071.0	9889.0	µg/L	9889.0	ppb	06:20:38
3	Zn 213.857†	1325285.5	1327309.4	14103	µg/L	14103	ppb	06:20:38

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	406803.6	100.73	%	0.795				0.79%
Sc RADIAL	4106.0	101	%	1.15				1.14%
Y 371.029	419185.1	100.17	%	0.809				0.81%
Ag 328.068†	-1728.0	1.1761	µg/L	0.27362	1.1761	ppb	0.27362	23.26%
Al 396.153Radial†	654.6	130.71	µg/L	24.190	130.71	ppb	24.190	18.51%
As 188.979†	13046.2	9663.6	µg/L	30.64	9663.6	ppb	30.64	0.32%
QC value within limits for As 188.979 Recovery = 96.64%								
B 249.677†	135650.5	4939.3	µg/L	18.59	4939.3	ppb	18.59	0.38%
QC value within limits for B 249.677 Recovery = 98.79%								
Ba 233.527†	439692.9	4827.2	µg/L	31.44	4827.2	ppb	31.44	0.65%
QC value less than the lower limit for Ba 233.527 Recovery = 32.18%								
Be 313.107†	3060461.7	2246.1	µg/L	1.21	2246.1	ppb	1.21	0.05%
QC value less than the lower limit for Be 313.107 Recovery = 74.87%								
Ca 317.933Radial†	222.1	217.49	µg/L	4.185	217.49	ppb	4.185	1.92%
Cd 226.502†	707769.5	9811.3	µg/L	11.99	9811.3	ppb	11.99	0.12%
QC value within limits for Cd 226.502 Recovery = 98.11%								
Co 228.616†	359727.7	10213	µg/L	7.38	10213	ppb	7.38	0.07%
QC value within limits for Co 228.616 Recovery = 102.13%								

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Cr 267.716†          1097596.6       24530 µg/L         34.27       24530 ppb          34.27   0.14%
   QC value within limits for Cr 267.716  Recovery = 98.12%
Cu 324.752†          3177661.6       20878 µg/L         13.72       20878 ppb          13.72   0.07%
   QC value within limits for Cu 324.752  Recovery = 104.39%
Fe 238.204 Radial†         0.0      0.1060 µg/L      17.85680      0.1060 ppb       17.85680 >999.9%
K 766.490 Radial†        317.4      247.49 µg/L        72.079      247.49 ppb         72.079  29.12%
Mg 279.077 IEC†            0.6      9.5523 µg/L      63.74268      9.5523 ppb       63.74268 667.30%
Mn 257.610†          5635238.8      9776.8 µg/L          5.96      9776.8 ppb           5.96   0.06%
   QC value within limits for Mn 257.610  Recovery = 97.77%
Mo 202.031†           115741.2      9668.2 µg/L         35.56      9668.2 ppb          35.56   0.37%
   QC value within limits for Mo 202.031  Recovery = 96.68%
Na 589.592 Radial†         1.0      89.720 µg/L      158.3310      89.720 ppb       158.3310 176.47%
Ni 231.604†           288904.0       10118 µg/L         36.86       10118 ppb          36.86   0.36%
   QC value within limits for Ni 231.604  Recovery = 101.18%
P 214.914†             15093.3       13970 µg/L         93.04       13970 ppb          93.04   0.67%
   QC value within limits for P 214.914  Recovery = 93.13%
Pb 220.353†           151874.3       25050 µg/L        123.05       25050 ppb         123.05   0.49%
   QC value within limits for Pb 220.353  Recovery = 100.20%
S 181.975 Axial†          -5.1     -18.133 µg/L       10.8261     -18.133 ppb        10.8261  59.70%
Sb 206.836†            22421.7      9475.5 µg/L         53.83      9475.5 ppb          53.83   0.57%
   QC value within limits for Sb 206.836  Recovery = 94.76%
Se 196.026†            11521.0      9389.2 µg/L          7.06      9389.2 ppb           7.06   0.08%
   QC value within limits for Se 196.026  Recovery = 93.89%
SiO2†                 605857.6      101260 µg/L        609.55      101260 ppb         609.55   0.60%
   QC value within limits for SiO2  Recovery = 94.63%
Si 251.611†           738876.7       46962 µg/L        270.71       46962 ppb         270.71   0.58%
   QC value within limits for Si 251.611  Recovery = 93.92%
Sn 189.927†            45223.2      9687.8 µg/L         41.65      9687.8 ppb          41.65   0.43%
   QC value within limits for Sn 189.927  Recovery = 96.88%
Sr 421.552†           180676.7      9418.6 µg/L         96.00      9418.6 ppb          96.00   1.02%
   QC value within limits for Sr 421.552  Recovery = 94.19%
Ti 334.940†          2617627.3      9681.7 µg/L          5.07      9681.7 ppb           5.07   0.05%
   QC value within limits for Ti 334.940  Recovery = 96.82%
Tl 190.801†            29963.7       10070 µg/L         46.44       10070 ppb          46.44   0.46%
   QC value within limits for Tl 190.801  Recovery = 100.70%
U 367.007†               -75.7      -21.14 µg/L        13.863      -21.14 ppb         13.863  65.58%
V 292.402†            818172.0      9890.0 µg/L          1.33      9890.0 ppb           1.33   0.01%
   QC value within limits for V 292.402  Recovery = 98.90%
Zn 213.857†          1328056.1       14111 µg/L         11.29       14111 ppb          11.29   0.08%
   QC value within limits for Zn 213.857  Recovery = 94.07%
QC Failed.  Continue with analysis.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 9/29/2017 06:21:12
Data Type: Reprocessed on 9/29/2017 06:44:19

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	395897.5	395897.5	98.034	%			06:23:02
1	Sc RADIAL	3918.8	3918.8	96.3	%			06:22:05
1	Y 371.029	405868.1	405868.1	96.991	%			06:23:02
1	Ag 328.068†	58871.0	60534.3	493.97	µg/L	493.97	ppb	06:23:02
1	Al 396.153Radial†	5493.2	5923.8	5097.9	µg/L	5097.9	ppb	06:21:45
1	As 188.979†	657.9	673.7	497.22	µg/L	497.22	ppb	06:23:22
1	B 249.677†	13328.8	13506.8	515.51	µg/L	515.51	ppb	06:23:02
1	Ba 233.527†	43829.9	44725.8	490.88	µg/L	490.88	ppb	06:23:02
1	Be 313.107†	646408.6	665658.0	487.63	µg/L	487.63	ppb	06:23:02
1	Ca 317.933Radial†	5085.1	5232.6	5124.3	µg/L	5124.3	ppb	06:22:05
1	Cd 226.502†	34664.1	35524.3	491.84	µg/L	491.84	ppb	06:23:02
1	Co 228.616†	16862.3	17411.5	494.71	µg/L	494.71	ppb	06:23:02
1	Cr 267.716†	21660.7	21948.0	490.29	µg/L	490.29	ppb	06:23:02
1	Cu 324.752†	75833.5	75125.4	494.13	µg/L	494.13	ppb	06:23:02
1	Fe 238.204 Radial†	1063.4	1101.1	5084.3	µg/L	5084.3	ppb	06:22:05
1	K 766.490 Radial†	6461.8	6597.2	4966.0	µg/L	4966.0	ppb	06:21:45
1	Mg 279.077 IEC†	317.0	327.7	5305.7	µg/L	5305.7	ppb	06:22:05
1	Mn 257.610†	278710.8	283960.8	492.73	µg/L	492.73	ppb	06:23:02
1	Mo 202.031†	5712.4	5819.3	486.31	µg/L	486.31	ppb	06:23:22
1	Na 589.592 Radial†	104.3	108.9	9917.1	µg/L	9917.1	ppb	06:22:05
1	Ni 231.604†	13955.4	14314.7	501.39	µg/L	501.39	ppb	06:23:02
1	P 214.914†	2518.1	2540.0	2394.7	µg/L	2394.7	ppb	06:23:22
1	Pb 220.353†	2993.5	2961.9	487.11	µg/L	487.11	ppb	06:23:22
1	S 181.975 Axial†	464.3	437.0	977.71	µg/L	977.71	ppb	06:23:22
1	Sb 206.836†	1128.6	1100.3	482.11	µg/L	482.11	ppb	06:23:22
1	Se 196.026†	566.7	605.8	496.53	µg/L	496.53	ppb	06:23:22
1	SiO2†	33781.1	33295.3	5550.7	µg/L	5550.7	ppb	06:23:02
1	Si 251.611†	40005.4	40599.2	2580.6	µg/L	2580.6	ppb	06:23:02
1	Sn 189.927†	2252.8	2283.6	488.99	µg/L	488.99	ppb	06:23:22
1	Sr 421.552†	9202.9	9528.2	496.52	µg/L	496.52	ppb	06:21:45
1	Ti 334.940†	128673.2	131709.8	487.45	µg/L	487.45	ppb	06:23:02
1	Tl 190.801†	1382.2	1473.1	495.61	µg/L	495.61	ppb	06:23:22
1	U 367.007†	2891.0	1867.4	496.6	µg/L	496.6	ppb	06:23:02
1	V 292.402†	40064.5	40836.2	493.18	µg/L	493.18	ppb	06:23:02
1	Zn 213.857†	45162.5	45689.6	483.17	µg/L	483.17	ppb	06:23:02
2	Sc 361.383	396625.3	396625.3	98.215	%			06:23:29
2	Sc RADIAL	3870.7	3870.7	95.2	%			06:22:30
2	Y 371.029	406652.5	406652.5	97.178	%			06:23:29
2	Ag 328.068†	58858.7	60411.6	492.99	µg/L	492.99	ppb	06:23:29
2	Al 396.153Radial†	5507.0	6009.1	5171.7	µg/L	5171.7	ppb	06:22:10
2	As 188.979†	654.2	668.7	493.62	µg/L	493.62	ppb	06:23:49
2	B 249.677†	13350.5	13504.0	515.59	µg/L	515.59	ppb	06:23:29
2	Ba 233.527†	43847.8	44662.0	490.18	µg/L	490.18	ppb	06:23:29
2	Be 313.107†	647908.1	665974.8	487.85	µg/L	487.85	ppb	06:23:29
2	Ca 317.933Radial†	5060.3	5272.1	5163.0	µg/L	5163.0	ppb	06:22:30
2	Cd 226.502†	34686.9	35482.7	491.26	µg/L	491.26	ppb	06:23:29
2	Co 228.616†	16909.0	17427.5	495.17	µg/L	495.17	ppb	06:23:29
2	Cr 267.716†	21751.4	21999.9	491.48	µg/L	491.48	ppb	06:23:29
2	Cu 324.752†	76026.9	75180.4	494.47	µg/L	494.47	ppb	06:23:29
2	Fe 238.204 Radial†	1059.4	1110.8	5128.6	µg/L	5128.6	ppb	06:22:30
2	K 766.490 Radial†	6386.4	6601.3	4969.0	µg/L	4969.0	ppb	06:22:10
2	Mg 279.077 IEC†	317.5	332.2	5379.9	µg/L	5379.9	ppb	06:22:30
2	Mn 257.610†	278930.9	283663.3	492.21	µg/L	492.21	ppb	06:23:29
2	Mo 202.031†	5726.8	5823.2	486.64	µg/L	486.64	ppb	06:23:49
2	Na 589.592 Radial†	103.7	109.6	9987.2	µg/L	9987.2	ppb	06:22:30
2	Ni 231.604†	13995.3	14329.1	501.90	µg/L	501.90	ppb	06:23:29
2	P 214.914†	2516.0	2533.1	2388.2	µg/L	2388.2	ppb	06:23:49

2	Pb 220.353†	2962.4	2924.6	480.97 µg/L	480.97 ppb	06:23:49
2	S 181.975 Axial†	457.7	429.4	960.65 µg/L	960.65 ppb	06:23:49
2	Sb 206.836†	1123.6	1093.1	478.90 µg/L	478.90 ppb	06:23:49
2	Se 196.026†	562.7	600.7	492.41 µg/L	492.41 ppb	06:23:49
2	SiO2†	33289.9	32731.9	5456.9 µg/L	5456.9 ppb	06:23:29
2	Si 251.611†	39448.2	39957.0	2539.6 µg/L	2539.6 ppb	06:23:29
2	Sn 189.927†	2252.6	2279.3	488.05 µg/L	488.05 ppb	06:23:49
2	Sr 421.552†	9292.6	9741.2	507.63 µg/L	507.63 ppb	06:22:10
2	Ti 334.940†	128920.4	131720.7	487.51 µg/L	487.51 ppb	06:23:29
2	Tl 190.801†	1387.2	1475.6	496.46 µg/L	496.46 ppb	06:23:49
2	U 367.007†	2765.0	1733.7	459.0 µg/L	459.0 ppb	06:23:29
2	V 292.402†	40163.8	40862.2	493.48 µg/L	493.48 ppb	06:23:29
2	Zn 213.857†	45215.9	45659.5	482.83 µg/L	482.83 ppb	06:23:29
3	Sc 361.383	399254.8	399254.8	98.866 %		06:23:55
3	Sc RADIAL	3883.2	3883.2	95.5 %		06:22:55
3	Y 371.029	409008.1	409008.1	97.741 %		06:23:55
3	Ag 328.068†	59350.0	60513.9	493.82 µg/L	493.82 ppb	06:23:55
3	Al 396.153Radial†	5453.0	5933.9	5106.8 µg/L	5106.8 ppb	06:22:35
3	As 188.979†	645.2	655.2	483.72 µg/L	483.72 ppb	06:24:15
3	B 249.677†	13413.9	13478.6	514.43 µg/L	514.43 ppb	06:23:55
3	Ba 233.527†	44204.8	44729.1	490.91 µg/L	490.91 ppb	06:23:55
3	Be 313.107†	653658.9	667447.0	488.93 µg/L	488.93 ppb	06:23:55
3	Ca 317.933Radial†	5067.2	5262.2	5153.3 µg/L	5153.3 ppb	06:22:55
3	Cd 226.502†	35080.9	35648.5	493.57 µg/L	493.57 ppb	06:23:55
3	Co 228.616†	17122.7	17530.2	498.08 µg/L	498.08 ppb	06:23:55
3	Cr 267.716†	21942.8	22047.6	492.55 µg/L	492.55 ppb	06:23:55
3	Cu 324.752†	76400.7	75048.7	493.60 µg/L	493.60 ppb	06:23:55
3	Fe 238.204 Radial†	1052.1	1099.5	5076.7 µg/L	5076.7 ppb	06:22:55
3	K 766.490 Radial†	6488.6	6686.8	5033.4 µg/L	5033.4 ppb	06:22:35
3	Mg 279.077 IEC†	309.6	322.9	5228.0 µg/L	5228.0 ppb	06:22:55
3	Mn 257.610†	281467.6	284358.6	493.42 µg/L	493.42 ppb	06:23:55
3	Mo 202.031†	5736.7	5794.9	484.27 µg/L	484.27 ppb	06:24:15
3	Na 589.592 Radial†	108.0	113.7	10361 µg/L	10361 ppb	06:22:55
3	Ni 231.604†	14121.5	14362.9	503.08 µg/L	503.08 ppb	06:23:55
3	P 214.914†	2525.0	2525.4	2380.9 µg/L	2380.9 ppb	06:24:15
3	Pb 220.353†	3014.1	2957.0	486.34 µg/L	486.34 ppb	06:24:15
3	S 181.975 Axial†	457.4	426.1	953.26 µg/L	953.26 ppb	06:24:15
3	Sb 206.836†	1142.2	1104.4	483.84 µg/L	483.84 ppb	06:24:15
3	Se 196.026†	552.1	586.2	480.56 µg/L	480.56 ppb	06:24:15
3	SiO2†	33221.0	32439.0	5408.1 µg/L	5408.1 ppb	06:23:55
3	Si 251.611†	39403.9	39647.7	2519.9 µg/L	2519.9 ppb	06:23:55
3	Sn 189.927†	2263.2	2274.8	487.11 µg/L	487.11 ppb	06:24:15
3	Sr 421.552†	9207.2	9620.2	501.32 µg/L	501.32 ppb	06:22:35
3	Ti 334.940†	130013.4	131961.6	488.40 µg/L	488.40 ppb	06:23:55
3	Tl 190.801†	1362.7	1441.6	484.91 µg/L	484.91 ppb	06:24:15
3	U 367.007†	2766.0	1716.2	454.4 µg/L	454.4 ppb	06:23:55
3	V 292.402†	40472.7	40905.4	493.97 µg/L	493.97 ppb	06:23:55
3	Zn 213.857†	45630.9	45776.0	484.09 µg/L	484.09 ppb	06:23:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397259.2	98.372	%	0.4373				0.44%
Sc RADIAL	3890.9	95.7	%	0.61				0.64%
Y 371.029	407176.2	97.303	%	0.3905				0.40%
Ag 328.068†	60486.6	493.59	µg/L	0.525	493.59	ppb	0.525	0.11%
QC value within limits for Ag 328.068 Recovery = 98.72%								
Al 396.153Radial†	5955.6	5125.5	µg/L	40.27	5125.5	ppb	40.27	0.79%
QC value within limits for Al 396.153Radial Recovery = 102.51%								
As 188.979†	665.9	491.52	µg/L	6.991	491.52	ppb	6.991	1.42%
QC value within limits for As 188.979 Recovery = 98.30%								
B 249.677†	13496.5	515.18	µg/L	0.649	515.18	ppb	0.649	0.13%
QC value within limits for B 249.677 Recovery = 103.04%								
Ba 233.527†	44705.6	490.66	µg/L	0.416	490.66	ppb	0.416	0.08%
QC value within limits for Ba 233.527 Recovery = 98.13%								
Be 313.107†	666359.9	488.13	µg/L	0.695	488.13	ppb	0.695	0.14%
QC value within limits for Be 313.107 Recovery = 97.63%								
Ca 317.933Radial†	5255.6	5146.9	µg/L	20.13	5146.9	ppb	20.13	0.39%
QC value within limits for Ca 317.933Radial Recovery = 102.94%								
Cd 226.502†	35551.8	492.22	µg/L	1.199	492.22	ppb	1.199	0.24%

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   QC value within limits for Cd 226.502  Recovery = 98.44%
Co 228.616†            17456.4      495.99 µg/L         1.827      495.99 ppb          1.827   0.37%
   QC value within limits for Co 228.616  Recovery = 99.20%
Cr 267.716†            21998.5      491.44 µg/L         1.128      491.44 ppb          1.128   0.23%
   QC value within limits for Cr 267.716  Recovery = 98.29%
Cu 324.752†            75118.2      494.07 µg/L         0.439      494.07 ppb          0.439   0.09%
   QC value within limits for Cu 324.752  Recovery = 98.81%
Fe 238.204 Radial†      1103.8      5096.6 µg/L         28.03      5096.6 ppb          28.03   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.93%
K 766.490 Radial†       6628.4      4989.5 µg/L         38.06      4989.5 ppb          38.06   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 99.79%
Mg 279.077 IEC†          327.6      5304.5 µg/L         75.96      5304.5 ppb          75.96   1.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.09%
Mn 257.610†           283994.2      492.79 µg/L         0.607      492.79 ppb          0.607   0.12%
   QC value within limits for Mn 257.610  Recovery = 98.56%
Mo 202.031†             5812.5      485.74 µg/L         1.286      485.74 ppb          1.286   0.26%
   QC value within limits for Mo 202.031  Recovery = 97.15%
Na 589.592 Radial†       110.8       10088 µg/L        238.51       10088 ppb         238.51   2.36%
   QC value within limits for Na 589.592 Radial  Recovery = 100.88%
Ni 231.604†            14335.6      502.12 µg/L         0.868      502.12 ppb          0.868   0.17%
   QC value within limits for Ni 231.604  Recovery = 100.42%
P 214.914†              2532.8      2387.9 µg/L          6.89      2387.9 ppb           6.89   0.29%
   QC value within limits for P 214.914  Recovery = 95.52%
Pb 220.353†             2947.8      484.81 µg/L         3.341      484.81 ppb          3.341   0.69%
   QC value within limits for Pb 220.353  Recovery = 96.96%
S 181.975 Axial†         430.8      963.87 µg/L        12.538      963.87 ppb         12.538   1.30%
   QC value within limits for S 181.975 Axial  Recovery = 96.39%
Sb 206.836†             1099.2      481.61 µg/L         2.504      481.61 ppb          2.504   0.52%
   QC value within limits for Sb 206.836  Recovery = 96.32%
Se 196.026†              597.5      489.83 µg/L         8.293      489.83 ppb          8.293   1.69%
   QC value within limits for Se 196.026  Recovery = 97.97%
SiO2†                  32822.1      5471.9 µg/L         72.48      5471.9 ppb          72.48   1.32%
   QC value within limits for SiO2  Recovery = 102.33%
Si 251.611†            40068.0      2546.7 µg/L         30.97      2546.7 ppb          30.97   1.22%
   QC value within limits for Si 251.611  Recovery = 101.87%
Sn 189.927†             2279.2      488.05 µg/L         0.939      488.05 ppb          0.939   0.19%
   QC value within limits for Sn 189.927  Recovery = 97.61%
Sr 421.552†             9629.9      501.82 µg/L         5.568      501.82 ppb          5.568   1.11%
   QC value within limits for Sr 421.552  Recovery = 100.36%
Ti 334.940†           131797.4      487.78 µg/L         0.534      487.78 ppb          0.534   0.11%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             1463.4      492.33 µg/L         6.437      492.33 ppb          6.437   1.31%
   QC value within limits for Tl 190.801  Recovery = 98.47%
U 367.007†              1772.4       470.0 µg/L         23.13       470.0 ppb          23.13   4.92%
   QC value within limits for U 367.007  Recovery = 94.00%
V 292.402†             40867.9      493.54 µg/L         0.396      493.54 ppb          0.396   0.08%
   QC value within limits for V 292.402  Recovery = 98.71%
Zn 213.857†            45708.4      483.36 µg/L         0.653      483.36 ppb          0.653   0.14%
   QC value within limits for Zn 213.857  Recovery = 96.67%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 9/29/2017 06:24:24
Data Type: Reprocessed on 9/29/2017 06:44:20

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	392507.2	392507.2	97.195	%			06:26:11
1	Sc RADIAL	4010.9	4010.9	98.6	%			06:24:54
1	Y 371.029	406857.4	406857.4	97.227	%			06:26:11
1	Ag 328.068†	-429.6	40.9	0.3245	µg/L	0.3245	ppb	06:26:11
1	Al 396.153Radial†	-191.8	27.5	23.739	µg/L	23.739	ppb	06:24:54
1	As 188.979†	-3.9	-1.4	-1.0227	µg/L	-1.0227	ppb	06:26:31
1	B 249.677†	167.9	83.6	3.0504	µg/L	3.0504	ppb	06:26:11
1	Ba 233.527†	-3.9	13.1	0.1443	µg/L	0.1443	ppb	06:26:31
1	Be 313.107†	-6115.0	-2.9	0.0022	µg/L	0.0022	ppb	06:26:11
1	Ca 317.933Radial†	64.2	19.6	19.191	µg/L	19.191	ppb	06:25:14
1	Cd 226.502†	-38.6	125.5	1.7391	µg/L	1.7391	ppb	06:26:31
1	Co 228.616†	-185.8	20.0	0.5677	µg/L	0.5677	ppb	06:26:31
1	Cr 267.716†	169.7	27.6	0.6061	µg/L	0.6061	ppb	06:26:31
1	Cu 324.752†	2260.8	97.5	0.6507	µg/L	0.6507	ppb	06:26:11
1	Fe 238.204 Radial†	1.9	-0.7	-3.1333	µg/L	-3.1333	ppb	06:25:14
1	K 766.490 Radial†	165.7	58.2	43.794	µg/L	43.794	ppb	06:24:54
1	Mg 279.077 IEC†	5.5	4.2	67.363	µg/L	67.363	ppb	06:25:14
1	Mn 257.610†	460.3	135.3	0.2322	µg/L	0.2322	ppb	06:26:11
1	Mo 202.031†	12.1	4.8	0.4041	µg/L	0.4041	ppb	06:26:31
1	Na 589.592 Radial†	-3.3	-2.7	-244.22	µg/L	-244.22	ppb	06:25:14
1	Ni 231.604†	-67.0	10.4	0.3652	µg/L	0.3652	ppb	06:26:31
1	P 214.914†	18.8	-9.3	-8.8044	µg/L	-8.8044	ppb	06:26:31
1	Pb 220.353†	98.2	9.3	1.5252	µg/L	1.5252	ppb	06:26:31
1	S 181.975 Axial†	41.6	6.2	13.885	µg/L	13.885	ppb	06:26:31
1	Sb 206.836†	55.5	6.1	2.6974	µg/L	2.6974	ppb	06:26:31
1	Se 196.026†	-34.2	-7.5	-6.0790	µg/L	-6.0790	ppb	06:26:31
1	SiO2†	1325.5	200.5	33.418	µg/L	33.418	ppb	06:26:11
1	Si 251.611†	386.1	189.0	12.057	µg/L	12.057	ppb	06:26:31
1	Sn 189.927†	7.0	-7.2	-1.5312	µg/L	-1.5312	ppb	06:26:31
1	Sr 421.552†	37.1	13.7	0.7124	µg/L	0.7124	ppb	06:24:54
1	Ti 334.940†	-395.2	50.1	0.1780	µg/L	0.1780	ppb	06:26:11
1	Tl 190.801†	-43.4	18.5	6.2737	µg/L	6.2737	ppb	06:26:31
1	U 367.007†	1110.9	61.4	17.16	µg/L	17.16	ppb	06:26:11
1	V 292.402†	32.3	1.6	0.0330	µg/L	0.0330	ppb	06:26:11
1	Zn 213.857†	621.7	261.3	2.7807	µg/L	2.7807	ppb	06:26:31
2	Sc 361.383	395072.6	395072.6	97.830	%			06:26:36
2	Sc RADIAL	3972.6	3972.6	97.7	%			06:25:19
2	Y 371.029	409417.2	409417.2	97.839	%			06:26:36
2	Ag 328.068†	-374.8	99.8	0.8031	µg/L	0.8031	ppb	06:26:36
2	Al 396.153Radial†	-197.3	20.0	17.302	µg/L	17.302	ppb	06:25:19
2	As 188.979†	-4.4	-1.9	-1.3736	µg/L	-1.3736	ppb	06:26:57
2	B 249.677†	189.3	104.3	3.8995	µg/L	3.8995	ppb	06:26:36
2	Ba 233.527†	8.9	26.2	0.2866	µg/L	0.2866	ppb	06:26:57
2	Be 313.107†	-6091.1	62.4	0.0520	µg/L	0.0520	ppb	06:26:36
2	Ca 317.933Radial†	65.8	21.9	21.447	µg/L	21.447	ppb	06:25:39
2	Cd 226.502†	-47.2	117.0	1.6187	µg/L	1.6187	ppb	06:26:57
2	Co 228.616†	-198.8	7.9	0.2239	µg/L	0.2239	ppb	06:26:57
2	Cr 267.716†	155.0	11.4	0.2388	µg/L	0.2388	ppb	06:26:57
2	Cu 324.752†	2257.2	78.7	0.5343	µg/L	0.5343	ppb	06:26:36
2	Fe 238.204 Radial†	6.2	3.8	17.544	µg/L	17.544	ppb	06:25:39
2	K 766.490 Radial†	41.5	-67.3	-50.663	µg/L	-50.663	ppb	06:25:19
2	Mg 279.077 IEC†	5.9	4.7	75.919	µg/L	75.919	ppb	06:25:39
2	Mn 257.610†	441.8	113.3	0.1948	µg/L	0.1948	ppb	06:26:36
2	Mo 202.031†	8.7	1.3	0.1056	µg/L	0.1056	ppb	06:26:57
2	Na 589.592 Radial†	-2.1	-1.5	-134.72	µg/L	-134.72	ppb	06:25:39
2	Ni 231.604†	-74.0	3.7	0.1304	µg/L	0.1304	ppb	06:26:57
2	P 214.914†	39.9	12.2	11.543	µg/L	11.543	ppb	06:26:57

2	Pb 220.353†	81.4	-8.5	-1.4249	µg/L	-1.4249	ppb	06:26:57
2	S 181.975 Axial†	42.5	6.8	15.334	µg/L	15.334	ppb	06:26:57
2	Sb 206.836†	59.3	9.6	4.2321	µg/L	4.2321	ppb	06:26:57
2	Se 196.026†	-25.5	1.7	1.3712	µg/L	1.3712	ppb	06:26:57
2	SiO2†	1273.9	138.9	23.149	µg/L	23.149	ppb	06:26:36
2	Si 251.611†	360.4	160.1	10.216	µg/L	10.216	ppb	06:26:57
2	Sn 189.927†	8.5	-5.7	-1.2090	µg/L	-1.2090	ppb	06:26:57
2	Sr 421.552†	23.3	-0.2	-0.0089	µg/L	-0.0089	ppb	06:25:19
2	Ti 334.940†	-415.0	32.4	0.1088	µg/L	0.1088	ppb	06:26:36
2	Tl 190.801†	-48.3	13.8	4.6727	µg/L	4.6727	ppb	06:26:57
2	U 367.007†	1149.0	92.9	25.86	µg/L	25.86	ppb	06:26:36
2	V 292.402†	43.1	12.4	0.1662	µg/L	0.1662	ppb	06:26:36
2	Zn 213.857†	620.9	256.3	2.7178	µg/L	2.7178	ppb	06:26:57
3	Sc 361.383	392557.6	392557.6	97.207	%			06:27:02
3	Sc RADIAL	3944.6	3944.6	97.0	%			06:25:44
3	Y 371.029	407664.5	407664.5	97.420	%			06:27:02
3	Ag 328.068†	-483.1	-14.1	-0.1181	µg/L	-0.1181	ppb	06:27:02
3	Al 396.153Radial†	-167.5	49.3	42.596	µg/L	42.596	ppb	06:25:44
3	As 188.979†	-4.1	-1.6	-1.1413	µg/L	-1.1413	ppb	06:27:22
3	B 249.677†	124.1	38.5	1.4689	µg/L	1.4689	ppb	06:27:02
3	Ba 233.527†	-27.4	-11.1	-0.1224	µg/L	-0.1224	ppb	06:27:22
3	Be 313.107†	-6094.8	18.7	0.0170	µg/L	0.0170	ppb	06:27:02
3	Ca 317.933Radial†	54.8	11.1	10.842	µg/L	10.842	ppb	06:26:04
3	Cd 226.502†	-48.5	115.3	1.5964	µg/L	1.5964	ppb	06:27:22
3	Co 228.616†	-183.0	22.9	0.6490	µg/L	0.6490	ppb	06:27:22
3	Cr 267.716†	160.0	17.6	0.3873	µg/L	0.3873	ppb	06:27:22
3	Cu 324.752†	2357.4	196.5	1.3006	µg/L	1.3006	ppb	06:27:02
3	Fe 238.204 Radial†	5.4	3.0	13.935	µg/L	13.935	ppb	06:26:04
3	K 766.490 Radial†	154.3	49.2	37.053	µg/L	37.053	ppb	06:25:44
3	Mg 279.077 IEC†	5.7	4.5	72.558	µg/L	72.558	ppb	06:26:04
3	Mn 257.610†	432.9	107.0	0.1838	µg/L	0.1838	ppb	06:27:02
3	Mo 202.031†	6.3	-1.1	-0.0924	µg/L	-0.0924	ppb	06:27:22
3	Na 589.592 Radial†	-3.9	-3.4	-313.61	µg/L	-313.61	ppb	06:26:04
3	Ni 231.604†	-70.4	7.0	0.2440	µg/L	0.2440	ppb	06:27:22
3	P 214.914†	35.5	7.9	7.4899	µg/L	7.4899	ppb	06:27:22
3	Pb 220.353†	105.5	16.9	2.7621	µg/L	2.7621	ppb	06:27:22
3	S 181.975 Axial†	41.0	5.6	12.612	µg/L	12.612	ppb	06:27:22
3	Sb 206.836†	48.0	-1.6	-0.7111	µg/L	-0.7111	ppb	06:27:22
3	Se 196.026†	-35.2	-8.5	-6.8864	µg/L	-6.8864	ppb	06:27:22
3	SiO2†	1257.6	130.6	21.759	µg/L	21.759	ppb	06:27:02
3	Si 251.611†	366.2	168.5	10.755	µg/L	10.755	ppb	06:27:22
3	Sn 189.927†	18.7	4.9	1.0526	µg/L	1.0526	ppb	06:27:22
3	Sr 421.552†	12.7	-10.9	-0.5698	µg/L	-0.5698	ppb	06:25:44
3	Ti 334.940†	-460.9	-17.5	-0.0706	µg/L	-0.0706	ppb	06:27:02
3	Tl 190.801†	-47.3	14.5	4.9188	µg/L	4.9188	ppb	06:27:22
3	U 367.007†	1097.0	46.9	13.04	µg/L	13.04	ppb	06:27:02
3	V 292.402†	62.0	32.1	0.3923	µg/L	0.3923	ppb	06:27:02
3	Zn 213.857†	595.6	234.3	2.4849	µg/L	2.4849	ppb	06:27:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	393379.1	97.411	%	0.3632				0.37%
Sc RADIAL	3976.0	97.8	%	0.82				0.84%
Y 371.029	407979.7	97.495	%	0.3127				0.32%
Ag 328.068†	42.2	0.3365	µg/L	0.46072	0.3365	ppb	0.46072	136.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	32.3	27.879	µg/L	13.1453	27.879	ppb	13.1453	47.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-1.1792	µg/L	0.17847	-1.1792	ppb	0.17847	15.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	75.4	2.8063	µg/L	1.23354	2.8063	ppb	1.23354	43.96%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.4	0.1029	µg/L	0.20764	0.1029	ppb	0.20764	201.87%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	26.1	0.0238	µg/L	0.02557	0.0238	ppb	0.02557	107.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	17.5	17.160	µg/L	5.5867	17.160	ppb	5.5867	32.56%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	119.2	1.6514	µg/L	0.07680	1.6514	ppb	0.07680	4.65%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                16.9      0.4802 µg/L       0.22566      0.4802 ppb        0.22566  46.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                18.9      0.4107 µg/L       0.18477      0.4107 ppb        0.18477  44.99%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               124.2      0.8286 µg/L       0.41296      0.8286 ppb        0.41296  49.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      9.4484 µg/L      11.04448      9.4484 ppb       11.04448 116.89%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.4      10.061 µg/L       52.6967      10.061 ppb        52.6967 523.76%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             4.4      71.947 µg/L        4.3107      71.947 ppb         4.3107   5.99%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               118.5      0.2036 µg/L       0.02538      0.2036 ppb        0.02538  12.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7      0.1391 µg/L       0.24991      0.1391 ppb        0.24991 179.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -2.5     -230.85 µg/L        90.189     -230.85 ppb         90.189  39.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.0      0.2465 µg/L       0.11745      0.2465 ppb        0.11745  47.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.6      3.4095 µg/L      10.76994      3.4095 ppb       10.76994 315.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.9      0.9541 µg/L       2.15114      0.9541 ppb        2.15114 225.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.2      13.944 µg/L        1.3618      13.944 ppb         1.3618   9.77%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.7      2.0728 µg/L       2.53009      2.0728 ppb        2.53009 122.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -4.7     -3.8647 µg/L       4.55239     -3.8647 ppb        4.55239 117.79%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     156.7      26.109 µg/L        6.3676      26.109 ppb         6.3676  24.39%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               172.5      11.009 µg/L        0.9466      11.009 ppb         0.9466   8.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.6     -0.5625 µg/L       1.40796     -0.5625 ppb        1.40796 250.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.9      0.0445 µg/L       0.64278      0.0445 ppb        0.64278 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                21.7      0.0721 µg/L       0.12831      0.0721 ppb        0.12831 178.04%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                15.6      5.2884 µg/L       0.86215      5.2884 ppb        0.86215  16.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 67.1       18.69 µg/L         6.544       18.69 ppb          6.544  35.02%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 15.4      0.1972 µg/L       0.18166      0.1972 ppb        0.18166  92.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               250.6      2.6612 µg/L       0.15581      2.6612 ppb        0.15581   5.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR4
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 114
Date Collected: 9/29/2017 06:28:22
Data Type: Reprocessed on 9/29/2017 06:44:21

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR4

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	397555.9	397555.9	98.445	%			06:30:17
1	Sc RADIAL	3905.7	3905.7	96.0	%			06:29:00
1	Y 371.029	413275.6	413275.6	98.761	%			06:30:17
1	Ag 328.068†	-528.6	-54.1	-0.4557	µg/L	-0.4557	ppb	06:30:22
1	Al 396.153Radial†	-255.5	-44.0	-38.065	µg/L	-38.065	ppb	06:29:00
1	As 188.979†	-8.2	-5.7	-4.1683	µg/L	-4.1683	ppb	06:30:42
1	B 249.677†	131.3	44.2	1.6525	µg/L	1.6525	ppb	06:30:22
1	Ba 233.527†	929350.4	944046.9	10364	µg/L	10364	ppb	06:30:17
1	Be 313.107†	-6208.0	-17.4	-0.0045	µg/L	-0.0045	ppb	06:30:22
1	Ca 317.933Radial†	47.8	4.3	4.2052	µg/L	4.2052	ppb	06:29:20
1	Cd 226.502†	-97.3	66.4	0.9188	µg/L	0.9188	ppb	06:30:42
1	Co 228.616†	-534.2	-331.5	-1.5526	µg/L	-1.5526	ppb	06:30:42
1	Cr 267.716†	188.4	44.4	0.9709	µg/L	0.9709	ppb	06:30:42
1	Cu 324.752†	2286.6	94.1	0.6397	µg/L	0.6397	ppb	06:30:22
1	Fe 238.204 Radial†	2.3	-0.2	-0.9381	µg/L	-0.9381	ppb	06:29:20
1	K 766.490 Radial†	47.8	-60.0	-26.715	µg/L	-26.715	ppb	06:29:00
1	Mg 279.077 IEC†	7.5	6.4	103.74	µg/L	103.74	ppb	06:29:20
1	Mn 257.610†	328.6	-4.5	-0.0115	µg/L	-0.0115	ppb	06:30:22
1	Mo 202.031†	6.6	-0.9	-0.0776	µg/L	-0.0776	ppb	06:30:42
1	Na 589.592 Radial†	-0.2	0.4	38.753	µg/L	38.753	ppb	06:29:20
1	Ni 231.604†	-69.6	8.7	0.3017	µg/L	0.3017	ppb	06:30:42
1	P 214.914†	25.5	-2.7	-2.5441	µg/L	-2.5441	ppb	06:30:42
1	Pb 220.353†	102.6	12.6	2.0329	µg/L	2.0329	ppb	06:30:42
1	S 181.975 Axial†	38.4	2.4	5.3357	µg/L	5.3357	ppb	06:30:42
1	Sb 206.836†	57.9	7.8	3.4239	µg/L	3.4239	ppb	06:30:42
1	Se 196.026†	-23.1	4.3	3.5161	µg/L	3.5161	ppb	06:30:42
1	SiO2†	1181.2	36.7	6.1275	µg/L	6.1275	ppb	06:30:22
1	Si 251.611†	278.4	74.5	4.7582	µg/L	4.7582	ppb	06:30:42
1	Sn 189.927†	6.7	-7.5	-1.6131	µg/L	-1.6131	ppb	06:30:42
1	Sr 421.552†	36.5	14.0	0.7314	µg/L	0.7314	ppb	06:29:00
1	Ti 334.940†	-427.9	21.9	0.0648	µg/L	0.0648	ppb	06:30:22
1	Tl 190.801†	-55.6	6.7	2.3208	µg/L	2.3208	ppb	06:30:42
1	U 367.007†	1185.4	122.6	34.22	µg/L	34.22	ppb	06:30:22
1	V 292.402†	55.3	24.6	0.3133	µg/L	0.3133	ppb	06:30:22
1	Zn 213.857†	580.0	210.8	2.2432	µg/L	2.2432	ppb	06:30:42
2	Sc 361.383	395364.0	395364.0	97.902	%			06:30:48
2	Sc RADIAL	3897.3	3897.3	95.8	%			06:29:26
2	Y 371.029	410885.6	410885.6	98.190	%			06:30:48
2	Ag 328.068†	-488.9	-16.5	-0.1374	µg/L	-0.1374	ppb	06:30:53
2	Al 396.153Radial†	-174.8	39.6	34.135	µg/L	34.135	ppb	06:29:26
2	As 188.979†	1.1	3.8	2.7544	µg/L	2.7544	ppb	06:31:13
2	B 249.677†	208.2	123.5	4.5594	µg/L	4.5594	ppb	06:30:53
2	Ba 233.527†	923001.2	942795.5	10350	µg/L	10350	ppb	06:30:48
2	Be 313.107†	-6140.1	17.0	0.0142	µg/L	0.0142	ppb	06:30:53
2	Ca 317.933Radial†	52.6	9.4	9.2228	µg/L	9.2228	ppb	06:29:46
2	Cd 226.502†	-97.3	65.8	0.9109	µg/L	0.9109	ppb	06:31:13
2	Co 228.616†	-542.5	-343.0	-1.8870	µg/L	-1.8870	ppb	06:31:13
2	Cr 267.716†	132.9	-11.3	-0.2544	µg/L	-0.2544	ppb	06:31:13
2	Cu 324.752†	2341.0	162.6	1.0723	µg/L	1.0723	ppb	06:30:53
2	Fe 238.204 Radial†	2.1	-0.4	-1.6692	µg/L	-1.6692	ppb	06:29:46
2	K 766.490 Radial†	134.3	30.3	41.229	µg/L	41.229	ppb	06:29:26
2	Mg 279.077 IEC†	6.3	5.2	84.136	µg/L	84.136	ppb	06:29:46
2	Mn 257.610†	456.8	128.3	0.2196	µg/L	0.2196	ppb	06:30:53
2	Mo 202.031†	22.9	15.8	1.3193	µg/L	1.3193	ppb	06:31:13
2	Na 589.592 Radial†	-2.2	-1.7	-156.76	µg/L	-156.76	ppb	06:29:46
2	Ni 231.604†	-62.1	16.0	0.5583	µg/L	0.5583	ppb	06:31:13
2	P 214.914†	19.2	-9.0	-8.5431	µg/L	-8.5431	ppb	06:31:13

2	Pb 220.353†	98.3	8.8	1.4135	µg/L	1.4135	ppb	06:31:13
2	S 181.975 Axial†	36.7	0.9	2.0963	µg/L	2.0963	ppb	06:31:13
2	Sb 206.836†	49.3	-0.7	-0.2677	µg/L	-0.2677	ppb	06:31:13
2	Se 196.026†	-40.7	-13.8	-11.245	µg/L	-11.245	ppb	06:31:13
2	SiO2†	1191.1	53.5	8.8913	µg/L	8.8913	ppb	06:30:53
2	Si 251.611†	285.2	83.0	5.2725	µg/L	5.2725	ppb	06:31:13
2	Sn 189.927†	14.6	0.6	0.1327	µg/L	0.1327	ppb	06:31:13
2	Sr 421.552†	25.9	3.1	0.1595	µg/L	0.1595	ppb	06:29:26
2	Ti 334.940†	-391.4	56.9	0.2077	µg/L	0.2077	ppb	06:30:53
2	Tl 190.801†	-61.5	0.4	0.1974	µg/L	0.1974	ppb	06:31:13
2	U 367.007†	1084.4	26.1	7.295	µg/L	7.295	ppb	06:30:53
2	V 292.402†	48.8	18.2	0.2321	µg/L	0.2321	ppb	06:30:53
2	Zn 213.857†	568.1	201.9	2.1484	µg/L	2.1484	ppb	06:31:13
3	Sc 361.383	396733.6	396733.6	98.241	%			06:31:18
3	Sc RADIAL	3917.3	3917.3	96.3	%			06:29:51
3	Y 371.029	412386.5	412386.5	98.548	%			06:31:18
3	Ag 328.068†	-453.2	21.6	0.1715	µg/L	0.1715	ppb	06:31:23
3	Al 396.153Radial†	-203.2	11.1	9.5335	µg/L	9.5335	ppb	06:29:51
3	As 188.979†	-8.8	-6.3	-4.6283	µg/L	-4.6283	ppb	06:31:43
3	B 249.677†	144.8	58.2	2.2197	µg/L	2.2197	ppb	06:31:23
3	Ba 233.527†	924616.2	941184.7	10333	µg/L	10333	ppb	06:31:18
3	Be 313.107†	-6162.8	15.5	0.0147	µg/L	0.0147	ppb	06:31:23
3	Ca 317.933Radial†	51.5	8.0	7.8643	µg/L	7.8643	ppb	06:30:11
3	Cd 226.502†	-113.8	49.3	0.6809	µg/L	0.6809	ppb	06:31:43
3	Co 228.616†	-529.5	-327.9	-1.4709	µg/L	-1.4709	ppb	06:31:43
3	Cr 267.716†	163.8	19.7	0.4313	µg/L	0.4313	ppb	06:31:43
3	Cu 324.752†	2211.7	22.7	0.1582	µg/L	0.1582	ppb	06:31:23
3	Fe 238.204 Radial†	4.9	2.5	11.592	µg/L	11.592	ppb	06:30:11
3	K 766.490 Radial†	148.0	43.8	51.369	µg/L	51.369	ppb	06:29:51
3	Mg 279.077 IEC†	1.5	0.2	2.5519	µg/L	2.5519	ppb	06:30:11
3	Mn 257.610†	413.3	82.4	0.1435	µg/L	0.1435	ppb	06:31:23
3	Mo 202.031†	15.7	8.3	0.6958	µg/L	0.6958	ppb	06:31:43
3	Na 589.592 Radial†	-2.0	-1.5	-132.18	µg/L	-132.18	ppb	06:30:11
3	Ni 231.604†	-66.4	11.8	0.4103	µg/L	0.4103	ppb	06:31:43
3	P 214.914†	25.8	-2.4	-2.2587	µg/L	-2.2587	ppb	06:31:43
3	Pb 220.353†	84.0	-6.1	-1.0412	µg/L	-1.0412	ppb	06:31:43
3	S 181.975 Axial†	41.6	5.7	12.810	µg/L	12.810	ppb	06:31:43
3	Sb 206.836†	45.8	-4.3	-1.9154	µg/L	-1.9154	ppb	06:31:43
3	Se 196.026†	-37.6	-10.5	-8.5601	µg/L	-8.5601	ppb	06:31:43
3	SiO2†	1162.5	20.1	3.3519	µg/L	3.3519	ppb	06:31:23
3	Si 251.611†	280.8	77.5	4.9301	µg/L	4.9301	ppb	06:31:43
3	Sn 189.927†	9.0	-5.1	-1.0955	µg/L	-1.0955	ppb	06:31:43
3	Sr 421.552†	27.3	4.4	0.2282	µg/L	0.2282	ppb	06:29:51
3	Ti 334.940†	-458.7	-10.3	-0.0442	µg/L	-0.0442	ppb	06:31:23
3	Tl 190.801†	-68.1	-6.1	-2.0193	µg/L	-2.0193	ppb	06:31:43
3	U 367.007†	1110.0	48.3	13.42	µg/L	13.42	ppb	06:31:23
3	V 292.402†	34.1	3.1	0.0533	µg/L	0.0533	ppb	06:31:23
3	Zn 213.857†	575.3	207.2	2.1973	µg/L	2.1973	ppb	06:31:43

Mean Data: LR4

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396551.1	98.196	%	0.2742				0.28%
Sc RADIAL	3906.7	96.0	%	0.25				0.26%
Y 371.029	412182.6	98.500	%	0.2887				0.29%
Ag 328.068†	-16.3	-0.1405	µg/L	0.31364	-0.1405	ppb	0.31364	223.18%
Al 396.153Radial†	2.2	1.8676	µg/L	36.70537	1.8676	ppb	36.70537	>999.9%
As 188.979†	-2.8	-2.0141	µg/L	4.13603	-2.0141	ppb	4.13603	205.36%
B 249.677†	75.3	2.8105	µg/L	1.54086	2.8105	ppb	1.54086	54.83%
Ba 233.527†	942675.7	10349	µg/L	15.75	10349	ppb	15.75	0.15%
QC value within limits for Ba 233.527 Recovery = 103.49%								
Be 313.107†	5.0	0.0081	µg/L	0.01090	0.0081	ppb	0.01090	134.28%
Ca 317.933Radial†	7.2	7.0975	µg/L	2.59519	7.0975	ppb	2.59519	36.57%
Cd 226.502†	60.5	0.8369	µg/L	0.13513	0.8369	ppb	0.13513	16.15%
Co 228.616†	-334.1	-1.6368	µg/L	0.22045	-1.6368	ppb	0.22045	13.47%
Cr 267.716†	17.6	0.3826	µg/L	0.61413	0.3826	ppb	0.61413	160.51%
Cu 324.752†	93.2	0.6234	µg/L	0.45729	0.6234	ppb	0.45729	73.35%
Fe 238.204 Radial†	0.6	2.9950	µg/L	7.45441	2.9950	ppb	7.45441	248.90%
K 766.490 Radial†	4.7	21.961	µg/L	42.4587	21.961	ppb	42.4587	193.34%
Mg 279.077 IEC†	3.9	63.475	µg/L	53.6633	63.475	ppb	53.6633	84.54%

Mn 257.610†	68.7	0.1172 µg/L	0.11778	0.1172 ppb	0.11778	100.51%
Mo 202.031†	7.7	0.6459 µg/L	0.69978	0.6459 ppb	0.69978	108.35%
Na 589.592 Radial†	-0.9	-83.395 µg/L	106.4947	-83.395 ppb	106.4947	127.70%
Ni 231.604†	12.2	0.4234 µg/L	0.12879	0.4234 ppb	0.12879	30.42%
P 214.914†	-4.7	-4.4487 µg/L	3.54878	-4.4487 ppb	3.54878	79.77%
Pb 220.353†	5.1	0.8017 µg/L	1.62576	0.8017 ppb	1.62576	202.78%
S 181.975 Axial†	3.0	6.7473 µg/L	5.49454	6.7473 ppb	5.49454	81.43%
Sb 206.836†	0.9	0.4136 µg/L	2.73407	0.4136 ppb	2.73407	661.09%
Se 196.026†	-6.7	-5.4296 µg/L	7.86259	-5.4296 ppb	7.86259	144.81%
SiO2†	36.8	6.1235 µg/L	2.76969	6.1235 ppb	2.76969	45.23%
Si 251.611†	78.3	4.9869 µg/L	0.26182	4.9869 ppb	0.26182	5.25%
Sn 189.927†	-4.0	-0.8586 µg/L	0.89668	-0.8586 ppb	0.89668	104.43%
Sr 421.552†	7.2	0.3730 µg/L	0.31223	0.3730 ppb	0.31223	83.70%
Ti 334.940†	22.8	0.0761 µg/L	0.12632	0.0761 ppb	0.12632	166.03%
Tl 190.801†	0.3	0.1663 µg/L	2.17023	0.1663 ppb	2.17023	>999.9%
U 367.007†	65.7	18.31 µg/L	14.114	18.31 ppb	14.114	77.07%
V 292.402†	15.3	0.1996 µg/L	0.13298	0.1996 ppb	0.13298	66.64%
Zn 213.857†	206.6	2.1963 µg/L	0.04743	2.1963 ppb	0.04743	2.16%

All analyte(s) passed QC.

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Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 9/29/2017 06:31:51
Data Type: Reprocessed on 9/29/2017 06:44:22

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	398316.1	398316.1	98.633	%			06:33:40
1	Sc RADIAL	3872.1	3872.1	95.2	%			06:32:43
1	Y 371.029	408288.8	408288.8	97.569	%			06:33:40
1	Ag 328.068†	59404.5	60710.5	495.42	µg/L	495.42	ppb	06:33:40
1	Al 396.153Radial†	5401.6	5896.2	5074.2	µg/L	5074.2	ppb	06:32:23
1	As 188.979†	645.2	656.8	484.89	µg/L	484.89	ppb	06:34:00
1	B 249.677†	13329.5	13425.0	512.51	µg/L	512.51	ppb	06:33:40
1	Ba 233.527†	44236.1	44866.2	492.42	µg/L	492.42	ppb	06:33:40
1	Be 313.107†	653158.7	668498.0	489.70	µg/L	489.70	ppb	06:33:40
1	Ca 317.933Radial†	5043.1	5252.1	5143.4	µg/L	5143.4	ppb	06:32:43
1	Cd 226.502†	34755.5	35402.3	490.15	µg/L	490.15	ppb	06:33:40
1	Co 228.616†	17036.0	17483.2	496.74	µg/L	496.74	ppb	06:33:40
1	Cr 267.716†	21855.7	22011.6	491.73	µg/L	491.73	ppb	06:33:40
1	Cu 324.752†	76401.7	75231.8	494.82	µg/L	494.82	ppb	06:33:40
1	Fe 238.204 Radial†	1051.4	1101.9	5087.6	µg/L	5087.6	ppb	06:32:43
1	K 766.490 Radial†	6291.9	6499.6	4892.5	µg/L	4892.5	ppb	06:32:23
1	Mg 279.077 IEC†	310.5	324.8	5259.4	µg/L	5259.4	ppb	06:32:43
1	Mn 257.610†	280858.6	284412.1	493.52	µg/L	493.52	ppb	06:33:40
1	Mo 202.031†	5723.4	5795.1	484.29	µg/L	484.29	ppb	06:34:00
1	Na 589.592 Radial†	102.5	108.3	9868.3	µg/L	9868.3	ppb	06:32:43
1	Ni 231.604†	14124.0	14399.1	504.35	µg/L	504.35	ppb	06:33:40
1	P 214.914†	2522.9	2529.3	2384.6	µg/L	2384.6	ppb	06:34:00
1	Pb 220.353†	2957.5	2906.8	478.06	µg/L	478.06	ppb	06:34:00
1	S 181.975 Axial†	463.9	433.7	970.32	µg/L	970.32	ppb	06:34:00
1	Sb 206.836†	1141.3	1106.2	484.66	µg/L	484.66	ppb	06:34:00
1	Se 196.026†	562.1	597.7	489.93	µg/L	489.93	ppb	06:34:00
1	SiO2†	32531.6	31819.2	5304.8	µg/L	5304.8	ppb	06:33:40
1	Si 251.611†	38553.3	38879.3	2470.8	µg/L	2470.8	ppb	06:33:40
1	Sn 189.927†	2262.6	2279.6	488.14	µg/L	488.14	ppb	06:34:00
1	Sr 421.552†	9044.8	9477.4	493.87	µg/L	493.87	ppb	06:32:23
1	Ti 334.940†	129758.9	132013.6	488.58	µg/L	488.58	ppb	06:33:40
1	Tl 190.801†	1363.1	1445.2	486.15	µg/L	486.15	ppb	06:34:00
1	U 367.007†	2815.0	1772.4	470.0	µg/L	470.0	ppb	06:33:40
1	V 292.402†	40395.2	40923.3	494.19	µg/L	494.19	ppb	06:33:40
1	Zn 213.857†	45382.2	45632.6	482.56	µg/L	482.56	ppb	06:33:40
2	Sc 361.383	398356.5	398356.5	98.643	%			06:34:06
2	Sc RADIAL	3886.1	3886.1	95.5	%			06:33:08
2	Y 371.029	407904.6	407904.6	97.477	%			06:34:06
2	Ag 328.068†	59304.8	60603.4	494.54	µg/L	494.54	ppb	06:34:06
2	Al 396.153Radial†	5425.6	5900.8	5078.3	µg/L	5078.3	ppb	06:32:48
2	As 188.979†	649.1	660.6	487.66	µg/L	487.66	ppb	06:34:27
2	B 249.677†	13327.4	13421.5	512.22	µg/L	512.22	ppb	06:34:06
2	Ba 233.527†	44251.7	44877.5	492.54	µg/L	492.54	ppb	06:34:06
2	Be 313.107†	654186.9	669473.0	490.41	µg/L	490.41	ppb	06:34:06
2	Ca 317.933Radial†	5040.2	5229.9	5121.7	µg/L	5121.7	ppb	06:33:08
2	Cd 226.502†	34950.2	35596.1	492.84	µg/L	492.84	ppb	06:34:06
2	Co 228.616†	17068.5	17514.4	497.63	µg/L	497.63	ppb	06:34:06
2	Cr 267.716†	21898.2	22052.4	492.65	µg/L	492.65	ppb	06:34:06
2	Cu 324.752†	76379.4	75201.3	494.61	µg/L	494.61	ppb	06:34:06
2	Fe 238.204 Radial†	1047.3	1093.6	5049.4	µg/L	5049.4	ppb	06:33:08
2	K 766.490 Radial†	6344.9	6531.1	4916.3	µg/L	4916.3	ppb	06:32:48
2	Mg 279.077 IEC†	314.2	327.5	5302.6	µg/L	5302.6	ppb	06:33:08
2	Mn 257.610†	281190.9	284720.0	494.05	µg/L	494.05	ppb	06:34:06
2	Mo 202.031†	5707.1	5777.9	482.85	µg/L	482.85	ppb	06:34:27
2	Na 589.592 Radial†	102.1	107.5	9788.2	µg/L	9788.2	ppb	06:33:08
2	Ni 231.604†	14100.7	14374.0	503.47	µg/L	503.47	ppb	06:34:06
2	P 214.914†	2526.0	2532.2	2387.4	µg/L	2387.4	ppb	06:34:27

2	Pb 220.353†	2993.2	2942.7	483.98 µg/L	483.98 ppb		06:34:27
2	S 181.975 Axial†	464.4	434.2	971.49 µg/L	971.49 ppb		06:34:27
2	Sb 206.836†	1120.6	1085.0	475.26 µg/L	475.26 ppb		06:34:27
2	Se 196.026†	555.7	591.1	484.55 µg/L	484.55 ppb		06:34:27
2	SiO2†	32607.4	31892.7	5317.1 µg/L	5317.1 ppb		06:34:06
2	Si 251.611†	38549.3	38871.2	2470.4 µg/L	2470.4 ppb		06:34:06
2	Sn 189.927†	2242.4	2258.9	483.72 µg/L	483.72 ppb		06:34:27
2	Sr 421.552†	9089.1	9489.3	494.50 µg/L	494.50 ppb		06:32:48
2	Ti 334.940†	129737.6	131978.6	488.46 µg/L	488.46 ppb		06:34:06
2	Tl 190.801†	1363.6	1445.6	486.27 µg/L	486.27 ppb		06:34:27
2	U 367.007†	2791.7	1748.5	463.6 µg/L	463.6 ppb		06:34:06
2	V 292.402†	40486.1	41011.2	495.22 µg/L	495.22 ppb		06:34:06
2	Zn 213.857†	45374.3	45620.0	482.44 µg/L	482.44 ppb		06:34:06
3	Sc 361.383	393789.6	393789.6	97.512 %			06:34:33
3	Sc RADIAL	3882.3	3882.3	95.4 %			06:33:33
3	Y 371.029	403378.9	403378.9	96.396 %			06:34:33
3	Ag 328.068†	58764.8	60746.8	495.70 µg/L	495.70 ppb		06:34:33
3	Al 396.153Radial†	5432.0	5913.2	5088.7 µg/L	5088.7 ppb		06:33:13
3	As 188.979†	642.8	661.8	488.59 µg/L	488.59 ppb		06:34:53
3	B 249.677†	13125.2	13370.8	510.38 µg/L	510.38 ppb		06:34:33
3	Ba 233.527†	43793.0	44927.3	493.09 µg/L	493.09 ppb		06:34:33
3	Be 313.107†	646728.7	669515.8	490.45 µg/L	490.45 ppb		06:34:33
3	Ca 317.933Radial†	5042.0	5237.1	5128.7 µg/L	5128.7 ppb		06:33:33
3	Cd 226.502†	34449.6	35493.6	491.42 µg/L	491.42 ppb		06:34:33
3	Co 228.616†	16859.3	17500.5	497.24 µg/L	497.24 ppb		06:34:33
3	Cr 267.716†	21609.6	22013.9	491.77 µg/L	491.77 ppb		06:34:33
3	Cu 324.752†	75526.8	75225.0	494.78 µg/L	494.78 ppb		06:34:33
3	Fe 238.204 Radial†	1047.1	1094.5	5053.5 µg/L	5053.5 ppb		06:33:33
3	K 766.490 Radial†	6396.3	6591.6	4961.8 µg/L	4961.8 ppb		06:33:13
3	Mg 279.077 IEC†	313.6	327.1	5297.0 µg/L	5297.0 ppb		06:33:33
3	Mn 257.610†	278292.1	285053.2	494.62 µg/L	494.62 ppb		06:34:33
3	Mo 202.031†	5712.1	5850.2	488.89 µg/L	488.89 ppb		06:34:53
3	Na 589.592 Radial†	106.7	112.4	10237 µg/L	10237 ppb		06:33:33
3	Ni 231.604†	13990.6	14426.9	505.32 µg/L	505.32 ppb		06:34:33
3	P 214.914†	2528.6	2564.5	2418.0 µg/L	2418.0 ppb		06:34:53
3	Pb 220.353†	2979.0	2963.3	487.36 µg/L	487.36 ppb		06:34:53
3	S 181.975 Axial†	460.2	435.3	973.99 µg/L	973.99 ppb		06:34:53
3	Sb 206.836†	1138.4	1116.5	489.27 µg/L	489.27 ppb		06:34:53
3	Se 196.026†	542.7	584.3	479.00 µg/L	479.00 ppb		06:34:53
3	SiO2†	32143.6	31800.4	5301.6 µg/L	5301.6 ppb		06:34:33
3	Si 251.611†	38154.4	38919.5	2473.3 µg/L	2473.3 ppb		06:34:33
3	Sn 189.927†	2253.3	2296.5	491.74 µg/L	491.74 ppb		06:34:53
3	Sr 421.552†	9054.7	9462.8	493.12 µg/L	493.12 ppb		06:33:13
3	Ti 334.940†	128375.6	132107.2	488.92 µg/L	488.92 ppb		06:34:33
3	Tl 190.801†	1356.3	1454.1	489.16 µg/L	489.16 ppb		06:34:53
3	U 367.007†	2861.8	1853.3	492.8 µg/L	492.8 ppb		06:34:33
3	V 292.402†	40129.3	41121.4	496.60 µg/L	496.60 ppb		06:34:33
3	Zn 213.857†	44923.3	45691.0	483.19 µg/L	483.19 ppb		06:34:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396820.7	98.263	%	0.6500				0.66%
Sc RADIAL	3880.2	95.4	%	0.18				0.19%
Y 371.029	406524.1	97.147	%	0.6525				0.67%
Ag 328.068†	60686.9	495.22	µg/L	0.603	495.22	ppb	0.603	0.12%
QC value within limits for Ag 328.068 Recovery = 99.04%								
Al 396.153Radial†	5903.4	5080.4	µg/L	7.47	5080.4	ppb	7.47	0.15%
QC value within limits for Al 396.153Radial Recovery = 101.61%								
As 188.979†	659.7	487.05	µg/L	1.927	487.05	ppb	1.927	0.40%
QC value within limits for As 188.979 Recovery = 97.41%								
B 249.677†	13405.8	511.70	µg/L	1.158	511.70	ppb	1.158	0.23%
QC value within limits for B 249.677 Recovery = 102.34%								
Ba 233.527†	44890.3	492.68	µg/L	0.358	492.68	ppb	0.358	0.07%
QC value within limits for Ba 233.527 Recovery = 98.54%								
Be 313.107†	669162.3	490.19	µg/L	0.423	490.19	ppb	0.423	0.09%
QC value within limits for Be 313.107 Recovery = 98.04%								
Ca 317.933Radial†	5239.7	5131.3	µg/L	11.10	5131.3	ppb	11.10	0.22%
QC value within limits for Ca 317.933Radial Recovery = 102.63%								
Cd 226.502†	35497.3	491.47	µg/L	1.346	491.47	ppb	1.346	0.27%

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   QC value within limits for Cd 226.502  Recovery = 98.29%
Co 228.616†            17499.4      497.21 µg/L         0.443      497.21 ppb          0.443   0.09%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            22026.0      492.05 µg/L         0.519      492.05 ppb          0.519   0.11%
   QC value within limits for Cr 267.716  Recovery = 98.41%
Cu 324.752†            75219.4      494.74 µg/L         0.110      494.74 ppb          0.110   0.02%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†      1096.6      5063.5 µg/L         20.98      5063.5 ppb          20.98   0.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.27%
K 766.490 Radial†       6540.8      4923.5 µg/L         35.18      4923.5 ppb          35.18   0.71%
   QC value within limits for K 766.490 Radial  Recovery = 98.47%
Mg 279.077 IEC†          326.5      5286.3 µg/L         23.49      5286.3 ppb          23.49   0.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.73%
Mn 257.610†           284728.5      494.06 µg/L         0.555      494.06 ppb          0.555   0.11%
   QC value within limits for Mn 257.610  Recovery = 98.81%
Mo 202.031†             5807.7      485.34 µg/L         3.153      485.34 ppb          3.153   0.65%
   QC value within limits for Mo 202.031  Recovery = 97.07%
Na 589.592 Radial†       109.4      9964.4 µg/L        239.12      9964.4 ppb         239.12   2.40%
   QC value within limits for Na 589.592 Radial  Recovery = 99.64%
Ni 231.604†            14400.0      504.38 µg/L         0.926      504.38 ppb          0.926   0.18%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              2542.0      2396.7 µg/L         18.56      2396.7 ppb          18.56   0.77%
   QC value within limits for P 214.914  Recovery = 95.87%
Pb 220.353†             2937.6      483.13 µg/L         4.705      483.13 ppb          4.705   0.97%
   QC value within limits for Pb 220.353  Recovery = 96.63%
S 181.975 Axial†         434.4      971.94 µg/L         1.876      971.94 ppb          1.876   0.19%
   QC value within limits for S 181.975 Axial  Recovery = 97.19%
Sb 206.836†             1102.6      483.06 µg/L         7.142      483.06 ppb          7.142   1.48%
   QC value within limits for Sb 206.836  Recovery = 96.61%
Se 196.026†              591.0      484.49 µg/L         5.462      484.49 ppb          5.462   1.13%
   QC value within limits for Se 196.026  Recovery = 96.90%
SiO2†                  31837.5      5307.9 µg/L          8.16      5307.9 ppb           8.16   0.15%
   QC value within limits for SiO2  Recovery = 99.26%
Si 251.611†            38890.0      2471.5 µg/L          1.58      2471.5 ppb           1.58   0.06%
   QC value within limits for Si 251.611  Recovery = 98.86%
Sn 189.927†             2278.3      487.87 µg/L         4.020      487.87 ppb          4.020   0.82%
   QC value within limits for Sn 189.927  Recovery = 97.57%
Sr 421.552†             9476.5      493.83 µg/L         0.692      493.83 ppb          0.692   0.14%
   QC value within limits for Sr 421.552  Recovery = 98.77%
Ti 334.940†           132033.1      488.65 µg/L         0.239      488.65 ppb          0.239   0.05%
   QC value within limits for Ti 334.940  Recovery = 97.73%
Tl 190.801†             1448.3      487.19 µg/L         1.705      487.19 ppb          1.705   0.35%
   QC value within limits for Tl 190.801  Recovery = 97.44%
U 367.007†              1791.4       475.5 µg/L         15.34       475.5 ppb          15.34   3.23%
   QC value within limits for U 367.007  Recovery = 95.09%
V 292.402†             41018.7      495.34 µg/L         1.212      495.34 ppb          1.212   0.24%
   QC value within limits for V 292.402  Recovery = 99.07%
Zn 213.857†            45647.9      482.73 µg/L         0.405      482.73 ppb          0.405   0.08%
   QC value within limits for Zn 213.857  Recovery = 96.55%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 9/29/2017 06:35:01
Data Type: Reprocessed on 9/29/2017 06:44:24

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	395470.2	395470.2	97.929	%			06:36:48
1	Sc RADIAL	3941.4	3941.4	96.9	%			06:35:31
1	Y 371.029	410560.4	410560.4	98.112	%			06:36:48
1	Ag 328.068†	-469.5	3.5	0.0232	µg/L	0.0232	ppb	06:36:48
1	Al 396.153Radial†	-185.8	30.3	26.160	µg/L	26.160	ppb	06:35:31
1	As 188.979†	-5.8	-3.3	-2.4095	µg/L	-2.4095	ppb	06:37:08
1	B 249.677†	149.4	63.3	2.3689	µg/L	2.3689	ppb	06:36:48
1	Ba 233.527†	0.5	17.6	0.1934	µg/L	0.1934	ppb	06:37:08
1	Be 313.107†	-6137.2	21.6	0.0196	µg/L	0.0196	ppb	06:36:48
1	Ca 317.933Radial†	58.3	14.7	14.363	µg/L	14.363	ppb	06:35:51
1	Cd 226.502†	-123.7	38.9	0.5375	µg/L	0.5375	ppb	06:37:08
1	Co 228.616†	-198.3	8.6	0.2446	µg/L	0.2446	ppb	06:37:08
1	Cr 267.716†	153.2	9.4	0.2027	µg/L	0.2027	ppb	06:37:08
1	Cu 324.752†	2361.3	182.6	1.2102	µg/L	1.2102	ppb	06:36:48
1	Fe 238.204 Radial†	4.8	2.3	10.810	µg/L	10.810	ppb	06:35:51
1	K 766.490 Radial†	144.0	38.8	29.189	µg/L	29.189	ppb	06:35:31
1	Mg 279.077 IEC†	6.3	5.1	82.765	µg/L	82.765	ppb	06:35:51
1	Mn 257.610†	363.9	33.3	0.0554	µg/L	0.0554	ppb	06:36:48
1	Mo 202.031†	10.9	3.5	0.2950	µg/L	0.2950	ppb	06:37:08
1	Na 589.592 Radial†	1.0	1.6	146.85	µg/L	146.85	ppb	06:35:51
1	Ni 231.604†	-58.0	20.2	0.7060	µg/L	0.7060	ppb	06:37:08
1	P 214.914†	30.8	2.9	2.7237	µg/L	2.7237	ppb	06:37:08
1	Pb 220.353†	74.1	-16.0	-2.6461	µg/L	-2.6461	ppb	06:37:08
1	S 181.975 Axial†	42.5	6.8	15.234	µg/L	15.234	ppb	06:37:08
1	Sb 206.836†	55.2	5.4	2.3912	µg/L	2.3912	ppb	06:37:08
1	Se 196.026†	-31.1	-4.0	-3.2921	µg/L	-3.2921	ppb	06:37:08
1	SiO2†	1206.7	69.0	11.498	µg/L	11.498	ppb	06:36:48
1	Si 251.611†	261.9	59.2	3.7691	µg/L	3.7691	ppb	06:37:08
1	Sn 189.927†	3.2	-11.1	-2.3690	µg/L	-2.3690	ppb	06:37:08
1	Sr 421.552†	30.9	7.9	0.4098	µg/L	0.4098	ppb	06:35:31
1	Ti 334.940†	-458.1	-11.2	-0.0481	µg/L	-0.0481	ppb	06:36:48
1	Tl 190.801†	-68.5	-6.8	-2.2984	µg/L	-2.2984	ppb	06:37:08
1	U 367.007†	1113.0	55.0	15.30	µg/L	15.30	ppb	06:36:48
1	V 292.402†	40.2	9.4	0.1254	µg/L	0.1254	ppb	06:36:48
1	Zn 213.857†	508.9	141.2	1.4970	µg/L	1.4970	ppb	06:37:08
2	Sc 361.383	399156.8	399156.8	98.841	%			06:37:14
2	Sc RADIAL	3930.4	3930.4	96.6	%			06:35:56
2	Y 371.029	413551.3	413551.3	98.827	%			06:37:14
2	Ag 328.068†	-482.7	-5.4	-0.0471	µg/L	-0.0471	ppb	06:37:14
2	Al 396.153Radial†	-242.2	-28.6	-24.755	µg/L	-24.755	ppb	06:35:56
2	As 188.979†	-7.7	-5.2	-3.7697	µg/L	-3.7697	ppb	06:37:34
2	B 249.677†	165.0	77.7	2.8570	µg/L	2.8570	ppb	06:37:14
2	Ba 233.527†	21.8	39.1	0.4296	µg/L	0.4296	ppb	06:37:34
2	Be 313.107†	-6167.8	48.5	0.0372	µg/L	0.0372	ppb	06:37:14
2	Ca 317.933Radial†	50.3	6.6	6.4349	µg/L	6.4349	ppb	06:36:16
2	Cd 226.502†	-127.5	36.2	0.5015	µg/L	0.5015	ppb	06:37:34
2	Co 228.616†	-191.4	17.5	0.4971	µg/L	0.4971	ppb	06:37:34
2	Cr 267.716†	151.3	6.1	0.1327	µg/L	0.1327	ppb	06:37:34
2	Cu 324.752†	2201.9	-0.9	-0.0018	µg/L	-0.0018	ppb	06:37:14
2	Fe 238.204 Radial†	2.8	0.4	1.7059	µg/L	1.7059	ppb	06:36:16
2	K 766.490 Radial†	110.1	4.1	3.0690	µg/L	3.0690	ppb	06:35:56
2	Mg 279.077 IEC†	5.4	4.1	67.189	µg/L	67.189	ppb	06:36:16
2	Mn 257.610†	358.0	24.0	0.0393	µg/L	0.0393	ppb	06:37:14
2	Mo 202.031†	11.6	4.1	0.3454	µg/L	0.3454	ppb	06:37:34
2	Na 589.592 Radial†	0.6	1.2	112.12	µg/L	112.12	ppb	06:36:16
2	Ni 231.604†	-69.6	8.9	0.3135	µg/L	0.3135	ppb	06:37:34
2	P 214.914†	28.1	-0.2	-0.1558	µg/L	-0.1558	ppb	06:37:34

2	Pb 220.353†	83.0	-7.7	-1.2650	µg/L	-1.2650	ppb	06:37:34
2	S 181.975 Axial†	42.8	6.8	15.125	µg/L	15.125	ppb	06:37:34
2	Sb 206.836†	50.4	0.0	0.0057	µg/L	0.0057	ppb	06:37:34
2	Se 196.026†	-27.6	-0.1	-0.1118	µg/L	-0.1118	ppb	06:37:34
2	SiO2†	1122.7	-27.3	-4.5495	µg/L	-4.5495	ppb	06:37:14
2	Si 251.611†	241.5	36.0	2.2933	µg/L	2.2933	ppb	06:37:34
2	Sn 189.927†	8.2	-6.0	-1.2850	µg/L	-1.2850	ppb	06:37:34
2	Sr 421.552†	31.4	8.5	0.4431	µg/L	0.4431	ppb	06:35:56
2	Ti 334.940†	-355.4	97.1	0.3563	µg/L	0.3563	ppb	06:37:14
2	Tl 190.801†	-60.0	2.5	0.8470	µg/L	0.8470	ppb	06:37:34
2	U 367.007†	1093.3	24.5	6.842	µg/L	6.842	ppb	06:37:14
2	V 292.402†	28.9	-2.4	-0.0219	µg/L	-0.0219	ppb	06:37:14
2	Zn 213.857†	515.3	143.0	1.5205	µg/L	1.5205	ppb	06:37:34
3	Sc 361.383	395922.6	395922.6	98.041	%			06:37:39
3	Sc RADIAL	3957.1	3957.1	97.3	%			06:36:21
3	Y 371.029	410385.6	410385.6	98.070	%			06:37:39
3	Ag 328.068†	-421.7	52.8	0.4371	µg/L	0.4371	ppb	06:37:39
3	Al 396.153Radial†	-225.8	-10.0	-8.6843	µg/L	-8.6843	ppb	06:36:21
3	As 188.979†	3.2	5.9	4.3039	µg/L	4.3039	ppb	06:37:59
3	B 249.677†	149.4	63.2	2.3063	µg/L	2.3063	ppb	06:37:39
3	Ba 233.527†	9.6	26.8	0.2948	µg/L	0.2948	ppb	06:37:59
3	Be 313.107†	-6109.3	57.2	0.0385	µg/L	0.0385	ppb	06:37:39
3	Ca 317.933Radial†	49.2	5.1	5.0309	µg/L	5.0309	ppb	06:36:41
3	Cd 226.502†	-126.8	35.9	0.4985	µg/L	0.4985	ppb	06:37:59
3	Co 228.616†	-197.3	9.9	0.2820	µg/L	0.2820	ppb	06:37:59
3	Cr 267.716†	159.4	15.6	0.3594	µg/L	0.3594	ppb	06:37:59
3	Cu 324.752†	2326.1	144.0	0.9370	µg/L	0.9370	ppb	06:37:39
3	Fe 238.204 Radial†	2.0	-0.5	-2.4273	µg/L	-2.4273	ppb	06:36:41
3	K 766.490 Radial†	199.2	94.8	71.380	µg/L	71.380	ppb	06:36:21
3	Mg 279.077 IEC†	1.0	-0.4	-5.8260	µg/L	-5.8260	ppb	06:36:41
3	Mn 257.610†	377.7	47.0	0.0816	µg/L	0.0816	ppb	06:37:39
3	Mo 202.031†	11.7	4.3	0.3610	µg/L	0.3610	ppb	06:37:59
3	Na 589.592 Radial†	3.9	4.7	423.48	µg/L	423.48	ppb	06:36:41
3	Ni 231.604†	-45.6	32.9	1.1518	µg/L	1.1518	ppb	06:37:59
3	P 214.914†	19.4	-8.8	-8.3183	µg/L	-8.3183	ppb	06:37:59
3	Pb 220.353†	76.3	-13.8	-2.2606	µg/L	-2.2606	ppb	06:37:59
3	S 181.975 Axial†	42.3	6.6	14.775	µg/L	14.775	ppb	06:37:59
3	Sb 206.836†	60.0	10.2	4.5010	µg/L	4.5010	ppb	06:37:59
3	Se 196.026†	-16.2	11.2	9.1273	µg/L	9.1273	ppb	06:37:59
3	SiO2†	1201.3	62.1	10.357	µg/L	10.357	ppb	06:37:39
3	Si 251.611†	263.5	60.5	3.8548	µg/L	3.8548	ppb	06:37:59
3	Sn 189.927†	10.5	-3.6	-0.7684	µg/L	-0.7684	ppb	06:37:59
3	Sr 421.552†	19.0	-4.5	-0.2338	µg/L	-0.2338	ppb	06:36:21
3	Ti 334.940†	-378.7	70.3	0.2675	µg/L	0.2675	ppb	06:37:39
3	Tl 190.801†	-50.3	11.9	4.0175	µg/L	4.0175	ppb	06:37:59
3	U 367.007†	1008.3	-53.1	-14.80	µg/L	-14.80	ppb	06:37:39
3	V 292.402†	63.6	33.2	0.3914	µg/L	0.3914	ppb	06:37:39
3	Zn 213.857†	487.4	118.7	1.2623	µg/L	1.2623	ppb	06:37:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396849.9	98.270	%	0.4979				0.51%
Sc RADIAL	3943.0	96.9	%	0.33				0.34%
Y 371.029	411499.1	98.336	%	0.4252				0.43%
Ag 328.068†	17.0	0.1377	µg/L	0.26164	0.1377	ppb	0.26164	189.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.8	-2.4262	µg/L	26.02797	-2.4262	ppb	26.02797	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.6251	µg/L	4.32248	-0.6251	ppb	4.32248	691.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	68.1	2.5107	µg/L	0.30147	2.5107	ppb	0.30147	12.01%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	27.9	0.3059	µg/L	0.11850	0.3059	ppb	0.11850	38.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	42.4	0.0318	µg/L	0.01059	0.0318	ppb	0.01059	33.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.8	8.6096	µg/L	5.03172	8.6096	ppb	5.03172	58.44%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	37.0	0.5125	µg/L	0.02167	0.5125	ppb	0.02167	4.23%

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   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                12.0      0.3412 µg/L       0.13629      0.3412 ppb        0.13629  39.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                10.4      0.2316 µg/L       0.11606      0.2316 ppb        0.11606  50.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               108.6      0.7151 µg/L       0.63571      0.7151 ppb        0.63571  88.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      3.3629 µg/L       6.77244      3.3629 ppb        6.77244 201.39%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          45.9      34.546 µg/L       34.4693      34.546 ppb        34.4693  99.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      48.043 µg/L       47.2972      48.043 ppb        47.2972  98.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                34.8      0.0588 µg/L       0.02134      0.0588 ppb        0.02134  36.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.0      0.3338 µg/L       0.03450      0.3338 ppb        0.03450  10.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          2.5      227.49 µg/L       170.623      227.49 ppb        170.623  75.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.7      0.7238 µg/L       0.41943      0.7238 ppb        0.41943  57.95%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.0     -1.9168 µg/L       5.72779     -1.9168 ppb        5.72779 298.82%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.5     -2.0572 µg/L       0.71266     -2.0572 ppb        0.71266  34.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.7      15.045 µg/L        0.2398      15.045 ppb         0.2398   1.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.2      2.2993 µg/L       2.24909      2.2993 ppb        2.24909  97.82%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.9078 µg/L       6.45131      1.9078 ppb        6.45131 338.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.6      5.7687 µg/L       8.95401      5.7687 ppb        8.95401 155.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                51.9      3.3057 µg/L       0.87785      3.3057 ppb        0.87785  26.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -6.9     -1.4741 µg/L       0.81690     -1.4741 ppb        0.81690  55.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 4.0      0.2064 µg/L       0.38155      0.2064 ppb        0.38155 184.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                52.1      0.1919 µg/L       0.21252      0.1919 ppb        0.21252 110.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.5      0.8554 µg/L       3.15794      0.8554 ppb        3.15794 369.19%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                  8.8       2.445 µg/L       15.5256       2.445 ppb        15.5256 634.90%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 13.4      0.1649 µg/L       0.20947      0.1649 ppb        0.20947 127.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               134.3      1.4266 µg/L       0.14277      1.4266 ppb        0.14277  10.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 12 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/29/2017 07:56:14**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4009.8	4009.8	98.6	%			07:56:46
1	Al 396.153Radial†	15.7	237.9	205.16	µg/L	205.16	ppb	07:56:46
1	Ca 317.933Radial†	256.4	214.6	210.19	µg/L	210.19	ppb	07:57:06
1	Fe 238.204 Radial†	23.2	21.0	96.985	µg/L	96.985	ppb	07:57:06
1	K 766.490 Radial†	322.1	216.9	163.25	µg/L	163.25	ppb	07:56:46
1	Mg 279.077 IEC†	26.2	25.2	407.37	µg/L	407.37	ppb	07:57:06
1	Na 589.592 Radial†	4.1	4.8	433.28	µg/L	433.28	ppb	07:57:06
1	Sr 421.552†	109.4	87.0	4.5286	µg/L	4.5286	ppb	07:56:46
1	Sc 361.383	405747.3	405747.3	100.47	%			07:58:02
1	Y 371.029	420143.7	420143.7	100.40	%			07:58:02
1	Ag 328.068†	223.2	705.0	5.7368	µg/L	5.7368	ppb	07:58:02
1	As 188.979†	42.0	44.4	32.511	µg/L	32.511	ppb	07:58:22
1	B 249.677†	1480.4	1384.2	51.181	µg/L	51.181	ppb	07:58:02
1	Ba 233.527†	445.4	460.4	5.0516	µg/L	5.0516	ppb	07:58:22
1	Be 313.107†	362.3	6649.2	4.8832	µg/L	4.8832	ppb	07:58:02
1	Cd 226.502†	200.7	365.0	5.0482	µg/L	5.0482	ppb	07:58:22
1	Co 228.616†	-19.6	191.6	5.4534	µg/L	5.4534	ppb	07:58:22
1	Cr 267.716†	381.0	232.3	5.1646	µg/L	5.1646	ppb	07:58:22
1	Cu 324.752†	3921.7	1674.7	11.038	µg/L	11.038	ppb	07:58:02
1	Mn 257.610†	6331.8	5963.7	10.337	µg/L	10.337	ppb	07:58:02
1	Mo 202.031†	135.1	126.9	10.600	µg/L	10.600	ppb	07:58:22
1	Ni 231.604†	79.4	158.4	5.5496	µg/L	5.5496	ppb	07:58:22
1	P 214.914†	180.6	151.2	143.09	µg/L	143.09	ppb	07:58:22
1	Pb 220.353†	146.6	54.2	8.8580	µg/L	8.8580	ppb	07:58:22
1	S 181.975 Axial†	80.6	43.6	97.650	µg/L	97.650	ppb	07:58:22
1	Sb 206.836†	77.0	25.7	11.384	µg/L	11.384	ppb	07:58:22
1	Se 196.026†	11.7	39.4	32.136	µg/L	32.136	ppb	07:58:22
1	SiO2†	2454.4	1279.6	213.18	µg/L	213.18	ppb	07:58:02
1	Si 251.611†	1693.6	1477.4	94.073	µg/L	94.073	ppb	07:58:22
1	Sn 189.927†	52.7	38.1	8.1432	µg/L	8.1432	ppb	07:58:22
1	Ti 334.940†	919.8	1372.1	5.0647	µg/L	5.0647	ppb	07:58:02
1	Tl 190.801†	0.3	63.5	21.478	µg/L	21.478	ppb	07:58:22
1	U 367.007†	1270.5	183.0	50.59	µg/L	50.59	ppb	07:58:02
1	V 292.402†	462.7	428.8	5.2615	µg/L	5.2615	ppb	07:58:02
1	Zn 213.857†	1333.9	949.2	10.047	µg/L	10.047	ppb	07:58:22
2	Sc RADIAL	3952.9	3952.9	97.2	%			07:57:11
2	Al 396.153Radial†	4.6	226.8	195.56	µg/L	195.56	ppb	07:57:11
2	Ca 317.933Radial†	264.2	226.4	221.71	µg/L	221.71	ppb	07:57:31
2	Fe 238.204 Radial†	22.0	20.0	92.551	µg/L	92.551	ppb	07:57:31
2	K 766.490 Radial†	299.2	198.0	149.03	µg/L	149.03	ppb	07:57:11
2	Mg 279.077 IEC†	17.6	16.7	271.15	µg/L	271.15	ppb	07:57:31
2	Na 589.592 Radial†	1.7	2.4	217.47	µg/L	217.47	ppb	07:57:31
2	Sr 421.552†	106.4	85.5	4.4493	µg/L	4.4493	ppb	07:57:11
2	Sc 361.383	401521.0	401521.0	99.427	%			07:58:28
2	Y 371.029	415770.2	415770.2	99.357	%			07:58:28
2	Ag 328.068†	41.9	525.1	4.2714	µg/L	4.2714	ppb	07:58:28
2	As 188.979†	32.9	35.7	26.155	µg/L	26.155	ppb	07:58:48
2	B 249.677†	1482.3	1401.6	51.800	µg/L	51.800	ppb	07:58:28
2	Ba 233.527†	440.8	460.5	5.0525	µg/L	5.0525	ppb	07:58:48
2	Be 313.107†	405.9	6696.9	4.9180	µg/L	4.9180	ppb	07:58:28
2	Cd 226.502†	202.8	369.1	5.1064	µg/L	5.1064	ppb	07:58:48
2	Co 228.616†	-14.9	196.1	5.5790	µg/L	5.5790	ppb	07:58:48
2	Cr 267.716†	361.0	216.0	4.7978	µg/L	4.7978	ppb	07:58:48
2	Cu 324.752†	3882.5	1676.3	11.049	µg/L	11.049	ppb	07:58:28
2	Mn 257.610†	6280.4	5978.3	10.367	µg/L	10.367	ppb	07:58:28
2	Mo 202.031†	119.3	112.4	9.3944	µg/L	9.3944	ppb	07:58:48
2	Ni 231.604†	75.9	155.7	5.4549	µg/L	5.4549	ppb	07:58:48
2	P 214.914†	173.4	145.8	138.01	µg/L	138.01	ppb	07:58:48

2	Pb 220.353†	155.4	64.6	10.567 µg/L	10.567 ppb	07:58:48
2	S 181.975 Axial†	83.0	46.9	104.89 µg/L	104.89 ppb	07:58:48
2	Sb 206.836†	71.1	20.5	9.1030 µg/L	9.1030 ppb	07:58:48
2	Se 196.026†	6.3	34.1	27.861 µg/L	27.861 ppb	07:58:48
2	SiO2†	2408.9	1259.6	209.86 µg/L	209.86 ppb	07:58:28
2	Si 251.611†	1710.8	1512.3	96.331 µg/L	96.331 ppb	07:58:48
2	Sn 189.927†	57.5	43.5	9.2929 µg/L	9.2929 ppb	07:58:48
2	Ti 334.940†	883.2	1344.9	4.9648 µg/L	4.9648 ppb	07:58:28
2	Tl 190.801†	3.2	66.4	22.440 µg/L	22.440 ppb	07:58:48
2	U 367.007†	1256.4	182.1	50.38 µg/L	50.38 ppb	07:58:28
2	V 292.402†	446.1	417.1	5.1084 µg/L	5.1084 ppb	07:58:28
2	Zn 213.857†	1327.6	956.9	10.129 µg/L	10.129 ppb	07:58:48
3	Sc RADIAL	3951.3	3951.3	97.1 %		07:57:36
3	Al 396.153Radial†	-6.5	215.3	185.66 µg/L	185.66 ppb	07:57:36
3	Ca 317.933Radial†	252.1	214.0	209.61 µg/L	209.61 ppb	07:57:56
3	Fe 238.204 Radial†	24.5	22.7	104.63 µg/L	104.63 ppb	07:57:56
3	K 766.490 Radial†	297.2	196.1	147.62 µg/L	147.62 ppb	07:57:36
3	Mg 279.077 IEC†	24.7	24.0	389.26 µg/L	389.26 ppb	07:57:56
3	Na 589.592 Radial†	4.3	5.0	457.26 µg/L	457.26 ppb	07:57:56
3	Sr 421.552†	113.1	92.4	4.8106 µg/L	4.8106 ppb	07:57:36
3	Sc 361.383	402400.8	402400.8	99.645 %		07:58:53
3	Y 371.029	416811.8	416811.8	99.606 %		07:58:53
3	Ag 328.068†	137.2	620.6	5.0533 µg/L	5.0533 ppb	07:58:53
3	As 188.979†	34.5	37.3	27.318 µg/L	27.318 ppb	07:59:13
3	B 249.677†	1534.4	1450.6	53.653 µg/L	53.653 ppb	07:58:53
3	Ba 233.527†	431.3	449.9	4.9365 µg/L	4.9365 ppb	07:59:13
3	Be 313.107†	364.3	6654.2	4.8855 µg/L	4.8855 ppb	07:58:53
3	Cd 226.502†	214.7	380.7	5.2652 µg/L	5.2652 ppb	07:59:13
3	Co 228.616†	-23.2	187.8	5.3447 µg/L	5.3447 ppb	07:59:13
3	Cr 267.716†	374.6	229.0	5.0937 µg/L	5.0937 ppb	07:59:13
3	Cu 324.752†	3847.1	1632.2	10.757 µg/L	10.757 ppb	07:58:53
3	Mn 257.610†	6290.7	5974.9	10.358 µg/L	10.358 ppb	07:58:53
3	Mo 202.031†	126.5	119.4	9.9754 µg/L	9.9754 ppb	07:59:13
3	Ni 231.604†	89.5	169.2	5.9282 µg/L	5.9282 ppb	07:59:13
3	P 214.914†	174.8	146.8	138.96 µg/L	138.96 ppb	07:59:13
3	Pb 220.353†	164.4	73.3	12.002 µg/L	12.002 ppb	07:59:13
3	S 181.975 Axial†	89.5	53.3	119.24 µg/L	119.24 ppb	07:59:13
3	Sb 206.836†	74.0	23.3	10.301 µg/L	10.301 ppb	07:59:13
3	Se 196.026†	16.4	44.2	36.060 µg/L	36.060 ppb	07:59:13
3	SiO2†	2415.7	1261.1	210.10 µg/L	210.10 ppb	07:58:53
3	Si 251.611†	1700.6	1498.4	95.426 µg/L	95.426 ppb	07:59:13
3	Sn 189.927†	61.2	47.0	10.049 µg/L	10.049 ppb	07:59:13
3	Ti 334.940†	843.8	1303.5	4.8131 µg/L	4.8131 ppb	07:58:53
3	Tl 190.801†	3.9	67.1	22.673 µg/L	22.673 ppb	07:59:13
3	U 367.007†	1241.3	164.1	45.30 µg/L	45.30 ppb	07:58:53
3	V 292.402†	445.1	415.1	5.0894 µg/L	5.0894 ppb	07:58:53
3	Zn 213.857†	1328.8	955.1	10.106 µg/L	10.106 ppb	07:59:13

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	403223.0	99.848	%	0.5522				0.55%
Sc RADIAL	3971.3	97.6	%	0.82				0.84%
Y 371.029	417575.2	99.788	%	0.5459				0.55%
Ag 328.068†	616.9	5.0205	µg/L	0.73323	5.0205	ppb	0.73323	14.60%
QC value within limits for Ag 328.068 Recovery = 100.41%								
Al 396.153Radial†	226.7	195.46	µg/L	9.749	195.46	ppb	9.749	4.99%
QC value within limits for Al 396.153Radial Recovery = 97.73%								
As 188.979†	39.1	28.661	µg/L	3.3845	28.661	ppb	3.3845	11.81%
QC value within limits for As 188.979 Recovery = 95.54%								
B 249.677†	1412.1	52.211	µg/L	1.2862	52.211	ppb	1.2862	2.46%
QC value within limits for B 249.677 Recovery = 104.42%								
Ba 233.527†	456.9	5.0135	µg/L	0.06669	5.0135	ppb	0.06669	1.33%
QC value within limits for Ba 233.527 Recovery = 100.27%								
Be 313.107†	6666.8	4.8956	µg/L	0.01945	4.8956	ppb	0.01945	0.40%
QC value within limits for Be 313.107 Recovery = 97.91%								
Ca 317.933Radial†	218.4	213.84	µg/L	6.827	213.84	ppb	6.827	3.19%
QC value within limits for Ca 317.933Radial Recovery = 106.92%								
Cd 226.502†	371.6	5.1399	µg/L	0.11234	5.1399	ppb	0.11234	2.19%
QC value within limits for Cd 226.502 Recovery = 102.80%								

Co 228.616†	191.8	5.4590 µg/L	0.11729	5.4590 ppb	0.11729	2.15%
QC value within limits for Co 228.616 Recovery = 109.18%						
Cr 267.716†	225.8	5.0187 µg/L	0.19458	5.0187 ppb	0.19458	3.88%
QC value within limits for Cr 267.716 Recovery = 100.37%						
Cu 324.752†	1661.0	10.948 µg/L	0.1658	10.948 ppb	0.1658	1.51%
QC value within limits for Cu 324.752 Recovery = 109.48%						
Fe 238.204 Radial†	21.2	98.056 µg/L	6.1121	98.056 ppb	6.1121	6.23%
QC value within limits for Fe 238.204 Radial Recovery = 98.06%						
K 766.490 Radial†	203.7	153.30 µg/L	8.645	153.30 ppb	8.645	5.64%
QC value within limits for K 766.490 Radial Recovery = 102.20%						
Mg 279.077 IEC†	22.0	355.92 µg/L	73.976	355.92 ppb	73.976	20.78%
QC value within limits for Mg 279.077 IEC Recovery = 118.64%						
Mn 257.610†	5972.3	10.354 µg/L	0.0153	10.354 ppb	0.0153	0.15%
QC value within limits for Mn 257.610 Recovery = 103.54%						
Mo 202.031†	119.5	9.9901 µg/L	0.60318	9.9901 ppb	0.60318	6.04%
QC value within limits for Mo 202.031 Recovery = 99.90%						
Na 589.592 Radial†	4.1	369.34 µg/L	132.063	369.34 ppb	132.063	35.76%
QC value within limits for Na 589.592 Radial Recovery = 123.11%						
Ni 231.604†	161.1	5.6442 µg/L	0.25047	5.6442 ppb	0.25047	4.44%
QC value within limits for Ni 231.604 Recovery = 112.88%						
P 214.914†	147.9	140.02 µg/L	2.701	140.02 ppb	2.701	1.93%
QC value within limits for P 214.914 Recovery = 93.34%						
Pb 220.353†	64.0	10.475 µg/L	1.5738	10.475 ppb	1.5738	15.02%
QC value within limits for Pb 220.353 Recovery = 104.75%						
S 181.975 Axial†	47.9	107.26 µg/L	10.986	107.26 ppb	10.986	10.24%
QC value within limits for S 181.975 Axial Recovery = 107.26%						
Sb 206.836†	23.2	10.262 µg/L	1.1408	10.262 ppb	1.1408	11.12%
QC value within limits for Sb 206.836 Recovery = 102.62%						
Se 196.026†	39.2	32.019 µg/L	4.1008	32.019 ppb	4.1008	12.81%
QC value within limits for Se 196.026 Recovery = 106.73%						
SiO2†	1266.8	211.05 µg/L	1.854	211.05 ppb	1.854	0.88%
QC value within limits for SiO2 Recovery = 99.08%						
Si 251.611†	1496.0	95.277 µg/L	1.1365	95.277 ppb	1.1365	1.19%
QC value within limits for Si 251.611 Recovery = 95.28%						
Sn 189.927†	42.9	9.1616 µg/L	0.95955	9.1616 ppb	0.95955	10.47%
QC value within limits for Sn 189.927 Recovery = 91.62%						
Sr 421.552†	88.3	4.5962 µg/L	0.18989	4.5962 ppb	0.18989	4.13%
QC value within limits for Sr 421.552 Recovery = 91.92%						
Ti 334.940†	1340.1	4.9475 µg/L	0.12666	4.9475 ppb	0.12666	2.56%
QC value within limits for Ti 334.940 Recovery = 98.95%						
Tl 190.801†	65.6	22.197 µg/L	0.6333	22.197 ppb	0.6333	2.85%
QC value within limits for Tl 190.801 Recovery = 110.98%						
U 367.007†	176.4	48.76 µg/L	2.994	48.76 ppb	2.994	6.14%
QC value within limits for U 367.007 Recovery = 97.52%						
V 292.402†	420.3	5.1531 µg/L	0.09434	5.1531 ppb	0.09434	1.83%
QC value within limits for V 292.402 Recovery = 103.06%						
Zn 213.857†	953.8	10.094 µg/L	0.0423	10.094 ppb	0.0423	0.42%
QC value within limits for Zn 213.857 Recovery = 100.94%						

All analyte(s) passed QC.

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Sequence No.: 8 **Autosampler Location: 103**
Sample ID: ICSA **Date Collected: 9/29/2017 08:35:41**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**
Wash Time: 5 **Auto Dilution Factor: 1**

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3592.2	3592.2	88.3	%			08:36:34
1	Al 396.153Radial†	506526.9	573776.0	495910	µg/L	495910	ppb	08:36:14
1	Ca 317.933Radial†	434929.9	492437.3	482240	µg/L	482240	ppb	08:36:14
1	Fe 238.204 Radial†	34891.8	39506.4	182410	µg/L	182410	ppb	08:36:14
1	K 766.490 Radial†	-63.5	-181.8	-103.79	µg/L	-103.79	ppb	08:36:14
1	Mg 279.077 IEC†	26451.1	29949.9	484980	µg/L	484980	ppb	08:36:14
1	Na 589.592 Radial†	-4.2	-4.1	-114.48	µg/L	-114.48	ppb	08:36:34
1	Sr 421.552†	268.9	280.6	-1.8279	µg/L	-1.8279	ppb	08:36:34
1	Sc 361.383	361055.3	361055.3	89.407	%			08:37:31
1	Y 371.029	364845.0	364845.0	87.187	%			08:37:31
1	Ag 328.068†	-3280.7	-3186.5	0.9731	µg/L	0.9731	ppb	08:37:31
1	As 188.979†	-25.9	-26.3	4.7962	µg/L	4.7962	ppb	08:37:52
1	B 249.677†	-18981.9	-21320.2	-1.2170	µg/L	-1.2170	ppb	08:37:31
1	Ba 233.527†	401.3	465.9	-0.0781	µg/L	-0.0781	ppb	08:37:52
1	Be 313.107†	-12145.1	-7295.5	-0.8125	µg/L	-0.8125	ppb	08:37:31
1	Cd 226.502†	1319.6	1641.2	1.3290	µg/L	1.3290	ppb	08:37:52
1	Co 228.616†	-194.5	-6.5	-0.1426	µg/L	-0.1426	ppb	08:37:52
1	Cr 267.716†	-416.8	-613.1	0.8490	µg/L	0.8490	ppb	08:37:52
1	Cu 324.752†	665.4	-1484.4	2.5969	µg/L	2.5969	ppb	08:37:52
1	Mn 257.610†	4285.9	4455.5	0.1225	µg/L	0.1225	ppb	08:37:31
1	Mo 202.031†	-51.5	-65.2	2.0149	µg/L	2.0149	ppb	08:37:52
1	Ni 231.604†	-87.1	-18.0	1.1065	µg/L	1.1065	ppb	08:37:52
1	P 214.914†	91.7	74.0	-16.871	µg/L	-16.871	ppb	08:37:52
1	Pb 220.353†	737.1	732.7	-0.4634	µg/L	-0.4634	ppb	08:37:52
1	S 181.975 Axial†	44.5	13.2	-20.141	µg/L	-20.141	ppb	08:37:52
1	Sb 206.836†	62.3	18.8	-6.7686	µg/L	-6.7686	ppb	08:37:52
1	Se 196.026†	-142.1	-131.2	-2.4381	µg/L	-2.4381	ppb	08:37:52
1	SiO2†	1348.9	345.5	57.393	µg/L	57.393	ppb	08:37:52
1	Si 251.611†	731.7	610.1	9.8604	µg/L	9.8604	ppb	08:37:52
1	Sn 189.927†	64.4	57.7	-3.0283	µg/L	-3.0283	ppb	08:37:52
1	Ti 334.940†	-6386.1	-6686.1	0.5477	µg/L	0.5477	ppb	08:37:52
1	Tl 190.801†	-60.3	-4.3	1.8206	µg/L	1.8206	ppb	08:37:52
1	U 367.007†	3986.1	3376.9	33.20	µg/L	33.20	ppb	08:37:31
1	V 292.402†	-1950.0	-2212.7	-2.3250	µg/L	-2.3250	ppb	08:37:52
1	Zn 213.857†	6206.8	6563.8	-9.9682	µg/L	-9.9682	ppb	08:37:52
2	Sc RADIAL	3569.2	3569.2	87.7	%			08:37:00
2	Al 396.153Radial†	506848.6	577840.0	499420	µg/L	499420	ppb	08:36:39
2	Ca 317.933Radial†	435090.1	495794.7	485530	µg/L	485530	ppb	08:36:39
2	Fe 238.204 Radial†	35070.9	39965.1	184530	µg/L	184530	ppb	08:36:39
2	K 766.490 Radial†	-20.9	-133.7	-67.378	µg/L	-67.378	ppb	08:36:39
2	Mg 279.077 IEC†	26416.0	30103.0	487460	µg/L	487460	ppb	08:36:39
2	Na 589.592 Radial†	-0.6	-0.1	257.82	µg/L	257.82	ppb	08:37:00
2	Sr 421.552†	265.9	279.0	-2.0187	µg/L	-2.0187	ppb	08:37:00
2	Sc 361.383	361731.9	361731.9	89.574	%			08:37:57
2	Y 371.029	365925.7	365925.7	87.446	%			08:37:57
2	Ag 328.068†	-3258.6	-3155.0	1.5460	µg/L	1.5460	ppb	08:37:57
2	As 188.979†	-26.4	-26.8	4.7263	µg/L	4.7263	ppb	08:38:17
2	B 249.677†	-19113.4	-21427.3	3.9219	µg/L	3.9219	ppb	08:37:57
2	Ba 233.527†	388.7	451.1	-0.3015	µg/L	-0.3015	ppb	08:38:17
2	Be 313.107†	-12222.5	-7356.5	-0.8266	µg/L	-0.8266	ppb	08:37:57
2	Cd 226.502†	1313.0	1631.0	0.9393	µg/L	0.9393	ppb	08:38:17
2	Co 228.616†	-186.7	2.7	0.1205	µg/L	0.1205	ppb	08:38:17
2	Cr 267.716†	-433.7	-631.2	0.5184	µg/L	0.5184	ppb	08:38:17
2	Cu 324.752†	720.6	-1424.1	3.1326	µg/L	3.1326	ppb	08:38:17
2	Mn 257.610†	4365.1	4534.9	0.2833	µg/L	0.2833	ppb	08:37:57
2	Mo 202.031†	-43.6	-56.3	2.8397	µg/L	2.8397	ppb	08:38:17
2	Ni 231.604†	-84.4	-14.8	1.2389	µg/L	1.2389	ppb	08:38:17
2	P 214.914†	115.5	100.3	6.7193	µg/L	6.7193	ppb	08:38:17

2	Pb 220.353†	743.3	738.2	-0.5231 µg/L	-0.5231 ppb		08:38:17
2	S 181.975 Axial†	50.7	20.1	-5.0372 µg/L	-5.0372 ppb		08:38:17
2	Sb 206.836†	73.1	30.6	-1.6741 µg/L	-1.6741 ppb		08:38:17
2	Se 196.026†	-140.8	-129.4	0.1736 µg/L	0.1736 ppb		08:38:17
2	SiO2†	1351.7	345.9	57.442 µg/L	57.442 ppb		08:38:17
2	Si 251.611†	733.9	611.1	9.5665 µg/L	9.5665 ppb		08:38:17
2	Sn 189.927†	68.3	61.9	-2.2219 µg/L	-2.2219 ppb		08:38:17
2	Ti 334.940†	-6422.4	-6713.3	0.6202 µg/L	0.6202 ppb		08:38:17
2	Tl 190.801†	-67.0	-11.6	-0.6348 µg/L	-0.6348 ppb		08:38:17
2	U 367.007†	4011.0	3396.3	28.24 µg/L	28.24 ppb		08:37:57
2	V 292.402†	-1924.3	-2180.0	-1.6517 µg/L	-1.6517 ppb		08:38:17
2	Zn 213.857†	6304.0	6659.3	-9.9223 µg/L	-9.9223 ppb		08:38:17
3	Sc RADIAL	3586.0	3586.0	88.2 %			08:37:25
3	Al 396.153Radial†	509066.1	577644.6	499250 µg/L	499250 ppb		08:37:05
3	Ca 317.933Radial†	437518.9	496222.7	485950 µg/L	485950 ppb		08:37:05
3	Fe 238.204 Radial†	35188.2	39910.6	184280 µg/L	184280 ppb		08:37:05
3	K 766.490 Radial†	-27.3	-140.8	-72.721 µg/L	-72.721 ppb		08:37:05
3	Mg 279.077 IEC†	26652.1	30229.5	489500 µg/L	489500 ppb		08:37:05
3	Na 589.592 Radial†	0.5	1.2	377.41 µg/L	377.41 ppb		08:37:25
3	Sr 421.552†	259.8	270.7	-2.4701 µg/L	-2.4701 ppb		08:37:25
3	Sc 361.383	363666.7	363666.7	90.053 %			08:38:22
3	Y 371.029	367452.2	367452.2	87.810 %			08:38:22
3	Ag 328.068†	-3443.3	-3340.7	-0.0070 µg/L	-0.0070 ppb		08:38:22
3	As 188.979†	-24.9	-25.0	6.0072 µg/L	6.0072 ppb		08:38:42
3	B 249.677†	-19220.6	-21432.9	2.6407 µg/L	2.6407 ppb		08:38:22
3	Ba 233.527†	404.9	466.7	-0.1226 µg/L	-0.1226 ppb		08:38:42
3	Be 313.107†	-12289.3	-7358.0	-0.8221 µg/L	-0.8221 ppb		08:38:22
3	Cd 226.502†	1301.8	1610.8	0.6894 µg/L	0.6894 ppb		08:38:42
3	Co 228.616†	-190.7	-0.7	0.0195 µg/L	0.0195 ppb		08:38:42
3	Cr 267.716†	-425.7	-619.7	0.8347 µg/L	0.8347 ppb		08:38:42
3	Cu 324.752†	685.7	-1467.2	2.8388 µg/L	2.8388 ppb		08:38:42
3	Mn 257.610†	4406.1	4554.5	0.2318 µg/L	0.2318 ppb		08:38:22
3	Mo 202.031†	-65.8	-80.7	0.7932 µg/L	0.7932 ppb		08:38:42
3	Ni 231.604†	-62.3	10.2	2.1114 µg/L	2.1114 ppb		08:38:42
3	P 214.914†	67.5	46.4	-44.170 µg/L	-44.170 ppb		08:38:42
3	Pb 220.353†	761.3	753.7	2.0451 µg/L	2.0451 ppb		08:38:42
3	S 181.975 Axial†	59.5	29.5	16.094 µg/L	16.094 ppb		08:38:42
3	Sb 206.836†	89.8	48.8	6.3300 µg/L	6.3300 ppb		08:38:42
3	Se 196.026†	-140.4	-128.2	1.0125 µg/L	1.0125 ppb		08:38:42
3	SiO2†	1303.8	284.7	47.266 µg/L	47.266 ppb		08:38:42
3	Si 251.611†	721.9	593.3	8.5186 µg/L	8.5186 ppb		08:38:42
3	Sn 189.927†	66.2	59.2	-2.8559 µg/L	-2.8559 ppb		08:38:42
3	Ti 334.940†	-6423.7	-6676.6	0.7747 µg/L	0.7747 ppb		08:38:42
3	Tl 190.801†	-83.9	-29.9	-6.8364 µg/L	-6.8364 ppb		08:38:42
3	U 367.007†	4057.0	3423.5	37.01 µg/L	37.01 ppb		08:38:22
3	V 292.402†	-1923.6	-2167.7	-1.5522 µg/L	-1.5522 ppb		08:38:42
3	Zn 213.857†	6394.0	6721.8	-9.1109 µg/L	-9.1109 ppb		08:38:42

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	362151.3	89.678	%	0.3356				0.37%
Sc RADIAL	3582.4	88.1	%	0.29				0.33%
Y 371.029	366074.3	87.481	%	0.3130				0.36%
Ag 328.068†	-3227.4	0.8374	µg/L	0.78536	0.8374	ppb	0.78536	93.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	576420.2	498190	µg/L	1980.98	498190	ppb	1980.98	0.40%
QC value within limits for Al 396.153Radial Recovery = 99.64%								
As 188.979†	-26.1	5.1766	µg/L	0.72017	5.1766	ppb	0.72017	13.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-21393.4	1.7819	µg/L	2.67497	1.7819	ppb	2.67497	150.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	461.2	-0.1674	µg/L	0.11823	-0.1674	ppb	0.11823	70.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-7336.7	-0.8204	µg/L	0.00722	-0.8204	ppb	0.00722	0.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	494818.2	484580	µg/L	2030.11	484580	ppb	2030.11	0.42%
QC value within limits for Ca 317.933Radial Recovery = 96.92%								
Cd 226.502†	1627.7	0.9859	µg/L	0.32230	0.9859	ppb	0.32230	32.69%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                -1.5     -0.0009 µg/L       0.13271     -0.0009 ppb        0.13271 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -621.3      0.7341 µg/L       0.18686      0.7341 ppb        0.18686  25.46%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -1458.5      2.8561 µg/L       0.26828      2.8561 ppb        0.26828   9.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†      39794.1      183740 µg/L       1157.11      183740 ppb        1157.11   0.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 91.87%
K 766.490 Radial†        -152.1     -81.297 µg/L       19.6646     -81.297 ppb        19.6646  24.19%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         30094.1      487310 µg/L       2267.32      487310 ppb        2267.32   0.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.46%
Mn 257.610†              4515.0      0.2125 µg/L       0.08213      0.2125 ppb        0.08213  38.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -67.4      1.8826 µg/L       1.02965      1.8826 ppb        1.02965  54.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -1.0      173.58 µg/L       256.536      173.58 ppb        256.536 147.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -7.6      1.4856 µg/L       0.54596      1.4856 ppb        0.54596  36.75%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 73.6     -18.107 µg/L       25.4669     -18.107 ppb        25.4669 140.65%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               741.5      0.3529 µg/L       1.46578      0.3529 ppb        1.46578 415.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           20.9     -3.0281 µg/L      18.20054     -3.0281 ppb       18.20054 601.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                32.7     -0.7042 µg/L       6.60293     -0.7042 ppb        6.60293 937.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -129.6     -0.4173 µg/L       1.79960     -0.4173 ppb        1.79960 431.22%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     325.4      54.033 µg/L        5.8608      54.033 ppb         5.8608  10.85%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               604.8      9.3152 µg/L       0.70536      9.3152 ppb        0.70536   7.57%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                59.6     -2.7020 µg/L       0.42468     -2.7020 ppb        0.42468  15.72%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               276.8     -2.1056 µg/L       0.32982     -2.1056 ppb        0.32982  15.66%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -6692.0      0.6475 µg/L       0.11597      0.6475 ppb        0.11597  17.91%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -15.3     -1.8836 µg/L       4.46155     -1.8836 ppb        4.46155 236.87%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†               3398.9       32.82 µg/L         4.398       32.82 ppb          4.398  13.40%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†              -2186.8     -1.8429 µg/L       0.42043     -1.8429 ppb        0.42043  22.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              6648.3     -9.6671 µg/L       0.48227     -9.6671 ppb        0.48227   4.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 9 | **Autosampler Location: 104**
Sample ID: ICSAB | **Date Collected: 9/29/2017 08:38:51**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3637.1	3637.1	89.4	%			08:39:41
1	Al 396.153Radial†	509666.9	570198.6	492790	µg/L	492790	ppb	08:39:21
1	Ca 317.933Radial†	439015.0	490918.9	480760	µg/L	480760	ppb	08:39:21
1	Fe 238.204 Radial†	35772.3	40002.7	184700	µg/L	184700	ppb	08:39:21
1	K 766.490 Radial†	6291.7	6926.4	5246.2	µg/L	5246.2	ppb	08:39:21
1	Mg 279.077 IEC†	26773.0	29939.7	484810	µg/L	484810	ppb	08:39:21
1	Na 589.592 Radial†	47.8	54.1	5190.4	µg/L	5190.4	ppb	08:39:41
1	Sr 421.552†	7949.0	8865.7	445.76	µg/L	445.76	ppb	08:39:21
1	Sc 361.383	360798.9	360798.9	89.343	%			08:40:39
1	Y 371.029	364958.8	364958.8	87.215	%			08:40:39
1	Ag 328.068†	25386.3	28897.3	262.98	µg/L	262.98	ppb	08:40:39
1	As 188.979†	595.7	669.3	517.71	µg/L	517.71	ppb	08:40:59
1	B 249.677†	-6076.2	-6890.1	536.36	µg/L	536.36	ppb	08:40:39
1	Ba 233.527†	39967.6	44752.0	486.05	µg/L	486.05	ppb	08:40:39
1	Be 313.107†	285385.9	325715.7	243.21	µg/L	243.21	ppb	08:40:39
1	Cd 226.502†	31417.2	35329.9	468.03	µg/L	468.03	ppb	08:40:39
1	Co 228.616†	14115.0	16009.8	454.92	µg/L	454.92	ppb	08:40:59
1	Cr 267.716†	18190.5	20213.3	465.92	µg/L	465.92	ppb	08:40:59
1	Cu 324.752†	73306.1	79821.6	537.17	µg/L	537.17	ppb	08:40:39
1	Mn 257.610†	233012.5	260468.3	444.41	µg/L	444.41	ppb	08:40:39
1	Mo 202.031†	5278.3	5900.3	500.42	µg/L	500.42	ppb	08:40:59
1	Ni 231.604†	11225.8	12644.3	444.60	µg/L	444.60	ppb	08:40:59
1	P 214.914†	2435.2	2697.1	2457.4	µg/L	2457.4	ppb	08:40:59
1	Pb 220.353†	3259.3	3556.5	465.64	µg/L	465.64	ppb	08:40:59
1	S 181.975 Axial†	1050.9	1139.7	2502.5	µg/L	2502.5	ppb	08:40:59
1	Sb 206.836†	1038.0	1110.8	472.68	µg/L	472.68	ppb	08:40:59
1	Se 196.026†	2434.2	2752.3	2348.7	µg/L	2348.7	ppb	08:40:59
1	SiO2†	57100.7	62748.6	10457	µg/L	10457	ppb	08:40:39
1	Si 251.611†	69409.7	77480.7	4906.3	µg/L	4906.3	ppb	08:40:39
1	Sn 189.927†	2018.3	2244.7	465.57	µg/L	465.57	ppb	08:40:59
1	Ti 334.940†	115291.5	129500.2	504.21	µg/L	504.21	ppb	08:40:39
1	Tl 190.801†	1083.5	1276.0	432.38	µg/L	432.38	ppb	08:40:59
1	U 367.007†	5710.8	5310.4	562.1	µg/L	562.1	ppb	08:40:39
1	V 292.402†	35802.7	40041.6	507.47	µg/L	507.47	ppb	08:40:39
1	Zn 213.857†	42440.8	47124.7	419.93	µg/L	419.93	ppb	08:40:39
2	Sc RADIAL	3638.1	3638.1	89.4	%			08:40:07
2	Al 396.153Radial†	519334.6	580856.5	502000	µg/L	502000	ppb	08:39:47
2	Ca 317.933Radial†	447401.5	500165.3	489810	µg/L	489810	ppb	08:39:47
2	Fe 238.204 Radial†	36559.0	40871.6	188720	µg/L	188720	ppb	08:39:47
2	K 766.490 Radial†	6461.0	7113.8	5387.9	µg/L	5387.9	ppb	08:39:47
2	Mg 279.077 IEC†	27276.7	30495.0	493800	µg/L	493800	ppb	08:39:47
2	Na 589.592 Radial†	48.8	55.2	5293.5	µg/L	5293.5	ppb	08:40:07
2	Sr 421.552†	8098.6	9030.5	454.04	µg/L	454.04	ppb	08:39:47
2	Sc 361.383	363702.5	363702.5	90.062	%			08:41:04
2	Y 371.029	368112.7	368112.7	87.968	%			08:41:04
2	Ag 328.068†	25633.6	28945.1	263.99	µg/L	263.99	ppb	08:41:04
2	As 188.979†	593.8	661.9	512.78	µg/L	512.78	ppb	08:41:25
2	B 249.677†	-6112.5	-6876.2	554.06	µg/L	554.06	ppb	08:41:04
2	Ba 233.527†	40372.7	44844.7	486.96	µg/L	486.96	ppb	08:41:04
2	Be 313.107†	288104.5	326184.2	243.62	µg/L	243.62	ppb	08:41:04
2	Cd 226.502†	31783.3	35455.6	469.30	µg/L	469.30	ppb	08:41:04
2	Co 228.616†	14104.3	15871.7	450.99	µg/L	450.99	ppb	08:41:25
2	Cr 267.716†	18170.1	20028.1	462.10	µg/L	462.10	ppb	08:41:25
2	Cu 324.752†	74138.2	80090.5	539.17	µg/L	539.17	ppb	08:41:04
2	Mn 257.610†	235470.7	261115.6	445.43	µg/L	445.43	ppb	08:41:04
2	Mo 202.031†	5251.4	5823.2	494.14	µg/L	494.14	ppb	08:41:25
2	Ni 231.604†	11222.9	12540.6	441.01	µg/L	441.01	ppb	08:41:25
2	P 214.914†	2448.7	2690.4	2448.8	µg/L	2448.8	ppb	08:41:25

2	Pb 220.353†	3246.6	3513.2	456.21 µg/L	456.21 ppb		08:41:25
2	S 181.975 Axial†	1050.4	1129.7	2479.3 µg/L	2479.3 ppb		08:41:25
2	Sb 206.836†	1039.6	1103.4	469.09 µg/L	469.09 ppb		08:41:25
2	Se 196.026†	2441.8	2739.0	2340.1 µg/L	2340.1 ppb		08:41:25
2	SiO2†	57708.4	62913.1	10485 µg/L	10485 ppb		08:41:04
2	Si 251.611†	70082.4	77607.3	4913.9 µg/L	4913.9 ppb		08:41:04
2	Sn 189.927†	2019.9	2228.4	461.81 µg/L	461.81 ppb		08:41:25
2	Ti 334.940†	116373.0	129670.9	505.35 µg/L	505.35 ppb		08:41:04
2	Tl 190.801†	1085.6	1268.6	429.97 µg/L	429.97 ppb		08:41:25
2	U 367.007†	5610.9	5148.5	497.0 µg/L	497.0 ppb		08:41:04
2	V 292.402†	36066.9	40015.1	507.58 µg/L	507.58 ppb		08:41:04
2	Zn 213.857†	42944.7	47305.1	420.07 µg/L	420.07 ppb		08:41:04
3	Sc RADIAL	3619.3	3619.3	89.0 %			08:40:32
3	Al 396.153Radial†	514010.7	577882.2	499430 µg/L	499430 ppb		08:40:12
3	Ca 317.933Radial†	443014.2	497826.8	487520 µg/L	487520 ppb		08:40:12
3	Fe 238.204 Radial†	36171.8	40648.4	187680 µg/L	187680 ppb		08:40:12
3	K 766.490 Radial†	6353.8	7030.7	5325.2 µg/L	5325.2 ppb		08:40:12
3	Mg 279.077 IEC†	27074.8	30426.0	492690 µg/L	492690 ppb		08:40:12
3	Na 589.592 Radial†	51.1	58.0	5553.3 µg/L	5553.3 ppb		08:40:32
3	Sr 421.552†	8043.6	9015.7	453.35 µg/L	453.35 ppb		08:40:12
3	Sc 361.383	361361.8	361361.8	89.482 %			08:41:30
3	Y 371.029	365690.3	365690.3	87.389 %			08:41:30
3	Ag 328.068†	25425.4	28896.7	263.43 µg/L	263.43 ppb		08:41:30
3	As 188.979†	606.3	680.2	526.04 µg/L	526.04 ppb		08:41:50
3	B 249.677†	-6104.1	-6910.8	548.37 µg/L	548.37 ppb		08:41:30
3	Ba 233.527†	40129.8	44863.7	487.19 µg/L	487.19 ppb		08:41:30
3	Be 313.107†	285490.5	325335.0	242.99 µg/L	242.99 ppb		08:41:30
3	Cd 226.502†	31418.8	35276.9	466.95 µg/L	466.95 ppb		08:41:30
3	Co 228.616†	14061.9	15925.8	452.53 µg/L	452.53 ppb		08:41:50
3	Cr 267.716†	18195.0	20186.7	465.59 µg/L	465.59 ppb		08:41:50
3	Cu 324.752†	73651.5	80079.7	539.05 µg/L	539.05 ppb		08:41:30
3	Mn 257.610†	233452.8	260554.0	444.44 µg/L	444.44 ppb		08:41:30
3	Mo 202.031†	5262.0	5872.9	498.25 µg/L	498.25 ppb		08:41:50
3	Ni 231.604†	11205.1	12601.5	443.13 µg/L	443.13 ppb		08:41:50
3	P 214.914†	2429.5	2686.5	2445.6 µg/L	2445.6 ppb		08:41:50
3	Pb 220.353†	3221.7	3508.7	456.07 µg/L	456.07 ppb		08:41:50
3	S 181.975 Axial†	1051.5	1138.5	2499.2 µg/L	2499.2 ppb		08:41:50
3	Sb 206.836†	1032.3	1102.6	468.82 µg/L	468.82 ppb		08:41:50
3	Se 196.026†	2450.2	2766.0	2361.6 µg/L	2361.6 ppb		08:41:50
3	SiO2†	57198.6	62758.4	10459 µg/L	10459 ppb		08:41:30
3	Si 251.611†	69501.4	77462.1	4904.7 µg/L	4904.7 ppb		08:41:30
3	Sn 189.927†	2020.5	2243.7	465.11 µg/L	465.11 ppb		08:41:50
3	Ti 334.940†	115605.1	129649.7	505.14 µg/L	505.14 ppb		08:41:30
3	Tl 190.801†	1096.2	1288.3	436.60 µg/L	436.60 ppb		08:41:50
3	U 367.007†	5654.4	5237.5	527.0 µg/L	527.0 ppb		08:41:30
3	V 292.402†	35766.7	39939.0	506.60 µg/L	506.60 ppb		08:41:30
3	Zn 213.857†	42413.8	47020.6	417.52 µg/L	417.52 ppb		08:41:30

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	361954.4	89.629	%	0.3813				0.43%
Sc RADIAL	3631.5	89.3	%	0.26				0.29%
Y 371.029	366253.9	87.524	%	0.3945				0.45%
Ag 328.068†	28913.0	263.47	µg/L	0.507	263.47	ppb	0.507	0.19%
QC value within limits for Ag 328.068 Recovery = 105.39%								
Al 396.153Radial†	576312.4	498080	µg/L	4753.38	498080	ppb	4753.38	0.95%
QC value within limits for Al 396.153Radial Recovery = 99.62%								
As 188.979†	670.5	518.84	µg/L	6.704	518.84	ppb	6.704	1.29%
QC value within limits for As 188.979 Recovery = 103.77%								
B 249.677†	-6892.4	546.26	µg/L	9.039	546.26	ppb	9.039	1.65%
QC value within limits for B 249.677 Recovery = 109.25%								
Ba 233.527†	44820.1	486.73	µg/L	0.602	486.73	ppb	0.602	0.12%
QC value within limits for Ba 233.527 Recovery = 97.35%								
Be 313.107†	325745.0	243.27	µg/L	0.322	243.27	ppb	0.322	0.13%
QC value within limits for Be 313.107 Recovery = 97.31%								
Ca 317.933Radial†	496303.6	486030	µg/L	4708.19	486030	ppb	4708.19	0.97%
QC value within limits for Ca 317.933Radial Recovery = 97.21%								
Cd 226.502†	35354.1	468.10	µg/L	1.178	468.10	ppb	1.178	0.25%
QC value within limits for Cd 226.502 Recovery = 93.62%								

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Co 228.616†            15935.8      452.81 µg/L         1.981      452.81 ppb          1.981   0.44%
   QC value within limits for Co 228.616  Recovery = 90.56%
Cr 267.716†            20142.7      464.53 µg/L         2.118      464.53 ppb          2.118   0.46%
   QC value within limits for Cr 267.716  Recovery = 92.91%
Cu 324.752†            79997.3      538.46 µg/L         1.121      538.46 ppb          1.121   0.21%
   QC value within limits for Cu 324.752  Recovery = 107.69%
Fe 238.204 Radial†     40507.6      187030 µg/L       2083.62      187030 ppb        2083.62   1.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.52%
K 766.490 Radial†       7023.6      5319.8 µg/L         71.00      5319.8 ppb          71.00   1.33%
   QC value within limits for K 766.490 Radial  Recovery = 106.40%
Mg 279.077 IEC†        30286.9      490430 µg/L       4900.54      490430 ppb        4900.54   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.09%
Mn 257.610†           260712.6      444.76 µg/L         0.579      444.76 ppb          0.579   0.13%
   QC value within limits for Mn 257.610  Recovery = 88.95%
Mo 202.031†             5865.4      497.60 µg/L         3.186      497.60 ppb          3.186   0.64%
   QC value within limits for Mo 202.031  Recovery = 99.52%
Na 589.592 Radial†        55.8      5345.8 µg/L        187.02      5345.8 ppb         187.02   3.50%
   QC value within limits for Na 589.592 Radial  Recovery = 106.92%
Ni 231.604†            12595.5      442.92 µg/L         1.806      442.92 ppb          1.806   0.41%
   QC value within limits for Ni 231.604  Recovery = 88.58%
P 214.914†              2691.3      2450.6 µg/L          6.06      2450.6 ppb           6.06   0.25%
   QC value within limits for P 214.914  Recovery = 98.02%
Pb 220.353†             3526.1      459.31 µg/L         5.486      459.31 ppb          5.486   1.19%
   QC value within limits for Pb 220.353  Recovery = 91.86%
S 181.975 Axial†        1136.0      2493.7 µg/L         12.53      2493.7 ppb          12.53   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 99.75%
Sb 206.836†             1105.6      470.20 µg/L         2.155      470.20 ppb          2.155   0.46%
   QC value within limits for Sb 206.836  Recovery = 94.04%
Se 196.026†             2752.4      2350.1 µg/L         10.78      2350.1 ppb          10.78   0.46%
   QC value within limits for Se 196.026  Recovery = 94.01%
SiO2†                  62806.7       10467 µg/L         15.37       10467 ppb          15.37   0.15%
   QC value within limits for SiO2  Recovery = 97.87%
Si 251.611†            77516.7      4908.3 µg/L          4.91      4908.3 ppb           4.91   0.10%
   QC value within limits for Si 251.611  Recovery = 98.17%
Sn 189.927†             2238.9      464.16 µg/L         2.050      464.16 ppb          2.050   0.44%
   QC value within limits for Sn 189.927  Recovery = 92.83%
Sr 421.552†             8970.6      451.05 µg/L         4.594      451.05 ppb          4.594   1.02%
   QC value within limits for Sr 421.552  Recovery = 90.21%
Ti 334.940†           129606.9      504.90 µg/L         0.605      504.90 ppb          0.605   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.98%
Tl 190.801†             1277.6      432.98 µg/L         3.359      432.98 ppb          3.359   0.78%
   QC value within limits for Tl 190.801  Recovery = 86.60%
U 367.007†              5232.1       528.7 µg/L         32.58       528.7 ppb          32.58   6.16%
   QC value within limits for U 367.007  Recovery = 105.74%
V 292.402†             39998.6      507.22 µg/L         0.538      507.22 ppb          0.538   0.11%
   QC value within limits for V 292.402  Recovery = 101.44%
Zn 213.857†            47150.1      419.17 µg/L         1.435      419.17 ppb          1.435   0.34%
   QC value within limits for Zn 213.857  Recovery = 83.83%
All analyte(s) passed QC.
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Sequence No.: 10 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/29/2017 09:16:48**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3945.5	3945.5	97.0	%			09:17:20
1	Al 396.153Radial†	21.4	244.1	210.48	µg/L	210.48	ppb	09:17:20
1	Ca 317.933Radial†	262.1	224.7	220.06	µg/L	220.06	ppb	09:17:40
1	Fe 238.204 Radial†	23.2	21.4	98.608	µg/L	98.608	ppb	09:17:40
1	K 766.490 Radial†	393.6	295.9	222.69	µg/L	222.69	ppb	09:17:20
1	Mg 279.077 IEC†	23.2	22.5	364.80	µg/L	364.80	ppb	09:17:40
1	Na 589.592 Radial†	1.8	2.5	226.27	µg/L	226.27	ppb	09:17:40
1	Sr 421.552†	111.4	90.9	4.7288	µg/L	4.7288	ppb	09:17:20
1	Sc 361.383	394863.7	394863.7	97.778	%			09:18:36
1	Y 371.029	409194.5	409194.5	97.786	%			09:18:36
1	Ag 328.068†	153.8	640.2	5.2134	µg/L	5.2134	ppb	09:18:36
1	As 188.979†	35.2	38.6	28.281	µg/L	28.281	ppb	09:18:57
1	B 249.677†	1432.0	1375.4	50.865	µg/L	50.865	ppb	09:18:36
1	Ba 233.527†	432.3	459.3	5.0393	µg/L	5.0393	ppb	09:18:57
1	Be 313.107†	299.4	6594.8	4.8411	µg/L	4.8411	ppb	09:18:36
1	Cd 226.502†	207.2	377.1	5.2160	µg/L	5.2160	ppb	09:18:57
1	Co 228.616†	-27.4	183.1	5.2116	µg/L	5.2116	ppb	09:18:57
1	Cr 267.716†	368.3	229.7	5.1134	µg/L	5.1134	ppb	09:18:57
1	Cu 324.752†	3895.0	1754.9	11.560	µg/L	11.560	ppb	09:18:36
1	Mn 257.610†	6152.1	5953.6	10.321	µg/L	10.321	ppb	09:18:36
1	Mo 202.031†	128.8	124.2	10.375	µg/L	10.375	ppb	09:18:57
1	Ni 231.604†	63.4	144.2	5.0530	µg/L	5.0530	ppb	09:18:57
1	P 214.914†	158.4	133.4	126.21	µg/L	126.21	ppb	09:18:57
1	Pb 220.353†	161.3	73.3	12.000	µg/L	12.000	ppb	09:18:57
1	S 181.975 Axial†	79.2	44.4	99.425	µg/L	99.425	ppb	09:18:57
1	Sb 206.836†	66.4	16.9	7.5212	µg/L	7.5212	ppb	09:18:57
1	Se 196.026†	-0.7	27.0	22.060	µg/L	22.060	ppb	09:18:57
1	SiO2†	2372.4	1263.1	210.44	µg/L	210.44	ppb	09:18:36
1	Si 251.611†	1681.4	1511.3	96.244	µg/L	96.244	ppb	09:18:57
1	Sn 189.927†	57.1	44.1	9.4126	µg/L	9.4126	ppb	09:18:57
1	Ti 334.940†	856.4	1332.5	4.9233	µg/L	4.9233	ppb	09:18:36
1	Tl 190.801†	-2.4	60.7	20.537	µg/L	20.537	ppb	09:18:57
1	U 367.007†	1202.8	148.5	40.98	µg/L	40.98	ppb	09:18:36
1	V 292.402†	435.3	413.5	5.0717	µg/L	5.0717	ppb	09:18:36
1	Zn 213.857†	1336.0	988.0	10.458	µg/L	10.458	ppb	09:18:57
2	Sc RADIAL	3903.6	3903.6	96.0	%			09:17:45
2	Al 396.153Radial†	45.6	269.5	232.53	µg/L	232.53	ppb	09:17:45
2	Ca 317.933Radial†	260.3	225.8	221.09	µg/L	221.09	ppb	09:18:05
2	Fe 238.204 Radial†	24.0	22.4	103.42	µg/L	103.42	ppb	09:18:05
2	K 766.490 Radial†	301.0	203.8	153.39	µg/L	153.39	ppb	09:17:45
2	Mg 279.077 IEC†	18.9	18.3	296.42	µg/L	296.42	ppb	09:18:05
2	Na 589.592 Radial†	0.6	1.3	117.76	µg/L	117.76	ppb	09:18:05
2	Sr 421.552†	113.8	94.6	4.9221	µg/L	4.9221	ppb	09:17:45
2	Sc 361.383	395369.7	395369.7	97.904	%			09:19:02
2	Y 371.029	409419.0	409419.0	97.839	%			09:19:02
2	Ag 328.068†	229.1	716.9	5.8328	µg/L	5.8328	ppb	09:19:02
2	As 188.979†	34.7	38.1	27.879	µg/L	27.879	ppb	09:19:22
2	B 249.677†	1416.7	1357.9	50.243	µg/L	50.243	ppb	09:19:02
2	Ba 233.527†	430.7	457.0	5.0139	µg/L	5.0139	ppb	09:19:22
2	Be 313.107†	351.5	6647.7	4.8830	µg/L	4.8830	ppb	09:19:02
2	Cd 226.502†	217.4	387.2	5.3554	µg/L	5.3554	ppb	09:19:22
2	Co 228.616†	-20.1	190.6	5.4219	µg/L	5.4219	ppb	09:19:22
2	Cr 267.716†	364.0	224.8	4.9918	µg/L	4.9918	ppb	09:19:22
2	Cu 324.752†	3865.9	1720.0	11.340	µg/L	11.340	ppb	09:19:02
2	Mn 257.610†	6202.6	5997.1	10.399	µg/L	10.399	ppb	09:19:02
2	Mo 202.031†	119.8	114.7	9.5856	µg/L	9.5856	ppb	09:19:22
2	Ni 231.604†	63.4	144.2	5.0507	µg/L	5.0507	ppb	09:19:22
2	P 214.914†	175.5	150.6	142.58	µg/L	142.58	ppb	09:19:22

2	Pb 220.353†	159.8	71.6	11.709 µg/L	11.709 ppb	09:19:22
2	S 181.975 Axial†	87.4	52.7	117.99 µg/L	117.99 ppb	09:19:22
2	Sb 206.836†	67.4	17.9	7.9214 µg/L	7.9214 ppb	09:19:22
2	Se 196.026†	0.8	28.6	23.352 µg/L	23.352 ppb	09:19:22
2	SiO2†	2437.5	1326.5	221.00 µg/L	221.00 ppb	09:19:02
2	Si 251.611†	1684.4	1512.2	96.318 µg/L	96.318 ppb	09:19:22
2	Sn 189.927†	53.6	40.5	8.6457 µg/L	8.6457 ppb	09:19:22
2	Ti 334.940†	945.3	1422.2	5.2488 µg/L	5.2488 ppb	09:19:02
2	Tl 190.801†	2.5	65.8	22.247 µg/L	22.247 ppb	09:19:22
2	U 367.007†	1252.4	197.6	54.66 µg/L	54.66 ppb	09:19:02
2	V 292.402†	447.6	425.6	5.2156 µg/L	5.2156 ppb	09:19:02
2	Zn 213.857†	1356.3	1006.9	10.657 µg/L	10.657 ppb	09:19:22
3	Sc RADIAL	3896.1	3896.1	95.8 %		09:18:10
3	Al 396.153Radial†	7.8	230.1	198.47 µg/L	198.47 ppb	09:18:10
3	Ca 317.933Radial†	260.5	226.5	221.82 µg/L	221.82 ppb	09:18:30
3	Fe 238.204 Radial†	21.0	19.4	89.413 µg/L	89.413 ppb	09:18:30
3	K 766.490 Radial†	396.7	304.3	229.01 µg/L	229.01 ppb	09:18:10
3	Mg 279.077 IEC†	23.6	23.2	376.40 µg/L	376.40 ppb	09:18:30
3	Na 589.592 Radial†	5.6	6.5	588.87 µg/L	588.87 ppb	09:18:30
3	Sr 421.552†	96.4	76.7	3.9895 µg/L	3.9895 ppb	09:18:10
3	Sc 361.383	398704.8	398704.8	98.730 %		09:19:27
3	Y 371.029	413104.2	413104.2	98.720 %		09:19:27
3	Ag 328.068†	120.8	605.3	4.9258 µg/L	4.9258 ppb	09:19:27
3	As 188.979†	33.1	36.1	26.448 µg/L	26.448 ppb	09:19:47
3	B 249.677†	1497.7	1427.7	52.747 µg/L	52.747 ppb	09:19:27
3	Ba 233.527†	430.7	453.3	4.9742 µg/L	4.9742 ppb	09:19:47
3	Be 313.107†	290.4	6582.8	4.8338 µg/L	4.8338 ppb	09:19:27
3	Cd 226.502†	181.6	349.2	4.8303 µg/L	4.8303 ppb	09:19:47
3	Co 228.616†	-19.9	190.9	5.4334 µg/L	5.4334 ppb	09:19:47
3	Cr 267.716†	365.5	223.2	4.9638 µg/L	4.9638 ppb	09:19:47
3	Cu 324.752†	3912.8	1734.6	11.430 µg/L	11.430 ppb	09:19:27
3	Mn 257.610†	6183.7	5925.0	10.271 µg/L	10.271 ppb	09:19:27
3	Mo 202.031†	124.6	118.6	9.9105 µg/L	9.9105 ppb	09:19:47
3	Ni 231.604†	75.1	155.5	5.4461 µg/L	5.4461 ppb	09:19:47
3	P 214.914†	169.7	143.3	135.68 µg/L	135.68 ppb	09:19:47
3	Pb 220.353†	142.6	52.8	8.6228 µg/L	8.6228 ppb	09:19:47
3	S 181.975 Axial†	82.5	47.0	105.13 µg/L	105.13 ppb	09:19:47
3	Sb 206.836†	63.5	13.4	5.9457 µg/L	5.9457 ppb	09:19:47
3	Se 196.026†	11.7	39.6	32.297 µg/L	32.297 ppb	09:19:47
3	SiO2†	2419.0	1287.0	214.41 µg/L	214.41 ppb	09:19:27
3	Si 251.611†	1679.5	1492.9	95.078 µg/L	95.078 ppb	09:19:47
3	Sn 189.927†	62.7	49.1	10.494 µg/L	10.494 ppb	09:19:47
3	Ti 334.940†	876.0	1343.9	4.9625 µg/L	4.9625 ppb	09:19:27
3	Tl 190.801†	-14.2	48.8	16.504 µg/L	16.504 ppb	09:19:47
3	U 367.007†	1237.6	172.0	47.57 µg/L	47.57 ppb	09:19:27
3	V 292.402†	484.1	458.7	5.6078 µg/L	5.6078 ppb	09:19:27
3	Zn 213.857†	1326.5	965.2	10.220 µg/L	10.220 ppb	09:19:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396312.7	98.137	%	0.5168				0.53%
Sc RADIAL	3915.1	96.3	%	0.66				0.68%
Y 371.029	410572.6	98.115	%	0.5246				0.53%
Ag 328.068†	654.1	5.3240	µg/L	0.46348	5.3240	ppb	0.46348	8.71%
QC value within limits for Ag 328.068 Recovery = 106.48%								
Al 396.153Radial†	247.9	213.83	µg/L	17.277	213.83	ppb	17.277	8.08%
QC value within limits for Al 396.153Radial Recovery = 106.91%								
As 188.979†	37.6	27.536	µg/L	0.9634	27.536	ppb	0.9634	3.50%
QC value within limits for As 188.979 Recovery = 91.79%								
B 249.677†	1387.0	51.285	µg/L	1.3039	51.285	ppb	1.3039	2.54%
QC value within limits for B 249.677 Recovery = 102.57%								
Ba 233.527†	456.5	5.0091	µg/L	0.03280	5.0091	ppb	0.03280	0.65%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	6608.4	4.8527	µg/L	0.02656	4.8527	ppb	0.02656	0.55%
QC value within limits for Be 313.107 Recovery = 97.05%								
Ca 317.933Radial†	225.7	220.99	µg/L	0.887	220.99	ppb	0.887	0.40%
QC value within limits for Ca 317.933Radial Recovery = 110.49%								
Cd 226.502†	371.2	5.1339	µg/L	0.27203	5.1339	ppb	0.27203	5.30%
QC value within limits for Cd 226.502 Recovery = 102.68%								

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Co 228.616†              188.2      5.3556 µg/L       0.12487      5.3556 ppb        0.12487   2.33%
   QC value within limits for Co 228.616  Recovery = 107.11%
Cr 267.716†              225.9      5.0230 µg/L       0.07952      5.0230 ppb        0.07952   1.58%
   QC value within limits for Cr 267.716  Recovery = 100.46%
Cu 324.752†             1736.5      11.443 µg/L        0.1105      11.443 ppb         0.1105   0.97%
   QC value within limits for Cu 324.752  Recovery = 114.43%
Fe 238.204 Radial†        21.0      97.146 µg/L        7.1150      97.146 ppb         7.1150   7.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.15%
K 766.490 Radial†        268.0      201.70 µg/L        41.956      201.70 ppb         41.956  20.80%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 134.46%
Mg 279.077 IEC†           21.4      345.87 µg/L        43.219      345.87 ppb         43.219  12.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 115.29%
Mn 257.610†             5958.6      10.331 µg/L        0.0648      10.331 ppb         0.0648   0.63%
   QC value within limits for Mn 257.610  Recovery = 103.31%
Mo 202.031†              119.2      9.9570 µg/L       0.39674      9.9570 ppb        0.39674   3.98%
   QC value within limits for Mo 202.031  Recovery = 99.57%
Na 589.592 Radial†         3.4      310.96 µg/L       246.711      310.96 ppb        246.711  79.34%
   QC value within limits for Na 589.592 Radial  Recovery = 103.65%
Ni 231.604†              148.0      5.1832 µg/L       0.22765      5.1832 ppb        0.22765   4.39%
   QC value within limits for Ni 231.604  Recovery = 103.66%
P 214.914†               142.4      134.82 µg/L         8.218      134.82 ppb          8.218   6.10%
   QC value within limits for P 214.914  Recovery = 89.88%
Pb 220.353†               65.9      10.777 µg/L        1.8716      10.777 ppb         1.8716  17.37%
   QC value within limits for Pb 220.353  Recovery = 107.77%
S 181.975 Axial†          48.0      107.52 µg/L         9.511      107.52 ppb          9.511   8.85%
   QC value within limits for S 181.975 Axial  Recovery = 107.52%
Sb 206.836†               16.1      7.1294 µg/L       1.04449      7.1294 ppb        1.04449  14.65%
   QC value within limits for Sb 206.836  Recovery = 71.29%
Se 196.026†               31.7      25.903 µg/L        5.5750      25.903 ppb         5.5750  21.52%
   QC value within limits for Se 196.026  Recovery = 86.34%
SiO2†                    1292.2      215.28 µg/L         5.336      215.28 ppb          5.336   2.48%
   QC value within limits for SiO2  Recovery = 101.07%
Si 251.611†              1505.5      95.880 µg/L        0.6955      95.880 ppb         0.6955   0.73%
   QC value within limits for Si 251.611  Recovery = 95.88%
Sn 189.927†               44.5      9.5175 µg/L       0.92871      9.5175 ppb        0.92871   9.76%
   QC value within limits for Sn 189.927  Recovery = 95.17%
Sr 421.552†               87.4      4.5468 µg/L       0.49222      4.5468 ppb        0.49222  10.83%
   QC value within limits for Sr 421.552  Recovery = 90.94%
Ti 334.940†              1366.2      5.0449 µg/L       0.17770      5.0449 ppb        0.17770   3.52%
   QC value within limits for Ti 334.940  Recovery = 100.90%
Tl 190.801†               58.5      19.762 µg/L        2.9488      19.762 ppb         2.9488  14.92%
   QC value within limits for Tl 190.801  Recovery = 98.81%
U 367.007†               172.7       47.74 µg/L         6.841       47.74 ppb          6.841  14.33%
   QC value within limits for U 367.007  Recovery = 95.47%
V 292.402†               432.6      5.2984 µg/L       0.27745      5.2984 ppb        0.27745   5.24%
   QC value within limits for V 292.402  Recovery = 105.97%
Zn 213.857†              986.7      10.445 µg/L        0.2187      10.445 ppb         0.2187   2.09%
   QC value within limits for Zn 213.857  Recovery = 104.45%
QC Failed.  Continue with analysis.
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Sequence No.: 11 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/29/2017 10:10:23**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4002.9	4002.9	98.4	%			10:10:54
1	Al 396.153Radial†	10.8	233.0	200.96	µg/L	200.96	ppb	10:10:54
1	Ca 317.933Radial†	267.0	225.9	221.19	µg/L	221.19	ppb	10:11:15
1	Fe 238.204 Radial†	24.5	22.3	102.86	µg/L	102.86	ppb	10:11:15
1	K 766.490 Radial†	262.1	156.5	117.78	µg/L	117.78	ppb	10:10:54
1	Mg 279.077 IEC†	19.5	18.4	297.76	µg/L	297.76	ppb	10:11:15
1	Na 589.592 Radial†	4.4	5.1	461.56	µg/L	461.56	ppb	10:11:15
1	Sr 421.552†	128.1	106.2	5.5281	µg/L	5.5281	ppb	10:10:54
1	Sc 361.383	399173.5	399173.5	98.846	%			10:12:11
1	Y 371.029	413773.5	413773.5	98.880	%			10:12:11
1	Ag 328.068†	155.4	640.2	5.2044	µg/L	5.2044	ppb	10:12:11
1	As 188.979†	26.8	29.8	21.824	µg/L	21.824	ppb	10:12:31
1	B 249.677†	1479.3	1407.4	52.056	µg/L	52.056	ppb	10:12:11
1	Ba 233.527†	423.1	445.1	4.8835	µg/L	4.8835	ppb	10:12:31
1	Be 313.107†	408.7	6702.1	4.9242	µg/L	4.9242	ppb	10:12:11
1	Cd 226.502†	212.4	380.1	5.2573	µg/L	5.2573	ppb	10:12:31
1	Co 228.616†	-7.9	203.1	5.7785	µg/L	5.7785	ppb	10:12:31
1	Cr 267.716†	374.8	232.1	5.1510	µg/L	5.1510	ppb	10:12:31
1	Cu 324.752†	3942.0	1759.5	11.603	µg/L	11.603	ppb	10:12:11
1	Mn 257.610†	6373.4	6109.5	10.594	µg/L	10.594	ppb	10:12:11
1	Mo 202.031†	123.1	117.0	9.7744	µg/L	9.7744	ppb	10:12:31
1	Ni 231.604†	77.6	157.9	5.5321	µg/L	5.5321	ppb	10:12:31
1	P 214.914†	168.9	142.3	134.65	µg/L	134.65	ppb	10:12:31
1	Pb 220.353†	166.1	76.4	12.502	µg/L	12.502	ppb	10:12:31
1	S 181.975 Axial†	80.3	44.6	99.827	µg/L	99.827	ppb	10:12:31
1	Sb 206.836†	78.6	28.6	12.645	µg/L	12.645	ppb	10:12:31
1	Se 196.026†	7.8	35.6	29.088	µg/L	29.088	ppb	10:12:31
1	SiO2†	2494.3	1360.3	226.63	µg/L	226.63	ppb	10:12:11
1	Si 251.611†	1720.6	1532.4	97.606	µg/L	97.606	ppb	10:12:31
1	Sn 189.927†	58.3	44.6	9.5340	µg/L	9.5340	ppb	10:12:31
1	Ti 334.940†	884.0	1350.9	4.9823	µg/L	4.9823	ppb	10:12:11
1	Tl 190.801†	1.1	64.3	21.747	µg/L	21.747	ppb	10:12:31
1	U 367.007†	1284.5	218.0	60.34	µg/L	60.34	ppb	10:12:11
1	V 292.402†	417.9	391.1	4.8101	µg/L	4.8101	ppb	10:12:11
1	Zn 213.857†	1397.6	1035.5	10.961	µg/L	10.961	ppb	10:12:31
2	Sc RADIAL	3991.8	3991.8	98.1	%			10:11:20
2	Al 396.153Radial†	19.6	242.0	208.73	µg/L	208.73	ppb	10:11:20
2	Ca 317.933Radial†	269.6	229.2	224.48	µg/L	224.48	ppb	10:11:40
2	Fe 238.204 Radial†	24.4	22.3	102.91	µg/L	102.91	ppb	10:11:40
2	K 766.490 Radial†	457.6	356.4	268.23	µg/L	268.23	ppb	10:11:20
2	Mg 279.077 IEC†	22.0	21.0	340.19	µg/L	340.19	ppb	10:11:40
2	Na 589.592 Radial†	7.0	7.8	707.61	µg/L	707.61	ppb	10:11:40
2	Sr 421.552†	113.8	92.0	4.7897	µg/L	4.7897	ppb	10:11:20
2	Sc 361.383	400921.8	400921.8	99.279	%			10:12:37
2	Y 371.029	415746.8	415746.8	99.351	%			10:12:37
2	Ag 328.068†	171.1	655.3	5.3243	µg/L	5.3243	ppb	10:12:37
2	As 188.979†	33.5	36.3	26.638	µg/L	26.638	ppb	10:12:57
2	B 249.677†	1496.3	1418.0	52.445	µg/L	52.445	ppb	10:12:37
2	Ba 233.527†	442.7	463.0	5.0803	µg/L	5.0803	ppb	10:12:57
2	Be 313.107†	353.3	6644.5	4.8837	µg/L	4.8837	ppb	10:12:37
2	Cd 226.502†	206.1	372.8	5.1559	µg/L	5.1559	ppb	10:12:57
2	Co 228.616†	-11.6	199.4	5.6738	µg/L	5.6738	ppb	10:12:57
2	Cr 267.716†	370.0	225.7	5.0026	µg/L	5.0026	ppb	10:12:57
2	Cu 324.752†	3961.0	1761.2	11.618	µg/L	11.618	ppb	10:12:37
2	Mn 257.610†	6342.1	6049.9	10.490	µg/L	10.490	ppb	10:12:37
2	Mo 202.031†	124.6	117.9	9.8546	µg/L	9.8546	ppb	10:12:57
2	Ni 231.604†	81.8	161.8	5.6668	µg/L	5.6668	ppb	10:12:57
2	P 214.914†	170.5	143.2	135.50	µg/L	135.50	ppb	10:12:57

2	Pb 220.353†	136.2	45.5	7.4064 µg/L	7.4064 ppb	10:12:57
2	S 181.975 Axial†	82.9	46.9	104.94 µg/L	104.94 ppb	10:12:57
2	Sb 206.836†	71.3	20.9	9.2418 µg/L	9.2418 ppb	10:12:57
2	Se 196.026†	8.9	36.7	29.959 µg/L	29.959 ppb	10:12:57
2	SiO2†	2496.3	1351.3	225.13 µg/L	225.13 ppb	10:12:37
2	Si 251.611†	1722.2	1526.4	97.219 µg/L	97.219 ppb	10:12:57
2	Sn 189.927†	50.1	36.1	7.7157 µg/L	7.7157 ppb	10:12:57
2	Ti 334.940†	829.1	1291.8	4.7604 µg/L	4.7604 ppb	10:12:37
2	Tl 190.801†	-3.5	59.7	20.172 µg/L	20.172 ppb	10:12:57
2	U 367.007†	1314.1	242.1	67.08 µg/L	67.08 ppb	10:12:37
2	V 292.402†	405.9	377.2	4.6484 µg/L	4.6484 ppb	10:12:37
2	Zn 213.857†	1383.0	1014.7	10.739 µg/L	10.739 ppb	10:12:57
3	Sc RADIAL	4020.3	4020.3	98.8 %		10:11:45
3	Al 396.153Radial†	35.2	257.7	222.28 µg/L	222.28 ppb	10:11:45
3	Ca 317.933Radial†	267.6	225.3	220.66 µg/L	220.66 ppb	10:12:05
3	Fe 238.204 Radial†	26.9	24.6	113.62 µg/L	113.62 ppb	10:12:05
3	K 766.490 Radial†	223.0	115.8	87.158 µg/L	87.158 ppb	10:11:45
3	Mg 279.077 IEC†	24.1	23.0	371.85 µg/L	371.85 ppb	10:12:05
3	Na 589.592 Radial†	0.3	0.9	80.493 µg/L	80.493 ppb	10:12:05
3	Sr 421.552†	106.9	84.2	4.3830 µg/L	4.3830 ppb	10:11:45
3	Sc 361.383	403000.3	403000.3	99.793 %		10:13:02
3	Y 371.029	417396.3	417396.3	99.746 %		10:13:02
3	Ag 328.068†	188.4	671.7	5.4690 µg/L	5.4690 ppb	10:13:02
3	As 188.979†	32.2	34.9	25.572 µg/L	25.572 ppb	10:13:22
3	B 249.677†	1530.6	1444.6	53.467 µg/L	53.467 ppb	10:13:02
3	Ba 233.527†	436.0	454.0	4.9810 µg/L	4.9810 ppb	10:13:22
3	Be 313.107†	441.5	6731.0	4.9426 µg/L	4.9426 ppb	10:13:02
3	Cd 226.502†	198.2	363.8	5.0304 µg/L	5.0304 ppb	10:13:22
3	Co 228.616†	-13.2	197.9	5.6305 µg/L	5.6305 ppb	10:13:22
3	Cr 267.716†	359.8	213.6	4.7469 µg/L	4.7469 ppb	10:13:22
3	Cu 324.752†	3849.2	1628.6	10.736 µg/L	10.736 ppb	10:13:02
3	Mn 257.610†	6380.2	6055.2	10.498 µg/L	10.498 ppb	10:13:02
3	Mo 202.031†	122.4	115.0	9.6145 µg/L	9.6145 ppb	10:13:22
3	Ni 231.604†	80.1	159.6	5.5924 µg/L	5.5924 ppb	10:13:22
3	P 214.914†	199.5	171.3	162.21 µg/L	162.21 ppb	10:13:22
3	Pb 220.353†	170.3	78.9	12.927 µg/L	12.927 ppb	10:13:22
3	S 181.975 Axial†	75.0	38.6	86.420 µg/L	86.420 ppb	10:13:22
3	Sb 206.836†	68.0	17.2	7.6329 µg/L	7.6329 ppb	10:13:22
3	Se 196.026†	4.5	32.2	26.333 µg/L	26.333 ppb	10:13:22
3	SiO2†	2439.1	1281.0	213.42 µg/L	213.42 ppb	10:13:02
3	Si 251.611†	1727.7	1523.0	97.004 µg/L	97.004 ppb	10:13:22
3	Sn 189.927†	60.0	45.8	9.7806 µg/L	9.7806 ppb	10:13:22
3	Ti 334.940†	901.4	1359.9	5.0213 µg/L	5.0213 ppb	10:13:02
3	Tl 190.801†	-0.6	62.6	21.152 µg/L	21.152 ppb	10:13:22
3	U 367.007†	1255.1	176.1	48.60 µg/L	48.60 ppb	10:13:02
3	V 292.402†	451.0	420.3	5.1510 µg/L	5.1510 ppb	10:13:02
3	Zn 213.857†	1372.9	997.3	10.550 µg/L	10.550 ppb	10:13:22

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401031.9	99.306	%	0.4744				0.48%
Sc RADIAL	4005.0	98.5	%	0.35				0.36%
Y 371.029	415638.9	99.326	%	0.4335				0.44%
Ag 328.068†	655.7	5.3326	µg/L	0.13251	5.3326	ppb	0.13251	2.49%
QC value within limits for Ag 328.068 Recovery = 106.65%								
Al 396.153Radial†	244.2	210.66	µg/L	10.787	210.66	ppb	10.787	5.12%
QC value within limits for Al 396.153Radial Recovery = 105.33%								
As 188.979†	33.7	24.678	µg/L	2.5287	24.678	ppb	2.5287	10.25%
QC value within limits for As 188.979 Recovery = 82.26%								
B 249.677†	1423.3	52.656	µg/L	0.7289	52.656	ppb	0.7289	1.38%
QC value within limits for B 249.677 Recovery = 105.31%								
Ba 233.527†	454.0	4.9816	µg/L	0.09840	4.9816	ppb	0.09840	1.98%
QC value within limits for Ba 233.527 Recovery = 99.63%								
Be 313.107†	6692.5	4.9168	µg/L	0.03013	4.9168	ppb	0.03013	0.61%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	226.8	222.11	µg/L	2.072	222.11	ppb	2.072	0.93%
QC value within limits for Ca 317.933Radial Recovery = 111.05%								
Cd 226.502†	372.2	5.1479	µg/L	0.11367	5.1479	ppb	0.11367	2.21%
QC value within limits for Cd 226.502 Recovery = 102.96%								

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Co 228.616†              200.1      5.6943 µg/L       0.07609      5.6943 ppb        0.07609   1.34%
   QC value within limits for Co 228.616  Recovery = 113.89%
Cr 267.716†              223.8      4.9669 µg/L       0.20441      4.9669 ppb        0.20441   4.12%
   QC value within limits for Cr 267.716  Recovery = 99.34%
Cu 324.752†             1716.4      11.319 µg/L        0.5047      11.319 ppb         0.5047   4.46%
   QC value within limits for Cu 324.752  Recovery = 113.19%
Fe 238.204 Radial†        23.1      106.46 µg/L         6.200      106.46 ppb          6.200   5.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.46%
K 766.490 Radial†        209.6      157.72 µg/L        96.920      157.72 ppb         96.920  61.45%
   QC value within limits for K 766.490 Radial  Recovery = 105.15%
Mg 279.077 IEC†           20.8      336.60 µg/L        37.171      336.60 ppb         37.171  11.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 112.20%
Mn 257.610†             6071.5      10.527 µg/L        0.0582      10.527 ppb         0.0582   0.55%
   QC value within limits for Mn 257.610  Recovery = 105.27%
Mo 202.031†              116.6      9.7478 µg/L       0.12224      9.7478 ppb        0.12224   1.25%
   QC value within limits for Mo 202.031  Recovery = 97.48%
Na 589.592 Radial†         4.6      416.55 µg/L       315.972      416.55 ppb        315.972  75.85%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 138.85%
Ni 231.604†              159.8      5.5971 µg/L       0.06748      5.5971 ppb        0.06748   1.21%
   QC value within limits for Ni 231.604  Recovery = 111.94%
P 214.914†               152.3      144.12 µg/L        15.675      144.12 ppb         15.675  10.88%
   QC value within limits for P 214.914  Recovery = 96.08%
Pb 220.353†               66.9      10.945 µg/L        3.0721      10.945 ppb         3.0721  28.07%
   QC value within limits for Pb 220.353  Recovery = 109.45%
S 181.975 Axial†          43.4      97.064 µg/L        9.5658      97.064 ppb         9.5658   9.86%
   QC value within limits for S 181.975 Axial  Recovery = 97.06%
Sb 206.836†               22.2      9.8399 µg/L       2.55908      9.8399 ppb        2.55908  26.01%
   QC value within limits for Sb 206.836  Recovery = 98.40%
Se 196.026†               34.8      28.460 µg/L        1.8927      28.460 ppb         1.8927   6.65%
   QC value within limits for Se 196.026  Recovery = 94.87%
SiO2†                   1330.9      221.72 µg/L         7.235      221.72 ppb          7.235   3.26%
   QC value within limits for SiO2  Recovery = 104.10%
Si 251.611†             1527.3      97.276 µg/L        0.3049      97.276 ppb         0.3049   0.31%
   QC value within limits for Si 251.611  Recovery = 97.28%
Sn 189.927†               42.2      9.0101 µg/L       1.12774      9.0101 ppb        1.12774  12.52%
   QC value within limits for Sn 189.927  Recovery = 90.10%
Sr 421.552†               94.1      4.9002 µg/L       0.58052      4.9002 ppb        0.58052  11.85%
   QC value within limits for Sr 421.552  Recovery = 98.00%
Ti 334.940†             1334.2      4.9214 µg/L       0.14073      4.9214 ppb        0.14073   2.86%
   QC value within limits for Ti 334.940  Recovery = 98.43%
Tl 190.801†               62.2      21.023 µg/L        0.7954      21.023 ppb         0.7954   3.78%
   QC value within limits for Tl 190.801  Recovery = 105.12%
U 367.007†               212.1       58.67 µg/L         9.354       58.67 ppb          9.354  15.94%
   QC value within limits for U 367.007  Recovery = 117.34%
V 292.402†               396.2      4.8698 µg/L       0.25659      4.8698 ppb        0.25659   5.27%
   QC value within limits for V 292.402  Recovery = 97.40%
Zn 213.857†             1015.8      10.750 µg/L        0.2055      10.750 ppb         0.2055   1.91%
   QC value within limits for Zn 213.857  Recovery = 107.50%
QC Failed.  Continue with analysis.
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Sequence No.: 4 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/29/2017 10:36:48**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3968.0	3968.0	97.6	%			10:37:20
1	Al 396.153Radial†	-20.2	201.4	173.60	µg/L	173.60	ppb	10:37:20
1	Ca 317.933Radial†	252.9	213.7	209.31	µg/L	209.31	ppb	10:37:40
1	Fe 238.204 Radial†	24.4	22.5	103.71	µg/L	103.71	ppb	10:37:40
1	K 766.490 Radial†	283.3	180.5	135.87	µg/L	135.87	ppb	10:37:20
1	Mg 279.077 IEC†	25.1	24.3	393.24	µg/L	393.24	ppb	10:37:40
1	Na 589.592 Radial†	5.7	6.5	591.68	µg/L	591.68	ppb	10:37:40
1	Sr 421.552†	98.5	77.0	4.0062	µg/L	4.0062	ppb	10:37:20
1	Sc 361.383	401864.3	401864.3	99.512	%			10:38:36
1	Y 371.029	416524.3	416524.3	99.537	%			10:38:36
1	Ag 328.068†	149.2	632.9	5.1524	µg/L	5.1524	ppb	10:38:36
1	As 188.979†	32.4	35.2	25.793	µg/L	25.793	ppb	10:38:56
1	B 249.677†	1461.7	1379.7	51.044	µg/L	51.044	ppb	10:38:36
1	Ba 233.527†	448.9	468.2	5.1374	µg/L	5.1374	ppb	10:38:56
1	Be 313.107†	375.6	6666.0	4.8945	µg/L	4.8945	ppb	10:38:36
1	Cd 226.502†	196.4	362.6	5.0144	µg/L	5.0144	ppb	10:38:56
1	Co 228.616†	-22.5	188.5	5.3631	µg/L	5.3631	ppb	10:38:56
1	Cr 267.716†	365.1	219.9	4.8897	µg/L	4.8897	ppb	10:38:56
1	Cu 324.752†	3871.3	1661.7	10.952	µg/L	10.952	ppb	10:38:36
1	Mn 257.610†	6288.5	5981.1	10.368	µg/L	10.368	ppb	10:38:36
1	Mo 202.031†	123.8	116.8	9.7638	µg/L	9.7638	ppb	10:38:56
1	Ni 231.604†	60.2	139.9	4.8992	µg/L	4.8992	ppb	10:38:56
1	P 214.914†	180.1	152.4	144.27	µg/L	144.27	ppb	10:38:56
1	Pb 220.353†	170.1	79.3	12.992	µg/L	12.992	ppb	10:38:56
1	S 181.975 Axial†	79.7	43.5	97.395	µg/L	97.395	ppb	10:38:56
1	Sb 206.836†	86.1	35.5	15.732	µg/L	15.732	ppb	10:38:56
1	Se 196.026†	-1.7	26.0	21.282	µg/L	21.282	ppb	10:38:56
1	SiO2†	2379.1	1227.5	204.51	µg/L	204.51	ppb	10:38:36
1	Si 251.611†	1674.9	1474.8	93.929	µg/L	93.929	ppb	10:38:56
1	Sn 189.927†	63.1	49.1	10.480	µg/L	10.480	ppb	10:38:56
1	Ti 334.940†	902.4	1363.5	5.0346	µg/L	5.0346	ppb	10:38:36
1	Tl 190.801†	0.4	63.6	21.494	µg/L	21.494	ppb	10:38:56
1	U 367.007†	1245.0	169.5	46.81	µg/L	46.81	ppb	10:38:36
1	V 292.402†	453.0	423.5	5.1887	µg/L	5.1887	ppb	10:38:36
1	Zn 213.857†	1280.1	908.0	9.6060	µg/L	9.6060	ppb	10:38:56
2	Sc RADIAL	3968.0	3968.0	97.6	%			10:37:45
2	Al 396.153Radial†	14.9	237.3	204.68	µg/L	204.68	ppb	10:37:45
2	Ca 317.933Radial†	253.0	213.9	209.43	µg/L	209.43	ppb	10:38:05
2	Fe 238.204 Radial†	21.3	19.2	88.830	µg/L	88.830	ppb	10:38:05
2	K 766.490 Radial†	323.0	221.2	166.51	µg/L	166.51	ppb	10:37:45
2	Mg 279.077 IEC†	23.3	22.4	363.52	µg/L	363.52	ppb	10:38:05
2	Na 589.592 Radial†	3.4	4.1	370.95	µg/L	370.95	ppb	10:38:05
2	Sr 421.552†	110.3	89.1	4.6386	µg/L	4.6386	ppb	10:37:45
2	Sc 361.383	397513.3	397513.3	98.434	%			10:39:02
2	Y 371.029	411792.2	411792.2	98.406	%			10:39:02
2	Ag 328.068†	116.4	601.2	4.8945	µg/L	4.8945	ppb	10:39:02
2	As 188.979†	44.1	47.4	34.718	µg/L	34.718	ppb	10:39:22
2	B 249.677†	1467.5	1401.6	51.787	µg/L	51.787	ppb	10:39:02
2	Ba 233.527†	442.1	466.2	5.1157	µg/L	5.1157	ppb	10:39:22
2	Be 313.107†	349.1	6643.3	4.8773	µg/L	4.8773	ppb	10:39:02
2	Cd 226.502†	208.0	376.6	5.2095	µg/L	5.2095	ppb	10:39:22
2	Co 228.616†	-32.7	177.9	5.0611	µg/L	5.0611	ppb	10:39:22
2	Cr 267.716†	366.5	225.4	5.0143	µg/L	5.0143	ppb	10:39:22
2	Cu 324.752†	3841.4	1673.9	11.030	µg/L	11.030	ppb	10:39:02
2	Mn 257.610†	6176.1	5936.1	10.290	µg/L	10.290	ppb	10:39:02
2	Mo 202.031†	117.8	112.1	9.3648	µg/L	9.3648	ppb	10:39:22
2	Ni 231.604†	76.1	156.7	5.4880	µg/L	5.4880	ppb	10:39:22
2	P 214.914†	174.8	149.0	141.01	µg/L	141.01	ppb	10:39:22

2	Pb 220.353†	145.0	55.7	9.1023 µg/L	9.1023 ppb	10:39:22
2	S 181.975 Axial†	74.5	39.1	87.541 µg/L	87.541 ppb	10:39:22
2	Sb 206.836†	85.4	35.7	15.809 µg/L	15.809 ppb	10:39:22
2	Se 196.026†	-5.1	22.5	18.418 µg/L	18.418 ppb	10:39:22
2	SiO2†	2414.4	1289.6	214.86 µg/L	214.86 ppb	10:39:02
2	Si 251.611†	1662.5	1480.6	94.310 µg/L	94.310 ppb	10:39:22
2	Sn 189.927†	57.7	44.3	9.4655 µg/L	9.4655 ppb	10:39:22
2	Ti 334.940†	839.8	1309.8	4.8370 µg/L	4.8370 ppb	10:39:02
2	Tl 190.801†	-3.3	59.8	20.227 µg/L	20.227 ppb	10:39:22
2	U 367.007†	1222.6	160.5	44.35 µg/L	44.35 ppb	10:39:02
2	V 292.402†	510.5	487.0	5.9391 µg/L	5.9391 ppb	10:39:02
2	Zn 213.857†	1293.8	936.0	9.9100 µg/L	9.9100 ppb	10:39:22
3	Sc RADIAL	3959.2	3959.2	97.3 %		10:38:10
3	Al 396.153Radial†	61.8	285.6	246.38 µg/L	246.38 ppb	10:38:10
3	Ca 317.933Radial†	257.5	219.1	214.56 µg/L	214.56 ppb	10:38:30
3	Fe 238.204 Radial†	22.6	20.6	95.105 µg/L	95.105 ppb	10:38:30
3	K 766.490 Radial†	419.0	320.6	241.27 µg/L	241.27 ppb	10:38:10
3	Mg 279.077 IEC†	24.5	23.8	385.42 µg/L	385.42 ppb	10:38:30
3	Na 589.592 Radial†	3.5	4.2	386.50 µg/L	386.50 ppb	10:38:30
3	Sr 421.552†	125.7	105.1	5.4737 µg/L	5.4737 ppb	10:38:10
3	Sc 361.383	398126.9	398126.9	98.586 %		10:39:27
3	Y 371.029	412432.9	412432.9	98.559 %		10:39:27
3	Ag 328.068†	167.6	652.9	5.3025 µg/L	5.3025 ppb	10:39:27
3	As 188.979†	34.9	38.0	27.841 µg/L	27.841 ppb	10:39:47
3	B 249.677†	1464.6	1396.4	51.621 µg/L	51.621 ppb	10:39:27
3	Ba 233.527†	428.0	451.2	4.9508 µg/L	4.9508 ppb	10:39:47
3	Be 313.107†	492.5	6788.2	4.9892 µg/L	4.9892 ppb	10:39:27
3	Cd 226.502†	199.4	367.5	5.0835 µg/L	5.0835 ppb	10:39:47
3	Co 228.616†	-14.6	196.3	5.5861 µg/L	5.5861 ppb	10:39:47
3	Cr 267.716†	370.3	228.6	5.0691 µg/L	5.0691 ppb	10:39:47
3	Cu 324.752†	3858.0	1684.7	11.116 µg/L	11.116 ppb	10:39:27
3	Mn 257.610†	6250.5	6001.8	10.404 µg/L	10.404 ppb	10:39:27
3	Mo 202.031†	122.7	116.8	9.7600 µg/L	9.7600 ppb	10:39:47
3	Ni 231.604†	83.0	163.6	5.7294 µg/L	5.7294 ppb	10:39:47
3	P 214.914†	172.7	146.6	138.81 µg/L	138.81 ppb	10:39:47
3	Pb 220.353†	158.2	68.8	11.245 µg/L	11.245 ppb	10:39:47
3	S 181.975 Axial†	83.6	48.2	107.96 µg/L	107.96 ppb	10:39:47
3	Sb 206.836†	83.0	33.3	14.720 µg/L	14.720 ppb	10:39:47
3	Se 196.026†	9.5	37.4	30.549 µg/L	30.549 ppb	10:39:47
3	SiO2†	2390.7	1261.8	210.22 µg/L	210.22 ppb	10:39:27
3	Si 251.611†	1693.2	1509.2	96.125 µg/L	96.125 ppb	10:39:47
3	Sn 189.927†	60.7	47.2	10.083 µg/L	10.083 ppb	10:39:47
3	Ti 334.940†	880.6	1349.9	4.9740 µg/L	4.9740 ppb	10:39:27
3	Tl 190.801†	2.9	66.2	22.376 µg/L	22.376 ppb	10:39:47
3	U 367.007†	1311.7	248.9	69.02 µg/L	69.02 ppb	10:39:27
3	V 292.402†	402.2	376.3	4.6369 µg/L	4.6369 ppb	10:39:27
3	Zn 213.857†	1273.8	913.7	9.6698 µg/L	9.6698 ppb	10:39:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	399168.1	98.844	%	0.5832				0.59%
Sc RADIAL	3965.0	97.5	%	0.12				0.13%
Y 371.029	413583.1	98.834	%	0.6135				0.62%
Ag 328.068†	629.0	5.1165	µg/L	0.20635	5.1165	ppb	0.20635	4.03%
QC value within limits for Ag 328.068 Recovery = 102.33%								
Al 396.153Radial†	241.4	208.22	µg/L	36.522	208.22	ppb	36.522	17.54%
QC value within limits for Al 396.153Radial Recovery = 104.11%								
As 188.979†	40.2	29.451	µg/L	4.6751	29.451	ppb	4.6751	15.87%
QC value within limits for As 188.979 Recovery = 98.17%								
B 249.677†	1392.6	51.484	µg/L	0.3901	51.484	ppb	0.3901	0.76%
QC value within limits for B 249.677 Recovery = 102.97%								
Ba 233.527†	461.9	5.0680	µg/L	0.10203	5.0680	ppb	0.10203	2.01%
QC value within limits for Ba 233.527 Recovery = 101.36%								
Be 313.107†	6699.2	4.9203	µg/L	0.06027	4.9203	ppb	0.06027	1.22%
QC value within limits for Be 313.107 Recovery = 98.41%								
Ca 317.933Radial†	215.6	211.10	µg/L	2.997	211.10	ppb	2.997	1.42%
QC value within limits for Ca 317.933Radial Recovery = 105.55%								
Cd 226.502†	368.9	5.1025	µg/L	0.09896	5.1025	ppb	0.09896	1.94%
QC value within limits for Cd 226.502 Recovery = 102.05%								

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Co 228.616†              187.6      5.3368 µg/L       0.26348      5.3368 ppb        0.26348   4.94%
   QC value within limits for Co 228.616  Recovery = 106.74%
Cr 267.716†              224.6      4.9910 µg/L       0.09194      4.9910 ppb        0.09194   1.84%
   QC value within limits for Cr 267.716  Recovery = 99.82%
Cu 324.752†             1673.4      11.032 µg/L        0.0821      11.032 ppb         0.0821   0.74%
   QC value within limits for Cu 324.752  Recovery = 110.32%
Fe 238.204 Radial†        20.8      95.882 µg/L        7.4716      95.882 ppb         7.4716   7.79%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.88%
K 766.490 Radial†        240.8      181.22 µg/L        54.218      181.22 ppb         54.218  29.92%
   QC value within limits for K 766.490 Radial  Recovery = 120.81%
Mg 279.077 IEC†           23.5      380.73 µg/L        15.406      380.73 ppb         15.406   4.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 126.91%
Mn 257.610†             5973.0      10.354 µg/L        0.0581      10.354 ppb         0.0581   0.56%
   QC value within limits for Mn 257.610  Recovery = 103.54%
Mo 202.031†              115.2      9.6295 µg/L       0.22928      9.6295 ppb        0.22928   2.38%
   QC value within limits for Mo 202.031  Recovery = 96.30%
Na 589.592 Radial†         4.9      449.71 µg/L       123.198      449.71 ppb        123.198  27.40%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 149.90%
Ni 231.604†              153.4      5.3722 µg/L       0.42705      5.3722 ppb        0.42705   7.95%
   QC value within limits for Ni 231.604  Recovery = 107.44%
P 214.914†               149.3      141.36 µg/L         2.747      141.36 ppb          2.747   1.94%
   QC value within limits for P 214.914  Recovery = 94.24%
Pb 220.353†               67.9      11.113 µg/L        1.9482      11.113 ppb         1.9482  17.53%
   QC value within limits for Pb 220.353  Recovery = 111.13%
S 181.975 Axial†          43.6      97.632 µg/L       10.2128      97.632 ppb        10.2128  10.46%
   QC value within limits for S 181.975 Axial  Recovery = 97.63%
Sb 206.836†               34.9      15.420 µg/L        0.6078      15.420 ppb         0.6078   3.94%
   QC value greater than the upper limit for Sb 206.836  Recovery = 154.20%
Se 196.026†               28.7      23.417 µg/L        6.3409      23.417 ppb         6.3409  27.08%
   QC value within limits for Se 196.026  Recovery = 78.06%
SiO2†                    1259.6      209.86 µg/L         5.185      209.86 ppb          5.185   2.47%
   QC value within limits for SiO2  Recovery = 98.53%
Si 251.611†              1488.2      94.788 µg/L        1.1732      94.788 ppb         1.1732   1.24%
   QC value within limits for Si 251.611  Recovery = 94.79%
Sn 189.927†               46.9      10.010 µg/L        0.5112      10.010 ppb         0.5112   5.11%
   QC value within limits for Sn 189.927  Recovery = 100.10%
Sr 421.552†               90.4      4.7062 µg/L       0.73609      4.7062 ppb        0.73609  15.64%
   QC value within limits for Sr 421.552  Recovery = 94.12%
Ti 334.940†              1341.0      4.9485 µg/L       0.10127      4.9485 ppb        0.10127   2.05%
   QC value within limits for Ti 334.940  Recovery = 98.97%
Tl 190.801†               63.2      21.365 µg/L        1.0803      21.365 ppb         1.0803   5.06%
   QC value within limits for Tl 190.801  Recovery = 106.83%
U 367.007†               193.0       53.39 µg/L        13.589       53.39 ppb         13.589  25.45%
   QC value within limits for U 367.007  Recovery = 106.79%
V 292.402†               429.0      5.2549 µg/L       0.65359      5.2549 ppb        0.65359  12.44%
   QC value within limits for V 292.402  Recovery = 105.10%
Zn 213.857†              919.2      9.7286 µg/L       0.16031      9.7286 ppb        0.16031   1.65%
   QC value within limits for Zn 213.857  Recovery = 97.29%
QC Failed.  Continue with analysis.
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Sequence No.: 7 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 9/29/2017 10:46:11**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3885.4	3885.4	95.5	%			10:47:03
1	Al 396.153Radial†	5375.0	5849.0	5033.2	µg/L	5033.2	ppb	10:46:42
1	Ca 317.933Radial†	5094.8	5288.2	5178.7	µg/L	5178.7	ppb	10:47:03
1	Fe 238.204 Radial†	1059.5	1106.6	5109.5	µg/L	5109.5	ppb	10:47:03
1	K 766.490 Radial†	6379.1	6568.2	4944.2	µg/L	4944.2	ppb	10:46:42
1	Mg 279.077 IEC†	313.6	326.9	5293.8	µg/L	5293.8	ppb	10:47:03
1	Na 589.592 Radial†	104.3	109.8	9997.9	µg/L	9997.9	ppb	10:47:03
1	Sr 421.552†	8913.2	9306.9	484.99	µg/L	484.99	ppb	10:46:42
1	Sc 361.383	396608.8	396608.8	98.210	%			10:48:00
1	Y 371.029	406810.5	406810.5	97.216	%			10:48:00
1	Ag 328.068†	59655.6	61225.5	499.61	µg/L	499.61	ppb	10:48:00
1	As 188.979†	660.0	674.7	497.98	µg/L	497.98	ppb	10:48:20
1	B 249.677†	13269.1	13421.7	512.48	µg/L	512.48	ppb	10:48:00
1	Ba 233.527†	44240.3	45063.5	494.58	µg/L	494.58	ppb	10:48:00
1	Be 313.107†	654888.4	673109.8	493.08	µg/L	493.08	ppb	10:48:00
1	Cd 226.502†	34739.1	35537.3	492.02	µg/L	492.02	ppb	10:48:00
1	Co 228.616†	17055.5	17577.4	499.42	µg/L	499.42	ppb	10:48:00
1	Cr 267.716†	21911.8	22164.1	495.13	µg/L	495.13	ppb	10:48:00
1	Cu 324.752†	76499.6	75664.9	497.67	µg/L	497.67	ppb	10:48:00
1	Mn 257.610†	281285.3	286072.3	496.40	µg/L	496.40	ppb	10:48:00
1	Mo 202.031†	5754.5	5851.7	489.02	µg/L	489.02	ppb	10:48:20
1	Ni 231.604†	14180.6	14518.4	508.53	µg/L	508.53	ppb	10:48:00
1	P 214.914†	2554.1	2572.1	2425.1	µg/L	2425.1	ppb	10:48:20
1	Pb 220.353†	3016.5	2979.8	490.09	µg/L	490.09	ppb	10:48:20
1	S 181.975 Axial†	468.5	440.5	985.52	µg/L	985.52	ppb	10:48:20
1	Sb 206.836†	1133.7	1103.4	483.44	µg/L	483.44	ppb	10:48:20
1	Se 196.026†	556.1	593.9	486.89	µg/L	486.89	ppb	10:48:20
1	SiO2†	32577.8	32008.2	5336.3	µg/L	5336.3	ppb	10:48:00
1	Si 251.611†	38523.6	39017.2	2479.5	µg/L	2479.5	ppb	10:48:00
1	Sn 189.927†	2272.2	2299.2	492.34	µg/L	492.34	ppb	10:48:20
1	Ti 334.940†	130334.7	133166.2	492.85	µg/L	492.85	ppb	10:48:00
1	Tl 190.801†	1361.5	1449.5	487.60	µg/L	487.60	ppb	10:48:20
1	U 367.007†	2829.2	1799.2	477.4	µg/L	477.4	ppb	10:48:00
1	V 292.402†	40511.3	41217.8	497.76	µg/L	497.76	ppb	10:48:00
1	Zn 213.857†	45489.3	45939.8	485.81	µg/L	485.81	ppb	10:48:00
2	Sc RADIAL	3858.0	3858.0	94.8	%			10:47:28
2	Al 396.153Radial†	5480.5	6000.1	5163.7	µg/L	5163.7	ppb	10:47:08
2	Ca 317.933Radial†	5092.1	5323.2	5213.0	µg/L	5213.0	ppb	10:47:28
2	Fe 238.204 Radial†	1056.6	1111.4	5131.6	µg/L	5131.6	ppb	10:47:28
2	K 766.490 Radial†	6482.1	6724.2	5061.5	µg/L	5061.5	ppb	10:47:08
2	Mg 279.077 IEC†	314.9	330.6	5353.2	µg/L	5353.2	ppb	10:47:28
2	Na 589.592 Radial†	101.1	107.2	9762.0	µg/L	9762.0	ppb	10:47:28
2	Sr 421.552†	9094.6	9564.5	498.41	µg/L	498.41	ppb	10:47:08
2	Sc 361.383	395650.6	395650.6	97.973	%			10:48:26
2	Y 371.029	405415.3	405415.3	96.882	%			10:48:26
2	Ag 328.068†	59541.0	61255.7	499.86	µg/L	499.86	ppb	10:48:26
2	As 188.979†	652.8	668.9	493.82	µg/L	493.82	ppb	10:48:46
2	B 249.677†	13327.3	13513.8	515.95	µg/L	515.95	ppb	10:48:26
2	Ba 233.527†	44239.2	45171.5	495.77	µg/L	495.77	ppb	10:48:26
2	Be 313.107†	654224.1	674046.7	493.77	µg/L	493.77	ppb	10:48:26
2	Cd 226.502†	34797.1	35682.2	494.03	µg/L	494.03	ppb	10:48:26
2	Co 228.616†	17055.5	17619.5	500.62	µg/L	500.62	ppb	10:48:26
2	Cr 267.716†	21939.0	22245.9	496.96	µg/L	496.96	ppb	10:48:26
2	Cu 324.752†	76383.9	75735.5	498.13	µg/L	498.13	ppb	10:48:26
2	Mn 257.610†	281132.3	286609.8	497.33	µg/L	497.33	ppb	10:48:26
2	Mo 202.031†	5751.0	5862.4	489.91	µg/L	489.91	ppb	10:48:46
2	Ni 231.604†	14156.0	14528.2	508.87	µg/L	508.87	ppb	10:48:26
2	P 214.914†	2540.9	2564.9	2418.2	µg/L	2418.2	ppb	10:48:46

2	Pb 220.353†	2983.9	2953.9	485.80 µg/L	485.80 ppb		10:48:46
2	S 181.975 Axial†	466.6	439.6	983.55 µg/L	983.55 ppb		10:48:46
2	Sb 206.836†	1137.1	1109.6	486.15 µg/L	486.15 ppb		10:48:46
2	Se 196.026†	572.1	611.7	501.35 µg/L	501.35 ppb		10:48:46
2	SiO2†	32435.6	31943.4	5325.5 µg/L	5325.5 ppb		10:48:26
2	Si 251.611†	38473.1	39060.7	2482.3 µg/L	2482.3 ppb		10:48:26
2	Sn 189.927†	2278.3	2311.1	494.87 µg/L	494.87 ppb		10:48:46
2	Ti 334.940†	130052.0	133199.0	492.97 µg/L	492.97 ppb		10:48:26
2	Tl 190.801†	1369.0	1460.5	491.30 µg/L	491.30 ppb		10:48:46
2	U 367.007†	2842.2	1819.4	482.9 µg/L	482.9 ppb		10:48:26
2	V 292.402†	40468.0	41273.6	498.44 µg/L	498.44 ppb		10:48:26
2	Zn 213.857†	45432.3	45993.7	486.38 µg/L	486.38 ppb		10:48:26
3	Sc RADIAL	3898.1	3898.1	95.8 %			10:47:53
3	Al 396.153Radial†	5421.9	5879.7	5059.8 µg/L	5059.8 ppb		10:47:33
3	Ca 317.933Radial†	5116.7	5293.7	5184.1 µg/L	5184.1 ppb		10:47:53
3	Fe 238.204 Radial†	1060.0	1103.5	5095.3 µg/L	5095.3 ppb		10:47:53
3	K 766.490 Radial†	6464.2	6635.4	4994.7 µg/L	4994.7 ppb		10:47:33
3	Mg 279.077 IEC†	311.6	323.7	5242.0 µg/L	5242.0 ppb		10:47:53
3	Na 589.592 Radial†	107.3	112.6	10259 µg/L	10259 ppb		10:47:53
3	Sr 421.552†	9023.1	9391.4	489.39 µg/L	489.39 ppb		10:47:33
3	Sc 361.383	398595.0	398595.0	98.702 %			10:48:53
3	Y 371.029	408500.2	408500.2	97.620 %			10:48:53
3	Ag 328.068†	59984.1	61255.7	499.86 µg/L	499.86 ppb		10:48:53
3	As 188.979†	656.8	668.1	493.17 µg/L	493.17 ppb		10:49:13
3	B 249.677†	13461.1	13548.8	517.07 µg/L	517.07 ppb		10:48:53
3	Ba 233.527†	44663.1	45267.4	496.82 µg/L	496.82 ppb		10:48:53
3	Be 313.107†	660860.9	675838.0	495.08 µg/L	495.08 ppb		10:48:53
3	Cd 226.502†	35207.4	35835.5	496.16 µg/L	496.16 ppb		10:48:53
3	Co 228.616†	17285.1	17723.5	503.57 µg/L	503.57 ppb		10:48:53
3	Cr 267.716†	22205.5	22350.5	499.30 µg/L	499.30 ppb		10:48:53
3	Cu 324.752†	77079.4	75864.1	498.98 µg/L	498.98 ppb		10:48:53
3	Mn 257.610†	283859.8	287253.5	498.45 µg/L	498.45 ppb		10:48:53
3	Mo 202.031†	5756.6	5824.6	486.76 µg/L	486.76 ppb		10:49:13
3	Ni 231.604†	14294.5	14561.8	510.05 µg/L	510.05 ppb		10:48:53
3	P 214.914†	2536.9	2541.6	2396.2 µg/L	2396.2 ppb		10:49:13
3	Pb 220.353†	3010.4	2958.3	486.55 µg/L	486.55 ppb		10:49:13
3	S 181.975 Axial†	465.5	435.0	973.31 µg/L	973.31 ppb		10:49:13
3	Sb 206.836†	1129.1	1093.0	478.70 µg/L	478.70 ppb		10:49:13
3	Se 196.026†	556.4	591.5	484.89 µg/L	484.89 ppb		10:49:13
3	SiO2†	32815.7	32083.9	5349.0 µg/L	5349.0 ppb		10:48:53
3	Si 251.611†	38772.9	39074.3	2483.2 µg/L	2483.2 ppb		10:48:53
3	Sn 189.927†	2281.5	2297.2	491.90 µg/L	491.90 ppb		10:49:13
3	Ti 334.940†	131227.2	133409.1	493.75 µg/L	493.75 ppb		10:48:53
3	Tl 190.801†	1349.9	1430.8	481.25 µg/L	481.25 ppb		10:49:13
3	U 367.007†	2850.7	1806.7	479.6 µg/L	479.6 ppb		10:48:53
3	V 292.402†	40876.9	41382.6	499.71 µg/L	499.71 ppb		10:48:53
3	Zn 213.857†	45976.7	46202.7	488.61 µg/L	488.61 ppb		10:48:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	396951.5	98.295	%	0.3719				0.38%
Sc RADIAL	3880.5	95.4	%	0.50				0.53%
Y 371.029	406908.7	97.239	%	0.3692				0.38%
Ag 328.068†	61245.6	499.78	µg/L	0.142	499.78	ppb	0.142	0.03%
QC value within limits for Ag 328.068 Recovery = 99.96%								
Al 396.153Radial†	5909.6	5085.6	µg/L	69.00	5085.6	ppb	69.00	1.36%
QC value within limits for Al 396.153Radial Recovery = 101.71%								
As 188.979†	670.6	494.99	µg/L	2.607	494.99	ppb	2.607	0.53%
QC value within limits for As 188.979 Recovery = 99.00%								
B 249.677†	13494.8	515.16	µg/L	2.393	515.16	ppb	2.393	0.46%
QC value within limits for B 249.677 Recovery = 103.03%								
Ba 233.527†	45167.5	495.73	µg/L	1.120	495.73	ppb	1.120	0.23%
QC value within limits for Ba 233.527 Recovery = 99.15%								
Be 313.107†	674331.5	493.97	µg/L	1.015	493.97	ppb	1.015	0.21%
QC value within limits for Be 313.107 Recovery = 98.79%								
Ca 317.933Radial†	5301.7	5191.9	µg/L	18.44	5191.9	ppb	18.44	0.36%
QC value within limits for Ca 317.933Radial Recovery = 103.84%								
Cd 226.502†	35685.0	494.07	µg/L	2.068	494.07	ppb	2.068	0.42%
QC value within limits for Cd 226.502 Recovery = 98.81%								

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Co 228.616†            17640.1      501.20 µg/L         2.134      501.20 ppb          2.134   0.43%
   QC value within limits for Co 228.616  Recovery = 100.24%
Cr 267.716†            22253.5      497.13 µg/L         2.087      497.13 ppb          2.087   0.42%
   QC value within limits for Cr 267.716  Recovery = 99.43%
Cu 324.752†            75754.8      498.26 µg/L         0.664      498.26 ppb          0.664   0.13%
   QC value within limits for Cu 324.752  Recovery = 99.65%
Fe 238.204 Radial†      1107.2      5112.1 µg/L         18.32      5112.1 ppb          18.32   0.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.24%
K 766.490 Radial†       6642.6      5000.1 µg/L         58.88      5000.1 ppb          58.88   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 100.00%
Mg 279.077 IEC†          327.1      5296.3 µg/L         55.63      5296.3 ppb          55.63   1.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.93%
Mn 257.610†           286645.2      497.39 µg/L         1.027      497.39 ppb          1.027   0.21%
   QC value within limits for Mn 257.610  Recovery = 99.48%
Mo 202.031†             5846.3      488.56 µg/L         1.626      488.56 ppb          1.626   0.33%
   QC value within limits for Mo 202.031  Recovery = 97.71%
Na 589.592 Radial†       109.9       10006 µg/L        248.76       10006 ppb         248.76   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 100.06%
Ni 231.604†            14536.2      509.15 µg/L         0.798      509.15 ppb          0.798   0.16%
   QC value within limits for Ni 231.604  Recovery = 101.83%
P 214.914†              2559.5      2413.2 µg/L         15.08      2413.2 ppb          15.08   0.62%
   QC value within limits for P 214.914  Recovery = 96.53%
Pb 220.353†             2964.0      487.48 µg/L         2.291      487.48 ppb          2.291   0.47%
   QC value within limits for Pb 220.353  Recovery = 97.50%
S 181.975 Axial†         438.4      980.79 µg/L         6.554      980.79 ppb          6.554   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 98.08%
Sb 206.836†             1102.0      482.76 µg/L         3.769      482.76 ppb          3.769   0.78%
   QC value within limits for Sb 206.836  Recovery = 96.55%
Se 196.026†              599.0      491.05 µg/L         8.983      491.05 ppb          8.983   1.83%
   QC value within limits for Se 196.026  Recovery = 98.21%
SiO2†                  32011.8      5337.0 µg/L         11.76      5337.0 ppb          11.76   0.22%
   QC value within limits for SiO2  Recovery = 99.80%
Si 251.611†            39050.8      2481.7 µg/L          1.92      2481.7 ppb           1.92   0.08%
   QC value within limits for Si 251.611  Recovery = 99.27%
Sn 189.927†             2302.5      493.04 µg/L         1.604      493.04 ppb          1.604   0.33%
   QC value within limits for Sn 189.927  Recovery = 98.61%
Sr 421.552†             9420.9      490.93 µg/L         6.843      490.93 ppb          6.843   1.39%
   QC value within limits for Sr 421.552  Recovery = 98.19%
Ti 334.940†           133258.1      493.19 µg/L         0.487      493.19 ppb          0.487   0.10%
   QC value within limits for Ti 334.940  Recovery = 98.64%
Tl 190.801†             1446.9      486.72 µg/L         5.082      486.72 ppb          5.082   1.04%
   QC value within limits for Tl 190.801  Recovery = 97.34%
U 367.007†              1808.4       480.0 µg/L          2.79       480.0 ppb           2.79   0.58%
   QC value within limits for U 367.007  Recovery = 95.99%
V 292.402†             41291.3      498.64 µg/L         0.990      498.64 ppb          0.990   0.20%
   QC value within limits for V 292.402  Recovery = 99.73%
Zn 213.857†            46045.4      486.93 µg/L         1.482      486.93 ppb          1.482   0.30%
   QC value within limits for Zn 213.857  Recovery = 97.39%
All analyte(s) passed QC.
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Sequence No.: 8 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 9/29/2017 10:49:21**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3944.9	3944.9	97.0	%			10:49:51
1	Al 396.153Radial†	-227.0	-12.1	-10.454	µg/L	-10.454	ppb	10:49:51
1	Ca 317.933Radial†	50.2	6.3	6.1319	µg/L	6.1319	ppb	10:50:11
1	Fe 238.204 Radial†	1.4	-1.1	-5.2558	µg/L	-5.2558	ppb	10:50:11
1	K 766.490 Radial†	123.2	17.2	12.908	µg/L	12.908	ppb	10:49:51
1	Mg 279.077 IEC†	4.1	2.8	45.853	µg/L	45.853	ppb	10:50:11
1	Na 589.592 Radial†	-6.2	-5.8	-528.86	µg/L	-528.86	ppb	10:50:11
1	Sr 421.552†	11.1	-12.5	-0.6536	µg/L	-0.6536	ppb	10:49:51
1	Sc 361.383	394404.6	394404.6	97.665	%			10:51:08
1	Y 371.029	409002.7	409002.7	97.740	%			10:51:08
1	Ag 328.068†	-494.4	-23.2	-0.1971	µg/L	-0.1971	ppb	10:51:08
1	As 188.979†	-9.2	-6.8	-4.9912	µg/L	-4.9912	ppb	10:51:28
1	B 249.677†	97.5	10.6	0.3662	µg/L	0.3662	ppb	10:51:08
1	Ba 233.527†	-17.6	-1.0	-0.0105	µg/L	-0.0105	ppb	10:51:28
1	Be 313.107†	-6004.6	140.4	0.1062	µg/L	0.1062	ppb	10:51:08
1	Cd 226.502†	-147.1	14.6	0.2022	µg/L	0.2022	ppb	10:51:28
1	Co 228.616†	-195.2	11.3	0.3213	µg/L	0.3213	ppb	10:51:28
1	Cr 267.716†	154.8	11.5	0.2478	µg/L	0.2478	ppb	10:51:28
1	Cu 324.752†	2224.8	49.4	0.3328	µg/L	0.3328	ppb	10:51:08
1	Mn 257.610†	368.5	39.1	0.0659	µg/L	0.0659	ppb	10:51:08
1	Mo 202.031†	15.6	8.3	0.6946	µg/L	0.6946	ppb	10:51:28
1	Ni 231.604†	-89.9	-12.7	-0.4443	µg/L	-0.4443	ppb	10:51:28
1	P 214.914†	16.1	-12.1	-11.509	µg/L	-11.509	ppb	10:51:28
1	Pb 220.353†	72.6	-17.3	-2.8562	µg/L	-2.8562	ppb	10:51:28
1	S 181.975 Axial†	48.8	13.4	29.915	µg/L	29.915	ppb	10:51:28
1	Sb 206.836†	55.4	5.8	2.5453	µg/L	2.5453	ppb	10:51:28
1	Se 196.026†	-34.2	-7.3	-5.9195	µg/L	-5.9195	ppb	10:51:28
1	SiO2†	1143.4	7.5	1.2522	µg/L	1.2522	ppb	10:51:08
1	Si 251.611†	244.8	42.3	2.6879	µg/L	2.6879	ppb	10:51:28
1	Sn 189.927†	9.9	-4.2	-0.9039	µg/L	-0.9039	ppb	10:51:28
1	Ti 334.940†	-484.3	-39.2	-0.1515	µg/L	-0.1515	ppb	10:51:08
1	Tl 190.801†	-74.1	-12.7	-4.2845	µg/L	-4.2845	ppb	10:51:28
1	U 367.007†	1105.1	50.0	13.97	µg/L	13.97	ppb	10:51:08
1	V 292.402†	0.7	-31.0	-0.3553	µg/L	-0.3553	ppb	10:51:08
1	Zn 213.857†	526.1	160.3	1.7079	µg/L	1.7079	ppb	10:51:28
2	Sc RADIAL	4000.7	4000.7	98.4	%			10:50:16
2	Al 396.153Radial†	-167.5	51.7	44.696	µg/L	44.696	ppb	10:50:16
2	Ca 317.933Radial†	62.3	17.9	17.494	µg/L	17.494	ppb	10:50:36
2	Fe 238.204 Radial†	-1.4	-4.0	-18.611	µg/L	-18.611	ppb	10:50:36
2	K 766.490 Radial†	64.7	-44.0	-33.145	µg/L	-33.145	ppb	10:50:16
2	Mg 279.077 IEC†	4.7	3.4	54.629	µg/L	54.629	ppb	10:50:36
2	Na 589.592 Radial†	-2.9	-2.3	-213.62	µg/L	-213.62	ppb	10:50:36
2	Sr 421.552†	21.5	-2.2	-0.1135	µg/L	-0.1135	ppb	10:50:16
2	Sc 361.383	393304.0	393304.0	97.392	%			10:51:33
2	Y 371.029	407536.3	407536.3	97.389	%			10:51:33
2	Ag 328.068†	-428.8	42.6	0.3421	µg/L	0.3421	ppb	10:51:33
2	As 188.979†	-0.6	2.0	1.4585	µg/L	1.4585	ppb	10:51:53
2	B 249.677†	166.5	81.8	2.9192	µg/L	2.9192	ppb	10:51:33
2	Ba 233.527†	-22.2	-5.6	-0.0615	µg/L	-0.0615	ppb	10:51:53
2	Be 313.107†	-6073.4	52.6	0.0395	µg/L	0.0395	ppb	10:51:33
2	Cd 226.502†	-157.9	3.1	0.0451	µg/L	0.0451	ppb	10:51:53
2	Co 228.616†	-193.0	12.9	0.3679	µg/L	0.3679	ppb	10:51:53
2	Cr 267.716†	155.2	12.4	0.2768	µg/L	0.2768	ppb	10:51:53
2	Cu 324.752†	2313.5	146.8	0.9655	µg/L	0.9655	ppb	10:51:33
2	Mn 257.610†	333.9	4.6	0.0051	µg/L	0.0051	ppb	10:51:33
2	Mo 202.031†	14.1	6.8	0.5702	µg/L	0.5702	ppb	10:51:53
2	Ni 231.604†	-67.6	9.9	0.3482	µg/L	0.3482	ppb	10:51:53
2	P 214.914†	36.1	8.4	8.0076	µg/L	8.0076	ppb	10:51:53

2	Pb 220.353†	87.1	-2.3	-0.3763	µg/L	-0.3763	ppb	10:51:53
2	S 181.975 Axial†	38.7	3.1	7.0340	µg/L	7.0340	ppb	10:51:53
2	Sb 206.836†	62.4	13.1	5.7877	µg/L	5.7877	ppb	10:51:53
2	Se 196.026†	-29.1	-2.1	-1.7192	µg/L	-1.7192	ppb	10:51:53
2	SiO2†	1155.2	22.9	3.8203	µg/L	3.8203	ppb	10:51:33
2	Si 251.611†	233.8	31.8	2.0182	µg/L	2.0182	ppb	10:51:53
2	Sn 189.927†	14.5	0.6	0.1279	µg/L	0.1279	ppb	10:51:53
2	Ti 334.940†	-405.6	40.1	0.1479	µg/L	0.1479	ppb	10:51:33
2	Tl 190.801†	-60.2	1.4	0.4760	µg/L	0.4760	ppb	10:51:53
2	U 367.007†	1064.4	11.4	3.258	µg/L	3.258	ppb	10:51:33
2	V 292.402†	-0.2	-31.8	-0.3744	µg/L	-0.3744	ppb	10:51:33
2	Zn 213.857†	525.8	161.5	1.7260	µg/L	1.7260	ppb	10:51:53
3	Sc RADIAL	4002.0	4002.0	98.4	%			10:50:41
3	Al 396.153Radial†	-231.6	-13.4	-11.565	µg/L	-11.565	ppb	10:50:41
3	Ca 317.933Radial†	58.2	13.7	13.377	µg/L	13.377	ppb	10:51:01
3	Fe 238.204 Radial†	1.2	-1.4	-6.4169	µg/L	-6.4169	ppb	10:51:01
3	K 766.490 Radial†	26.3	-83.1	-62.538	µg/L	-62.538	ppb	10:50:41
3	Mg 279.077 IEC†	-4.7	-6.1	-99.247	µg/L	-99.247	ppb	10:51:01
3	Na 589.592 Radial†	3.5	4.2	380.65	µg/L	380.65	ppb	10:51:01
3	Sr 421.552†	17.5	-6.2	-0.3243	µg/L	-0.3243	ppb	10:50:41
3	Sc 361.383	396759.6	396759.6	98.248	%			10:51:59
3	Y 371.029	411789.1	411789.1	98.406	%			10:51:59
3	Ag 328.068†	-389.7	86.3	0.7023	µg/L	0.7023	ppb	10:51:59
3	As 188.979†	-7.5	-5.1	-3.6949	µg/L	-3.6949	ppb	10:52:19
3	B 249.677†	114.7	27.6	0.9815	µg/L	0.9815	ppb	10:51:59
3	Ba 233.527†	-15.5	1.3	0.0143	µg/L	0.0143	ppb	10:52:19
3	Be 313.107†	-6132.9	46.3	0.0336	µg/L	0.0336	ppb	10:51:59
3	Cd 226.502†	-159.5	2.9	0.0407	µg/L	0.0407	ppb	10:52:19
3	Co 228.616†	-187.8	20.0	0.5694	µg/L	0.5694	ppb	10:52:19
3	Cr 267.716†	140.4	-4.1	-0.0935	µg/L	-0.0935	ppb	10:52:19
3	Cu 324.752†	2316.6	129.3	0.8480	µg/L	0.8480	ppb	10:51:59
3	Mn 257.610†	319.4	-13.2	-0.0197	µg/L	-0.0197	ppb	10:51:59
3	Mo 202.031†	12.6	5.2	0.4332	µg/L	0.4332	ppb	10:52:19
3	Ni 231.604†	-71.7	6.4	0.2252	µg/L	0.2252	ppb	10:52:19
3	P 214.914†	6.1	-22.4	-21.237	µg/L	-21.237	ppb	10:52:19
3	Pb 220.353†	95.3	5.3	0.8761	µg/L	0.8761	ppb	10:52:19
3	S 181.975 Axial†	41.3	5.4	12.122	µg/L	12.122	ppb	10:52:19
3	Sb 206.836†	45.7	-4.5	-1.9641	µg/L	-1.9641	ppb	10:52:19
3	Se 196.026†	-38.7	-11.7	-9.5024	µg/L	-9.5024	ppb	10:52:19
3	SiO2†	1177.4	35.2	5.8566	µg/L	5.8566	ppb	10:51:59
3	Si 251.611†	228.5	24.2	1.5389	µg/L	1.5389	ppb	10:52:19
3	Sn 189.927†	15.9	1.8	0.3946	µg/L	0.3946	ppb	10:52:19
3	Ti 334.940†	-428.1	20.9	0.0787	µg/L	0.0787	ppb	10:51:59
3	Tl 190.801†	-66.7	-4.7	-1.5873	µg/L	-1.5873	ppb	10:52:19
3	U 367.007†	1056.8	-5.9	-1.609	µg/L	-1.609	ppb	10:51:59
3	V 292.402†	28.8	-2.3	-0.0258	µg/L	-0.0258	ppb	10:51:59
3	Zn 213.857†	521.9	152.8	1.6260	µg/L	1.6260	ppb	10:52:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	394822.7	97.768	%	0.4371				0.45%
Sc RADIAL	3982.5	97.9	%	0.80				0.82%
Y 371.029	409442.7	97.845	%	0.5162				0.53%
Ag 328.068†	35.2	0.2824	µg/L	0.45268	0.2824	ppb	0.45268	160.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	7.5590	µg/L	32.16614	7.5590	ppb	32.16614	425.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.3	-2.4092	µg/L	3.41167	-2.4092	ppb	3.41167	141.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	40.0	1.4223	µg/L	1.33239	1.4223	ppb	1.33239	93.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.0192	µg/L	0.03863	-0.0192	ppb	0.03863	200.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	79.8	0.0598	µg/L	0.04033	0.0598	ppb	0.04033	67.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	12.6	12.334	µg/L	5.7523	12.334	ppb	5.7523	46.64%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.8	0.0960	µg/L	0.09199	0.0960	ppb	0.09199	95.82%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                14.7      0.4195 µg/L       0.13186      0.4195 ppb        0.13186  31.43%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.6      0.1437 µg/L       0.20591      0.1437 ppb        0.20591 143.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               108.5      0.7155 µg/L       0.33655      0.7155 ppb        0.33655  47.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.2     -10.094 µg/L        7.3981     -10.094 ppb         7.3981  73.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -36.7     -27.592 µg/L       38.0282     -27.592 ppb        38.0282 137.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.0      0.4118 µg/L      86.41829      0.4118 ppb       86.41829 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                10.2      0.0171 µg/L       0.04407      0.0171 ppb        0.04407 257.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.8      0.5660 µg/L       0.13078      0.5660 ppb        0.13078  23.11%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         -1.3     -120.61 µg/L       461.835     -120.61 ppb        461.835 382.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.2      0.0430 µg/L       0.42652      0.0430 ppb        0.42652 991.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.7     -8.2461 µg/L      14.89285     -8.2461 ppb       14.89285 180.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -4.7     -0.7855 µg/L       1.89947     -0.7855 ppb        1.89947 241.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            7.3      16.357 µg/L       12.0142      16.357 ppb        12.0142  73.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      2.1230 µg/L       3.89316      2.1230 ppb        3.89316 183.38%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.0     -5.7137 µg/L       3.89567     -5.7137 ppb        3.89567  68.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      21.9      3.6430 µg/L       2.30728      3.6430 ppb        2.30728  63.33%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                32.8      2.0817 µg/L       0.57711      2.0817 ppb        0.57711  27.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.6     -0.1271 µg/L       0.68578     -0.1271 ppb        0.68578 539.35%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.0     -0.3638 µg/L       0.27217     -0.3638 ppb        0.27217  74.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 7.3      0.0250 µg/L       0.15678      0.0250 ppb        0.15678 626.26%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.3     -1.7986 µg/L       2.38725     -1.7986 ppb        2.38725 132.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 18.5       5.208 µg/L        7.9722       5.208 ppb         7.9722 153.09%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                -21.7     -0.2518 µg/L       0.19599     -0.2518 ppb        0.19599  77.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               158.2      1.6866 µg/L       0.05328      1.6866 ppb        0.05328   3.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 9/29/2017 10:52:45
Logged In Analyst: Optima3
Spectrometer: Optima 5300 DV, S/N 077C7090601

Plasma On Time: 9/25/2017 06:05:43
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\Users\Public\PerkinElmer\ICP\Data\Sample Information\092917.sif
Batch ID:
Results Data Set: 092917A
Results Library: C:\Users\Public\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: 1203884246|1704451|1|
Analyst: HSC
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 301
Date Collected: 9/29/2017 10:52:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1203884246|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3952.0	3952.0	97.2	%			10:53:36
1	Al 396.153Radial†	-204.1	12.0	10.362	µg/L	10.362	ppb	10:53:36
1	Ca 317.933Radial†	72.3	29.0	28.359	µg/L	28.359	ppb	10:53:56
1	Fe 238.204 Radial†	2.4	-0.1	-0.4525	µg/L	-0.4525	ppb	10:53:56
1	K 766.490 Radial†	66.8	-41.1	-30.926	µg/L	-30.926	ppb	10:53:36
1	Mg 279.077 IEC†	4.2	2.9	47.008	µg/L	47.008	ppb	10:53:56
1	Na 589.592 Radial†	-1.7	-1.2	-105.65	µg/L	-105.65	ppb	10:53:56
1	Sr 421.552†	33.2	10.2	0.5325	µg/L	0.5325	ppb	10:53:36
1	Sc 361.383	395886.3	395886.3	98.032	%			10:54:53
1	Y 371.029	409895.8	409895.8	97.953	%			10:54:53
1	Ag 328.068†	-422.6	51.8	0.4231	µg/L	0.4231	ppb	10:54:53
1	As 188.979†	-4.7	-2.2	-1.5865	µg/L	-1.5865	ppb	10:55:13
1	B 249.677†	126.7	40.0	1.4649	µg/L	1.4649	ppb	10:54:53
1	Ba 233.527†	-23.1	-6.5	-0.0714	µg/L	-0.0714	ppb	10:55:13
1	Be 313.107†	-6259.1	-96.2	-0.0702	µg/L	-0.0702	ppb	10:54:53
1	Cd 226.502†	-166.1	-4.2	-0.0585	µg/L	-0.0585	ppb	10:55:13
1	Co 228.616†	-195.5	11.7	0.3318	µg/L	0.3318	ppb	10:55:13
1	Cr 267.716†	158.9	15.1	0.3404	µg/L	0.3404	ppb	10:55:13
1	Cu 324.752†	2291.2	108.7	0.7135	µg/L	0.7135	ppb	10:54:53
1	Mn 257.610†	459.2	130.2	0.2242	µg/L	0.2242	ppb	10:54:53
1	Mo 202.031†	12.3	5.0	0.4148	µg/L	0.4148	ppb	10:55:13
1	Ni 231.604†	-60.8	17.4	0.6103	µg/L	0.6103	ppb	10:55:13
1	P 214.914†	20.4	-7.8	-7.4217	µg/L	-7.4217	ppb	10:55:13
1	Pb 220.353†	97.8	8.1	1.3264	µg/L	1.3264	ppb	10:55:13
1	S 181.975 Axial†	52.9	17.4	38.952	µg/L	38.952	ppb	10:55:13
1	Sb 206.836†	58.9	9.1	4.0134	µg/L	4.0134	ppb	10:55:13
1	Se 196.026†	-35.4	-8.4	-6.8342	µg/L	-6.8342	ppb	10:55:13
1	SiO2†	1176.2	36.6	6.1001	µg/L	6.1001	ppb	10:54:53
1	Si 251.611†	296.7	94.4	6.0164	µg/L	6.0164	ppb	10:55:13
1	Sn 189.927†	13.5	-0.5	-0.1116	µg/L	-0.1116	ppb	10:55:13
1	Ti 334.940†	-333.9	116.0	0.4311	µg/L	0.4311	ppb	10:54:53
1	Tl 190.801†	-71.8	-10.1	-3.4112	µg/L	-3.4112	ppb	10:55:13
1	U 367.007†	1058.2	-2.1	-0.586	µg/L	-0.586	ppb	10:54:53
1	V 292.402†	98.2	68.5	0.8209	µg/L	0.8209	ppb	10:54:53
1	Zn 213.857†	508.8	140.6	1.4958	µg/L	1.4958	ppb	10:55:13
2	Sc RADIAL	3939.9	3939.9	96.9	%			10:54:01
2	Al 396.153Radial†	-178.8	37.4	32.345	µg/L	32.345	ppb	10:54:01
2	Ca 317.933Radial†	73.4	30.3	29.719	µg/L	29.719	ppb	10:54:21
2	Fe 238.204 Radial†	1.4	-1.1	-5.2333	µg/L	-5.2333	ppb	10:54:21
2	K 766.490 Radial†	70.6	-37.0	-27.847	µg/L	-27.847	ppb	10:54:01
2	Mg 279.077 IEC†	5.4	4.2	67.284	µg/L	67.284	ppb	10:54:21
2	Na 589.592 Radial†	0.1	0.7	68.014	µg/L	68.014	ppb	10:54:21
2	Sr 421.552†	23.0	-0.3	-0.0157	µg/L	-0.0157	ppb	10:54:01
2	Sc 361.383	393336.5	393336.5	97.400	%			10:55:18
2	Y 371.029	407274.7	407274.7	97.327	%			10:55:18
2	Ag 328.068†	-389.5	83.0	0.6705	µg/L	0.6705	ppb	10:55:18

2	As 188.979†	-3.0	-0.4	-0.3080	µg/L	-0.3080	ppb	10:55:38
2	B 249.677†	76.3	-10.9	-0.4222	µg/L	-0.4222	ppb	10:55:18
2	Ba 233.527†	-7.4	9.6	0.1050	µg/L	0.1050	ppb	10:55:38
2	Be 313.107†	-6298.1	-177.6	-0.1279	µg/L	-0.1279	ppb	10:55:18
2	Cd 226.502†	-162.9	-2.0	-0.0277	µg/L	-0.0277	ppb	10:55:38
2	Co 228.616†	-193.9	12.0	0.3408	µg/L	0.3408	ppb	10:55:38
2	Cr 267.716†	171.1	28.7	0.6377	µg/L	0.6377	ppb	10:55:38
2	Cu 324.752†	2309.7	142.8	0.9426	µg/L	0.9426	ppb	10:55:18
2	Mn 257.610†	393.0	65.2	0.1105	µg/L	0.1105	ppb	10:55:18
2	Mo 202.031†	4.2	-3.3	-0.2726	µg/L	-0.2726	ppb	10:55:38
2	Ni 231.604†	-77.2	0.2	0.0061	µg/L	0.0061	ppb	10:55:38
2	P 214.914†	24.2	-3.8	-3.5809	µg/L	-3.5809	ppb	10:55:38
2	Pb 220.353†	100.3	11.3	1.8487	µg/L	1.8487	ppb	10:55:38
2	S 181.975 Axial†	50.0	14.7	33.003	µg/L	33.003	ppb	10:55:38
2	Sb 206.836†	53.9	4.3	1.8983	µg/L	1.8983	ppb	10:55:38
2	Se 196.026†	-25.7	1.4	1.1029	µg/L	1.1029	ppb	10:55:38
2	SiO2†	1145.1	12.5	2.0954	µg/L	2.0954	ppb	10:55:18
2	Si 251.611†	292.2	91.7	5.8597	µg/L	5.8597	ppb	10:55:38
2	Sn 189.927†	13.6	-0.4	-0.0775	µg/L	-0.0775	ppb	10:55:38
2	Ti 334.940†	-420.3	25.1	0.0908	µg/L	0.0908	ppb	10:55:18
2	Tl 190.801†	-69.4	-8.1	-2.7362	µg/L	-2.7362	ppb	10:55:38
2	U 367.007†	1079.8	27.1	7.580	µg/L	7.580	ppb	10:55:18
2	V 292.402†	-8.5	-40.4	-0.4795	µg/L	-0.4795	ppb	10:55:18
2	Zn 213.857†	523.7	159.2	1.6965	µg/L	1.6965	ppb	10:55:38
3	Sc RADIAL	3949.3	3949.3	97.1	%			10:54:26
3	Al 396.153Radial†	-204.0	11.9	10.300	µg/L	10.300	ppb	10:54:26
3	Ca 317.933Radial†	76.7	33.6	32.887	µg/L	32.887	ppb	10:54:46
3	Fe 238.204 Radial†	3.3	0.8	3.6680	µg/L	3.6680	ppb	10:54:46
3	K 766.490 Radial†	121.9	15.7	11.839	µg/L	11.839	ppb	10:54:26
3	Mg 279.077 IEC†	3.7	2.4	38.563	µg/L	38.563	ppb	10:54:46
3	Na 589.592 Radial†	-0.2	0.4	35.020	µg/L	35.020	ppb	10:54:46
3	Sr 421.552†	26.3	3.1	0.1587	µg/L	0.1587	ppb	10:54:26
3	Sc 361.383	391130.6	391130.6	96.854	%			10:55:43
3	Y 371.029	405331.5	405331.5	96.862	%			10:55:43
3	Ag 328.068†	-477.4	-10.0	-0.0800	µg/L	-0.0800	ppb	10:55:43
3	As 188.979†	-6.9	-4.5	-3.3154	µg/L	-3.3154	ppb	10:56:03
3	B 249.677†	99.0	13.0	0.4905	µg/L	0.4905	ppb	10:55:43
3	Ba 233.527†	-6.0	10.9	0.1197	µg/L	0.1197	ppb	10:56:03
3	Be 313.107†	-6115.5	-25.6	-0.0183	µg/L	-0.0183	ppb	10:55:43
3	Cd 226.502†	-160.4	-0.4	-0.0054	µg/L	-0.0054	ppb	10:56:03
3	Co 228.616†	-187.3	17.8	0.5029	µg/L	0.5029	ppb	10:56:03
3	Cr 267.716†	150.3	8.2	0.1837	µg/L	0.1837	ppb	10:56:03
3	Cu 324.752†	2179.9	22.1	0.1462	µg/L	0.1462	ppb	10:55:43
3	Mn 257.610†	380.9	55.0	0.0942	µg/L	0.0942	ppb	10:55:43
3	Mo 202.031†	0.0	-7.6	-0.6352	µg/L	-0.6352	ppb	10:56:03
3	Ni 231.604†	-68.5	8.7	0.3036	µg/L	0.3036	ppb	10:56:03
3	P 214.914†	26.8	-0.9	-0.8771	µg/L	-0.8771	ppb	10:56:03
3	Pb 220.353†	103.2	14.9	2.4462	µg/L	2.4462	ppb	10:56:03
3	S 181.975 Axial†	51.7	16.7	37.472	µg/L	37.472	ppb	10:56:03
3	Sb 206.836†	54.5	5.3	2.3245	µg/L	2.3245	ppb	10:56:03
3	Se 196.026†	-24.5	2.4	1.9683	µg/L	1.9683	ppb	10:56:03
3	SiO2†	1168.5	43.3	7.2231	µg/L	7.2231	ppb	10:55:43
3	Si 251.611†	285.2	86.2	5.5139	µg/L	5.5139	ppb	10:56:03
3	Sn 189.927†	21.2	7.6	1.6206	µg/L	1.6206	ppb	10:56:03
3	Ti 334.940†	-377.6	66.8	0.2488	µg/L	0.2488	ppb	10:55:43
3	Tl 190.801†	-81.3	-20.7	-7.0253	µg/L	-7.0253	ppb	10:56:03
3	U 367.007†	1048.3	0.8	0.208	µg/L	0.208	ppb	10:55:43
3	V 292.402†	74.5	45.3	0.5348	µg/L	0.5348	ppb	10:55:43
3	Zn 213.857†	502.8	140.8	1.4956	µg/L	1.4956	ppb	10:56:03

Mean Data: 1203884246|1704451|1|

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	393451.1	97.429	%	0.5893				0.60%
Sc RADIAL	3947.1	97.0	%	0.16				0.16%
Y 371.029	407500.6	97.381	%	0.5474				0.56%
Ag 328.068†	41.6	0.3379	µg/L	0.38242	0.3379	ppb	0.38242	113.19%
Al 396.153Radial†	20.4	17.669	µg/L	12.7097	17.669	ppb	12.7097	71.93%
As 188.979†	-2.4	-1.7366	µg/L	1.50928	-1.7366	ppb	1.50928	86.91%
B 249.677†	14.0	0.5111	µg/L	0.94372	0.5111	ppb	0.94372	184.65%

Ba 233.527†	4.7	0.0511	µg/L	0.10631	0.0511	ppb	0.10631 208.05%
Be 313.107†	-99.8	-0.0721	µg/L	0.05479	-0.0721	ppb	0.05479 75.95%
Ca 317.933Radial†	31.0	30.322	µg/L	2.3234	30.322	ppb	2.3234 7.66%
Cd 226.502†	-2.2	-0.0305	µg/L	0.02666	-0.0305	ppb	0.02666 87.35%
Co 228.616†	13.8	0.3918	µg/L	0.09630	0.3918	ppb	0.09630 24.58%
Cr 267.716†	17.3	0.3873	µg/L	0.23058	0.3873	ppb	0.23058 59.54%
Cu 324.752†	91.2	0.6008	µg/L	0.41001	0.6008	ppb	0.41001 68.25%
Fe 238.204 Radial†	-0.1	-0.6726	µg/L	4.45474	-0.6726	ppb	4.45474 662.30%
K 766.490 Radial†	-20.8	-15.645	µg/L	23.8512	-15.645	ppb	23.8512 152.46%
Mg 279.077 IEC†	3.1	50.951	µg/L	14.7609	50.951	ppb	14.7609 28.97%
Mn 257.610†	83.5	0.1430	µg/L	0.07080	0.1430	ppb	0.07080 49.52%
Mo 202.031†	-2.0	-0.1643	µg/L	0.53329	-0.1643	ppb	0.53329 324.50%
Na 589.592 Radial†	-0.0	-0.8727	µg/L	92.22918	-0.8727	ppb	92.22918 >999.9%
Ni 231.604†	8.8	0.3067	µg/L	0.30213	0.3067	ppb	0.30213 98.51%
P 214.914†	-4.2	-3.9599	µg/L	3.28874	-3.9599	ppb	3.28874 83.05%
Pb 220.353†	11.4	1.8738	µg/L	0.56035	1.8738	ppb	0.56035 29.90%
S 181.975 Axial†	16.3	36.476	µg/L	3.0970	36.476	ppb	3.0970 8.49%
Sb 206.836†	6.2	2.7454	µg/L	1.11862	2.7454	ppb	1.11862 40.75%
Se 196.026†	-1.5	-1.2543	µg/L	4.85162	-1.2543	ppb	4.85162 386.79%
SiO2†	30.8	5.1395	µg/L	2.69543	5.1395	ppb	2.69543 52.45%
Si 251.611†	90.7	5.7967	µg/L	0.25710	5.7967	ppb	0.25710 4.44%
Sn 189.927†	2.2	0.4772	µg/L	0.99036	0.4772	ppb	0.99036 207.55%
Sr 421.552†	4.3	0.2251	µg/L	0.28007	0.2251	ppb	0.28007 124.40%
Ti 334.940†	69.3	0.2569	µg/L	0.17027	0.2569	ppb	0.17027 66.27%
Tl 190.801†	-13.0	-4.3909	µg/L	2.30629	-4.3909	ppb	2.30629 52.52%
U 367.007†	8.6	2.400	µg/L	4.5030	2.400	ppb	4.5030 187.59%
V 292.402†	24.5	0.2921	µg/L	0.68330	0.2921	ppb	0.68330 233.96%
Zn 213.857†	146.9	1.5626	µg/L	0.11597	1.5626	ppb	0.11597 7.42%

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Sequence No.: 2 | **Autosampler Location: 302**
Sample ID: 1203884247|1704451|1| | **Date Collected: 9/29/2017 10:56:12**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203884247|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3806.6	3806.6	93.6	%			10:57:02
1	Al 396.153Radial†	5073.3	5643.1	4856.2	µg/L	4856.2	ppb	10:56:42
1	Ca 317.933Radial†	4818.8	5103.5	4997.9	µg/L	4997.9	ppb	10:57:02
1	Fe 238.204 Radial†	1015.3	1082.3	4997.2	µg/L	4997.2	ppb	10:57:02
1	K 766.490 Radial†	5995.5	6296.6	4739.7	µg/L	4739.7	ppb	10:56:42
1	Mg 279.077 IEC†	301.4	320.7	5193.0	µg/L	5193.0	ppb	10:57:02
1	Na 589.592 Radial†	53.0	57.2	5213.8	µg/L	5213.8	ppb	10:57:02
1	Sr 421.552†	8526.3	9086.6	473.51	µg/L	473.51	ppb	10:56:42
1	Sc 361.383	390361.1	390361.1	96.663	%			10:58:00
1	Y 371.029	400612.4	400612.4	95.735	%			10:58:00
1	Ag 328.068†	56353.6	58781.7	479.70	µg/L	479.70	ppb	10:58:00
1	As 188.979†	628.7	653.0	481.99	µg/L	481.99	ppb	10:58:20
1	B 249.677†	12872.8	13228.0	504.92	µg/L	504.92	ppb	10:58:00
1	Ba 233.527†	42545.7	44031.3	483.26	µg/L	483.26	ppb	10:58:00
1	Be 313.107†	637265.4	665551.0	487.53	µg/L	487.53	ppb	10:58:00
1	Cd 226.502†	33519.6	34841.8	482.39	µg/L	482.39	ppb	10:58:00
1	Co 228.616†	16463.8	17243.3	489.92	µg/L	489.92	ppb	10:58:00
1	Cr 267.716†	20787.1	21357.7	477.14	µg/L	477.14	ppb	10:58:00
1	Cu 324.752†	73526.3	73835.6	485.61	µg/L	485.61	ppb	10:58:00
1	Mn 257.610†	270558.9	279559.7	485.09	µg/L	485.09	ppb	10:58:00
1	Mo 202.031†	5423.4	5602.9	468.23	µg/L	468.23	ppb	10:58:20
1	Ni 231.604†	13060.1	13590.3	476.03	µg/L	476.03	ppb	10:58:00
1	P 214.914†	506.8	495.8	456.19	µg/L	456.19	ppb	10:58:20
1	Pb 220.353†	2868.8	2876.1	473.07	µg/L	473.07	ppb	10:58:20
1	S 181.975 Axial†	2040.0	2073.8	4643.0	µg/L	4643.0	ppb	10:58:20
1	Sb 206.836†	1087.4	1074.0	470.54	µg/L	470.54	ppb	10:58:20
1	Se 196.026†	526.3	572.2	469.13	µg/L	469.13	ppb	10:58:20
1	SiO2†	49352.5	49892.9	8316.1	µg/L	8316.1	ppb	10:58:00
1	Si 251.611†	58866.3	60690.0	3863.6	µg/L	3863.6	ppb	10:58:00
1	Sn 189.927†	2151.8	2211.7	473.60	µg/L	473.60	ppb	10:58:20
1	Ti 334.940†	123729.6	128457.0	475.44	µg/L	475.44	ppb	10:58:00
1	Tl 190.801†	1290.8	1398.5	470.39	µg/L	470.39	ppb	10:58:20
1	U 367.007†	2597.6	1605.7	424.0	µg/L	424.0	ppb	10:58:00
1	V 292.402†	38114.8	39398.8	475.80	µg/L	475.80	ppb	10:58:00
1	Zn 213.857†	42877.7	43979.4	465.04	µg/L	465.04	ppb	10:58:00
2	Sc RADIAL	3849.2	3849.2	94.6	%			10:57:27
2	Al 396.153Radial†	5166.9	5682.0	4889.7	µg/L	4889.7	ppb	10:57:07
2	Ca 317.933Radial†	4888.7	5120.6	5014.6	µg/L	5014.6	ppb	10:57:27
2	Fe 238.204 Radial†	1042.3	1098.9	5073.9	µg/L	5073.9	ppb	10:57:27
2	K 766.490 Radial†	6107.0	6343.6	4775.1	µg/L	4775.1	ppb	10:57:07
2	Mg 279.077 IEC†	301.8	317.5	5141.5	µg/L	5141.5	ppb	10:57:27
2	Na 589.592 Radial†	49.7	53.2	4845.8	µg/L	4845.8	ppb	10:57:27
2	Sr 421.552†	8756.5	9229.3	480.95	µg/L	480.95	ppb	10:57:07
2	Sc 361.383	388889.6	388889.6	96.299	%			10:58:26
2	Y 371.029	399031.0	399031.0	95.357	%			10:58:26
2	Ag 328.068†	56215.3	58858.7	480.31	µg/L	480.31	ppb	10:58:26
2	As 188.979†	626.4	653.1	482.07	µg/L	482.07	ppb	10:58:46
2	B 249.677†	12764.7	13166.0	502.98	µg/L	502.98	ppb	10:58:26
2	Ba 233.527†	42228.7	43868.7	481.47	µg/L	481.47	ppb	10:58:26
2	Be 313.107†	633439.2	664072.3	486.46	µg/L	486.46	ppb	10:58:26
2	Cd 226.502†	33345.1	34791.8	481.69	µg/L	481.69	ppb	10:58:26
2	Co 228.616†	16404.2	17245.8	490.00	µg/L	490.00	ppb	10:58:26
2	Cr 267.716†	20641.1	21287.4	475.53	µg/L	475.53	ppb	10:58:26
2	Cu 324.752†	73097.1	73677.7	484.61	µg/L	484.61	ppb	10:58:26
2	Mn 257.610†	269074.9	279077.8	484.26	µg/L	484.26	ppb	10:58:26
2	Mo 202.031†	5442.3	5643.8	471.65	µg/L	471.65	ppb	10:58:46
2	Ni 231.604†	13020.4	13600.2	476.37	µg/L	476.37	ppb	10:58:26
2	P 214.914†	509.2	500.2	460.30	µg/L	460.30	ppb	10:58:46

2	Pb 220.353†	2874.1	2892.9	475.78 µg/L	475.78 ppb		10:58:46
2	S 181.975 Axial†	2051.2	2093.5	4686.9 µg/L	4686.9 ppb		10:58:46
2	Sb 206.836†	1097.3	1088.5	477.06 µg/L	477.06 ppb		10:58:46
2	Se 196.026†	534.5	582.8	477.82 µg/L	477.82 ppb		10:58:46
2	SiO2†	48990.1	49709.7	8285.5 µg/L	8285.5 ppb		10:58:26
2	Si 251.611†	58562.9	60605.3	3858.1 µg/L	3858.1 ppb		10:58:26
2	Sn 189.927†	2178.2	2247.6	481.26 µg/L	481.26 ppb		10:58:46
2	Ti 334.940†	122998.0	128181.7	474.39 µg/L	474.39 ppb		10:58:26
2	Tl 190.801†	1290.5	1403.2	472.00 µg/L	472.00 ppb		10:58:46
2	U 367.007†	2771.1	1796.0	476.7 µg/L	476.7 ppb		10:58:26
2	V 292.402†	37993.3	39421.9	476.14 µg/L	476.14 ppb		10:58:26
2	Zn 213.857†	42585.2	43843.5	463.55 µg/L	463.55 ppb		10:58:26
3	Sc RADIAL	3855.4	3855.4	94.8 %			10:57:52
3	Al 396.153Radial†	5198.2	5706.3	4910.6 µg/L	4910.6 ppb		10:57:32
3	Ca 317.933Radial†	4868.0	5090.4	4985.0 µg/L	4985.0 ppb		10:57:52
3	Fe 238.204 Radial†	1029.2	1083.3	5001.7 µg/L	5001.7 ppb		10:57:52
3	K 766.490 Radial†	6236.6	6469.9	4870.1 µg/L	4870.1 ppb		10:57:32
3	Mg 279.077 IEC†	307.6	323.2	5232.9 µg/L	5232.9 ppb		10:57:52
3	Na 589.592 Radial†	51.2	54.6	4979.0 µg/L	4979.0 ppb		10:57:52
3	Sr 421.552†	8879.0	9343.5	486.90 µg/L	486.90 ppb		10:57:32
3	Sc 361.383	390771.3	390771.3	96.765 %			10:58:52
3	Y 371.029	400946.1	400946.1	95.814 %			10:58:52
3	Ag 328.068†	56437.1	58806.8	479.89 µg/L	479.89 ppb		10:58:52
3	As 188.979†	633.5	657.3	485.08 µg/L	485.08 ppb		10:59:12
3	B 249.677†	12902.5	13244.7	505.55 µg/L	505.55 ppb		10:58:52
3	Ba 233.527†	42558.4	43998.3	482.89 µg/L	482.89 ppb		10:58:52
3	Be 313.107†	637740.6	665350.0	487.39 µg/L	487.39 ppb		10:58:52
3	Cd 226.502†	33555.7	34842.8	482.40 µg/L	482.40 ppb		10:58:52
3	Co 228.616†	16567.3	17332.3	492.46 µg/L	492.46 ppb		10:58:52
3	Cr 267.716†	20782.9	21330.7	476.52 µg/L	476.52 ppb		10:58:52
3	Cu 324.752†	73527.0	73756.5	485.11 µg/L	485.11 ppb		10:58:52
3	Mn 257.610†	270814.8	279530.3	485.04 µg/L	485.04 ppb		10:58:52
3	Mo 202.031†	5463.4	5638.5	471.20 µg/L	471.20 ppb		10:59:12
3	Ni 231.604†	13139.1	13657.8	478.39 µg/L	478.39 ppb		10:58:52
3	P 214.914†	517.8	506.5	466.34 µg/L	466.34 ppb		10:59:12
3	Pb 220.353†	2900.8	2906.2	477.99 µg/L	477.99 ppb		10:59:12
3	S 181.975 Axial†	2048.7	2080.6	4658.1 µg/L	4658.1 ppb		10:59:12
3	Sb 206.836†	1091.1	1076.6	471.73 µg/L	471.73 ppb		10:59:12
3	Se 196.026†	537.0	582.7	477.70 µg/L	477.70 ppb		10:59:12
3	SiO2†	49464.2	49954.7	8326.4 µg/L	8326.4 ppb		10:58:52
3	Si 251.611†	58981.9	60745.4	3867.1 µg/L	3867.1 ppb		10:58:52
3	Sn 189.927†	2166.3	2224.4	476.30 µg/L	476.30 ppb		10:59:12
3	Ti 334.940†	123760.6	128354.8	475.04 µg/L	475.04 ppb		10:58:52
3	Tl 190.801†	1272.3	1378.0	463.43 µg/L	463.43 ppb		10:59:12
3	U 367.007†	2712.4	1721.5	456.3 µg/L	456.3 ppb		10:58:52
3	V 292.402†	38163.5	39407.7	475.95 µg/L	475.95 ppb		10:58:52
3	Zn 213.857†	42870.8	43925.7	464.46 µg/L	464.46 ppb		10:58:52

Mean Data: 1203884247|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	390007.3	96.576	%	0.2450				0.25%
Sc RADIAL	3837.1	94.3	%	0.65				0.69%
Y 371.029	400196.5	95.635	%	0.2445				0.26%
Ag 328.068†	58815.7	479.97	µg/L	0.314	479.97	ppb	0.314	0.07%
Al 396.153Radial†	5677.1	4885.5	µg/L	27.48	4885.5	ppb	27.48	0.56%
As 188.979†	654.5	483.05	µg/L	1.765	483.05	ppb	1.765	0.37%
B 249.677†	13212.9	504.48	µg/L	1.339	504.48	ppb	1.339	0.27%
Ba 233.527†	43966.1	482.54	µg/L	0.945	482.54	ppb	0.945	0.20%
Be 313.107†	664991.1	487.12	µg/L	0.582	487.12	ppb	0.582	0.12%
Ca 317.933Radial†	5104.8	4999.2	µg/L	14.86	4999.2	ppb	14.86	0.30%
Cd 226.502†	34825.5	482.16	µg/L	0.409	482.16	ppb	0.409	0.08%
Co 228.616†	17273.8	490.80	µg/L	1.441	490.80	ppb	1.441	0.29%
Cr 267.716†	21325.3	476.40	µg/L	0.812	476.40	ppb	0.812	0.17%
Cu 324.752†	73756.6	485.11	µg/L	0.501	485.11	ppb	0.501	0.10%
Fe 238.204 Radial†	1088.1	5024.3	µg/L	43.04	5024.3	ppb	43.04	0.86%
K 766.490 Radial†	6370.0	4795.0	µg/L	67.45	4795.0	ppb	67.45	1.41%
Mg 279.077 IEC†	320.5	5189.1	µg/L	45.85	5189.1	ppb	45.85	0.88%
Mn 257.610†	279389.3	484.80	µg/L	0.465	484.80	ppb	0.465	0.10%
Mo 202.031†	5628.4	470.36	µg/L	1.857	470.36	ppb	1.857	0.39%

Na 589.592 Radial†	55.0	5012.9	µg/L	186.33	5012.9	ppb	186.33	3.72%
Ni 231.604†	13616.1	476.93	µg/L	1.276	476.93	ppb	1.276	0.27%
P 214.914†	500.8	460.94	µg/L	5.110	460.94	ppb	5.110	1.11%
Pb 220.353†	2891.7	475.61	µg/L	2.468	475.61	ppb	2.468	0.52%
S 181.975 Axial†	2082.6	4662.7	µg/L	22.32	4662.7	ppb	22.32	0.48%
Sb 206.836†	1079.7	473.11	µg/L	3.469	473.11	ppb	3.469	0.73%
Se 196.026†	579.2	474.88	µg/L	4.983	474.88	ppb	4.983	1.05%
SiO2†	49852.4	8309.3	µg/L	21.24	8309.3	ppb	21.24	0.26%
Si 251.611†	60680.2	3863.0	µg/L	4.52	3863.0	ppb	4.52	0.12%
Sn 189.927†	2227.9	477.06	µg/L	3.885	477.06	ppb	3.885	0.81%
Sr 421.552†	9219.8	480.45	µg/L	6.710	480.45	ppb	6.710	1.40%
Ti 334.940†	128331.2	474.96	µg/L	0.527	474.96	ppb	0.527	0.11%
Tl 190.801†	1393.3	468.61	µg/L	4.555	468.61	ppb	4.555	0.97%
U 367.007†	1707.8	452.3	µg/L	26.60	452.3	ppb	26.60	5.88%
V 292.402†	39409.5	475.96	µg/L	0.172	475.96	ppb	0.172	0.04%
Zn 213.857†	43916.2	464.35	µg/L	0.747	464.35	ppb	0.747	0.16%

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Sequence No.: 3 | **Autosampler Location: 303**
Sample ID: 433718019|1704451|1| | **Date Collected: 9/29/2017 10:59:21**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 433718019|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3956.3	3956.3	97.3	%			11:00:11
1	Al 396.153Radial†	92281.6	95097.5	82191	µg/L	82191	ppb	10:59:51
1	Ca 317.933Radial†	236293.3	242889.7	237860	µg/L	237860	ppb	10:59:51
1	Fe 238.204 Radial†	49124.7	50503.0	233190	µg/L	233190	ppb	10:59:51
1	K 766.490 Radial†	10928.8	11126.1	8390.2	µg/L	8390.2	ppb	10:59:51
1	Mg 279.077 IEC†	5173.7	5317.7	86110	µg/L	86110	ppb	11:00:11
1	Na 589.592 Radial†	13.6	14.6	1662.0	µg/L	1662.0	ppb	11:00:11
1	Sr 421.552†	13537.4	13893.9	716.17	µg/L	716.17	ppb	10:59:51
1	Sc 361.383	400186.4	400186.4	99.096	%			11:01:10
1	Y 371.029	441602.4	441602.4	105.53	%			11:01:10
1	Ag 328.068†	-4411.4	-3968.7	2.4404	µg/L	2.4404	ppb	11:01:10
1	As 188.979†	81.0	84.4	92.877	µg/L	92.877	ppb	11:01:30
1	B 249.677†	-24699.4	-25013.8	80.166	µg/L	80.166	ppb	11:01:10
1	Ba 233.527†	50315.1	50791.0	550.97	µg/L	550.97	ppb	11:01:10
1	Be 313.107†	-2702.5	3561.5	5.0078	µg/L	5.0078	ppb	11:01:10
1	Cd 226.502†	1935.5	2118.4	1.8953	µg/L	1.8953	ppb	11:01:30
1	Co 228.616†	4461.6	4713.4	131.78	µg/L	131.78	ppb	11:01:30
1	Cr 267.716†	5762.5	5668.0	126.16	µg/L	126.16	ppb	11:01:30
1	Cu 324.752†	49221.2	47441.4	327.46	µg/L	327.46	ppb	11:01:10
1	Mn 257.610†	2969569.0	2996308.1	5207.5	µg/L	5207.5	ppb	11:01:10
1	Mo 202.031†	47.9	40.8	12.940	µg/L	12.940	ppb	11:01:30
1	Ni 231.604†	6981.1	7124.1	251.70	µg/L	251.70	ppb	11:01:30
1	P 214.914†	4902.0	4918.1	4457.8	µg/L	4457.8	ppb	11:01:30
1	Pb 220.353†	690.1	604.8	38.704	µg/L	38.704	ppb	11:01:30
1	S 181.975 Axial†	7512.2	7544.1	16879	µg/L	16879	ppb	11:01:30
1	Sb 206.836†	73.7	23.4	-3.3119	µg/L	-3.3119	ppb	11:01:30
1	Se 196.026†	-154.2	-127.9	25.415	µg/L	25.415	ppb	11:01:30
1	SiO2†	94276.4	93972.8	15659	µg/L	15659	ppb	11:01:10
1	Si 251.611†	113864.3	114694.3	7284.9	µg/L	7284.9	ppb	11:01:10
1	Sn 189.927†	46.8	32.9	5.5417	µg/L	5.5417	ppb	11:01:30
1	Ti 334.940†	334005.2	337507.4	1261.6	µg/L	1261.6	ppb	11:01:10
1	Tl 190.801†	-106.7	-44.4	-11.164	µg/L	-11.164	ppb	11:01:30
1	U 367.007†	4789.0	3751.1	-86.47	µg/L	-86.47	ppb	11:01:10
1	V 292.402†	11555.2	11628.9	168.80	µg/L	168.80	ppb	11:01:30
1	Zn 213.857†	310423.2	312875.3	3218.2	µg/L	3218.2	ppb	11:01:10
2	Sc RADIAL	3994.4	3994.4	98.2	%			11:00:36
2	Al 396.153Radial†	94007.7	95950.5	82928	µg/L	82928	ppb	11:00:16
2	Ca 317.933Radial†	238727.3	243051.5	238020	µg/L	238020	ppb	11:00:16
2	Fe 238.204 Radial†	49657.6	50564.0	233470	µg/L	233470	ppb	11:00:16
2	K 766.490 Radial†	11074.9	11167.7	8421.6	µg/L	8421.6	ppb	11:00:16
2	Mg 279.077 IEC†	5200.3	5294.0	85726	µg/L	85726	ppb	11:00:36
2	Na 589.592 Radial†	11.7	12.5	1478.8	µg/L	1478.8	ppb	11:00:36
2	Sr 421.552†	13801.1	14029.8	723.24	µg/L	723.24	ppb	11:00:16
2	Sc 361.383	396830.1	396830.1	98.265	%			11:01:37
2	Y 371.029	438339.9	438339.9	104.75	%			11:01:37
2	Ag 328.068†	-4315.0	-3908.3	2.9722	µg/L	2.9722	ppb	11:01:37
2	As 188.979†	75.3	79.2	89.154	µg/L	89.154	ppb	11:01:57
2	B 249.677†	-24494.1	-25015.8	81.301	µg/L	81.301	ppb	11:01:37
2	Ba 233.527†	49749.2	50644.5	549.35	µg/L	549.35	ppb	11:01:37
2	Be 313.107†	-2521.6	3722.5	5.1291	µg/L	5.1291	ppb	11:01:37
2	Cd 226.502†	1961.0	2160.9	2.4519	µg/L	2.4519	ppb	11:01:57
2	Co 228.616†	4423.8	4713.0	131.77	µg/L	131.77	ppb	11:01:57
2	Cr 267.716†	5735.2	5689.5	126.62	µg/L	126.62	ppb	11:01:57
2	Cu 324.752†	48952.5	47588.1	328.44	µg/L	328.44	ppb	11:01:37
2	Mn 257.610†	2943926.2	2995557.5	5206.2	µg/L	5206.2	ppb	11:01:37
2	Mo 202.031†	44.7	37.9	12.709	µg/L	12.709	ppb	11:01:57
2	Ni 231.604†	6977.8	7180.4	253.68	µg/L	253.68	ppb	11:01:57
2	P 214.914†	4882.3	4939.9	4478.3	µg/L	4478.3	ppb	11:01:57

2	Pb 220.353†	661.9	581.9	34.804	µg/L	34.804	ppb	11:01:57
2	S 181.975 Axial†	7476.0	7571.4	16940	µg/L	16940	ppb	11:01:57
2	Sb 206.836†	66.5	16.7	-6.3029	µg/L	-6.3029	ppb	11:01:57
2	Se 196.026†	-171.7	-147.0	10.001	µg/L	10.001	ppb	11:01:57
2	SiO2†	93269.3	93752.6	15623	µg/L	15623	ppb	11:01:37
2	Si 251.611†	112647.1	114427.4	7267.8	µg/L	7267.8	ppb	11:01:37
2	Sn 189.927†	63.0	49.8	9.1492	µg/L	9.1492	ppb	11:01:57
2	Ti 334.940†	330950.0	337249.0	1260.7	µg/L	1260.7	ppb	11:01:37
2	Tl 190.801†	-115.8	-54.6	-14.614	µg/L	-14.614	ppb	11:01:57
2	U 367.007†	4777.4	3780.2	-79.72	µg/L	-79.72	ppb	11:01:37
2	V 292.402†	11555.8	11728.1	170.02	µg/L	170.02	ppb	11:01:57
2	Zn 213.857†	307604.0	312655.7	3215.7	µg/L	3215.7	ppb	11:01:37
3	Sc RADIAL	3976.6	3976.6	97.8	%			11:01:01
3	Al 396.153Radial†	94435.1	96817.3	83678	µg/L	83678	ppb	11:00:41
3	Ca 317.933Radial†	240412.7	245866.6	240780	µg/L	240780	ppb	11:00:41
3	Fe 238.204 Radial†	50146.1	51290.6	236820	µg/L	236820	ppb	11:00:41
3	K 766.490 Radial†	11147.6	11292.7	8515.8	µg/L	8515.8	ppb	11:00:41
3	Mg 279.077 IEC†	5183.1	5300.3	85827	µg/L	85827	ppb	11:01:01
3	Na 589.592 Radial†	10.9	11.7	1409.1	µg/L	1409.1	ppb	11:01:01
3	Sr 421.552†	13922.2	14216.7	732.89	µg/L	732.89	ppb	11:00:41
3	Sc 361.383	399901.4	399901.4	99.026	%			11:02:04
3	Y 371.029	441633.7	441633.7	105.54	%			11:02:04
3	Ag 328.068†	-4286.3	-3845.5	3.9938	µg/L	3.9938	ppb	11:02:04
3	As 188.979†	82.8	86.2	94.675	µg/L	94.675	ppb	11:02:24
3	B 249.677†	-24618.2	-24949.6	98.098	µg/L	98.098	ppb	11:02:04
3	Ba 233.527†	50225.4	50736.5	550.27	µg/L	550.27	ppb	11:02:04
3	Be 313.107†	-2598.7	3664.3	5.1059	µg/L	5.1059	ppb	11:02:04
3	Cd 226.502†	1927.2	2111.4	1.3713	µg/L	1.3713	ppb	11:02:24
3	Co 228.616†	4430.9	4685.7	130.99	µg/L	130.99	ppb	11:02:24
3	Cr 267.716†	5779.8	5689.7	126.64	µg/L	126.64	ppb	11:02:24
3	Cu 324.752†	49321.7	47578.3	328.58	µg/L	328.58	ppb	11:02:04
3	Mn 257.610†	2969107.8	2997977.9	5210.6	µg/L	5210.6	ppb	11:02:04
3	Mo 202.031†	50.0	42.9	13.265	µg/L	13.265	ppb	11:02:24
3	Ni 231.604†	6964.6	7112.5	251.33	µg/L	251.33	ppb	11:02:24
3	P 214.914†	4847.8	4866.9	4406.1	µg/L	4406.1	ppb	11:02:24
3	Pb 220.353†	667.1	582.0	34.066	µg/L	34.066	ppb	11:02:24
3	S 181.975 Axial†	7452.7	7489.4	16757	µg/L	16757	ppb	11:02:24
3	Sb 206.836†	54.4	3.9	-12.117	µg/L	-12.117	ppb	11:02:24
3	Se 196.026†	-169.7	-143.6	14.634	µg/L	14.634	ppb	11:02:24
3	SiO2†	93966.1	93727.3	15619	µg/L	15619	ppb	11:02:04
3	Si 251.611†	113314.6	114221.0	7254.1	µg/L	7254.1	ppb	11:02:04
3	Sn 189.927†	60.5	46.8	8.4662	µg/L	8.4662	ppb	11:02:24
3	Ti 334.940†	333910.0	337651.4	1262.3	µg/L	1262.3	ppb	11:02:04
3	Tl 190.801†	-97.5	-35.2	-7.9830	µg/L	-7.9830	ppb	11:02:24
3	U 367.007†	4736.1	3701.1	-118.1	µg/L	-118.1	ppb	11:02:04
3	V 292.402†	11468.8	11550.0	168.32	µg/L	168.32	ppb	11:02:24
3	Zn 213.857†	310282.2	312956.2	3217.3	µg/L	3217.3	ppb	11:02:04

Mean Data: 433718019|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	398972.7	98.796	%	0.4608				0.47%
Sc RADIAL	3975.8	97.7	%	0.47				0.48%
Y 371.029	440525.3	105.27	%	0.452				0.43%
Ag 328.068†	-3907.5	3.1355	µg/L	0.78947	3.1355	ppb	0.78947	25.18%
Al 396.153Radial†	95955.1	82932	µg/L	743.20	82932	ppb	743.20	0.90%
As 188.979†	83.3	92.235	µg/L	2.8158	92.235	ppb	2.8158	3.05%
B 249.677†	-24993.0	86.522	µg/L	10.0413	86.522	ppb	10.0413	11.61%
Ba 233.527†	50724.0	550.20	µg/L	0.810	550.20	ppb	0.810	0.15%
Be 313.107†	3649.4	5.0809	µg/L	0.06439	5.0809	ppb	0.06439	1.27%
Ca 317.933Radial†	243935.9	238890	µg/L	1639.30	238890	ppb	1639.30	0.69%
Cd 226.502†	2130.2	1.9062	µg/L	0.54040	1.9062	ppb	0.54040	28.35%
Co 228.616†	4704.0	131.52	µg/L	0.453	131.52	ppb	0.453	0.34%
Cr 267.716†	5682.4	126.47	µg/L	0.271	126.47	ppb	0.271	0.21%
Cu 324.752†	47535.9	328.16	µg/L	0.614	328.16	ppb	0.614	0.19%
Fe 238.204 Radial†	50785.9	234490	µg/L	2023.37	234490	ppb	2023.37	0.86%
K 766.490 Radial†	11195.5	8442.6	µg/L	65.37	8442.6	ppb	65.37	0.77%
Mg 279.077 IEC†	5304.0	85887	µg/L	198.99	85887	ppb	198.99	0.23%
Mn 257.610†	2996614.5	5208.1	µg/L	2.25	5208.1	ppb	2.25	0.04%
Mo 202.031†	40.5	12.971	µg/L	0.2792	12.971	ppb	0.2792	2.15%

Na 589.592 Radial†	12.9	1516.6	µg/L	130.59	1516.6	ppb	130.59	8.61%
Ni 231.604†	7139.0	252.24	µg/L	1.259	252.24	ppb	1.259	0.50%
P 214.914†	4908.3	4447.4	µg/L	37.21	4447.4	ppb	37.21	0.84%
Pb 220.353†	589.6	35.858	µg/L	2.4922	35.858	ppb	2.4922	6.95%
S 181.975 Axial†	7535.0	16859	µg/L	93.45	16859	ppb	93.45	0.55%
Sb 206.836†	14.7	-7.2441	µg/L	4.47757	-7.2441	ppb	4.47757	61.81%
Se 196.026†	-139.5	16.683	µg/L	7.9084	16.683	ppb	7.9084	47.40%
SiO2†	93817.6	15634	µg/L	22.50	15634	ppb	22.50	0.14%
Si 251.611†	114447.6	7268.9	µg/L	15.43	7268.9	ppb	15.43	0.21%
Sn 189.927†	43.2	7.7190	µg/L	1.91626	7.7190	ppb	1.91626	24.83%
Sr 421.552†	14046.8	724.10	µg/L	8.397	724.10	ppb	8.397	1.16%
Ti 334.940†	337469.3	1261.5	µg/L	0.83	1261.5	ppb	0.83	0.07%
Tl 190.801†	-44.8	-11.253	µg/L	3.3162	-11.253	ppb	3.3162	29.47%
U 367.007†	3744.1	-94.75	µg/L	20.463	-94.75	ppb	20.463	21.60%
Concentration less than lower limit for U 367.007.								
V 292.402†	11635.7	169.05	µg/L	0.877	169.05	ppb	0.877	0.52%
Zn 213.857†	312829.1	3217.1	µg/L	1.26	3217.1	ppb	1.26	0.04%

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Sequence No.: 4 | **Autosampler Location: 304**
Sample ID: 433718020|1704451|1| | **Date Collected: 9/29/2017 11:02:33**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 433718020|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4041.7	4041.7	99.4	%			11:03:23
1	Al 396.153Radial†	94433.0	95258.5	82330	µg/L	82330	ppb	11:03:03
1	Ca 317.933Radial†	196468.0	197677.9	193590	µg/L	193590	ppb	11:03:03
1	Fe 238.204 Radial†	51140.4	51464.6	237630	µg/L	237630	ppb	11:03:03
1	K 766.490 Radial†	10611.6	10569.5	7968.2	µg/L	7968.2	ppb	11:03:03
1	Mg 279.077 IEC†	4831.5	4861.0	78713	µg/L	78713	ppb	11:03:23
1	Na 589.592 Radial†	9.4	10.1	1262.3	µg/L	1262.3	ppb	11:03:23
1	Sr 421.552†	13443.8	13505.7	697.44	µg/L	697.44	ppb	11:03:03
1	Sc 361.383	405187.5	405187.5	100.33	%			11:04:20
1	Y 371.029	448447.2	448447.2	107.17	%			11:04:20
1	Ag 328.068†	-4220.5	-3723.5	5.1067	µg/L	5.1067	ppb	11:04:26
1	As 188.979†	60.2	62.6	77.565	µg/L	77.565	ppb	11:04:46
1	B 249.677†	-25205.0	-25210.1	92.060	µg/L	92.060	ppb	11:04:26
1	Ba 233.527†	45427.0	45292.5	490.48	µg/L	490.48	ppb	11:04:26
1	Be 313.107†	-1890.4	4404.6	5.2274	µg/L	5.2274	ppb	11:04:26
1	Cd 226.502†	1886.3	2045.2	0.3800	µg/L	0.3800	ppb	11:04:26
1	Co 228.616†	3714.7	3913.5	109.36	µg/L	109.36	ppb	11:04:46
1	Cr 267.716†	6007.2	5840.2	129.55	µg/L	129.55	ppb	11:04:26
1	Cu 324.752†	44747.2	42369.3	294.40	µg/L	294.40	ppb	11:04:26
1	Mn 257.610†	3312303.0	3300911.8	5736.5	µg/L	5736.5	ppb	11:04:20
1	Mo 202.031†	35.5	27.7	12.033	µg/L	12.033	ppb	11:04:46
1	Ni 231.604†	6774.9	6831.7	241.50	µg/L	241.50	ppb	11:04:46
1	P 214.914†	4884.7	4839.9	4379.9	µg/L	4379.9	ppb	11:04:46
1	Pb 220.353†	699.7	605.7	41.833	µg/L	41.833	ppb	11:04:46
1	S 181.975 Axial†	5305.0	5250.7	11743	µg/L	11743	ppb	11:04:46
1	Sb 206.836†	80.6	29.4	-1.2767	µg/L	-1.2767	ppb	11:04:46
1	Se 196.026†	-174.0	-145.7	13.356	µg/L	13.356	ppb	11:04:46
1	SiO2†	80213.8	78783.0	13129	µg/L	13129	ppb	11:04:26
1	Si 251.611†	96752.5	96221.3	6104.8	µg/L	6104.8	ppb	11:04:26
1	Sn 189.927†	48.6	34.1	5.4327	µg/L	5.4327	ppb	11:04:46
1	Ti 334.940†	290855.6	290341.7	1084.7	µg/L	1084.7	ppb	11:04:26
1	Tl 190.801†	-107.2	-43.6	-10.774	µg/L	-10.774	ppb	11:04:46
1	U 367.007†	4807.5	3709.9	-115.8	µg/L	-115.8	ppb	11:04:26
1	V 292.402†	11637.6	11567.1	168.76	µg/L	168.76	ppb	11:04:26
1	Zn 213.857†	55421.4	54858.1	471.96	µg/L	471.96	ppb	11:04:26
2	Sc RADIAL	4057.0	4057.0	99.7	%			11:03:48
2	Al 396.153Radial†	96546.9	97018.3	83851	µg/L	83851	ppb	11:03:28
2	Ca 317.933Radial†	200059.4	200530.7	196380	µg/L	196380	ppb	11:03:28
2	Fe 238.204 Radial†	52271.4	52403.8	241960	µg/L	241960	ppb	11:03:28
2	K 766.490 Radial†	10813.5	10731.6	8090.4	µg/L	8090.4	ppb	11:03:28
2	Mg 279.077 IEC†	4841.6	4852.7	78579	µg/L	78579	ppb	11:03:48
2	Na 589.592 Radial†	9.1	9.8	1239.4	µg/L	1239.4	ppb	11:03:48
2	Sr 421.552†	13824.4	13836.2	714.57	µg/L	714.57	ppb	11:03:28
2	Sc 361.383	404397.4	404397.4	100.14	%			11:04:51
2	Y 371.029	447332.3	447332.3	106.90	%			11:04:51
2	Ag 328.068†	-4421.6	-3932.5	4.0517	µg/L	4.0517	ppb	11:04:56
2	As 188.979†	85.9	88.4	96.984	µg/L	96.984	ppb	11:05:16
2	B 249.677†	-25343.0	-25397.0	103.77	µg/L	103.77	ppb	11:04:56
2	Ba 233.527†	45741.1	45694.6	494.77	µg/L	494.77	ppb	11:04:56
2	Be 313.107†	-1990.2	4301.2	5.1795	µg/L	5.1795	ppb	11:04:56
2	Cd 226.502†	1931.6	2094.1	0.5480	µg/L	0.5480	ppb	11:04:56
2	Co 228.616†	3729.8	3935.8	109.99	µg/L	109.99	ppb	11:05:16
2	Cr 267.716†	5961.5	5806.2	128.77	µg/L	128.77	ppb	11:04:56
2	Cu 324.752†	44961.8	42670.7	296.67	µg/L	296.67	ppb	11:04:56
2	Mn 257.610†	3307959.1	3303023.7	5740.4	µg/L	5740.4	ppb	11:04:51
2	Mo 202.031†	44.8	37.1	12.991	µg/L	12.991	ppb	11:05:16
2	Ni 231.604†	6816.4	6886.3	243.46	µg/L	243.46	ppb	11:05:16
2	P 214.914†	4909.3	4873.9	4408.4	µg/L	4408.4	ppb	11:05:16

2	Pb 220.353†	683.0	590.4	38.303	µg/L	38.303	ppb	11:05:16
2	S 181.975 Axial†	5320.3	5276.3	11801	µg/L	11801	ppb	11:05:16
2	Sb 206.836†	72.6	21.6	-4.9229	µg/L	-4.9229	ppb	11:05:16
2	Se 196.026†	-174.6	-146.6	15.012	µg/L	15.012	ppb	11:05:16
2	SiO2†	80239.0	78964.3	13159	µg/L	13159	ppb	11:04:56
2	Si 251.611†	96979.1	96636.1	6130.6	µg/L	6130.6	ppb	11:04:56
2	Sn 189.927†	41.6	27.2	3.9088	µg/L	3.9088	ppb	11:05:16
2	Ti 334.940†	291142.9	291194.9	1088.0	µg/L	1088.0	ppb	11:04:56
2	Tl 190.801†	-106.5	-43.1	-10.537	µg/L	-10.537	ppb	11:05:16
2	U 367.007†	4842.2	3753.9	-124.5	µg/L	-124.5	ppb	11:04:56
2	V 292.402†	11658.6	11610.7	169.85	µg/L	169.85	ppb	11:04:56
2	Zn 213.857†	55736.5	55280.6	474.40	µg/L	474.40	ppb	11:04:56
3	Sc RADIAL	4063.7	4063.7	99.9	%			11:04:13
3	Al 396.153Radial†	97181.3	97494.7	84263	µg/L	84263	ppb	11:03:53
3	Ca 317.933Radial†	200647.9	200791.1	196640	µg/L	196640	ppb	11:03:53
3	Fe 238.204 Radial†	52438.4	52485.1	242340	µg/L	242340	ppb	11:03:53
3	K 766.490 Radial†	10945.3	10845.8	8176.3	µg/L	8176.3	ppb	11:03:53
3	Mg 279.077 IEC†	4825.2	4828.3	78184	µg/L	78184	ppb	11:04:13
3	Na 589.592 Radial†	9.6	10.3	1283.3	µg/L	1283.3	ppb	11:04:13
3	Sr 421.552†	13879.7	13868.7	716.26	µg/L	716.26	ppb	11:03:53
3	Sc 361.383	406901.7	406901.7	100.76	%			11:05:22
3	Y 371.029	450209.5	450209.5	107.59	%			11:05:22
3	Ag 328.068†	-4483.5	-3966.8	3.8290	µg/L	3.8290	ppb	11:05:27
3	As 188.979†	76.3	78.3	89.662	µg/L	89.662	ppb	11:05:47
3	B 249.677†	-25582.5	-25478.9	102.38	µg/L	102.38	ppb	11:05:27
3	Ba 233.527†	46039.6	45709.8	494.93	µg/L	494.93	ppb	11:05:27
3	Be 313.107†	-1955.6	4347.8	5.2171	µg/L	5.2171	ppb	11:05:27
3	Cd 226.502†	1878.4	2029.4	-0.3925	µg/L	-0.3925	ppb	11:05:27
3	Co 228.616†	3683.7	3867.1	108.05	µg/L	108.05	ppb	11:05:47
3	Cr 267.716†	6030.8	5838.4	129.47	µg/L	129.47	ppb	11:05:27
3	Cu 324.752†	45171.8	42602.8	296.25	µg/L	296.25	ppb	11:05:27
3	Mn 257.610†	3329832.8	3304402.5	5742.8	µg/L	5742.8	ppb	11:05:22
3	Mo 202.031†	41.8	33.8	12.734	µg/L	12.734	ppb	11:05:47
3	Ni 231.604†	6778.1	6806.4	240.66	µg/L	240.66	ppb	11:05:47
3	P 214.914†	4914.2	4848.6	4384.2	µg/L	4384.2	ppb	11:05:47
3	Pb 220.353†	702.8	605.8	40.728	µg/L	40.728	ppb	11:05:47
3	S 181.975 Axial†	5301.7	5225.2	11686	µg/L	11686	ppb	11:05:47
3	Sb 206.836†	60.8	9.4	-10.333	µg/L	-10.333	ppb	11:05:47
3	Se 196.026†	-178.7	-149.6	12.801	µg/L	12.801	ppb	11:05:47
3	SiO2†	80757.9	78986.1	13163	µg/L	13163	ppb	11:05:27
3	Si 251.611†	97345.6	96403.7	6115.7	µg/L	6115.7	ppb	11:05:27
3	Sn 189.927†	48.3	33.6	5.2584	µg/L	5.2584	ppb	11:05:47
3	Ti 334.940†	292055.1	290310.9	1084.7	µg/L	1084.7	ppb	11:05:27
3	Tl 190.801†	-102.2	-38.3	-8.8715	µg/L	-8.8715	ppb	11:05:47
3	U 367.007†	4888.7	3770.3	-121.7	µg/L	-121.7	ppb	11:05:27
3	V 292.402†	11826.0	11705.2	171.03	µg/L	171.03	ppb	11:05:27
3	Zn 213.857†	56323.7	55520.9	476.77	µg/L	476.77	ppb	11:05:27

Mean Data: 433718020|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	405495.5	100.41	%	0.317				0.32%
Sc RADIAL	4054.1	99.7	%	0.28				0.28%
Y 371.029	448663.0	107.22	%	0.347				0.32%
Ag 328.068†	-3874.3	4.3291	µg/L	0.68255	4.3291	ppb	0.68255	15.77%
Al 396.153Radial†	96590.5	83482	µg/L	1018.01	83482	ppb	1018.01	1.22%
As 188.979†	76.5	88.070	µg/L	9.8070	88.070	ppb	9.8070	11.14%
B 249.677†	-25362.0	99.401	µg/L	6.3952	99.401	ppb	6.3952	6.43%
Ba 233.527†	45565.6	493.39	µg/L	2.524	493.39	ppb	2.524	0.51%
Be 313.107†	4351.2	5.2080	µg/L	0.02525	5.2080	ppb	0.02525	0.48%
Ca 317.933Radial†	199666.6	195530	µg/L	1691.39	195530	ppb	1691.39	0.87%
Cd 226.502†	2056.3	0.1785	µg/L	0.50158	0.1785	ppb	0.50158	281.05%
Co 228.616†	3905.4	109.13	µg/L	0.992	109.13	ppb	0.992	0.91%
Cr 267.716†	5828.3	129.26	µg/L	0.429	129.26	ppb	0.429	0.33%
Cu 324.752†	42547.6	295.78	µg/L	1.207	295.78	ppb	1.207	0.41%
Fe 238.204 Radial†	52117.9	240640	µg/L	2618.79	240640	ppb	2618.79	1.09%
K 766.490 Radial†	10715.6	8078.3	µg/L	104.58	8078.3	ppb	104.58	1.29%
Mg 279.077 IEC†	4847.3	78492	µg/L	274.88	78492	ppb	274.88	0.35%
Mn 257.610†	3302779.3	5739.9	µg/L	3.19	5739.9	ppb	3.19	0.06%
Mo 202.031†	32.9	12.586	µg/L	0.4958	12.586	ppb	0.4958	3.94%

Na 589.592 Radial†	10.0	1261.6	µg/L	21.97	1261.6	ppb	21.97	1.74%
Ni 231.604†	6841.5	241.87	µg/L	1.435	241.87	ppb	1.435	0.59%
P 214.914†	4854.1	4390.8	µg/L	15.38	4390.8	ppb	15.38	0.35%
Pb 220.353†	600.6	40.288	µg/L	1.8056	40.288	ppb	1.8056	4.48%
S 181.975 Axial†	5250.7	11743	µg/L	57.24	11743	ppb	57.24	0.49%
Sb 206.836†	20.1	-5.5110	µg/L	4.55694	-5.5110	ppb	4.55694	82.69%
Se 196.026†	-147.3	13.723	µg/L	1.1503	13.723	ppb	1.1503	8.38%
SiO2†	78911.1	13150	µg/L	18.58	13150	ppb	18.58	0.14%
Si 251.611†	96420.4	6117.1	µg/L	12.94	6117.1	ppb	12.94	0.21%
Sn 189.927†	31.6	4.8667	µg/L	0.83405	4.8667	ppb	0.83405	17.14%
Sr 421.552†	13736.9	709.42	µg/L	10.412	709.42	ppb	10.412	1.47%
Ti 334.940†	290615.8	1085.8	µg/L	1.89	1085.8	ppb	1.89	0.17%
Tl 190.801†	-41.7	-10.061	µg/L	1.0367	-10.061	ppb	1.0367	10.30%
U 367.007†	3744.7	-120.7	µg/L	4.43	-120.7	ppb	4.43	3.67%
Concentration less than lower limit for U 367.007.								
V 292.402†	11627.7	169.88	µg/L	1.136	169.88	ppb	1.136	0.67%
Zn 213.857†	55219.9	474.38	µg/L	2.404	474.38	ppb	2.404	0.51%

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Sequence No.: 5 | **Autosampler Location: 305**
Sample ID: 433718018|1704451|1| | **Date Collected: 9/29/2017 11:05:56**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 433718018|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3974.8	3974.8	97.7	%			11:06:46
1	Al 396.153Radial†	95786.3	98242.3	84909	µg/L	84909	ppb	11:06:26
1	Ca 317.933Radial†	242328.3	247934.8	242800	µg/L	242800	ppb	11:06:26
1	Fe 238.204 Radial†	50641.4	51820.0	239270	µg/L	239270	ppb	11:06:26
1	K 766.490 Radial†	12763.2	12951.0	9764.0	µg/L	9764.0	ppb	11:06:26
1	Mg 279.077 IEC†	5775.1	5908.4	95675	µg/L	95675	ppb	11:06:46
1	Na 589.592 Radial†	10.2	11.1	1355.5	µg/L	1355.5	ppb	11:06:46
1	Sr 421.552†	16857.3	17226.5	889.72	µg/L	889.72	ppb	11:06:26
1	Sc 361.383	393554.0	393554.0	97.454	%			11:07:45
1	Y 371.029	434814.5	434814.5	103.91	%			11:07:45
1	Ag 328.068†	-4313.1	-3942.9	3.5585	µg/L	3.5585	ppb	11:07:45
1	As 188.979†	63.9	68.2	81.835	µg/L	81.835	ppb	11:08:05
1	B 249.677†	-24238.2	-24960.7	108.27	µg/L	108.27	ppb	11:07:45
1	Ba 233.527†	53358.6	54769.7	594.48	µg/L	594.48	ppb	11:07:45
1	Be 313.107†	-2470.6	3753.5	5.1971	µg/L	5.1971	ppb	11:07:45
1	Cd 226.502†	1831.8	2044.9	0.1441	µg/L	0.1441	ppb	11:08:05
1	Co 228.616†	3262.2	3558.5	98.925	µg/L	98.925	ppb	11:08:05
1	Cr 267.716†	5701.6	5703.6	127.65	µg/L	127.65	ppb	11:08:05
1	Cu 324.752†	41072.2	39916.6	278.41	µg/L	278.41	ppb	11:07:45
1	Mn 257.610†	2372388.8	2434028.3	4232.0	µg/L	4232.0	ppb	11:07:45
1	Mo 202.031†	26.5	19.5	11.415	µg/L	11.415	ppb	11:08:05
1	Ni 231.604†	6297.5	6541.5	231.35	µg/L	231.35	ppb	11:08:05
1	P 214.914†	4793.1	4889.7	4426.3	µg/L	4426.3	ppb	11:08:05
1	Pb 220.353†	611.5	535.8	25.716	µg/L	25.716	ppb	11:08:05
1	S 181.975 Axial†	22660.4	23215.8	51973	µg/L	51973	ppb	11:08:05
1	Sb 206.836†	64.8	15.5	-7.1154	µg/L	-7.1154	ppb	11:08:05
1	Se 196.026†	-163.1	-139.6	19.242	µg/L	19.242	ppb	11:08:05
1	SiO2†	103549.1	105091.1	17512	µg/L	17512	ppb	11:07:45
1	Si 251.611†	125118.6	128179.0	8144.8	µg/L	8144.8	ppb	11:07:45
1	Sn 189.927†	57.6	44.8	7.8964	µg/L	7.8964	ppb	11:08:05
1	Ti 334.940†	338772.4	348079.3	1301.0	µg/L	1301.0	ppb	11:07:45
1	Tl 190.801†	-129.3	-69.5	-19.330	µg/L	-19.330	ppb	11:08:05
1	U 367.007†	4775.6	3818.8	-97.05	µg/L	-97.05	ppb	11:07:45
1	V 292.402†	11560.9	11831.3	171.97	µg/L	171.97	ppb	11:08:05
1	Zn 213.857†	59777.5	60960.8	536.40	µg/L	536.40	ppb	11:07:45
2	Sc RADIAL	3974.5	3974.5	97.7	%			11:07:11
2	Al 396.153Radial†	95951.0	98418.4	85062	µg/L	85062	ppb	11:06:51
2	Ca 317.933Radial†	240986.4	246580.1	241480	µg/L	241480	ppb	11:06:51
2	Fe 238.204 Radial†	50549.5	51729.8	238850	µg/L	238850	ppb	11:06:51
2	K 766.490 Radial†	12696.1	12883.3	9712.9	µg/L	9712.9	ppb	11:06:51
2	Mg 279.077 IEC†	5760.9	5894.4	95447	µg/L	95447	ppb	11:07:11
2	Na 589.592 Radial†	10.8	11.7	1406.7	µg/L	1406.7	ppb	11:07:11
2	Sr 421.552†	17017.6	17391.8	898.39	µg/L	898.39	ppb	11:06:51
2	Sc 361.383	395038.0	395038.0	97.822	%			11:08:12
2	Y 371.029	436869.6	436869.6	104.40	%			11:08:12
2	Ag 328.068†	-4271.1	-3883.3	3.9704	µg/L	3.9704	ppb	11:08:12
2	As 188.979†	68.2	72.3	84.809	µg/L	84.809	ppb	11:08:32
2	B 249.677†	-24240.5	-24869.5	109.83	µg/L	109.83	ppb	11:08:12
2	Ba 233.527†	53497.4	54705.9	593.79	µg/L	593.79	ppb	11:08:12
2	Be 313.107†	-2358.4	3877.7	5.2813	µg/L	5.2813	ppb	11:08:12
2	Cd 226.502†	1855.7	2062.2	0.4327	µg/L	0.4327	ppb	11:08:32
2	Co 228.616†	3290.0	3574.4	99.373	µg/L	99.373	ppb	11:08:32
2	Cr 267.716†	5736.8	5717.6	127.95	µg/L	127.95	ppb	11:08:32
2	Cu 324.752†	41220.6	39910.0	278.35	µg/L	278.35	ppb	11:08:12
2	Mn 257.610†	2375427.8	2427990.0	4221.5	µg/L	4221.5	ppb	11:08:12
2	Mo 202.031†	11.9	4.6	10.149	µg/L	10.149	ppb	11:08:32
2	Ni 231.604†	6305.0	6524.8	230.77	µg/L	230.77	ppb	11:08:32
2	P 214.914†	4808.2	4886.7	4423.9	µg/L	4423.9	ppb	11:08:32

2	Pb 220.353†	610.4	532.3	25.263	µg/L	25.263	ppb	11:08:32
2	S 181.975 Axial†	22759.5	23229.8	52004	µg/L	52004	ppb	11:08:32
2	Sb 206.836†	67.6	18.1	-5.9892	µg/L	-5.9892	ppb	11:08:32
2	Se 196.026†	-174.8	-151.0	9.7620	µg/L	9.7620	ppb	11:08:32
2	SiO2†	103843.5	104992.9	17496	µg/L	17496	ppb	11:08:12
2	Si 251.611†	125650.2	128240.1	8148.8	µg/L	8148.8	ppb	11:08:12
2	Sn 189.927†	49.9	36.7	6.1770	µg/L	6.1770	ppb	11:08:32
2	Ti 334.940†	340042.4	348071.7	1300.9	µg/L	1300.9	ppb	11:08:12
2	Tl 190.801†	-98.4	-37.4	-8.4453	µg/L	-8.4453	ppb	11:08:32
2	U 367.007†	4867.8	3894.6	-73.79	µg/L	-73.79	ppb	11:08:12
2	V 292.402†	11566.8	11792.8	171.45	µg/L	171.45	ppb	11:08:32
2	Zn 213.857†	59967.7	60924.8	536.22	µg/L	536.22	ppb	11:08:12
3	Sc RADIAL	3966.2	3966.2	97.5	%			11:07:36
3	Al 396.153Radial†	95992.4	98666.0	85276	µg/L	85276	ppb	11:07:16
3	Ca 317.933Radial†	240571.8	246670.3	241560	µg/L	241560	ppb	11:07:16
3	Fe 238.204 Radial†	50457.4	51743.5	238910	µg/L	238910	ppb	11:07:16
3	K 766.490 Radial†	12614.8	12827.1	9670.7	µg/L	9670.7	ppb	11:07:16
3	Mg 279.077 IEC†	5763.6	5909.4	95690	µg/L	95690	ppb	11:07:36
3	Na 589.592 Radial†	11.7	12.6	1489.8	µg/L	1489.8	ppb	11:07:36
3	Sr 421.552†	17072.7	17484.8	903.23	µg/L	903.23	ppb	11:07:16
3	Sc 361.383	395106.1	395106.1	97.838	%			11:08:39
3	Y 371.029	436733.5	436733.5	104.37	%			11:08:39
3	Ag 328.068†	-4300.6	-3912.7	3.7532	µg/L	3.7532	ppb	11:08:39
3	As 188.979†	57.0	60.9	76.456	µg/L	76.456	ppb	11:08:59
3	B 249.677†	-24322.7	-24949.3	107.18	µg/L	107.18	ppb	11:08:39
3	Ba 233.527†	53524.9	54724.6	593.99	µg/L	593.99	ppb	11:08:39
3	Be 313.107†	-2407.4	3828.1	5.2403	µg/L	5.2403	ppb	11:08:39
3	Cd 226.502†	1861.8	2068.1	0.5077	µg/L	0.5077	ppb	11:08:59
3	Co 228.616†	3293.7	3577.5	99.459	µg/L	99.459	ppb	11:08:59
3	Cr 267.716†	5769.7	5750.2	128.70	µg/L	128.70	ppb	11:08:59
3	Cu 324.752†	41349.7	40034.6	279.16	µg/L	279.16	ppb	11:08:39
3	Mn 257.610†	2378396.1	2430605.2	4226.0	µg/L	4226.0	ppb	11:08:39
3	Mo 202.031†	15.2	7.9	10.428	µg/L	10.428	ppb	11:08:59
3	Ni 231.604†	6393.3	6614.0	233.89	µg/L	233.89	ppb	11:08:59
3	P 214.914†	4853.8	4932.4	4467.2	µg/L	4467.2	ppb	11:08:59
3	Pb 220.353†	594.1	515.5	22.480	µg/L	22.480	ppb	11:08:59
3	S 181.975 Axial†	23026.2	23498.4	52606	µg/L	52606	ppb	11:08:59
3	Sb 206.836†	63.3	13.8	-7.9162	µg/L	-7.9162	ppb	11:08:59
3	Se 196.026†	-160.2	-136.0	22.010	µg/L	22.010	ppb	11:08:59
3	SiO2†	104076.9	105213.2	17532	µg/L	17532	ppb	11:08:39
3	Si 251.611†	125802.1	128373.2	8157.3	µg/L	8157.3	ppb	11:08:39
3	Sn 189.927†	53.6	40.5	6.9771	µg/L	6.9771	ppb	11:08:59
3	Ti 334.940†	340604.3	348586.1	1302.8	µg/L	1302.8	ppb	11:08:39
3	Tl 190.801†	-106.7	-45.9	-11.339	µg/L	-11.339	ppb	11:08:59
3	U 367.007†	4786.5	3810.7	-97.52	µg/L	-97.52	ppb	11:08:39
3	V 292.402†	11671.0	11897.2	172.70	µg/L	172.70	ppb	11:08:59
3	Zn 213.857†	60160.2	61111.0	538.17	µg/L	538.17	ppb	11:08:39

Mean Data: 433718018|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	394566.0	97.705	%	0.2172				0.22%
Sc RADIAL	3971.8	97.6	%	0.12				0.12%
Y 371.029	436139.2	104.22	%	0.275				0.26%
Ag 328.068†	-3912.9	3.7607	µg/L	0.20602	3.7607	ppb	0.20602	5.48%
Al 396.153Radial†	98442.2	85082	µg/L	183.97	85082	ppb	183.97	0.22%
As 188.979†	67.1	81.033	µg/L	4.2339	81.033	ppb	4.2339	5.22%
B 249.677†	-24926.5	108.43	µg/L	1.336	108.43	ppb	1.336	1.23%
Ba 233.527†	54733.4	594.09	µg/L	0.354	594.09	ppb	0.354	0.06%
Be 313.107†	3819.8	5.2396	µg/L	0.04210	5.2396	ppb	0.04210	0.80%
Ca 317.933Radial†	247061.7	241950	µg/L	741.73	241950	ppb	741.73	0.31%
Cd 226.502†	2058.4	0.3615	µg/L	0.19196	0.3615	ppb	0.19196	53.10%
Co 228.616†	3570.1	99.252	µg/L	0.2870	99.252	ppb	0.2870	0.29%
Cr 267.716†	5723.8	128.10	µg/L	0.540	128.10	ppb	0.540	0.42%
Cu 324.752†	39953.8	278.64	µg/L	0.451	278.64	ppb	0.451	0.16%
Fe 238.204 Radial†	51764.4	239010	µg/L	224.37	239010	ppb	224.37	0.09%
K 766.490 Radial†	12887.1	9715.9	µg/L	46.73	9715.9	ppb	46.73	0.48%
Mg 279.077 IEC†	5904.0	95604	µg/L	136.09	95604	ppb	136.09	0.14%
Mn 257.610†	2430874.5	4226.5	µg/L	5.26	4226.5	ppb	5.26	0.12%
Mo 202.031†	10.7	10.664	µg/L	0.6653	10.664	ppb	0.6653	6.24%

Na 589.592 Radial†	11.8	1417.3	µg/L	67.80	1417.3	ppb	67.80	4.78%
Ni 231.604†	6560.1	232.00	µg/L	1.659	232.00	ppb	1.659	0.72%
P 214.914†	4902.9	4439.2	µg/L	24.33	4439.2	ppb	24.33	0.55%
Pb 220.353†	527.9	24.486	µg/L	1.7520	24.486	ppb	1.7520	7.16%
S 181.975 Axial†	23314.7	52194	µg/L	356.60	52194	ppb	356.60	0.68%
Concentration greater than upper limit for S 181.975 Axial.								
Sb 206.836†	15.8	-7.0069	µg/L	0.96807	-7.0069	ppb	0.96807	13.82%
Se 196.026†	-142.2	17.005	µg/L	6.4231	17.005	ppb	6.4231	37.77%
SiO2†	105099.1	17513	µg/L	18.39	17513	ppb	18.39	0.11%
Si 251.611†	128264.1	8150.3	µg/L	6.37	8150.3	ppb	6.37	0.08%
Sn 189.927†	40.7	7.0168	µg/L	0.86039	7.0168	ppb	0.86039	12.26%
Sr 421.552†	17367.7	897.11	µg/L	6.843	897.11	ppb	6.843	0.76%
Ti 334.940†	348245.7	1301.6	µg/L	1.08	1301.6	ppb	1.08	0.08%
Tl 190.801†	-50.9	-13.038	µg/L	5.6380	-13.038	ppb	5.6380	43.24%
U 367.007†	3841.4	-89.45	µg/L	13.567	-89.45	ppb	13.567	15.17%
Concentration less than lower limit for U 367.007.								
V 292.402†	11840.4	172.04	µg/L	0.625	172.04	ppb	0.625	0.36%
Zn 213.857†	60998.8	536.93	µg/L	1.076	536.93	ppb	1.076	0.20%

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Sequence No.: 6 | **Autosampler Location: 306**
Sample ID: 1203884248|1704451|1| | **Date Collected: 9/29/2017 11:09:08**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203884248|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3923.0	3923.0	96.4	%			11:09:58
1	Al 396.153Radial†	86761.7	90178.9	77940	µg/L	77940	ppb	11:09:38
1	Ca 317.933Radial†	217367.0	225326.4	220660	µg/L	220660	ppb	11:09:38
1	Fe 238.204 Radial†	46095.8	47790.8	220660	µg/L	220660	ppb	11:09:38
1	K 766.490 Radial†	11573.2	11889.5	8963.6	µg/L	8963.6	ppb	11:09:38
1	Mg 279.077 IEC†	5224.9	5415.9	87700	µg/L	87700	ppb	11:09:58
1	Na 589.592 Radial†	11.7	12.8	1479.7	µg/L	1479.7	ppb	11:09:58
1	Sr 421.552†	14831.4	15353.6	792.85	µg/L	792.85	ppb	11:09:38
1	Sc 361.383	396196.1	396196.1	98.108	%			11:10:57
1	Y 371.029	436819.4	436819.4	104.39	%			11:10:57
1	Ag 328.068†	-4043.6	-3638.6	3.2678	µg/L	3.2678	ppb	11:10:57
1	As 188.979†	64.4	68.3	79.450	µg/L	79.450	ppb	11:11:17
1	B 249.677†	-22661.2	-23187.3	93.702	µg/L	93.702	ppb	11:10:57
1	Ba 233.527†	51424.9	52433.5	569.36	µg/L	569.36	ppb	11:10:57
1	Be 313.107†	-2405.7	3836.5	5.0387	µg/L	5.0387	ppb	11:10:57
1	Cd 226.502†	1695.3	1893.2	0.2285	µg/L	0.2285	ppb	11:11:17
1	Co 228.616†	3114.6	3385.8	94.098	µg/L	94.098	ppb	11:11:17
1	Cr 267.716†	5596.5	5557.4	124.29	µg/L	124.29	ppb	11:11:17
1	Cu 324.752†	38819.1	37339.0	260.22	µg/L	260.22	ppb	11:10:57
1	Mn 257.610†	2290882.9	2334716.7	4059.0	µg/L	4059.0	ppb	11:10:57
1	Mo 202.031†	34.3	27.4	11.310	µg/L	11.310	ppb	11:11:17
1	Ni 231.604†	6026.3	6221.9	219.99	µg/L	219.99	ppb	11:11:17
1	P 214.914†	4854.2	4919.2	4470.6	µg/L	4470.6	ppb	11:11:17
1	Pb 220.353†	570.4	489.8	23.312	µg/L	23.312	ppb	11:11:17
1	S 181.975 Axial†	21110.5	21481.0	48089	µg/L	48089	ppb	11:11:17
1	Sb 206.836†	86.5	37.2	3.4740	µg/L	3.4740	ppb	11:11:17
1	Se 196.026†	-169.5	-145.0	4.4898	µg/L	4.4898	ppb	11:11:17
1	SiO2†	85863.5	86355.9	14390	µg/L	14390	ppb	11:10:57
1	Si 251.611†	103588.3	105377.4	6692.1	µg/L	6692.1	ppb	11:10:57
1	Sn 189.927†	49.7	36.3	6.4076	µg/L	6.4076	ppb	11:11:17
1	Ti 334.940†	328435.7	335225.1	1252.3	µg/L	1252.3	ppb	11:10:57
1	Tl 190.801†	-101.3	-40.0	-9.6681	µg/L	-9.6681	ppb	11:11:17
1	U 367.007†	4499.8	3505.0	-93.97	µg/L	-93.97	ppb	11:10:57
1	V 292.402†	10886.3	11064.5	160.40	µg/L	160.40	ppb	11:11:17
1	Zn 213.857†	50976.1	51580.6	445.35	µg/L	445.35	ppb	11:10:57
2	Sc RADIAL	3933.9	3933.9	96.7	%			11:10:23
2	Al 396.153Radial†	89721.0	92989.9	80370	µg/L	80370	ppb	11:10:03
2	Ca 317.933Radial†	223307.5	230845.3	226070	µg/L	226070	ppb	11:10:03
2	Fe 238.204 Radial†	47318.1	48922.4	225890	µg/L	225890	ppb	11:10:03
2	K 766.490 Radial†	11921.3	12216.3	9209.9	µg/L	9209.9	ppb	11:10:03
2	Mg 279.077 IEC†	5212.9	5388.5	87255	µg/L	87255	ppb	11:10:23
2	Na 589.592 Radial†	7.1	7.9	1048.0	µg/L	1048.0	ppb	11:10:23
2	Sr 421.552†	15292.5	15787.9	815.30	µg/L	815.30	ppb	11:10:03
2	Sc 361.383	398911.1	398911.1	98.781	%			11:11:24
2	Y 371.029	439571.9	439571.9	105.04	%			11:11:24
2	Ag 328.068†	-4070.3	-3637.6	4.0433	µg/L	4.0433	ppb	11:11:24
2	As 188.979†	59.4	62.8	76.096	µg/L	76.096	ppb	11:11:44
2	B 249.677†	-22917.2	-23289.3	112.33	µg/L	112.33	ppb	11:11:24
2	Ba 233.527†	51663.7	52318.6	567.95	µg/L	567.95	ppb	11:11:24
2	Be 313.107†	-2389.2	3870.0	5.1193	µg/L	5.1193	ppb	11:11:24
2	Cd 226.502†	1710.8	1897.1	-0.3309	µg/L	-0.3309	ppb	11:11:44
2	Co 228.616†	3094.6	3343.9	92.913	µg/L	92.913	ppb	11:11:44
2	Cr 267.716†	5567.7	5489.5	122.73	µg/L	122.73	ppb	11:11:44
2	Cu 324.752†	38923.1	37175.0	259.50	µg/L	259.50	ppb	11:11:24
2	Mn 257.610†	2304540.4	2332650.6	4055.7	µg/L	4055.7	ppb	11:11:24
2	Mo 202.031†	26.4	19.1	10.836	µg/L	10.836	ppb	11:11:44
2	Ni 231.604†	6036.7	6190.7	218.94	µg/L	218.94	ppb	11:11:44
2	P 214.914†	4865.8	4897.2	4445.4	µg/L	4445.4	ppb	11:11:44

2	Pb 220.353†	608.2	524.0	27.493	µg/L	27.493	ppb	11:11:44
2	S 181.975 Axial†	21066.4	21289.9	47661	µg/L	47661	ppb	11:11:44
2	Sb 206.836†	62.2	12.0	-7.9379	µg/L	-7.9379	ppb	11:11:44
2	Se 196.026†	-156.8	-131.0	18.849	µg/L	18.849	ppb	11:11:44
2	SiO2†	86561.0	86466.4	14409	µg/L	14409	ppb	11:11:24
2	Si 251.611†	104395.0	105475.4	6697.5	µg/L	6697.5	ppb	11:11:24
2	Sn 189.927†	49.5	35.8	6.2122	µg/L	6.2122	ppb	11:11:44
2	Ti 334.940†	329638.5	334164.3	1248.6	µg/L	1248.6	ppb	11:11:24
2	Tl 190.801†	-111.2	-49.4	-12.734	µg/L	-12.734	ppb	11:11:44
2	U 367.007†	4652.5	3628.4	-84.93	µg/L	-84.93	ppb	11:11:24
2	V 292.402†	10902.6	11005.5	160.39	µg/L	160.39	ppb	11:11:44
2	Zn 213.857†	51305.0	51559.9	442.65	µg/L	442.65	ppb	11:11:24
3	Sc RADIAL	3976.2	3976.2	97.8	%			11:10:48
3	Al 396.153Radial†	89617.1	91896.3	79424	µg/L	79424	ppb	11:10:28
3	Ca 317.933Radial†	222560.9	227624.1	222910	µg/L	222910	ppb	11:10:28
3	Fe 238.204 Radial†	47274.7	48357.3	223280	µg/L	223280	ppb	11:10:28
3	K 766.490 Radial†	11886.6	12049.6	9084.2	µg/L	9084.2	ppb	11:10:28
3	Mg 279.077 IEC†	5282.3	5402.1	87476	µg/L	87476	ppb	11:10:48
3	Na 589.592 Radial†	12.3	13.2	1519.8	µg/L	1519.8	ppb	11:10:48
3	Sr 421.552†	15318.1	15645.8	808.00	µg/L	808.00	ppb	11:10:28
3	Sc 361.383	393266.3	393266.3	97.383	%			11:11:51
3	Y 371.029	433828.8	433828.8	103.67	%			11:11:51
3	Ag 328.068†	-4024.3	-3649.5	3.5631	µg/L	3.5631	ppb	11:11:51
3	As 188.979†	61.2	65.5	77.709	µg/L	77.709	ppb	11:12:11
3	B 249.677†	-22619.2	-23316.4	100.17	µg/L	100.17	ppb	11:11:51
3	Ba 233.527†	50808.5	52191.1	566.62	µg/L	566.62	ppb	11:11:51
3	Be 313.107†	-2317.9	3908.4	5.1142	µg/L	5.1142	ppb	11:11:51
3	Cd 226.502†	1677.0	1887.2	-0.1612	µg/L	-0.1612	ppb	11:12:11
3	Co 228.616†	3034.7	3327.4	92.444	µg/L	92.444	ppb	11:12:11
3	Cr 267.716†	5464.2	5464.1	122.19	µg/L	122.19	ppb	11:12:11
3	Cu 324.752†	38423.8	37227.8	259.66	µg/L	259.66	ppb	11:11:51
3	Mn 257.610†	2267973.7	2328587.6	4048.5	µg/L	4048.5	ppb	11:11:51
3	Mo 202.031†	32.7	26.0	11.302	µg/L	11.302	ppb	11:12:11
3	Ni 231.604†	5915.4	6153.7	217.62	µg/L	217.62	ppb	11:12:11
3	P 214.914†	4737.3	4836.0	4389.5	µg/L	4389.5	ppb	11:12:11
3	Pb 220.353†	591.2	515.4	26.813	µg/L	26.813	ppb	11:12:11
3	S 181.975 Axial†	20639.2	21157.3	47364	µg/L	47364	ppb	11:12:11
3	Sb 206.836†	55.5	6.0	-10.404	µg/L	-10.404	ppb	11:12:11
3	Se 196.026†	-165.2	-141.9	8.4808	µg/L	8.4808	ppb	11:12:11
3	SiO2†	85075.0	86198.2	14364	µg/L	14364	ppb	11:11:51
3	Si 251.611†	102597.6	105146.6	6676.9	µg/L	6676.9	ppb	11:11:51
3	Sn 189.927†	48.1	35.1	6.1000	µg/L	6.1000	ppb	11:12:11
3	Ti 334.940†	324992.9	334183.7	1248.6	µg/L	1248.6	ppb	11:11:51
3	Tl 190.801†	-91.0	-30.3	-6.3015	µg/L	-6.3015	ppb	11:12:11
3	U 367.007†	4513.4	3553.2	-93.20	µg/L	-93.20	ppb	11:11:51
3	V 292.402†	10661.4	10916.3	158.98	µg/L	158.98	ppb	11:12:11
3	Zn 213.857†	50492.8	51471.4	442.95	µg/L	442.95	ppb	11:11:51

Mean Data: 1203884248|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	396124.5	98.091	%	0.6991				0.71%
Sc RADIAL	3944.4	97.0	%	0.69				0.71%
Y 371.029	436740.1	104.37	%	0.686				0.66%
Ag 328.068†	-3641.9	3.6247	µg/L	0.39143	3.6247	ppb	0.39143	10.80%
Al 396.153Radial†	91688.3	79245	µg/L	1224.67	79245	ppb	1224.67	1.55%
As 188.979†	65.5	77.752	µg/L	1.6776	77.752	ppb	1.6776	2.16%
B 249.677†	-23264.3	102.07	µg/L	9.460	102.07	ppb	9.460	9.27%
Ba 233.527†	52314.4	567.98	µg/L	1.368	567.98	ppb	1.368	0.24%
Be 313.107†	3871.6	5.0907	µg/L	0.04512	5.0907	ppb	0.04512	0.89%
Ca 317.933Radial†	227931.9	223210	µg/L	2714.92	223210	ppb	2714.92	1.22%
Cd 226.502†	1892.5	-0.0879	µg/L	0.28682	-0.0879	ppb	0.28682	326.40%
Co 228.616†	3352.4	93.151	µg/L	0.8522	93.151	ppb	0.8522	0.91%
Cr 267.716†	5503.7	123.07	µg/L	1.092	123.07	ppb	1.092	0.89%
Cu 324.752†	37247.3	259.79	µg/L	0.377	259.79	ppb	0.377	0.14%
Fe 238.204 Radial†	48356.8	223280	µg/L	2612.50	223280	ppb	2612.50	1.17%
K 766.490 Radial†	12051.8	9085.9	µg/L	123.15	9085.9	ppb	123.15	1.36%
Mg 279.077 IEC†	5402.2	87477	µg/L	222.18	87477	ppb	222.18	0.25%
Mn 257.610†	2331985.0	4054.4	µg/L	5.36	4054.4	ppb	5.36	0.13%
Mo 202.031†	24.2	11.149	µg/L	0.2717	11.149	ppb	0.2717	2.44%

Na 589.592 Radial†	11.3	1349.2	µg/L	261.57	1349.2	ppb	261.57	19.39%
Ni 231.604†	6188.8	218.85	µg/L	1.183	218.85	ppb	1.183	0.54%
P 214.914†	4884.2	4435.2	µg/L	41.49	4435.2	ppb	41.49	0.94%
Pb 220.353†	509.7	25.873	µg/L	2.2437	25.873	ppb	2.2437	8.67%
S 181.975 Axial†	21309.4	47705	µg/L	364.41	47705	ppb	364.41	0.76%
Sb 206.836†	18.4	-4.9559	µg/L	7.40386	-4.9559	ppb	7.40386	149.39%
Se 196.026†	-139.3	10.607	µg/L	7.4121	10.607	ppb	7.4121	69.88%
SiO2†	86340.1	14388	µg/L	22.46	14388	ppb	22.46	0.16%
Si 251.611†	105333.1	6688.9	µg/L	10.67	6688.9	ppb	10.67	0.16%
Sn 189.927†	35.7	6.2399	µg/L	0.15568	6.2399	ppb	0.15568	2.49%
Sr 421.552†	15595.8	805.38	µg/L	11.452	805.38	ppb	11.452	1.42%
Ti 334.940†	334524.4	1249.8	µg/L	2.14	1249.8	ppb	2.14	0.17%
Tl 190.801†	-39.9	-9.5680	µg/L	3.21758	-9.5680	ppb	3.21758	33.63%
U 367.007†	3562.2	-90.70	µg/L	5.014	-90.70	ppb	5.014	5.53%
Concentration less than lower limit for U 367.007.								
V 292.402†	10995.5	159.92	µg/L	0.818	159.92	ppb	0.818	0.51%
Zn 213.857†	51537.3	443.65	µg/L	1.481	443.65	ppb	1.481	0.33%

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Sequence No.: 7 | **Autosampler Location: 307**
Sample ID: 1203884249|1704451|1| | **Date Collected: 9/29/2017 11:12:20**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203884249|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3986.8	3986.8	98.0	%			11:13:10
1	Al 396.153Radial†	112103.4	114596.5	99025	µg/L	99025	ppb	11:12:50
1	Ca 317.933Radial†	247725.2	252698.3	247470	µg/L	247470	ppb	11:12:50
1	Fe 238.204 Radial†	50305.6	51322.1	236970	µg/L	236970	ppb	11:12:50
1	K 766.490 Radial†	23178.0	23537.7	17732	µg/L	17732	ppb	11:12:50
1	Mg 279.077 IEC†	6171.5	6295.2	101940	µg/L	101940	ppb	11:13:10
1	Na 589.592 Radial†	63.3	65.2	6274.6	µg/L	6274.6	ppb	11:13:10
1	Sr 421.552†	23644.2	24099.2	1247.8	µg/L	1247.8	ppb	11:12:50
1	Sc 361.383	387880.1	387880.1	96.049	%			11:14:09
1	Y 371.029	429571.8	429571.8	102.66	%			11:14:09
1	Ag 328.068†	48127.3	50590.0	447.59	µg/L	447.59	ppb	11:14:09
1	As 188.979†	633.5	662.2	519.38	µg/L	519.38	ppb	11:14:29
1	B 249.677†	-11165.3	-11713.8	582.95	µg/L	582.95	ppb	11:14:09
1	Ba 233.527†	100328.8	104472.9	1140.2	µg/L	1140.2	ppb	11:14:09
1	Be 313.107†	574850.3	604785.3	445.46	µg/L	445.46	ppb	11:14:09
1	Cd 226.502†	30404.3	31820.2	413.11	µg/L	413.11	ppb	11:14:09
1	Co 228.616†	17081.6	17995.4	508.75	µg/L	508.75	ppb	11:14:29
1	Cr 267.716†	24054.9	24897.4	556.53	µg/L	556.53	ppb	11:14:29
1	Cu 324.752†	104359.2	106423.4	715.38	µg/L	715.38	ppb	11:14:09
1	Mn 257.610†	2584297.9	2690264.0	4676.2	µg/L	4676.2	ppb	11:14:09
1	Mo 202.031†	4985.9	5183.4	442.67	µg/L	442.67	ppb	11:14:29
1	Ni 231.604†	16869.9	17643.3	620.16	µg/L	620.16	ppb	11:14:29
1	P 214.914†	5161.8	5345.5	4853.9	µg/L	4853.9	ppb	11:14:29
1	Pb 220.353†	3033.8	3066.9	441.75	µg/L	441.75	ppb	11:14:29
1	S 181.975 Axial†	23008.1	23918.0	53544	µg/L	53544	ppb	11:14:29
1	Sb 206.836†	942.7	930.5	394.23	µg/L	394.23	ppb	11:14:29
1	Se 196.026†	321.1	362.1	426.91	µg/L	426.91	ppb	11:14:29
1	SiO2†	123669.8	127593.7	21264	µg/L	21264	ppb	11:14:09
1	Si 251.611†	149943.2	155902.8	9905.8	µg/L	9905.8	ppb	11:14:09
1	Sn 189.927†	1912.1	1976.5	422.40	µg/L	422.40	ppb	11:14:29
1	Ti 334.940†	505260.3	526500.6	1961.5	µg/L	1961.5	ppb	11:14:09
1	Tl 190.801†	943.9	1045.9	355.73	µg/L	355.73	ppb	11:14:29
1	U 367.007†	6104.4	5274.0	319.8	µg/L	319.8	ppb	11:14:09
1	V 292.402†	48625.8	50594.3	638.64	µg/L	638.64	ppb	11:14:09
1	Zn 213.857†	83113.5	86154.0	805.27	µg/L	805.27	ppb	11:14:09
2	Sc RADIAL	3982.5	3982.5	97.9	%			11:13:35
2	Al 396.153Radial†	112965.9	115598.2	99890	µg/L	99890	ppb	11:13:15
2	Ca 317.933Radial†	248087.1	253335.0	248090	µg/L	248090	ppb	11:13:15
2	Fe 238.204 Radial†	50794.2	51875.4	239520	µg/L	239520	ppb	11:13:15
2	K 766.490 Radial†	23444.3	23834.7	17956	µg/L	17956	ppb	11:13:15
2	Mg 279.077 IEC†	6167.8	6298.0	101980	µg/L	101980	ppb	11:13:35
2	Na 589.592 Radial†	59.3	61.2	5917.6	µg/L	5917.6	ppb	11:13:35
2	Sr 421.552†	23990.5	24478.4	1267.6	µg/L	1267.6	ppb	11:13:15
2	Sc 361.383	389739.5	389739.5	96.509	%			11:14:37
2	Y 371.029	431767.8	431767.8	103.18	%			11:14:37
2	Ag 328.068†	48434.4	50669.0	448.62	µg/L	448.62	ppb	11:14:37
2	As 188.979†	670.9	697.8	545.78	µg/L	545.78	ppb	11:14:57
2	B 249.677†	-11156.3	-11649.0	596.24	µg/L	596.24	ppb	11:14:37
2	Ba 233.527†	100595.3	104250.7	1137.7	µg/L	1137.7	ppb	11:14:37
2	Be 313.107†	576773.0	603922.2	444.83	µg/L	444.83	ppb	11:14:37
2	Cd 226.502†	30441.2	31707.4	411.25	µg/L	411.25	ppb	11:14:37
2	Co 228.616†	17368.3	18207.6	514.80	µg/L	514.80	ppb	11:14:57
2	Cr 267.716†	24492.6	25231.5	564.01	µg/L	564.01	ppb	11:14:57
2	Cu 324.752†	104833.7	106396.7	715.35	µg/L	715.35	ppb	11:14:37
2	Mn 257.610†	2590133.7	2683474.5	4664.5	µg/L	4664.5	ppb	11:14:37
2	Mo 202.031†	5075.2	5251.2	448.44	µg/L	448.44	ppb	11:14:57
2	Ni 231.604†	17163.9	17864.1	627.91	µg/L	627.91	ppb	11:14:57
2	P 214.914†	5256.1	5417.6	4919.9	µg/L	4919.9	ppb	11:14:57

2	Pb 220.353†	3101.1	3121.6	450.30	µg/L	450.30	ppb	11:14:57
2	S 181.975 Axial†	23442.7	24253.9	54296	µg/L	54296	ppb	11:14:57
2	Sb 206.836†	967.8	951.8	403.38	µg/L	403.38	ppb	11:14:57
2	Se 196.026†	329.8	369.5	434.37	µg/L	434.37	ppb	11:14:57
2	SiO2†	123033.8	126320.4	21052	µg/L	21052	ppb	11:14:37
2	Si 251.611†	149050.5	154233.0	9798.7	µg/L	9798.7	ppb	11:14:37
2	Sn 189.927†	1925.2	1980.5	423.21	µg/L	423.21	ppb	11:14:57
2	Ti 334.940†	506377.0	525148.1	1956.5	µg/L	1956.5	ppb	11:14:37
2	Tl 190.801†	954.7	1052.4	357.93	µg/L	357.93	ppb	11:14:57
2	U 367.007†	6047.4	5184.6	282.6	µg/L	282.6	ppb	11:14:37
2	V 292.402†	48766.6	50498.7	637.89	µg/L	637.89	ppb	11:14:37
2	Zn 213.857†	83232.2	85864.2	800.97	µg/L	800.97	ppb	11:14:37
3	Sc RADIAL	3927.3	3927.3	96.6	%			11:14:00
3	Al 396.153Radial†	111336.4	115533.3	99834	µg/L	99834	ppb	11:13:40
3	Ca 317.933Radial†	243520.5	252168.9	246950	µg/L	246950	ppb	11:13:40
3	Fe 238.204 Radial†	49728.8	51501.6	237800	µg/L	237800	ppb	11:13:40
3	K 766.490 Radial†	22902.3	23610.1	17787	µg/L	17787	ppb	11:13:40
3	Mg 279.077 IEC†	6042.7	6257.0	101320	µg/L	101320	ppb	11:14:00
3	Na 589.592 Radial†	59.9	62.6	6044.6	µg/L	6044.6	ppb	11:14:00
3	Sr 421.552†	23718.7	24541.5	1270.9	µg/L	1270.9	ppb	11:13:40
3	Sc 361.383	395914.4	395914.4	98.039	%			11:15:04
3	Y 371.029	438605.9	438605.9	104.81	%			11:15:04
3	Ag 328.068†	49125.4	50591.2	447.73	µg/L	447.73	ppb	11:15:04
3	As 188.979†	673.3	689.3	539.33	µg/L	539.33	ppb	11:15:24
3	B 249.677†	-11303.1	-11618.4	589.98	µg/L	589.98	ppb	11:15:04
3	Ba 233.527†	102554.2	104623.0	1141.8	µg/L	1141.8	ppb	11:15:04
3	Be 313.107†	588201.9	606258.5	446.53	µg/L	446.53	ppb	11:15:04
3	Cd 226.502†	31150.2	31938.6	414.66	µg/L	414.66	ppb	11:15:04
3	Co 228.616†	17578.5	18141.3	512.90	µg/L	512.90	ppb	11:15:24
3	Cr 267.716†	24708.7	25056.1	560.06	µg/L	560.06	ppb	11:15:24
3	Cu 324.752†	106487.6	106389.5	715.20	µg/L	715.20	ppb	11:15:04
3	Mn 257.610†	2638727.3	2691181.5	4677.8	µg/L	4677.8	ppb	11:15:04
3	Mo 202.031†	5112.9	5207.6	444.73	µg/L	444.73	ppb	11:15:24
3	Ni 231.604†	17356.4	17783.1	625.06	µg/L	625.06	ppb	11:15:24
3	P 214.914†	5330.9	5409.0	4913.4	µg/L	4913.4	ppb	11:15:24
3	Pb 220.353†	3136.7	3107.8	448.34	µg/L	448.34	ppb	11:15:24
3	S 181.975 Axial†	23742.2	24180.7	54132	µg/L	54132	ppb	11:15:24
3	Sb 206.836†	971.9	940.4	398.48	µg/L	398.48	ppb	11:15:24
3	Se 196.026†	356.0	390.8	450.83	µg/L	450.83	ppb	11:15:24
3	SiO2†	124174.0	125495.1	20914	µg/L	20914	ppb	11:15:04
3	Si 251.611†	150546.5	153350.1	9742.7	µg/L	9742.7	ppb	11:15:04
3	Sn 189.927†	1952.4	1977.1	422.53	µg/L	422.53	ppb	11:15:24
3	Ti 334.940†	515494.9	526264.9	1960.6	µg/L	1960.6	ppb	11:15:04
3	Tl 190.801†	949.8	1031.9	350.99	µg/L	350.99	ppb	11:15:24
3	U 367.007†	6181.1	5223.2	301.7	µg/L	301.7	ppb	11:15:04
3	V 292.402†	49643.0	50604.6	638.89	µg/L	638.89	ppb	11:15:04
3	Zn 213.857†	85082.8	86406.6	807.55	µg/L	807.55	ppb	11:15:04

Mean Data: 1203884249|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	391178.0	96.866	%	1.0415				1.08%
Sc RADIAL	3965.5	97.5	%	0.82				0.84%
Y 371.029	433315.2	103.55	%	1.126				1.09%
Ag 328.068†	50616.7	447.98	µg/L	0.562	447.98	ppb	0.562	0.13%
Al 396.153Radial†	115242.7	99583	µg/L	484.34	99583	ppb	484.34	0.49%
As 188.979†	683.1	534.83	µg/L	13.767	534.83	ppb	13.767	2.57%
B 249.677†	-11660.4	589.72	µg/L	6.649	589.72	ppb	6.649	1.13%
Ba 233.527†	104448.9	1139.9	µg/L	2.08	1139.9	ppb	2.08	0.18%
Be 313.107†	604988.7	445.61	µg/L	0.860	445.61	ppb	0.860	0.19%
Ca 317.933Radial†	252734.1	247500	µg/L	571.77	247500	ppb	571.77	0.23%
Cd 226.502†	31822.1	413.01	µg/L	1.704	413.01	ppb	1.704	0.41%
Co 228.616†	18114.8	512.15	µg/L	3.092	512.15	ppb	3.092	0.60%
Cr 267.716†	25061.6	560.20	µg/L	3.745	560.20	ppb	3.745	0.67%
Cu 324.752†	106403.2	715.31	µg/L	0.096	715.31	ppb	0.096	0.01%
Fe 238.204 Radial†	51566.4	238100	µg/L	1303.30	238100	ppb	1303.30	0.55%
K 766.490 Radial†	23660.8	17825	µg/L	116.57	17825	ppb	116.57	0.65%
Mg 279.077 IEC†	6283.4	101750	µg/L	370.69	101750	ppb	370.69	0.36%
Mn 257.610†	2688306.7	4672.9	µg/L	7.25	4672.9	ppb	7.25	0.16%
Mo 202.031†	5214.1	445.28	µg/L	2.921	445.28	ppb	2.921	0.66%

Na 589.592 Radial†	63.0	6078.9 µg/L	180.98	6078.9 ppb	180.98	2.98%
Ni 231.604†	17763.5	624.38 µg/L	3.924	624.38 ppb	3.924	0.63%
P 214.914†	5390.7	4895.7 µg/L	36.39	4895.7 ppb	36.39	0.74%
Pb 220.353†	3098.8	446.80 µg/L	4.478	446.80 ppb	4.478	1.00%
S 181.975 Axial†	24117.5	53990 µg/L	395.56	53990 ppb	395.56	0.73%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	940.9	398.70 µg/L	4.583	398.70 ppb	4.583	1.15%
Se 196.026†	374.1	437.37 µg/L	12.241	437.37 ppb	12.241	2.80%
SiO2†	126469.7	21077 µg/L	176.13	21077 ppb	176.13	0.84%
Si 251.611†	154495.3	9815.7 µg/L	82.90	9815.7 ppb	82.90	0.84%
Sn 189.927†	1978.0	422.71 µg/L	0.434	422.71 ppb	0.434	0.10%
Sr 421.552†	24373.0	1262.1 µg/L	12.47	1262.1 ppb	12.47	0.99%
Ti 334.940†	525971.2	1959.5 µg/L	2.65	1959.5 ppb	2.65	0.14%
Tl 190.801†	1043.4	354.89 µg/L	3.547	354.89 ppb	3.547	1.00%
U 367.007†	5227.2	301.4 µg/L	18.61	301.4 ppb	18.61	6.18%
V 292.402†	50565.9	638.47 µg/L	0.522	638.47 ppb	0.522	0.08%
Zn 213.857†	86141.6	804.59 µg/L	3.342	804.59 ppb	3.342	0.42%

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Sequence No.: 8 | **Autosampler Location: 308**
Sample ID: 1203885640|1704451|1| | **Date Collected: 9/29/2017 11:15:33**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203885640|1704451|1|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4007.8	4007.8	98.5	%			11:16:23
1	Al 396.153Radial†	100845.0	102570.1	88628	µg/L	88628	ppb	11:16:03
1	Ca 317.933Radial†	247492.8	251136.1	245940	µg/L	245940	ppb	11:16:03
1	Fe 238.204 Radial†	51931.7	52703.1	243340	µg/L	243340	ppb	11:16:03
1	K 766.490 Radial†	18532.8	18699.1	14090	µg/L	14090	ppb	11:16:03
1	Mg 279.077 IEC†	6139.9	6230.0	100880	µg/L	100880	ppb	11:16:23
1	Na 589.592 Radial†	61.1	62.7	6053.4	µg/L	6053.4	ppb	11:16:23
1	Sr 421.552†	25074.6	25424.4	1317.0	µg/L	1317.0	ppb	11:16:03
1	Sc 361.383	398447.1	398447.1	98.666	%			11:17:22
1	Y 371.029	444763.1	444763.1	106.29	%			11:17:22
1	Ag 328.068†	46146.2	47253.2	421.40	µg/L	421.40	ppb	11:17:22
1	As 188.979†	673.9	685.6	537.66	µg/L	537.66	ppb	11:17:42
1	B 249.677†	-11934.1	-12184.7	592.95	µg/L	592.95	ppb	11:17:22
1	Ba 233.527†	57178.4	57968.7	629.48	µg/L	629.48	ppb	11:17:22
1	Be 313.107†	602228.1	616660.9	454.16	µg/L	454.16	ppb	11:17:22
1	Cd 226.502†	32163.4	32763.5	425.48	µg/L	425.48	ppb	11:17:22
1	Co 228.616†	17772.5	18224.0	515.30	µg/L	515.30	ppb	11:17:42
1	Cr 267.716†	25717.4	25918.2	579.26	µg/L	579.26	ppb	11:17:42
1	Cu 324.752†	117755.6	117119.4	786.10	µg/L	786.10	ppb	11:17:22
1	Mn 257.610†	2661259.2	2696910.1	4688.1	µg/L	4688.1	ppb	11:17:22
1	Mo 202.031†	5627.6	5696.1	485.76	µg/L	485.76	ppb	11:17:42
1	Ni 231.604†	18450.7	18779.6	660.01	µg/L	660.01	ppb	11:17:42
1	P 214.914†	5392.2	5436.5	4931.3	µg/L	4931.3	ppb	11:17:42
1	Pb 220.353†	2008.5	1944.0	257.17	µg/L	257.17	ppb	11:17:42
1	S 181.975 Axial†	25099.0	25401.9	56867	µg/L	56867	ppb	11:17:42
1	Sb 206.836†	1126.7	1090.9	464.72	µg/L	464.72	ppb	11:17:42
1	Se 196.026†	401.8	435.0	489.78	µg/L	489.78	ppb	11:17:42
1	SiO2†	183181.6	184495.7	30745	µg/L	30745	ppb	11:17:22
1	Si 251.611†	222386.1	225185.2	14327	µg/L	14327	ppb	11:17:22
1	Sn 189.927†	2125.9	2140.3	456.68	µg/L	456.68	ppb	11:17:42
1	Ti 334.940†	468691.9	475486.8	1772.5	µg/L	1772.5	ppb	11:17:22
1	Tl 190.801†	1196.2	1275.5	433.41	µg/L	433.41	ppb	11:17:42
1	U 367.007†	6477.6	5483.6	348.0	µg/L	348.0	ppb	11:17:22
1	V 292.402†	51929.9	52600.5	664.02	µg/L	664.02	ppb	11:17:22
1	Zn 213.857†	103769.3	104794.2	1000.3	µg/L	1000.3	ppb	11:17:22
2	Sc RADIAL	3994.3	3994.3	98.2	%			11:16:48
2	Al 396.153Radial†	102723.0	104829.2	90581	µg/L	90581	ppb	11:16:28
2	Ca 317.933Radial†	251150.9	255712.1	250420	µg/L	250420	ppb	11:16:28
2	Fe 238.204 Radial†	52833.2	53799.7	248410	µg/L	248410	ppb	11:16:28
2	K 766.490 Radial†	18848.3	19084.1	14380	µg/L	14380	ppb	11:16:28
2	Mg 279.077 IEC†	6114.7	6225.4	100810	µg/L	100810	ppb	11:16:48
2	Na 589.592 Radial†	59.4	61.1	5922.1	µg/L	5922.1	ppb	11:16:48
2	Sr 421.552†	25566.6	26011.6	1347.4	µg/L	1347.4	ppb	11:16:28
2	Sc 361.383	397905.2	397905.2	98.532	%			11:17:50
2	Y 371.029	444804.2	444804.2	106.30	%			11:17:50
2	Ag 328.068†	46105.3	47275.4	422.33	µg/L	422.33	ppb	11:17:50
2	As 188.979†	695.7	708.7	555.22	µg/L	555.22	ppb	11:18:10
2	B 249.677†	-11925.6	-12192.6	614.33	µg/L	614.33	ppb	11:17:50
2	Ba 233.527†	57055.3	57922.7	628.83	µg/L	628.83	ppb	11:17:50
2	Be 313.107†	600722.5	615964.1	453.70	µg/L	453.70	ppb	11:17:50
2	Cd 226.502†	32041.7	32684.5	423.79	µg/L	423.79	ppb	11:17:50
2	Co 228.616†	17828.5	18305.4	517.61	µg/L	517.61	ppb	11:18:10
2	Cr 267.716†	25879.0	26117.7	583.70	µg/L	583.70	ppb	11:18:10
2	Cu 324.752†	117595.7	117119.7	786.44	µg/L	786.44	ppb	11:17:50
2	Mn 257.610†	2655423.7	2694660.7	4684.4	µg/L	4684.4	ppb	11:17:50
2	Mo 202.031†	5654.8	5731.5	488.92	µg/L	488.92	ppb	11:18:10
2	Ni 231.604†	18558.3	18914.3	664.77	µg/L	664.77	ppb	11:18:10
2	P 214.914†	5410.4	5462.5	4951.5	µg/L	4951.5	ppb	11:18:10

2	Pb 220.353†	1993.7	1931.7	253.86 µg/L	253.86 ppb		11:18:10
2	S 181.975 Axial†	25223.9	25563.3	57229 µg/L	57229 ppb		11:18:10
2	Sb 206.836†	1122.5	1088.2	463.19 µg/L	463.19 ppb		11:18:10
2	Se 196.026†	384.1	417.5	478.39 µg/L	478.39 ppb		11:18:10
2	SiO2†	182705.8	184265.6	30706 µg/L	30706 ppb		11:17:50
2	Si 251.611†	221846.2	224944.2	14311 µg/L	14311 ppb		11:17:50
2	Sn 189.927†	2138.5	2156.0	459.96 µg/L	459.96 ppb		11:18:10
2	Ti 334.940†	468115.4	475548.6	1772.9 µg/L	1772.9 ppb		11:17:50
2	Tl 190.801†	1196.6	1277.7	434.20 µg/L	434.20 ppb		11:18:10
2	U 367.007†	6516.4	5531.9	336.9 µg/L	336.9 ppb		11:17:50
2	V 292.402†	51833.0	52573.8	664.40 µg/L	664.40 ppb		11:17:50
2	Zn 213.857†	103549.0	104713.9	997.09 µg/L	997.09 ppb		11:17:50
3	Sc RADIAL	4003.7	4003.7	98.4 %			11:17:14
3	Al 396.153Radial†	102476.8	104332.8	90152 µg/L	90152 ppb		11:16:53
3	Ca 317.933Radial†	250199.9	254143.7	248880 µg/L	248880 ppb		11:16:53
3	Fe 238.204 Radial†	52577.0	53412.8	246620 µg/L	246620 ppb		11:16:53
3	K 766.490 Radial†	18843.4	19034.0	14342 µg/L	14342 ppb		11:16:53
3	Mg 279.077 IEC†	6120.9	6217.1	100670 µg/L	100670 ppb		11:17:14
3	Na 589.592 Radial†	64.6	66.2	6383.6 µg/L	6383.6 ppb		11:17:14
3	Sr 421.552†	25540.0	25923.2	1342.9 µg/L	1342.9 ppb		11:16:53
3	Sc 361.383	397516.5	397516.5	98.435 %			11:18:17
3	Y 371.029	444246.2	444246.2	106.16 %			11:18:17
3	Ag 328.068†	46101.9	47317.6	422.41 µg/L	422.41 ppb		11:18:17
3	As 188.979†	690.4	704.0	551.55 µg/L	551.55 ppb		11:18:37
3	B 249.677†	-11789.6	-12066.2	611.31 µg/L	611.31 ppb		11:18:17
3	Ba 233.527†	56904.6	57826.3	627.82 µg/L	627.82 ppb		11:18:17
3	Be 313.107†	600040.0	615866.9	453.61 µg/L	453.61 ppb		11:18:17
3	Cd 226.502†	31940.7	32613.7	423.02 µg/L	423.02 ppb		11:18:17
3	Co 228.616†	17818.2	18312.6	517.82 µg/L	517.82 ppb		11:18:37
3	Cr 267.716†	25857.1	26121.2	583.77 µg/L	583.77 ppb		11:18:37
3	Cu 324.752†	117560.9	117201.0	786.85 µg/L	786.85 ppb		11:18:17
3	Mn 257.610†	2652123.9	2693943.7	4683.1 µg/L	4683.1 ppb		11:18:17
3	Mo 202.031†	5657.0	5739.3	489.51 µg/L	489.51 ppb		11:18:37
3	Ni 231.604†	18507.9	18881.5	663.61 µg/L	663.61 ppb		11:18:37
3	P 214.914†	5387.8	5444.9	4936.4 µg/L	4936.4 ppb		11:18:37
3	Pb 220.353†	1987.3	1927.2	253.53 µg/L	253.53 ppb		11:18:37
3	S 181.975 Axial†	25192.1	25555.9	57212 µg/L	57212 ppb		11:18:37
3	Sb 206.836†	1115.2	1082.0	460.53 µg/L	460.53 ppb		11:18:37
3	Se 196.026†	401.3	435.4	491.98 µg/L	491.98 ppb		11:18:37
3	SiO2†	182436.0	184172.8	30691 µg/L	30691 ppb		11:18:17
3	Si 251.611†	221571.1	224884.9	14307 µg/L	14307 ppb		11:18:17
3	Sn 189.927†	2139.5	2159.2	460.68 µg/L	460.68 ppb		11:18:37
3	Ti 334.940†	467795.1	475687.8	1773.4 µg/L	1773.4 ppb		11:18:17
3	Tl 190.801†	1205.3	1287.7	437.56 µg/L	437.56 ppb		11:18:37
3	U 367.007†	6512.0	5533.9	346.1 µg/L	346.1 ppb		11:18:17
3	V 292.402†	51813.0	52605.0	664.54 µg/L	664.54 ppb		11:18:17
3	Zn 213.857†	103354.3	104618.8	996.92 µg/L	996.92 ppb		11:18:17

Mean Data: 1203885640|1704451|1|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	397956.3	98.544	%	0.1157				0.12%
Sc RADIAL	4001.9	98.4	%	0.17				0.17%
Y 371.029	444604.5	106.25	%	0.074				0.07%
Ag 328.068†	47282.1	422.04	µg/L	0.563	422.04	ppb	0.563	0.13%
Al 396.153Radial†	103910.7	89787	µg/L	1026.04	89787	ppb	1026.04	1.14%
As 188.979†	699.4	548.14	µg/L	9.264	548.14	ppb	9.264	1.69%
B 249.677†	-12147.8	606.20	µg/L	11.572	606.20	ppb	11.572	1.91%
Ba 233.527†	57905.9	628.71	µg/L	0.835	628.71	ppb	0.835	0.13%
Be 313.107†	616163.9	453.82	µg/L	0.297	453.82	ppb	0.297	0.07%
Ca 317.933Radial†	253663.9	248410	µg/L	2277.30	248410	ppb	2277.30	0.92%
Cd 226.502†	32687.2	424.09	µg/L	1.258	424.09	ppb	1.258	0.30%
Co 228.616†	18280.7	516.91	µg/L	1.399	516.91	ppb	1.399	0.27%
Cr 267.716†	26052.4	582.24	µg/L	2.586	582.24	ppb	2.586	0.44%
Cu 324.752†	117146.7	786.46	µg/L	0.378	786.46	ppb	0.378	0.05%
Fe 238.204 Radial†	53305.2	246120	µg/L	2567.85	246120	ppb	2567.85	1.04%
K 766.490 Radial†	18939.1	14271	µg/L	157.68	14271	ppb	157.68	1.10%
Mg 279.077 IEC†	6224.2	100790	µg/L	106.20	100790	ppb	106.20	0.11%
Mn 257.610†	2695171.5	4685.2	µg/L	2.57	4685.2	ppb	2.57	0.05%
Mo 202.031†	5722.3	488.06	µg/L	2.017	488.06	ppb	2.017	0.41%

Na 589.592 Radial†	63.3	6119.7 µg/L	237.79	6119.7 ppb	237.79	3.89%
Ni 231.604†	18858.5	662.80 µg/L	2.484	662.80 ppb	2.484	0.37%
P 214.914†	5448.0	4939.7 µg/L	10.51	4939.7 ppb	10.51	0.21%
Pb 220.353†	1934.3	254.85 µg/L	2.010	254.85 ppb	2.010	0.79%
S 181.975 Axial†	25507.0	57103 µg/L	203.99	57103 ppb	203.99	0.36%
Concentration greater than upper limit for S 181.975 Axial.						
Sb 206.836†	1087.0	462.81 µg/L	2.122	462.81 ppb	2.122	0.46%
Se 196.026†	429.3	486.72 µg/L	7.296	486.72 ppb	7.296	1.50%
SiO2†	184311.4	30714 µg/L	27.67	30714 ppb	27.67	0.09%
Si 251.611†	225004.8	14315 µg/L	10.55	14315 ppb	10.55	0.07%
Sn 189.927†	2151.8	459.11 µg/L	2.131	459.11 ppb	2.131	0.46%
Sr 421.552†	25786.4	1335.8 µg/L	16.43	1335.8 ppb	16.43	1.23%
Ti 334.940†	475574.4	1772.9 µg/L	0.45	1772.9 ppb	0.45	0.03%
Tl 190.801†	1280.3	435.05 µg/L	2.204	435.05 ppb	2.204	0.51%
U 367.007†	5516.5	343.6 µg/L	5.93	343.6 ppb	5.93	1.73%
V 292.402†	52593.1	664.32 µg/L	0.272	664.32 ppb	0.272	0.04%
Zn 213.857†	104709.0	998.12 µg/L	1.931	998.12 ppb	1.931	0.19%

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Sequence No.: 9 | **Autosampler Location: 309**
Sample ID: 1203884250|1704451|5| | **Date Collected: 9/29/2017 11:18:46**
Analyst: HSC | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: 1203884250|1704451|5|

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3990.9	3990.9	98.1	%			11:19:36
1	Al 396.153Radial†	21451.3	22084.9	19088	µg/L	19088	ppb	11:19:16
1	Ca 317.933Radial†	53938.4	54927.8	53791	µg/L	53791	ppb	11:19:16
1	Fe 238.204 Radial†	11360.4	11575.8	53448	µg/L	53448	ppb	11:19:36
1	K 766.490 Radial†	2868.8	2813.9	2121.5	µg/L	2121.5	ppb	11:19:16
1	Mg 279.077 IEC†	1306.5	1330.2	21540	µg/L	21540	ppb	11:19:36
1	Na 589.592 Radial†	7.2	7.9	800.53	µg/L	800.53	ppb	11:19:36
1	Sr 421.552†	3918.5	3969.7	205.10	µg/L	205.10	ppb	11:19:36
1	Sc 361.383	389923.0	389923.0	96.555	%			11:20:33
1	Y 371.029	406708.7	406708.7	97.192	%			11:20:33
1	Ag 328.068†	-1291.2	-854.3	1.0005	µg/L	1.0005	ppb	11:20:33
1	As 188.979†	10.5	13.5	16.979	µg/L	16.979	ppb	11:20:53
1	B 249.677†	-5187.9	-5462.2	28.350	µg/L	28.350	ppb	11:20:33
1	Ba 233.527†	11521.6	11949.8	129.67	µg/L	129.67	ppb	11:20:53
1	Be 313.107†	-5183.0	920.7	1.2228	µg/L	1.2228	ppb	11:20:33
1	Cd 226.502†	289.3	464.9	0.1453	µg/L	0.1453	ppb	11:20:53
1	Co 228.616†	602.6	835.2	23.249	µg/L	23.249	ppb	11:20:53
1	Cr 267.716†	1367.4	1269.2	28.384	µg/L	28.384	ppb	11:20:53
1	Cu 324.752†	10465.2	8610.0	60.193	µg/L	60.193	ppb	11:20:33
1	Mn 257.610†	539084.2	557980.5	970.08	µg/L	970.08	ppb	11:20:33
1	Mo 202.031†	-3.6	-11.3	1.2408	µg/L	1.2408	ppb	11:20:53
1	Ni 231.604†	1378.2	1506.7	53.273	µg/L	53.273	ppb	11:20:53
1	P 214.914†	1061.8	1071.1	968.71	µg/L	968.71	ppb	11:20:53
1	Pb 220.353†	195.1	110.4	4.2221	µg/L	4.2221	ppb	11:20:53
1	S 181.975 Axial†	4923.7	5062.8	11334	µg/L	11334	ppb	11:20:53
1	Sb 206.836†	51.5	2.4	-2.0930	µg/L	-2.0930	ppb	11:20:53
1	Se 196.026†	-51.3	-25.4	9.0209	µg/L	9.0209	ppb	11:20:53
1	SiO2†	25879.2	25639.4	4272.4	µg/L	4272.4	ppb	11:20:33
1	Si 251.611†	30385.4	31261.2	1987.2	µg/L	1987.2	ppb	11:20:33
1	Sn 189.927†	32.5	19.4	3.7425	µg/L	3.7425	ppb	11:20:53
1	Ti 334.940†	73358.0	76432.0	285.69	µg/L	285.69	ppb	11:20:33
1	Tl 190.801†	-71.5	-10.9	-2.7405	µg/L	-2.7405	ppb	11:20:53
1	U 367.007†	1951.7	939.8	2.559	µg/L	2.559	ppb	11:20:33
1	V 292.402†	2661.8	2725.1	39.400	µg/L	39.400	ppb	11:20:33
1	Zn 213.857†	13697.8	13808.1	121.85	µg/L	121.85	ppb	11:20:33
2	Sc RADIAL	3981.1	3981.1	97.9	%			11:20:01
2	Al 396.153Radial†	21413.5	22100.3	19101	µg/L	19101	ppb	11:19:41
2	Ca 317.933Radial†	53705.2	54825.4	53691	µg/L	53691	ppb	11:19:41
2	Fe 238.204 Radial†	11343.3	11586.9	53500	µg/L	53500	ppb	11:20:01
2	K 766.490 Radial†	2782.0	2732.6	2060.3	µg/L	2060.3	ppb	11:19:41
2	Mg 279.077 IEC†	1308.4	1335.4	21623	µg/L	21623	ppb	11:20:01
2	Na 589.592 Radial†	2.8	3.4	390.73	µg/L	390.73	ppb	11:20:01
2	Sr 421.552†	3893.7	3954.2	204.30	µg/L	204.30	ppb	11:20:01
2	Sc 361.383	393506.9	393506.9	97.442	%			11:20:59
2	Y 371.029	409865.0	409865.0	97.946	%			11:20:59
2	Ag 328.068†	-1209.0	-757.8	1.7922	µg/L	1.7922	ppb	11:20:59
2	As 188.979†	5.4	8.1	13.089	µg/L	13.089	ppb	11:21:19
2	B 249.677†	-5271.2	-5498.8	27.230	µg/L	27.230	ppb	11:20:59
2	Ba 233.527†	11560.3	11880.8	128.91	µg/L	128.91	ppb	11:21:19
2	Be 313.107†	-5292.6	857.1	1.1759	µg/L	1.1759	ppb	11:20:59
2	Cd 226.502†	298.3	471.3	0.2291	µg/L	0.2291	ppb	11:21:19
2	Co 228.616†	593.8	820.5	22.837	µg/L	22.837	ppb	11:21:19
2	Cr 267.716†	1383.1	1272.4	28.455	µg/L	28.455	ppb	11:21:19
2	Cu 324.752†	10467.5	8513.7	59.563	µg/L	59.563	ppb	11:20:59
2	Mn 257.610†	545138.0	559108.1	972.04	µg/L	972.04	ppb	11:20:59
2	Mo 202.031†	18.3	11.2	3.1198	µg/L	3.1198	ppb	11:21:19
2	Ni 231.604†	1368.4	1483.7	52.467	µg/L	52.467	ppb	11:21:19
2	P 214.914†	1063.9	1063.3	961.25	µg/L	961.25	ppb	11:21:19

2	Pb 220.353†	213.1	127.1	6.9636	µg/L	6.9636	ppb	11:21:19
2	S 181.975 Axial†	4977.7	5071.8	11354	µg/L	11354	ppb	11:21:19
2	Sb 206.836†	58.0	8.5	0.6598	µg/L	0.6598	ppb	11:21:19
2	Se 196.026†	-58.8	-32.6	3.1609	µg/L	3.1609	ppb	11:21:19
2	SiO2†	26307.9	25835.3	4305.0	µg/L	4305.0	ppb	11:20:59
2	Si 251.611†	30918.2	31521.4	2003.8	µg/L	2003.8	ppb	11:20:59
2	Sn 189.927†	45.2	32.1	6.4457	µg/L	6.4457	ppb	11:21:19
2	Ti 334.940†	73682.0	76072.6	284.36	µg/L	284.36	ppb	11:20:59
2	Tl 190.801†	-68.1	-6.7	-1.3409	µg/L	-1.3409	ppb	11:21:19
2	U 367.007†	1977.4	947.8	4.559	µg/L	4.559	ppb	11:20:59
2	V 292.402†	2648.7	2686.6	38.967	µg/L	38.967	ppb	11:20:59
2	Zn 213.857†	13928.9	13916.1	122.98	µg/L	122.98	ppb	11:20:59
3	Sc RADIAL	3971.6	3971.6	97.6	%			11:20:26
3	Al 396.153Radial†	21178.8	21912.3	18938	µg/L	18938	ppb	11:20:06
3	Ca 317.933Radial†	53037.9	54273.1	53150	µg/L	53150	ppb	11:20:06
3	Fe 238.204 Radial†	11334.0	11605.1	53584	µg/L	53584	ppb	11:20:26
3	K 766.490 Radial†	2800.2	2758.0	2079.4	µg/L	2079.4	ppb	11:20:06
3	Mg 279.077 IEC†	1298.8	1328.7	21516	µg/L	21516	ppb	11:20:26
3	Na 589.592 Radial†	-1.5	-0.9	-7.4059	µg/L	-7.4059	ppb	11:20:26
3	Sr 421.552†	3900.0	3970.2	205.15	µg/L	205.15	ppb	11:20:26
3	Sc 361.383	390629.1	390629.1	96.730	%			11:21:24
3	Y 371.029	406974.6	406974.6	97.255	%			11:21:24
3	Ag 328.068†	-1272.9	-833.1	1.1894	µg/L	1.1894	ppb	11:21:24
3	As 188.979†	2.6	5.3	11.032	µg/L	11.032	ppb	11:21:44
3	B 249.677†	-5295.2	-5563.5	25.215	µg/L	25.215	ppb	11:21:24
3	Ba 233.527†	11526.8	11933.6	129.49	µg/L	129.49	ppb	11:21:44
3	Be 313.107†	-5350.1	757.6	1.0995	µg/L	1.0995	ppb	11:21:24
3	Cd 226.502†	305.2	480.7	0.3490	µg/L	0.3490	ppb	11:21:44
3	Co 228.616†	604.6	836.1	23.279	µg/L	23.279	ppb	11:21:44
3	Cr 267.716†	1399.1	1299.4	29.051	µg/L	29.051	ppb	11:21:44
3	Cu 324.752†	10429.9	8553.9	59.836	µg/L	59.836	ppb	11:21:24
3	Mn 257.610†	542315.6	560311.8	974.14	µg/L	974.14	ppb	11:21:24
3	Mo 202.031†	14.9	7.8	2.8445	µg/L	2.8445	ppb	11:21:44
3	Ni 231.604†	1388.2	1514.5	53.548	µg/L	53.548	ppb	11:21:44
3	P 214.914†	1056.5	1063.6	961.50	µg/L	961.50	ppb	11:21:44
3	Pb 220.353†	193.9	108.8	3.9961	µg/L	3.9961	ppb	11:21:44
3	S 181.975 Axial†	4927.4	5057.4	11322	µg/L	11322	ppb	11:21:44
3	Sb 206.836†	59.9	11.0	1.7069	µg/L	1.7069	ppb	11:21:44
3	Se 196.026†	-64.6	-39.0	-2.0077	µg/L	-2.0077	ppb	11:21:44
3	SiO2†	26089.7	25808.5	4300.6	µg/L	4300.6	ppb	11:21:24
3	Si 251.611†	30614.2	31440.9	1998.6	µg/L	1998.6	ppb	11:21:24
3	Sn 189.927†	36.7	23.7	4.6547	µg/L	4.6547	ppb	11:21:44
3	Ti 334.940†	73243.6	76176.5	284.71	µg/L	284.71	ppb	11:21:24
3	Tl 190.801†	-72.2	-11.5	-2.9428	µg/L	-2.9428	ppb	11:21:44
3	U 367.007†	1979.3	964.7	8.919	µg/L	8.919	ppb	11:21:24
3	V 292.402†	2610.8	2667.4	38.750	µg/L	38.750	ppb	11:21:24
3	Zn 213.857†	13942.0	14035.0	124.20	µg/L	124.20	ppb	11:21:24

Mean Data: 1203884250|1704451|5|

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	391353.0	96.909	%	0.4701				0.49%
Sc RADIAL	3981.2	97.9	%	0.24				0.24%
Y 371.029	407849.4	97.464	%	0.4183				0.43%
Ag 328.068†	-815.0	1.3274	µg/L	0.41349	1.3274	ppb	0.41349	31.15%
Al 396.153Radial†	22032.5	19042	µg/L	90.23	19042	ppb	90.23	0.47%
As 188.979†	9.0	13.700	µg/L	3.0201	13.700	ppb	3.0201	22.04%
B 249.677†	-5508.2	26.932	µg/L	1.5884	26.932	ppb	1.5884	5.90%
Ba 233.527†	11921.4	129.36	µg/L	0.396	129.36	ppb	0.396	0.31%
Be 313.107†	845.1	1.1661	µg/L	0.06224	1.1661	ppb	0.06224	5.34%
Ca 317.933Radial†	54675.4	53544	µg/L	344.86	53544	ppb	344.86	0.64%
Cd 226.502†	472.3	0.2411	µg/L	0.10237	0.2411	ppb	0.10237	42.45%
Co 228.616†	830.6	23.122	µg/L	0.2469	23.122	ppb	0.2469	1.07%
Cr 267.716†	1280.3	28.630	µg/L	0.3663	28.630	ppb	0.3663	1.28%
Cu 324.752†	8559.2	59.864	µg/L	0.3157	59.864	ppb	0.3157	0.53%
Fe 238.204 Radial†	11589.3	53511	µg/L	68.38	53511	ppb	68.38	0.13%
K 766.490 Radial†	2768.2	2087.1	µg/L	31.34	2087.1	ppb	31.34	1.50%
Mg 279.077 IEC†	1331.4	21560	µg/L	56.28	21560	ppb	56.28	0.26%
Mn 257.610†	559133.5	972.09	µg/L	2.027	972.09	ppb	2.027	0.21%
Mo 202.031†	2.6	2.4017	µg/L	1.01477	2.4017	ppb	1.01477	42.25%

Na 589.592 Radial†	3.5	394.62	µg/L	403.984	394.62	ppb	403.984	102.37%
Ni 231.604†	1501.7	53.096	µg/L	0.5616	53.096	ppb	0.5616	1.06%
P 214.914†	1066.0	963.82	µg/L	4.236	963.82	ppb	4.236	0.44%
Pb 220.353†	115.4	5.0606	µg/L	1.65189	5.0606	ppb	1.65189	32.64%
S 181.975 Axial†	5064.0	11337	µg/L	16.29	11337	ppb	16.29	0.14%
Sb 206.836†	7.3	0.0912	µg/L	1.96275	0.0912	ppb	1.96275	>999.9%
Se 196.026†	-32.3	3.3914	µg/L	5.51788	3.3914	ppb	5.51788	162.70%
SiO2†	25761.1	4292.7	µg/L	17.68	4292.7	ppb	17.68	0.41%
Si 251.611†	31407.8	1996.6	µg/L	8.48	1996.6	ppb	8.48	0.42%
Sn 189.927†	25.0	4.9476	µg/L	1.37524	4.9476	ppb	1.37524	27.80%
Sr 421.552†	3964.7	204.85	µg/L	0.480	204.85	ppb	0.480	0.23%
Ti 334.940†	76227.0	284.92	µg/L	0.693	284.92	ppb	0.693	0.24%
Tl 190.801†	-9.7	-2.3414	µg/L	0.87233	-2.3414	ppb	0.87233	37.26%
U 367.007†	950.7	5.346	µg/L	3.2521	5.346	ppb	3.2521	60.84%
V 292.402†	2693.0	39.039	µg/L	0.3311	39.039	ppb	0.3311	0.85%
Zn 213.857†	13919.7	123.01	µg/L	1.174	123.01	ppb	1.174	0.95%

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Sequence No.: 10 | **Autosampler Location: 7**
Sample ID: CCV | **Date Collected: 9/29/2017 11:21:53**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	3933.3	3933.3	96.7	%			11:22:46
1	Al 396.153Radial†	5473.1	5881.9	5061.6	µg/L	5061.6	ppb	11:22:26
1	Ca 317.933Radial†	5152.9	5283.3	5173.9	µg/L	5173.9	ppb	11:22:46
1	Fe 238.204 Radial†	1080.1	1114.4	5145.5	µg/L	5145.5	ppb	11:22:46
1	K 766.490 Radial†	6468.6	6579.5	4952.6	µg/L	4952.6	ppb	11:22:26
1	Mg 279.077 IEC†	316.7	326.1	5280.1	µg/L	5280.1	ppb	11:22:46
1	Na 589.592 Radial†	102.0	106.1	9661.6	µg/L	9661.6	ppb	11:22:46
1	Sr 421.552†	9168.9	9457.7	492.85	µg/L	492.85	ppb	11:22:26
1	Sc 361.383	398867.6	398867.6	98.770	%			11:23:44
1	Y 371.029	408309.2	408309.2	97.574	%			11:23:44
1	Ag 328.068†	59818.2	61046.2	498.16	µg/L	498.16	ppb	11:23:44
1	As 188.979†	659.4	670.2	494.75	µg/L	494.75	ppb	11:24:04
1	B 249.677†	13456.1	13534.5	516.77	µg/L	516.77	ppb	11:23:44
1	Ba 233.527†	44530.3	45102.0	495.01	µg/L	495.01	ppb	11:23:44
1	Be 313.107†	657307.4	671782.7	492.11	µg/L	492.11	ppb	11:23:44
1	Cd 226.502†	34971.7	35572.4	492.50	µg/L	492.50	ppb	11:23:44
1	Co 228.616†	17165.2	17590.1	499.78	µg/L	499.78	ppb	11:23:44
1	Cr 267.716†	22008.2	22135.3	494.49	µg/L	494.49	ppb	11:23:44
1	Cu 324.752†	76877.0	75605.9	497.28	µg/L	497.28	ppb	11:23:44
1	Mn 257.610†	282947.9	286133.6	496.50	µg/L	496.50	ppb	11:23:44
1	Mo 202.031†	5792.4	5856.9	489.45	µg/L	489.45	ppb	11:24:04
1	Ni 231.604†	14159.1	14414.9	504.90	µg/L	504.90	ppb	11:23:44
1	P 214.914†	2547.4	2550.5	2404.6	µg/L	2404.6	ppb	11:24:04
1	Pb 220.353†	3030.2	2976.3	489.49	µg/L	489.49	ppb	11:24:04
1	S 181.975 Axial†	485.1	454.5	1017.0	µg/L	1017.0	ppb	11:24:04
1	Sb 206.836†	1141.4	1104.7	484.00	µg/L	484.00	ppb	11:24:04
1	Se 196.026†	572.2	607.0	497.59	µg/L	497.59	ppb	11:24:04
1	SiO2†	32889.5	32135.9	5357.6	µg/L	5357.6	ppb	11:23:44
1	Si 251.611†	38975.1	39252.3	2494.5	µg/L	2494.5	ppb	11:23:44
1	Sn 189.927†	2282.6	2296.7	491.79	µg/L	491.79	ppb	11:24:04
1	Ti 334.940†	130941.5	133029.0	492.34	µg/L	492.34	ppb	11:23:44
1	Tl 190.801†	1380.6	1461.0	491.48	µg/L	491.48	ppb	11:24:04
1	U 367.007†	2846.7	1800.6	477.6	µg/L	477.6	ppb	11:23:44
1	V 292.402†	40722.3	41197.9	497.53	µg/L	497.53	ppb	11:23:44
1	Zn 213.857†	45721.9	45912.9	485.51	µg/L	485.51	ppb	11:23:44
2	Sc RADIAL	3919.1	3919.1	96.4	%			11:23:11
2	Al 396.153Radial†	5462.2	5891.1	5069.7	µg/L	5069.7	ppb	11:22:51
2	Ca 317.933Radial†	5133.1	5282.0	5172.7	µg/L	5172.7	ppb	11:23:11
2	Fe 238.204 Radial†	1071.2	1109.2	5121.6	µg/L	5121.6	ppb	11:23:11
2	K 766.490 Radial†	6443.0	6577.1	4950.8	µg/L	4950.8	ppb	11:22:51
2	Mg 279.077 IEC†	318.7	329.4	5334.0	µg/L	5334.0	ppb	11:23:11
2	Na 589.592 Radial†	98.2	102.6	9343.1	µg/L	9343.1	ppb	11:23:11
2	Sr 421.552†	9157.6	9480.4	494.03	µg/L	494.03	ppb	11:22:51
2	Sc 361.383	397588.1	397588.1	98.453	%			11:24:10
2	Y 371.029	407661.7	407661.7	97.419	%			11:24:10
2	Ag 328.068†	59738.5	61160.1	499.08	µg/L	499.08	ppb	11:24:10
2	As 188.979†	665.6	678.7	500.91	µg/L	500.91	ppb	11:24:30
2	B 249.677†	13366.7	13487.5	514.95	µg/L	514.95	ppb	11:24:10
2	Ba 233.527†	44312.5	45025.9	494.17	µg/L	494.17	ppb	11:24:10
2	Be 313.107†	654121.9	670688.7	491.30	µg/L	491.30	ppb	11:24:10
2	Cd 226.502†	34739.1	35450.2	490.81	µg/L	490.81	ppb	11:24:10
2	Co 228.616†	17040.4	17519.3	497.77	µg/L	497.77	ppb	11:24:10
2	Cr 267.716†	21896.1	22093.1	493.55	µg/L	493.55	ppb	11:24:10
2	Cu 324.752†	76698.8	75675.4	497.73	µg/L	497.73	ppb	11:24:10
2	Mn 257.610†	281432.6	285516.5	495.43	µg/L	495.43	ppb	11:24:10
2	Mo 202.031†	5745.7	5828.4	487.07	µg/L	487.07	ppb	11:24:30
2	Ni 231.604†	14120.4	14421.6	505.14	µg/L	505.14	ppb	11:24:10
2	P 214.914†	2531.1	2542.3	2396.8	µg/L	2396.8	ppb	11:24:30

2	Pb 220.353†	2980.5	2935.6	482.80 µg/L	482.80 ppb	11:24:30
2	S 181.975 Axial†	487.5	458.6	1026.0 µg/L	1026.0 ppb	11:24:30
2	Sb 206.836†	1133.4	1100.2	482.03 µg/L	482.03 ppb	11:24:30
2	Se 196.026†	564.7	601.3	492.89 µg/L	492.89 ppb	11:24:30
2	SiO2†	32788.6	32140.6	5358.4 µg/L	5358.4 ppb	11:24:10
2	Si 251.611†	38765.3	39166.2	2489.1 µg/L	2489.1 ppb	11:24:10
2	Sn 189.927†	2268.1	2289.4	490.24 µg/L	490.24 ppb	11:24:30
2	Ti 334.940†	130369.6	132874.8	491.77 µg/L	491.77 ppb	11:24:10
2	Tl 190.801†	1380.0	1464.9	492.80 µg/L	492.80 ppb	11:24:30
2	U 367.007†	2826.4	1789.2	474.6 µg/L	474.6 ppb	11:24:10
2	V 292.402†	40536.9	41142.3	496.84 µg/L	496.84 ppb	11:24:10
2	Zn 213.857†	45563.0	45900.5	485.39 µg/L	485.39 ppb	11:24:10
3	Sc RADIAL	3950.0	3950.0	97.1 %		11:23:36
3	Al 396.153Radial†	5464.6	5849.2	5033.4 µg/L	5033.4 ppb	11:23:16
3	Ca 317.933Radial†	5203.1	5312.4	5202.5 µg/L	5202.5 ppb	11:23:36
3	Fe 238.204 Radial†	1082.9	1112.6	5137.0 µg/L	5137.0 ppb	11:23:36
3	K 766.490 Radial†	6489.4	6572.5	4947.4 µg/L	4947.4 ppb	11:23:16
3	Mg 279.077 IEC†	319.1	327.2	5297.9 µg/L	5297.9 ppb	11:23:36
3	Na 589.592 Radial†	102.6	106.3	9680.5 µg/L	9680.5 ppb	11:23:36
3	Sr 421.552†	9210.2	9460.2	492.97 µg/L	492.97 ppb	11:23:16
3	Sc 361.383	399716.0	399716.0	98.980 %		11:24:36
3	Y 371.029	409525.2	409525.2	97.865 %		11:24:36
3	Ag 328.068†	59904.1	61004.4	497.82 µg/L	497.82 ppb	11:24:36
3	As 188.979†	664.6	674.0	497.50 µg/L	497.50 ppb	11:24:56
3	B 249.677†	13418.6	13467.7	514.29 µg/L	514.29 ppb	11:24:36
3	Ba 233.527†	44524.7	45000.7	493.89 µg/L	493.89 ppb	11:24:36
3	Be 313.107†	656914.4	669973.2	490.78 µg/L	490.78 ppb	11:24:36
3	Cd 226.502†	34841.9	35366.2	489.65 µg/L	489.65 ppb	11:24:36
3	Co 228.616†	17115.7	17503.2	497.31 µg/L	497.31 ppb	11:24:36
3	Cr 267.716†	21999.0	22078.7	493.23 µg/L	493.23 ppb	11:24:36
3	Cu 324.752†	76863.7	75427.3	496.10 µg/L	496.10 ppb	11:24:36
3	Mn 257.610†	282729.7	285305.2	495.07 µg/L	495.07 ppb	11:24:36
3	Mo 202.031†	5786.9	5838.9	487.95 µg/L	487.95 ppb	11:24:56
3	Ni 231.604†	14170.2	14395.6	504.23 µg/L	504.23 ppb	11:24:36
3	P 214.914†	2545.7	2543.3	2397.8 µg/L	2397.8 ppb	11:24:56
3	Pb 220.353†	3014.6	2954.0	485.83 µg/L	485.83 ppb	11:24:56
3	S 181.975 Axial†	483.8	452.2	1011.8 µg/L	1011.8 ppb	11:24:56
3	Sb 206.836†	1150.8	1111.7	487.09 µg/L	487.09 ppb	11:24:56
3	Se 196.026†	575.1	608.7	498.98 µg/L	498.98 ppb	11:24:56
3	SiO2†	32843.3	32018.6	5338.0 µg/L	5338.0 ppb	11:24:36
3	Si 251.611†	38978.2	39171.6	2489.4 µg/L	2489.4 ppb	11:24:36
3	Sn 189.927†	2281.1	2290.3	490.42 µg/L	490.42 ppb	11:24:56
3	Ti 334.940†	130923.9	132729.8	491.24 µg/L	491.24 ppb	11:24:36
3	Tl 190.801†	1369.1	1446.4	486.54 µg/L	486.54 ppb	11:24:56
3	U 367.007†	2812.5	1759.9	466.3 µg/L	466.3 ppb	11:24:36
3	V 292.402†	40624.9	41011.9	495.29 µg/L	495.29 ppb	11:24:36
3	Zn 213.857†	45675.9	45768.2	483.98 µg/L	483.98 ppb	11:24:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	398723.9	98.734	%	0.2653				0.27%
Sc RADIAL	3934.2	96.7	%	0.38				0.39%
Y 371.029	408498.7	97.619	%	0.2261				0.23%
Ag 328.068†	61070.2	498.35	µg/L	0.654	498.35	ppb	0.654	0.13%
QC value within limits for Ag 328.068 Recovery = 99.67%								
Al 396.153Radial†	5874.1	5054.9	µg/L	19.03	5054.9	ppb	19.03	0.38%
QC value within limits for Al 396.153Radial Recovery = 101.10%								
As 188.979†	674.3	497.72	µg/L	3.084	497.72	ppb	3.084	0.62%
QC value within limits for As 188.979 Recovery = 99.54%								
B 249.677†	13496.6	515.34	µg/L	1.283	515.34	ppb	1.283	0.25%
QC value within limits for B 249.677 Recovery = 103.07%								
Ba 233.527†	45042.9	494.36	µg/L	0.579	494.36	ppb	0.579	0.12%
QC value within limits for Ba 233.527 Recovery = 98.87%								
Be 313.107†	670814.9	491.40	µg/L	0.669	491.40	ppb	0.669	0.14%
QC value within limits for Be 313.107 Recovery = 98.28%								
Ca 317.933Radial†	5292.6	5183.0	µg/L	16.84	5183.0	ppb	16.84	0.32%
QC value within limits for Ca 317.933Radial Recovery = 103.66%								
Cd 226.502†	35462.9	490.99	µg/L	1.437	490.99	ppb	1.437	0.29%
QC value within limits for Cd 226.502 Recovery = 98.20%								

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Co 228.616†            17537.5      498.29 µg/L         1.315      498.29 ppb          1.315   0.26%
   QC value within limits for Co 228.616  Recovery = 99.66%
Cr 267.716†            22102.4      493.76 µg/L         0.654      493.76 ppb          0.654   0.13%
   QC value within limits for Cr 267.716  Recovery = 98.75%
Cu 324.752†            75569.5      497.04 µg/L         0.844      497.04 ppb          0.844   0.17%
   QC value within limits for Cu 324.752  Recovery = 99.41%
Fe 238.204 Radial†      1112.1      5134.7 µg/L         12.10      5134.7 ppb          12.10   0.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.69%
K 766.490 Radial†       6576.4      4950.3 µg/L          2.66      4950.3 ppb           2.66   0.05%
   QC value within limits for K 766.490 Radial  Recovery = 99.01%
Mg 279.077 IEC†          327.6      5304.0 µg/L         27.47      5304.0 ppb          27.47   0.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.08%
Mn 257.610†           285651.8      495.67 µg/L         0.748      495.67 ppb          0.748   0.15%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†             5841.4      488.15 µg/L         1.206      488.15 ppb          1.206   0.25%
   QC value within limits for Mo 202.031  Recovery = 97.63%
Na 589.592 Radial†       105.0      9561.8 µg/L        189.57      9561.8 ppb         189.57   1.98%
   QC value within limits for Na 589.592 Radial  Recovery = 95.62%
Ni 231.604†            14410.7      504.76 µg/L         0.473      504.76 ppb          0.473   0.09%
   QC value within limits for Ni 231.604  Recovery = 100.95%
P 214.914†              2545.4      2399.7 µg/L          4.23      2399.7 ppb           4.23   0.18%
   QC value within limits for P 214.914  Recovery = 95.99%
Pb 220.353†             2955.3      486.04 µg/L         3.352      486.04 ppb          3.352   0.69%
   QC value within limits for Pb 220.353  Recovery = 97.21%
S 181.975 Axial†         455.1      1018.3 µg/L          7.18      1018.3 ppb           7.18   0.70%
   QC value within limits for S 181.975 Axial  Recovery = 101.83%
Sb 206.836†             1105.5      484.37 µg/L         2.552      484.37 ppb          2.552   0.53%
   QC value within limits for Sb 206.836  Recovery = 96.87%
Se 196.026†              605.7      496.49 µg/L         3.193      496.49 ppb          3.193   0.64%
   QC value within limits for Se 196.026  Recovery = 99.30%
SiO2†                  32098.4      5351.3 µg/L         11.53      5351.3 ppb          11.53   0.22%
   QC value within limits for SiO2  Recovery = 100.07%
Si 251.611†            39196.7      2491.0 µg/L          3.05      2491.0 ppb           3.05   0.12%
   QC value within limits for Si 251.611  Recovery = 99.64%
Sn 189.927†             2292.1      490.82 µg/L         0.849      490.82 ppb          0.849   0.17%
   QC value within limits for Sn 189.927  Recovery = 98.16%
Sr 421.552†             9466.1      493.29 µg/L         0.650      493.29 ppb          0.650   0.13%
   QC value within limits for Sr 421.552  Recovery = 98.66%
Ti 334.940†           132877.9      491.78 µg/L         0.550      491.78 ppb          0.550   0.11%
   QC value within limits for Ti 334.940  Recovery = 98.36%
Tl 190.801†             1457.4      490.27 µg/L         3.297      490.27 ppb          3.297   0.67%
   QC value within limits for Tl 190.801  Recovery = 98.05%
U 367.007†              1783.2       472.8 µg/L          5.85       472.8 ppb           5.85   1.24%
   QC value within limits for U 367.007  Recovery = 94.57%
V 292.402†             41117.4      496.55 µg/L         1.148      496.55 ppb          1.148   0.23%
   QC value within limits for V 292.402  Recovery = 99.31%
Zn 213.857†            45860.6      484.96 µg/L         0.853      484.96 ppb          0.853   0.18%
   QC value within limits for Zn 213.857  Recovery = 96.99%
All analyte(s) passed QC.
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Sequence No.: 11 | **Autosampler Location: 101**
Sample ID: PQL | **Date Collected: 9/29/2017 11:25:05**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4018.0	4018.0	98.8	%			11:25:37
1	Al 396.153Radial†	33.3	255.7	220.61	µg/L	220.61	ppb	11:25:37
1	Ca 317.933Radial†	271.8	229.6	224.89	µg/L	224.89	ppb	11:25:57
1	Fe 238.204 Radial†	27.5	25.3	116.84	µg/L	116.84	ppb	11:25:57
1	K 766.490 Radial†	360.9	255.5	192.28	µg/L	192.28	ppb	11:25:37
1	Mg 279.077 IEC†	24.3	23.2	376.29	µg/L	376.29	ppb	11:25:57
1	Na 589.592 Radial†	5.1	5.7	521.91	µg/L	521.91	ppb	11:25:57
1	Sr 421.552†	115.5	92.9	4.8377	µg/L	4.8377	ppb	11:25:37
1	Sc 361.383	399488.0	399488.0	98.923	%			11:26:53
1	Y 371.029	414447.6	414447.6	99.041	%			11:26:53
1	Ag 328.068†	143.1	627.5	5.1036	µg/L	5.1036	ppb	11:26:53
1	As 188.979†	35.2	38.2	28.017	µg/L	28.017	ppb	11:27:14
1	B 249.677†	1429.3	1355.6	50.217	µg/L	50.217	ppb	11:26:53
1	Ba 233.527†	437.8	459.6	5.0426	µg/L	5.0426	ppb	11:27:14
1	Be 313.107†	534.9	6829.3	5.0180	µg/L	5.0180	ppb	11:26:53
1	Cd 226.502†	235.9	403.7	5.5826	µg/L	5.5826	ppb	11:27:14
1	Co 228.616†	-5.5	205.6	5.8469	µg/L	5.8469	ppb	11:27:14
1	Cr 267.716†	389.7	247.0	5.4833	µg/L	5.4833	ppb	11:27:14
1	Cu 324.752†	3828.1	1641.2	10.827	µg/L	10.827	ppb	11:26:53
1	Mn 257.610†	6343.4	6074.2	10.531	µg/L	10.531	ppb	11:26:53
1	Mo 202.031†	119.8	113.5	9.4816	µg/L	9.4816	ppb	11:27:14
1	Ni 231.604†	79.0	159.3	5.5808	µg/L	5.5808	ppb	11:27:14
1	P 214.914†	169.9	143.2	135.48	µg/L	135.48	ppb	11:27:14
1	Pb 220.353†	140.0	49.9	8.1333	µg/L	8.1333	ppb	11:27:14
1	S 181.975 Axial†	88.4	52.8	118.10	µg/L	118.10	ppb	11:27:14
1	Sb 206.836†	75.0	24.8	10.972	µg/L	10.972	ppb	11:27:14
1	Se 196.026†	3.1	30.8	25.193	µg/L	25.193	ppb	11:27:14
1	SiO2†	2497.2	1361.2	226.79	µg/L	226.79	ppb	11:26:53
1	Si 251.611†	1818.4	1629.9	103.83	µg/L	103.83	ppb	11:27:14
1	Sn 189.927†	57.7	43.9	9.3900	µg/L	9.3900	ppb	11:27:14
1	Ti 334.940†	977.7	1445.0	5.3296	µg/L	5.3296	ppb	11:26:53
1	Tl 190.801†	6.0	69.2	23.409	µg/L	23.409	ppb	11:27:14
1	U 367.007†	1292.4	224.9	62.20	µg/L	62.20	ppb	11:26:53
1	V 292.402†	457.5	430.9	5.2847	µg/L	5.2847	ppb	11:26:53
1	Zn 213.857†	1294.0	929.7	9.8297	µg/L	9.8297	ppb	11:27:14
2	Sc RADIAL	4041.8	4041.8	99.4	%			11:26:02
2	Al 396.153Radial†	18.3	240.5	207.36	µg/L	207.36	ppb	11:26:02
2	Ca 317.933Radial†	271.2	227.4	222.73	µg/L	222.73	ppb	11:26:22
2	Fe 238.204 Radial†	25.9	23.5	108.28	µg/L	108.28	ppb	11:26:22
2	K 766.490 Radial†	368.8	261.3	196.63	µg/L	196.63	ppb	11:26:02
2	Mg 279.077 IEC†	20.7	19.4	314.31	µg/L	314.31	ppb	11:26:22
2	Na 589.592 Radial†	4.9	5.6	506.88	µg/L	506.88	ppb	11:26:22
2	Sr 421.552†	117.2	94.0	4.8923	µg/L	4.8923	ppb	11:26:02
2	Sc 361.383	401610.3	401610.3	99.449	%			11:27:19
2	Y 371.029	416039.1	416039.1	99.421	%			11:27:19
2	Ag 328.068†	172.2	656.1	5.3389	µg/L	5.3389	ppb	11:27:19
2	As 188.979†	36.0	38.8	28.461	µg/L	28.461	ppb	11:27:39
2	B 249.677†	1461.7	1380.6	51.099	µg/L	51.099	ppb	11:27:19
2	Ba 233.527†	430.0	449.5	4.9313	µg/L	4.9313	ppb	11:27:39
2	Be 313.107†	544.6	6836.3	5.0208	µg/L	5.0208	ppb	11:27:19
2	Cd 226.502†	221.3	387.7	5.3620	µg/L	5.3620	ppb	11:27:39
2	Co 228.616†	-18.7	192.3	5.4730	µg/L	5.4730	ppb	11:27:39
2	Cr 267.716†	357.1	212.1	4.7095	µg/L	4.7095	ppb	11:27:39
2	Cu 324.752†	3886.5	1679.5	11.073	µg/L	11.073	ppb	11:27:19
2	Mn 257.610†	6387.9	6085.0	10.552	µg/L	10.552	ppb	11:27:19
2	Mo 202.031†	130.0	123.1	10.285	µg/L	10.285	ppb	11:27:39
2	Ni 231.604†	76.6	156.4	5.4801	µg/L	5.4801	ppb	11:27:39
2	P 214.914†	159.5	131.8	124.74	µg/L	124.74	ppb	11:27:39

2	Pb 220.353†	142.9	52.0	8.4882 µg/L	8.4882 ppb	11:27:39
2	S 181.975 Axial†	97.0	61.0	136.47 µg/L	136.47 ppb	11:27:39
2	Sb 206.836†	87.8	37.3	16.512 µg/L	16.512 ppb	11:27:39
2	Se 196.026†	0.4	28.2	23.019 µg/L	23.019 ppb	11:27:39
2	SiO2†	2478.7	1329.3	221.45 µg/L	221.45 ppb	11:27:19
2	Si 251.611†	1810.8	1612.6	102.71 µg/L	102.71 ppb	11:27:39
2	Sn 189.927†	63.3	49.3	10.542 µg/L	10.542 ppb	11:27:39
2	Ti 334.940†	953.7	1415.7	5.2254 µg/L	5.2254 ppb	11:27:19
2	Tl 190.801†	17.3	80.6	27.242 µg/L	27.242 ppb	11:27:39
2	U 367.007†	1268.5	193.9	53.60 µg/L	53.60 ppb	11:27:19
2	V 292.402†	455.0	425.9	5.2259 µg/L	5.2259 ppb	11:27:19
2	Zn 213.857†	1308.4	937.2	9.9131 µg/L	9.9131 ppb	11:27:39
3	Sc RADIAL	4057.7	4057.7	99.8 %		11:26:27
3	Al 396.153Radial†	17.2	239.3	206.37 µg/L	206.37 ppb	11:26:27
3	Ca 317.933Radial†	273.0	228.2	223.49 µg/L	223.49 ppb	11:26:47
3	Fe 238.204 Radial†	27.2	24.7	114.22 µg/L	114.22 ppb	11:26:47
3	K 766.490 Radial†	299.0	189.8	142.87 µg/L	142.87 ppb	11:26:27
3	Mg 279.077 IEC†	24.3	23.0	371.63 µg/L	371.63 ppb	11:26:47
3	Na 589.592 Radial†	0.8	1.4	130.08 µg/L	130.08 ppb	11:26:47
3	Sr 421.552†	110.7	86.9	4.5248 µg/L	4.5248 ppb	11:26:27
3	Sc 361.383	399324.7	399324.7	98.883 %		11:27:44
3	Y 371.029	413976.7	413976.7	98.928 %		11:27:44
3	Ag 328.068†	71.6	555.4	4.5251 µg/L	4.5251 ppb	11:27:44
3	As 188.979†	33.4	36.4	26.675 µg/L	26.675 ppb	11:28:04
3	B 249.677†	1426.7	1353.6	50.134 µg/L	50.134 ppb	11:27:44
3	Ba 233.527†	442.9	465.0	5.1015 µg/L	5.1015 ppb	11:28:04
3	Be 313.107†	374.2	6667.0	4.8943 µg/L	4.8943 ppb	11:27:44
3	Cd 226.502†	211.4	378.9	5.2397 µg/L	5.2397 ppb	11:28:04
3	Co 228.616†	-13.5	197.4	5.6181 µg/L	5.6181 ppb	11:28:04
3	Cr 267.716†	359.6	216.7	4.8217 µg/L	4.8217 ppb	11:28:04
3	Cu 324.752†	3871.2	1686.3	11.111 µg/L	11.111 ppb	11:27:44
3	Mn 257.610†	6288.3	6021.0	10.439 µg/L	10.439 ppb	11:27:44
3	Mo 202.031†	128.4	122.2	10.215 µg/L	10.215 ppb	11:28:04
3	Ni 231.604†	74.0	154.2	5.4018 µg/L	5.4018 ppb	11:28:04
3	P 214.914†	170.2	143.6	135.88 µg/L	135.88 ppb	11:28:04
3	Pb 220.353†	146.7	56.7	9.2681 µg/L	9.2681 ppb	11:28:04
3	S 181.975 Axial†	92.5	56.9	127.46 µg/L	127.46 ppb	11:28:04
3	Sb 206.836†	63.5	13.3	5.9086 µg/L	5.9086 ppb	11:28:04
3	Se 196.026†	6.7	34.5	28.191 µg/L	28.191 ppb	11:28:04
3	SiO2†	2512.1	1377.3	229.45 µg/L	229.45 ppb	11:27:44
3	Si 251.611†	1830.0	1642.4	104.61 µg/L	104.61 ppb	11:28:04
3	Sn 189.927†	61.0	47.3	10.116 µg/L	10.116 ppb	11:28:04
3	Ti 334.940†	944.1	1411.4	5.2147 µg/L	5.2147 ppb	11:27:44
3	Tl 190.801†	-1.9	61.2	20.701 µg/L	20.701 ppb	11:28:04
3	U 367.007†	1222.5	154.7	42.63 µg/L	42.63 ppb	11:27:44
3	V 292.402†	455.3	428.8	5.2544 µg/L	5.2544 ppb	11:27:44
3	Zn 213.857†	1307.2	943.6	9.9790 µg/L	9.9790 ppb	11:28:04

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	400141.0	99.085	%	0.3157				0.32%
Sc RADIAL	4039.2	99.3	%	0.49				0.50%
Y 371.029	414821.2	99.130	%	0.2583				0.26%
Ag 328.068†	613.0	4.9892	µg/L	0.41879	4.9892	ppb	0.41879	8.39%
QC value within limits for Ag 328.068 Recovery = 99.78%								
Al 396.153Radial†	245.2	211.44	µg/L	7.949	211.44	ppb	7.949	3.76%
QC value within limits for Al 396.153Radial Recovery = 105.72%								
As 188.979†	37.8	27.718	µg/L	0.9297	27.718	ppb	0.9297	3.35%
QC value within limits for As 188.979 Recovery = 92.39%								
B 249.677†	1363.3	50.483	µg/L	0.5347	50.483	ppb	0.5347	1.06%
QC value within limits for B 249.677 Recovery = 100.97%								
Ba 233.527†	458.0	5.0252	µg/L	0.08645	5.0252	ppb	0.08645	1.72%
QC value within limits for Ba 233.527 Recovery = 100.50%								
Be 313.107†	6777.5	4.9777	µg/L	0.07221	4.9777	ppb	0.07221	1.45%
QC value within limits for Be 313.107 Recovery = 99.55%								
Ca 317.933Radial†	228.4	223.70	µg/L	1.091	223.70	ppb	1.091	0.49%
QC value within limits for Ca 317.933Radial Recovery = 111.85%								
Cd 226.502†	390.1	5.3948	µg/L	0.17378	5.3948	ppb	0.17378	3.22%
QC value within limits for Cd 226.502 Recovery = 107.90%								

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Co 228.616†              198.4      5.6460 µg/L       0.18847      5.6460 ppb        0.18847   3.34%
   QC value within limits for Co 228.616  Recovery = 112.92%
Cr 267.716†              225.3      5.0048 µg/L       0.41818      5.0048 ppb        0.41818   8.36%
   QC value within limits for Cr 267.716  Recovery = 100.10%
Cu 324.752†             1669.0      11.004 µg/L        0.1540      11.004 ppb         0.1540   1.40%
   QC value within limits for Cu 324.752  Recovery = 110.04%
Fe 238.204 Radial†        24.5      113.12 µg/L         4.385      113.12 ppb          4.385   3.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 113.12%
K 766.490 Radial†        235.5      177.26 µg/L        29.859      177.26 ppb         29.859  16.84%
   QC value within limits for K 766.490 Radial  Recovery = 118.17%
Mg 279.077 IEC†           21.9      354.08 µg/L        34.517      354.08 ppb         34.517   9.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 118.03%
Mn 257.610†             6060.1      10.507 µg/L        0.0600      10.507 ppb         0.0600   0.57%
   QC value within limits for Mn 257.610  Recovery = 105.07%
Mo 202.031†              119.6      9.9938 µg/L       0.44490      9.9938 ppb        0.44490   4.45%
   QC value within limits for Mo 202.031  Recovery = 99.94%
Na 589.592 Radial†         4.2      386.29 µg/L       222.012      386.29 ppb        222.012  57.47%
   QC value within limits for Na 589.592 Radial  Recovery = 128.76%
Ni 231.604†              156.7      5.4875 µg/L       0.08974      5.4875 ppb        0.08974   1.64%
   QC value within limits for Ni 231.604  Recovery = 109.75%
P 214.914†               139.5      132.03 µg/L         6.322      132.03 ppb          6.322   4.79%
   QC value within limits for P 214.914  Recovery = 88.02%
Pb 220.353†               52.9      8.6299 µg/L       0.58052      8.6299 ppb        0.58052   6.73%
   QC value within limits for Pb 220.353  Recovery = 86.30%
S 181.975 Axial†          56.9      127.34 µg/L         9.185      127.34 ppb          9.185   7.21%
   QC value within limits for S 181.975 Axial  Recovery = 127.34%
Sb 206.836†               25.1      11.131 µg/L        5.3033      11.131 ppb         5.3033  47.65%
   QC value within limits for Sb 206.836  Recovery = 111.31%
Se 196.026†               31.2      25.467 µg/L        2.5968      25.467 ppb         2.5968  10.20%
   QC value within limits for Se 196.026  Recovery = 84.89%
SiO2†                    1355.9      225.90 µg/L         4.074      225.90 ppb          4.074   1.80%
   QC value within limits for SiO2  Recovery = 106.06%
Si 251.611†              1628.3      103.72 µg/L         0.957      103.72 ppb          0.957   0.92%
   QC value within limits for Si 251.611  Recovery = 103.72%
Sn 189.927†               46.9      10.016 µg/L        0.5824      10.016 ppb         0.5824   5.81%
   QC value within limits for Sn 189.927  Recovery = 100.16%
Sr 421.552†               91.3      4.7516 µg/L       0.19830      4.7516 ppb        0.19830   4.17%
   QC value within limits for Sr 421.552  Recovery = 95.03%
Ti 334.940†              1424.0      5.2566 µg/L       0.06349      5.2566 ppb        0.06349   1.21%
   QC value within limits for Ti 334.940  Recovery = 105.13%
Tl 190.801†               70.3      23.784 µg/L        3.2867      23.784 ppb         3.2867  13.82%
   QC value within limits for Tl 190.801  Recovery = 118.92%
U 367.007†               191.2       52.81 µg/L         9.808       52.81 ppb          9.808  18.57%
   QC value within limits for U 367.007  Recovery = 105.62%
V 292.402†               428.5      5.2550 µg/L       0.02939      5.2550 ppb        0.02939   0.56%
   QC value within limits for V 292.402  Recovery = 105.10%
Zn 213.857†              936.8      9.9073 µg/L       0.07482      9.9073 ppb        0.07482   0.76%
   QC value within limits for Zn 213.857  Recovery = 99.07%
All analyte(s) passed QC.
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Sequence No.: 12 | **Autosampler Location: 8**
Sample ID: CCB | **Date Collected: 9/29/2017 11:28:13**
Analyst: | **Data Type: Original**
Initial Sample Wt: | **Initial Sample Vol:**
Dilution: | **Sample Prep Vol:**
Wash Time: 5 | **Auto Dilution Factor: 1**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	4002.3	4002.3	98.4	%			11:28:44
1	Al 396.153Radial†	-206.1	12.6	10.872	µg/L	10.872	ppb	11:28:44
1	Ca 317.933Radial†	72.4	28.1	27.547	µg/L	27.547	ppb	11:29:04
1	Fe 238.204 Radial†	3.0	0.5	2.0858	µg/L	2.0858	ppb	11:29:04
1	K 766.490 Radial†	-35.8	-146.2	-110.03	µg/L	-110.03	ppb	11:28:44
1	Mg 279.077 IEC†	4.4	3.1	49.770	µg/L	49.770	ppb	11:29:04
1	Na 589.592 Radial†	4.6	5.3	482.01	µg/L	482.01	ppb	11:29:04
1	Sr 421.552†	21.1	-2.5	-0.1308	µg/L	-0.1308	ppb	11:28:44
1	Sc 361.383	401421.2	401421.2	99.402	%			11:30:01
1	Y 371.029	416545.5	416545.5	99.542	%			11:30:01
1	Ag 328.068†	-382.1	98.5	0.7969	µg/L	0.7969	ppb	11:30:01
1	As 188.979†	-7.3	-4.7	-3.4368	µg/L	-3.4368	ppb	11:30:21
1	B 249.677†	108.1	19.5	0.7244	µg/L	0.7244	ppb	11:30:01
1	Ba 233.527†	-30.7	-13.8	-0.1516	µg/L	-0.1516	ppb	11:30:21
1	Be 313.107†	-6107.4	144.5	0.1088	µg/L	0.1088	ppb	11:30:01
1	Cd 226.502†	-134.3	30.1	0.4171	µg/L	0.4171	ppb	11:30:21
1	Co 228.616†	-201.1	8.8	0.2515	µg/L	0.2515	ppb	11:30:21
1	Cr 267.716†	149.9	3.8	0.0777	µg/L	0.0777	ppb	11:30:21
1	Cu 324.752†	2361.4	147.0	0.9734	µg/L	0.9734	ppb	11:30:01
1	Mn 257.610†	420.0	84.2	0.1445	µg/L	0.1445	ppb	11:30:01
1	Mo 202.031†	8.4	0.9	0.0724	µg/L	0.0724	ppb	11:30:21
1	Ni 231.604†	-49.9	29.2	1.0220	µg/L	1.0220	ppb	11:30:21
1	P 214.914†	23.0	-5.5	-5.1934	µg/L	-5.1934	ppb	11:30:21
1	Pb 220.353†	75.5	-15.7	-2.5980	µg/L	-2.5980	ppb	11:30:21
1	S 181.975 Axial†	52.1	15.8	35.394	µg/L	35.394	ppb	11:30:21
1	Sb 206.836†	61.2	10.6	4.6975	µg/L	4.6975	ppb	11:30:21
1	Se 196.026†	-30.8	-3.3	-2.6855	µg/L	-2.6855	ppb	11:30:21
1	SiO2†	1197.9	41.9	6.9842	µg/L	6.9842	ppb	11:30:01
1	Si 251.611†	321.3	114.9	7.3335	µg/L	7.3335	ppb	11:30:21
1	Sn 189.927†	12.7	-1.6	-0.3331	µg/L	-0.3331	ppb	11:30:21
1	Ti 334.940†	-480.6	-26.9	-0.1037	µg/L	-0.1037	ppb	11:30:01
1	Tl 190.801†	-70.4	-7.6	-2.5807	µg/L	-2.5807	ppb	11:30:21
1	U 367.007†	1116.4	41.6	11.59	µg/L	11.59	ppb	11:30:01
1	V 292.402†	33.5	2.1	0.0323	µg/L	0.0323	ppb	11:30:01
1	Zn 213.857†	550.3	175.2	1.8617	µg/L	1.8617	ppb	11:30:21
2	Sc RADIAL	4016.1	4016.1	98.7	%			11:29:09
2	Al 396.153Radial†	-207.7	11.7	10.109	µg/L	10.109	ppb	11:29:09
2	Ca 317.933Radial†	58.2	13.5	13.244	µg/L	13.244	ppb	11:29:29
2	Fe 238.204 Radial†	4.4	1.9	8.8229	µg/L	8.8229	ppb	11:29:29
2	K 766.490 Radial†	267.4	160.9	121.10	µg/L	121.10	ppb	11:29:09
2	Mg 279.077 IEC†	2.7	1.3	20.852	µg/L	20.852	ppb	11:29:29
2	Na 589.592 Radial†	-4.3	-3.8	-341.77	µg/L	-341.77	ppb	11:29:29
2	Sr 421.552†	16.1	-7.7	-0.4017	µg/L	-0.4017	ppb	11:29:09
2	Sc 361.383	404050.3	404050.3	100.05	%			11:30:26
2	Y 371.029	419164.8	419164.8	100.17	%			11:30:26
2	Ag 328.068†	-406.7	76.5	0.6186	µg/L	0.6186	ppb	11:30:26
2	As 188.979†	3.3	5.9	4.3069	µg/L	4.3069	ppb	11:30:46
2	B 249.677†	153.0	63.7	2.3735	µg/L	2.3735	ppb	11:30:26
2	Ba 233.527†	-1.2	15.9	0.1747	µg/L	0.1747	ppb	11:30:46
2	Be 313.107†	-6120.4	171.5	0.1284	µg/L	0.1284	ppb	11:30:26
2	Cd 226.502†	-149.5	15.8	0.2183	µg/L	0.2183	ppb	11:30:46
2	Co 228.616†	-190.5	20.7	0.5890	µg/L	0.5890	ppb	11:30:46
2	Cr 267.716†	139.1	-7.9	-0.1854	µg/L	-0.1854	ppb	11:30:46
2	Cu 324.752†	2205.5	-24.3	-0.1518	µg/L	-0.1518	ppb	11:30:26
2	Mn 257.610†	383.7	45.2	0.0781	µg/L	0.0781	ppb	11:30:26
2	Mo 202.031†	10.1	2.5	0.2077	µg/L	0.2077	ppb	11:30:46
2	Ni 231.604†	-63.7	15.8	0.5522	µg/L	0.5522	ppb	11:30:46
2	P 214.914†	21.0	-7.6	-7.1957	µg/L	-7.1957	ppb	11:30:46

2	Pb 220.353†	101.7	9.9	1.6277 µg/L	1.6277 ppb		11:30:46
2	S 181.975 Axial†	48.9	12.3	27.606 µg/L	27.606 ppb		11:30:46
2	Sb 206.836†	51.6	0.6	0.2612 µg/L	0.2612 ppb		11:30:46
2	Se 196.026†	-29.9	-2.2	-1.7730 µg/L	-1.7730 ppb		11:30:46
2	SiO2†	1258.6	94.7	15.776 µg/L	15.776 ppb		11:30:26
2	Si 251.611†	327.7	119.3	7.6077 µg/L	7.6077 ppb		11:30:46
2	Sn 189.927†	4.5	-9.8	-2.0905 µg/L	-2.0905 ppb		11:30:46
2	Ti 334.940†	-355.9	100.9	0.3686 µg/L	0.3686 ppb		11:30:26
2	Tl 190.801†	-68.6	-5.3	-1.8031 µg/L	-1.8031 ppb		11:30:46
2	U 367.007†	1124.8	42.7	11.86 µg/L	11.86 ppb		11:30:26
2	V 292.402†	55.7	24.0	0.2959 µg/L	0.2959 ppb		11:30:26
2	Zn 213.857†	530.2	151.6	1.6077 µg/L	1.6077 ppb		11:30:46
3	Sc RADIAL	4036.6	4036.6	99.2 %			11:29:34
3	Al 396.153Radial†	-221.5	-1.2	-1.0277 µg/L	-1.0277 ppb		11:29:34
3	Ca 317.933Radial†	65.4	20.4	20.023 µg/L	20.023 ppb		11:29:54
3	Fe 238.204 Radial†	3.8	1.3	5.9146 µg/L	5.9146 ppb		11:29:54
3	K 766.490 Radial†	184.7	76.3	57.394 µg/L	57.394 ppb		11:29:34
3	Mg 279.077 IEC†	6.8	5.5	88.748 µg/L	88.748 ppb		11:29:54
3	Na 589.592 Radial†	0.1	0.7	64.687 µg/L	64.687 ppb		11:29:54
3	Sr 421.552†	26.0	2.2	0.1132 µg/L	0.1132 ppb		11:29:34
3	Sc 361.383	400300.0	400300.0	99.125 %			11:30:52
3	Y 371.029	415479.9	415479.9	99.288 %			11:30:52
3	Ag 328.068†	-432.9	46.2	0.3802 µg/L	0.3802 ppb		11:30:52
3	As 188.979†	-5.7	-3.2	-2.3141 µg/L	-2.3141 ppb		11:31:12
3	B 249.677†	151.3	63.4	2.3496 µg/L	2.3496 ppb		11:30:52
3	Ba 233.527†	-21.3	-4.4	-0.0486 µg/L	-0.0486 ppb		11:31:12
3	Be 313.107†	-6113.5	121.2	0.0876 µg/L	0.0876 ppb		11:30:52
3	Cd 226.502†	-148.4	15.5	0.2140 µg/L	0.2140 ppb		11:31:12
3	Co 228.616†	-197.2	12.2	0.3463 µg/L	0.3463 ppb		11:31:12
3	Cr 267.716†	146.2	0.5	0.0183 µg/L	0.0183 ppb		11:31:12
3	Cu 324.752†	2212.3	3.3	0.0185 µg/L	0.0185 ppb		11:30:52
3	Mn 257.610†	429.7	95.2	0.1624 µg/L	0.1624 ppb		11:30:52
3	Mo 202.031†	6.1	-1.4	-0.1207 µg/L	-0.1207 ppb		11:31:12
3	Ni 231.604†	-58.0	20.9	0.7314 µg/L	0.7314 ppb		11:31:12
3	P 214.914†	13.0	-15.5	-14.704 µg/L	-14.704 ppb		11:31:12
3	Pb 220.353†	88.0	-2.9	-0.4802 µg/L	-0.4802 ppb		11:31:12
3	S 181.975 Axial†	53.2	17.1	38.292 µg/L	38.292 ppb		11:31:12
3	Sb 206.836†	56.6	6.1	2.6899 µg/L	2.6899 ppb		11:31:12
3	Se 196.026†	-30.1	-2.6	-2.1040 µg/L	-2.1040 ppb		11:31:12
3	SiO2†	1237.4	85.2	14.193 µg/L	14.193 ppb		11:30:52
3	Si 251.611†	329.6	124.2	7.9305 µg/L	7.9305 ppb		11:31:12
3	Sn 189.927†	13.7	-0.5	-0.1160 µg/L	-0.1160 ppb		11:31:12
3	Ti 334.940†	-477.7	-25.3	-0.0900 µg/L	-0.0900 ppb		11:30:52
3	Tl 190.801†	-51.6	11.2	3.7798 µg/L	3.7798 ppb		11:31:12
3	U 367.007†	1052.6	-19.7	-5.527 µg/L	-5.527 ppb		11:30:52
3	V 292.402†	85.1	54.2	0.6431 µg/L	0.6431 ppb		11:30:52
3	Zn 213.857†	544.7	171.1	1.8174 µg/L	1.8174 ppb		11:31:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	401923.9	99.527	%	0.4767				0.48%
Sc RADIAL	4018.3	98.8	%	0.42				0.43%
Y 371.029	417063.4	99.666	%	0.4532				0.45%
Ag 328.068†	73.7	0.5986	µg/L	0.20907	0.5986	ppb	0.20907	34.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.7	6.6509	µg/L	6.66078	6.6509	ppb	6.66078	100.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-0.4813	µg/L	4.18459	-0.4813	ppb	4.18459	869.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	48.9	1.8158	µg/L	0.94530	1.8158	ppb	0.94530	52.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.8	-0.0085	µg/L	0.16681	-0.0085	ppb	0.16681	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.7	0.1083	µg/L	0.02042	0.1083	ppb	0.02042	18.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	20.7	20.271	µg/L	7.1548	20.271	ppb	7.1548	35.29%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	20.5	0.2832	µg/L	0.11601	0.2832	ppb	0.11601	40.97%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                13.9      0.3956 µg/L       0.17406      0.3956 ppb        0.17406  44.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -1.2     -0.0298 µg/L       0.13795     -0.0298 ppb        0.13795 463.11%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                42.0      0.2800 µg/L       0.60650      0.2800 ppb        0.60650 216.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      5.6078 µg/L       3.37901      5.6078 ppb        3.37901  60.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          30.3      22.822 µg/L      119.3777      22.822 ppb       119.3777 523.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.3      53.123 µg/L       34.0718      53.123 ppb        34.0718  64.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                74.9      0.1283 µg/L       0.04441      0.1283 ppb        0.04441  34.60%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.6      0.0531 µg/L       0.16505      0.0531 ppb        0.16505 310.56%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          0.8      68.311 µg/L      411.9036      68.311 ppb       411.9036 602.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                21.9      0.7685 µg/L       0.23707      0.7685 ppb        0.23707  30.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.5     -9.0311 µg/L       5.01398     -9.0311 ppb        5.01398  55.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.9     -0.4835 µg/L       2.11284     -0.4835 ppb        2.11284 436.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           15.1      33.764 µg/L        5.5260      33.764 ppb         5.5260  16.37%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.8      2.5495 µg/L       2.22147      2.5495 ppb        2.22147  87.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.7     -2.1875 µg/L       0.46199     -2.1875 ppb        0.46199  21.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      73.9      12.318 µg/L        4.6863      12.318 ppb         4.6863  38.05%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               119.5      7.6239 µg/L       0.29879      7.6239 ppb        0.29879   3.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.0     -0.8465 µg/L       1.08278     -0.8465 ppb        1.08278 127.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.7     -0.1398 µg/L       0.25758     -0.1398 ppb        0.25758 184.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                16.2      0.0583 µg/L       0.26881      0.0583 ppb        0.26881 461.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.2013 µg/L       3.46963     -0.2013 ppb        3.46963 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 367.007†                 21.5       5.976 µg/L        9.9626       5.976 ppb         9.9626 166.71%
   QC value within limits for U 367.007  Recovery = Not calculated
V 292.402†                 26.8      0.3238 µg/L       0.30639      0.3238 ppb        0.30639  94.63%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               165.9      1.7623 µg/L       0.13567      1.7623 ppb        0.13567   7.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #11 Daily Performance

Sample ID: Sample
Sample Date/Time: Tuesday, October 10, 2017 10:18:46
Sample Description:
Method File: C:\NexIONData\Method\Daily 2.mth
Dataset File: C:\NexIONData\DataSet\170223\Sample.558
Mass Calibration File: C:\NexIONData\MassCal\default 2.tun
Dual Detector Mode: Pulse
Acquisition Date/Time&Time Zone: Tuesday, October 10, 2017 10:18:46 Eastern Daylight Time
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	46514.4	46514.408	436.941	0.9
	Mg	24.0	187307.8	187307.838	1788.987	1.0
	Co	58.9	129439.9	129439.886	777.597	0.6
	Rh	102.9	173494.6	173494.647	1829.141	1.1
	In	114.9	323295.0	323295.009	1375.274	0.4
	Pb	208.0	158145.2	158145.206	1682.760	1.1
>	Ba	137.9	273970.5	273970.540	1973.104	0.7
	Ba++	69.0	5560.0	0.020	0.000	1.2
>	Ce	139.9	340282.4	340282.357	2222.981	0.7
	CeO	155.9	4000.3	0.012	0.000	0.8
	Bkgd	220.0	1.2	1.150	0.742	64.5

Current Conditions

C Val	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
16.00	Plasma Gas Flow
-11.00	Deflector Voltage
1600.00	ICP RF Power
-1700.00	Analog Stage Voltage
1100.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-8.00	Cell Rod Offset STD [CRO]
12.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.02	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.65	Cell Gas A
200.00	Axial Field Voltage
-14.00	KED Mode CRO
-11.00	KED Mode QRO
-7.00	KED Mode Cell Entrance Voltage
-25.00	KED Mode Cell Exit Voltage
3.00	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9.012	33	-14.0	19086.7
Mg	23.985	33	-14.0	60049.9
In	114.904	33	-10.5	30618.8
Ce	139.905	33	-9.5	37274.6
Pb	207.977	33	-8.5	23743.7
U	238.050	33	-9.0	37068.0

ICPMS #11 Instrument Tuning Report

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res DAC	Meas. Pk. Width
Be	9.0	9.0	1640	2068	0.646
Mg	24.0	24.0	4637	2070	0.620
Mg	25.0	25.0	4827	2070	0.640
Mg	26.0	26.0	5021	2070	0.622
Co	58.9	58.9	11598	2070	0.631
Rh	102.9	102.9	20385	2070	0.659
In	114.9	114.9	22782	2070	0.671
Ce	139.9	139.9	27774	2070	0.695
Pb	206.0	206.0	40979	2075	0.631
Pb	207.0	207.0	41192	2075	0.646
Pb	208.0	208.0	41382	2075	0.652
U	238.1	238.0	47395	2075	0.654

ICPMS #11 - Summary Report

Sample ID: Cal Blank
Sample Date/Time: Tuesday, October 10, 2017 23:35:03
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\Cal Blank.225

Concentration Results

Summary

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Ge	72		ug/L		150235.420	
As	75		ug/L		198.335	
Se	77		ug/L		73.334	
Se	82		ug/L		34.305	
Se	78		ug/L		47.388	
Lu	175		ug/L		438579.354	
Tl	205		ug/L		70.667	
U	238		ug/L		72.000	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
	Ge	72					
	As	75					
	Se	77					
	Se	82					
	Se	78					
	Lu	175					
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, October 10, 2017 23:37:05
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\Standard 1.226

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>Ge	72		**ug/L**		146958.052	146958.052
As	75	**10.000**	**ug/L**	1.792	2094.154	0.013
Se	77		**ug/L**		104.000	0.000
Se	82		**ug/L**		157.946	0.001
Se	78	**10.000**	**ug/L**	3.267	248.622	0.001
>Lu	175		**ug/L**		438362.407	438362.407
Tl	205	**10.000**	**ug/L**	0.615	61530.896	0.140
U	238	**10.000**	**ug/L**	1.889	89113.094	0.203

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72					
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175					
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, October 10, 2017 23:39:06
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\Standard 2.227

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>Ge	72		**ug/L**		148049.335	148049.335
As	75	**99.938**	**ug/L**	1.381	18209.933	0.122
Se	77		**ug/L**		651.348	0.004
Se	82		**ug/L**		1062.502	0.007
Se	78	**99.923**	**ug/L**	3.534	1937.651	0.013
>Lu	175		**ug/L**		445780.374	445780.374
Tl	205	**99.954**	**ug/L**	0.565	597535.471	1.340
U	238	**99.961**	**ug/L**	1.858	871722.307	1.955

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72					
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175					
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, October 10, 2017 23:41:08
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 1.228

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		150806.959	150806.959
	As	75	**49.850**	**ug/L**	0.912	9352.394	0.061
	Se	77		**ug/L**		336.671	0.002
	Se	82		**ug/L**		564.143	0.004
	Se	78	**50.304**	**ug/L**	2.116	1017.232	0.006
>	Lu	175		**ug/L**		446257.164	446257.164
	Tl	205	**51.068**	**ug/L**	1.389	305632.197	0.685
	U	238	**50.843**	**ug/L**	2.151	443870.876	0.995

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		100.38			
	As	75	99.700				
	Se	77					
	Se	82					
	Se	78	100.609				
>	Lu	175		101.75			
	Tl	205	102.136				
	U	238	101.687				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, October 10, 2017 23:43:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 2.229

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		153221.311	153221.311
	As	75	**0.008**	**ug/L**	1298.853	203.668	0.000
	Se	77		**ug/L**		75.334	0.000
	Se	82		**ug/L**		39.470	0.000
	Se	78	**0.335**	**ug/L**	52.015	54.883	0.000
>	Lu	175		**ug/L**		442091.437	442091.437
	Tl	205	**0.093**	**ug/L**	4.069	625.347	0.001
	U	238	**0.039**	**ug/L**	15.452	412.673	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		101.99			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		100.80			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, October 10, 2017 23:45:11
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 3.230

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		150927.393	150927.393
	As	75	**5.181**	**ug/L**	7.177	1151.046	0.006
	Se	77		**ug/L**		90.000	0.000
	Se	82		**ug/L**		92.641	0.000
	Se	78	**4.952**	**ug/L**	14.429	143.066	0.001
>	Lu	175		**ug/L**		439127.980	439127.980
	Tl	205	**2.084**	**ug/L**	1.093	12343.999	0.028
	U	238	**0.213**	**ug/L**	4.161	1898.793	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>		Ge	72		100.46			
		As	75	103.614				
		Se	77					
		Se	82					
		Se	78	99.033				
>		Lu	175		100.13			
		Tl	205	104.214				
		U	238	106.350				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, October 10, 2017 23:47:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 4.231

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		123899.042	123899.042
	As	75	**0.409**	**ug/L**	18.025	225.335	0.000
	Se	77		**ug/L**		86.000	0.000
	Se	82		**ug/L**		34.801	0.000
	Se	78	**0.669**	**ug/L**	70.583	49.707	0.000
>	Lu	175		**ug/L**		384504.159	384504.159
	Tl	205	**0.045**	**ug/L**	2.336	292.003	0.001
	U	238	**0.065**	**ug/L**	9.500	552.677	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		82.47			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		87.67			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, October 10, 2017 23:49:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 5.232

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		124561.288	124561.288
	As	75	**19.661**	**ug/L**	3.434	3145.680	0.024
	Se	77		**ug/L**		168.001	0.001
	Se	82		**ug/L**		192.949	0.001
	Se	78	**20.626**	**ug/L**	5.362	367.635	0.003
>	Lu	175		**ug/L**		385429.372	385429.372
	Tl	205	**18.573**	**ug/L**	2.032	96029.008	0.249
	U	238	**20.418**	**ug/L**	2.253	153963.231	0.399

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		82.91			
	As	75	98.305				
	Se	77					
	Se	82					
	Se	78	103.132				
>	Lu	175		87.88			
	Tl	205	92.867				
	U	238	102.090				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, October 10, 2017 23:51:14
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 6.233

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		152560.742	152560.742
	As	75	**50.777**	**ug/L**	5.823	9625.912	0.062
	Se	77		**ug/L**		344.671	0.002
	Se	82		**ug/L**		551.124	0.003
	Se	78	**50.671**	**ug/L**	5.494	1035.496	0.006
>	Lu	175		**ug/L**		446572.062	446572.062
	Tl	205	**51.297**	**ug/L**	3.888	307040.203	0.688
	U	238	**50.526**	**ug/L**	5.063	441067.334	0.988

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		101.55			
	As	75	101.554				
	Se	77					
	Se	82					
	Se	78	101.342				
>	Lu	175		101.82			
	Tl	205	102.595				
	U	238	101.052				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, October 10, 2017 23:53:16
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 7.234

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		152947.472	152947.472
	As	75	**0.127**	**ug/L**	82.687	225.668	0.000
	Se	77		**ug/L**		60.000	-0.000
	Se	82		**ug/L**		42.116	0.000
	Se	78	**0.208**	**ug/L**	78.414	52.302	0.000
>	Lu	175		**ug/L**		440124.450	440124.450
	Tl	205	**0.086**	**ug/L**	8.812	577.345	0.001
	U	238	**0.029**	**ug/L**	37.923	321.337	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>		Ge	72		101.81			
		As	75					
		Se	77					
		Se	82					
		Se	78					
>		Lu	175		100.35			
		Tl	205					
		U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 1203884261
Sample Date/Time: Tuesday, October 10, 2017 23:55:18
Sample Type: Sample
Sample Description: URSC 6020 MB
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\1203884261.235

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		158065.463	158065.463
	As	75	**-0.046**	**ug/L**	138.882	200.001	-0.000
	Se	77		**ug/L**		48.667	-0.000
	Se	82		**ug/L**		73.630	0.000
	Se	78	**0.050**	**ug/L**	808.824	50.858	0.000
>	Lu	175		**ug/L**		467501.482	467501.482
	Tl	205	**0.033**	**ug/L**	5.614	284.003	0.000
	U	238	**0.009**	**ug/L**	32.564	160.668	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>		Ge	72		105.21			
		As	75					
		Se	77					
		Se	82					
		Se	78					
>		Lu	175		106.59			
		Tl	205					
		U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 1203884262
Sample Date/Time: Tuesday, October 10, 2017 23:57:18
Sample Type: Sample
Sample Description: URSC 6020 LCS
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\1203884262.236

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		160434.170	160434.170
	As	75	**23.484**	**ug/L**	1.463	4798.806	0.029
	Se	77		**ug/L**		188.001	0.001
	Se	82		**ug/L**		376.121	0.002
	Se	78	**21.627**	**ug/L**	5.077	494.144	0.003
>	Lu	175		**ug/L**		481869.046	481869.046
	Tl	205	**25.276**	**ug/L**	0.462	163391.774	0.339
	U	238	**25.748**	**ug/L**	0.356	242775.551	0.504

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		106.79			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		109.87			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 433718018
Sample Date/Time: Tuesday, October 10, 2017 23:59:19
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\433718018.237

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>Ge	72		**ug/L**		132511.601	132511.601
As	75	**37.790**	**ug/L**	1.497	6271.376	0.046
Se	77		**ug/L**		220.668	0.001
Se	82		**ug/L**		263.651	0.002
Se	78	**8.047**	**ug/L**	6.466	178.130	0.001
>Lu	175		**ug/L**		428068.015	428068.015
Tl	205	**0.672**	**ug/L**	0.468	3927.873	0.009
U	238	**2.726**	**ug/L**	1.537	22896.335	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		88.20			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		97.60			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 1203884263
Sample Date/Time: Wednesday, October 11, 2017 00:01:20
Sample Type: Sample
Sample Description: URSC 6020 DUP
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\1203884263.238

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		133749.795	133749.795
	As	75	**31.729**	**ug/L**	2.051	5342.999	0.039
	Se	77		**ug/L**		226.002	0.001
	Se	82		**ug/L**		265.706	0.002
	Se	78	**7.788**	**ug/L**	3.467	175.344	0.001
>	Lu	175		**ug/L**		419635.287	419635.287
	Tl	205	**0.676**	**ug/L**	1.770	3871.191	0.009
	U	238	**3.616**	**ug/L**	1.994	29747.608	0.071

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		89.03			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		95.68			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 1203884264
Sample Date/Time: Wednesday, October 11, 2017 00:03:21
Sample Type: Sample
Sample Description: URSC 6020 MS
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\1203884264.239

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		137516.952	137516.952
	As	75	**51.595**	**ug/L**	2.449	8817.387	0.063
	Se	77		**ug/L**		305.337	0.002
	Se	82		**ug/L**		416.182	0.003
	Se	78	**26.406**	**ug/L**	4.769	507.245	0.003
>	Lu	175		**ug/L**		427348.317	427348.317
	Tl	205	**22.044**	**ug/L**	2.255	126365.816	0.296
	U	238	**26.598**	**ug/L**	2.637	222372.284	0.520

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		91.53			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		97.44			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 1203884265
Sample Date/Time: Wednesday, October 11, 2017 00:05:22
Sample Type: Sample
Sample Description: URSC 6020 SDILT
Number of Replicates: 3
Batch ID: 1704457|10|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\1203884265.240

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		146545.460	146545.460
	As	75	**7.633**	**ug/L**	4.396	1555.085	0.009
	Se	77		**ug/L**		84.000	0.000
	Se	82		**ug/L**		134.558	0.001
	Se	78	**2.172**	**ug/L**	1.782	86.907	0.000
>	Lu	175		**ug/L**		447854.108	447854.108
	Tl	205	**0.150**	**ug/L**	6.820	972.033	0.002
	U	238	**0.551**	**ug/L**	3.838	4900.841	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		97.54			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		102.11			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 433718019
Sample Date/Time: Wednesday, October 11, 2017 00:07:23
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\433718019.241

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		135218.822	135218.822
	As	75	**35.115**	**ug/L**	2.831	5957.909	0.043
	Se	77		**ug/L**		198.001	0.001
	Se	82		**ug/L**		230.529	0.001
	Se	78	**8.000**	**ug/L**	3.423	180.975	0.001
>	Lu	175		**ug/L**		423883.434	423883.434
	Tl	205	**0.646**	**ug/L**	1.014	3742.490	0.009
	U	238	**2.939**	**ug/L**	1.490	24441.560	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		90.00			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		96.65			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: 433718020
Sample Date/Time: Wednesday, October 11, 2017 00:09:23
Sample Type: Sample
Sample Description: URSC 6020
Number of Replicates: 3
Batch ID: 1704457|2|prb
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\433718020.242

Concentration Results

Summary

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>Ge	72		**ug/L**		139158.122	139158.122
As	75	**33.628**	**ug/L**	1.079	5881.210	0.041
Se	77		**ug/L**		222.668	0.001
Se	82		**ug/L**		258.328	0.002
Se	78	**7.212**	**ug/L**	5.519	172.171	0.001
>Lu	175		**ug/L**		432716.217	432716.217
Tl	205	**0.519**	**ug/L**	2.562	3078.998	0.007
U	238	**2.891**	**ug/L**	1.245	24543.733	0.057

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		92.63			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		98.66			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, October 11, 2017 00:11:26
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 6.243

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		151900.160	151900.160
	As	75	**51.419**	**ug/L**	0.811	9709.966	0.063
	Se	77		**ug/L**		368.671	0.002
	Se	82		**ug/L**		618.639	0.004
	Se	78	**52.966**	**ug/L**	1.624	1076.211	0.007
>	Lu	175		**ug/L**		441813.133	441813.133
	Tl	205	**52.302**	**ug/L**	3.285	309808.552	0.701
	U	238	**51.802**	**ug/L**	3.335	447599.877	1.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		101.11			
	As	75	102.838				
	Se	77					
	Se	82					
	Se	78	105.932				
>	Lu	175		100.74			
	Tl	205	104.605				
	U	238	103.603				

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

ICPMS #11 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, October 11, 2017 00:13:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\NexIONData\Method\misc.mth
Dataset File: C:\NexIONData\DataSet\171010\QC Std 7.244

Concentration Results

Summary

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Ge	72		**ug/L**		155567.851	155567.851
	As	75	**0.035**	**ug/L**	39.963	212.002	0.000
	Se	77		**ug/L**		54.667	-0.000
	Se	82		**ug/L**		125.295	0.001
	Se	78	**0.535**	**ug/L**	65.285	59.681	0.000
>	Lu	175		**ug/L**		442946.918	442946.918
	Tl	205	**0.064**	**ug/L**	5.211	454.007	0.001
	U	238	**0.016**	**ug/L**	6.672	213.335	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Ge	72	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Se	78	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

Inte	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Reco	Dilution % D	Duplicate Rel. % Difference
>	Ge	72		103.55			
	As	75					
	Se	77					
	Se	82					
	Se	78					
>	Lu	175		101.00			
	Tl	205					
	U	238					

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC action taken

==========

Analysis Begun

Logged In Analyst: lab **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\100317.SIF
Batch ID:
Results Data Set: 100417S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: Soil **Method Last Saved: 10/3/2017 14:16:55**
Method Description: SW-846 7471A/7471B Analyst MTM1

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 10/4/2017 09:37:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0014	0.0066	0.0014	09:38:23	Yes
2		[0.00]	0.0014	0.0061	0.0014	09:38:53	Yes
Mean:		[0.00]	0.0014				
SD:		0.00	0.0000				
%RSD:		0.00	2.71				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 10/4/2017 09:39:12**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0024	0.0201	0.0038	09:40:03	Yes
2		[0.2]	0.0027	0.0205	0.0041	09:40:33	Yes
Mean:		[0.2]	0.0026				
SD:		0.0	0.0002				
%RSD:		0.0	6.34				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01279 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 10/4/2017 09:40:52**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0067	0.0413	0.0080	09:41:43	Yes
2		[0.5]	0.0064	0.0400	0.0077	09:42:13	Yes
Mean:		[0.5]	0.0065				
SD:		0.0	0.0002				
%RSD:		0.0	3.23				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999967 Slope: 0.01304 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 10/4/2017 09:42:33**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0258	0.1411	0.0272	09:43:24	Yes
2		[2.0]	0.0262	0.1428	0.0276	09:43:54	Yes
Mean:		[2.0]	0.0260				
SD:		0.0	0.0003				
%RSD:		0.0	1.22				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.01302 Intercept: -0.00002

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 10/4/2017 09:44:14**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0662	0.3541	0.0676	09:45:06	Yes
2		[5.0]	0.0648	0.3459	0.0662	09:45:36	Yes
Mean:		[5.0]	0.0655				
SD:		0.0	0.0010				
%RSD:		0.0	1.51				

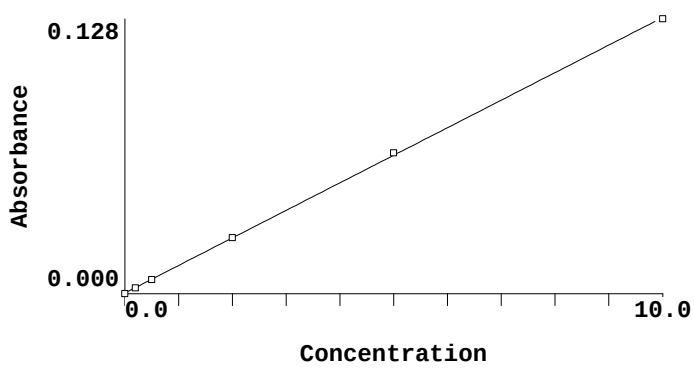
Standard number 4 applied. [5.0]
Correlation Coef.: 0.999996 Slope: 0.01310 Intercept: -0.00006

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 10/4/2017 09:45:56**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1268	0.6782	0.1281	09:46:47	Yes
2		[10.0]	0.1293	0.6859	0.1306	09:47:17	Yes
Mean:		[10.0]	0.1280				
SD:		0.0	0.0018				
%RSD:		0.0	1.38				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999934 Slope: 0.01283 Intercept: 0.00025



Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.019	0.00	2.7
S0.2	0.0026	0.2	0.180	0.00	6.3
S0.5	0.0065	0.5	0.488	0.00	3.2
S2.0	0.0260	2.0	2.009	0.00	1.2

S5.0	0.0655	5.0	5.086	0.00	1.5
S10.0	0.1280	10.0	9.956	0.00	1.4

Correlation Coef.: 0.999934 Slope: 0.01283 Intercept: 0.00025

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 10/4/2017 09:47:36**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.598	4.598	0.0593	0.3175	0.0606	09:48:27	Yes
2	4.546	4.546	0.0586	0.3128	0.0600	09:48:57	Yes
Mean:	4.572	4.572	0.0589				
SD:	0.037	0.037	0.0005				
%RSD:	0.803	0.803	0.80				

QC value within limits for Hg 253.7 Recovery = 91.44%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 10/4/2017 09:49:16**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.031	-0.031	-0.0002	0.0055	0.0012	09:50:08	Yes
2	-0.031	-0.031	-0.0002	0.0055	0.0012	09:50:38	Yes
Mean:	-0.031	-0.031	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.996	0.996	2.60				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 10/4/2017 09:50:57**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.185	0.185	0.0026	0.0202	0.0040	09:51:49	Yes
2	0.172	0.172	0.0025	0.0196	0.0038	09:52:19	Yes
Mean:	0.179	0.179	0.0025				
SD:	0.009	0.009	0.0001				
%RSD:	4.927	4.927	4.45				

QC value within limits for Hg 253.7 Recovery = 89.29%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 09:52:39**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.949	4.949	0.0638	0.3416	0.0651	09:53:29	Yes
2	4.776	4.776	0.0615	0.3293	0.0629	09:54:00	Yes
Mean:	4.863	4.863	0.0626				
SD:	0.122	0.122	0.0016				
%RSD:	2.509	2.509	2.50				

QC value within limits for Hg 253.7 Recovery = 97.25%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 09:54:19**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	-0.0000	0.0055	0.0014	09:55:10	Yes
2	-0.029	-0.029	-0.0001	0.0049	0.0013	09:55:39	Yes
Mean:	-0.025	-0.025	-0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	21.91	21.91	95.95				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 12 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 09:55:59**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.877	4.877	0.0628	0.3390	0.0642	09:56:49	Yes
2	5.000	5.000	0.0644	0.3460	0.0658	09:57:19	Yes
Mean:	4.939	4.939	0.0636				
SD:	0.087	0.087	0.0011				
%RSD:	1.753	1.753	1.75				

QC value within limits for Hg 253.7 Recovery = 98.77%
All analyte(s) passed QC.

==========

Sequence No.: 13 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 09:57:38**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	-0.0001	0.0055	0.0013	09:58:29	Yes
2	-0.024	-0.024	-0.0001	0.0062	0.0013	09:58:59	Yes
Mean:	-0.024	-0.024	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.756	0.756	4.01				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Analysis Begun

Logged In Analyst: lab **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\100417.SIF
Batch ID:
Results Data Set: 100417S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: Soil **Method Last Saved: 10/4/2017 10:13:32**
Method Description: SW-846 7471A/7471B Analyst MTM1

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 11:02:53**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.733	4.733	0.0610	0.3316	0.0624	11:03:44	Yes
2	4.826	4.826	0.0622	0.3360	0.0636	11:04:14	Yes
Mean:	4.779	4.779	0.0616				
SD:	0.066	0.066	0.0008				
%RSD:	1.378	1.378	1.37				

QC value within limits for Hg 253.7 Recovery = 95.59%
All analyte(s) passed QC.

==========

Sequence No.: 2 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 11:04:33**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0001	0.0045	0.0015	11:05:24	Yes
2	-0.023	-0.023	-0.0001	0.0035	0.0013	11:05:54	Yes
Mean:	-0.018	-0.018	0.0000				
SD:	0.008	0.008	0.0001				
%RSD:	44.21	44.21	547.66				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 3 **Autosampler Location: 38**
Sample ID: 1203887571|1705897|1 **Date Collected: 10/4/2017 11:06:13**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887571|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0007	0.0070	0.0021	11:07:04	Yes
2	-0.003	-0.003	0.0002	0.0080	0.0016	11:07:35	Yes
Mean:	0.017	0.017	0.0005				
SD:	0.028	0.028	0.0004				
%RSD:	163.9	163.9	76.89				

==========

Sequence No.: 4 **Autosampler Location: 39**
Sample ID: 1203887572|1705897|1 **Date Collected: 10/4/2017 11:07:54**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887572|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.932	1.932	0.0250	0.1379	0.0264	11:08:45	Yes
2	1.980	1.980	0.0257	0.1396	0.0270	11:09:16	Yes
Mean:	1.956	1.956	0.0253				
SD:	0.034	0.034	0.0004				
%RSD:	1.750	1.750	1.73				

==========

Sequence No.: 5 **Autosampler Location: 40**
Sample ID: 433360001|1705897|1 **Date Collected: 10/4/2017 11:09:35**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433360001|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.666	0.666	0.0088	0.0526	0.0102	11:10:26	Yes
2	0.661	0.661	0.0087	0.0531	0.0101	11:10:56	Yes
Mean:	0.664	0.664	0.0088				
SD:	0.003	0.003	0.0000				
%RSD:	0.477	0.477	0.46				

==========

Sequence No.: 6 **Autosampler Location: 41**
Sample ID: 1203887573|1705897|1 **Date Collected: 10/4/2017 11:11:16**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887573|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.660	0.660	0.0087	0.0515	0.0101	11:12:07	Yes
2	0.670	0.670	0.0088	0.0521	0.0102	11:12:37	Yes
Mean:	0.665	0.665	0.0088				
SD:	0.007	0.007	0.0001				
%RSD:	1.072	1.072	1.04				

==========

Sequence No.: 7 **Autosampler Location: 42**
Sample ID: 1203887574|1705897|1 **Date Collected: 10/4/2017 11:12:56**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887574|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.620	2.620	0.0339	0.1830	0.0352	11:13:47	Yes
2	2.571	2.571	0.0332	0.1804	0.0346	11:14:17	Yes
Mean:	2.596	2.596	0.0336				
SD:	0.034	0.034	0.0004				
%RSD:	1.313	1.313	1.30				

==========

Sequence No.: 8 **Autosampler Location: 43**
Sample ID: 1203887575|1705897|5 **Date Collected: 10/4/2017 11:14:37**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887575|1705897|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.131	0.131	0.0019	0.0156	0.0033	11:15:28	Yes
2	0.127	0.127	0.0019	0.0155	0.0033	11:15:58	Yes
Mean:	0.129	0.129	0.0019				
SD:	0.002	0.002	0.0000				
%RSD:	1.912	1.912	1.66				

==========

Sequence No.: 9 **Autosampler Location: 44**
Sample ID: 1203887582|1705897|1 **Date Collected: 10/4/2017 11:16:17**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 1203887582|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.060	3.060	0.0395	0.2147	0.0409	11:17:09	Yes
2	3.034	3.034	0.0392	0.2122	0.0406	11:17:39	Yes
Mean:	3.047	3.047	0.0394				
SD:	0.018	0.018	0.0002				
%RSD:	0.602	0.602	0.60				

Sequence No.: 10 **Autosampler Location: 45**
Sample ID: 433360002|1705897|1 **Date Collected: 10/4/2017 11:17:58**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433360002|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.287	0.287	0.0039	0.0268	0.0053	11:18:49	Yes
2	0.271	0.271	0.0037	0.0262	0.0051	11:19:19	Yes
Mean:	0.279	0.279	0.0038				
SD:	0.012	0.012	0.0001				
%RSD:	4.123	4.123	3.86				

Sequence No.: 11 **Autosampler Location: 46**
Sample ID: 433360003|1705897|1 **Date Collected: 10/4/2017 11:19:39**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433360003|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.560	0.560	0.0074	0.0462	0.0088	11:20:30	Yes
2	0.556	0.556	0.0074	0.0449	0.0088	11:21:00	Yes
Mean:	0.558	0.558	0.0074				
SD:	0.003	0.003	0.0000				
%RSD:	0.460	0.460	0.45				

Sequence No.: 12 **Autosampler Location: 47**
Sample ID: 433360004|1705897|1 **Date Collected: 10/4/2017 11:21:20**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433360004|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.365	0.365	0.0049	0.0327	0.0063	11:22:11	Yes
2	0.363	0.363	0.0049	0.0317	0.0063	11:22:42	Yes
Mean:	0.364	0.364	0.0049				
SD:	0.002	0.002	0.0000				
%RSD:	0.461	0.461	0.44				

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 11:23:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.814	4.814	0.0620	0.3371	0.0634	11:23:52	Yes
2	4.842	4.842	0.0624	0.3339	0.0638	11:24:22	Yes
Mean:	4.828	4.828	0.0622				

SD:	0.020	0.020	0.0003
%RSD:	0.418	0.418	0.42

QC value within limits for Hg 253.7 Recovery = 96.56%
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 11:24:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0001	0.0056	0.0013	11:25:32	Yes
2	-0.032	-0.032	-0.0002	0.0055	0.0012	11:26:03	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	12.81	12.81	37.56				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 15 **Autosampler Location: 48**
Sample ID: 433360005|1705897|1 **Date Collected: 10/4/2017 11:26:22**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433360005|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.554	0.554	0.0074	0.0450	0.0087	11:27:14	Yes
2	0.544	0.544	0.0072	0.0457	0.0086	11:27:44	Yes
Mean:	0.549	0.549	0.0073				
SD:	0.007	0.007	0.0001				
%RSD:	1.244	1.244	1.20				

Sequence No.: 16 **Autosampler Location: 49**
Sample ID: 433696001|1705897|1 **Date Collected: 10/4/2017 11:28:04**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433696001|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.833	2.833	0.0366	0.2009	0.0380	11:28:56	Yes
2	2.806	2.806	0.0363	0.1976	0.0376	11:29:26	Yes
Mean:	2.819	2.819	0.0364				
SD:	0.019	0.019	0.0002				
%RSD:	0.689	0.689	0.68				

Sequence No.: 17 **Autosampler Location: 50**
Sample ID: 433696002|1705897|1 **Date Collected: 10/4/2017 11:29:47**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433696002|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.943	1.943	0.0252	0.1396	0.0266	11:30:38	Yes
2	1.923	1.923	0.0249	0.1364	0.0263	11:31:08	Yes
Mean:	1.933	1.933	0.0251				
SD:	0.014	0.014	0.0002				
%RSD:	0.737	0.737	0.73				

Sequence No.: 18 **Autosampler Location: 51**
Sample ID: 433697001|1705897|1 **Date Collected: 10/4/2017 11:31:27**
Analyst: MTM1 **Data Type: Original**

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Sequence No.: 23 **Autosampler Location: 56**
Sample ID: 433700002|1705897|1 **Date Collected: 10/4/2017 11:39:51**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433700002|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.235	0.235	0.0033	0.0236	0.0046	11:40:43	Yes
2	0.244	0.244	0.0034	0.0247	0.0048	11:41:13	Yes
Mean:	0.239	0.239	0.0033				
SD:	0.007	0.007	0.0001				
%RSD:	2.894	2.894	2.68				

==========

Sequence No.: 24 **Autosampler Location: 57**
Sample ID: 433700003|1705897|1 **Date Collected: 10/4/2017 11:41:32**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433700003|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.236	0.236	0.0033	0.0235	0.0047	11:42:23	Yes
2	0.237	0.237	0.0033	0.0233	0.0047	11:42:54	Yes
Mean:	0.237	0.237	0.0033				
SD:	0.000	0.000	0.0000				
%RSD:	0.206	0.206	0.19				

==========

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 11:43:13**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.816	4.816	0.0620	0.3351	0.0634	11:44:04	Yes
2	4.848	4.848	0.0625	0.3340	0.0638	11:44:34	Yes
Mean:	4.832	4.832	0.0623				
SD:	0.023	0.023	0.0003				
%RSD:	0.469	0.469	0.47				

QC value within limits for Hg 253.7 Recovery = 96.64%
All analyte(s) passed QC.

==========

Sequence No.: 26 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 11:44:53**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.034	-0.034	-0.0002	0.0044	0.0012	11:45:44	Yes
2	-0.024	-0.024	-0.0001	0.0064	0.0013	11:46:14	Yes
Mean:	-0.029	-0.029	-0.0001				
SD:	0.007	0.007	0.0001				
%RSD:	25.34	25.34	74.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 27 **Autosampler Location: 58**
Sample ID: 433718018|1705897|1 **Date Collected: 10/4/2017 11:46:33**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433718018|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.382	0.382	0.0051	0.0334	0.0065	11:47:24	Yes
2	0.363	0.363	0.0049	0.0323	0.0063	11:47:55	Yes
Mean:	0.373	0.373	0.0050				
SD:	0.013	0.013	0.0002				
%RSD:	3.435	3.435	3.27				

==========

Sequence No.: 28 **Autosampler Location: 59**
Sample ID: 433718019|1705897|1 **Date Collected: 10/4/2017 11:48:15**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433718019|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.120	1.120	0.0146	0.0839	0.0160	11:49:06	Yes
2	1.141	1.141	0.0149	0.0843	0.0163	11:49:36	Yes
Mean:	1.130	1.130	0.0148				
SD:	0.016	0.016	0.0002				
%RSD:	1.374	1.374	1.35				

==========

Sequence No.: 29 **Autosampler Location: 60**
Sample ID: 433718020|1705897|1 **Date Collected: 10/4/2017 11:49:56**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433718020|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.486	0.486	0.0065	0.0405	0.0079	11:50:48	Yes
2	0.488	0.488	0.0065	0.0395	0.0079	11:51:18	Yes
Mean:	0.487	0.487	0.0065				
SD:	0.002	0.002	0.0000				
%RSD:	0.378	0.378	0.36				

==========

Sequence No.: 30 **Autosampler Location: 61**
Sample ID: 433726001|1705897|1 **Date Collected: 10/4/2017 11:51:38**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433726001|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.618	0.618	0.0082	0.0489	0.0096	11:52:30	Yes
2	0.629	0.629	0.0083	0.0494	0.0097	11:53:00	Yes
Mean:	0.623	0.623	0.0082				
SD:	0.008	0.008	0.0001				
%RSD:	1.225	1.225	1.19				

==========

Sequence No.: 31 **Autosampler Location: 62**
Sample ID: 433727001|1705897|1 **Date Collected: 10/4/2017 11:53:20**
Analyst: MTM1 **Data Type: Original**

Replicate Data: 433727001|1705897|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.834	0.834	0.0110	0.0650	0.0123	11:54:12	Yes
2	0.827	0.827	0.0109	0.0634	0.0122	11:54:42	Yes
Mean:	0.831	0.831	0.0109				
SD:	0.005	0.005	0.0001				
%RSD:	0.634	0.634	0.62				

==========

Sequence No.: 32 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 10/4/2017 11:55:02**

Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.765	4.765	0.0614	0.3341	0.0628	11:55:53	Yes
2	4.724	4.724	0.0609	0.3284	0.0622	11:56:23	Yes
Mean:	4.744	4.744	0.0611				
SD:	0.029	0.029	0.0004				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 94.89%
All analyte(s) passed QC.

Sequence No.: 33 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 10/4/2017 11:56:42**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0001	0.0059	0.0013	11:57:32	Yes
2	-0.028	-0.028	-0.0001	0.0054	0.0013	11:58:03	Yes
Mean:	-0.027	-0.027	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.571	1.571	5.29				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **1704450**
Analyst: Jonathan Eskew-Martin
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 26
Instrument: BAL-893

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1203884247	Metals Spike Mix I	UI170821-01	.25	mL
LCS	1203884247	Metals Spike Mix II	UI170821-02	.25	mL
MS	1203884249	Metals Spike Mix I	UI170821-01	.25	mL
MS	1203884249	Metals Spike Mix II	UI170821-02	.25	mL

Sample ID	Initial Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1203884246 MB	27-SEP-2017 16:54:23	Soil	0.551	50	90.7441
1203884247 LCS	27-SEP-2017 16:54:23	Soil	0.508	50	98.4252
433718018	27-SEP-2017 16:54:23	Soil	0.514	50	97.27626
1203884250 SDILT (433718018)	27-SEP-2017 16:54:23	Soil	0.514	50	97.27626
1203884248 DUP (433718018)	27-SEP-2017 16:54:23	Soil	0.502	50	99.60159
1203884249 MS (433718018)	27-SEP-2017 16:54:23	Soil	0.513	50	97.46589
433718019	27-SEP-2017 16:54:23	Soil	0.514	50	97.27626
433718020	27-SEP-2017 16:54:23	Soil	0.512	50	97.65625

Reagent/Solvent Lot ID	Description	Amount
170808	Concentrated Nitric Acid	1.25 mL
2586686	HYDROCHLORIC ACID	10 mL
I-BC170502	Teflon chips for MB/LCS metals Solids	.5 g

Comments:
Block Temperature (90-100C): 94 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 118754
Hot Block ID: 14
Digestion tube lot #: 1703076

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **1704456**
Analyst: Jonathan Eskew-Martin
Method: SW846 3050B
Lab SOP: GL-MA-E-009 REV# 26
Instrument: BAL-893

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1203884262	ICP-MS spiking soluiton A	UI170908-A	.25	mL
LCS	1203884262	ICP-MS spiking solution B	UI170908-B	.25	mL
MS	1203884264	ICP-MS spiking soluiton A	UI170908-A	.25	mL
MS	1203884264	ICP-MS spiking solution B	UI170908-B	.25	mL

Sample ID	Initial Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1203884261 MB	27-SEP-2017 16:54:23	Soil	0.512	50	97.65625
1203884262 LCS	27-SEP-2017 16:54:23	Soil	0.545	50	91.74312
433718018	27-SEP-2017 16:54:23	Soil	0.515	50	97.08738
1203884265 SDILT (433718018)	27-SEP-2017 16:54:23	Soil	0.515	50	97.08738
1203884263 DUP (433718018)	27-SEP-2017 16:54:23	Soil	0.512	50	97.65625
1203884264 MS (433718018)	27-SEP-2017 16:54:23	Soil	0.514	50	97.27626
433718019	27-SEP-2017 16:54:23	Soil	0.537	50	93.10987
433718020	27-SEP-2017 16:54:23	Soil	0.519	50	96.33911

Reagent/Solvent Lot ID	Description	Amount
170808	Concentrated Nitric Acid	5 mL
170830	Hydrogen Peroxide 30%, from Bioassay (LIMS ID BIO2578029)	1.5 mL
I-BC170502	Teflon chips for MB/LCS metals Solids	.5 g

Comments:
Block Temperature (90-100C): 91 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 89095-622
Hot Block ID: 11
Digestion tube lot #: 1703076

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **1705893**
Analyst: Alan Stanley
Method: SW846 7471B Prep SW846 7471A Prep
Lab SOP: GL-MA-E-010 REV# 35
Instrument: Ohaus Balance AX432/E

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1203887572	MHGSOILMSSPIKE	WHG171003-14	.3	mL
MS	1203887574	MHGSOILMSSPIKE	WHG171003-14	.3	mL

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)
1203887571 MB	03-OCT-2017 14:42:56	Soil	0.503	30	59.64215
1203887572 LCS	03-OCT-2017 14:42:56	Soil	0.515	30	58.25243
433360001	03-OCT-2017 14:42:56	Soil	0.549	30	54.64481
1203887575 SDILT (433360001)	03-OCT-2017 14:42:56	Soil	0.549	30	54.64481
1203887573 DUP (433360001)	03-OCT-2017 14:42:56	Soil	0.552	30	54.34783
1203887574 MS (433360001)	03-OCT-2017 14:42:56	Soil	0.541	30	55.45287
433360002	03-OCT-2017 14:42:56	Soil	0.582	30	51.54639
433360003	03-OCT-2017 14:42:56	Soil	0.557	30	53.85996
433360004	03-OCT-2017 14:42:56	Soil	0.529	30	56.71078
433360005	03-OCT-2017 14:42:56	Soil	0.523	30	57.36138
433696001	03-OCT-2017 14:42:56	Soil	0.543	30	55.24862
433696002	03-OCT-2017 14:42:56	Soil	0.572	30	52.44755
433697001	03-OCT-2017 14:42:56	Soil	0.507	30	59.1716
433697002	03-OCT-2017 14:42:56	Soil	0.512	30	58.59375
433697003	03-OCT-2017 14:42:56	Soil	0.543	30	55.24862
433699001	03-OCT-2017 14:42:56	Soil	0.505	30	59.40594
433700001	03-OCT-2017 14:42:56	Soil	0.557	30	53.85996
433700002	03-OCT-2017 14:42:56	Soil	0.506	30	59.28854
433700003	03-OCT-2017 14:42:56	Soil	0.581	30	51.63511
433718018	03-OCT-2017 14:42:56	Soil	0.55	30	54.54545
433718019	03-OCT-2017 14:42:56	Soil	0.553	30	54.24955
433718020	03-OCT-2017 14:42:56	Soil	0.557	30	53.85996
433726001	03-OCT-2017 14:42:56	Soil	0.559	30	53.66726
433727001	03-OCT-2017 14:42:56	Soil	0.545	30	55.04587

Reagent/Solvent Lot ID	Description	Amount
2571341-C	Hg reducing agent	3 mL
2601066-C	5% KMnO4 solution	7.5 mL
2603718-C	50% Aqua Regia	3 mL
I-BC170502	Teflon chips for MB/LCS metals Solids	.5 g
IHG171003-01	Mercury Intermediate 1st Source 200 ug/L	250 mL
IHG171003-02	Mercury Intermediate 2nd Source 200 ug/L	250 mL
UHG2550967-01	Mercury Source Standard #1 1,000 mg/L	50 uL
UHG2550969-02	Mercury Source Standard #2 1,000 mg/L	50 uL
WHG171003-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG171003-08	Mercury Working Standard 1st Source CAL S	75 uL

Comments:
Digestion Start Date: 03-OCT-2017 15:08
Digestion End Date: 03-OCT-2017 15:38
Block Temperature (92-98C): 93 C
Temperature within limits (Y/N)?: Y
Thermometer ID: 119374
Hot Block ID: 6
Prep Date2: 03-OCT-2017 15:08 BAL937 Alan Stanley

Prep Logbook

Sample ID	Prep Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)

Reagent/Solvent Lot ID	Description	Amount
	0.5	
WHG171003-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG171003-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG171003-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG171003-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Comments:

Standard Logbook

Serial ID: UHG2550967-01 **Open/Reference Date:** 22-MAY-17 **Amount :** 100 mL
Name: MHGSTOCK1 **Received:** 22-MAY-17 **Catalog Number :** G34-060080-02-01
Type: Source Material **Expires:** 22-MAY-18 **Lot Number :** 1108342
Employee: Alan Stanley **Solvent :** 10% HNO3
Supplier: O2SI
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG2550969-02 **Open/Reference Date:** 22-MAY-17 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 22-MAY-17 **Catalog Number :** 060080-02-01
Type: Source Material **Expires:** 22-MAY-18 **Lot Number :** 1108277
Employee: Alan Stanley **Solvent :** 2% HNO3
Supplier: 02Si
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI161128-40 **Open/Reference Date:** 13-DEC-16 **Amount :** 250 mL
Name: SILICON **Received:** 20-NOV-16 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 13-DEC-17 **Lot Number :** 1614131
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRONMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI170103-09 **Open/Reference Date:** 03-JAN-17 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 03-JAN-17 **Catalog Number :** 160044-13-02
Type: Source Material **Expires:** 03-JAN-18 **Lot Number :** 1099963
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	50 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	30 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	1 mg/L	Copper	1 mg/L
Iron	100 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	30 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	2 mg/L
Thorium	2 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI170103-10 **Open/Reference Date:** 03-JAN-17 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 03-JAN-17 **Catalog Number :** 160044-11-02
Type: Source Material **Expires:** 03-JAN-18 **Lot Number :** 1100012
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	3 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	5 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI170201-07 **Open/Reference Date:** 01-FEB-17 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 01-FEB-17 **Catalog Number :** 162974-01-02
Type: Source Material **Expires:** 01-FEB-18 **Lot Number :** 1100633
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 20ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID:	UI170201-08	**Open/Reference Date:**	01-FEB-17	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master C	**Received:**	01-FEB-17	**Catalog Number :**	160054-03-02
Type:	Source Material	**Expires:**	01-FEB-18	**Lot Number :**	1100654
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln C - 20ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID:	UI170201-09	**Open/Reference Date:**	01-FEB-17	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master A	**Received:**	01-FEB-17	**Catalog Number :**	160055-01-02
Type:	Source Material	**Expires:**	01-FEB-18	**Lot Number :**	1100617
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV SOLN A - 2000ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID:	UI170217-41	**Open/Reference Date:**	12-JUN-17	**Amount :**	500 mL
Name:	TRACE ICP Na-1000SOUR	**Received:**	08-FEB-17	**Catalog Number :**	060011-02-03
Type:	Source Material	**Expires:**	12-JUN-18	**Lot Number :**	1102448
Employee:	Helen Camello			**Solvent :**	1%HNO3
Supplier:	02SI				
Description:	Sodium 1000 +/- 3 ug/mL in 1% HNO3				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID:	UI170228-40	**Open/Reference Date:**	13-MAR-17	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	27-FEB-17	**Catalog Number :**	G34-160358-01-03
Type:	Source Material	**Expires:**	13-MAR-18	**Lot Number :**	1103660
Employee:	Helen Camello			**Solvent :**	5%HNO3
Supplier:	02si				
Description:	SECOND SOURCE STD #1A 5%HNO3				
Comments:	None				

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI170228-41 **Open/Reference Date:** 13-MAR-17 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 27-FEB-17 **Catalog Number :** G34-160358-01-03
Type: Source Material **Expires:** 13-MAR-18 **Lot Number :** 1103660
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: 02si
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI170512-43 **Open/Reference Date:** 18-MAY-17 **Amount :** 500 mL
Name: SILICON 1000mg/L **Received:** 25-APR-17 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 18-MAY-18 **Lot Number :** 1106355
Employee: Helen Camello **Solvent :** in H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI170515-40 **Open/Reference Date:** 18-MAY-17 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUR **Received:** 28-APR-17 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 10-APR-18 **Lot Number :** 1709606
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Uranium-235	1.44 mg/L	Uranium-238	198.56 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI170515-41 **Open/Reference Date:** 18-MAY-17 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUR **Received:** 28-APR-17 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 10-APR-18 **Lot Number :** 1709607
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI170521-03 **Open/Reference Date:** 21-MAY-17 **Catalog Number :** 060074-05-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 21-MAY-17 **Lot Number :** 1107614
Type: Source Material **Expires:** 21-MAY-18 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI170615-40 **Open/Reference Date:** 22-JUN-17 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN. A **Received:** 14-JUN-17 **Catalog Number :** 160005-08-03
Type: Source Material **Expires:** 22-JUN-18 **Lot Number :** 1109048
Employee: Helen Camello **Solvent :** 5% HNO3 mg/l
Supplier: O2SI
Description: Trace ICP Interference Check Standard Solution A

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	20000 mg/L	Calcium	20000 mg/L
Iron	8000 mg/L	Magnesium	20000 mg/L

Serial ID: UI170714-40 **Open/Reference Date:** 08-AUG-17 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 14-JUL-17 **Catalog Number :** 160543-02-03
Type: Source Material **Expires:** 08-AUG-18 **Lot Number :** 10064382-1
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI170714-41 **Open/Reference Date:** 17-JUL-17 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 17-JUL-17 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 17-JUL-18 **Lot Number :** 140952-3
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID:	UI170807-12	**Open/Reference Date:**	07-AUG-17	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master B	**Received:**	07-AUG-17	**Catalog Number :**	160033-02-02
Type:	Source Material	**Expires:**	07-AUG-18	**Lot Number :**	1108543
Employee:	Paul Boyd			**Solvent :**	+/- 2.0% in 2% HNO3
Supplier:	02SI				
Description:	ICPMS ICSAB Master B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID:	UI170807-13	**Open/Reference Date:**	07-AUG-17	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master C	**Received:**	07-AUG-17	**Catalog Number :**	160033-03-02
Type:	Source Material	**Expires:**	07-AUG-18	**Lot Number :**	1108526
Employee:	Paul Boyd			**Solvent :**	+/- 2.0% in 2% HNO3 + tr HF
Supplier:	02SI				
Description:	ICPMS ICSAB Master C				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID:	UI170821-01	**Open/Reference Date:**	21-AUG-17	**Catalog Number :**	O2SI-160047-01
Name:	METALSPIKE-1	**Received:**	21-AUG-17	**Lot Number :**	10064480-11
Type:	Source Material	**Expires:**	21-AUG-18		
Employee:	Edmund Frampton				
Supplier:	OS2I				
Description:	Metals Spike Mix I				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI170821-02 **Open/Reference Date:** 21-AUG-17 **Catalog Number :** O2SI-160048-01
Name: METALSPIKE-2 **Received:** 21-AUG-17 **Lot Number :** 10064480-5
Type: Source Material **Expires:** 21-AUG-18
Employee: Edmund Frampton
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI170822-11 **Open/Reference Date:** 22-AUG-17 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A Nex **Received:** 22-AUG-17 **Catalog Number :** 60013-01-01LNexion
Type: Source Material **Expires:** 22-AUG-18 **Lot Number :** 10065549-1
Employee: Paul Boyd **Solvent :** 5% HNO3 + Tr HF
Supplier: 02SI
Description: ICP-MS ICSA Master A NEXION
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Standard Logbook

Serial ID:	UI170907-40	**Open/Reference Date:**	08-SEP-17	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD-A	**Received:**	07-SEP-17	**Catalog Number :**	160211-06-03
Type:	Source Material	**Expires:**	08-SEP-18	**Lot Number :**	10065978-1
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				
Description:	ICP HIGH RANGE STD SOLUTION A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Arsenic	100 mg/L
Barium	150 mg/L	Beryllium	30 mg/L
Boron	50 mg/L	Cadmium	100 mg/L
Chromium	250 mg/L	Cobalt	100 mg/L
Copper	200 mg/L	Lead	250 mg/L
Manganese	100 mg/L	Molybdenum	100 mg/L
Nickel	100 mg/L	Phosphorous	150 mg/L
Selenium	100 mg/L	Silica	1070 mg/L
Silicon	500 mg/L	Silver	100 mg/L
Strontium	100 mg/L	Thallium	100 mg/L
Tin	100 mg/L	Titanium	100 mg/L
Vanadium	100 mg/L	Zinc	150 mg/L

Serial ID:	UI170907-41	**Open/Reference Date:**	08-SEP-17	**Amount :**	500 mL
Name:	ICP HIGH RANGE STD B	**Received:**	07-SEP-17	**Catalog Number :**	160211-06-03
Type:	Source Material	**Expires:**	08-SEP-18	**Lot Number :**	1105786
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3
Supplier:	02SI				
Description:	ICP HIGH RANGE STD SOLUTION B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	5000 mg/L	Magnesium	5000 mg/L
Potassium	3000 mg/L	Sodium	5000 mg/L
Sulfur	500 mg/L	Uranium	150 mg/L

Serial ID:	UI170908-A	**Open/Reference Date:**	08-SEP-17	**Catalog Number :**	GEL-12A
Name:	ICP-MS SPIKE A	**Received:**	08-SEP-17	**Lot Number :**	M2-MEB661328
Type:	Source Material	**Expires:**	08-SEP-18		
Employee:	Edmund Frampton				
Supplier:	Inorganic Ventures				
Description:	ICP-MS spiking soluiton A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Hafnium	10 mg/L

Analyte	Concentration	Analyte	Concentration
Molybdenum	10 mg/L	Tantalum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Tungsten	10 mg/L	Zirconium	10 mg/L

Serial ID: UI170908-B **Open/Reference Date:** 08-SEP-17 **Catalog Number :** GEL-12B
Name: ICP-MS SPIKE B **Received:** 08-SEP-17 **Lot Number :** M2-MEB661327
Type: Source Material **Expires:** 08-SEP-18
Employee: Edmund Frampton
Supplier: O2Si
Description: ICP-MS spiking solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	400 mg/L	Arsenic	10 mg/L
Barium	10 mg/L	Beryllium	10 mg/L
Bismuth	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Calcium	400 mg/L
Cesium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Iron	400 mg/L	Lead	10 mg/L
Lithium	10 mg/L	Magnesium	400 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Phosphorous	400 mg/L	Potassium	400 mg/L
Rhenium	10 mg/L	Rhodium	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Sodium	400 mg/L	Strontium	10 mg/L
Thallium	10 mg/L	Thorium	10 mg/L
Uranium	10 mg/L	Uranium-235	.072 mg/L
Uranium-238	9.928 mg/L	Vanadium	10 mg/L
Zinc	10 mg/L		

Serial ID: UI170921-49.6 **Open/Reference Date:** 28-SEP-17 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-SEP-17 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 29-SEP-17 **Lot Number :** 144960-1
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI170921-49.7 **Open/Reference Date:** 29-SEP-17 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 18-SEP-17 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 30-SEP-17 **Lot Number :** 144960-1
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UMS170901-01 **Open/Reference Date:** 01-SEP-17 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 01-SEP-17 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 30-AUG-18 **Lot Number :** 44-226CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments:

None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS170901-02 **Open/Reference Date:** 01-SEP-17 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 01-SEP-17 **Lot Number :** 44-228CR
Type: Source Material **Expires:** 30-AUG-18
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS170901-03 **Open/Reference Date:** 01-SEP-17 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 01-SEP-17 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 30-AUG-18 **Lot Number :** 44-227CR
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG171003-01 **Open/Reference Date:** 03-OCT-17 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 03-OCT-17 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-OCT-17 **Solvent :** 1mL HNO3 + TypeI H2O
Employee: Alan Stanley
Supplier: GEL

Standard Logbook

Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2550967-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG171003-02 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Intermediate **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2550969-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG171003-07 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG171003-08 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG171003-09 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG171003-10 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG171003-11 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG171003-12 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG171003-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG171003-14 **Open/Reference Date:** 03-OCT-17 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 03-OCT-17 **Solvent :** 2% HNO3-1734294
Type: Working **Expires:** 05-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG2550967-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI170830-48 **Open/Reference Date:** 30-AUG-17 **Amount :** 25 mL
Name: Trace ICP ICSA **Received:** 15-JUN-17 **Catalog Number :** 160005-08-03
Type: Working **Expires:** 30-NOV-17 **Lot Number :** 1109048
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170615-40	Aluminum	20000 mg/L	25 mL	1000 mL	500000 UG/L
UI170615-40	Calcium	20000 mg/L	25 mL	1000 mL	500000 UG/L
UI170615-40	Iron	8000 mg/L	25 mL	1000 mL	200000 UG/L
UI170615-40	Magnesium	20000 mg/L	25 mL	1000 mL	500000 UG/L

Serial ID: WI170926-40 **Open/Reference Date:** 26-SEP-17 **Balance Id :** 216
Name: ICP HIGH RANGE STD-A **Received:** 07-SEP-17 **Lot Number :** 10065978-1
Type: Working **Expires:** 26-OCT-17 **Pipet Id :** 1099667
Employee: Helen Camello **Solvent :** 3%HCL and1%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170907-40	Antimony	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Arsenic	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Barium	150 mg/L	50 mL	500 mL	15000 ug/L
UI170907-40	Beryllium	30 mg/L	50 mL	500 mL	3000 ug/L
UI170907-40	Boron	50 mg/L	50 mL	500 mL	5000 ug/L
UI170907-40	Cadmium	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Chromium	250 mg/L	50 mL	500 mL	25000 ug/L
UI170907-40	Cobalt	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Copper	200 mg/L	50 mL	500 mL	20000 ug/L
UI170907-40	Lead	250 mg/L	50 mL	500 mL	25000 ug/L
UI170907-40	Manganese	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Molybdenum	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Nickel	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Phosphorous	150 mg/L	50 mL	500 mL	15000 ug/L
UI170907-40	Selenium	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Silica	1070 mg/L	50 mL	500 mL	107000 ug/L
UI170907-40	Silicon	500 mg/L	50 mL	500 mL	50000 ug/L
UI170907-40	Silver	100 mg/L	50 mL	500 mL	1000 ug/L
UI170907-40	Strontium	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Thallium	100 mg/L	50 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170907-40	Tin	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Titanium	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Vanadium	100 mg/L	50 mL	500 mL	10000 ug/L
UI170907-40	Zinc	150 mg/L	50 mL	500 mL	15000 ug/L

Serial ID: WI170926-41 **Open/Reference Date:** 26-SEP-17 **Balance Id :** 216
Name: ICP HIGH RANGE STD B **Received:** 07-SEP-17 **Lot Number :** 10065978-2
Type: Working **Expires:** 26-OCT-17 **Pipet Id :** 1099667
Employee: Helen Camello **Solvent :** 3%HCLand 1%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170907-41	Aluminum	5000 mg/L	50 mL	500 mL	500000 ug/L
UI170907-41	Calcium	5000 mg/L	50 mL	500 mL	500000 ug/L
UI170907-41	Iron	5000 mg/L	50 mL	500 mL	500000 ug/L
UI170907-41	Magnesium	5000 mg/L	50 mL	500 mL	500000 ug/L
UI170907-41	Potassium	3000 mg/L	50 mL	500 mL	300000 ug/L
UI170907-41	Sodium	5000 mg/L	50 mL	500 mL	500000 ug/L
UI170907-41	Sulfur	500 mg/L	50 mL	500 mL	50000 ug/L
UI170907-41	Uranium	150 mg/L	50 mL	500 mL	15000 ug/L

Serial ID: WI170928-42 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 28-APR-17 **Pipet Id :** 1099667
Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL AND 1%HNO3%-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI170928-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI170928-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI170928-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI170928-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI170928-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170928-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI170928-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170928-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI170928-43 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 28-APR-17 **Pipet Id :** 1099667
Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL AND 1%HNO3%-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170217-41	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI170512-43	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI170512-43	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI170515-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170515-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI170515-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI170515-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI170928-44 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 28-APR-17 **Pipet Id :** 3581809
Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL&1%HNO3-2600118
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170512-43	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI170512-43	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170515-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170515-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI170515-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI170928-45 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 14-JUL-17 **Pipet Id :** 1099667
Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL AND 1%HNO3-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170217-41	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI170714-41	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI170714-41	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI170714-41	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI170714-41	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI170928-46 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 28-FEB-17 **Pipet Id :** 1099667
Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL AND 1%HNO3-2600118
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI161128-40	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI161128-40	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170228-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI170228-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI170228-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI170928-47 **Open/Reference Date:** 28-SEP-17 **Balance Id :** 216

Name: PQL Working Standard **Received:** 14-JUL-17 **Pipet Id :** 1099667

Type: Working **Expires:** 29-SEP-17 **Solvent :** 3%HCL&1%HNO3-2600118

Employee: Helen Camello

Supplier: 02si

Description: PQL Working Standard

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170714-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI170714-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI170714-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI170714-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170714-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI170714-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI170714-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI170714-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI170714-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI170929-42 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 28-APR-17 **Pipet Id :** 1099667
Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL AND 1%HNO3%-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI170929-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI170929-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI170929-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI170929-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI170929-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI170929-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI170929-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI170929-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI170929-43 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 28-APR-17 **Pipet Id :** 1099667
Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL AND 1%HNO3%-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170217-41	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI170512-43	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI170512-43	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI170515-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170515-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI170515-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI170515-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI170515-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI170515-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI170929-44 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 28-APR-17 **Pipet Id :** 3581809
Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL&1%HNO3-2600118
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170512-43	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI170512-43	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170515-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170515-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI170515-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI170515-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI170515-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI170929-45 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 14-JUL-17 **Pipet Id :** 1099667
Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL AND 1%HNO3-2600118
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170217-41	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI170714-41	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI170714-41	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI170714-41	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI170714-41	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI170929-46 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 28-FEB-17 **Pipet Id :** 1099667
Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL AND 1%HNO3-2600118
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI161128-40	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI161128-40	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170228-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI170228-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI170228-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI170228-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI170228-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI170228-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L

Serial ID: WI170929-47 **Open/Reference Date:** 29-SEP-17 **Balance Id :** 216

Name: PQL Working Standard **Received:** 14-JUL-17 **Pipet Id :** 1099667

Type: Working **Expires:** 30-SEP-17 **Solvent :** 3%HCL&1%HNO3-2600118

Employee: Helen Camello

Supplier: 02si

Description: PQL Working Standard

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170714-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI170714-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI170714-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI170714-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170714-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI170714-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI170714-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI170714-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI170714-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI170714-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI170714-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI170714-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI170714-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS171010-04 **Open/Reference Date:** 10-OCT-17 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 10-OCT-17 **Balance Id :** 4025216
Type: Working **Expires:** 11-OCT-17 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl -2602816
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170521-03	Tungsten	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Arsenic	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Barium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Beryllium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Boron	20 mg/L	5 mL	500 mL	200 ug/l
UMS170901-01	Cadmium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Chromium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Cobalt	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Copper	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Lead	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Lithium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Manganese	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Nickel	10 mg/L	5 mL	500 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS170901-01	Selenium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Silver	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Strontium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Thallium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Thorium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Uranium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Vanadium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-01	Zinc	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-02	Aluminum	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Calcium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Iron	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Magnesium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Phosphorous	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Potassium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-02	Sodium	1000 mg/L	5 mL	500 mL	10000 ug/l
UMS170901-03	Antimony	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-03	Molybdenum	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-03	Tin	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-03	Titanium	10 mg/L	5 mL	500 mL	100 ug/l
UMS170901-03	Zirconium	10 mg/L	5 mL	500 mL	100 ug/l

Serial ID: WMS171010-04A **Open/Reference Date:** 10-OCT-17 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 10-OCT-17 **Pipet Id :** 3541598
Type: Working **Expires:** 11-OCT-17 **Solvent :** 2%HNO3/1%HCl -2602816
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS171010-04	Aluminum	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Antimony	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Arsenic	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Barium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Beryllium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Boron	200 ug/l	50 mL	500 mL	20 ug/l
WMS171010-04	Cadmium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Calcium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Chromium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Cobalt	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Copper	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Iron	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Lead	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Lithium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Magnesium	10000 ug/l	50 mL	500 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS171010-04	Manganese	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Molybdenum	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Nickel	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Phosphorous	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Potassium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Selenium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Silver	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Sodium	10000 ug/l	50 mL	500 mL	1000 ug/l
WMS171010-04	Strontium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Thallium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Thorium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Tin	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Titanium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Tungsten	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Uranium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Vanadium	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Zinc	100 ug/l	50 mL	500 mL	10 ug/l
WMS171010-04	Zirconium	100 ug/l	50 mL	500 mL	10 ug/l

Serial ID: WMS171010-05 **Open/Reference Date:** 10-OCT-17 **Balance Id :** BAL216

Name: ICPMS ICV **Received:** 10-OCT-17 **Pipet Id :** 3541598

Type: Working **Expires:** 11-OCT-17 **Solvent :** 2%HNO3/1%HCl -2602816

Employee: Paul Boyd

Supplier: GEL

Description: ICPMS ICV

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170201-07	Arsenic	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Barium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Beryllium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Boron	40 mg/L	2.5 mL	1000 mL	100 ug/L
UI170201-07	Cadmium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Chromium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Cobalt	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Copper	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Lead	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Lithium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Manganese	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Nickel	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Selenium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Strontium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Thallium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Thorium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Uranium	20 mg/L	2.5 mL	1000 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170201-07	Vanadium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-07	Zinc	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Antimony	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Molybdenum	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Silver	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Tin	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Titanium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Tungsten	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-08	Zirconium	20 mg/L	2.5 mL	1000 mL	50 ug/L
UI170201-09	Aluminum	2020 mg/L	2.5 mL	1000 mL	5050 ug/L
UI170201-09	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI170201-09	Iron	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI170201-09	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI170201-09	Phosphorous	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI170201-09	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L
UI170201-09	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 ug/L

Serial ID: WMS171010-06 **Open/Reference Date:** 10-OCT-17 **Balance Id :** BAL216
Name: ICPMS CRDL **Received:** 10-OCT-17 **Pipet Id :** 3820544
Type: Working **Expires:** 11-OCT-17 **Solvent :** 2%HNO3/1%HCl -2602816
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170103-09	Aluminum	50 mg/L	.5 mL	500 mL	30 ug/L
UI170103-09	Arsenic	5 mg/L	.5 mL	500 mL	5 ug/L
UI170103-09	Barium	2 mg/L	.5 mL	500 mL	2 ug/L
UI170103-09	Beryllium	.5 mg/L	.5 mL	500 mL	.5 ug/L
UI170103-09	Boron	15 mg/L	.5 mL	500 mL	15 ug/L
UI170103-09	Cadmium	1 mg/L	.5 mL	500 mL	1 ug/L
UI170103-09	Calcium	200 mg/L	.5 mL	500 mL	200 ug/L
UI170103-09	Chromium	30 mg/L	.5 mL	500 mL	10 ug/L
UI170103-09	Cobalt	1 mg/L	.5 mL	500 mL	1 ug/L
UI170103-09	Copper	1 mg/L	.5 mL	500 mL	1 ug/L
UI170103-09	Iron	100 mg/L	.5 mL	500 mL	100 ug/L
UI170103-09	Lead	2 mg/L	.5 mL	500 mL	2 ug/L
UI170103-09	Lithium	10 mg/L	.5 mL	500 mL	10 ug/L
UI170103-09	Magnesium	30 mg/L	.5 mL	500 mL	15 ug/L
UI170103-09	Manganese	5 mg/L	.5 mL	500 mL	5 ug/L
UI170103-09	Nickel	2 mg/L	.5 mL	500 mL	2 ug/L
UI170103-09	Phosphorous	50 mg/L	.5 mL	500 mL	50 ug/L
UI170103-09	Potassium	300 mg/L	.5 mL	500 mL	300 ug/L
UI170103-09	Selenium	5 mg/L	.5 mL	500 mL	5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170103-09	Sodium	250 mg/L	.5 mL	500 mL	250 ug/L
UI170103-09	Strontium	10 mg/L	.5 mL	500 mL	10 ug/L
UI170103-09	Thallium	2 mg/L	.5 mL	500 mL	1 ug/L
UI170103-09	Thorium	2 mg/L	.5 mL	500 mL	1 ug/L
UI170103-09	Uranium	.2 mg/L	.5 mL	500 mL	.2 ug/L
UI170103-09	Vanadium	10 mg/L	.5 mL	500 mL	10 ug/L
UI170103-09	Zinc	10 mg/L	.5 mL	500 mL	10 ug/L
UI170103-10	Antimony	3 mg/L	.5 mL	500 mL	3 ug/L
UI170103-10	Molybdenum	.5 mg/L	.5 mL	500 mL	.5 ug/L
UI170103-10	Silver	1 mg/L	.5 mL	500 mL	1 ug/L
UI170103-10	Tin	5 mg/L	.5 mL	500 mL	5 ug/L
UI170103-10	Titanium	10 mg/L	.5 mL	500 mL	10 ug/L
UI170103-10	Tungsten	5 mg/L	.5 mL	500 mL	5 ug/L
UI170103-10	Zirconium	2 mg/L	.5 mL	500 mL	2 ug/L

Serial ID: WMS171010-20 **Open/Reference Date:** 10-OCT-17 **Balance Id :** BAL216
Name: ICPMS ICSA **Received:** 10-OCT-17 **Lot Number :** 1064482
Type: Working **Expires:** 11-OCT-17 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl -2602816
Supplier: GEL
Description: ICPMS ICSA NexION
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170822-11	Aluminum	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Calcium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Carbon	2000 mg/L	25 mL	250 mL	200000 ug/L
UI170822-11	Chloride	10000 mg/L	25 mL	250 mL	1000000 ug/L
UI170822-11	Iron	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Magnesium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Molybdenum	20 mg/L	25 mL	250 mL	2000 ug/L
UI170822-11	Phosphorous	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Potassium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Sodium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Sulfur	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Titanium	20 mg/L	25 mL	250 mL	2000 ug/L

Serial ID: WMS171010-21 **Open/Reference Date:** 10-OCT-17 **Balance Id :** BAL216
Name: ICPMS ICSAB **Received:** 10-OCT-17 **Pipet Id :** 1758088
Type: Working **Expires:** 11-OCT-17 **Solvent :** 2%HNO3/1%HCl -2602816
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB NexION
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI170807-12	Arsenic	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Barium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Beryllium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Boron	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Cadmium	2 mg/L	2.5 mL	250 mL	20.2 ug/L
UI170807-12	Chromium	2 mg/L	2.5 mL	250 mL	22.2 ug/L
UI170807-12	Cobalt	2 mg/L	2.5 mL	250 mL	20.4 ug/L
UI170807-12	Copper	2 mg/L	2.5 mL	250 mL	23.4 ug/L
UI170807-12	Lead	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Lithium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Manganese	2 mg/L	2.5 mL	250 mL	22.7 ug/L
UI170807-12	Nickel	2 mg/L	2.5 mL	250 mL	22.4 ug/L
UI170807-12	Selenium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Strontium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Thallium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Thorium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Uranium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Vanadium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-12	Zinc	2 mg/L	2.5 mL	250 mL	27 ug/L
UI170807-13	Antimony	2 mg/L	2.5 mL	250 mL	20.5 ug/L
UI170807-13	Silver	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-13	Tin	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-13	Tungsten	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170807-13	Zirconium	2 mg/L	2.5 mL	250 mL	20 ug/L
UI170822-11	Aluminum	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Calcium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Carbon	2000 mg/L	25 mL	250 mL	200000 ug/L
UI170822-11	Chloride	10000 mg/L	25 mL	250 mL	1000000 ug/L
UI170822-11	Iron	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Magnesium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Molybdenum	20 mg/L	25 mL	250 mL	2000 ug/L
UI170822-11	Phosphorous	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Potassium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Sodium	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Sulfur	1000 mg/L	25 mL	250 mL	100000 ug/L
UI170822-11	Titanium	20 mg/L	25 mL	250 mL	2000 ug/L

Serial ID: 160726-tclp
Name: I-HCL
Type: Reagent/Solvent
Employee: Edmund Frampton
Supplier: Fisher Scientific
Description: HYDROCHLORIC ACID
Comments: None

Open/Reference Date: 23-JUL-16
Received: 23-JUL-16
Expires: 23-JUL-18

Lot Number : 148589
Preservative_Id : 5 none

Standard Logbook

Serial ID: 170808 **Open/Reference Date:** 08-AUG-17 **Lot Number :** 0000177933
Name: I-HNO3 **Received:** 08-AUG-17
Type: Reagent/Solvent **Expires:** 08-AUG-19
Employee: Shanta Mack
Supplier: MACRON
Description: Concentrated Nitric Acid
Comments: None

Serial ID: 170830 **Open/Reference Date:** 30-AUG-17 **Lot Number :** 0000152522 mL
Name: B-H2O2 **Received:** 30-AUG-17
Type: Reagent/Solvent **Expires:** 30-AUG-18
Employee: Shanta Mack
Supplier: J.T. BAKER
Description: Hydrogen Peroxide 30%, from Bioassay (LIMS ID BIO2578029)
Comments: None

Serial ID: 2476611-A **Open/Reference Date:** 10-NOV-16 **Lot Number :** 2886C503
Name: B-NH2OH.HCl-MER **Received:** 10-NOV-16
Type: Reagent/Solvent **Expires:** 10-NOV-18
Employee: Monifa Basdeo
Supplier: BDH
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 2497637-A **Open/Reference Date:** 05-JAN-17 **Lot Number :** 43226339
Name: B-KMnO4(VWR)-MER **Received:** 05-JAN-17
Type: Reagent/Solvent **Expires:** 05-JAN-19
Employee: Alan Stanley
Supplier: Fisher
Description: Potassium Permanganate
Comments: None

Serial ID: 2509150-A **Open/Reference Date:** 31-JAN-17 **Lot Number :** 166221
Name: B-NaCl-MER **Received:** 31-JAN-17
Type: Reagent/Solvent **Expires:** 31-JAN-19
Employee: Monifa Basdeo
Supplier: Fisher Scientific
Description: Sodium Chloride
Comments: None

Standard Logbook

Serial ID: 2571341-C **Open/Reference Date:** 12-JUL-17 **Balance Id :** BAL-423
Name: B-NaCl.NH2OH.HCl-MER **Received:** 12-JUL-17
Type: Reagent/Solvent **Expires:** 12-JUL-18
Employee: Monifa Basdeo
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2476611-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	12%
2509150-A	B-NaCl-MER	NA	120 g	1000 mL	12%

Serial ID: 2586686 **Open/Reference Date:** 21-AUG-17 **Lot Number :** 172777
Name: I-HCL **Received:** 21-AUG-17
Type: Reagent/Solvent **Expires:** 21-AUG-19
Employee: Edmund Frampton
Supplier: FISHER SCIENTIFIC
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 2592009-1 **Open/Reference Date:** 01-SEP-17 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 01-SEP-17 **Lot Number :** 0000177933
Type: Reagent/Solvent **Expires:** 01-SEP-19
Employee: Alan Stanley
Supplier: MACRON
Description: NITRIC ACID
Comments: None

Serial ID: 2598067-A **Open/Reference Date:** 19-SEP-17 **Lot Number :** 172777
Name: B-HCl-MER **Received:** 19-SEP-17
Type: Reagent/Solvent **Expires:** 19-SEP-18
Employee: Monifa Basdeo
Supplier: Fisher Scientific
Description: Hydrochloric Acid Conc.
Comments: None

Serial ID: 2600118 **Open/Reference Date:** 25-SEP-17 **Solvent :** 3%HCL+1%HNO3
Name: B-ICP-RINSE SOLN **Received:** 21-AUG-17
Type: Reagent/Solvent **Expires:** 01-OCT-17
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
170808	I-HNO3	68.0-70.0%	80 mL	10000 mL	N/A
2586686	I-HCL	36.5-38.0	240 mL	10000 mL	N/A

Serial ID: 2601066-C **Open/Reference Date:** 26-SEP-17 **Balance Id :** BAL-423
Name: B-KMnO4-MER **Received:** 26-SEP-17
Type: Reagent/Solvent **Expires:** 05-JAN-19
Employee: Alan Stanley
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2497637-A	B-KMnO4(VWR)-MER	Crystals	175 g	3500 mL	5%

Serial ID: 2602816 **Open/Reference Date:** 02-OCT-17 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 02-OCT-17
Type: Reagent/Solvent **Expires:** 16-OCT-17
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
160726-tclp	I-HCL	36.5-38.0	80 mL	8 l	N/A
170808	I-HNO3	68.0-70.0%	160 mL	8 l	N/A

Serial ID: 2603718-C **Open/Reference Date:** 03-OCT-17 **Solvent :** DI H2O
Name: B-Aqua Regia-MER **Received:** 03-OCT-17
Type: Reagent/Solvent **Expires:** 04-OCT-17
Employee: Alan Stanley
Supplier: GEL
Description: 50% Aqua Regia
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
2592009-1	B-HNO3-MER	68.0-70.0%	25 mL	200 mL	100 ml
2598067-A	B-HCl-MER	36.5-38%	75 mL	200 mL	100 ml

Serial ID: I-BC170502 **Open/Reference Date:** 02-MAY-17 **Lot Number :** S941-6H028
Name: I-Boiling chips **Received:** 02-MAY-17
Type: Reagent/Solvent **Expires:** 02-MAY-19
Employee: Shanta Mack
Supplier: Chemware
Description: Teflon chips for MB/LCS metals Solids

Comments: None