FIBERS SITE GROUP

November 13, 2018

Via Email Electronic Copy

Adalberto Bosque, PhD, MBA, REM, CEA
Response and Remediation Branch
U.S Environmental Protection Agency
City View Plaza II - Suite 7000
48 RD, 165 Km. 1.2
Guaynabo, PR 00968-8069

Subject: RD/RA Monthly Report – October 2018
Fibers Public Supply Wells Site
Guayama, Puerto Rico

Dear Mr. Bosque:

On behalf of the Fibers Public Supply Wells Site Settling Defendants, we are submitting the attached RD/RA Monthly Report prepared pursuant to the Consent Decree (Civil Action No. 92-2486) in the matter of *Unites States v. Anaquest Caribe, Inc. et al*, Section IX, Paragraph 30, Reporting Requirements.

Please feel free to contact Mr. James Kirschner of ARCADIS at (602) 797-4519 or me at (724) 544-4874 if you have any questions or comments regarding this submittal.

Sincerely,

Joe Biss
Fibers Site Group Project Coordinator
EHS Support LLC

Copies:

Chief, New York/Caribbean Superfund Branch, Attn. Teresita Rodriguez - via email only
Ms. Margo Ludmer, Assistant Regional Counsel – via email only
Chief, Environmental Enforcement Division, U.S. Department of Justice (DOJ #90-11-2-768)
Amarilis Rodriguez Mendez, State Remedial Project Manager, Puerto Rico Environmental Quality Board - via email only
Ms. Kathryn Flynn, Hydrogeologist, USEPA Superfund Technical Support Section – via email only
Ms. Enid Diaz, Departmento de Recursos Naturales y Ambientales
Mr. Jorge Morales, PRIDCO - via email only
Mr. Joel Melendez Rodriguez, PRIDCO - via email only
Ms. Ana Palou Balsa, PRIDCO – via email only
Mr. Dan Vineyard, Jackson Walker- via email only
James Kirschner, Arcadis - via email only

RD/RA Monthly Report – October 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

(a) Description of actions which have been taken toward achieving compliance with this Decree.

Fibers Air Stripping System

The Fibers groundwater extraction and treatment system (GWETS) was operational for approximately 95% of the time during October 2018. The GWETS had two shut downs due to equipment issues, three shut downs due to GWETS maintenance, one shut down due to communication loss, and two automated shut downs due to power outages. The GWETS was restarted no later than the next business day in each instance. The air conditioner unit inside the control panel of extraction well RW-2 stopped operating on September 17, 2018; RW-2 was shut down. The control panel air conditioner unit was replaced on October 22, 2018 and RW-2 was restarted.

A summary of the daily treatment system operating records is presented in Table 1. The GWETS average flow rates are depicted on Figure 1. The GWETS operated at an average flow rate of 233 gallons per minute (gpm) and treated approximately 10.40 million gallons of water. To date (since May 1999), approximately 3.27 billion gallons of water have been treated at the Fibers Site. The GWETS average influent flow rate was calculated using the summation of the average groundwater extraction rates from the three recovery wells (RW-2, RW-4, and RW-5). This calculated flow rate is consistent with previous measured flow rates. The influent flow meter appears to be faulty (data indicating an average flow rate of 223 gpm, versus 233 gpm when the sum of the individual readings for RW-2, RW-4 and RW-5 are totaled, see Table 1). The influent flow meter is being evaluated for replacement.

(b) Summary of all sampling results and tests, and all other data received or generated by Settling Defendants.

Arcadis U.S., Inc. (Arcadis) collected split groundwater influent and effluent samples on October 2, 2018. The samples were submitted and analyzed by Pace Analytical Services, Inc. (Pace) in St. Rose, Louisiana and Environmental Quality Laboratories, Inc. (EQLAB) in Bayamon, Puerto Rico. A summary of the October 2, 2018 GWETS Laboratory Analytical Results is provided in Table 2. A summary of GWETS influent groundwater concentrations of tetrachloroethene (PCE) and total haloethers, as reported by Pace, is depicted on Figures 2 and 3, respectively.

Arcadis performed a data quality assessment (validation) of the laboratory analytical results reported by Pace. Results are summarized in the Data Review Report #30926R and provided as Attachment 1. A copy of the chain of custody and annotated sample analysis data sheets are provided as an attachment to the Data Review Report. A copy of the complete Pace Laboratory Analytical Report #2085365 is provided as Attachment 2.

Arcadis performed a data quality assessment (validation) of the laboratory analytical results reported by EQLAB. Results are summarized in the Data Review Report #30927R and provided as Attachment 3. A copy of the chain of custody and annotated sample analysis data sheets are provided as an attachment to the Data Review Report. A copy of the complete EQLAB Laboratory Analytical Report #261635 (WO 655-04-26) is provided as Attachment 4.

A copy of the GWETS Sampling and Monitoring Field Form, documenting sample collection information, individual flow rates at the three groundwater extraction wells and treatment system parameters is provided as Attachment 5.

(c) List of all work plans, plans and other deliverables completed and submitted.

At the request of Mr. Adalberto Bosque, PhD, MBA, REM, CEA, the Fibers Group compiled and submitted the following reports to the United States Environmental Protection Agency (USEPA) for the pending 2019 Five-year project review:

- RD/RA Monthly Reports
    - July 2014 through September 2018
- Semi-Annual Groundwater Monitoring Reports
    - First and Second of 2014, 2015, 2016, and 2017
- Evaluation of Four Treated Groundwater Discharge Alternatives

(d) Description of all actions, including, but not limited to, data collection and implementation of work plans, which are scheduled for the next six weeks.

The Fibers Group anticipates the completion and submittal of an updated Quality Assurance Project Plan (QAPP) to the United States Environmental Protection Agency USEPA within the next six weeks.

(e) Information regarding the percentage completion, unresolved delays encountered or anticipated.

Supplemental Subsurface Soil Investigations – In progress
Construction Activities – 100% complete.
System Start-Up – 100% complete.
Start-Up Performance Monitoring – 100% complete.
Long-Term Operation & Maintenance Period – In progress.

(f) List of any modification to work plans or other schedules the Settling Defendants have proposed.

None.

(g) Description of activities undertaken in support of the Community Relations Plan.

No support activities have been requested for the next planning period.

(h) Actions undertaken to address outside parties concerns.

No concerns from outside parties were encountered during this reporting period.

Tables

Table 1
Summary of Daily Treatment System Operating Records - October 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Recording Date	Influent Flow (gpm) [1]	Effluent Flow (gpm) [2]	RW-2 (gpm) [3]	RW-4 (gpm) [4]	RW-5 (gpm) [5]	pH [6]	Comments
10/1/2018	183	251	0	155	80	7.9	
10/2/2018	183	252	0	155	80	7.9	
10/3/2018	183	251	0	155	80	7.9	
10/4/2018	161	211	0	123	64	7.3	GWETS down due to equipment issues; GWETS restarted. Power outage; GWETS auto restarted.
10/5/2018	231	317	0	155	80	7.9	
10/6/2018	231	317	0	155	80	7.9	
10/7/2018	231	318	0	155	80	7.9	
10/8/2018	173	238	0	117	60	8.0	GWETS maintenance; GWETS restarted.
10/9/2018	230	317	0	155	80	8.2	GWETS maintenance.
10/10/2018	230	318	0	155	80	8.1	GWETS maintenance. Power outage; GWETS auto restarted
10/11/2018	231	317	0	155	80	8.1	
10/12/2018	231	316	0	155	80	8.0	
10/13/2018	234	321	0	155	80	8.0	
10/14/2018	231	319	0	155	80	8.0	
10/15/2018	231	321	0	155	80	8.0	
10/16/2018	234	320	0	155	80	8.0	
10/17/2018	232	320	0	155	80	7.9	
10/18/2018	199	274	0	133	70	8.0	GWETS down due to power outage and equipment issues; GWETS restarted.
10/19/2018	231	320	0	155	80	8.0	
10/20/2018	232	320	0	155	80	8.0	
10/21/2018	232	321	0	155	80	8.0	
10/22/2018	113	141	9	69	37	8.1	GWETS maintenance; GWETS restarted. RW-2 restarted. Communication loss.
10/23/2018	160	222	58	58	47	8.2	Communication loss. GWETS maintenance; GWETS restarted.
10/24/2018	275	380	100	100	80	8.2	GWETS maintenance.
10/25/2018	275	381	100	100	80	8.2	GWETS maintenance.
10/26/2018	274	381	100	100	80	8.1	
10/27/2018	275	380	100	100	80	8.1	
10/28/2018	217	302	100	42	80	8.1	RW-4 down due to communication loss.
10/29/2018	238	330	100	62	80	8.0	RW-4 down due to communication loss; RW-4 restarted.
10/30/2018	263	366	96	96	77	8.0	Power outage; GWETS auto restarted.
10/31/2018	274	381	100	100	80	8.0	
Monthly Average	223	307	28	129	76	8.0	

Table 1
Summary of Daily Treatment System Operating Records - October 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Notes:

Flow rates are 24-hour daily average.

gpm = gallons per minute.

[1] = Recorded from instrument FIT-101.

[2] = Recorded from instrument FIT-301.

[3] = Recorded from instrument RW2 FIT.

[4] = Recorded from instrument RW4 FIT.

[5] = Recorded from instrument RW5 FIT.

[6] = Recorded from instrument pHIT-201A.

Table 2
Summary of Treatment System Laboratory Analytical Results – Split Samples
Collected at the Treatment System Compound October 2, 2018
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Fibers Groundwater Extraction and Treatment System

Laboratory analytical results (split samples) for water samples collected at the influent and effluent sample tap locations from the Fibers Groundwater Extraction and Treatment System on October 2, 2018 are presented below. Split samples were submitted to Pace Analytical Services, Inc. (PACE) in St. Rose, Louisiana and to Environmental Quality Laboratories, Inc. (EQLAB) in Bayamon, Puerto Rico. Analytical results from both laboratories are presented below. The treatment system average influent flow rate at the time the samples were collected was 182 gallons per minute (gpm). Laboratory analytical reports from PACE and EQLAB did not vary significantly. Acetone was not detected at or above the laboratory reporting limit in the split samples collected and analyzed. Bromoform and Dibromochloromethane were detected above the laboratory reporting limit in the EQLAB effluent and effluent duplicate samples collected and analyzed. Bromoform and Dibromochloromethane were not detected in the influent or trip blank samples, so are likely due to laboratory cross contamination (compounds typically used as laboratory reagents). A copy of the PACE and EQLAB Analytical Reports are included in this report as Attachment 2 and Attachment 4, respectively.

	VOC (µg/L)							
	Sample ID							
Compound	EFF-20181002		EFFDUP-20181002		INF-20181002		TB-20181002	
	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB
Tetrachloroethene	ND	ND	ND	ND	5.7	6.10	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	NA	R	NA	ND	NA	ND	NA	ND
Vinyl Chloride	1.0 UJ	R	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	8.0 UJ	R	ND	ND	ND	ND	ND	ND
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	NA	ND	NA	ND	NA	ND	NA	ND
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	1.40	ND	1.50	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	2.40	ND	2.30	ND	ND	ND	ND
Epichlorohydrin	NA	ND	NA	ND	NA	ND	NA	ND
Ethylbenzene	ND	3.0 UJ	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NA	ND	NA	ND	NA	ND	NA	ND

	VOC (µg/L)							
	Sample ID							
Compound	EFF-20181002		EFFDUP-20181002		INF-20181002		TB-20181002	
	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB
Iodomethane	NA	R	NA	ND	NA	ND	NA	ND
Isopropylbenzene	NA	3.0 UJ	NA	ND	NA	ND	NA	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	NA	3.0 UJ	NA	ND	NA	ND	NA	ND
n-Propylbenzene	NA	3.0 UJ	NA	ND	NA	ND	NA	ND
o-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
sec-Butylbenzene	NA	3.0 UJ	NA	ND	NA	ND	NA	ND
tert-Butylbenzene	NA	ND	NA	ND	NA	ND	NA	ND
Trans-1,3-dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND
Trans-1,4-Dichloro-2-butene	NA	R	NA	ND	NA	ND	NA	ND
Styrene	R	R	ND	ND	ND	ND	ND	ND
Tetrahydrofuran	NA	ND	NA	ND	NA	ND	NA	ND
Toluene	ND	3.0 UJ	ND	ND	ND	ND	ND	ND
m&p-Xylene	2.0 UJ	6.0 UJ	ND	ND	ND	ND	ND	ND
o-Xylene	1.0 UJ	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether	NA	R	NA	R	NA	R	NA	R
Naphthalene	NA	R	NA	ND	NA	ND	NA	ND
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	NA	ND	NA	ND	NA	ND	NA	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	NA	3.0 UJ	NA	ND	NA	ND	NA	ND
1,2,3-Trichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,2,3-Trichlororopane	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,2,4-Trimethylbenzene	NA	R	NA	ND	NA	ND	NA	ND
1,2-Dibromo-3-chloropropane	NA	ND	NA	ND	NA	ND	NA	ND
1,2-Dibromoethane	NA	ND	NA	ND	NA	ND	NA	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.0 UJ	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NA	R	NA	ND	NA	ND	NA	ND
1,3-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1,3-Dichloropropane	NA	ND	NA	ND	NA	ND	NA	ND
1,4-Dichlorobenzene	NA	ND	NA	ND	NA	ND	NA	ND
1-Chlorohexane	NA	ND	NA	ND	NA	ND	NA	ND
2-Chlorotoluene	NA	ND	NA	ND	NA	ND	NA	ND
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	NA	ND	NA	ND	NA	ND	NA	ND
4-Isopropyltoluene	NA	R	NA	ND	NA	ND	NA	ND
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	ND	ND
Enflurane	ND	NA	ND	NA	1.5	NA	ND	NA

	VOC (µg/L)							
	Sample ID							
Compound	EFF-20181002		EFFDUP-20181002		INF-20181002		TB-20181002	
	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB	PACE	EQLAB
Haloether 229	ND	NA	ND	NA	11.0	NA	ND	NA
Haloether 406	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 421	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 427	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 428	ND	NA	ND	NA	ND	NA	ND	NA
Haloether 508	ND	NA	ND	NA	31.0	NA	ND	NA
Haloether 528	ND	NA	ND	NA	4.2	NA	ND	NA
Halomar	ND	NA	ND	NA	1.1	NA	ND	NA
Isoflurane	ND	NA	ND	NA	44.5	NA	ND	NA
Methoxyflurane	ND	NA	ND	NA	ND	NA	ND	NA
Total Haloethers	ND	NA	ND	NA	93.2	NA	ND	NA
Other VOC	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
VOC = volatile organic compounds.
µg/L = micrograms per liter.
EFF = effluent sample.
EFFDUP = effluent duplicate sample.
INF = influent sample.
TB = trip blank.
ND = not detected at or above laboratory reporting limit.
J = The compound was positively identified; however, the associated numerical value is an estimated concentration only.
UJ = The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
R = rejected.
NA = not analyzed.
BDL = below detection limit.

Figures

Figure 1
Fibers Public Supply Wells Superfund Site
Summary of Treatment System Flow Rates

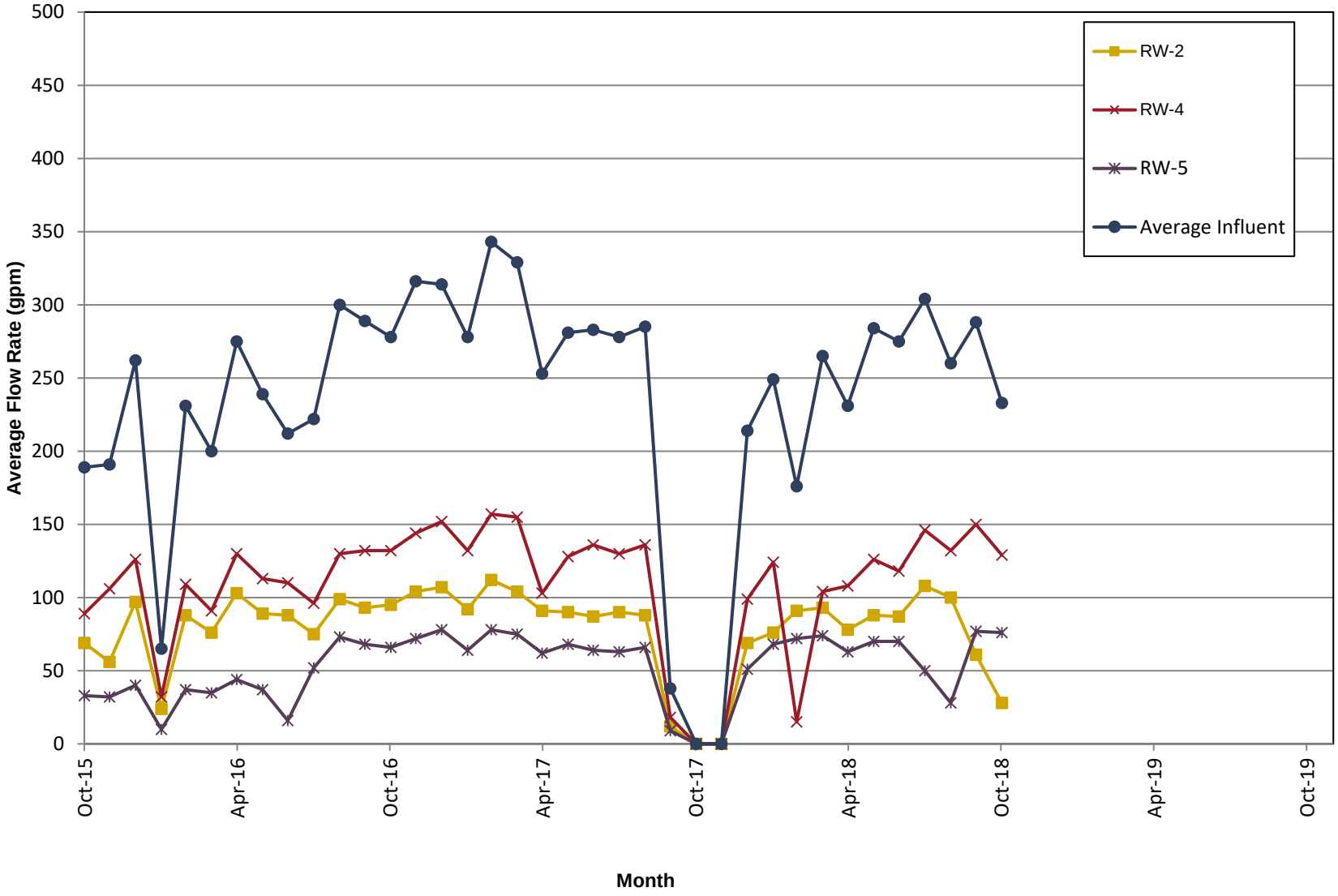


Figure 2
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Tetrachloroethene (PCE) Concentrations

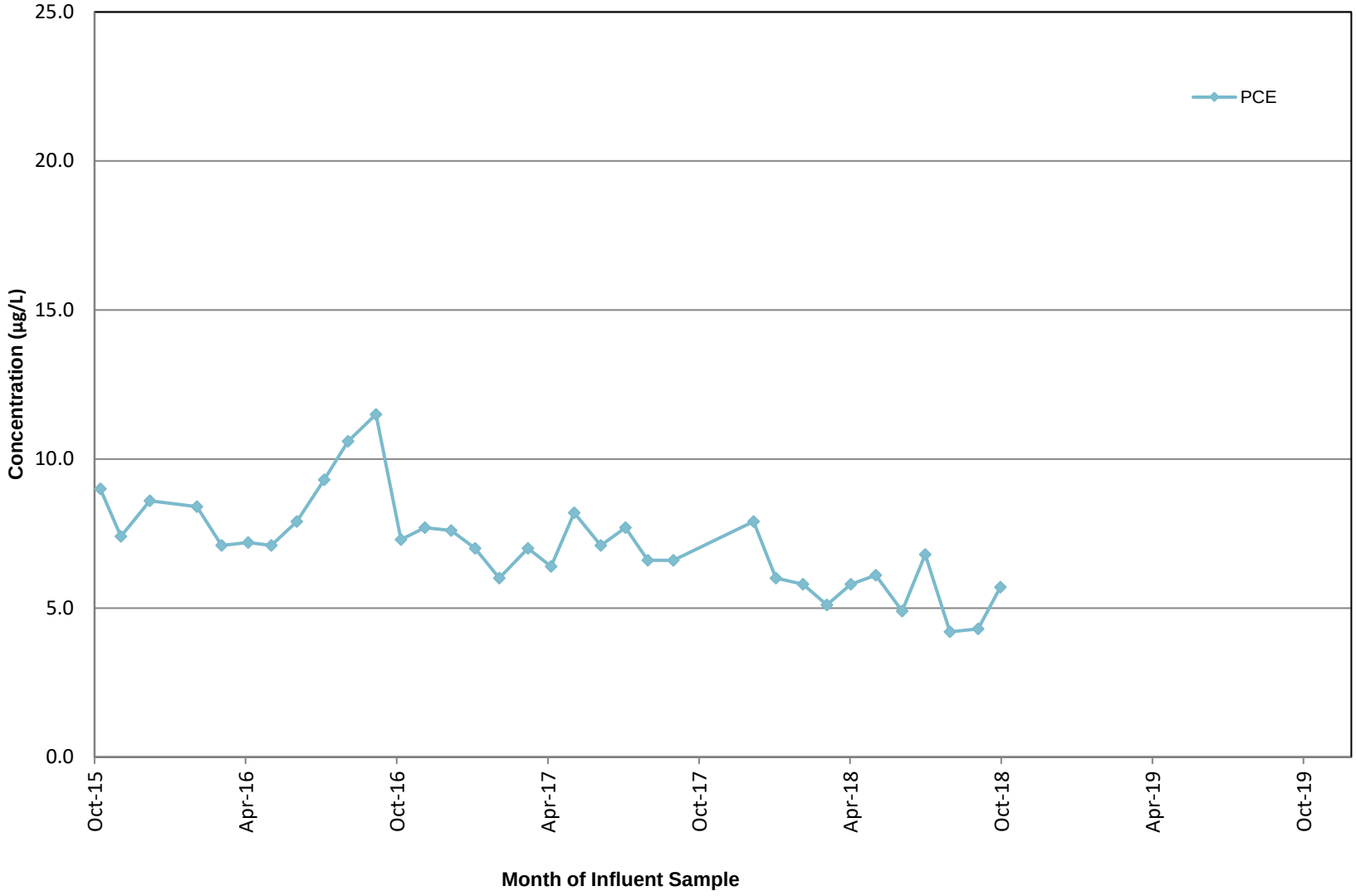
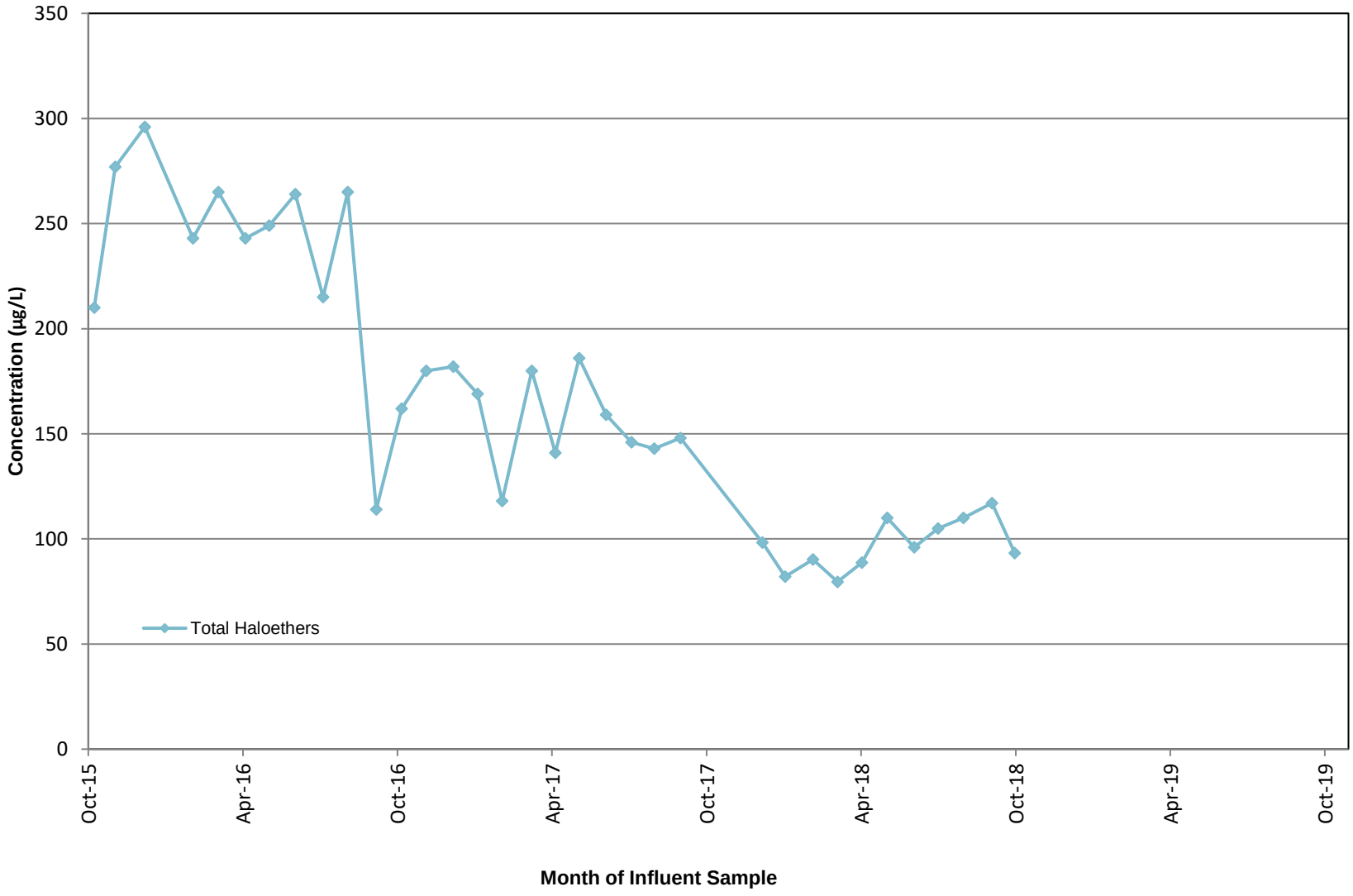


Figure 3
Fibers Public Supply Wells Superfund Site
Treatment System Influent -
Total Haloethers Concentrations



Attachment 1
Data Review Report #30926R

ARCADIS Design & Consultancy for natural and built assets

Fibers Group

DATA REVIEW

GUAYAMA, PUERTO RICO

Volatile Analyses

SDG #2085365

Analyses Performed By:
Pace Analytical Services, Inc.
New Orleans, Louisiana

Report #30926R
Review Level: Tier II
Project: CO001911.0007.1805A

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #2085365 for samples collected in association with the Fibers Group Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
TB-20181002	2085365001	Water	10/02/2018		X				
INF-20181002	2085365002	Water	10/02/2018		X				
EFF-20181002	2085365003	Water	10/02/2018		X				
EFFDUP-20181002	2085365004	Water	10/02/2018	EFF-20181002	X				

Notes:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location EFF-20181002 for VOCs.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)	X				
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the reporting limit (RL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the RL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
EFF-20181002	m&p-Xylene	<LL but >10%	<LL but >10%
	o-Xylene		
	Styrene	<10%	<10%

Note:
AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than the control limit are presented in the following table.

Sample Locations	Compound
EFF-20181002	Acrolein
	1,1-Dichloroethene
	m&p-Xylene
	o-Xylene
	Vinyl chloride

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Laboratory Control Sample

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
EFF-20181002/EFFDUP-20181002	All compounds	U	U	AC

Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

%D Percent difference

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE: Joseph C. Houser

DATE: October 22, 2018

PEER REVIEW: Dennis Capria

DATE: October 25, 2018

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

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(504)469-0333

ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: TB-20181002 **Lab ID: 2085365001** Collected: 10/02/18 00:00 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 14:45	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 14:45	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 14:45	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 14:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 14:45	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 14:45	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 14:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 14:45	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 14:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 14:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 14:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 14:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 14:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 14:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 14:45	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 14:45	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 14:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:45	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 14:45	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 14:45	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 406	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 421	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 427	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 428	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 508	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 528	ND	ug/L	1.0	1		10/12/18 14:45		
Halomar	ND	ug/L	1.0	1		10/12/18 14:45		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 14:45	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 14:45		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 14:45	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 14:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 14:45	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 14:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 14:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 14:45	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 14:45	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 14:45		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: TB-20181002 **Lab ID: 2085365001** Collected: 10/02/18 00:00 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 14:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 14:45	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 14:45	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 14:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 14:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 14:45	95-47-6	
Surrogates								
Toluene-d8 (S)	104	%.	79-119	1		10/12/18 14:45	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		10/12/18 14:45	460-00-4	
Dibromofluoromethane (S)	95	%.	72-126	1		10/12/18 14:45	1868-53-7	

Sample: INF-20181002 **Lab ID: 2085365002** Collected: 10/02/18 08:33 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 15:21	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 15:21	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 15:21	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 15:21	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 15:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 15:21	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 15:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 15:21	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 15:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 15:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 15:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 15:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 15:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 15:21	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 15:21	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 15:21	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 15:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:21	10061-02-6	
Enflurane	**1.5**	ug/L	1.0	1		10/12/18 15:21	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 15:21	100-41-4	
Haloether 229	**11.0**	ug/L	1.0	1		10/12/18 15:21		
Haloether 406	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 421	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 427	ND	ug/L	1.0	1		10/12/18 15:21		

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: INF-20181002 **Lab ID: 2085365002** Collected: 10/02/18 08:33 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 508	**31.0**	ug/L	1.0	1		10/12/18 15:21		
Haloether 528	**4.2**	ug/L	1.0	1		10/12/18 15:21		
Halomar	**1.1**	ug/L	1.0	1		10/12/18 15:21		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 15:21	591-78-6	
Isoflurane	**44.5**	ug/L	1.0	1		10/12/18 15:21		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 15:21	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 15:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 15:21	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 15:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 15:21	79-34-5	
Tetrachloroethene	**5.7**	ug/L	1.0	1		10/12/18 15:21	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 15:21	108-88-3	
Total Haloether	**93.2**	ug/L	1.0	1		10/12/18 15:21		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 15:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 15:21	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 15:21	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 15:21	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 15:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 15:21	95-47-6	
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		10/12/18 15:21	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	68-124	1		10/12/18 15:21	460-00-4	
Dibromofluoromethane (S)	93	%.	72-126	1		10/12/18 15:21	1868-53-7	

Sample: EFF-20181002 **Lab ID: 2085365003** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 14:27	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 14:27	107-02-8	~~R1~~ UJ
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 14:27	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 14:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 14:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 14:27	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 14:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 14:27	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 14:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 14:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 14:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 14:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 14:27	67-66-3	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFF-20181002 **Lab ID: 2085365003** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		10/12/18 14:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 14:27	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 14:27	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	75-35-4	~~R1~~ UJ
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 14:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:27	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 14:27	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 14:27	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 406	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 421	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 427	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 428	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 508	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 528	ND	ug/L	1.0	1		10/12/18 14:27		
Halomar	ND	ug/L	1.0	1		10/12/18 14:27		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 14:27	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 14:27		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 14:27	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 14:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 14:27	108-10-1	
Styrene	~~ND~~	~~ug/L~~	~~1.0~~	~~1~~		~~10/12/18 14:27~~	~~100-42-5~~	~~M1~~ R
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 14:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 14:27	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 14:27	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 14:27		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 14:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 14:27	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 14:27	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 14:27	75-01-4	~~R1~~ UJ
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 14:27	179601-23-1	~~M1,R1~~
o-Xylene	ND	ug/L	1.0	1		10/12/18 14:27	95-47-6	~~M1,R1~~
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		10/12/18 14:27	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	68-124	1		10/12/18 14:27	460-00-4	
Dibromofluoromethane (S)	100	%.	72-126	1		10/12/18 14:27	1868-53-7	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFFDUP-20181002 **Lab ID: 2085365004** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 15:03	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 15:03	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 15:03	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 15:03	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 15:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 15:03	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 15:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 15:03	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 15:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 15:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 15:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 15:03	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 15:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 15:03	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 15:03	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 15:03	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 15:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:03	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 15:03	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 15:03	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 406	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 421	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 427	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 428	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 508	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 528	ND	ug/L	1.0	1		10/12/18 15:03		
Halomar	ND	ug/L	1.0	1		10/12/18 15:03		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 15:03	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 15:03		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 15:03	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 15:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 15:03	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 15:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 15:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 15:03	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 15:03	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 15:03		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	79-01-6	

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St. Rose, LA 70087
(504)469-0333

ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFFDUP-20181002 **Lab ID: 2085365004** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 15:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 15:03	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 15:03	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 15:03	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 15:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 15:03	95-47-6	
Surrogates								
Toluene-d8 (S)	101	%.	79-119	1		10/12/18 15:03	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	68-124	1		10/12/18 15:03	460-00-4	
Dibromofluoromethane (S)	101	%.	72-126	1		10/12/18 15:03	1868-53-7	

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WO# : 2085365

2085365

CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUME

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Arcadis	Report To:	Elvin Varela	Attention:	
Address:	#48 City View Plaza 1 Suite 401	Copy To:		Company Name:	
Rd 165 KM 1.2, Guaynabo, PR 00968				Address:	
Email:		Purchase Order #:		Pace Quote:	
Phone:	Fax:	Project Name:	Fibers Public Supply Well(PO#CO001911.000	Pace Project Manager:	craig.mccollum@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	1037 L1

Regulatory Agency

State / Location: PR

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	VOC 8260-Trip Blank	Residual Chlorine (Y/N)
1	TB-20181002	WT	L	—	—	10/02/18	LAR						X							X	
2	INF-20181002	WT	L	—	—	10/02/18	0833						X						X		
3	EFF-20181002	WT	L	—	—	10/02/18	0855						X						X		
4	EFFMS-20181002	WT	L	—	—	10/02/18	0855						X						X		
5	EFFDUP-20181002	WT	L	—	—	10/02/18	0855						X						X		
6	EFFMSD-20181002	WT	L	—	—	10/02/18	0855						X						X		
7																					
8																					
9																					
10																					
11																					
12																					

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] (ARCADIS)	10/02/18	14:00	[signature] Pace	10/2/18	14:00	2°	Y	N	X
	[signature] PACE	10/2/18	1700	FEDEX	10/2/18	1700				
	Fed Ex	10/3/18	1000	[signature]	10/3/18	1000	3.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Elvin Varela

SIGNATURE of SAMPLER: [signature]

DATE Signed: 10/02/18

Attachment 2
Pace Laboratory Analytical Report #2085365

Pace Analytical Services, LLC
1000 Riverbend Blvd - Suite F
St. Rose, LA 70087
(504)469-0333

October 16, 2018

David Howard
ARCADIS
410 North 44th St.
Suite 1000
Phoenix, AZ 85008

RE: Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Dear David Howard:

Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Craig McCollum
craig.mccollum@pacelabs.com
504-305-3618
Project Manager

Enclosures

cc: Janisse Diaz, Arcadis
Gisela Hernandez Rivera, Arcadis
Elvin Varela, ARCADIS

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CERTIFICATIONS

Project:	Fibers Public Supply Wells
Pace Project No.:	2085365

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylviania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119
Commonwealth of Virginia (TNI): 480246

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SAMPLE SUMMARY

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2085365001	**TB-20181002**	Water	10/02/18 00:00	10/03/18 10:00
2085365002	**INF-20181002**	Water	10/02/18 08:33	10/03/18 10:00
2085365003	**EFF-20181002**	Water	10/02/18 08:55	10/03/18 10:00
2085365004	**EFFDUP-20181002**	Water	10/02/18 08:55	10/03/18 10:00

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SAMPLE ANALYTE COUNT

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2085365001	**TB-20181002**	EPA 5030B/8260	GEM	56	PASI-N
2085365002	**INF-20181002**	EPA 5030B/8260	GEM	56	PASI-N
2085365003	**EFF-20181002**	EPA 5030B/8260	GEM	56	PASI-N
2085365004	**EFFDUP-20181002**	EPA 5030B/8260	GEM	56	PASI-N

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PROJECT NARRATIVE

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Method: **EPA 5030B/8260**
Description: 8260 MSV HALOETHERS
Client: ARCADIS
Date: October 16, 2018

General Information:
4 samples were analyzed for EPA 5030B/8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 123028

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2085365003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 531386)
  - Styrene
  - m&p-Xylene
  - o-Xylene
- MSD (Lab ID: 531387)
  - Styrene
  - m&p-Xylene
  - o-Xylene

R1: RPD value was outside control limits.

- MSD (Lab ID: 531387)
  - 1,1-Dichloroethene
  - Acrolein
  - Vinyl chloride

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PROJECT NARRATIVE

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Method: **EPA 5030B/8260**
Description: 8260 MSV HALOETHERS
Client: ARCADIS
Date: October 16, 2018

QC Batch: 123028

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 2085365003

R1: RPD value was outside control limits.

- m&p-Xylene
- o-Xylene

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: TB-20181002 **Lab ID: 2085365001** Collected: 10/02/18 00:00 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 14:45	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 14:45	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 14:45	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 14:45	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 14:45	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 14:45	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 14:45	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 14:45	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 14:45	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 14:45	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 14:45	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 14:45	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 14:45	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 14:45	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 14:45	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 14:45	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 14:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:45	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 14:45	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 14:45	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 406	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 421	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 427	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 428	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 508	ND	ug/L	1.0	1		10/12/18 14:45		
Haloether 528	ND	ug/L	1.0	1		10/12/18 14:45		
Halomar	ND	ug/L	1.0	1		10/12/18 14:45		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 14:45	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 14:45		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 14:45	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 14:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 14:45	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 14:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 14:45	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 14:45	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 14:45	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 14:45		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:45	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 14:45	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: TB-20181002 **Lab ID: 2085365001** Collected: 10/02/18 00:00 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 14:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 14:45	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 14:45	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 14:45	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 14:45	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 14:45	95-47-6	
Surrogates								
Toluene-d8 (S)	104	%.	79-119	1		10/12/18 14:45	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	68-124	1		10/12/18 14:45	460-00-4	
Dibromofluoromethane (S)	95	%.	72-126	1		10/12/18 14:45	1868-53-7	

Sample: INF-20181002 **Lab ID: 2085365002** Collected: 10/02/18 08:33 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 15:21	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 15:21	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 15:21	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 15:21	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 15:21	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 15:21	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 15:21	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 15:21	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 15:21	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 15:21	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 15:21	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 15:21	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 15:21	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 15:21	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 15:21	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 15:21	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 15:21	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:21	10061-02-6	
Enflurane	**1.5**	ug/L	1.0	1		10/12/18 15:21	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 15:21	100-41-4	
Haloether 229	**11.0**	ug/L	1.0	1		10/12/18 15:21		
Haloether 406	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 421	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 427	ND	ug/L	1.0	1		10/12/18 15:21		

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: INF-20181002 **Lab ID: 2085365002** Collected: 10/02/18 08:33 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Haloether 428	ND	ug/L	1.0	1		10/12/18 15:21		
Haloether 508	**31.0**	ug/L	1.0	1		10/12/18 15:21		
Haloether 528	**4.2**	ug/L	1.0	1		10/12/18 15:21		
Halomar	**1.1**	ug/L	1.0	1		10/12/18 15:21		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 15:21	591-78-6	
Isoflurane	**44.5**	ug/L	1.0	1		10/12/18 15:21		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 15:21	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 15:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 15:21	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 15:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 15:21	79-34-5	
Tetrachloroethene	**5.7**	ug/L	1.0	1		10/12/18 15:21	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 15:21	108-88-3	
Total Haloether	**93.2**	ug/L	1.0	1		10/12/18 15:21		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:21	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 15:21	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 15:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 15:21	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 15:21	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 15:21	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 15:21	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 15:21	95-47-6	
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		10/12/18 15:21	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	68-124	1		10/12/18 15:21	460-00-4	
Dibromofluoromethane (S)	93	%.	72-126	1		10/12/18 15:21	1868-53-7	

Sample: EFF-20181002 **Lab ID: 2085365003** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 14:27	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 14:27	107-02-8	R1
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 14:27	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 14:27	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 14:27	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 14:27	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 14:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 14:27	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 14:27	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 14:27	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 14:27	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 14:27	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 14:27	67-66-3	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFF-20181002 **Lab ID: 2085365003** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Chloromethane	ND	ug/L	1.0	1		10/12/18 14:27	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 14:27	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 14:27	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	75-35-4	R1
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 14:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 14:27	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 14:27	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 14:27	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 406	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 421	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 427	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 428	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 508	ND	ug/L	1.0	1		10/12/18 14:27		
Haloether 528	ND	ug/L	1.0	1		10/12/18 14:27		
Halomar	ND	ug/L	1.0	1		10/12/18 14:27		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 14:27	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 14:27		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 14:27	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 14:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 14:27	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 14:27	100-42-5	M1
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 14:27	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 14:27	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 14:27	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 14:27		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 14:27	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 14:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 14:27	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 14:27	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 14:27	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 14:27	75-01-4	R1
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 14:27	179601-23-1	M1,R1
o-Xylene	ND	ug/L	1.0	1		10/12/18 14:27	95-47-6	M1,R1
Surrogates								
Toluene-d8 (S)	99	%.	79-119	1		10/12/18 14:27	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	68-124	1		10/12/18 14:27	460-00-4	
Dibromofluoromethane (S)	100	%.	72-126	1		10/12/18 14:27	1868-53-7	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFFDUP-20181002 **Lab ID: 2085365004** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Acetone	ND	ug/L	4.0	1		10/12/18 15:03	67-64-1	
Acrolein	ND	ug/L	8.0	1		10/12/18 15:03	107-02-8	
Acrylonitrile	ND	ug/L	4.0	1		10/12/18 15:03	107-13-1	
Benzene	ND	ug/L	1.0	1		10/12/18 15:03	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/12/18 15:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/12/18 15:03	75-25-2	
Bromomethane	ND	ug/L	1.0	1		10/12/18 15:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	2.0	1		10/12/18 15:03	78-93-3	
Carbon disulfide	ND	ug/L	1.0	1		10/12/18 15:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		10/12/18 15:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/12/18 15:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/12/18 15:03	75-00-3	
Chloroform	ND	ug/L	1.0	1		10/12/18 15:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/12/18 15:03	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/12/18 15:03	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		10/12/18 15:03	74-95-3	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/12/18 15:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/12/18 15:03	10061-02-6	
Enflurane	ND	ug/L	1.0	1		10/12/18 15:03	13838-16-9	
Ethylbenzene	ND	ug/L	1.0	1		10/12/18 15:03	100-41-4	
Haloether 229	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 406	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 421	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 427	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 428	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 508	ND	ug/L	1.0	1		10/12/18 15:03		
Haloether 528	ND	ug/L	1.0	1		10/12/18 15:03		
Halomar	ND	ug/L	1.0	1		10/12/18 15:03		
2-Hexanone	ND	ug/L	2.0	1		10/12/18 15:03	591-78-6	
Isoflurane	ND	ug/L	1.0	1		10/12/18 15:03		
Methoxyflurane	ND	ug/L	1.0	1		10/12/18 15:03	76-38-0	
Methylene Chloride	ND	ug/L	5.0	1		10/12/18 15:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	2.0	1		10/12/18 15:03	108-10-1	
Styrene	ND	ug/L	1.0	1		10/12/18 15:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/12/18 15:03	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/12/18 15:03	127-18-4	
Toluene	ND	ug/L	1.0	1		10/12/18 15:03	108-88-3	
Total Haloether	ND	ug/L	1.0	1		10/12/18 15:03		
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/12/18 15:03	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/12/18 15:03	79-01-6	

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ANALYTICAL RESULTS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Sample: EFFDUP-20181002 **Lab ID: 2085365004** Collected: 10/02/18 08:55 Received: 10/03/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV HALOETHERS	Analytical Method: EPA 5030B/8260							
Trichlorofluoromethane	ND	ug/L	1.0	1		10/12/18 15:03	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/12/18 15:03	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		10/12/18 15:03	76-13-1	
Vinyl chloride	ND	ug/L	1.0	1		10/12/18 15:03	75-01-4	
m&p-Xylene	ND	ug/L	2.0	1		10/12/18 15:03	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/12/18 15:03	95-47-6	
Surrogates								
Toluene-d8 (S)	101	%.	79-119	1		10/12/18 15:03	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	68-124	1		10/12/18 15:03	460-00-4	
Dibromofluoromethane (S)	101	%.	72-126	1		10/12/18 15:03	1868-53-7	

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

QC Batch: 123028 | Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 | Analysis Description: 8260 MSV
Associated Lab Samples: 2085365001, 2085365002, 2085365003, 2085365004

METHOD BLANK: 531384 | Matrix: Water
Associated Lab Samples: 2085365001, 2085365002, 2085365003, 2085365004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/12/18 12:57	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/12/18 12:57	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/12/18 12:57	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	10/12/18 12:57	
1,1-Dichloroethane	ug/L	ND	1.0	10/12/18 12:57	
1,1-Dichloroethene	ug/L	ND	1.0	10/12/18 12:57	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/12/18 12:57	
1,2-Dichloroethane	ug/L	ND	1.0	10/12/18 12:57	
1,2-Dichloropropane	ug/L	ND	1.0	10/12/18 12:57	
2-Butanone (MEK)	ug/L	ND	2.0	10/12/18 12:57	
2-Hexanone	ug/L	ND	2.0	10/12/18 12:57	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	2.0	10/12/18 12:57	
Acetone	ug/L	ND	4.0	10/12/18 12:57	
Acrolein	ug/L	ND	8.0	10/12/18 12:57	
Acrylonitrile	ug/L	ND	4.0	10/12/18 12:57	
Benzene	ug/L	ND	1.0	10/12/18 12:57	
Bromodichloromethane	ug/L	ND	1.0	10/12/18 12:57	
Bromoform	ug/L	ND	1.0	10/12/18 12:57	
Bromomethane	ug/L	ND	1.0	10/12/18 12:57	
Carbon disulfide	ug/L	ND	1.0	10/12/18 12:57	
Carbon tetrachloride	ug/L	ND	1.0	10/12/18 12:57	
Chlorobenzene	ug/L	ND	1.0	10/12/18 12:57	
Chloroethane	ug/L	ND	1.0	10/12/18 12:57	
Chloroform	ug/L	ND	1.0	10/12/18 12:57	
Chloromethane	ug/L	ND	1.0	10/12/18 12:57	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/12/18 12:57	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/12/18 12:57	
Dibromochloromethane	ug/L	ND	1.0	10/12/18 12:57	
Dibromomethane	ug/L	ND	1.0	10/12/18 12:57	
Enflurane	ug/L	ND	1.0	10/12/18 12:57	
Ethylbenzene	ug/L	ND	1.0	10/12/18 12:57	
Haloether 229	ug/L	ND	1.0	10/12/18 12:57	
Haloether 406	ug/L	ND	1.0	10/12/18 12:57	
Haloether 421	ug/L	ND	1.0	10/12/18 12:57	
Haloether 427	ug/L	ND	1.0	10/12/18 12:57	
Haloether 428	ug/L	ND	1.0	10/12/18 12:57	
Haloether 508	ug/L	ND	1.0	10/12/18 12:57	
Haloether 528	ug/L	ND	1.0	10/12/18 12:57	
Halomar	ug/L	ND	1.0	10/12/18 12:57	
Isoflurane	ug/L	ND	1.0	10/12/18 12:57	
m&p-Xylene	ug/L	ND	2.0	10/12/18 12:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

METHOD BLANK: 531384 Matrix: Water
Associated Lab Samples: 2085365001, 2085365002, 2085365003, 2085365004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methoxyflurane	ug/L	ND	1.0	10/12/18 12:57	
Methylene Chloride	ug/L	ND	5.0	10/12/18 12:57	
o-Xylene	ug/L	ND	1.0	10/12/18 12:57	
Styrene	ug/L	ND	1.0	10/12/18 12:57	
Tetrachloroethene	ug/L	ND	1.0	10/12/18 12:57	
Toluene	ug/L	ND	1.0	10/12/18 12:57	
Total Haloether	ug/L	ND	1.0	10/12/18 12:57	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/12/18 12:57	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/12/18 12:57	
Trichloroethene	ug/L	ND	1.0	10/12/18 12:57	
Trichlorofluoromethane	ug/L	ND	1.0	10/12/18 12:57	
Vinyl chloride	ug/L	ND	1.0	10/12/18 12:57	
4-Bromofluorobenzene (S)	%.	94	68-124	10/12/18 12:57	
Dibromofluoromethane (S)	%.	103	72-126	10/12/18 12:57	
Toluene-d8 (S)	%.	100	79-119	10/12/18 12:57	

LABORATORY CONTROL SAMPLE: 531385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	47.0	94	62-131	
1,1,2,2-Tetrachloroethane	ug/L	50	40.1	80	15-179	
1,1,2-Trichloroethane	ug/L	50	41.7	83	58-144	
1,1,2-Trichlorotrifluoroethane	ug/L	50	43.5	87	38-121	
1,1-Dichloroethane	ug/L	50	44.8	90	63-129	
1,1-Dichloroethene	ug/L	50	46.7	93	51-139	
1,2,3-Trichloropropane	ug/L	50	37.2	74	13-187	
1,2-Dichloroethane	ug/L	50	49.6	99	57-148	
1,2-Dichloropropane	ug/L	50	43.3	87	66-128	
2-Butanone (MEK)	ug/L	50	45.2	90	32-183	
2-Hexanone	ug/L	50	38.9	78	36-170	
4-Methyl-2-pentanone (MIBK)	ug/L	50	42.9	86	26-171	
Acetone	ug/L	50	60.7	121	22-165	
Acrolein	ug/L	50	43.5	87	10-131	
Acrylonitrile	ug/L	50	46.0	92	18-149	
Benzene	ug/L	50	46.8	94	62-131	
Bromodichloromethane	ug/L	50	48.6	97	69-132	
Bromoform	ug/L	50	39.8	80	35-166	
Bromomethane	ug/L	50	37.2	74	34-158	
Carbon disulfide	ug/L	50	44.1	88	31-128	
Carbon tetrachloride	ug/L	50	50.7	101	54-144	
Chlorobenzene	ug/L	50	42.8	86	70-127	
Chloroethane	ug/L	50	42.1	84	17-195	
Chloroform	ug/L	50	44.5	89	73-134	
Chloromethane	ug/L	50	34.9	70	17-153	

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QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

LABORATORY CONTROL SAMPLE: 531385

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,2-Dichloroethene	ug/L	50	42.8	86	68-129	
cis-1,3-Dichloropropene	ug/L	50	47.9	96	72-138	
Dibromochloromethane	ug/L	50	42.0	84	49-146	
Dibromomethane	ug/L	50	46.8	94	56-145	
Enflurane	ug/L	50	43.3	87	56-135	
Ethylbenzene	ug/L	50	45.4	91	66-126	
Haloether 229	ug/L	50	45.1	90	62-123	
Haloether 406	ug/L	50	44.9	90	62-134	
Haloether 421	ug/L	50	45.6	91	70-128	
Haloether 427	ug/L	50	47.5	95	69-153	
Haloether 428	ug/L	50	46.7	93	70-134	
Haloether 508	ug/L	50	39.6	79	52-139	
Haloether 528	ug/L	50	42.9	86	48-157	
Halomar	ug/L	50	45.5	91	62-128	
Isoflurane	ug/L	50	45.2	90	61-132	
m&p-Xylene	ug/L	100	88.9	89	65-129	
Methoxyflurane	ug/L	50	45.6	91	72-124	
Methylene Chloride	ug/L	50	41.8	84	46-168	
o-Xylene	ug/L	50	42.7	85	65-124	
Styrene	ug/L	50	47.0	94	72-133	
Tetrachloroethene	ug/L	50	43.6	87	46-157	
Toluene	ug/L	50	48.2	96	69-126	
Total Haloether	ug/L		492			
trans-1,2-Dichloroethene	ug/L	50	41.8	84	60-129	
trans-1,3-Dichloropropene	ug/L	50	49.1	98	59-149	
Trichloroethene	ug/L	50	47.5	95	67-132	
Trichlorofluoromethane	ug/L	50	47.7	95	39-171	
Vinyl chloride	ug/L	50	40.0	80	27-149	
4-Bromofluorobenzene (S)	%.			94	68-124	
Dibromofluoromethane (S)	%.			93	72-126	
Toluene-d8 (S)	%.			100	79-119	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 531386 531387

Parameter	Units	2085365003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	50	50	53.5	51.2	107	102	54-137	4	20	
1,1,2,2-Tetrachloroethane	ug/L	ND	50	50	42.3	40.0	85	80	15-187	6	20	
1,1,2-Trichloroethane	ug/L	ND	50	50	46.4	46.3	93	93	59-148	0	20	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	50	50	47.8	44.8	96	90	40-117	7	20	
1,1-Dichloroethane	ug/L	ND	50	50	49.3	46.7	99	93	59-133	5	20	
1,1-Dichloroethene	ug/L	ND	50	50	52.6	40.0	105	80	44-146	27	20	R1
1,2,3-Trichloropropane	ug/L	ND	50	50	39.8	40.0	80	80	14-199	0	20	
1,2-Dichloroethane	ug/L	ND	50	50	53.0	55.3	106	111	56-154	4	20	
1,2-Dichloropropane	ug/L	ND	50	50	47.2	47.0	94	94	62-135	0	20	

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REPORT OF LABORATORY ANALYSIS

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St. Rose, LA 70087
(504)469-0333

QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 531386 531387

Parameter	Units	2085365003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Butanone (MEK)	ug/L	ND	50	50	48.6	43.4	97	87	20-205	11	20	
2-Hexanone	ug/L	ND	50	50	39.1	41.0	78	82	25-189	5	20	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	50	50	43.8	45.7	88	91	23-184	4	20	
Acetone	ug/L	ND	50	50	45.5	51.2	91	102	11-217	12	20	
Acrolein	ug/L	ND	50	50	17.9	14.5	36	29	10-142	21	20	R1
Acrylonitrile	ug/L	ND	50	50	47.8	47.0	96	94	20-164	2	20	
Benzene	ug/L	ND	50	50	51.5	51.6	103	103	52-141	0	20	
Bromodichloromethane	ug/L	ND	50	50	51.6	51.2	103	102	70-134	1	20	
Bromoform	ug/L	ND	50	50	42.6	42.7	84	84	37-171	0	20	
Bromomethane	ug/L	ND	50	50	40.3	38.5	81	77	34-155	5	20	
Carbon disulfide	ug/L	ND	50	50	53.0	43.3	105	86	28-130	20	20	
Carbon tetrachloride	ug/L	ND	50	50	59.0	55.8	118	112	48-146	6	20	
Chlorobenzene	ug/L	ND	50	50	48.0	47.8	96	96	67-129	0	20	
Chloroethane	ug/L	ND	50	50	49.2	44.8	98	90	12-192	9	20	
Chloroform	ug/L	ND	50	50	49.4	48.5	99	97	66-143	2	20	
Chloromethane	ug/L	ND	50	50	50.4	45.5	101	91	14-155	10	20	
cis-1,2-Dichloroethene	ug/L	ND	50	50	45.9	45.2	92	90	56-141	1	20	
cis-1,3-Dichloropropene	ug/L	ND	50	50	46.7	44.2	93	88	70-139	5	20	
Dibromochloromethane	ug/L	ND	50	50	45.5	46.5	91	93	50-150	2	20	
Dibromomethane	ug/L	ND	50	50	50.3	51.1	101	102	58-153	2	20	
Enflurane	ug/L	ND	50	50	49.3	46.0	99	92	63-126	7	20	
Ethylbenzene	ug/L	ND	50	50	46.0	42.9	92	86	57-135	7	20	
Haloether 229	ug/L	ND	50	50	51.6	49.2	103	98	56-127	5	20	
Haloether 406	ug/L	ND	50	50	50.2	47.4	100	95	68-128	6	20	
Haloether 421	ug/L	ND	50	50	50.9	48.6	102	97	74-120	5	20	
Haloether 427	ug/L	ND	50	50	52.8	52.6	106	105	78-120	0	20	
Haloether 428	ug/L	ND	50	50	49.4	51.8	99	104	74-125	5	20	
Haloether 508	ug/L	ND	50	50	45.6	43.4	91	87	28-156	5	20	
Haloether 528	ug/L	ND	50	50	44.2	47.7	88	95	45-142	8	20	
Halomar	ug/L	ND	50	50	49.0	48.0	98	96	67-123	2	20	
Isoflurane	ug/L	ND	50	50	44.3	47.7	89	95	45-140	7	20	
m&p-Xylene	ug/L	ND	100	100	19.9	13.1	20	13	56-136	41	20	M1,R1
Methoxyflurane	ug/L	ND	50	50	48.0	48.1	96	96	75-119	0	20	
Methylene Chloride	ug/L	ND	50	50	45.9	47.0	92	94	45-166	2	20	
o-Xylene	ug/L	ND	50	50	24.5	16.7	49	33	57-133	38	20	M1,R1
Styrene	ug/L	ND	50	50	ND	ND	0	0	58-144		20	M1
Tetrachloroethene	ug/L	ND	50	50	50.3	49.1	101	98	48-143	2	20	
Toluene	ug/L	ND	50	50	45.4	42.4	91	85	59-136	7	20	
Total Haloether	ug/L	ND			535	530				1		
trans-1,2-Dichloroethene	ug/L	ND	50	50	47.8	47.5	96	95	57-132	1	20	
trans-1,3-Dichloropropene	ug/L	ND	50	50	51.4	49.2	103	98	59-154	4	20	
Trichloroethene	ug/L	ND	50	50	50.3	48.5	101	97	58-140	4	20	
Trichlorofluoromethane	ug/L	ND	50	50	54.0	50.8	108	102	24-175	6	20	
Vinyl chloride	ug/L	ND	50	50	31.2	23.4	62	47	21-150	28	20	R1
4-Bromofluorobenzene (S)	%.						94	92	68-124			

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REPORT OF LABORATORY ANALYSIS

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(504)469-0333

QUALITY CONTROL DATA

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 531386 531387

Parameter	Units	2085365003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dibromofluoromethane (S)	%.						89	90	72-126			
Toluene-d8 (S)	%.						97	101	79-119			

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QUALIFIERS

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

LABORATORIES

PASI-N	Pace Analytical Services - New Orleans

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Fibers Public Supply Wells
Pace Project No.: 2085365

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2085365001	**TB-20181002**	EPA 5030B/8260	123028		
2085365002	**INF-20181002**	EPA 5030B/8260	123028		
2085365003	**EFF-20181002**	EPA 5030B/8260	123028		
2085365004	**EFFDUP-20181002**	EPA 5030B/8260	123028		

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WO# : 2085365

2085365

CHAIN-OF-CUSTODY / Analy

The Chain-of-Custody is a LEGAL DOCUME

1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Arcadis	Report To:	Elvin Varela	Attention:	
Address:	#48 City View Plaza 1 Suite 401	Copy To:		Company Name:	
Rd 165 KM 1.2, Guaynabo, PR 00968				Address:	
Email:		Purchase Order #:		Pace Quote:	
Phone:	Fax:	Project Name:	Fibers Public Supply Well(PO#CO001911.000	Pace Project Manager:	craig.mccollum@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	1037 L1

Regulatory Agency

State / Location: PR

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	VOC 8260	VOC 8260-Trip Blank	Residual Chlorine (Y/N)
1	TB-20181002	WT	L	—	—	10/02/18	LAR						X							X	
2	INF-20181002	WT	L	—	—	10/02/18	0833						X						X		
3	EFF-20181002	WT	L	—	—	10/02/18	0855						X						X		
4	EFFMS-20181002	WT	L	—	—	10/02/18	0855						X						X		
5	EFFDUP-20181002	WT	L	—	—	10/02/18	0855						X						X		
6	EFFMSD-20181002	WT	L	—	—	10/02/18	0855						X						X		
7																					
8																					
9																					
10																					
11																					
12																					

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	[signature] (ARCADIS)	10/02/18	14:00	[signature] Pace	10/2/18	14:00	2°	Y	N	X
	[signature] PACE	10/2/18	1700	FEDEX	10/2/18	1700				
	Fed Ex	10/3/18	1000	[signature]	10/3/18	1000	3.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Elvin Varela

SIGNATURE of SAMPLER: [signature]

DATE Signed: 10/02/18

Pace Analytical

1000 Riverbend. Blvd., Suite F
St. Rose, LA 70087

Sample Condition Upon

WO# : 2080000

PM: CJM Due Date: 10/17/18

CLIENT: 20-CHEV-ARC

Pr

Courier: ☐ Pace Courier ☐ Hired Courier ☒ Fed X ☐ UPS ☐ DHL ☐ USPS ☐ Customer ☐ Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals intact: ☒ Yes ☐ No

Therometer Used: ☐ Therm Fisher IR 5 ☐ Therm Fisher IR 6 ☒ Therm Fisher IR 7

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10-03-18 AD

Temp must be measured from Temperature blank when present

				Comments:
Temperature Blank Present"?	☐Yes	☐No	☒N/A	1
Chain of Custody Present:	☒Yes	☐No	☐N/A	2
Chain of Custody Complete:	☒Yes	☐No	☐N/A	3
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	4
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	5
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	6
Sufficient Volume:	☒Yes	☐No	☐N/A	7
Correct Containers Used:	☒Yes	☐No	☐N/A	8
Filtered vol. Rec. for Diss. tests	☐Yes	☐No	☒N/A	9
Sample Labels match COC:	☒Yes	☐No	☐N/A	10
All containers received within manafacture's precautionary and/or expiration dates.	☒Yes	☐No	☐N/A	11
All containers needing chemical preservation have been checked (except VOA, coliform, & O&G).	☐Yes	☐No	☒N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	☐Yes	☐No	☒N/A	13 If No, was preserative added? ☐Yes ☐No If added record lot no.: HNO3 _____ H2SO4 _____
Headspace in VOA Vials (>6mm):	☐Yes	☒No	☐N/A	14
Trip Blank Present:	☒Yes	☐No		15

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

ALLC003rev.08, 15Feb2013 SCUR Form - mod

Attachment 3
Data Review Report #30927R

ARCADIS Design & Consultancy for natural and built assets

Fibers Group

DATA REVIEW

GUAYAMA, PUERTO RICO

Volatile Analyses

SDG #261635 (WO 655-04-26)

Analyses Performed By:
eqlab - Environmental Quality Laboratories, Inc.
San Juan, Puerto Rico

Report #30927R
Review Level: Tier II
Project: CO001911.0007.1805A

SUMMARY

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #261635 (WO 655-04-26) for samples collected in association with the Fibers Group Site. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets, and chain of custody. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis				
					VOC	SVOC	PCB	MET	MISC
EFFLUENT	2947545	Water	10/02/2018		X				
EFFLUENT – DUPLICATE	2947546	Water	10/02/2018	EFFLUENT	X				
INFLUENT	2947549	Water	10/02/2018		X				
TRIP BLANK	2947550	Water	10/02/2018		X				

Notes:

1. The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample location EFFLUENT for VOCs.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:
QA - Quality Assurance

ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 8260	Water	14 days from collection to analysis (preserved) 7 days from collection to analysis (non-preserved)	Cool to <6 °C; preserved to a pH of less than 2 s.u.

Note:

s.u. Standard units

All samples were analyzed within the specified holding time criteria.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

3. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

Sample locations associated with the MS/MSD exhibiting recoveries outside of the control limits are presented in the following table.

Sample Locations	Compound	MS Recovery	MSD Recovery
EFFLUENT	Bromomethane	>UL	>UL
	Chloroethane		
	Trichlorofluoromethane		
	1,1-Dichloropropene	< LL but > 10%	< LL but > 10%
	Ethylbenzene		
	Toluene		
	m,p-Xylene		
	n-Butylbenzene		
	sec-Butylbenzene		
	Isopropylbenzene	< LL but > 10%	AC
	n-Propylbenzene		
	Vinyl chloride	<10%	< LL but > 10%
	Acrolein	<10%	<10%
	1,2,4-Trimethylbenzene		
	1,3,5-Trimethylbenzene		
	Naphthalene		
	Styrene		
	4-Isopropyltoluene		
	Iodomethane		
	Vinyl Acetate		
	trans-1,4-Dichloro-2-butene		

Note:
AC Acceptable

The criteria used to evaluate the MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> the upper control limit (UL)	Non-detect	No Action
	Detect	J
< the lower control limit (LL) but > 10%	Non-detect	UJ
	Detect	J
< 10%	Non-detect	R
	Detect	J

Control Limit	Sample Result	Qualification
Parent sample concentration > four times the MS/MSD spiking solution concentration.	Detect	No Action
	Non-detect	

Sample locations associated with MS/MSD recoveries exhibiting an RPD greater than the control limit are presented in the following table.

Sample Locations	Compound
EFFLUENT	n-Propylbenzene
	Toluene

The criteria used to evaluate the RPD between the MS/MSD recoveries are presented in the following table. In the case of an RPD deviation, the sample results are qualified as documented in the table below.

Control Limit	Sample Result	Qualification
> UL	Non-detect	UJ
	Detect	J

5. Laboratory Control Sample

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result	Duplicate Result	RPD
EFFLUENT/EFFLUENT – DUPLICATE	Bromoform	1.4 J	1.5 J	AC
	Dibromochloromethane	2.4 J	2.3 J	AC

Notes:

AC Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

7. System Performance and Overall Assessment

Note: 2-Chloroethyl vinyl ether degrades in the presence of acid. Since the samples were preserved with acid to a pH of less than 2, the not detected results for 2-chloroethyl vinyl ether were rejected for all samples within this SDG.

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR VOCs

VOCs: SW-846 8260	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method blanks		X		X	
B. Equipment blanks					X
C. Trip blanks		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate(LCSD)	X				X
LCS/LCSD Precision (RPD)	X				X
Matrix Spike (MS)		X	X		
Matrix Spike Duplicate(MSD)		X	X		
MS/MSD Precision (RPD)		X	X		
Field/Lab Duplicate (RPD)		X		X	
Surrogate Spike Recoveries		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

%D Percent difference

VALIDATION PERFORMED BY: Joseph C. Houser

SIGNATURE:

DATE: October 22, 2018

PEER REVIEW: Dennis Capria

DATE: October 30, 2018

CHAIN OF CUSTODY

CORRECTED SAMPLE ANALYSIS DATA SHEETS

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U J	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~1.2~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~1.2~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~1.4~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~25.0~~	~~75.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	1.40	µg/L	J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: EFFLUENT
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	2.40	µg/L	J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~8.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
Isopropylbenzene	EPA 8260B	ND	µg/L	U J	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~2.0~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
Styrene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~1.2~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Toluene	EPA 8260B	ND	µg/L	U J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
Vinyl chloride	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~1.2~~	~~3.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U J	1.8	6.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac

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Refer to eqlab certification number E87783 at www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~08:51~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM. 4

Certified by Laboratory Director

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac

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ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018**	09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~09:17~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	1.50	µg/L	J	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA I, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018**	09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	2.30	µg/L	J	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
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ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87785 at www.eqlab.com.

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM.

Certified by Laboratory Director

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ACCREDITED IN ACCORDANCE WITH nelac
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Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018**	08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac

The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87782 at www.eqlab.com.

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60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks.

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~08:25~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac

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Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018**	08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	6.10	µg/L	--	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
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To: ARCADIS CARIBE, PSC
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ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac

The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018**	08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 1538

Certified by Laboratory Director

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	R ~~ND~~	~~µg/L~~	~~U~~	~~6.0~~	~~15.0~~	~~--~~	~~10/05/2018~~	~~07:59~~	~~NIVA~~	~~10/04/2018~~	~~--~~	~~EPA 5030B~~
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

SONIA RICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM.

Certified by Laboratory Director

PRDOH Certified
EPA ID PR00014

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

2018-16017

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 261635 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2947545-1 MATRIX: GROUND WATER SOURCE: EFFLUENT, GUAYAMA, PR	DATE: 10/02/18 TIME: 0961 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947546-1 MATRIX: GROUND WATER DUP SOURCE: EFFLUENT-DUPLICATE, GUAYAMA, PR	DATE: 10/02/18 TIME: 0961 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947547-1 MATRIX: GROUND WATER MS SOURCE: EFFLUENT-MS, GUAYAMA, PR	DATE: 10/02/18 TIME: 0961 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947548-1 MATRIX: GROUND WATER MSD SOURCE: EFFLUENT-MSD, GUAYAMA, PR	DATE: 10/02/18 TIME: 0961 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Elvin Varela	10/02/18	0961
Fixed in field by:		10/02/18	
Authorized by:	NA	NA	
Received by EQLF:			
Released to EQLL by:		10/02/18	1338
Received by EQLL:		10/02/18	1338

SPECIAL INSTRUCTIONS / COMMENTS:

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature:

Eqlab's general terms and conditions on reverse side of this document.

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

2018-16017

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 261635 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2947550-1 MATRIX: DI WATER SOURCE: TRIP BLANK, GUAYAMA, PR	DATE: 10/02/18 TIME: 0800 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2, Cool 4 °C			EPA 8260B VOC
SAMPLE #: [illegible] MATRIX: [illegible] SOURCE: [illegible]	DATE: 10/02/18 TIME: 0834 TYPE: [illegible]	TYPE COLOR VOLUME PRESERVATIVE			EPA 8260B VOC
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	[illegible]	10/02/18	
Fixed in field by:	[illegible]	10/02/18	0845
Authorized by:	N/A	N/A	
Received by EQLF:			
Released to EQLL by:	[illegible]	10/02/18	1338
Received by EQLL:	[illegible]	10/02/18	1338

SPECIAL INSTRUCTIONS / COMMENTS: DA QC Report for October 25, 2018

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature: [illegible]

Eqlab's general terms and conditions on reverse side of this document.

Attachment 4
EQLAB Laboratory Analytical Report #261635 (WO 655-04-26)

Quality Assurance Report

Prepared for:
ARCADIS CARIBE, PSC

Facility:
GUAYAMA PROJECT

Project
INTERNO

Samples Received:
October 02, 2018

Folder Number:
261635

W.O. #:
655-04-26

ENVIRONMENTAL QUALITY LABORATORIES, INC.

October 15, 2018

ARCADIS CARIBE, PSC.
#48 CITY VIEW PLAZA1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: Mr. ELVIN VARELA

Re: Quality Assurance Report for the samples received on October 02, 2018

Dear Mr. Varela

Enclosed you will find the Quality Assurance Report for the samples received on October 02, 2018 for the INTERNO Project. The QC data submitted reflects the precision and accuracy of the analyzed samples.

Please feel free to contact us if you require any further information.

Cordially,

Environmental Quality Laboratories, Inc.

Janet Gómez Rosario

Lic. Janet Gómez-Rosario
QA/QC Supervisor

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Section	Description
1	Quality Assurance Narrative
2	Laboratory Test Report
3	Analytical Test Results Quality Assurance Report

List of Appendices

Appendix	Description
A	Chain of Custody Documentation
B	Raw Data

SECTION 1
QUALITY ASSURANCE NARRATIVE

QUALITY ASSURANCE NARRATIVE

OVERVIEW

On October 02, 2018 Environmental Quality Laboratories, Inc. received from ARCADIS CARIBE, PSC, five Ground Water and one DI Water samples. The samples were collected at the Guayama facility October 02, 2018, for the Interno Project. The samples were analyzed for EPA 8260B VOC. The samples were received in good condition (3° C) and stored at 4 °C ± 2 °C in the refrigerator until the time of analysis. The following table shows the sample sources and the EQLAB sample number assigned to your sample upon receipt:

SAMPLE #	SOURCE	MATRIX
2947545	EFFLUENT	GROUND WATER
2947546	EFFLUENT – DUPLICATE	GROUND WATER
2947547	EFFLUENT – MS	GROUND WATER
2947548	EFFLUENT – MSD	GROUND WATER
2947549	INFLUENT	GROUND WATER
2947550	TRIP BLANK	DI WATER

In the Appendices you will find copies of the supporting documentation of your samples. Appendix A contains the Chain of Custody Documentation and Appendix B contains the Raw Data Worksheets.

Quality Control Remarks

The QC data has been released after being subjected to a series of inspections. General deviations are summarized below. Specific QC issues associated with your samples are:

Sample Collection: All samples were collected by the client personnel. EQLab personnel did not find any deviations about of this item.

Sample Management: EQ Lab did not find any deviation about this item.

Sample Preparation: EQ Lab did not find any deviation about this item.

.

Laboratory Test Report: EQ Lab did not find any deviation about this item.

Sample Analysis: **VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/ MASS SPECTROMETRY (GC/MS) EPA 8260B VOC Rev. 2, December 1996**

Run #203487

Analysis Date: October 05, 2018

Sample	Analyte	Deviation	Recovery %	Range %
2947547/MS	1,1-Dichloropropene	OOS	19.0	83-110
	Acrolein	OOS	7.80	47-157
	Bromomethane	OOS	199.0	35-163
	Chloroethane	OOS	748.0	50-152
	Ethylbenzene	OOS	49.5	58-136
	Iodomethane	OOS	8.7	45-148
	Isopropylbenzene	OOS	52.0	64-122
	Toluene	OOS	42.5	65-140
	Trichlorofluoromethane	OOS	194.0	60-144
	Vinyl chloride	OOS	9.0	39-151
	m,p-Xylene	OOS	44.0	56-145
	n-Butylbenzene	OOS	42.0	72-114
	n-Propylbenzene	OOS	52.0	61-123
	sec-Butylbenzene	OOS	56.5	64-114
	trans-1,4-Dichloro-2-butene	OOS	0.75	47-129
2947548/MSD	1,1-Dichloropropene	OOS	38.0	83-110
	4-Isopropyltoluene	OOS	5.10	66-129
	Acrolein	OOS	7.30	47-157
	Bromomethane	OOS	216	35-163
	Chloroethane	OOS	739	50-142
	Ethylbenzene	OOS	52	58-136
	Iodomethane	OOS	7.06	45-148
	Toluene	OOS	60.5	65-140
	Trichlorofluoromethane	OOS	195.0	60-144
	Vinyl chloride	OOS	18.5	39-151
	m,p-Xylene	OOS	49.0	56-145
	n-Butylbenzene	OOS	57	72-114
	sec-Butylbenzene	OOS	63.0	64-114
	trans-1,4-Dichloro-2-butene	OOS	0.75	47-129

Explanation: The analytes of the above sample (**2947547/MS and 2947548/MSD)** have recoveries which are out of specifications. Nevertheless, the analytes are in control in the Laboratory Fortified Blank **(2953694/LFB**) indicating that the recovery is out of specifications due to possible matrix interference and not to a system related issue. See the following table:

Analysis Date: October 05, 2018

Sample	Analyte	Recovery %	Range %
2953694/LFB	1,1-Dichloropropene	108.0	67-131
	4-Isopropyltoluene	97.5	68-131
	Acrolein	104	40-153
	Bromomethane	120.0	47-151
	Chloroethane	126.0	47-144
	Ethylbenzene	104.0	69-131
	Iodomethane	94.3	54-143
	Isopropylbenzene	103.0	69-121
	Toluene	107.0	59-143
	Trichlorofluoromethane	125.0	45-157
	Vinyl chloride	115.0	52-140
	m,p-Xylene	102.0	63-130
	n-Butylbenzene	96.0	67-127
	n-Propylbenzene	115.0	64-124
	sec-Butylbenzene	114.0	62-122
	trans-1,4-Dichloro-2-butene	81.7	53-123

Run #203487

Analysis Date: October 05, 2018

Sample	Analyte	Deviation	Recovery	Range
2947548/MSD	Toluene	OORPD	35.0	0-20
	n-Propylbenzene	OORPD	22.2	0-20

Explanation: Average of all RPD (All analytes) are on control.

General Comments

The analysis was performed in accordance with the latest Environmental Protection Agency and Standard Method for the Examination of Water and Wastewater Approved Methodology. All the results associated with quality control samples were found within acceptable criteria established for these parameters. After reviewing the documentation mentioned above we conclude that the data presented herein is valid and acceptable.

Formulas:

1. RPD = Relative Percent Difference

All Duplicates (DUP, MSD and LFBD) are calculated as follow:

$$RPD = \left\{ \frac{(\text{Final Result QC}) - (\text{Final Result Ref})}{\frac{(\text{Final Result QC}) + (\text{Final Result Ref})}{2}} \right\} \times 100$$

RPD is reported N.C. when the (value of Final Result) < 10X (value of MDL)

RPD General Acceptance criteria is (≤ 20%) for all matrices except Solid / Soil (≤ 40%)

$RPD_{Micro} = (\text{Log}_{10}\ \text{Final Result QC}) - (\text{Log}_{10}\ \text{Final Result Ref})$ which is expressed as Precision.

2. The % of Recovery is calculated as follow:

$$\%\ Rec = \left\{ \frac{(\text{Final Result QC})}{\text{Amount Added of QC}} \right\} \times 100$$

3. The % of Recovery for MS and MSD is calculated as follow:

$$\% \text{ Rec} = \left\{ \frac{\text{(Final Result QC)} - \text{(Final Result Ref)}}{\text{Amount Added of QC}} \right\} \text{X } 100$$

Marcelino Benitez

Prepared By:
Lcdo. Marcelino Benítez
QA/QC Coordinador Licensed

October 15, 2018
Date

Janet Gómez Rosario

Checked by:
Lcda. Janet Gómez
QA/QC Supervisor

October 15, 2018
Date

SECTION 2
LABORATORY TEST REPORT

October 10, 2018

MR. ELVIN VARELA

ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1 SUITE 401
ROAD 165 KM 1.2
GUAYNABO PR 00968

I hereby certify that the results reported for EQ Lab Samples 2947545 to 2947550 have been reviewed by me and are correct as presented herein.

Lcda Sonia Pichardo Rodriguez
Certified by Laboratory Director

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018**	09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018	13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C		Eqlab Rep.:	EGARCIA
Folder Number:	261635				Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac

The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
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Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	1.40	µg/L	J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
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Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	2.40	µg/L	J	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

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EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947545**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:51	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM. 4208

Certified by Laboratory Director

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	1.50	µg/L	J	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	2.30	µg/L	J	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE GUAYAMA, PR**

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947546**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

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EPA ID PR00014

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ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-DUPLICATE**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	09:17	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 8

Certified by Laboratory Director

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ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947547**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,1,1,2-Tetrachloroethane	EPA 8260B	107	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	115	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	101	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	106	%	--	2.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	19.0	%	Q	1.4	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	106	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	101	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	106	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	0	%	U	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	94.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	98.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	108	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947547**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,2-Dichloropropane	EPA 8260B	100	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	0	%L	U	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	96.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	99.5	%	--	2.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	97.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	91.0	%	--	1.5	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	54.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	75.6	%	--	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	0	%	U	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	134	%	--	1.4	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	95.3	%	--	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	119	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	0	%	U	1.4	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	101	%	--	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

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Client Ref. #: N/A

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Laboratory Test Report

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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	110	%	--	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	7.80	%	Q,J	25.0	75.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	97.2	%	--	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	105	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	90.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	110	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	110	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	86.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	199	%	Q	2.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	127	%	--	7.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	97.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	748	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	108	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

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Project Name: INTERNO
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Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	124	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	98.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	102	%	--	1.5	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	118	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	89.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	85.5	%	--	30.0	75.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	49.5	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	92.5	%	--	1.4	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	8.70	%	Q,J	8.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	52.0	%	Q	2.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	0	%L	U	2.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	0	%	U	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	107	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	83.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

ENVIRONMENTAL QUALITY LABORATORIES, INC.
60 E STREET, MINILLAS INDUSTRIAL PARK, BAYAMÓN, PR 00959
PO BOX 11458 SANTURCE, PR 00910-1458 TEL. (787) 288-6420 FAX (787) 288-6465 www.eqlab.com

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947547**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	42.5	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	106	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	194	%	Q	1.5	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	0	%	U	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	9.00	%	Q,J	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	95.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	57.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	44.0	%	Q	1.8	6.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	42.0	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	52.0	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	93.0	%	--	1.0	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	87.5	%	--	2.3	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	56.5	%	Q	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	69.0	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

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Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MS**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	97.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	59.5	%	--	1.2	3.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	0.75	%	Q	6.0	15.0	--	10/05/2018	10:09	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4538

Certified by Laboratory Director

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Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	119	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	116	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	103	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	125	%	--	2.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	38.0	%	Q	1.4	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	105	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	118	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	108	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	0	%	U	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	113	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	102	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	109	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

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EPA ID PR00014

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#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947548**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,2-Dichloropropane	EPA 8260B	101	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	0	%	U	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	113	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	99.0	%	--	2.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	111	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	106	%	--	1.5	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	64.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	78.4	%	--	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	0	%	U	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	138	%	--	1.4	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	98.8	%	--	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	124	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	5.10	%	Q	1.4	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	103	%	--	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

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Project Name: INTERNO
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Laboratory Test Report

Sample Number:	**2947548**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
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Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

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Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	113	%	--	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	7.30	%	Q.J	25.0	75.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	114	%	--	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	105	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	106	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	114	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	112	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	105	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	216	%	Q	2.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	121	%	--	7.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	113	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	113	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	739	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	119	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

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					Limits			Analysis			Prep Method		
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Chloromethane	EPA 8260B	132	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	98.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	100	%	--	1.5	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	118	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	106	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	88.2	%	--	30.0	75.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	52.0	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	101	%	--	1.4	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	7.06	%	Q	8.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	64.0	%	--	2.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	0	%	U	2.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	0	%	U	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	108	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	87.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

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Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	60.5	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	104	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	195	%	Q	1.5	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	0	%	U	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	18.5	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	113	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	68.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	49.0	%	Q	1.8	6.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	57.0	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	65.0	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	109	%	--	1.0	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	91.5	%	--	2.3	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	63.0	%	Q	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	76.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **EFFLUENT-MSD**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947548**	Collected Date & Time:	**10/02/2018** 09:01	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	119	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	60.0	%	--	1.2	3.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	0.75	%	Q	6.0	15.0	--	10/05/2018	10:36	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 4

Certified by Laboratory Director

PRDOH Certified
PEPAID PR00014

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To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	6.10	µg/L	--	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

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Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits			Analysis			Prep Method		
					MDL	MRL	MCL	Date	Time	By	Date	By	Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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ACCREDITED IN ACCORDANCE WITH nelac
The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **INFLUENT**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: GROUND WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947549**	Collected Date & Time:	**10/02/2018** 08:34	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	08:25	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ Químico Licenciado Estado Libre Asociado de Puerto Rico LICENCIA NUM. 5538

Certified by Laboratory Director

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,1-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,2,2-Tetrachloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1,2-Trichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,1-Dichloropropene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,3-Trichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2,4-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromo-3-chloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dibromoethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,2-Dichloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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ACCREDITED IN ACCORDANCE WITH nelac
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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
1,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3,5-Trimethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,3-Dichloropropane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1,4-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
1-Chlorohexane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2,2-Dichloropropane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Butanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Chloroethyl vinyl ether	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
2-Hexanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Chlorotoluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Isopropyltoluene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
4-Methyl-2-pentanone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Acetone	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Acrolein	EPA 8260B	ND	µg/L	U	25.0	75.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Acrylonitrile	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Benzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromodichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromoform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Bromomethane	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Carbon disulfide	EPA 8260B	ND	µg/L	U	7.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Carbon tetrachloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chlorobenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chloroethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Chloroform	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
Chloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dibromochloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dibromomethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dichlorodifluoromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Dichloromethane	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Epichlorohydrin	EPA 8260B	ND	µg/L	U	30.0	75.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Ethylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Hexachlorobutadiene	EPA 8260B	ND	µg/L	U	1.4	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Iodomethane	EPA 8260B	ND	µg/L	U	8.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Isopropylbenzene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Naphthalene	EPA 8260B	ND	µg/L	U	2.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Styrene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Tetrachloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
+ Tetrahydrofuran	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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PRDOH Certified
EPA ID PR00014

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

Parameter	Method	Results	Units	DQ	Limits MDL	Limits MRL	Limits MCL	Analysis Date	Analysis Time	Analysis By	Prep Method Date	Prep Method By	Prep Method Method
Toluene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Trichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Trichlorofluoromethane	EPA 8260B	ND	µg/L	U	1.5	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Vinyl Acetate	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
Vinyl chloride	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
cis-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
cis-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
m,p-Xylene	EPA 8260B	ND	µg/L	U	1.8	6.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
n-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
n-Propylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
o-Dichlorobenzene	EPA 8260B	ND	µg/L	U	1.0	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
o-Xylene	EPA 8260B	ND	µg/L	U	2.3	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
sec-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
tert-Butylbenzene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

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MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

To: ARCADIS CARIBE, PSC
#48 CITY VIEW PLAZA 1, SUITE 401
ROAD 165, KM 1.2
GUAYNABO, PR 00968

Attn: MR. ELVIN VARELA
Source: **TRIP BLANK**
GUAYAMA, PR

Project Name: INTERNO
Facility: GUAYAMA PROJECT
Description: DI WATER - Grab
Client Ref. #: N/A

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Laboratory Test Report

Sample Number:	**2947550**	Collected Date & Time:	**10/02/2018** 08:00	Date of Report:	10/10/2018
Work Order:	655-04-26	Received Date & Time:	10/02/2018 13:38	Collected By:	EVARELA
Delivery Slip:	2018-16017	Temperature at Arrival:	3.0 °C	Eqlab Rep.:	EGARCIA
Folder Number:	261635			Proposal Number:	20805 - 1

Remarks:

					Limits			Analysis			Prep Method		
Parameter	Method	Results	Units	DQ	MDL	MRL	MCL	Date	Time	By	Date	By	Method
trans-1,2-Dichloroethene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
trans-1,3-Dichloropropene	EPA 8260B	ND	µg/L	U	1.2	3.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B
trans-1,4-Dichloro-2-butene	EPA 8260B	ND	µg/L	U	6.0	15.0	--	10/05/2018	07:59	NIVA	10/04/2018	--	EPA 5030B

SONIA PICHARDO RODRIGUEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM.

Certified by Laboratory Director

PRDOH Certified
EPA ID PR00014

ND = Not Detected MCL = Maximum Contaminant Level BDL = Below Detection Limit DNI = Does Not Ignite MDL = Minimum Detection Limit N/A = Not Applicable
MO = Monitoring Only MRL = Minimum Reporting Level PTRL = Pattern Recognition Level. All results are calculated on a wet weight basis unless otherwise stated. All results relate only to this sample.
+ = Parameter is not accredited under EQLab's NELAP Certification

ACCREDITED IN ACCORDANCE WITH nelac

The results presented herein meet all NELAC requirements.
Refer to eqlab certification number E87783 at www.eqlab.com.

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SECTION 3
ANALYTICAL TEST RESULTS
QUALITY ASSURANCE REPORT

Analytical Test Results Quality Assurance Report

W. O. # 655-04-26 Date: October 15, 2018

1.0 Samples Analyzed:

EQL SAMPLE #	DATE COLLECTED	DATE RECEIVED
2947545, 2947546, 2947547, 2947548, 2947549, 2947550	October 02, 2018	October 02, 2018

2.0 Instrumentation:

Parameter	Instrumentation Used
EPA 8260B VOC	V7 – AG7890MS Gas Chromatograph with a Mass Selective Detector

3.0 Methodology:

Parameter	Method	Date Analyzed	Analyst
EPA 8260B VOC	EPA 8260B VOC	October 05, 2018	N. Villanueva

Marcelino Benitez

Lcdo Marcelino Benítez
QA/Q/C Coordinador Licensed

QUALITY CONTROL SUMMARY

EPA 8260B VOC - Run #203487

2953687 - LRB
Reference Sample Number is: 2947545

Analyte Name	Reference Result	QC Result	DQ	Units	MDL	MRL	Accuracy A/A	Accuracy Rec. %	Acceptance Criteria Low Limit	Acceptance Criteria High Limit	Precision RPD	Acceptance Criteria High Limit	Analysis Date	Analysis Time	Analysis By
1,1,1,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1,1-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1,2,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1,2-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1-Dichloroethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,1-Dichloropropene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2,3-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2,3-Trichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2,4-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2,4-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2-Dibromo-3-chloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2-Dibromoethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2-Dichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,3,5-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,3-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,3-Dichloropropane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1,4-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
1-Chlorohexane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
2,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
2-Butanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
2-Chloroethyl vinyl ether	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
2-Chlorotoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA

QUALITY CONTROL SUMMARY

2-Hexanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
4-Bromofluorobenzene-SURR	19.3	19.2	--	µg/L	N/A	N/A	20.0	96.1	79	121	N/A	N/A	10/04/18	20:16	NIVA
4-Chlorotoluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
4-Isopropyltoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
4-Methyl-2-pentanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Acetone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Acrolein	N.D	N.D	U	µg/L	25.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Acrylonitrile	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Benzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Bromobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Bromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Bromodichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Bromoform	1.4	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Bromomethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Carbon disulfide	N.D	N.D	U	µg/L	7.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Carbon tetrachloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Chlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Chloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Chloroform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Chloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Dibromochloromethane	2.4	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Dibromofluoromethane-SURR	20.5	20.4	--	µg/L	N/A	N/A	20.0	102	83	120	N/A	N/A	10/04/18	20:16	NIVA
Dibromomethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Dichlorodifluoromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Dichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Epichlorohydrin	N.D	N.D	U	µg/L	30.0	75.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Ethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Hexachlorobutadiene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Iodomethane	N.D	N.D	U	µg/L	8.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Isopropylbenzene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Naphthalene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA

QUALITY CONTROL SUMMARY

Styrene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Tetrachloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Tetrahydrofuran	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Toluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Toluene-d8-SURR	19.7	20.0	--	µg/L	N/A	N/A	20.0	100	80	116	N/A	N/A	10/04/18	20:16	NIVA
Trichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Trichlorofluoromethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Vinyl Acetate	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
Vinyl chloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
cis-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
cis-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
m,p-Xylene	N.D	N.D	U	µg/L	1.8	6.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
n-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
n-Propylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
o-Dichlorobenzene	N.D	N.D	U	µg/L	1.0	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
o-Xylene	N.D	N.D	U	µg/L	2.3	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
sec-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
tert-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
trans-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
trans-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA
trans-1,4-Dichloro-2-butene	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N/A	N/A	10/04/18	20:16	NIVA

2953688 - ICV
Reference Sample Number is: 2947545

							Accuracy				Precision				
									Acceptance Criteria			Acceptance Criteria	Analysis		
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	22.0	--	µg/L	1.2	3.0	20.0	110	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,1,1-Trichloroethane	N.D	22.7	--	µg/L	1.2	3.0	20.0	113	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,1,2,2-Tetrachloroethane	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,1,2-Trichloroethane	N.D	20.9	--	µg/L	1.2	3.0	20.0	105	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,1-Dichloroethane	N.D	21.4	--	µg/L	2.0	3.0	20.0	107	80	120	N/A	N/A	10/04/18	21:34	NIVA

QUALITY CONTROL SUMMARY

1,1-Dichloroethene	N.D	22.1	--	µg/L	1.2	3.0	20.0	110	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,1-Dichloropropene	N.D	22.4	--	µg/L	1.4	3.0	20.0	112	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2,3-Trichlorobenzene	N.D	21.1	--	µg/L	1.2	3.0	20.0	105	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2,3-Trichloropropane	N.D	21.3	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2,4-Trichlorobenzene	N.D	21.5	--	µg/L	1.2	3.0	20.0	107	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2,4-Trimethylbenzene	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2-Dibromo-3-chloropropane	N.D	18.2	--	µg/L	1.2	3.0	20.0	91.2	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2-Dibromoethane	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2-Dichloroethane	N.D	21.7	--	µg/L	1.2	3.0	20.0	109	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,2-Dichloropropane	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,3,5-Trimethylbenzene	N.D	21.7	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,3-Dichlorobenzene	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,3-Dichloropropane	N.D	20.6	--	µg/L	2.0	3.0	20.0	103	80	120	N/A	N/A	10/04/18	21:34	NIVA
1,4-Dichlorobenzene	N.D	20.4	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
1-Chlorohexane	N.D	20.2	--	µg/L	1.5	3.0	20.0	101	80	120	N/A	N/A	10/04/18	21:34	NIVA
2,2-Dichloropropane	N.D	17.1	--	µg/L	1.2	3.0	20.0	85.7	80	120	N/A	N/A	10/04/18	21:34	NIVA
2-Butanone	N.D	99.2	--	µg/L	6.0	15.0	100	99.2	80	120	N/A	N/A	10/04/18	21:34	NIVA
2-Chloroethyl vinyl ether	N.D	98.3	--	µg/L	6.0	15.0	100	98.3	80	120	N/A	N/A	10/04/18	21:34	NIVA
2-Chlorotoluene	N.D	21.4	--	µg/L	1.4	3.0	20.0	107	80	120	N/A	N/A	10/04/18	21:34	NIVA
2-Hexanone	N.D	96.8	--	µg/L	6.0	15.0	100	96.8	80	120	N/A	N/A	10/04/18	21:34	NIVA
4-Bromofluorobenzene-SURR	19.3	20.7	--	µg/L	N/A	N/A	20.0	104	79	121	N/A	N/A	10/04/18	21:34	NIVA
4-Chlorotoluene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
4-Isopropyltoluene	N.D	21.2	--	µg/L	1.4	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
4-Methyl-2-pentanone	N.D	100.9	--	µg/L	6.0	15.0	100	101	80	120	N/A	N/A	10/04/18	21:34	NIVA
Acetone	N.D	110.6	--	µg/L	6.0	15.0	100	111	80	120	N/A	N/A	10/04/18	21:34	NIVA
Acrolein	N.D	541.3	--	µg/L	25.0	75.0	500	108	80	120	N/A	N/A	10/04/18	21:34	NIVA
Acrylonitrile	N.D	102.1	--	µg/L	6.0	15.0	100	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
Benzene	N.D	21.8	--	µg/L	1.2	3.0	20.0	109	80	120	N/A	N/A	10/04/18	21:34	NIVA
Bromobenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
Bromochloromethane	N.D	22.2	--	µg/L	1.2	3.0	20.0	111	80	120	N/A	N/A	10/04/18	21:34	NIVA
Bromodichloromethane	N.D	21.5	--	µg/L	1.2	3.0	20.0	107	80	120	N/A	N/A	10/04/18	21:34	NIVA

QUALITY CONTROL SUMMARY

Bromoform	1.4	17.7	--	µg/L	1.2	3.0	20.0	88.5	80	120	N/A	N/A	10/04/18	21:34	NIVA
Bromomethane	N.D	22.0	--	µg/L	2.0	3.0	20.0	110	80	120	N/A	N/A	10/04/18	21:34	NIVA
Carbon disulfide	N.D	107.1	--	µg/L	7.0	15.0	100	107	80	120	N/A	N/A	10/04/18	21:34	NIVA
Carbon tetrachloride	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	10/04/18	21:34	NIVA
Chlorobenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
Chloroethane	N.D	17.1	--	µg/L	1.2	3.0	20.0	85.7	80	120	N/A	N/A	10/04/18	21:34	NIVA
Chloroform	N.D	21.4	--	µg/L	1.2	3.0	20.0	107	80	120	N/A	N/A	10/04/18	21:34	NIVA
Chloromethane	N.D	20.3	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
Dibromochloromethane	2.4	18.5	--	µg/L	1.2	3.0	20.0	92.6	80	120	N/A	N/A	10/04/18	21:34	NIVA
Dibromofluoromethane-SURR	20.5	20.6	--	µg/L	N/A	N/A	20.0	103	83	120	N/A	N/A	10/04/18	21:34	NIVA
Dibromomethane	N.D	21.3	--	µg/L	1.5	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
Dichlorodifluoromethane	N.D	19.9	--	µg/L	1.2	3.0	20.0	99.7	80	120	N/A	N/A	10/04/18	21:34	NIVA
Dichloromethane	N.D	18.6	--	µg/L	1.2	3.0	20.0	92.9	80	120	N/A	N/A	10/04/18	21:34	NIVA
Epichlorohydrin	N.D	428.5	--	µg/L	30.0	75.0	500	85.7	80	120	N/A	N/A	10/04/18	21:34	NIVA
Ethylbenzene	N.D	21.7	--	µg/L	1.2	3.0	20.0	108	80	120	N/A	N/A	10/04/18	21:34	NIVA
Hexachlorobutadiene	N.D	19.4	--	µg/L	1.4	3.0	20.0	97.0	80	120	N/A	N/A	10/04/18	21:34	NIVA
Iodomethane	N.D	115.2	--	µg/L	8.0	15.0	100	115	80	120	N/A	N/A	10/04/18	21:34	NIVA
Isopropylbenzene	N.D	21.8	--	µg/L	2.0	3.0	20.0	109	80	120	N/A	N/A	10/04/18	21:34	NIVA
Naphthalene	N.D	20.4	--	µg/L	2.0	3.0	20.0	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
Styrene	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	80	120	N/A	N/A	10/04/18	21:34	NIVA
Tetrachloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	112	80	120	N/A	N/A	10/04/18	21:34	NIVA
Tetrahydrofuran	N.D	18.6	--	µg/L	1.2	3.0	20.0	92.9	80	120	N/A	N/A	10/04/18	21:34	NIVA
Toluene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA
Toluene-d8-SURR	19.7	19.8	--	µg/L	N/A	N/A	20.0	99.1	80	116	N/A	N/A	10/04/18	21:34	NIVA
Trichloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	113	80	120	N/A	N/A	10/04/18	21:34	NIVA
Trichlorofluoromethane	N.D	23.6	--	µg/L	1.5	3.0	20.0	118	80	120	N/A	N/A	10/04/18	21:34	NIVA
Vinyl Acetate	N.D	84.3	--	µg/L	6.0	15.0	100	84.3	80	120	N/A	N/A	10/04/18	21:34	NIVA
Vinyl chloride	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	80	120	N/A	N/A	10/04/18	21:34	NIVA
cis-1,2-Dichloroethene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	80	120	N/A	N/A	10/04/18	21:34	NIVA
cis-1,3-Dichloropropene	N.D	20.0	--	µg/L	1.2	3.0	20.0	99.8	80	120	N/A	N/A	10/04/18	21:34	NIVA
m,p-Xylene	N.D	42.4	--	µg/L	1.8	6.0	40.0	106	80	120	N/A	N/A	10/04/18	21:34	NIVA

QUALITY CONTROL SUMMARY

n-Butylbenzene	N.D	20.4	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
n-Propylbenzene	N.D	23.9	--	µg/L	1.2	3.0	20.0	119	80	120	N/A	N/A	10/04/18	21:34	NIVA
o-Dichlorobenzene	N.D	20.0	--	µg/L	1.0	3.0	20.0	99.9	80	120	N/A	N/A	10/04/18	21:34	NIVA
o-Xylene	N.D	20.9	--	µg/L	2.3	3.0	20.0	104	80	120	N/A	N/A	10/04/18	21:34	NIVA
sec-Butylbenzene	N.D	23.4	--	µg/L	1.2	3.0	20.0	117	80	120	N/A	N/A	10/04/18	21:34	NIVA
tert-Butylbenzene	N.D	22.1	--	µg/L	1.2	3.0	20.0	110	80	120	N/A	N/A	10/04/18	21:34	NIVA
trans-1,2-Dichloroethene	N.D	20.5	--	µg/L	1.2	3.0	20.0	102	80	120	N/A	N/A	10/04/18	21:34	NIVA
trans-1,3-Dichloropropene	N.D	18.8	--	µg/L	1.2	3.0	20.0	94.1	80	120	N/A	N/A	10/04/18	21:34	NIVA
trans-1,4-Dichloro-2-butene	N.D	94.5	--	µg/L	6.0	15.0	100	94.5	80	120	N/A	N/A	10/04/18	21:34	NIVA

2947546 - DUP
Reference Sample Number is: 2947545

							Accuracy				Precision		Analysis		
									Acceptance Criteria			Acceptance Criteria			
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1,1-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1,2,2-Tetrachloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1,2-Trichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1-Dichloroethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,1-Dichloropropene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2,3-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2,3-Trichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2,4-Trichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2,4-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2-Dibromo-3-chloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2-Dibromoethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2-Dichloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,3,5-Trimethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,3-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA

QUALITY CONTROL SUMMARY

1,3-Dichloropropane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1,4-Dichlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
1-Chlorohexane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
2,2-Dichloropropane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
2-Butanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
2-Chloroethyl vinyl ether	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
2-Chlorotoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
2-Hexanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
4-Bromofluorobenzene-SURR	19.3	19.1	--	µg/L	N/A	N/A	20.0	95.4	71	125	N/A	N/A	10/05/18	09:17	NIVA
4-Chlorotoluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
4-Isopropyltoluene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
4-Methyl-2-pentanone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Acetone	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Acrolein	N.D	N.D	U	µg/L	25.0	75.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Acrylonitrile	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Benzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Bromobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Bromochloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Bromodichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Bromoform	1.4	1.5	J	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Bromomethane	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Carbon disulfide	N.D	N.D	U	µg/L	7.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Carbon tetrachloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Chlorobenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Chloroethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Chloroform	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Chloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Dibromochloromethane	2.4	2.3	J	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Dibromofluoromethane-SURR	20.5	20.5	--	µg/L	N/A	N/A	20.0	103	76	123	N/A	N/A	10/05/18	09:17	NIVA
Dibromomethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Dichlorodifluoromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA

QUALITY CONTROL SUMMARY

Dichloromethane	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Epichlorohydrin	N.D	N.D	U	µg/L	30.0	75.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Ethylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Hexachlorobutadiene	N.D	N.D	U	µg/L	1.4	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Iodomethane	N.D	N.D	U	µg/L	8.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Isopropylbenzene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Naphthalene	N.D	N.D	U	µg/L	2.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Styrene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Tetrachloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Tetrahydrofuran	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Toluene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Toluene-d8-SURR	19.7	19.8	--	µg/L	N/A	N/A	20.0	98.9	77	122	N/A	N/A	10/05/18	09:17	NIVA
Trichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Trichlorofluoromethane	N.D	N.D	U	µg/L	1.5	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Vinyl Acetate	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
Vinyl chloride	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
cis-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
cis-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
m,p-Xylene	N.D	N.D	U	µg/L	1.8	6.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
n-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
n-Propylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
o-Dichlorobenzene	N.D	N.D	U	µg/L	1.0	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
o-Xylene	N.D	N.D	U	µg/L	2.3	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
sec-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
tert-Butylbenzene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
trans-1,2-Dichloroethene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
trans-1,3-Dichloropropene	N.D	N.D	U	µg/L	1.2	3.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA
trans-1,4-Dichloro-2-butene	N.D	N.D	U	µg/L	6.0	15.0	N/A	N/A	N/A	N/A	N.C.	20	10/05/18	09:17	NIVA

QUALITY CONTROL SUMMARY

2947547 - MS
Reference Sample Number is: 2947545

Analyte Name	Reference Result	QC Result	DQ	Units	MDL	MRL	Accuracy A/A	Accuracy Rec. %	Acceptance Criteria Low Limit	Acceptance Criteria High Limit	Precision RPD	Acceptance Criteria High Limit	Analysis Date	Analysis Time	Analysis By
1,1,1,2-Tetrachloroethane	N.D	21.4	--	µg/L	1.2	3.0	20.0	107	67	124	N/A	N/A	10/05/18	10:09	NIVA
1,1,1-Trichloroethane	N.D	22.9	--	µg/L	1.2	3.0	20.0	115	69	140	N/A	N/A	10/05/18	10:09	NIVA
1,1,2,2-Tetrachloroethane	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	64	122	N/A	N/A	10/05/18	10:09	NIVA
1,1,2-Trichloroethane	N.D	20.2	--	µg/L	1.2	3.0	20.0	101	78	125	N/A	N/A	10/05/18	10:09	NIVA
1,1-Dichloroethane	N.D	21.1	--	µg/L	2.0	3.0	20.0	106	56	141	N/A	N/A	10/05/18	10:09	NIVA
1,1-Dichloroethene	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	44	155	N/A	N/A	10/05/18	10:09	NIVA
1,1-Dichloropropene	N.D	3.8	Q	µg/L	1.4	3.0	20.0	19.0	83	110	N/A	N/A	10/05/18	10:09	NIVA
1,2,3-Trichlorobenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	71	119	N/A	N/A	10/05/18	10:09	NIVA
1,2,3-Trichloropropane	N.D	20.2	--	µg/L	1.2	3.0	20.0	101	47	131	N/A	N/A	10/05/18	10:09	NIVA
1,2,4-Trichlorobenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	53	139	N/A	N/A	10/05/18	10:09	NIVA
1,2,4-Trimethylbenzene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	52	141	N/A	N/A	10/05/18	10:09	NIVA
1,2-Dibromo-3-chloropropane	N.D	18.9	--	µg/L	1.2	3.0	20.0	94.5	67	140	N/A	N/A	10/05/18	10:09	NIVA
1,2-Dibromoethane	N.D	19.7	--	µg/L	1.2	3.0	20.0	98.5	66	140	N/A	N/A	10/05/18	10:09	NIVA
1,2-Dichloroethane	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	60	139	N/A	N/A	10/05/18	10:09	NIVA
1,2-Dichloropropane	N.D	20.0	--	µg/L	1.2	3.0	20.0	100	71	121	N/A	N/A	10/05/18	10:09	NIVA
1,3,5-Trimethylbenzene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	61	125	N/A	N/A	10/05/18	10:09	NIVA
1,3-Dichlorobenzene	N.D	19.2	--	µg/L	1.2	3.0	20.0	96.0	61	129	N/A	N/A	10/05/18	10:09	NIVA
1,3-Dichloropropane	N.D	19.9	--	µg/L	2.0	3.0	20.0	99.5	69	124	N/A	N/A	10/05/18	10:09	NIVA
1,4-Dichlorobenzene	N.D	19.4	--	µg/L	1.2	3.0	20.0	97.0	73	122	N/A	N/A	10/05/18	10:09	NIVA
1-Chlorohexane	N.D	18.2	--	µg/L	1.5	3.0	20.0	91.0	48	136	N/A	N/A	10/05/18	10:09	NIVA
2,2-Dichloropropane	N.D	10.8	--	µg/L	1.2	3.0	20.0	54.0	13	157	N/A	N/A	10/05/18	10:09	NIVA
2-Butanone	N.D	75.6	--	µg/L	6.0	15.0	100	75.6	43	151	N/A	N/A	10/05/18	10:09	NIVA
2-Chloroethyl vinyl ether	N.D	0	U	µg/L	6.0	15.0	100	N/A	10	178	N/A	N/A	10/05/18	10:09	NIVA
2-Chlorotoluene	N.D	26.7	--	µg/L	1.4	3.0	20.0	134	64	139	N/A	N/A	10/05/18	10:09	NIVA
2-Hexanone	N.D	95.3	--	µg/L	6.0	15.0	100	95.3	53	147	N/A	N/A	10/05/18	10:09	NIVA
4-Bromofluorobenzene-SURR	19.3	19.6	--	µg/L	N/A	N/A	20.0	98.0	71	125	N/A	N/A	10/05/18	10:09	NIVA
4-Chlorotoluene	N.D	23.7	--	µg/L	1.2	3.0	20.0	119	64	128	N/A	N/A	10/05/18	10:09	NIVA

QUALITY CONTROL SUMMARY

4-Isopropyltoluene	N.D	0	U	µg/L	1.4	3.0	20.0	N/A	66	129	N/A	N/A	10/05/18	10:09	NIVA
4-Methyl-2-pentanone	N.D	101.4	--	µg/L	6.0	15.0	100	101	57	143	N/A	N/A	10/05/18	10:09	NIVA
Acetone	N.D	110.2	--	µg/L	6.0	15.0	100	110	33	154	N/A	N/A	10/05/18	10:09	NIVA
Acrolein	N.D	38.8	Q.J	µg/L	25.0	75.0	500	7.80	47	157	N/A	N/A	10/05/18	10:09	NIVA
Acrylonitrile	N.D	97.2	--	µg/L	6.0	15.0	100	97.2	34	160	N/A	N/A	10/05/18	10:09	NIVA
Benzene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	65	139	N/A	N/A	10/05/18	10:09	NIVA
Bromobenzene	N.D	18.1	--	µg/L	1.2	3.0	20.0	90.5	64	120	N/A	N/A	10/05/18	10:09	NIVA
Bromochloromethane	N.D	21.9	--	µg/L	1.2	3.0	20.0	110	49	150	N/A	N/A	10/05/18	10:09	NIVA
Bromodichloromethane	N.D	22.0	--	µg/L	1.2	3.0	20.0	110	64	141	N/A	N/A	10/05/18	10:09	NIVA
Bromoform	1.4	18.7	--	µg/L	1.2	3.0	20.0	86.5	61	132	N/A	N/A	10/05/18	10:09	NIVA
Bromomethane	N.D	39.7	Q	µg/L	2.0	3.0	20.0	199	35	163	N/A	N/A	10/05/18	10:09	NIVA
Carbon disulfide	N.D	127.4	--	µg/L	7.0	15.0	100	127	48	158	N/A	N/A	10/05/18	10:09	NIVA
Carbon tetrachloride	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	73	137	N/A	N/A	10/05/18	10:09	NIVA
Chlorobenzene	N.D	19.4	--	µg/L	1.2	3.0	20.0	97.0	68	121	N/A	N/A	10/05/18	10:09	NIVA
Chloroethane	N.D	149.5	Q	µg/L	1.2	3.0	20.0	748	50	142	N/A	N/A	10/05/18	10:09	NIVA
Chloroform	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	59	140	N/A	N/A	10/05/18	10:09	NIVA
Chloromethane	N.D	24.8	--	µg/L	1.2	3.0	20.0	124	42	139	N/A	N/A	10/05/18	10:09	NIVA
Dibromochloromethane	2.4	22.0	--	µg/L	1.2	3.0	20.0	98.0	67	137	N/A	N/A	10/05/18	10:09	NIVA
Dibromofluoromethane-SURR	20.5	21.4	--	µg/L	N/A	N/A	20.0	107	76	123	N/A	N/A	10/05/18	10:09	NIVA
Dibromomethane	N.D	20.4	--	µg/L	1.5	3.0	20.0	102	72	139	N/A	N/A	10/05/18	10:09	NIVA
Dichlorodifluoromethane	N.D	23.6	--	µg/L	1.2	3.0	20.0	118	42	157	N/A	N/A	10/05/18	10:09	NIVA
Dichloromethane	N.D	17.9	--	µg/L	1.2	3.0	20.0	89.5	56	135	N/A	N/A	10/05/18	10:09	NIVA
Epichlorohydrin	N.D	427.3	--	µg/L	30.0	75.0	500	85.5	37	129	N/A	N/A	10/05/18	10:09	NIVA
Ethylbenzene	N.D	9.9	Q	µg/L	1.2	3.0	20.0	49.5	58	136	N/A	N/A	10/05/18	10:09	NIVA
Hexachlorobutadiene	N.D	18.5	--	µg/L	1.4	3.0	20.0	92.5	62	124	N/A	N/A	10/05/18	10:09	NIVA
Iodomethane	N.D	8.7	Q.J	µg/L	8.0	15.0	100	8.70	45	148	N/A	N/A	10/05/18	10:09	NIVA
Isopropylbenzene	N.D	10.4	Q	µg/L	2.0	3.0	20.0	52.0	64	122	N/A	N/A	10/05/18	10:09	NIVA
Naphthalene	N.D	0	U	µg/L	2.0	3.0	20.0	N/A	66	135	N/A	N/A	10/05/18	10:09	NIVA
Styrene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	65	123	N/A	N/A	10/05/18	10:09	NIVA
Tetrachloroethene	N.D	21.3	--	µg/L	1.2	3.0	20.0	107	64	138	N/A	N/A	10/05/18	10:09	NIVA
Tetrahydrofuran	N.D	16.6	--	µg/L	1.2	3.0	20.0	83.0	51	147	N/A	N/A	10/05/18	10:09	NIVA

QUALITY CONTROL SUMMARY

Toluene	N.D	8.5	Q	µg/L	1.2	3.0	20.0	42.5	65	140	N/A	N/A	10/05/18	10:09	NIVA
Toluene-d8-SURR	19.7	20.4	--	µg/L	N/A	N/A	20.0	102	77	122	N/A	N/A	10/05/18	10:09	NIVA
Trichloroethene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	76	126	N/A	N/A	10/05/18	10:09	NIVA
Trichlorofluoromethane	N.D	38.7	Q	µg/L	1.5	3.0	20.0	194	60	144	N/A	N/A	10/05/18	10:09	NIVA
Vinyl Acetate	N.D	0	U	µg/L	6.0	15.0	100	N/A	52	141	N/A	N/A	10/05/18	10:09	NIVA
Vinyl chloride	N.D	1.8	Q.J	µg/L	1.2	3.0	20.0	9.00	39	151	N/A	N/A	10/05/18	10:09	NIVA
cis-1,2-Dichloroethene	N.D	19.0	--	µg/L	1.2	3.0	20.0	95.0	66	127	N/A	N/A	10/05/18	10:09	NIVA
cis-1,3-Dichloropropene	N.D	11.5	--	µg/L	1.2	3.0	20.0	57.5	57	131	N/A	N/A	10/05/18	10:09	NIVA
m,p-Xylene	N.D	17.6	Q	µg/L	1.8	6.0	40.0	44.0	56	145	N/A	N/A	10/05/18	10:09	NIVA
n-Butylbenzene	N.D	8.4	Q	µg/L	1.2	3.0	20.0	42.0	72	114	N/A	N/A	10/05/18	10:09	NIVA
n-Propylbenzene	N.D	10.4	Q	µg/L	1.2	3.0	20.0	52.0	61	123	N/A	N/A	10/05/18	10:09	NIVA
o-Dichlorobenzene	N.D	18.6	--	µg/L	1.0	3.0	20.0	93.0	73	124	N/A	N/A	10/05/18	10:09	NIVA
o-Xylene	N.D	17.5	--	µg/L	2.3	3.0	20.0	87.5	54	143	N/A	N/A	10/05/18	10:09	NIVA
sec-Butylbenzene	N.D	11.3	Q	µg/L	1.2	3.0	20.0	56.5	64	114	N/A	N/A	10/05/18	10:09	NIVA
tert-Butylbenzene	N.D	13.8	--	µg/L	1.2	3.0	20.0	69.0	68	113	N/A	N/A	10/05/18	10:09	NIVA
trans-1,2-Dichloroethene	N.D	19.5	--	µg/L	1.2	3.0	20.0	97.5	56	146	N/A	N/A	10/05/18	10:09	NIVA
trans-1,3-Dichloropropene	N.D	11.9	--	µg/L	1.2	3.0	20.0	59.5	59	130	N/A	N/A	10/05/18	10:09	NIVA
trans-1,4-Dichloro-2-butene	N.D	0.75	Q	µg/L	6.0	15.0	100	0.75	47	129	N/A	N/A	10/05/18	10:09	NIVA

2947548 - MSD
Reference Sample Number is: 2947545

							Accuracy				Precision				
									Acceptance Criteria			Acceptance Criteria	Analysis		
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	23.7	--	µg/L	1.2	3.0	20.0	119	67	124	10.2	20	10/05/18	10:36	NIVA
1,1,1-Trichloroethane	N.D	23.1	--	µg/L	1.2	3.0	20.0	116	69	140	0.870	20	10/05/18	10:36	NIVA
1,1,2,2-Tetrachloroethane	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	64	122	0.447	20	10/05/18	10:36	NIVA
1,1,2-Trichloroethane	N.D	20.6	--	µg/L	1.2	3.0	20.0	103	78	125	1.96	20	10/05/18	10:36	NIVA
1,1-Dichloroethane	N.D	24.9	--	µg/L	2.0	3.0	20.0	125	56	141	16.5	20	10/05/18	10:36	NIVA
1,1-Dichloroethene	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	44	155	0.447	20	10/05/18	10:36	NIVA
1,1-Dichloropropene	N.D	7.6	Q	µg/L	1.4	3.0	20.0	38.0	83	110	N.C.	20	10/05/18	10:36	NIVA
1,2,3-Trichlorobenzene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	71	119	0.948	20	10/05/18	10:36	NIVA

QUALITY CONTROL SUMMARY

1,2,3-Trichloropropane	N.D	23.6	--	µg/L	1.2	3.0	20.0	118	47	131	15.5	20	10/05/18	10:36	NIVA
1,2,4-Trichlorobenzene	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	53	139	1.41	20	10/05/18	10:36	NIVA
1,2,4-Trimethylbenzene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	52	141	N/A	20	10/05/18	10:36	NIVA
1,2-Dibromo-3-chloropropane	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	67	140	17.8	20	10/05/18	10:36	NIVA
1,2-Dibromoethane	N.D	20.3	--	µg/L	1.2	3.0	20.0	102	66	140	3.00	20	10/05/18	10:36	NIVA
1,2-Dichloroethane	N.D	21.8	--	µg/L	1.2	3.0	20.0	109	60	139	0.922	20	10/05/18	10:36	NIVA
1,2-Dichloropropane	N.D	20.1	--	µg/L	1.2	3.0	20.0	101	71	121	0.499	20	10/05/18	10:36	NIVA
1,3,5-Trimethylbenzene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	61	125	N/A	20	10/05/18	10:36	NIVA
1,3-Dichlorobenzene	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	61	129	16.3	20	10/05/18	10:36	NIVA
1,3-Dichloropropane	N.D	19.8	--	µg/L	2.0	3.0	20.0	99.0	69	124	N.C.	20	10/05/18	10:36	NIVA
1,4-Dichlorobenzene	N.D	22.1	--	µg/L	1.2	3.0	20.0	111	73	122	13.0	20	10/05/18	10:36	NIVA
1-Chlorohexane	N.D	21.2	--	µg/L	1.5	3.0	20.0	106	48	136	15.2	20	10/05/18	10:36	NIVA
2,2-Dichloropropane	N.D	12.8	--	µg/L	1.2	3.0	20.0	64.0	13	157	16.9	20	10/05/18	10:36	NIVA
2-Butanone	N.D	78.4	--	µg/L	6.0	15.0	100	78.4	43	151	3.64	20	10/05/18	10:36	NIVA
2-Chloroethyl vinyl ether	N.D	0	U	µg/L	6.0	15.0	100	N/A	10	178	N/A	20	10/05/18	10:36	NIVA
2-Chlorotoluene	N.D	27.5	--	µg/L	1.4	3.0	20.0	138	64	139	2.95	20	10/05/18	10:36	NIVA
2-Hexanone	N.D	98.8	--	µg/L	6.0	15.0	100	98.8	53	147	3.61	20	10/05/18	10:36	NIVA
4-Bromofluorobenzene-SURR	19.3	19.5	--	µg/L	N/A	N/A	20.0	97.7	71	125	N/A	N/A	10/05/18	10:36	NIVA
4-Chlorotoluene	N.D	24.8	--	µg/L	1.2	3.0	20.0	124	64	128	4.54	20	10/05/18	10:36	NIVA
4-Isopropyltoluene	N.D	1.02	Q	µg/L	1.4	3.0	20.0	5.10	66	129	N.C.	20	10/05/18	10:36	NIVA
4-Methyl-2-pentanone	N.D	102.5	--	µg/L	6.0	15.0	100	103	57	143	1.08	20	10/05/18	10:36	NIVA
Acetone	N.D	113.1	--	µg/L	6.0	15.0	100	113	33	154	2.60	20	10/05/18	10:36	NIVA
Acrolein	N.D	36.6	Q.J	µg/L	25.0	75.0	500	7.30	47	157	N.C.	20	10/05/18	10:36	NIVA
Acrylonitrile	N.D	113.5	--	µg/L	6.0	15.0	100	114	34	160	15.5	20	10/05/18	10:36	NIVA
Benzene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	65	139	0.00	20	10/05/18	10:36	NIVA
Bromobenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	64	120	15.8	20	10/05/18	10:36	NIVA
Bromochloromethane	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	49	150	3.59	20	10/05/18	10:36	NIVA
Bromodichloromethane	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	64	141	1.80	20	10/05/18	10:36	NIVA
Bromoform	1.4	22.4	--	µg/L	1.2	3.0	20.0	105	61	132	18.0	20	10/05/18	10:36	NIVA
Bromomethane	N.D	43.1	Q	µg/L	2.0	3.0	20.0	216	35	163	8.21	20	10/05/18	10:36	NIVA
Carbon disulfide	N.D	121.1	--	µg/L	7.0	15.0	100	121	48	158	5.07	20	10/05/18	10:36	NIVA

QUALITY CONTROL SUMMARY

Carbon tetrachloride	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	73	137	0.889	20	10/05/18	10:36	NIVA
Chlorobenzene	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	68	121	15.2	20	10/05/18	10:36	NIVA
Chloroethane	N.D	147.8	Q	µg/L	1.2	3.0	20.0	739	50	142	1.14	20	10/05/18	10:36	NIVA
Chloroform	N.D	23.8	--	µg/L	1.2	3.0	20.0	119	59	140	10.2	20	10/05/18	10:36	NIVA
Chloromethane	N.D	26.4	--	µg/L	1.2	3.0	20.0	132	42	139	6.25	20	10/05/18	10:36	NIVA
Dibromochloromethane	2.4	22.0	--	µg/L	1.2	3.0	20.0	98.0	67	137	0.00	20	10/05/18	10:36	NIVA
Dibromofluoromethane-SURR	20.5	18.5	--	µg/L	N/A	N/A	20.0	92.3	76	123	N/A	N/A	10/05/18	10:36	NIVA
Dibromomethane	N.D	20.0	--	µg/L	1.5	3.0	20.0	100	72	139	1.98	20	10/05/18	10:36	NIVA
Dichlorodifluoromethane	N.D	23.5	--	µg/L	1.2	3.0	20.0	118	42	157	0.425	20	10/05/18	10:36	NIVA
Dichloromethane	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	56	135	16.9	20	10/05/18	10:36	NIVA
Epichlorohydrin	N.D	441.1	--	µg/L	30.0	75.0	500	88.2	37	129	3.18	20	10/05/18	10:36	NIVA
Ethylbenzene	N.D	10.4	Q	µg/L	1.2	3.0	20.0	52.0	58	136	N.C.	20	10/05/18	10:36	NIVA
Hexachlorobutadiene	N.D	20.1	--	µg/L	1.4	3.0	20.0	101	62	124	8.29	20	10/05/18	10:36	NIVA
Iodomethane	N.D	7.06	Q	µg/L	8.0	15.0	100	7.06	45	148	N.C.	20	10/05/18	10:36	NIVA
Isopropylbenzene	N.D	12.8	--	µg/L	2.0	3.0	20.0	64.0	64	122	N.C.	20	10/05/18	10:36	NIVA
Naphthalene	N.D	0	U	µg/L	2.0	3.0	20.0	N/A	66	135	N/A	20	10/05/18	10:36	NIVA
Styrene	N.D	0	U	µg/L	1.2	3.0	20.0	N/A	65	123	N/A	20	10/05/18	10:36	NIVA
Tetrachloroethene	N.D	21.5	--	µg/L	1.2	3.0	20.0	108	64	138	0.935	20	10/05/18	10:36	NIVA
Tetrahydrofuran	N.D	17.4	--	µg/L	1.2	3.0	20.0	87.0	51	147	4.71	20	10/05/18	10:36	NIVA
Toluene	N.D	12.1	Q	µg/L	1.2	3.0	20.0	60.5	65	140	35.0	20	10/05/18	10:36	NIVA
Toluene-d8-SURR	19.7	17.4	--	µg/L	N/A	N/A	20.0	87.0	77	122	N/A	N/A	10/05/18	10:36	NIVA
Trichloroethene	N.D	20.7	--	µg/L	1.2	3.0	20.0	104	76	126	2.39	20	10/05/18	10:36	NIVA
Trichlorofluoromethane	N.D	38.9	Q	µg/L	1.5	3.0	20.0	195	60	144	0.515	20	10/05/18	10:36	NIVA
Vinyl Acetate	N.D	0	U	µg/L	6.0	15.0	100	N/A	52	141	N/A	20	10/05/18	10:36	NIVA
Vinyl chloride	N.D	3.7	Q	µg/L	1.2	3.0	20.0	18.5	39	151	N.C.	20	10/05/18	10:36	NIVA
cis-1,2-Dichloroethene	N.D	22.5	--	µg/L	1.2	3.0	20.0	113	66	127	16.9	20	10/05/18	10:36	NIVA
cis-1,3-Dichloropropene	N.D	13.6	--	µg/L	1.2	3.0	20.0	68.0	57	131	16.7	20	10/05/18	10:36	NIVA
m,p-Xylene	N.D	19.6	Q	µg/L	1.8	6.0	40.0	49.0	56	145	10.8	20	10/05/18	10:36	NIVA
n-Butylbenzene	N.D	11.4	Q	µg/L	1.2	3.0	20.0	57.0	72	114	N.C.	20	10/05/18	10:36	NIVA
n-Propylbenzene	N.D	13.0	Q	µg/L	1.2	3.0	20.0	65.0	61	123	22.2	20	10/05/18	10:36	NIVA
o-Dichlorobenzene	N.D	21.8	--	µg/L	1.0	3.0	20.0	109	73	124	15.8	20	10/05/18	10:36	NIVA

QUALITY CONTROL SUMMARY

o-Xylene	N.D	18.3	--	µg/L	2.3	3.0	20.0	91.5	54	143	N.C.	20	10/05/18	10:36	NIVA
sec-Butylbenzene	N.D	12.6	Q	µg/L	1.2	3.0	20.0	63.0	64	114	10.9	20	10/05/18	10:36	NIVA
tert-Butylbenzene	N.D	15.2	--	µg/L	1.2	3.0	20.0	76.0	68	113	9.66	20	10/05/18	10:36	NIVA
trans-1,2-Dichloroethene	N.D	23.8	--	µg/L	1.2	3.0	20.0	119	56	146	19.9	20	10/05/18	10:36	NIVA
trans-1,3-Dichloropropene	N.D	12.0	--	µg/L	1.2	3.0	20.0	60.0	59	130	0.837	20	10/05/18	10:36	NIVA
trans-1,4-Dichloro-2-butene	N.D	0.75	Q	µg/L	6.0	15.0	100	0.75	47	129	N.C.	20	10/05/18	10:36	NIVA

2953694 - LFB
Reference Sample Number is: 2947545

							Accuracy				Precision		Analysis		
									Acceptance Criteria			Acceptance Criteria			
Analyte Name	**Reference Result**	**QC Result**	**DQ**	**Units**	**MDL**	**MRL**	**A/A**	**Rec. %**	**Low Limit**	**High Limit**	**RPD**	**High Limit**	**Date**	**Time**	**By**
1,1,1,2-Tetrachloroethane	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	67	126	N/A	N/A	10/05/18	12:47	NIVA
1,1,1-Trichloroethane	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	64	139	N/A	N/A	10/05/18	12:47	NIVA
1,1,2,2-Tetrachloroethane	N.D	22.8	--	µg/L	1.2	3.0	20.0	114	60	131	N/A	N/A	10/05/18	12:47	NIVA
1,1,2-Trichloroethane	N.D	21.6	--	µg/L	1.2	3.0	20.0	108	70	129	N/A	N/A	10/05/18	12:47	NIVA
1,1-Dichloroethane	N.D	21.5	--	µg/L	2.0	3.0	20.0	108	63	133	N/A	N/A	10/05/18	12:47	NIVA
1,1-Dichloroethene	N.D	22.4	--	µg/L	1.2	3.0	20.0	112	55	139	N/A	N/A	10/05/18	12:47	NIVA
1,1-Dichloropropene	N.D	21.6	--	µg/L	1.4	3.0	20.0	108	67	131	N/A	N/A	10/05/18	12:47	NIVA
1,2,3-Trichlorobenzene	N.D	20.5	--	µg/L	1.2	3.0	20.0	103	68	131	N/A	N/A	10/05/18	12:47	NIVA
1,2,3-Trichloropropane	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	52	131	N/A	N/A	10/05/18	12:47	NIVA
1,2,4-Trichlorobenzene	N.D	20.1	--	µg/L	1.2	3.0	20.0	101	51	132	N/A	N/A	10/05/18	12:47	NIVA
1,2,4-Trimethylbenzene	N.D	21.7	--	µg/L	1.2	3.0	20.0	109	63	129	N/A	N/A	10/05/18	12:47	NIVA
1,2-Dibromo-3-chloropropane	N.D	18.3	--	µg/L	1.2	3.0	20.0	91.5	66	139	N/A	N/A	10/05/18	12:47	NIVA
1,2-Dibromoethane	N.D	21.3	--	µg/L	1.2	3.0	20.0	107	76	126	N/A	N/A	10/05/18	12:47	NIVA
1,2-Dichloroethane	N.D	22.6	--	µg/L	1.2	3.0	20.0	113	60	136	N/A	N/A	10/05/18	12:47	NIVA
1,2-Dichloropropane	N.D	20.8	--	µg/L	1.2	3.0	20.0	104	70	124	N/A	N/A	10/05/18	12:47	NIVA
1,3,5-Trimethylbenzene	N.D	21.1	--	µg/L	1.2	3.0	20.0	106	68	123	N/A	N/A	10/05/18	12:47	NIVA
1,3-Dichlorobenzene	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	62	127	N/A	N/A	10/05/18	12:47	NIVA
1,3-Dichloropropane	N.D	21.1	--	µg/L	2.0	3.0	20.0	106	74	124	N/A	N/A	10/05/18	12:47	NIVA
1,4-Dichlorobenzene	N.D	19.9	--	µg/L	1.2	3.0	20.0	99.5	73	123	N/A	N/A	10/05/18	12:47	NIVA
1-Chlorohexane	N.D	18.1	--	µg/L	1.5	3.0	20.0	90.5	56	139	N/A	N/A	10/05/18	12:47	NIVA

QUALITY CONTROL SUMMARY

2,2-Dichloropropane	N.D	15.4	--	µg/L	1.2	3.0	20.0	77.0	37	148	N/A	N/A	10/05/18	12:47	NIVA
2-Butanone	N.D	110.1	--	µg/L	6.0	15.0	100	110	57	136	N/A	N/A	10/05/18	12:47	NIVA
2-Chloroethyl vinyl ether	N.D	102.9	--	µg/L	6.0	15.0	100	103	47	143	N/A	N/A	10/05/18	12:47	NIVA
2-Chlorotoluene	N.D	20.9	--	µg/L	1.4	3.0	20.0	105	66	127	N/A	N/A	10/05/18	12:47	NIVA
2-Hexanone	N.D	106.0	--	µg/L	6.0	15.0	100	106	62	136	N/A	N/A	10/05/18	12:47	NIVA
4-Bromofluorobenzene-SURR	19.3	20.6	--	µg/L	N/A	N/A	20.0	103	79	121	N/A	N/A	10/05/18	12:47	NIVA
4-Chlorotoluene	N.D	21.0	--	µg/L	1.2	3.0	20.0	105	63	125	N/A	N/A	10/05/18	12:47	NIVA
4-Isopropyltoluene	N.D	19.5	--	µg/L	1.4	3.0	20.0	97.5	68	131	N/A	N/A	10/05/18	12:47	NIVA
4-Methyl-2-pentanone	N.D	110.0	--	µg/L	6.0	15.0	100	110	62	135	N/A	N/A	10/05/18	12:47	NIVA
Acetone	N.D	127.3	--	µg/L	6.0	15.0	100	127	46	142	N/A	N/A	10/05/18	12:47	NIVA
Acrolein	N.D	522.3	--	µg/L	25.0	75.0	500	104	40	153	N/A	N/A	10/05/18	12:47	NIVA
Acrylonitrile	N.D	107.9	--	µg/L	6.0	15.0	100	108	53	141	N/A	N/A	10/05/18	12:47	NIVA
Benzene	N.D	21.3	--	µg/L	1.2	3.0	20.0	107	66	131	N/A	N/A	10/05/18	12:47	NIVA
Bromobenzene	N.D	21.1	--	µg/L	1.2	3.0	20.0	106	61	126	N/A	N/A	10/05/18	12:47	NIVA
Bromochloromethane	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	60	133	N/A	N/A	10/05/18	12:47	NIVA
Bromodichloromethane	N.D	21.7	--	µg/L	1.2	3.0	20.0	109	72	129	N/A	N/A	10/05/18	12:47	NIVA
Bromoform	1.4	17.7	--	µg/L	1.2	3.0	20.0	88.5	61	130	N/A	N/A	10/05/18	12:47	NIVA
Bromomethane	N.D	23.9	--	µg/L	2.0	3.0	20.0	120	47	151	N/A	N/A	10/05/18	12:47	NIVA
Carbon disulfide	N.D	119.0	--	µg/L	7.0	15.0	100	119	58	140	N/A	N/A	10/05/18	12:47	NIVA
Carbon tetrachloride	N.D	21.7	--	µg/L	1.2	3.0	20.0	109	69	134	N/A	N/A	10/05/18	12:47	NIVA
Chlorobenzene	N.D	20.5	--	µg/L	1.2	3.0	20.0	103	67	122	N/A	N/A	10/05/18	12:47	NIVA
Chloroethane	N.D	25.2	--	µg/L	1.2	3.0	20.0	126	47	144	N/A	N/A	10/05/18	12:47	NIVA
Chloroform	N.D	22.1	--	µg/L	1.2	3.0	20.0	111	61	134	N/A	N/A	10/05/18	12:47	NIVA
Chloromethane	N.D	20.3	--	µg/L	1.2	3.0	20.0	102	43	142	N/A	N/A	10/05/18	12:47	NIVA
Dibromochloromethane	2.4	18.7	--	µg/L	1.2	3.0	20.0	93.5	69	134	N/A	N/A	10/05/18	12:47	NIVA
Dibromofluoromethane-SURR	20.5	21.3	--	µg/L	N/A	N/A	20.0	107	83	120	N/A	N/A	10/05/18	12:47	NIVA
Dibromomethane	N.D	22.0	--	µg/L	1.5	3.0	20.0	110	76	131	N/A	N/A	10/05/18	12:47	NIVA
Dichlorodifluoromethane	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	49	145	N/A	N/A	10/05/18	12:47	NIVA
Dichloromethane	N.D	19.6	--	µg/L	1.2	3.0	20.0	98.0	62	129	N/A	N/A	10/05/18	12:47	NIVA
Epichlorohydrin	N.D	426.9	--	µg/L	30.0	75.0	500	85.4	52	134	N/A	N/A	10/05/18	12:47	NIVA
Ethylbenzene	N.D	20.7	--	µg/L	1.2	3.0	20.0	104	69	131	N/A	N/A	10/05/18	12:47	NIVA

QUALITY CONTROL SUMMARY

Hexachlorobutadiene	N.D	17.8	--	µg/L	1.4	3.0	20.0	89.0	51	139	N/A	N/A	10/05/18	12:47	NIVA
Iodomethane	N.D	94.3	--	µg/L	8.0	15.0	100	94.3	54	143	N/A	N/A	10/05/18	12:47	NIVA
Isopropylbenzene	N.D	20.5	--	µg/L	2.0	3.0	20.0	103	69	121	N/A	N/A	10/05/18	12:47	NIVA
Naphthalene	N.D	19.1	--	µg/L	2.0	3.0	20.0	95.5	71	134	N/A	N/A	10/05/18	12:47	NIVA
Styrene	N.D	19.7	--	µg/L	1.2	3.0	20.0	98.5	65	127	N/A	N/A	10/05/18	12:47	NIVA
Tetrachloroethene	N.D	22.1	--	µg/L	1.2	3.0	20.0	111	62	135	N/A	N/A	10/05/18	12:47	NIVA
Tetrahydrofuran	N.D	18.6	--	µg/L	1.2	3.0	20.0	93.0	67	134	N/A	N/A	10/05/18	12:47	NIVA
Toluene	N.D	21.4	--	µg/L	1.2	3.0	20.0	107	59	143	N/A	N/A	10/05/18	12:47	NIVA
Toluene-d8-SURR	19.7	20.5	--	µg/L	N/A	N/A	20.0	103	80	116	N/A	N/A	10/05/18	12:47	NIVA
Trichloroethene	N.D	22.3	--	µg/L	1.2	3.0	20.0	112	67	138	N/A	N/A	10/05/18	12:47	NIVA
Trichlorofluoromethane	N.D	24.9	--	µg/L	1.5	3.0	20.0	125	45	157	N/A	N/A	10/05/18	12:47	NIVA
Vinyl Acetate	N.D	75.5	--	µg/L	6.0	15.0	100	75.5	53	144	N/A	N/A	10/05/18	12:47	NIVA
Vinyl chloride	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	52	140	N/A	N/A	10/05/18	12:47	NIVA
cis-1,2-Dichloroethene	N.D	20.2	--	µg/L	1.2	3.0	20.0	101	71	128	N/A	N/A	10/05/18	12:47	NIVA
cis-1,3-Dichloropropene	N.D	17.7	--	µg/L	1.2	3.0	20.0	88.5	63	125	N/A	N/A	10/05/18	12:47	NIVA
m,p-Xylene	N.D	40.6	--	µg/L	1.8	6.0	40.0	102	63	130	N/A	N/A	10/05/18	12:47	NIVA
n-Butylbenzene	N.D	19.2	--	µg/L	1.2	3.0	20.0	96.0	67	127	N/A	N/A	10/05/18	12:47	NIVA
n-Propylbenzene	N.D	23.0	--	µg/L	1.2	3.0	20.0	115	64	124	N/A	N/A	10/05/18	12:47	NIVA
o-Dichlorobenzene	N.D	19.4	--	µg/L	1.0	3.0	20.0	97.0	75	121	N/A	N/A	10/05/18	12:47	NIVA
o-Xylene	N.D	19.7	--	µg/L	2.3	3.0	20.0	98.5	66	124	N/A	N/A	10/05/18	12:47	NIVA
sec-Butylbenzene	N.D	22.7	--	µg/L	1.2	3.0	20.0	114	66	122	N/A	N/A	10/05/18	12:47	NIVA
tert-Butylbenzene	N.D	21.2	--	µg/L	1.2	3.0	20.0	106	65	126	N/A	N/A	10/05/18	12:47	NIVA
trans-1,2-Dichloroethene	N.D	20.1	--	µg/L	1.2	3.0	20.0	101	66	129	N/A	N/A	10/05/18	12:47	NIVA
trans-1,3-Dichloropropene	N.D	16.9	--	µg/L	1.2	3.0	20.0	84.5	60	131	N/A	N/A	10/05/18	12:47	NIVA
trans-1,4-Dichloro-2-butene	N.D	81.7	--	µg/L	6.0	15.0	100	81.7	53	123	N/A	N/A	10/05/18	12:47	NIVA

Footnotes:

Data Qualifiers (DQ) to be used by EQLab are listed below:

B – Analyte was detected in the blank.

D – Diluted Sample.

J – The reported result is an estimated value (e.g., matrix interference was observed or the analyte was detected at a concentration outside the quantitation range and/or final result was found between MDL and MRL).

N – Non-target analyte.

P – Does not meet preservation criteria (e.g. does not meet arrival temperature criteria or acid/base preservation criteria or incorrect container, among others).

Q – One or more quality control criteria failed (e.g., fails in Holding Time, LFB/LCS recovery, surrogate (SURR) spike recovery, matrix spike recovery or CCV recovery, out of RPD acceptance criteria among other).

R – Recognition Level. ND Results are reported "<PTRL" – Pattern Recognition Level (applicable for EPA 508 (PCB) mixtures (Aroclors), Toxaphene, and Chlordane only).

T –Thomas Formula (applicable for Microbiology testing only). The combination of positives tubes did not appear in Table 9221.IV. SM 9221C "Estimation of Bacterial Density"

U – Analyte was not detected and is reported as less than the MDL or as defined by the client. The MDL has been adjusted for any dilution or concentration of the sample.

Definitions:

A / A – Amount Added
ASTM – American Society for Testing and Materials
BDL – Below Detection Limit
CCB – Continues Calibration Blank
CCV – Continues Calibration Verification
DNI – Does not Ignite
DQ – Data Qualifiers
DUP – Duplicate
LRB – Laboratory Reagent Blank
MB – Method Blank
MCL – Maximum Contaminant Level
MDL – Method Detection Limit
MO – Monitoring Only
MRL – Minimum Reporting Limit
MS – Matrix Spike

EB/ ERB – Equipment Blank / Equipment Reagent Blank
EPA – Environmental Protection Agency
EQLab – Environmental Quality Laboratories, Inc.
FB – Field Blank
FD – Field Duplicate
FRB – Field Reagent Blank
ICB – Initial Calibration Blank
ICV – Initial Calibration Verification
LCS – Laboratory Control Sample
LFB – Laboratory Fortified Blank
LFBD – Laboratory Fortified Blank Duplicate
MSD – Matrix Spike Duplicate
N/A – Not Applicable
N.D. – Not Detected
NELAC – National Environmental Laboratory Accreditation Conference
PRDOH – Puerto Rico Department of Health
PTRL – Pattern Recognition Level
TB – Trip Blank
Rec. – Recovery
RPD – Relative Percent Difference
SM – Standard Method
SURR – Surrogate

Formulas:

1. The Relative Percent Difference (RPD) is calculated as follows:

RPD = { [/QC Final Result – Reference Final Result /] / [(QC Final Result + Reference Final Result) / 2] } X 100

RPD Micro = (log_10 QC Final Result) - (log_10 Reference Final Result) (Expressed as Precision)

The RPD applies to the following Quality Controls: DUP, MSD, LFBD. The RPD is reported N.C. when the QC Final Result is less than ten times the value of MDL. The RPD general acceptance criteria is as close to zero as possible; no more than 20% for all matrices except Solid / Soil which is < or = 40%.

2. The Recovery Percentage (% Rec) is calculated as follows:

%Rec = [(QC Final Result) / (QC Fortified Concentration)] X 100

3. For the MS and MSD Quality Controls, the Recovery Percentage (% Rec) is calculated as follows:

%Rec = [(QC Final Result - Reference Final Result) / (QC Fortified Concentration)] X 100

APPENDIX A
CHAIN OF CUSTODY DOCUMENTATION

2018-16017

ENVIRONMENTAL QUALITY LABORATORIES, INC.

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 261635 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION			CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2947545-1 MATRIX: GROUND WATER SOURCE: EFFLUENT, GUAYAMA, PR	DATE: 10/02/18 TIME: 0901 TYPE: Grab		TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947546-1 MATRIX: GROUND WATER SOURCE: EFFLUENT-DUPLICATE, GUAYAMA, PR	DATE: 10/02/18 TIME: 0901 TYPE: Grab	DUP	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947547-1 MATRIX: GROUND WATER SOURCE: EFFLUENT-MS, GUAYAMA, PR	DATE: 10/02/18 TIME: 0901 TYPE: Grab	MS	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947548-1 MATRIX: GROUND WATER SOURCE: EFFLUENT-MSD, GUAYAMA, PR	DATE: 10/02/18 TIME: 0901 TYPE: Grab	MSD	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:	Elvin Varela	10/02/18	1400
Fixed in field by:		10/02/18	
Authorized by:	NA	NA	
Received by EQLF:			
Released to EQLL by:		10/02/18	1338
Received by EQLL:		10/02/18	1338

SPECIAL INSTRUCTIONS / COMMENTS: QA/QC Report for October 25, 2018

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature:

Eqlab's general terms and conditions on reverse side of this document.

ENVIRONMENTAL QUALITY LABORATORIES, INC.

2018-16017

SAMPLE DELIVERY SLIP & CHAIN OF CUSTODY

PO BOX 11458, SAN JUAN, PR 00910-1458 • TEL. (787) 288-6420, FAX (787) 288-6465, e-mail: info@eqlab.com

CLIENT NAME: ARCADIS CARIBE, PSC | CLIENT ID: 655-04 | W.O. #: 26 | SITE: GUAYAMA, PR | CLIENT REP: MR. ELVIN VARELA

P.O. #: 507 | PWSID #: | FOLDER #: 261635 | PROJECT: GUAYAMA PROJECT | EQLAB REP: EGARCIA

SAMPLE INFORMATION		CONTAINER INFORMATION	FIELD TESTING		ANALYSIS REQUESTED
SAMPLE #: 2947550-1 MATRIX: DI WATER TRIP SOURCE: TRIP BLANK, GUAYAMA, PR	DATE: 10/02/18 TIME: 0800 TYPE: Grab	TYPE VIAL/TC COLOR CLEAR VOLUME PRESERVATIVE HCl pH<2,Cool 4 °C			EPA 8260B VOC
SAMPLE #: 2947549-1 MATRIX: Ground water SOURCE: Influent	DATE: 10/02/18 TIME: 0834 TYPE: Grab	TYPE COLOR VOLUME PRESERVATIVE			EPA 8260B VOC
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			
SAMPLE #: MATRIX: SOURCE:	DATE: TIME: TYPE:	TYPE COLOR VOLUME PRESERVATIVE			

CUSTODY RECORD	SIGNATURE	DATE	TIME
Collected in field by:		10/02/18	0800
Fixed in field by:		10/02/18	
Authorized by:	NA	NA	
Received by EQLF:			
Released to EQLL by:		10/02/18	1338
Received by EQLL:		10/02/18	1338

SPECIAL INSTRUCTIONS / COMMENTS: QA/QC Report for October 25, 2018

*EQLF = Eqlab's Field Personnel.
*EQLL = Eqlab's Log-in Personnel.

Arrival Temperature: 3.0°C Signature:

Eqlab's general terms and conditions on reverse side of this document.

APPENDIX B
RAW DATA WORKSHEETS

ORGANICS DEPARTMENT
RAW DATA PACKAGE CHECKLIST

RUN NUMBER: 203483
203484
203487

☑ 1. Run Cover Sheet general information check.

☑ 2. Check if the reagents and / or support equipment information are on the Pre-Run Worksheet.

☑ 3. Check if the Pre-Run Worksheet and the Run Cover Sheet are signed.

☑ 4. Check for the presence of:

Present	Not Applicable	
☐	☑	a. Markers
☐	☑	b. Pesticides Degradation
☐	☑	c. Calculated LPC
☑	☐	d. BFB
☐	☑	e. Tailing Factor
☐	☑	f. Height of Valley
☐	☑	g. Bromoform Degradation
☑	☐	h. %RFD
☐	☑	i. DFTPP
☐	☑	j. Other: N/A

☑ 5. Check for the attachment of the LIMS Run Worksheet.

☑ 6. Check for the attachment of the Initial Calibration and its RSD or Lineal Correlation calculation, if applicable.

Prepared by: N/A (Analyst) Date: N/A

Checked by: [signature] (Laboratory Group Leader) Date: 10-09-18

Approved by: [signature] (Supervisor) Date: 10-10-18

ORGANICS DEPARTMENT
RUN COVER SHEET

eqlab

General Information

Method Number	Run Number	Sequence Number	Sample prep by	Sample Setup by	Sample Evaluated by	Run Approved by
8260B BTEX	203483	203483-7CC8260EXT	NIVA	NVILLANUEVA	NVILLANUEVA	NVILLANUEVA
VOC / EXT	203484/203487		PR63901 / PR63902			

Calibration Curve Reference

Calib. Curve Name	NBK Reference
8260VOC-OCT-LIQ-18	NBK 090 Pg. 068
ETHANOL-ACETONIT-MTBE-OCT18	NBK 090 Pg. 068

Instrument Information

Description / Identification Number: V7-AG7890MS

PM Expiration Date: 10/2018

Run Controls Information

[X] LRB [X] BFB / LPC [ ] DFTPP / Degradation [X] ICV / CCS [X] QCS [ ] CCV / CCS [ ] PT

Amount µL	Solution Name	NBK Reference	Expiration Date	Solution Concentration ppm	Dilution Volume mL	Analyte Concentration µg/L
N/A	Agua para VOC	NBK 090 Pg. 060	N/A	N/A	N/A	N/A
2	p-Bromofluorobenzene	NBK 090 Pg. 059	3/14/2019	20	50	8
10	Mix 8260 & 624 VOC	NBK 090 Pg. 064	3/19/2019	100	50	20
10	Mix GASES VOC	NBK 090 Pg. 063	10/20/2018	100	50	20
10	MIX MTBE/ACET/ETHANOL	NBK 090 Pg. 068	10/12/2018	100	50	20
10	2ND SOURCE A	NBK 090 Pg. 054	2/20/2019	100	50	20
10	2ND SOURCE B	NBK 090 Pg. 056	2/27/2019	100	50	20
5	SIM VOC	NBK 090 Pg. 059	3/14/2019	20	5	20

Preparation Controls Information

N/A

[ ] MB [X] MDL [ ] MRL [X] MS / LFM [ ] MSD / LFMD [X] LFB [ ] LFBD

Amount µL	Solution Name	NBK Reference	Expiration Date	Solution Concentration ppm	Dilution Volume mL	Analyte Concentration µg/L
N/A	Agua para VOC	NBK 090 Pg. 060	N/A	N/A	N/A	N/A
0.5	Mix 8260 & 624 VOC	NBK 090 Pg. 064	3/19/2019	100	50	1
0.5	Mix GASES VOC	NBK 090 Pg. 063	10/20/2018	100	50	1
0.5	MIX MTBE/ACET/ETHANOL	NBK 090 Pg. 068	10/12/2018	100	50	1
10	Mix 8260 & 624 VOC	NBK 090 Pg. 064	3/19/2019	100	50	20
10	Mix GASES VOC	NBK 090 Pg. 063	10/20/2018	100	50	20
10	MIX MTBE/ACET/ETHANOL	NBK 090 Pg. 068	10/12/2018	100	50	20
10	Mix 8260 & 624 VOC	NBK 090 Pg. 064	3/19/2019	100	50	20
10	Mix GASES VOC	NBK 090 Pg. 063	10/20/2018	100	50	20
10	MIX MTBE/ACET/ETHANOL	NBK 090 Pg. 068	10/12/2018	100	50	20

RUN STATUS

[X] Run in Control 83-84 [ ] OCMCL [ ] OCRPD [X] OCB 87 [ ] HBOCC

SOP-QC-004 Accepted Exemption:

[ ] # 1 [ ] # 2 [ ] # 3 [ ] # 4 [ ] # 5
[ ] # 6 [ ] # 7 [ ] # 8 [ ] # 9 [ ] # 10
[ ] # 11 [ ] # 12 [ ] # 13 [ ] # 14

QUALIFIERS

[ ] D [ ] U [ ] J [ ] P [ ] B
[ ] N [ ] Q

Analysis and Reviewed by / Date:

Run and Preparation Controls are within acceptance criteria for method. Manual integrations were preformed according to QC-014 / Rev. 01.

Discarded levels in Calibration Curve exceeded acceptance criteria for initial Calibration according to QC-002 / Rev. 17. RFD of discarted levels were > 15%.

2ND SOURCE DATA FILE: DATA\203483-7CC8260EXT\348306.D NBK REF: 090 Pg.054 & 056.

Manual integration reasons legend:

1- Poor integration by the computer data System.

2- Over-integration of peak due to noisy baseline.

3- Abnormal peak shapes that were not integrated completely.

4- Due to (RT) retention time variation.

Supervisor Review and Approval / Date: [signature] 10-10-2018 [signature] 10-09-18

QA/QC Review and Approval / Date:

ENVIRONMENTAL QUALITY LABORATORIES, INC
P.O. Box 11458 San Juan, P.R. 00910-1458

Anejo 2 / SOP GN-032 / Rev. 02 / Pág. 1 de 1

Run Worksheet

For: **Thursday, October 4, 2018**

Run #: 203483

Template Name: EPA 8260B BTEX VOC

Analyst: VILLANUEVA

Cup#	TYPE	ORDER#	METHOD	QC LINK	MATRIX	TEST NAME	PRE RUN	VOLUME	FINALVOL	WEIGHT
1	LRB	LRB/2953623-1				EPA 8260B BTEX VOC	--	--	--	--
2	MDL	MDL/2953622-1				EPA 8260B BTEX VOC	--	--	--	--
3	ICV	ICV/2953624-1				EPA 8260B BTEX VOC	--	--	--	--
4		2926588-1	EPA 8260B		LIQUID	EPA 8260B BTEX VOC	PR63901	5.0	5.0	N/A
5		2926590-2	EPA 8260B		LIQUID	EPA 8260B BTEX VOC	PR63901	5.0	5.0	N/A
6		2926593-1	EPA 8260B		LIQUID	EPA 8260B BTEX VOC	PR63901	5.0	5.0	N/A
7	LFB	LFB/2953628-1				EPA 8260B BTEX VOC	--	5.0	5.0	N/A

Printed Date: 10/4/2018

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 63901

TEMPLATE NAME: **EPA 8260B BTEX VOC**

ORDNO	CUP NO	STATUS	MATRIX	METHOD	TESTS	PREP DATE	PREP BY	PREP TIME	COLLEC DATE	VOL. (mL)	FINAL VOLUME (mL)	WEIGHT (g)	pH init / final
2926593-1	4	Done	LIQUID	EPA 3585	EPA 8260B BTEX VOC	10/4/2018	VILLANUEV	09:08	10/2/2018	5.0	5.0	N/A	<2
2926588-1	5	Done	LIQUID	EPA 3585	EPA 8260B BTEX VOC	10/4/2018	VILLANUEV	09:08	10/2/2018	5.0	5.0	N/A	<2
2926590-2	6	Done	LIQUID	EPA 3585	EPA 8260B BTEX VOC	10/4/2018	VILLANUEV	09:08	10/2/2018	5.0	5.0	N/A	<2

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 63901

TEMPLATE NAME: **EPA 8260B BTEX VOC**

Solution Name: Lot #: N/A Refer. Notebook: N/A Amount Added: N/A Exp. Date: N/A

Prepered Sample(s) Transfered by / Date: [illegible] / 10-04-18

Prepared Sample(s) Received by / Date: N/A / N/A

Comments:

Run Worksheet

For: Thursday, October 4, 2018

Run #: 203487

Template Name: EPA 8260B VOC BY GC/MS

Analyst: VILLANUEVA

Cup#	TYPE	ORDER#	METHOD	QC LINK	MATRIX	TEST NAME	PRE RUN	VOLUME	FINALVOL	WEIGHT
1	LRB	LRB/2953687-1		2947545	GROUND WATER	EPA 8260B VOC	--	--	--	--
3	MDL	MDL/2953689-1		2947545	GROUND WATER	EPA 8260B VOC	--	--	--	--
6	ICV	ICV/2953688-1		2947545	GROUND WATER	EPA 8260B VOC	--	--	--	--
8	TRIP BL	TRIP BLK/2947550-1			DI WATER	EPA 8260B VOC	PR63902	5	5	N/A
9		2947549-1	EPA 8260B		GROUND WATER	EPA 8260B VOC	PR63902	5	5	N/A
10		2947545-1	EPA 8260B		GROUND WATER	EPA 8260B VOC	PR63902	5	5	N/A
11	DUP	DUP/2947546-1		2947545	GROUND WATER	EPA 8260B VOC	PR63902	5	5	N/A
12	MS	MS/2947547-1		2947545	GROUND WATER	EPA 8260B VOC	PR63902	5	5	N/A
13	MSD	MSD/2947548-1		2947545	GROUND WATER	EPA 8260B VOC	PR63902	5	5	N/A
14	LFB	LFB/2953694-1		2947545	GROUND WATER	EPA 8260B VOC	--	--	--	--

Printed Date: 10/4/2018

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 63902

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

ORDNO	CUP NO	STATUS	MATRIX	METHOD	TESTS	PREP DATE	PREP BY	PREP TIME	COLLEC DATE	VOL. (mL)	FINAL VOLUME (mL)	WEIGHT (g)	pH init / final
2947550-1	4	Done	DI WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<2
2951569-1	5	Done	GROUND WATER	EPA 5030B	EPA 8260B EXT	10/4/2018	VILLANUEV	09:24	9/27/2018	5	5	N/A	<2
2947549-1	6	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<2
2951568-1	7	Done	GROUND WATER	EPA 5030B	EPA 8260B EXT	10/4/2018	VILLANUEV	09:24	9/27/2018	5	5	N/A	<2
2951571-1	8	Done	GROUND WATER	EPA 5030B	EPA 8260B EXT	10/4/2018	VILLANUEV	09:24	9/27/2018	5	5	N/A	<2
2951570-1	9	Done	GROUND WATER	EPA 5030B	EPA 8260B EXT	10/4/2018	VILLANUEV	09:24	9/27/2018	5	5	N/A	<2
2947545-1	10	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<2
2947546-1/DUP Linked to 2947545	11	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<2

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 63902

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

2947547-1/ MS Linked to 2947545	12	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<L
2947548-1/ MSD Linked to 2947545	13	Done	GROUND WATER	EPA 5030B	EPA 8260B VOC	10/4/2018	VILLANUEV	09:24	10/2/2018	5	5	N/A	<L

ENVIRONMENTAL QUALITY LABORATORIES, INC.

PRE-RUN WORKSHEET

PRE RUN # 63902

TEMPLATE NAME: **EPA 8260B VOC BY GC/MS**

Solution Name: Lot #: N/A Refer. Notebook: N/A Amount Added: N/A Exp. Date: N/A

Prepered Sample(s) Transfered by / Date: [illegible] / 10-04-18

Prepared Sample(s) Received by / Date: N/A / N/A

Comments:

Calibration Status Report V7-AG7890MS

ethod Path : C:\msdchem\1\METHODS\
ethod File : 8260VOC-OCT-LIQ-18.M
itle : Analysis of VOC'S by EPA 8260B
ast Update : Mon Oct 08 17:15:22 2018
esponse Via : Initial Calibration

ID	Conc	ISTD Conc	Path\File
1	3	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC01.D
2	5	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC02.D
3	10	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC03.D
4	20	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC04.D
5	50	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC05.D
6	100	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC06.D
7	200	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCVOC07.D

ID	Update Time	Quant Time	Acquisition Time
1	Oct 08 16:12 2018	Oct 08 16:12 2018	
2	Oct 08 16:13 2018	Oct 08 16:13 2018	
3	Oct 08 16:13 2018	Oct 08 16:13 2018	
4	Oct 08 16:13 2018	Oct 08 16:13 2018	
5	Oct 08 16:27 2018	Oct 08 16:20 2018	
6	Oct 08 16:46 2018	Oct 08 16:46 2018	
7	Oct 08 16:48 2018	Oct 08 16:24 2018	

)VOC-OCT-LIQ-18.M Tue Oct 09 14:38:20 2018

Response Factor Report V7-AG7890MS

Method Path : C:\msdchem\1\METHODS\
Method File : 8260VOC-OCT-LIQ-18.M
Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
Response Via : Initial Calibration

Calibration Files
1 =CCVOC01.D 2 =CCVOC02.D 3 =CCVOC03.D 4 =CCVOC04.D 5 =CCVOC05.D 6 =CCVOC06.D 7 =CCVOC07.D

		Compound	1	2	3	4	5	6	7	Avg	%RSD
1)	I	IPENTAFLUOROBENZENE	----------ISTD----------								
2)	M	DICLDIFLUOROME...	0.240	0.231	0.235	0.229	0.239	0.229	0.236	0.234	1.98
3)	P,T	CHLOROMETHANE	0.409	0.360	0.332	0.309	0.301	0.331	0.309	0.336	11.29
4)	C,T	VINYL CHLORIDE	0.274	0.269	0.266	0.258	0.263	0.263	0.271	0.266	2.04
5)	T	BROMOMETHANE		0.096	0.080	0.075	0.073	0.069	0.072	0.077#	12.75
6)	T	CHLOROETHANE	0.023	0.021	0.019	0.020	0.019	0.020	0.018	0.020#	8.85
7)	T	TRICLFLUOROMET...	0.334	0.320	0.318	0.321	0.321	0.297	0.299	0.316	4.16
8)	T	ACROLEIN		0.027	0.024	0.023	0.022	0.021	0.020	0.023#	9.78
9)	T	ACETONE		0.078	0.105	0.091	0.089	0.087	0.078	0.088#	11.15
10)	C,T	11-DICHLOROETHENE	0.237	0.188	0.171	0.187	0.191	0.178	0.175	0.189	11.78
11)	T	IODOMETHANE		0.214	0.223	0.264	0.288	0.274	0.262	0.254	11.54
12)	T	CARBON DISULFIDE	0.322	0.273	0.258	0.297	0.307	0.286	0.272	0.288	7.79
13)	T	ACRYLONITRILE	0.115	0.101	0.100	0.104	0.110	0.108	0.110	0.107	4.96
14)	T	DICHLOROMETHANE		0.371	0.337	0.296	0.274	0.258	0.266	0.300	14.84
15)	T	TRANS12DICLETHENE	0.225	0.200	0.185	0.208	0.221	0.223	0.243	0.215	8.77
16)	P,T	11-DICHLOROETHANE	0.461	0.423	0.396	0.451	0.469	0.458	0.485	0.449	6.74
17)		VINYL ACETATE	0.574	0.529	0.559	0.562	0.616	0.570	0.545	0.565	4.79
18)		2-BUTANONE		0.214	0.217	0.205	0.179	0.169	0.159	0.191	12.87
19)	T	CIS12DICHLOROE...	0.254	0.241	0.226	0.246	0.262	0.268	0.298	0.256	9.06
20)	T	22-DICHLOROPRO...	0.320	0.280	0.275	0.315	0.338	0.332	0.358	0.317	9.61
21)	C,T	CHLOROFORM	0.504	0.469	0.440	0.485	0.505	0.500	0.537	0.491	6.23
22)	T	BROMOCHLOROMET...	0.306	0.289	0.272	0.294	0.303	0.257	0.267	0.284	6.58
23)	I	I14-DIFLUOROBENZENE	----------ISTD----------								
24)	S	SDIBRFLUOROMET...	0.380	0.379	0.377	0.376	0.376	0.373	0.409	0.381	3.29
25)	T	TETRAHYDROFURAN		0.044	0.040	0.038	0.039	0.036	0.034	0.039#	8.96
26)	T	111-TRICHLOROE...	0.231	0.213	0.216	0.250	0.268	0.248	0.258	0.241	8.73
27)	T	11-DICHLOROPRO...	0.179	0.169	0.168	0.195	0.210	0.193	0.199	0.188	8.54
28)	T	12-DICHLOROETHANE	0.247	0.242	0.231	0.247	0.260	0.238	0.242	0.244	3.73
29)	T	CARBONTETRACHL...			0.168	0.207	0.231	0.219	0.234	0.212	12.54
30)	T	BENZENE	0.601	0.564	0.534	0.586	0.620	0.575	0.598	0.583	4.86
31)	T	TRICHLOROETHENE	0.136	0.128	0.124	0.142	0.152	0.144	0.156	0.140	8.30
32)	C,T	12-DICHLOROPRO...	0.165	0.159	0.150	0.164	0.174	0.164	0.171	0.164	4.94
33)	T	DIBROMOMETHANE	0.101	0.095	0.093	0.102	0.112	0.108	0.119	0.104	8.94
34)	T	BROMODICLMETHANE	0.181	0.176	0.179	0.206	0.234	0.225	0.240	0.206	13.46
35)	T	2-CLETHYLVINYL...	0.090	0.077	0.080	0.087	0.101	0.100	0.104	0.091#	11.73
36)	T	EPICHLOROHYDRIN	0.016	0.015	0.015	0.015	0.018	0.018	0.017	0.016#	9.14
37)	T	4METHYL-2-PENT...	0.190	0.182	0.191	0.200	0.223	0.208	0.196	0.199	6.82
38)	T	CIS13DICLPROPENE	0.214	0.220	0.223	0.253	0.284	0.274	0.290	0.251	12.82
39)	S	STOLUENE-D8	1.159	1.169	1.152	1.144	1.131	1.115	1.198	1.153	2.31
40)	C,T	TOLUENE	0.572	0.536	0.521	0.585	0.653	0.636	0.674	0.597	9.87
41)	T	TRANS13DICLPRO...	0.218	0.233	0.186	0.215	0.252	0.249	0.269	0.232	11.94

Response Factor Report V7-AG7890MS

Method Path : C:\msdchem\1\METHODS\
Method File : 8260VOC-OCT-LIQ-18.M

42)	T	112-TRICHLOROE...	0.138	0.136	0.135	0.145	0.157	0.150	0.160	0.146	6.93
43)		2-HEXANONE	0.111	0.112	0.121	0.128	0.149	0.145	0.146	0.130	12.52
44)	T	13-DICHLOROPRO...	0.233	0.232	0.229	0.248	0.273	0.262	0.277	0.251	8.10
45)	T	DIBRCHLOROMETHANE		0.155	0.153	0.150	0.180	0.182	0.204	0.171	12.65
46)	T	TETRACHLOROETHENE	0.123	0.119	0.116	0.136	0.151	0.149	0.142	0.134	10.90
47)	T	12-DIBROMOETHANE	0.130	0.132	0.135	0.148	0.164	0.160	0.173	0.149	11.51
48)	I	CHLOROBENZEN-d5-IS	----------ISTD----------								
49)	P,T	CHLOROBENZENE	0.446	0.426	0.408	0.449	0.490	0.487	0.486	0.456	7.16
50)		1-CHLOROHEXANE	0.122		0.118	0.139	0.154	0.154	0.153	0.140	11.82
51)	T	1112-TETRACLET...	0.137	0.134	0.139	0.156		0.175	0.174	0.152	12.35
52)	C,T	ETHYLBENZENE	0.687	0.639	0.635	0.720	0.809	0.798	0.789	0.725	10.29
53)	T	MP-XYLENE	0.551	0.496	0.496	0.568	0.636	0.631	0.610	0.570	10.38
54)	T	STYRENE	0.403	0.386	0.384	0.428	0.485	0.487	0.486	0.437	11.02
55)	T	O-XYLENE	0.557	0.517	0.503	0.564	0.634	0.630	0.626	0.576	9.51
56)	P,T	BROMOFORM		0.126	0.118	0.104	0.132	0.140	0.147	0.128	12.13
57)	P,T	1122-TETRACLET...	0.198	0.180	0.187	0.194	0.234	0.231	0.234	0.208#	11.39
58)	T	ISOPROPYL BENZENE	0.548	0.516	0.512	0.597	0.671	0.664	0.665	0.596	12.03
59)	S	S4BRFLUOROBENZENE	0.465	0.461	0.463	0.462	0.461	0.460	0.458	0.462	0.51
60)	T	123-TRICLPROPANE	0.064	0.061	0.062	0.065	0.070	0.069	0.071	0.066#	6.19
61)	T	TRANS14DICL2BU...	0.030	0.033	0.032	0.034	0.040	0.041	0.043	0.036#	13.45
62)	T	BROMOBENZENE	0.296	0.283	0.280	0.303	0.347	0.362	0.368	0.320	11.92
63)	T	N-PROPYLBENZENE	0.625	0.601	0.614	0.708	0.753	0.682		0.664	9.07
64)	T	2-CHLOROTOLUENE	0.471	0.438	0.443	0.495	0.549	0.567	0.592	0.508	12.20
65)	T	4-CHLOROTOLUENE	0.419	0.388	0.366	0.440	0.483	0.486	0.515	0.442	12.45
66)	T	135TRIMETHYLBE...	0.450	0.432	0.433	0.495	0.555	0.593	0.619	0.511	15.29
67)	T	TERT-BUTYLBENZENE	0.356	0.334	0.341	0.386	0.428	0.432	0.466	0.392	13.05
68)	T	124TRIMETHYLBE...	0.442	0.435	0.436	0.488	0.539	0.576	0.529	0.492	11.58
69)	T	SEC-BUTYLBENZENE	0.454	0.434	0.434	0.492	0.560	0.575	0.535	0.498	11.97
70)	T	13-DICHLOROBEN...	0.224	0.226	0.227	0.254	0.281	0.307		0.253	13.56
71)	I	I14-DICLBENZENE-D4	----------ISTD----------								
72)	T	4-ISOPROPYLTOL...	0.921	0.899	0.897	1.000	1.085	1.079	1.106	0.998	9.29
73)	T	14-DICHLOROBEN...	0.590	0.586	0.573	0.626	0.674	0.684	0.711	0.635	8.65
74)	T	12-DICHLOROBEN...	0.548	0.548	0.557	0.585	0.646	0.636	0.676	0.599	8.81
75)	T	N-BUTYLBENZENE	0.743	0.722	0.738	0.813	0.883	0.848	0.875	0.803	8.53
76)	T	12-DIBR-3CLPRO...	0.079	0.067	0.059	0.069	0.082	0.079	0.079	0.074#	11.31
77)		124-TRICLBENZENE	0.207	0.236	0.251	0.282	0.278	0.278	0.245	0.254	10.87
78)	T	NAPHTHALENE		0.677	0.772	0.881	0.966	0.896	0.898	0.848	12.33
79)	T	HEXACHLOROBUTA...	0.094	0.093	0.102	0.111	0.121	0.123	0.130	0.111	13.18
80)		123-TRICLBENZENE	0.206	0.227	0.243	0.272	0.280	0.275	0.259	0.252	11.01

(#) = Out of Range

Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348301.D
q On : 4 Oct 2018 8:16 pm
erator : NIVA
mple : LRB/2953623
sc : RUN201738
S Vial : 99 Sample Multiplier: 1

ant Time: Oct 09 14:41:37 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.432	168	341987	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.183	114	539511	20.00	µg/L	0.00
48) CHLOROBENZEN-d5-IS	12.853	117	445492	20.00	µg/L	-0.02
71) I14-DICLBENZENE-D4	16.893	152	177832	20.00	µg/L	-0.02
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.924	111	209746	20.39	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.95%			
39) STOLUENE-D8	10.183	98	622434	20.02	µg/L	0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.10%			
59) S4BRFLUOROBENZENE	15.117	95	197493	19.21	µg/L	0.05
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.772	85	211	N.D.		
3) CHLOROMETHANE	3.026	50	2030	N.D.		
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	3.523	94	250	N.D.		
6) CHLOROETHANE	0.000		0	N.D.		
7) TRICLFLUOROMETHANE	3.818	101	251	N.D.		
8) ACROLEIN	0.000		0	N.D.	d	
9) ACETONE	0.000		0	N.D.	d	
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	4.559	142	461	N.D.		
12) CARBON DISULFIDE	4.447	76	1878	N.D.		
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	4.975	84	1305	N.D.		
15) TRANS12DICLETHENE	4.873	96	63	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	6.031	43	62	N.D.		
18) 2-BUTANONE	7.076	43	71	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	0.000		0	N.D.		
21) CHLOROFORM	6.701	83	604	N.D.		
22) BROMOCHLOROMETHANE	6.701	49	136	N.D.		
25) TETRAHYDROFURAN	0.000		0	N.D.		
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	7.127	75	69	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.843	117	1105	N.D.		
30) BENZENE	7.432	78	217	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.		
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.		
36) EPICHLOROHYDRIN	0.000		0	N.D.	d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	10.274	91	520	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	0.000		0	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348301.D
Acq On : 4 Oct 2018 8:16 pm
Operator : NIVA
Sample : LRB/2953623
Misc : RUN201738
ALS Vial : 99 Sample Multiplier: 1

Quant Time: Oct 09 14:41:37 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

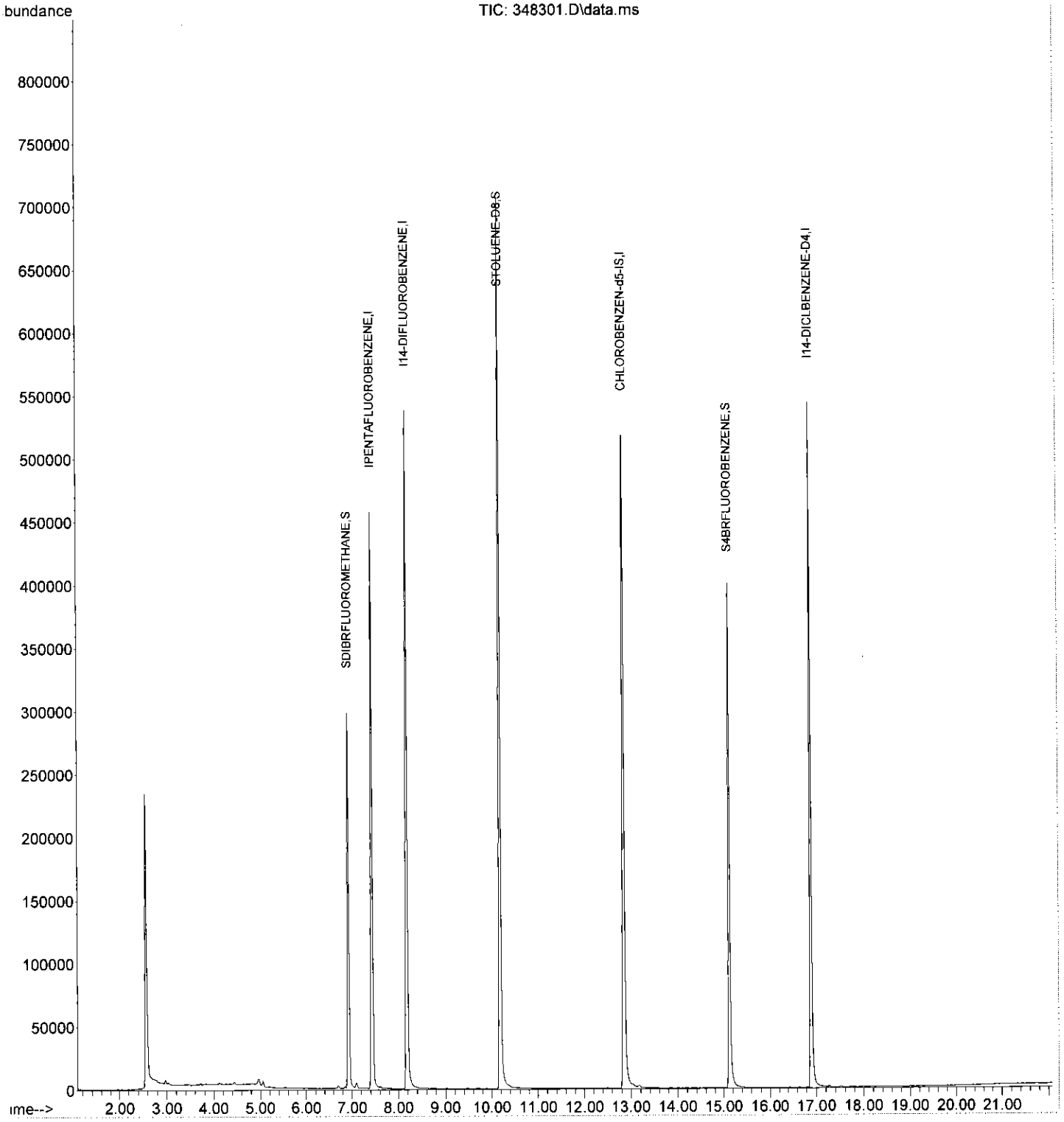
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.924	166	146	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	12.883	112	162	N.D.	
50) 1-CHLOROHEXANE	12.792	91	175	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.853	91	1064	N.D.	
53) MP-XYLENE	13.167	91	2029	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.000	91	441	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	14.599	105	342	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.330	77	89	N.D.	
63) N-PROPYLBENZENE	15.330	91	1001	N.D.	
64) 2-CHLOROTOLUENE	15.624	91	230	N.D.	
65) 4-CHLOROTOLUENE	15.888	91	234	N.D.	
66) 135TRIMETHYLBENZENE	15.644	105	369	N.D.	
67) TERT-BUTYLBENZENE	16.152	119	247	N.D.	
68) 124TRIMETHYLBENZENE	16.274	105	342	N.D.	
69) SEC-BUTYLBENZENE	16.436	105	663	N.D.	
70) 13-DICHLOROBENZENE	16.802	146	178	N.D.	
72) 4-ISOPROPYLTOLUENE	16.639	119	625	N.D.	
73) 14-DICHLOROBENZENE	16.924	146	418	N.D.	
74) 12-DICHLOROBENZENE	17.533	146	167	N.D.	
75) N-BUTYLBENZENE	17.259	91	1061	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	19.604	180	78	N.D.	
78) NAPHTHALENE	20.091	128	85	N.D.	
79) HEXACHLOROBUTADIENE	19.522	225	66	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348301.D
cq On : 4 Oct 2018 8:16 pm
perator : NIVA
ample : LRB/2953623
isc : RUN201738
LS Vial : 99 Sample Multiplier: 1

uant Time: Oct 09 14:41:37 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348302.D
q On : 4 Oct 2018 8:42 pm
erator : NIVA
mple : MDL/2953622
sc : RUN201738
S Vial : 14 Sample Multiplier: 1

ant Time: Oct 09 14:43:26 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Mon Oct 08 17:19:13 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.432	168	347887	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.173	114	552090	20.00	µg/L	-0.01
48) CHLOROBENZEN-d5-IS	12.853	117	457885	20.00	µg/L	-0.02
71) I14-DICLBENZENE-D4	16.903	152	185267	20.00	µg/L	0.00
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.924	111	213624	20.29	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.45%			
39) STOLUENE-D8	10.183	98	635898	19.99	µg/L	0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.95%			
59) S4BRFLUOROBENZENE	15.127	95	202998	19.21	µg/L	0.06
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.05%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.772	85	4083	1.00	µg/L	97
3) CHLOROMETHANE	3.026	50	8509	1.46	µg/L	97
4) VINYL CHLORIDE	3.129	62	4624	1.00	µg/L	99
5) BROMOMETHANE	3.513	94	1921m	1.43	µg/L	
6) CHLOROETHANE	3.645	64	300m	0.87	µg/L	
7) TRICLFLUOROMETHANE	3.797	101	6874	1.25	µg/L	96
8) ACROLEIN	4.711	56	10686	26.74	µg/L #	90
9) ACETONE	5.016	43	10790m	7.05	µg/L	
10) 11-DICHLOROETHENE	4.356	61	3878	1.18	µg/L #	86
11) IODOMETHANE	4.549	142	18761	4.24	µg/L	93
12) CARBON DISULFIDE	4.437	76	26653	5.32	µg/L #	88
13) ACRYLONITRILE	5.868	53	8741	4.70	µg/L	98
14) DICHLOROMETHANE	4.965	84	9402	1.80	µg/L #	83
15) TRANS12DICLETHENE	5.138	96	3913	1.05	µg/L	87
16) 11-DICHLOROETHANE	5.808	63	8116	1.04	µg/L	96
17) VINYL ACETATE	6.021	43	28192	2.87	µg/L #	90
18) 2-BUTANONE	7.056	43	17000m	5.13	µg/L	
19) CIS12DICHLOROETHENE	6.417	96	4678	1.05	µg/L	88
20) 22-DICHLOROPROPANE	6.538	77	4210	0.76	µg/L	97
21) CHLOROFORM	6.701	83	9613	1.12	µg/L #	97
22) BROMOCHLOROMETHANE	6.650	49	5627	1.14	µg/L #	89
25) TETRAHYDROFURAN	6.945	42	1416	1.32	µg/L #	87
26) 111-TRICHLOROETHANE	6.985	97	6963	1.05	µg/L	94
27) 11-DICHLOROPROPENE	7.127	75	5300	1.02	µg/L #	88
28) 12-DICHLOROETHANE	7.686	62	6953	1.03	µg/L #	98
29) CARBONTETRACHLORIDE	6.914	117	5428m	0.93	µg/L	
30) BENZENE	7.442	78	16996	1.06	µg/L #	83
31) TRICHLOROETHENE	8.183	132	4130	1.07	µg/L #	66
32) 12-DICHLOROPROPANE	8.904	63	4487	0.99	µg/L	96
33) DIBROMOMETHANE	8.782	174	2745	0.95	µg/L #	83
34) BROMODICLMETHANE	8.965	83	4752	0.84	µg/L	99
35) 2-CLETHYLVINYLETHER	9.746	63	8182	3.25	µg/L #	83
36) EPICHLOROHYDRIN	10.284	57	6766	14.98	µg/L	94
37) 4METHYL-2-PENTANONE	10.833	43	22843	4.16	µg/L #	89
38) CIS13DICLPROPENE	9.899	75	4892	0.71	µg/L	97
40) TOLUENE	10.274	91	15994	0.97	µg/L	97
41) TRANS13DICLPROPENE	10.934	75	3922	0.61	µg/L	79
42) 112-TRICHLOROETHANE	11.198	97	3628	0.90	µg/L	94
43) 2-HEXANONE	12.274	43	12377	3.44	µg/L #	85
44) 13-DICHLOROPROPANE	11.675	76	6251	0.90	µg/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348302.D
Acq On : 4 Oct 2018 8:42 pm
Operator : NIVA
Sample : MDL/2953622
Misc : RUN201738
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Oct 09 14:43:26 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Mon Oct 08 17:19:13 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

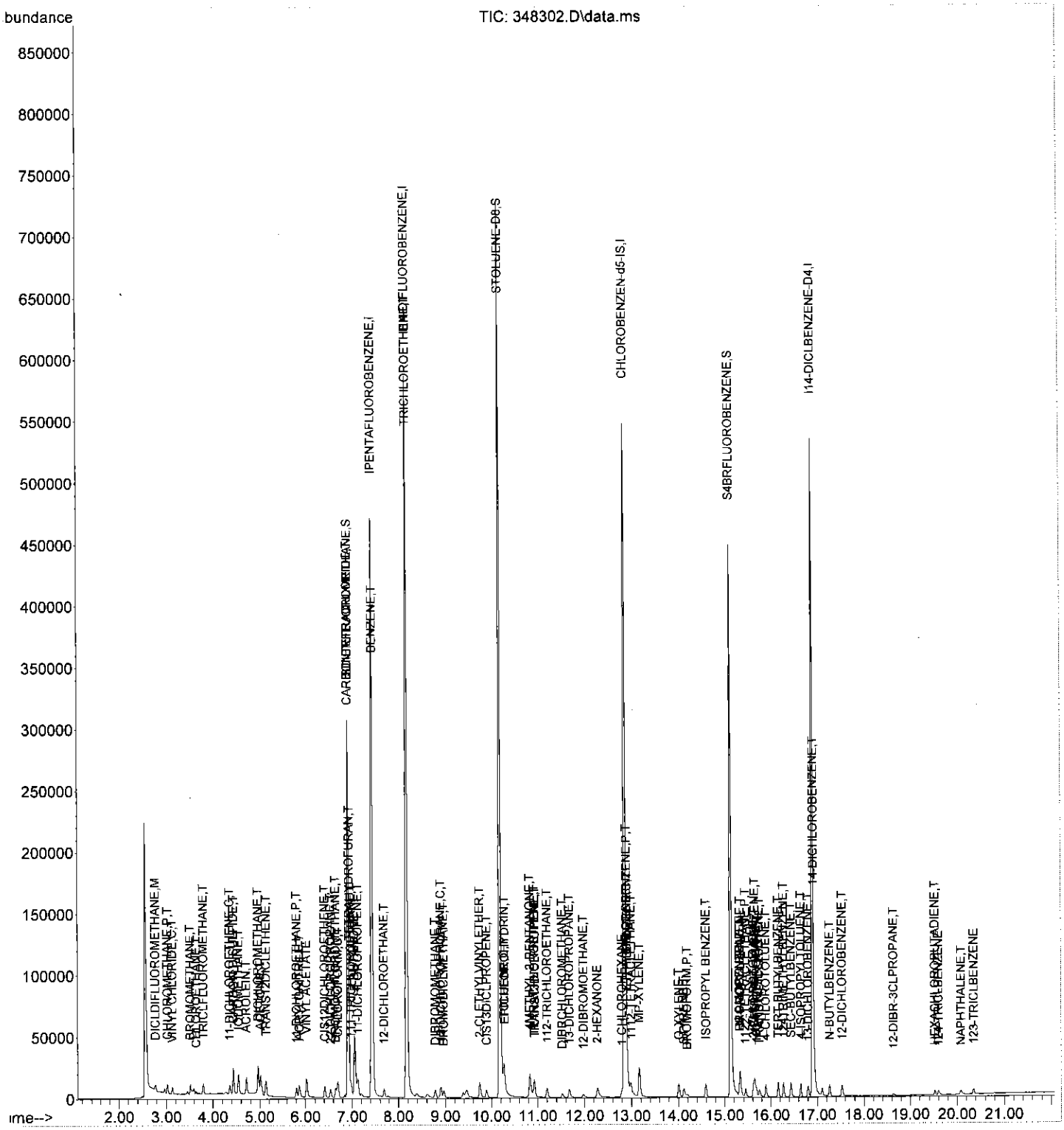
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.523	129	2948	0.63 µg/L	95
46) TETRACHLOROETHENE	10.924	166	3935	1.06 µg/L	91
47) 12-DIBROMOETHANE	11.980	107	3395	0.82 µg/L #	96
49) CHLOROBENZENE	12.894	112	9998	0.96 µg/L #	48
50) 1-CHLOROHEXANE	12.792	91	2740	0.85 µg/L	96
51) 1112-TETRACLETHANE	12.995	131	2974	0.85 µg/L #	29
52) ETHYLBENZENE	12.904	91	17158	1.03 µg/L	97
53) MP-XYLENE	13.168	91	23035	1.77 µg/L	100
54) STYRENE	14.112	104	7118	0.71 µg/L	96
55) O-XYLENE	14.010	91	11236	0.85 µg/L	95
56) BROMOFORM	14.183	173	1572	0.54 µg/L	97
57) 1122-TETRACLETHANE	15.442	83	4185	0.88 µg/L	98
58) ISOPROPYL BENZENE	14.599	105	11063	0.81 µg/L	94
60) 123-TRICLPROPANE	15.685	110	1369	0.90 µg/L	95
61) TRANS14DICL2BUTENE	15.746	53	2477	2.99 µg/L #	75
62) BROMOBENZENE	15.320	77	6680	0.91 µg/L	96
63) N-PROPYLBENZENE	15.330	91	14068	0.93 µg/L	98
64) 2-CHLOROTOLUENE	15.614	91	10025	0.86 µg/L	92
65) 4-CHLOROTOLUENE	15.888	91	8622	0.85 µg/L	96
66) 135TRIMETHYLBENZENE	15.645	105	9339	0.80 µg/L	99
67) TERT-BUTYLBENZENE	16.162	119	7622	0.85 µg/L	95
68) 124TRIMETHYLBENZENE	16.274	105	8982	0.80 µg/L	97
69) SEC-BUTYLBENZENE	16.436	105	10227	0.90 µg/L	98
70) 13-DICHLOROBENZENE	16.802	146	5107	0.88 µg/L	97
72) 4-ISOPROPYLTOLUENE	16.650	119	7703	0.83 µg/L	98
73) 14-DICHLOROBENZENE	16.924	146	6279	1.07 µg/L #	1
74) 12-DICHLOROBENZENE	17.533	146	5053	0.91 µg/L	96
75) N-BUTYLBENZENE	17.269	91	7104	0.95 µg/L	96
76) 12-DIBR-3CLPROPANE	18.639	157	387	0.57 µg/L #	73
77) 124-TRICLBENZENE	19.594	180	1890	0.80 µg/L #	87
78) NAPHTHALENE	20.081	128	5069	0.65 µg/L	92
79) HEXACHLOROBUTADIENE	19.523	225	1081	1.06 µg/L	90
80) 123-TRICLBENZENE	20.355	182	1988	0.85 µg/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348302.D
cq On : 4 Oct 2018 8:42 pm
perator : NIVA
ample : MDL/2953622
isc : RUN201738
LS Vial : 14 Sample Multiplier: 1

uant Time: Oct 09 14:43:26 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Mon Oct 08 17:19:13 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Evaluate Continuing Calibration Report

ıta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ıta File : 348304.D
:q On : 4 Oct 2018 9:34 pm
ɔerator : NIVA
ımple : ICV/2953645
:sc : RUN201738
.S Vial : 16 Sample Multiplier: 1

ıant Time: Oct 09 14:47:33 2018
ıant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ıant Title : Analysis of VOC'S by EPA 8260B
ɹast Update : Tue Oct 09 14:40:49 2018
ɜsponse via : Initial Calibration
ıstName : V7-AG7890MS

:n. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
ıx. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
I	IPENTAFLUOROBENZENE	20.000	20.000	0.0	83	0.02
M	DICLDIFLUOROMETHANE	20.000	19.944	0.3	84	0.04
P,T	CHLOROMETHANE	20.000	20.333	-1.7	92	0.05
C,T	VINYL CHLORIDE	20.000	20.800	-4.0	89	0.04
T	BROMOMETHANE	20.000	22.011	-10.1	94	0.05
T	CHLOROETHANE	20.000	17.129	14.4	71	0.07
T	TRICLFLUOROMETHANE	20.000	23.610	-18.0	96	0.09
T	ACROLEIN	500.000	541.281	-8.3	90	0.07
T	ACETONE	100.000	110.630	-10.6	88	0.00
C,T	11-DICHLOROETHENE	20.000	22.071	-10.4	93	0.06
T	IODOMETHANE	100.000	115.224	-15.2	92	0.06
T	CARBON DISULFIDE	100.000	107.105	-7.1	86	0.05
T	ACRYLONITRILE	100.000	102.141	-2.1	87	0.00
T	DICHLOROMETHANE	20.000	18.566	7.2	78	0.02
T	TRANS12DICLETHENE	20.000	20.491	-2.5	88	0.08
P,T	11-DICHLOROETHANE	20.000	21.442	-7.2	88	-0.02
	VINYL ACETATE	100.000	84.268	15.7	70	0.00
	2-BUTANONE	100.000	99.183	0.8	76	-0.01
T	CIS12DICHLOROETHENE	20.000	20.986	-4.9	91	0.10
T	22-DICHLOROPROPANE	20.000	17.127	14.4	71	0.01
C,T	CHLOROFORM	20.000	21.412	-7.1	90	0.02
T	BROMOCHLOROMETHANE	20.000	22.241	-11.2	89	0.02
I	I14-DIFLUOROBENZENE	20.000	20.000	0.0	82	0.01
S	SDIBRFLUOROMETHANE	20.000	20.563	-2.8	85	-0.01
T	TETRAHYDROFURAN	20.000	18.572	7.1	77	0.01
T	111-TRICHLOROETHANE	20.000	22.676	-13.4	89	0.00
T	11-DICHLOROPROPENE	20.000	22.372	-11.9	88	0.00
T	12-DICHLOROETHANE	20.000	21.744	-8.7	88	0.00
T	CARBONTETRACHLORIDE	20.000	21.530	-7.7	90	0.09
T	BENZENE	20.000	21.831	-9.2	89	0.00
T	TRICHLOROETHENE	20.000	22.505	-12.5	91	0.01
C,T	12-DICHLOROPROPANE	20.000	20.823	-4.1	85	0.00
T	DIBROMOMETHANE	20.000	21.285	-6.4	89	0.02
T	BROMODICLMETHANE	20.000	21.474	-7.4	88	0.02
T	2-CLETHYLVINYLETHER	100.000	98.284	1.7	84	0.03
T	EPICHLOROHYDRIN	500.000	428.542	14.3	76	0.03
T	4METHYL-2-PENTANONE	100.000	100.894	-0.9	82	0.05
T	CIS13DICLPROPENE	20.000	19.946	0.3	81	0.03
S	STOLUENE-D8	20.000	19.813	0.9	82	0.03
C,T	TOLUENE	20.000	21.241	-6.2	89	0.01
T	TRANS13DICLPROPENE	20.000	18.813	5.9	83	0.01
T	112-TRICHLOROETHANE	20.000	20.944	-4.7	86	0.06
	2-HEXANONE	100.000	96.839	3.2	81	0.13
T	13-DICHLOROPROPANE	20.000	20.630	-3.1	85	0.01

45	T	DIBRCHLOROMETHANE	20.000	18.507	7.5	86	0.06
46	T	TETRACHLOROETHENE	20.000	22.461	-12.3	90	0.05
47	T	12-DIBROMOETHANE	20.000	20.627	-3.1	85	0.01
48	I	CHLOROBENZEN-d5-IS	20.000	20.000	0.0	80	0.00
49	P,T	CHLOROBENZENE	20.000	21.158	-5.8	86	0.00
50		1-CHLOROHEXANE	20.000	20.234	-1.2	82	0.00
51	T	1112-TETRACLETHANE	20.000	22.025	-10.1	87	0.00
52	C,T	ETHYLBENZENE	20.000	21.684	-8.4	88	0.01
53	T	MP-XYLENE	40.000	42.439	-6.1	86	0.01
54	T	STYRENE	20.000	20.569	-2.8	85	0.00
55	T	O-XYLENE	20.000	20.848	-4.2	86	0.01
56	P,T	BROMOFORM	20.000	17.705	11.5	88	0.02
57	P,T	1122-TETRACLETHANE	20.000	21.559	-7.8	93	0.00
58	T	ISOPROPYL BENZENE	20.000	21.777	-8.9	87	0.05
59	S	S4BRFLUOROBENZENE	20.000	20.730	-3.7	83	0.07
60	T	123-TRICLPROPANE	20.000	21.265	-6.3	87	0.09
61	T	TRANS14DICL2BUTENE	100.000	94.516	5.5	80	0.00
62	T	BROMOBENZENE	20.000	21.156	-5.8	90	0.01
63	T	N-PROPYLBENZENE	20.000	23.875	-19.4	90	0.01
64	T	2-CHLOROTOLUENE	20.000	21.430	-7.1	88	0.01
65	T	4-CHLOROTOLUENE	20.000	21.243	-6.2	86	0.00
66	T	135TRIMETHYLBENZENE	20.000	21.673	-8.4	90	0.01
67	T	TERT-BUTYLBENZENE	20.000	22.060	-10.3	90	0.00
68	T	124TRIMETHYLBENZENE	20.000	22.742	-13.7	92	0.00
69	T	SEC-BUTYLBENZENE	20.000	23.378	-16.9	95	0.01
70	T	13-DICHLOROBENZENE	20.000	22.707	-13.5	91	0.00
71	I	I14-DICLBENZENE-D4	20.000	20.000	0.0	85	0.00
72	T	4-ISOPROPYLTOLUENE	20.000	21.181	-5.9	90	0.01
73	T	14-DICHLOROBENZENE	20.000	20.377	-1.9	88	0.00
74	T	12-DICHLOROBENZENE	20.000	19.969	0.2	87	0.00
75	T	N-BUTYLBENZENE	20.000	20.410	-2.1	85	0.00
76	T	12-DIBR-3CLPROPANE	20.000	18.237	8.8	82	0.01
77		124-TRICLBENZENE	20.000	21.481	-7.4	82	0.01
78	T	NAPHTHALENE	20.000	20.371	-1.9	83	0.00
79	T	HEXACHLOROBUTADIENE	20.000	19.402	3.0	82	0.00
80		123-TRICLBENZENE	20.000	21.079	-5.4	83	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

8260VOC-OCT-LIQ-18.M Tue Oct 09 15:55:10 2018

Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348304.D
q On : 4 Oct 2018 9:34 pm
erator : NIVA
mple : ICV/2953645
sc : RUN201738
S Vial : 16 Sample Multiplier: 1

ant Time: Oct 09 14:47:33 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	357704	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.193	114	564972	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	12.873	117	473804	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.904	152	219071	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	221557	20.56 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.80%		
39) STOLUENE-D8	10.203	98	645119	19.81 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.05%		
59) S4BRFLUOROBENZENE	15.137	95	226663	20.73 µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.65%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.782	85	83541	19.94 µg/L	99
3) CHLOROMETHANE	3.036	50	122129	20.33 µg/L	99
4) VINYL CHLORIDE	3.142	62	99086	20.80 µg/L	98
5) BROMOMETHANE	3.523	94	30500m	22.01 µg/L	
6) CHLOROETHANE	3.655	64	6105m	17.13 µg/L	
7) TRICLFLUOROMETHANE	3.808	101	133410m	23.61 µg/L	
8) ACROLEIN	4.731	56	222411	541.28 µg/L	99
9) ACETONE	5.036	43	174148	110.63 µg/L	100
10) 11-DICHLOROETHENE	4.376	61	74796m	22.07 µg/L	
11) IODOMETHANE	4.559	142	523623m	115.22 µg/L	
12) CARBON DISULFIDE	4.447	76	551432m	107.10 µg/L	
13) ACRYLONITRILE	5.879	53	195226	102.14 µg/L	99
14) DICHLOROMETHANE	4.985	84	99742	18.57 µg/L	89
15) TRANS12DICLETHENE	5.158	96	78822m	20.49 µg/L	
16) 11-DICHLOROETHANE	5.818	63	172213	21.44 µg/L	96
17) VINYL ACETATE	6.031	43	851481m	84.27 µg/L	
18) 2-BUTANONE	7.077	43	338085	99.18 µg/L	98
19) CIS12DICHLOROETHENE	6.427	96	96169	20.99 µg/L #	85
20) 22-DICHLOROPROPANE	6.559	77	97022	17.13 µg/L	98
21) CHLOROFORM	6.721	83	188182	21.41 µg/L	100
22) BROMOCHLOROMETHANE	6.670	49	112959	22.24 µg/L	98
25) TETRAHYDROFURAN	6.955	42	20319	18.57 µg/L	97
26) 111-TRICHLOROETHANE	7.005	97	154058	22.68 µg/L	96
27) 11-DICHLOROPROPENE	7.148	75	118530	22.37 µg/L	92
28) 12-DICHLOROETHANE	7.706	62	149812	21.74 µg/L	99
29) CARBONTETRACHLORIDE	6.934	117	128797	21.53 µg/L	98
30) BENZENE	7.452	78	359258	21.83 µg/L	97
31) TRICHLOROETHENE	8.203	132	89238	22.51 µg/L #	94
32) 12-DICHLOROPROPANE	8.914	63	96300	20.82 µg/L	98
33) DIBROMOMETHANE	8.792	174	62697	21.28 µg/L	86
34) BROMODICLMETHANE	8.985	83	124862	21.47 µg/L	98
35) 2-CLETHYLVINYLETHER	9.757	63	253157	98.28 µg/L	95
36) EPICHLOROHYDRIN	10.285	57	198067	428.54 µg/L	92
37) 4METHYL-2-PENTANONE	10.843	43	566617	100.89 µg/L #	92
38) CIS13DICLPROPENE	9.909	75	141594	19.95 µg/L	98
40) TOLUENE	10.285	91	358003	21.24 µg/L	99
41) TRANS13DICLPROPENE	10.934	75	123114	18.81 µg/L	98
42) 112-TRICHLOROETHANE	11.208	97	86315	20.94 µg/L	96
43) 2-HEXANONE	12.274	43	356460	96.84 µg/L	94
44) 13-DICHLOROPROPANE	11.685	76	146078	20.63 µg/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348304.D
Acq On : 4 Oct 2018 9:34 pm
Operator : NIVA
Sample : ICV/2953645
Misc : RUN201738
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Oct 09 14:47:33 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

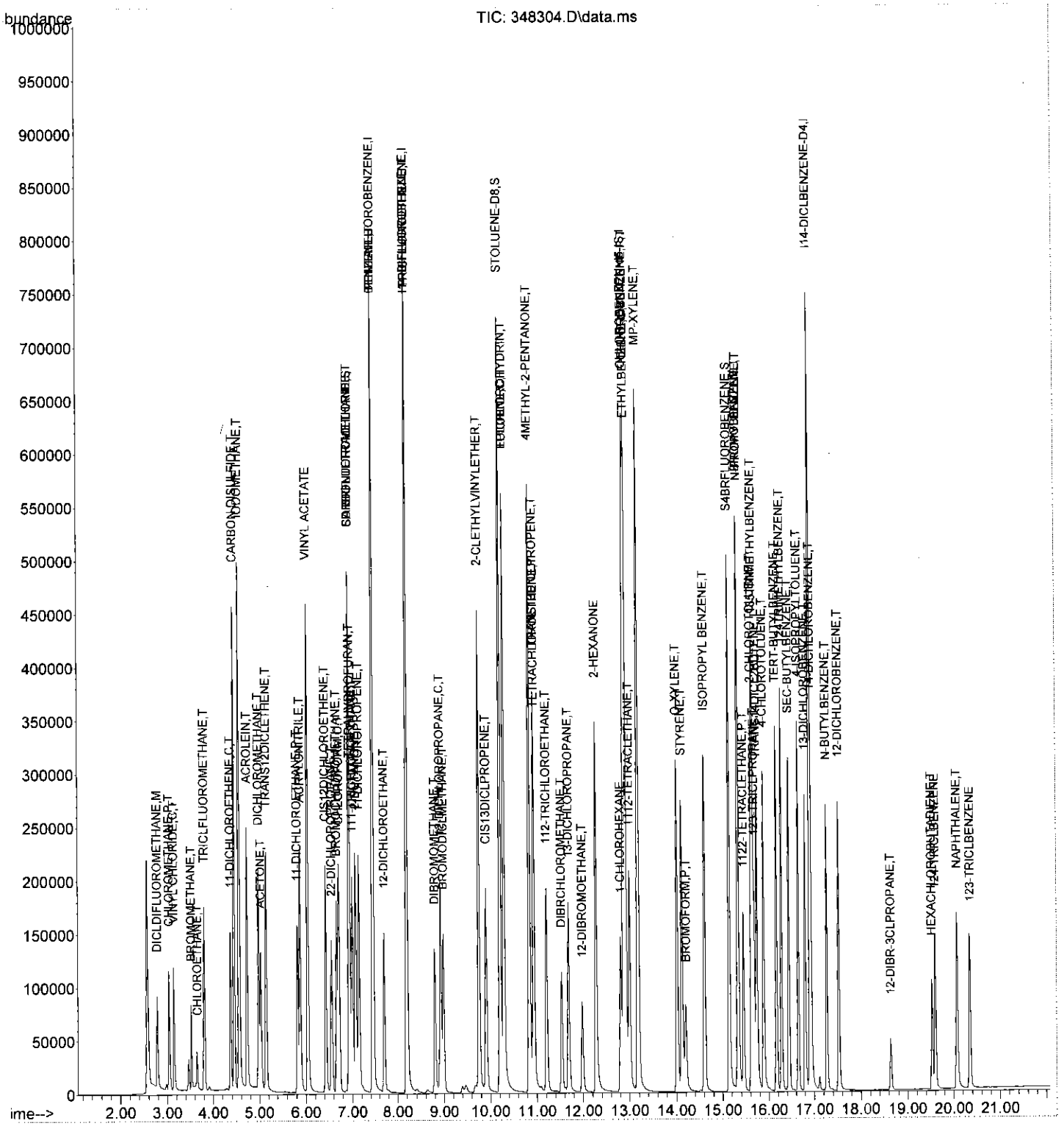
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.533	129	89196	18.51 µg/L	99
46) TETRACHLOROETHENE	10.944	166	84985	22.46 µg/L	90
47) 12-DIBROMOETHANE	11.980	107	86870	20.63 µg/L	98
49) CHLOROBENZENE	12.904	112	228629	21.16 µg/L	88
50) 1-CHLOROHEXANE	12.802	91	67169	20.23 µg/L	98
51) 1112-TETRACLETHANE	12.995	131	79542	22.02 µg/L	93
52) ETHYLBENZENE	12.914	91	372650	21.68 µg/L	99
53) MP-XYLENE	13.178	91	572786	42.44 µg/L	99
54) STYRENE	14.112	104	212914	20.57 µg/L	99
55) O-XYLENE	14.010	91	284345	20.85 µg/L	98
56) BROMOFORM	14.203	173	53585	17.70 µg/L	98
57) 1122-TETRACLETHANE	15.452	83	106372	21.56 µg/L	99
58) ISOPROPYL BENZENE	14.609	105	307526	21.78 µg/L	96
60) 123-TRICLPROPANE	15.685	110	33328	21.27 µg/L	90
61) TRANS14DICL2BUTENE	15.736	53	80932	94.52 µg/L	99
62) BROMOBENZENE	15.330	77	160369	21.16 µg/L	93
63) N-PROPYLBENZENE	15.340	91	375489	23.87 µg/L	99
64) 2-CHLOROTOLUENE	15.624	91	257824	21.43 µg/L	89
65) 4-CHLOROTOLUENE	15.888	91	222594	21.24 µg/L	98
66) 135TRIMETHYLBENZENE	15.655	105	262462	21.67 µg/L	98
67) TERT-BUTYLBENZENE	16.162	119	204820	22.06 µg/L	97
68) 124TRIMETHYLBENZENE	16.274	105	265189	22.74 µg/L	99
69) SEC-BUTYLBENZENE	16.447	105	275646	23.38 µg/L	98
70) 13-DICHLOROBENZENE	16.802	146	136167	22.71 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.650	119	231590	21.18 µg/L	99
73) 14-DICHLOROBENZENE	16.934	146	141663	20.38 µg/L	93
74) 12-DICHLOROBENZENE	17.533	146	131109	19.97 µg/L	98
75) N-BUTYLBENZENE	17.269	91	179584	20.41 µg/L	98
76) 12-DIBR-3CLPROPANE	18.639	157	14703	18.24 µg/L	86
77) 124-TRICLBENZENE	19.594	180	59714	21.48 µg/L #	90
78) NAPHTHALENE	20.071	128	189282	20.37 µg/L	99
79) HEXACHLOROBUTADIENE	19.523	225	23497	19.40 µg/L	96
80) 123-TRICLBENZENE	20.355	182	58139	21.08 µg/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348304.D
cq On : 4 Oct 2018 9:34 pm
perator : NIVA
ample : ICV/2953645
isc : RUN201738
LS Vial : 16 Sample Multiplier: 1

uant Time: Oct 09 14:47:33 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348306.D
q On : 4 Oct 2018 10:26 pm
erator : NIVA
mple : 2NDSOURCE
sc : RUN201738
S Vial : 18 Sample Multiplier: 1

ant Time: Oct 09 14:53:00 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Mon Oct 08 17:15:22 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	356650	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.193	114	563807	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	12.873	117	459678	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.903	152	218991	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	220472	20.51 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.55%		
39) STOLUENE-D8	10.203	98	643342	19.80 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.00%		
59) S4BRFLUOROBENZENE	15.137	95	224655	21.18 µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.90%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.782	85	76366	18.29 µg/L	98
3) CHLOROMETHANE	3.036	50	107095	17.88 µg/L	99
4) VINYL CHLORIDE	3.141	62	93619	19.71 µg/L	98
5) BROMOMETHANE	3.523	94	24551m	17.77 µg/L	
6) CHLOROETHANE	3.645	64	7861m	22.12 µg/L	
7) TRICLFLUOROMETHANE	3.797	101	127422	22.62 µg/L	99
8) ACROLEIN	0.000		0	N.D. d	
9) ACETONE	5.036	43	35630m	22.70 µg/L	
10) 11-DICHLOROETHENE	4.366	61	72897m	21.57 µg/L	
11) IODOMETHANE	4.559	142	34413	7.59 µg/L	94
12) CARBON DISULFIDE	0.000		0	N.D. d	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.985	84	113795	21.24 µg/L	90
15) TRANS12DICLETHENE	5.158	96	80935	21.10 µg/L #	83
16) 11-DICHLOROETHANE	5.817	63	171886	21.46 µg/L	96
17) VINYL ACETATE	6.051	43	751	N.D.	
18) 2-BUTANONE	7.076	43	144013	42.37 µg/L	97
19) CIS12DICHLOROETHENE	6.427	96	91304	19.98 µg/L #	85
20) 22-DICHLOROPROPANE	6.559	77	89438	15.83 µg/L	98
21) CHLOROFORM	6.711	83	180247	20.57 µg/L	99
22) BROMOCHLOROMETHANE	6.670	49	109202	21.57 µg/L	97
25) TETRAHYDROFURAN	0.000		0	N.D. d	
26) 111-TRICHLOROETHANE	7.005	97	148279	21.87 µg/L	97
27) 11-DICHLOROPROPENE	7.147	75	112261	21.23 µg/L	90
28) 12-DICHLOROETHANE	7.706	62	145899	21.22 µg/L	99
29) CARBONTETRACHLORIDE	6.934	117	123565	20.70 µg/L	99
30) BENZENE	7.452	78	348180	21.20 µg/L	97
31) TRICHLOROETHENE	8.193	132	86371	21.83 µg/L #	89
32) 12-DICHLOROPROPANE	8.914	63	93561	20.27 µg/L	99
33) DIBROMOMETHANE	8.792	174	61246	20.83 µg/L	86
34) BROMODICLMETHANE	8.985	83	117565	20.26 µg/L	99
35) 2-CLETHYLVINYLETHER	9.777	63	66	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	10.843	43	92513	16.51 µg/L #	92
38) CIS13DICLPROPENE	9.909	75	117768	16.62 µg/L	98
40) TOLUENE	10.284	91	336165	19.99 µg/L	100
41) TRANS13DICLPROPENE	10.934	75	110744	16.96 µg/L	99
42) 112-TRICHLOROETHANE	11.208	97	83529	20.31 µg/L	95
43) 2-HEXANONE	12.284	43	60680m	16.52 µg/L	
44) 13-DICHLOROPROPANE	11.685	76	133942	18.96 µg/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348306.D
Acq On : 4 Oct 2018 10:26 pm
Operator : NIVA
Sample : 2NDSOURCE
Misc : RUN201738
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 09 14:53:00 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Mon Oct 08 17:15:22 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

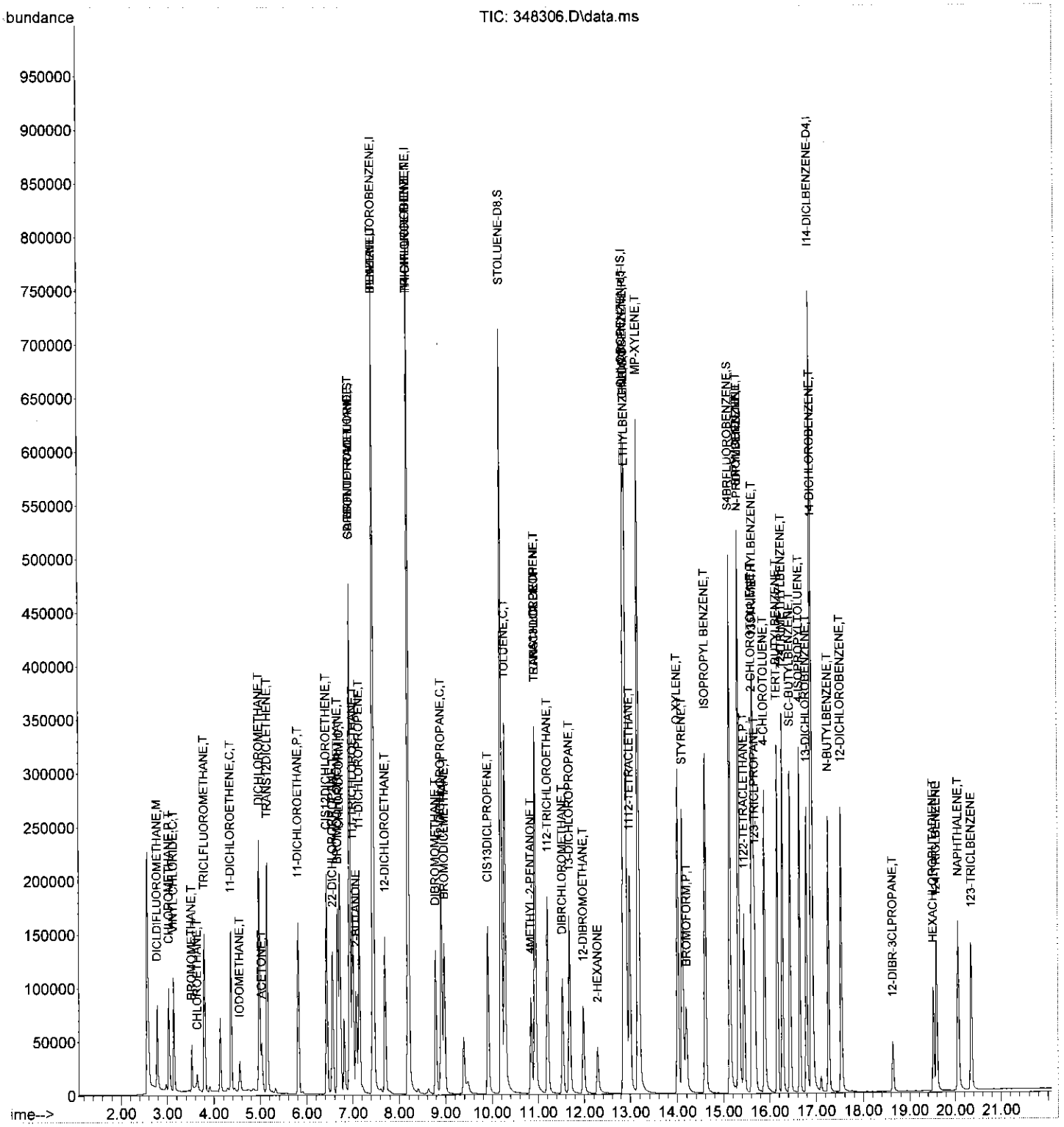
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.533	129	83029	17.26 µg/L	99
46) TETRACHLOROETHENE	10.934	166	80260	21.26 µg/L	91
47) 12-DIBROMOETHANE	11.980	107	84269	20.05 µg/L	99
49) CHLOROBENZENE	12.903	112	219389	20.93 µg/L	88
50) 1-CHLOROHEXANE	12.802	91	231	N.D.	
51) 1112-TETRACLETHANE	12.995	131	77657	22.16 µg/L	93
52) ETHYLBENZENE	12.914	91	356779	21.40 µg/L	99
53) MP-XYLENE	13.178	91	545968	41.69 µg/L	99
54) STYRENE	14.112	104	205273	20.44 µg/L	99
55) O-XYLENE	14.010	91	273042	20.63 µg/L	98
56) BROMOFORM	14.203	173	52183	17.77 µg/L	99
57) 1122-TETRACLETHANE	15.452	83	106667	22.28 µg/L	100
58) ISOPROPYL BENZENE	14.609	105	312361	22.80 µg/L	96
60) 123-TRICLPROPANE	15.685	110	32026	21.06 µg/L	91
61) TRANS14DICL2BUTENE	0.000		0	N.D. d	
62) BROMOBENZENE	15.330	77	154742	21.04 µg/L	93
63) N-PROPYLBENZENE	15.340	91	361457	23.69 µg/L	99
64) 2-CHLOROTOLUENE	15.624	91	252047	21.59 µg/L	90
65) 4-CHLOROTOLUENE	15.888	91	212939	20.95 µg/L	100
66) 135TRIMETHYLBENZENE	15.655	105	251702	21.42 µg/L	98
67) TERT-BUTYLBENZENE	16.162	119	196518	21.82 µg/L	96
68) 124TRIMETHYLBENZENE	16.274	105	247491	21.88 µg/L	99
69) SEC-BUTYLBENZENE	16.446	105	269962	23.60 µg/L	97
70) 13-DICHLOROBENZENE	16.802	146	136355	23.44 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.650	119	219806	20.11 µg/L	99
73) 14-DICHLOROBENZENE	16.924	146	137629	19.80 µg/L	93
74) 12-DICHLOROBENZENE	17.533	146	130410	19.87 µg/L	99
75) N-BUTYLBENZENE	17.269	91	172914	19.66 µg/L	98
76) 12-DIBR-3CLPROPANE	18.639	157	14335	17.79 µg/L	89
77) 124-TRICLBENZENE	19.594	180	57556	20.71 µg/L #	90
78) NAPHTHALENE	20.071	128	179343	18.33 µg/L	98
79) HEXACHLOROBUTADIENE	19.522	225	22497	18.58 µg/L	95
80) 123-TRICLBENZENE	20.355	182	55687	20.20 µg/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348306.D
cq On : 4 Oct 2018 10:26 pm
perator : NIVA
ample : 2NDSOURCE
isc : RUN201738
LS Vial : 18 Sample Multiplier: 1

uant Time: Oct 09 14:53:00 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Mon Oct 08 17:15:22 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 90
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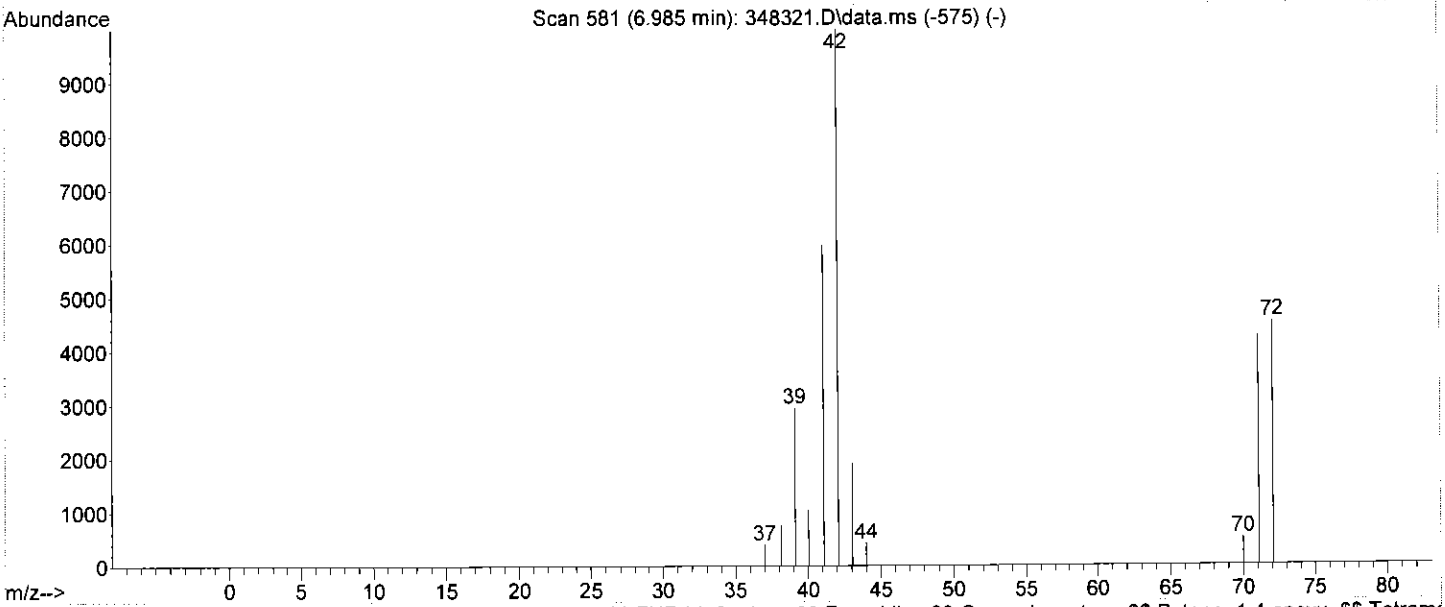
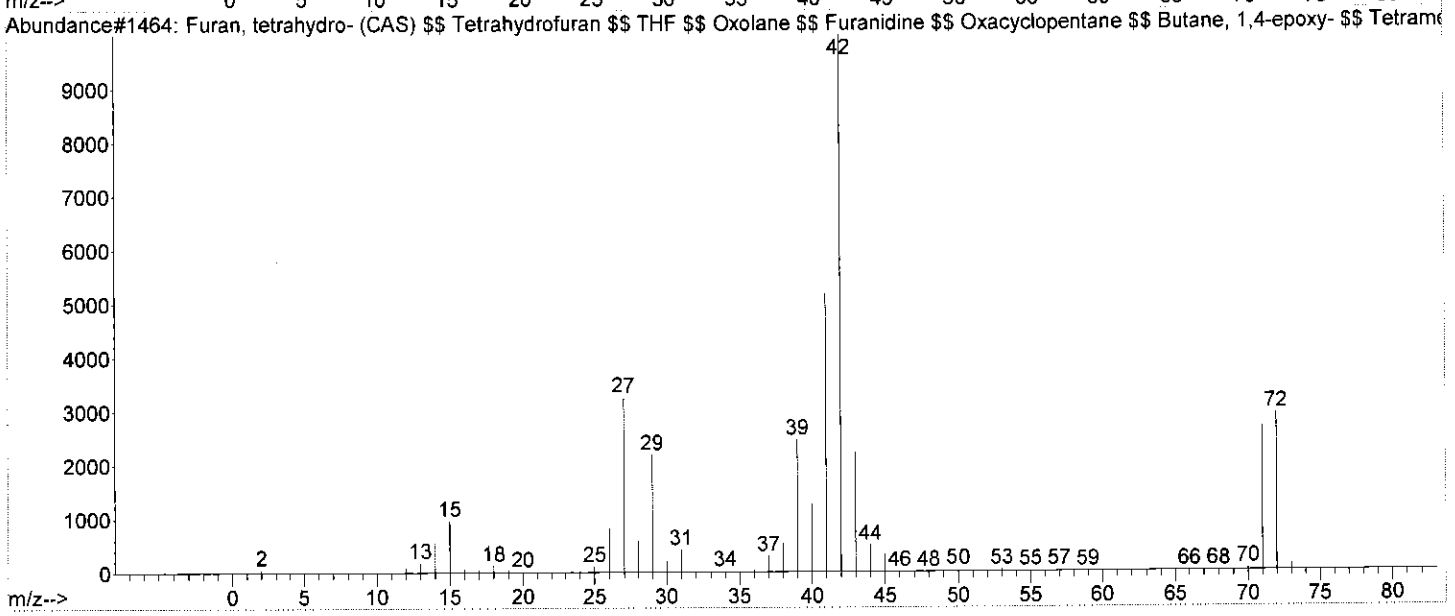




Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348321.D
q On : 5 Oct 2018 4:57 am
erator : NIVA
mple : 2926588
sc : RUN203483
S Vial : 33 Sample Multiplier: 1

ant Time: Oct 09 15:02:11 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	275694	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.203	114	445541	20.00 µg/L	0.02
48) CHLOROBENZEN-d5-IS	12.873	117	364442	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.913	152	143444	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.944	111	171037	20.13 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.65%		
39) STOLUENE-D8	10.203	98	497459	19.37 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.85%		
59) S4BRFLUOROBENZENE	15.147	95	157166	18.69 µg/L	0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 93.45%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1793	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.533	94	127	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	4.741	56	64	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.569	142	780	N.D.	
12) CARBON DISULFIDE	4.457	76	1402	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.975	84	63	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	7.087	43	475	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.721	83	239	N.D.	
22) BROMOCHLOROMETHANE	0.000		0	N.D.	
25) TETRAHYDROFURAN	6.955	42	32920	38.16 µg/L	98
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.863	117	846	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348321.D
Acq On : 5 Oct 2018 4:57 am
Operator : NIVA
Sample : 2926588
Misc : RUN203483
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 09 15:02:11 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

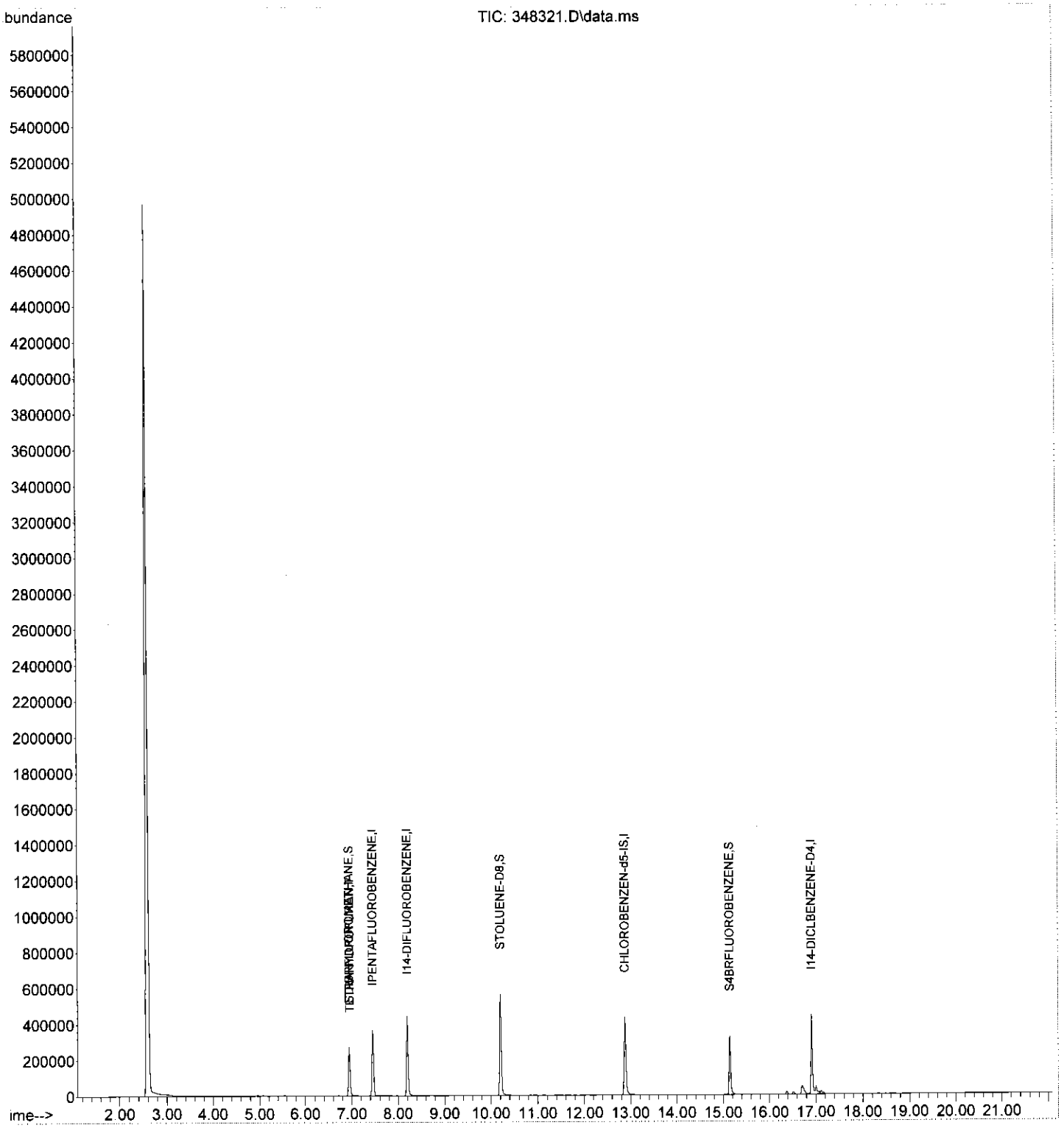
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.883	91	840	N.D.	
53) MP-XYLENE	13.188	91	1241	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.030	91	506	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.147	77	1028	N.D.	
63) N-PROPYLBENZENE	15.350	91	164	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	15.655	105	133	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	16.284	105	167	N.D.	
69) SEC-BUTYLBENZENE	16.447	105	147	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.660	119	242	N.D.	
73) 14-DICHLOROBENZENE	16.944	146	90	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.279	91	322	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	20.111	128	224	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348321.D
cq On : 5 Oct 2018 4:57 am
perator : NIVA
ample : 2926588
isc : RUN203483
LS Vial : 33 Sample Multiplier: 1

uant Time: Oct 09 15:02:11 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 72
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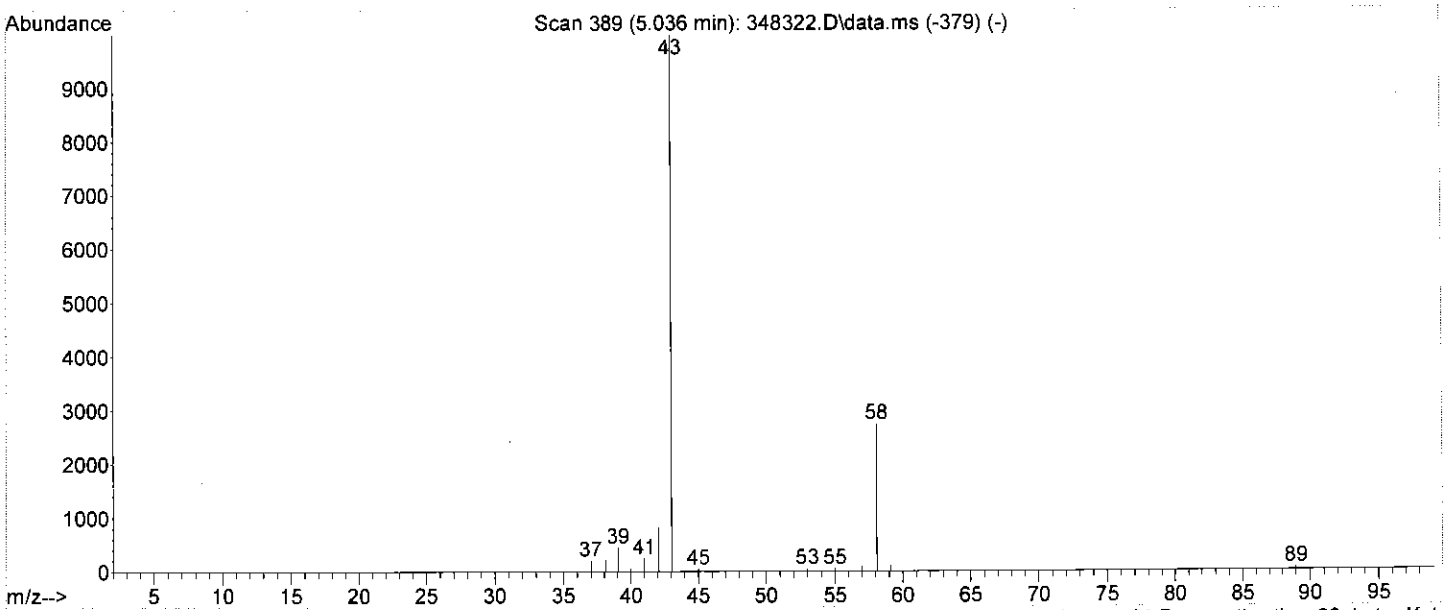
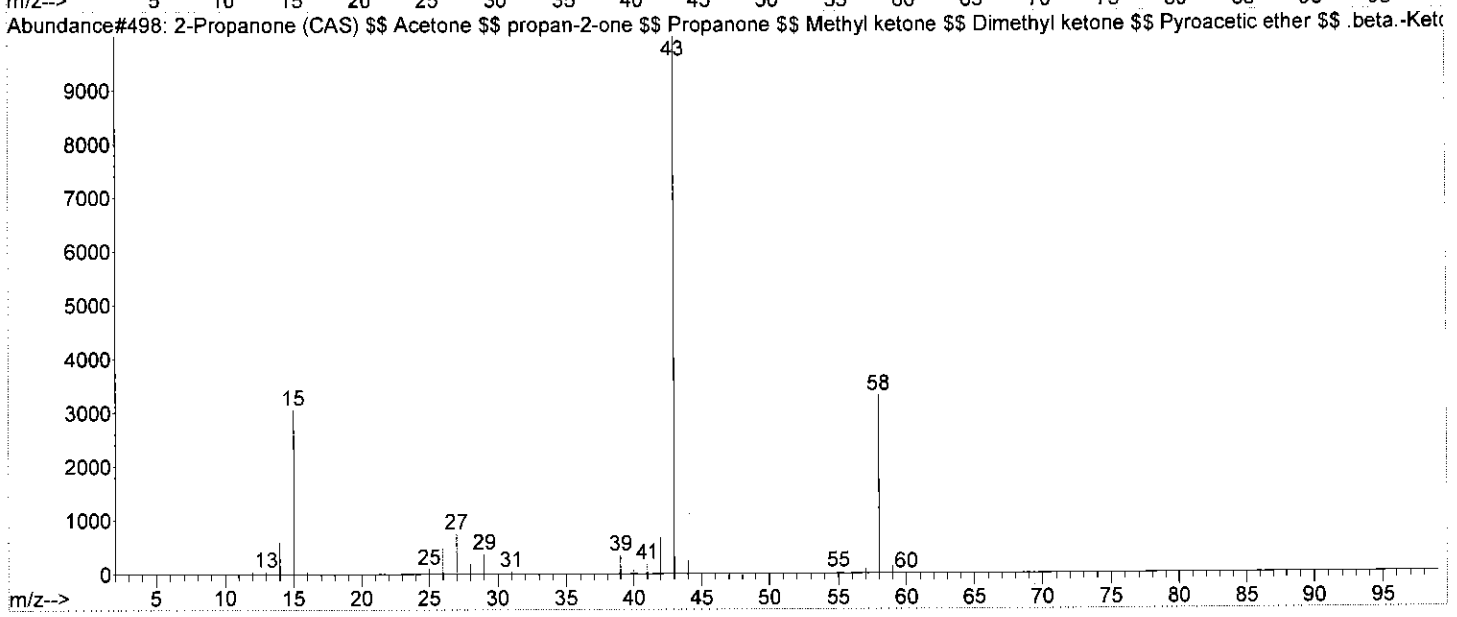




Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348322.D
q On : 5 Oct 2018 5:23 am
erator : NIVA
mple : 2926590
sc : RUN203483
S Vial : 34 Sample Multiplier: 1

ant Time: Oct 09 15:03:16 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.462	168	289295	20.00	µg/L	0.03
23) I14-DIFLUOROBENZENE	8.203	114	465686	20.00	µg/L	0.02
48) CHLOROBENZEN-d5-IS	12.883	117	377918	20.00	µg/L	0.01
71) I14-DICLBENZENE-D4	16.924	152	146905	20.00	µg/L	0.01
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.944	111	175307	19.74	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.70%			
39) STOLUENE-D8	10.213	98	520182	19.38	µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%			
59) S4BRFLUOROBENZENE	15.147	95	164407	18.85	µg/L	0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.25%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.		
3) CHLOROMETHANE	3.036	50	1934	N.D.		
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	3.533	94	199	N.D.		
6) CHLOROETHANE	0.000		0	N.D.		
7) TRICLFLUOROMETHANE	0.000		0	N.D.		
8) ACROLEIN	4.731	56	144	N.D.		
9) ACETONE	5.036	43	61439	48.26	µg/L #	98
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	4.569	142	655	N.D.		
12) CARBON DISULFIDE	4.467	76	1216	N.D.		
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	0.000		0	N.D.		
15) TRANS12DICLETHENE	0.000		0	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	0.000		0	N.D.		
18) 2-BUTANONE	7.097	43	1291	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	6.478	77	615	N.D.		
21) CHLOROFORM	6.731	83	206	N.D.		
22) BROMOCHLOROMETHANE	0.000		0	N.D.		
25) TETRAHYDROFURAN	0.000		0	N.D.	d	
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	0.000		0	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.873	117	614	N.D.		
30) BENZENE	0.000		0	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.		
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.		
36) EPICHLOROHYDRIN	0.000		0	N.D.	d	
37) 4METHYL-2-PENTANONE	10.863	43	305	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	0.000		0	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	0.000		0	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348322.D
Acq On : 5 Oct 2018 5:23 am
Operator : NIVA
Sample : 2926590
Misc : RUN203483
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 09 15:03:16 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

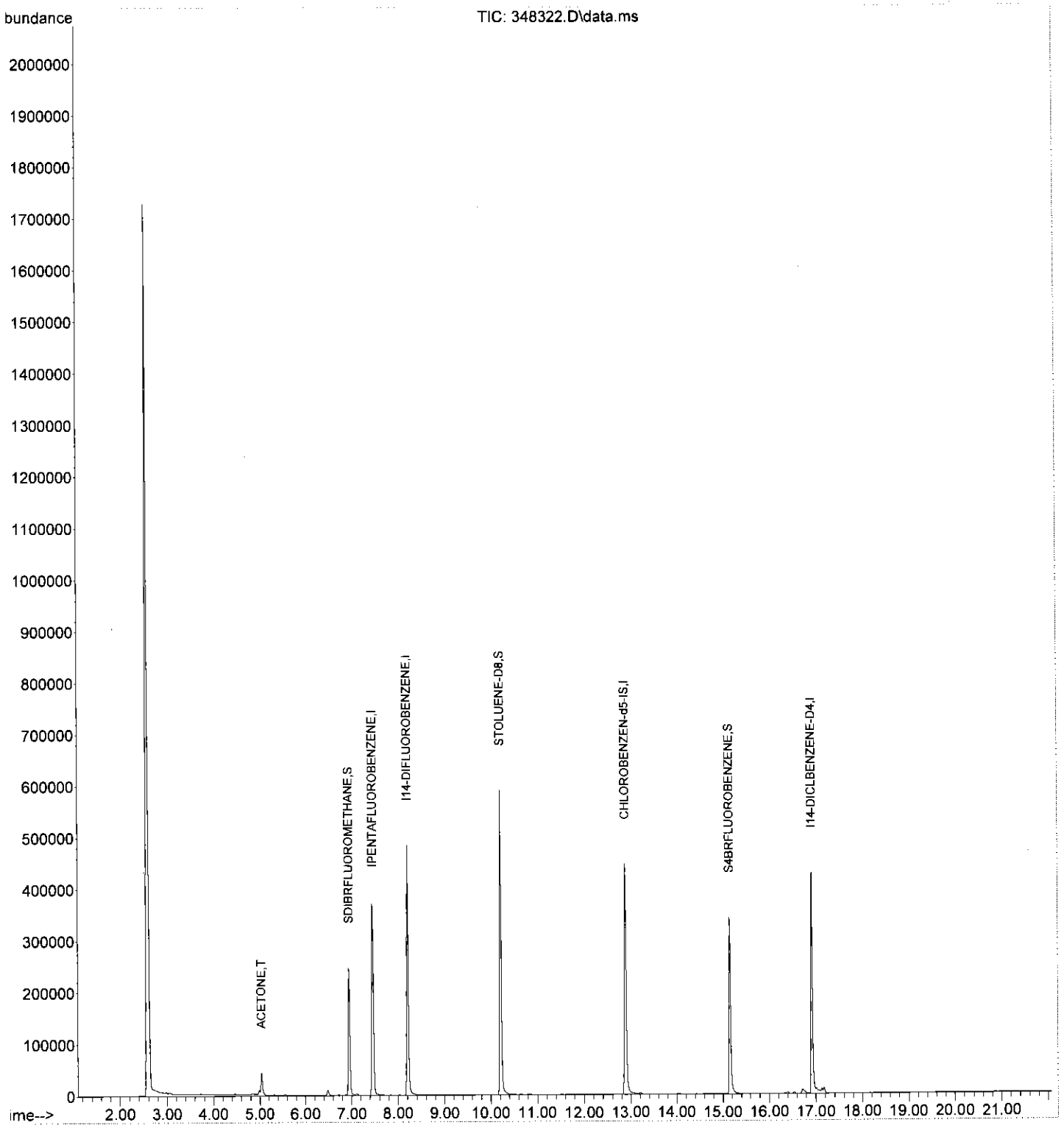
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.924	91	986	N.D.	
53) MP-XYLENE	13.198	91	2966	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.030	91	1564	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.157	77	967	N.D.	
63) N-PROPYLBENZENE	15.371	91	263	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	15.675	105	175	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	16.304	105	339	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.670	119	151	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.289	91	159	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

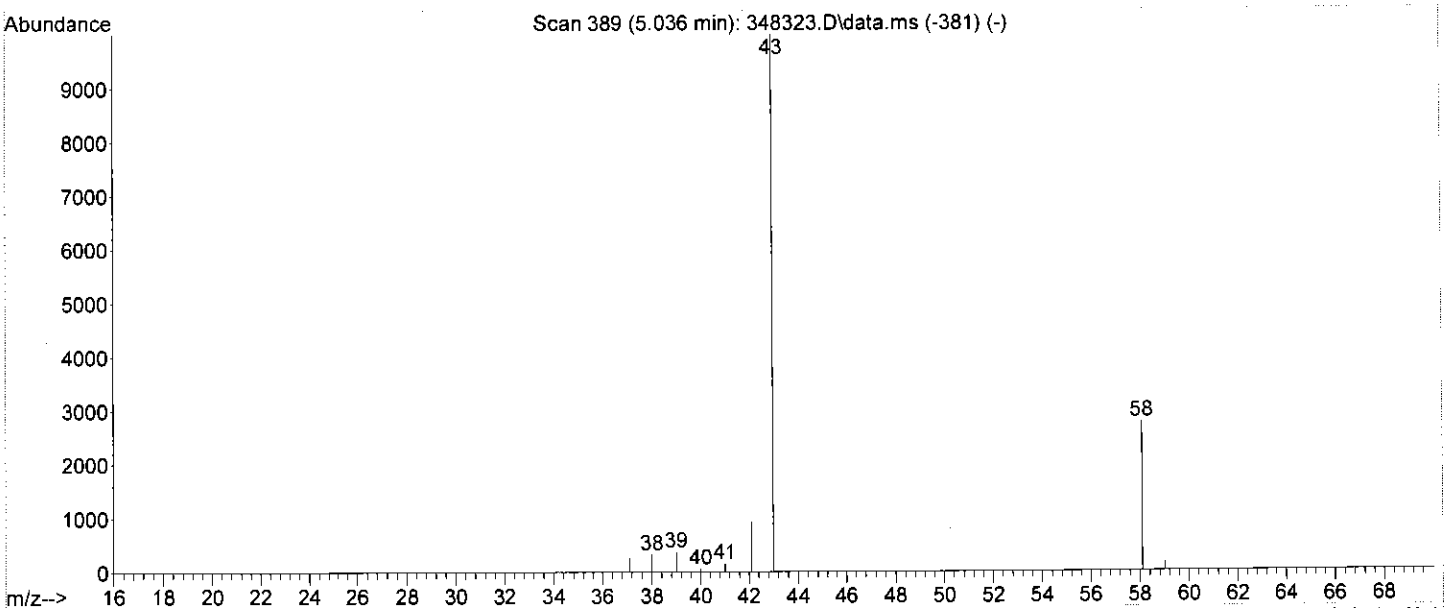
Quantitation Report (QT Reviewed)

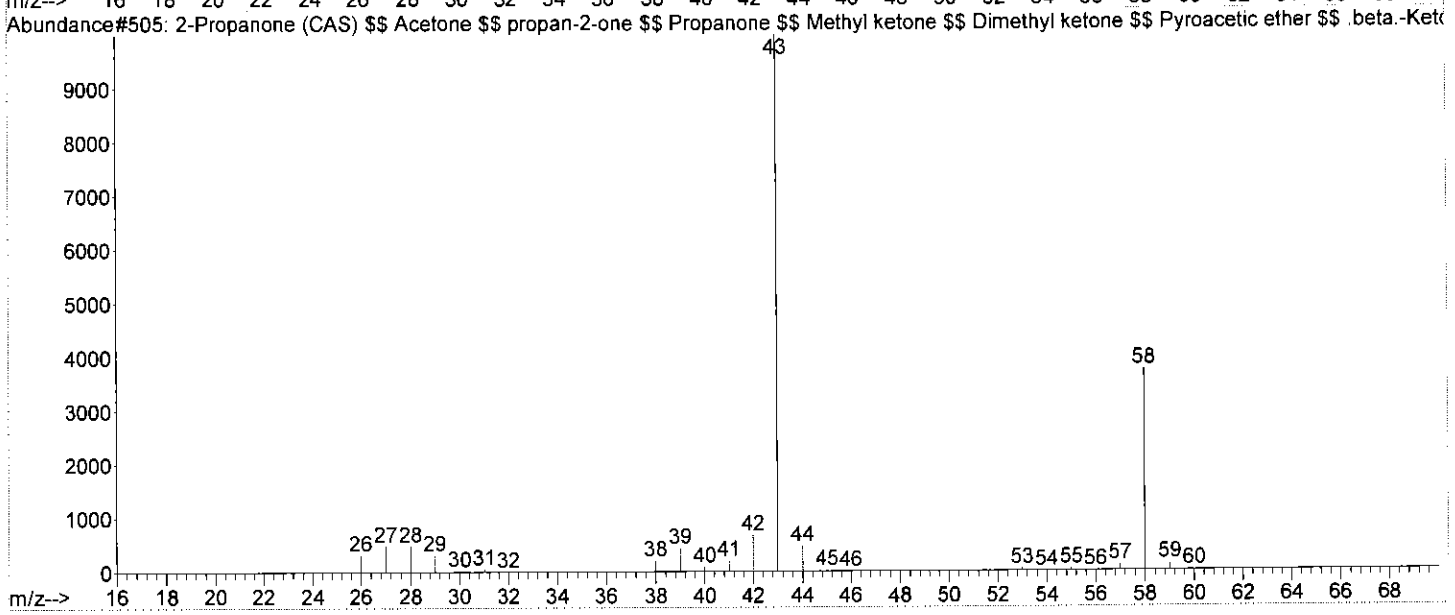
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348322.D
cq On : 5 Oct 2018 5:23 am
perator : NIVA
ample : 2926590
isc : RUN203483
LS Vial : 34 Sample Multiplier: 1

uant Time: Oct 09 15:03:16 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 74
ID : 2-Propanone (CAS) $$ Acetone $$ propan-2-one $$ Propanone $$ Methyl ketone $$ Dimethyl ketone $$ Pyroacetic ether $$ .beta.-Ketopropane $$ Dimethylformaldehyde $$ ACETONE (2-PROPANONE) $$ (CH3)2CO $$ Allylic alcohol $$ Dimethylketal $$ Ketone propane $$ K





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348323.D
q On : 5 Oct 2018 5:49 am
erator : NIVA
mple : 2926593
sc : RUN203483
S Vial : 35 Sample Multiplier: 1

ant Time: Oct 09 15:04:59 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	285554	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.203	114	464804	20.00 µg/L	0.02
48) CHLOROBENZEN-d5-IS	12.873	117	374048	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.914	152	144628	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.944	111	175986	19.85 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.25%		
39) STOLUENE-D8	10.203	98	519169	19.38 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.90%		
59) S4BRFLUOROBENZENE	15.147	95	163047	18.89 µg/L	0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.45%		
'arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.046	50	1988	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	4.731	56	71	N.D.	
9) ACETONE	5.036	43	18311	14.57 µg/L #	97
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.569	142	652	N.D.	
12) CARBON DISULFIDE	4.467	76	1526	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	0.000		0	N.D.	
22) BROMOCHLOROMETHANE	0.000		0	N.D.	
25) TETRAHYDROFURAN	0.000		0	N.D. d	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.863	117	882	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348323.D
Acq On : 5 Oct 2018 5:49 am
Operator : NIVA
Sample : 2926593
Misc : RUN203483
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Oct 09 15:04:59 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

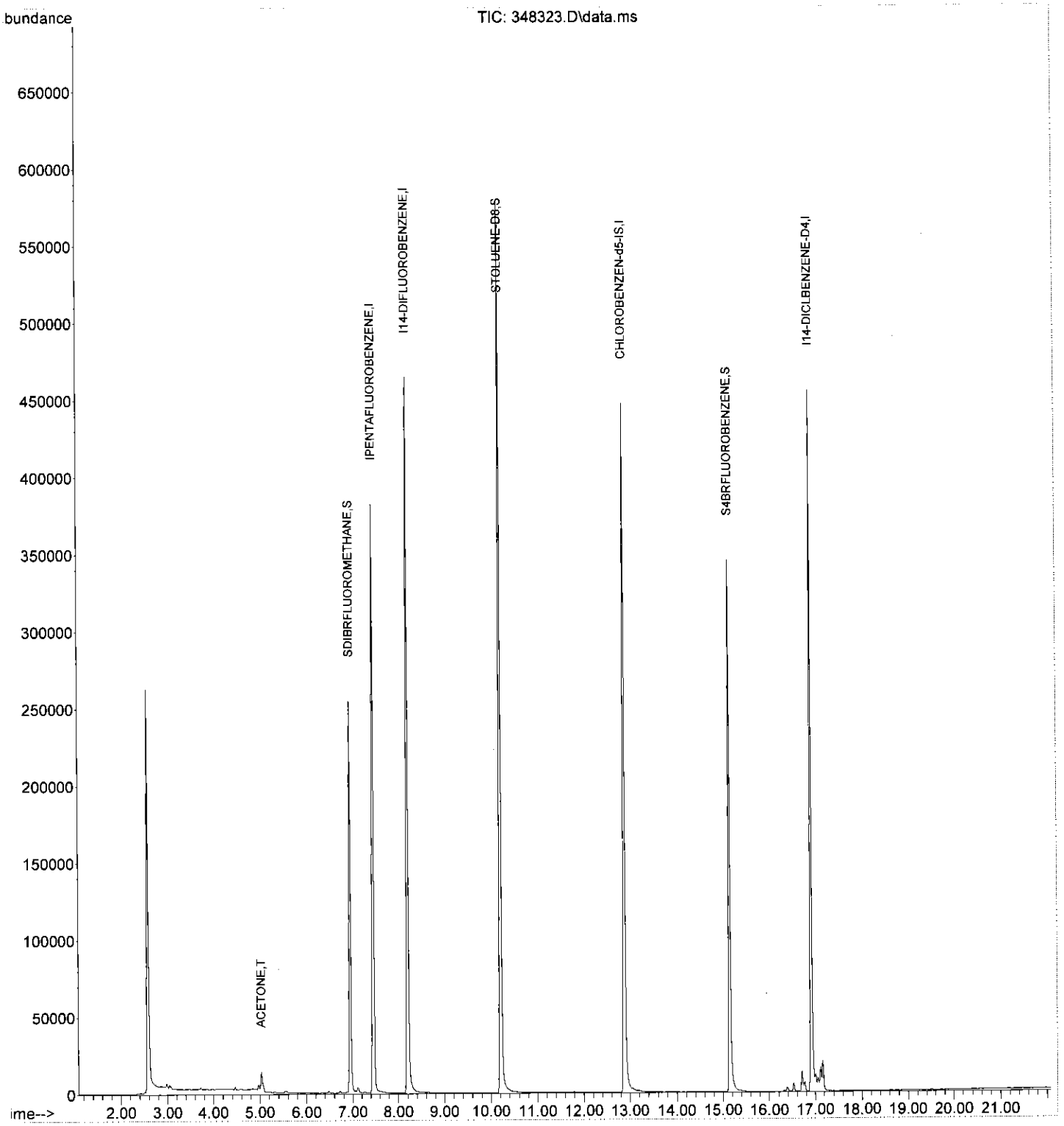
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.873	91	800	N.D.	
53) MP-XYLENE	13.198	91	989	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	14.030	91	328	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.137	77	1078	N.D.	
63) N-PROPYLBENZENE	15.350	91	139	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	16.447	105	67	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.660	119	65	N.D.	
73) 14-DICHLOROBENZENE	16.934	146	71	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.279	91	226	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348323.D
cq On : 5 Oct 2018 5:49 am
perator : NIVA
ample : 2926593
isc : RUN203483
LS Vial : 35 Sample Multiplier: 1

uant Time: Oct 09 15:04:59 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348324.D
q On : 5 Oct 2018 6:15 am
erator : NIVA
mple : 2951568
sc : RUN203484
S Vial : 36 Sample Multiplier: 1

ant Time: Oct 09 15:05:49 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.442	168	284632	20.00	µg/L	0.00
23) I14-DIFLUOROBENZENE	8.193	114	457881	20.00	µg/L	0.01
48) CHLOROBENZEN-d5-IS	12.863	117	372879	20.00	µg/L	-0.01
71) I14-DICLBENZENE-D4	16.903	152	143409	20.00	µg/L	0.00
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.934	111	173345	19.85	µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.25%			
39) STOLUENE-D8	10.193	98	515783	19.55	µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.75%			
59) S4BRFLUOROBENZENE	15.137	95	162189	18.85	µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.25%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.		
3) CHLOROMETHANE	3.036	50	1654	N.D.		
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	3.523	94	136	N.D.		
6) CHLOROETHANE	0.000		0	N.D.		
7) TRICLFLUOROMETHANE	0.000		0	N.D.		
8) ACROLEIN	0.000		0	N.D.		
9) ACETONE	0.000		0	N.D.	d	
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	4.569	142	426	N.D.		
12) CARBON DISULFIDE	4.457	76	831	N.D.		
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	0.000		0	N.D.		
15) TRANS12DICLETHENE	0.000		0	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	0.000		0	N.D.		
18) 2-BUTANONE	6.955	43	225	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	0.000		0	N.D.		
21) CHLOROFORM	6.721	83	71	N.D.		
22) BROMOCHLOROMETHANE	0.000		0	N.D.		
25) TETRAHYDROFURAN	0.000		0	N.D.	d	
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	0.000		0	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.853	117	773	N.D.		
30) BENZENE	0.000		0	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.		
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.		
36) EPICHLOROHYDRIN	0.000		0	N.D.	d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	0.000		0	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	0.000		0	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348324.D
Acq On : 5 Oct 2018 6:15 am
Operator : NIVA
Sample : 2951568
Misc : RUN203484
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 09 15:05:49 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

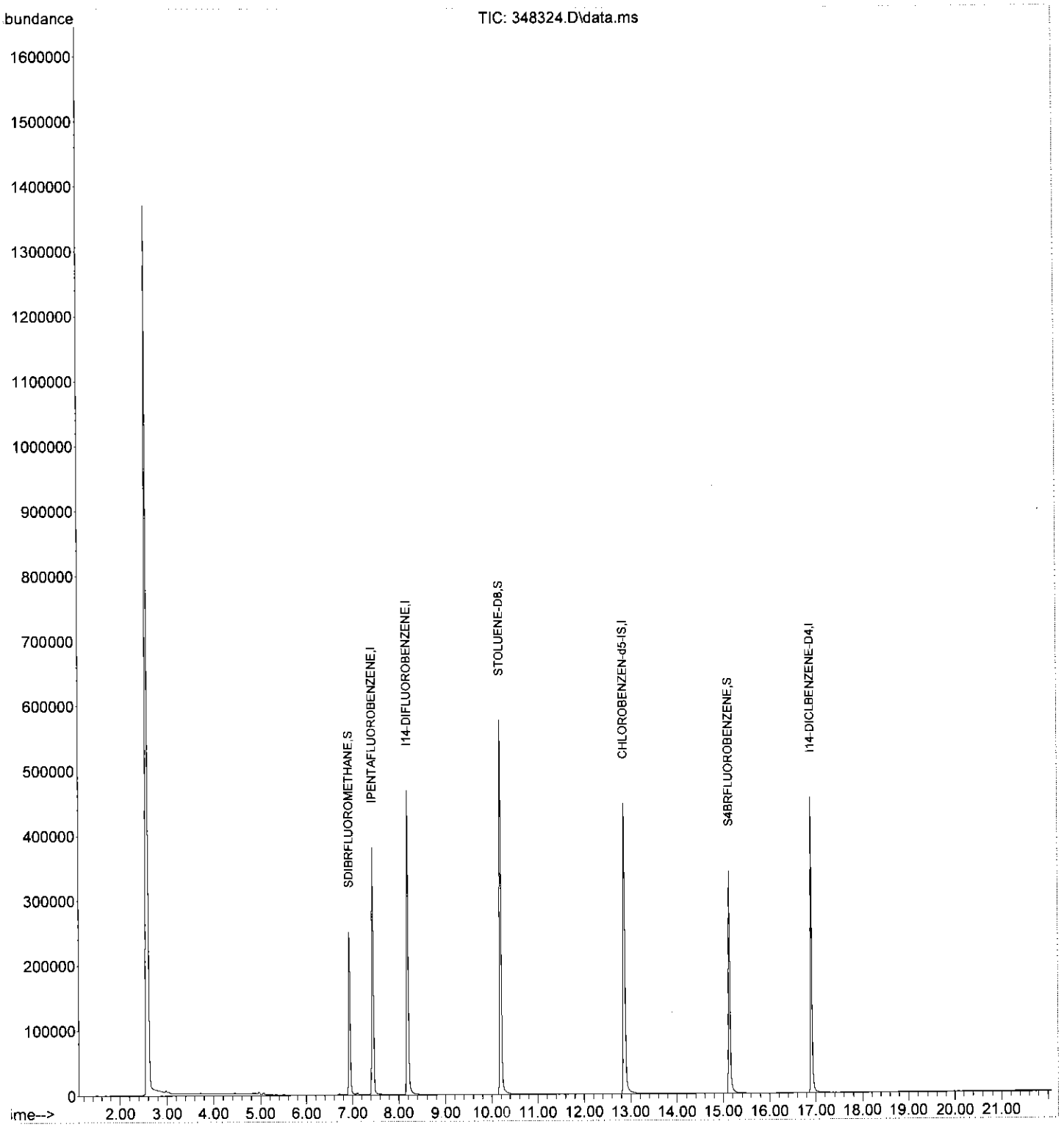
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.863	91	1031	N.D.	
53) MP-XYLENE	13.188	91	610	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.137	77	823	N.D.	
63) N-PROPYLBENZENE	15.340	91	65	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.269	91	138	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

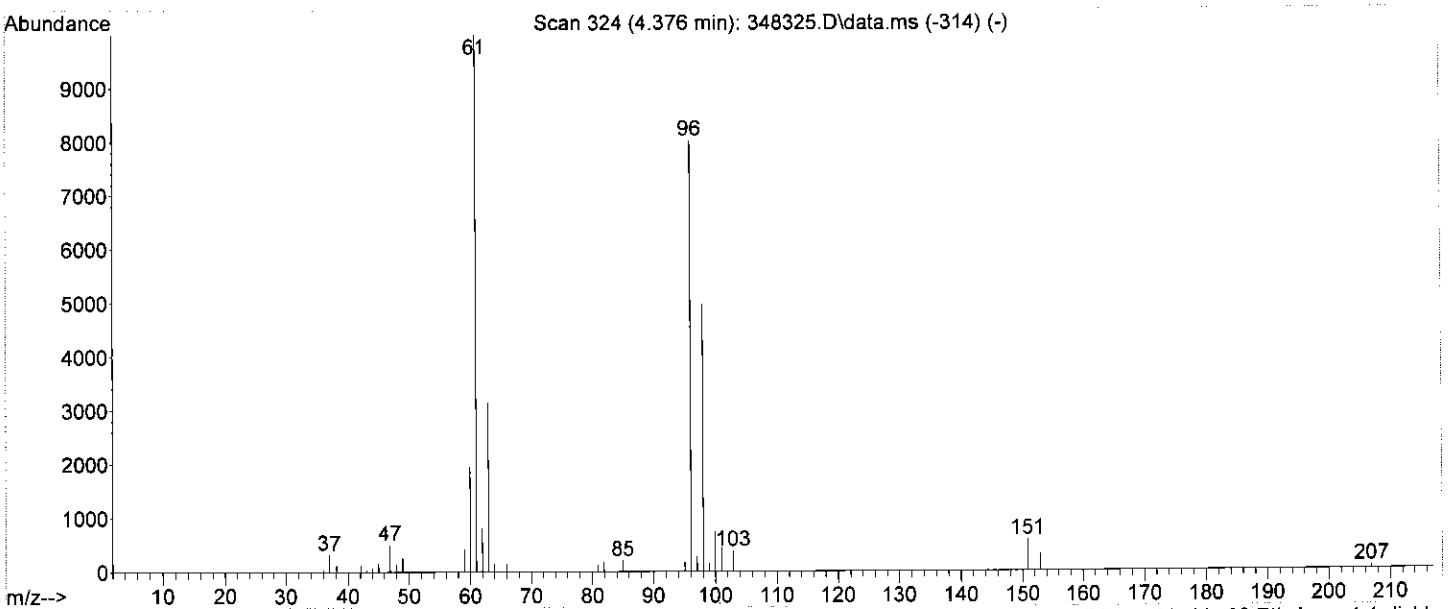
Quantitation Report (QT Reviewed)

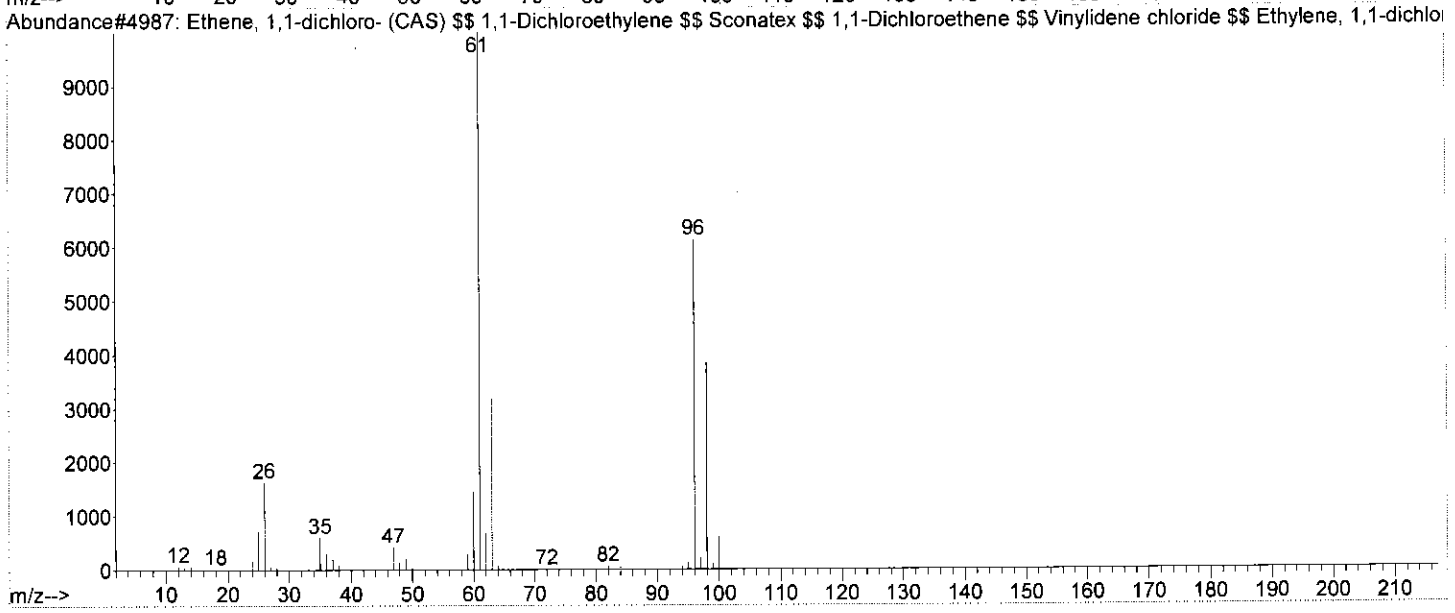
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348324.D
cq On : 5 Oct 2018 6:15 am
perator : NIVA
ample : 2951568
isc : RUN203484
LS Vial : 36 Sample Multiplier: 1

uant Time: Oct 09 15:05:49 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS

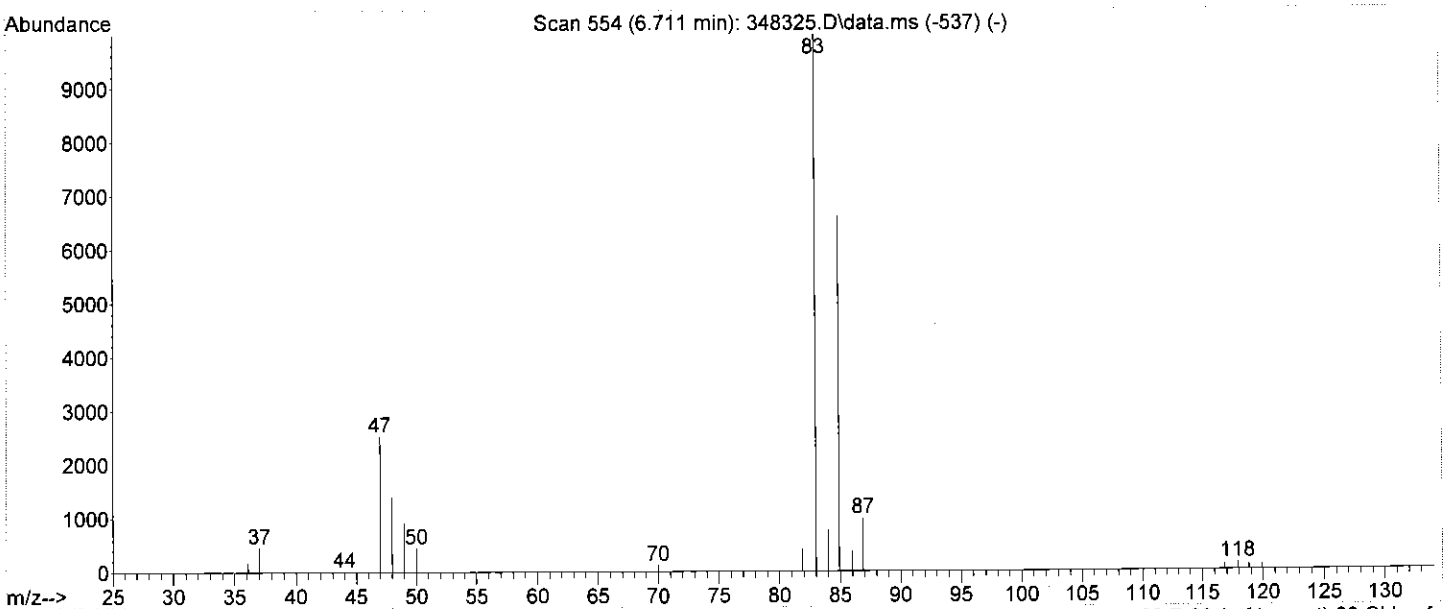


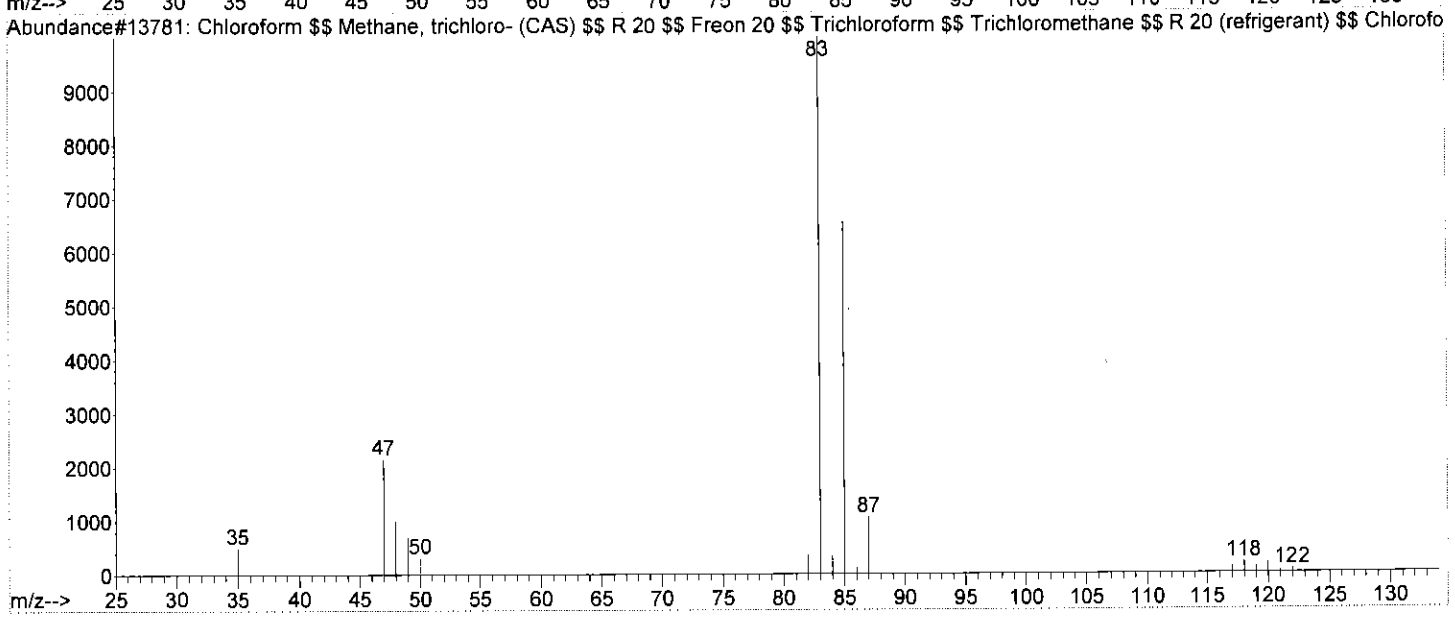
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Ethene, 1,1-dichloro- (CAS) $$ 1,1-Dichloroethylene $$ Sconatex $$ 1,1-Dichloroethene $$ Vinylidene chloride $$ Ethylene, 1,1-dichloro- $$ 1,1-Dichloro-ethylene $$ Vinylidine chloride $$ CH2=CCl2 $$ Chlorure de vinylidene $$ 1,1-DCE $$ NCI-C54262 $$ Rcra



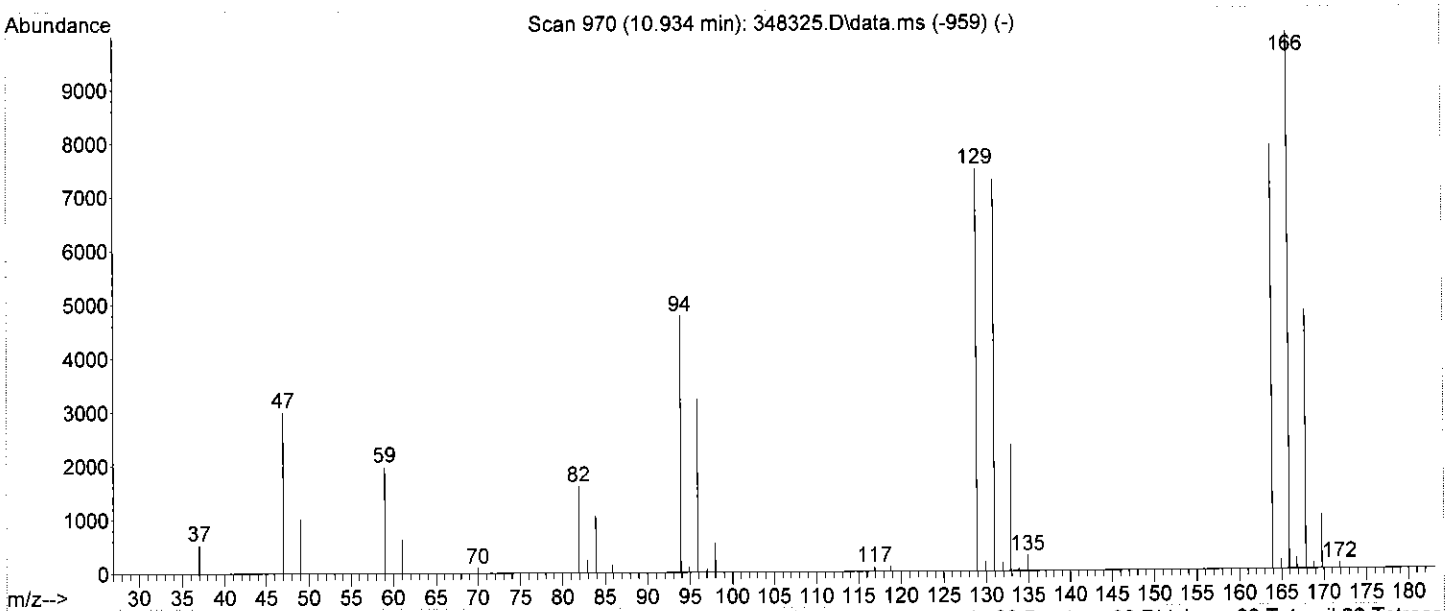


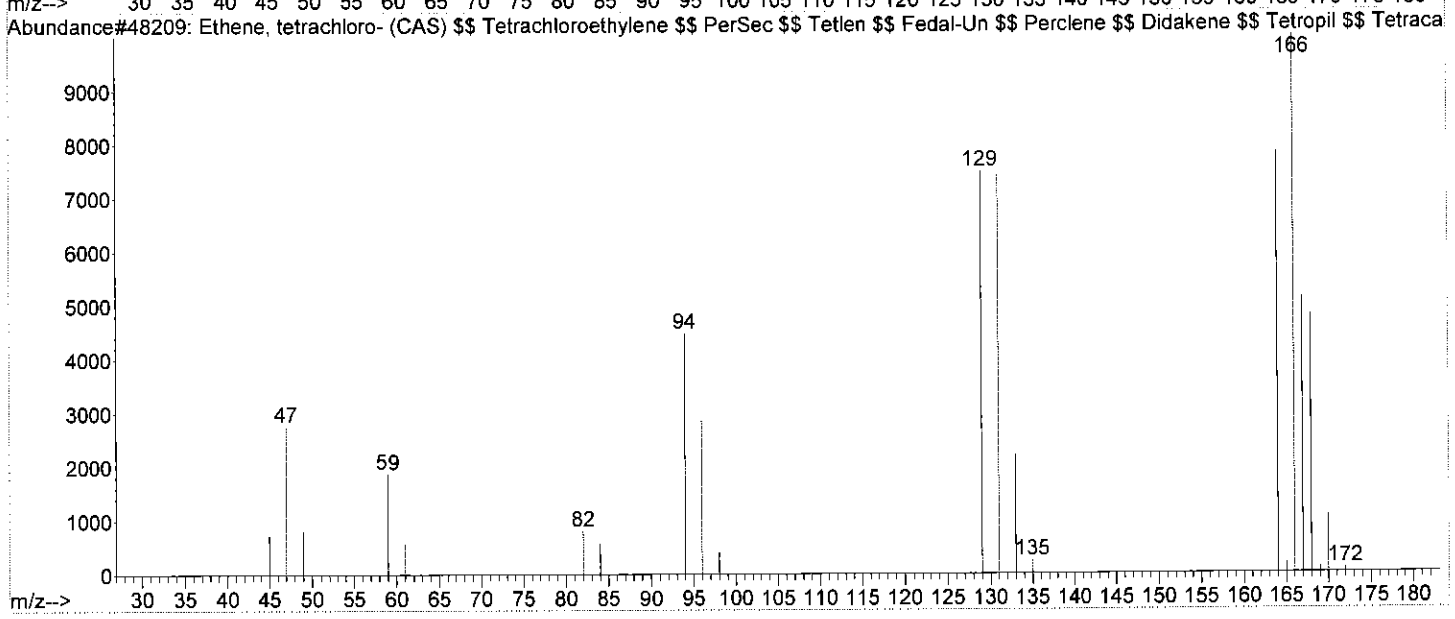
Library Searched : C:\Database\WILEY275.L
Quality : 86
ID : Chloroform $$ Methane, trichloro- (CAS) $$ R 20 $$ Freon 20 $$ Trichloroform $$ Trichloromethane $$ R 20 (refrigerant) $$ Chloroform (ACN)(DOT) $$ TRICHLORO METHANE (CHLOROFORM) $$ CHCl3 $$ Formyl trichloride $$ Methane trichloride $$ Methenyl trichloride





Library Searched : C:\Database\WILEY275.L
Quality : 99
ID : Ethene, tetrachloro- (CAS) $$ Tetrachloroethylene $$ PerSec $$ Tetlen $$ Fedal -Un $$ Perclene $$ Didakene $$ Tetropil $$ Tetracap $$ Antisal 1 $$ Tetraguer $$ Tetraleno $$ Ankilostin $$ Perchlorethylene $$ Perchloroethylene $$ Tetrach loroethene $$ Tetrach





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348325.D
q On : 5 Oct 2018 6:41 am
erator : NIVA
mple : 2951569
sc : RUN203484
S Vial : 37 Sample Multiplier: 1

ant Time: Oct 09 15:07:29 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.442	168	282581	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.183	114	458382	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	12.863	117	371345	20.00 µg/L	-0.01
71) I14-DICLBENZENE-D4	16.914	152	141770	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	175248	20.05 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.25%		
39) STOLUENE-D8	10.193	98	517478	19.59 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%		
59) S4BRFLUOROBENZENE	15.137	95	161599	18.86 µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.30%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1705	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.523	94	90	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	4.376	61	16086	6.01 µg/L	93
11) IODOMETHANE	4.569	142	377	N.D.	
12) CARBON DISULFIDE	4.447	76	760	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.975	84	63	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D. d	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.711	83	31092	4.48 µg/L #	100
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	0.000		0	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	7.696	62	425	N.D.	
29) CARBONTETRACHLORIDE	6.843	117	290	N.D.	
30) BENZENE	7.452	78	482	N.D.	
31) TRICHLOROETHENE	8.193	132	977	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.274	91	65	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	11.198	97	804	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348325.D
Acq On : 5 Oct 2018 6:41 am
Operator : NIVA
Sample : 2951569
Misc : RUN203484
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 09 15:07:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

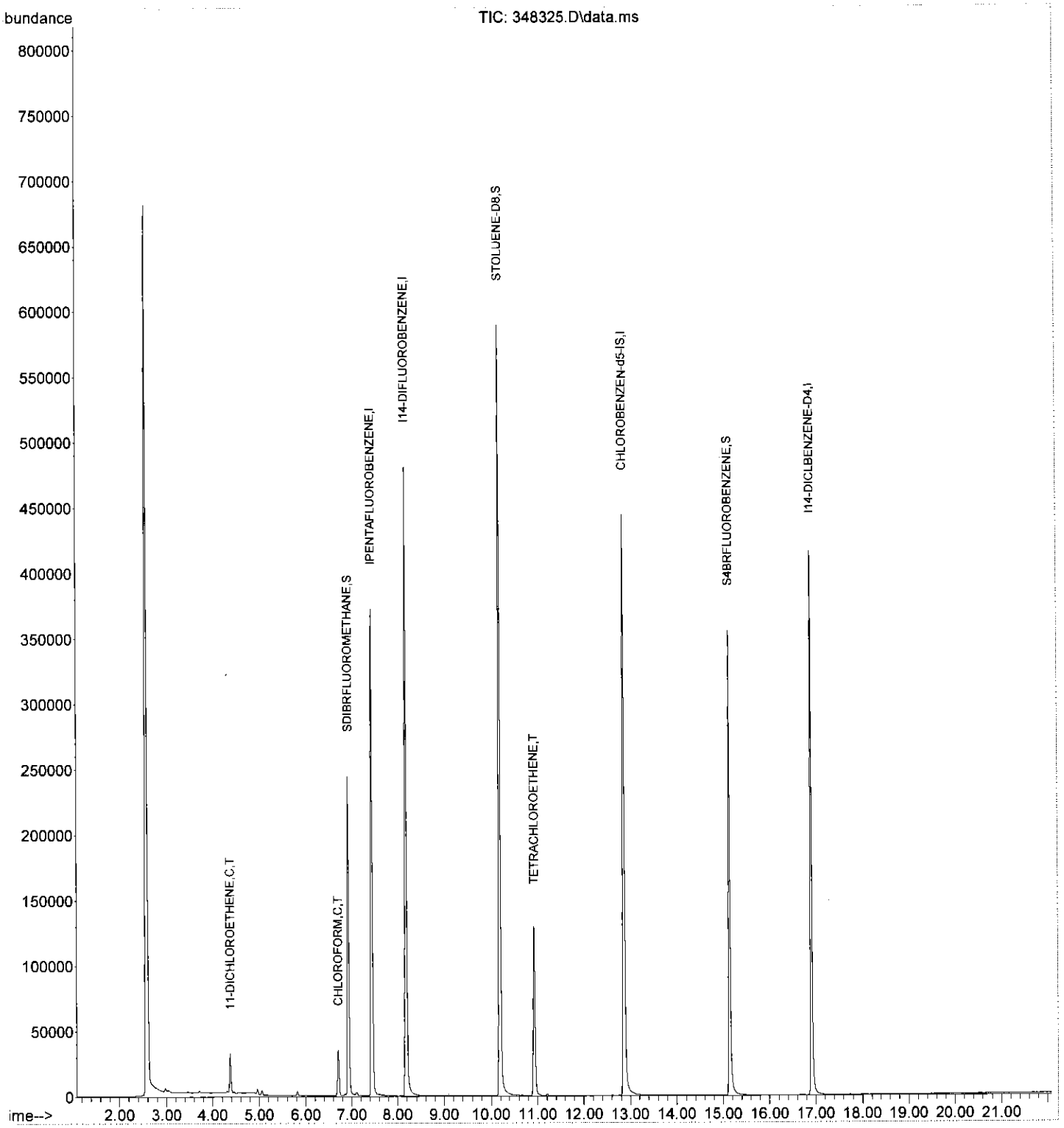
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.934	166	53316	17.37 µg/L	89
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.863	91	862	N.D.	
53) MP-XYLENE	13.178	91	560	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.137	77	988	N.D.	
63) N-PROPYLBENZENE	15.340	91	80	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	16.660	119	72	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

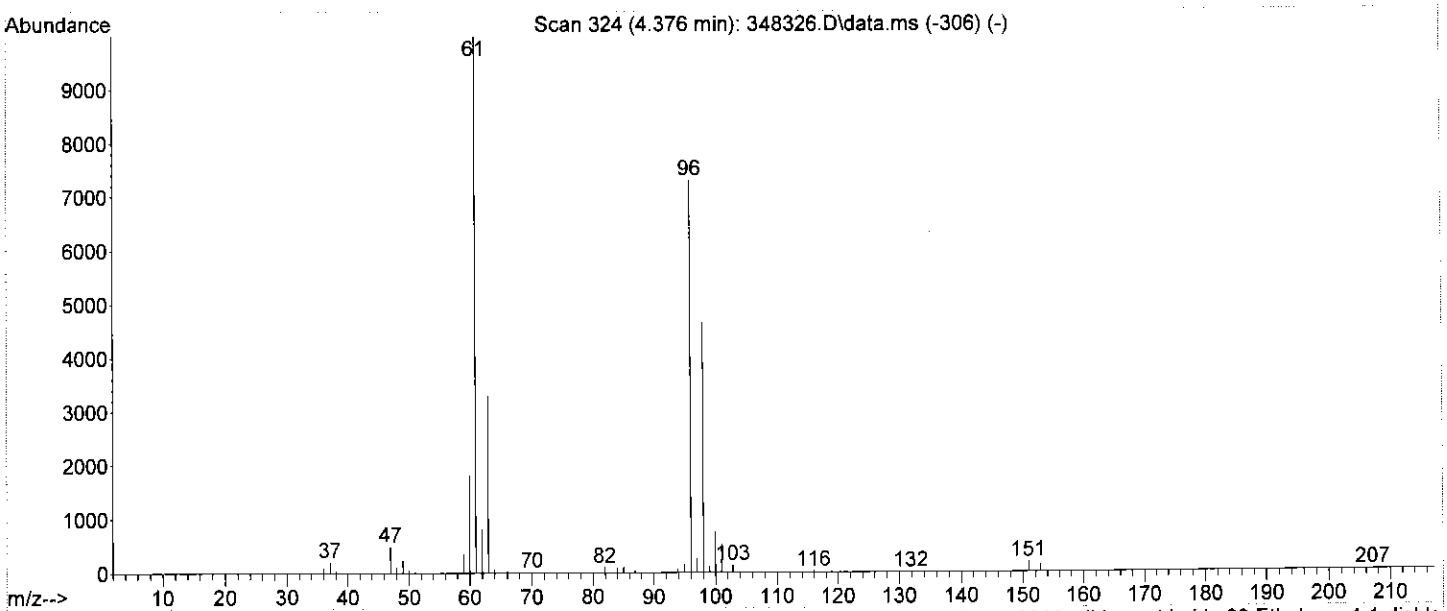
Quantitation Report (QT Reviewed)

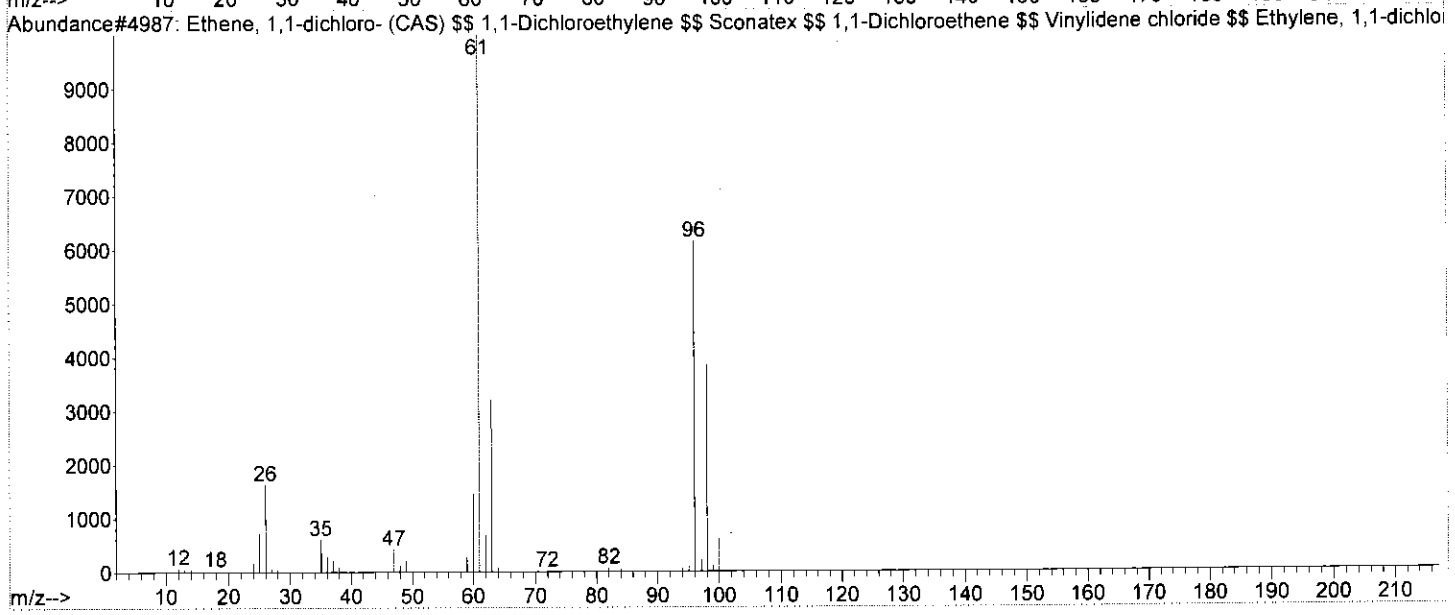
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348325.D
cq On : 5 Oct 2018 6:41 am
perator : NIVA
ample : 2951569
isc : RUN203484
LS Vial : 37 Sample Multiplier: 1

uant Time: Oct 09 15:07:29 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS

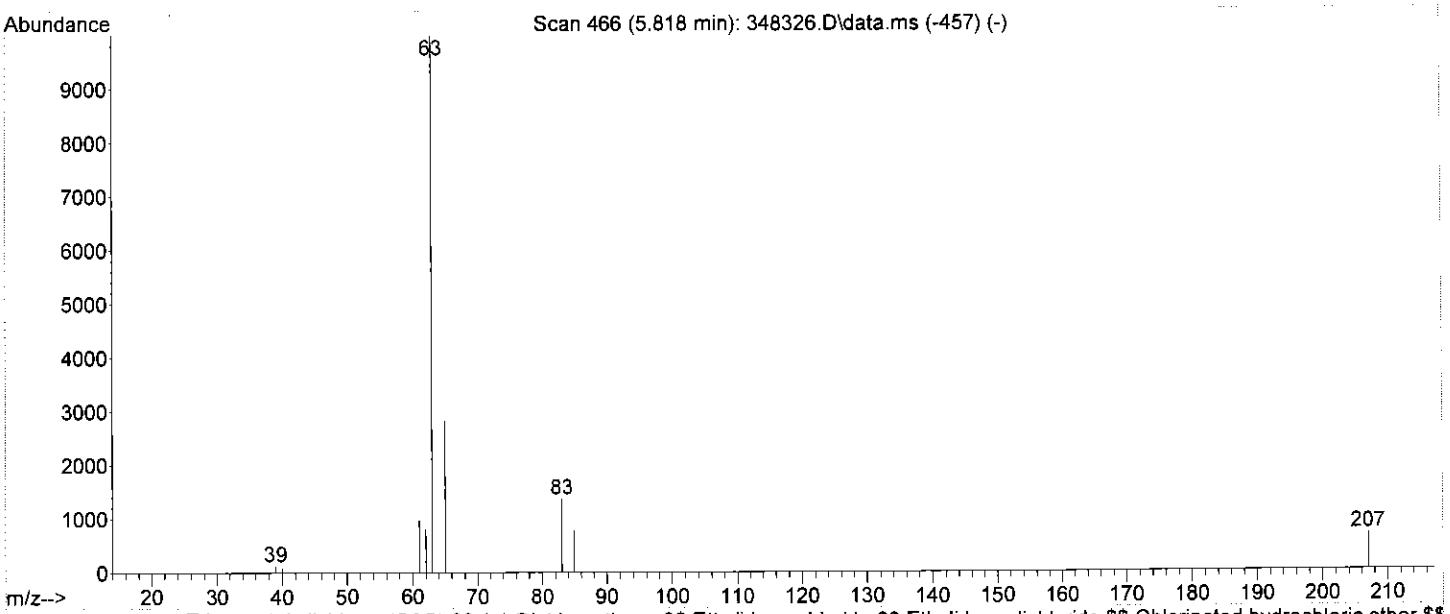


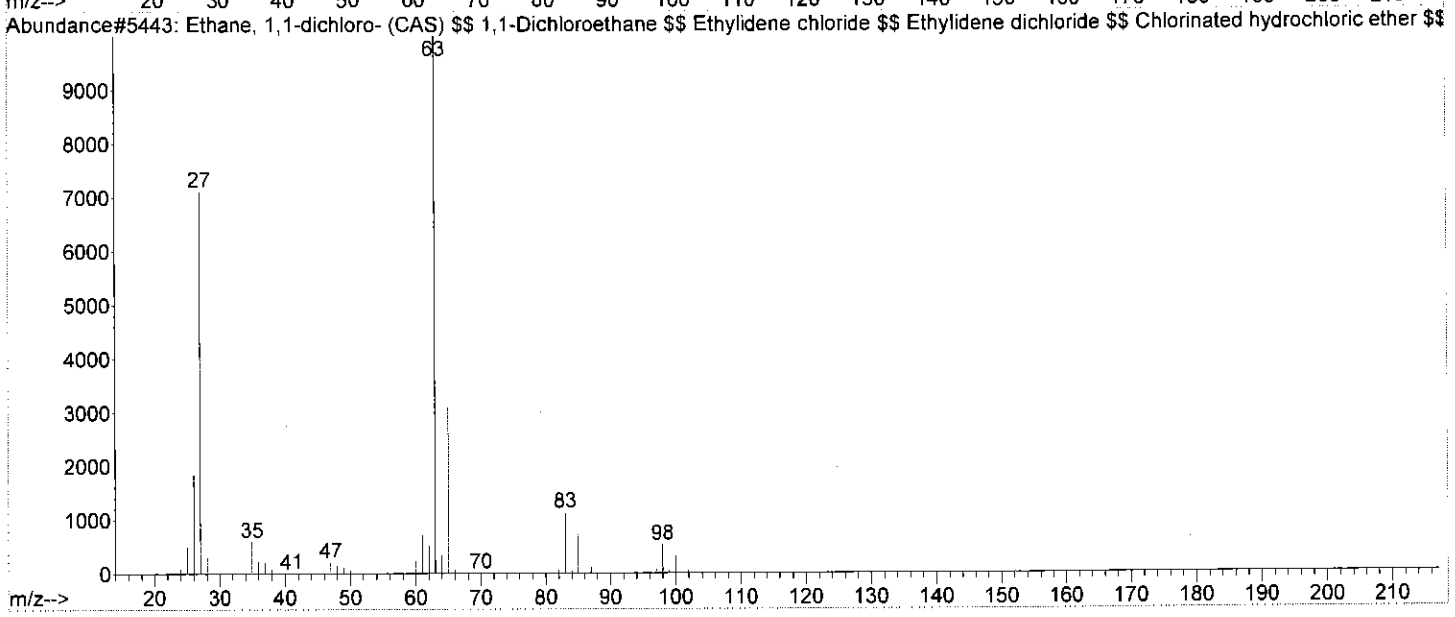
Library Searched : C:\Database\WILEY275.L
Quality : 97
ID : Ethene, 1,1-dichloro- (CAS) $$ 1,1-Dichloroethylene $$ Sconatex $$ 1,1-Dichloroethene $$ Vinylidene chloride $$ Ethylene, 1,1-dichloro- $$ 1,1-Dichloro-ethylene $$ Vinylidine chloride $$ CH2=CCl2 $$ Chlorure de vinylidene $$ 1,1-DCE $$ NCI-C54262 $$ Rcra



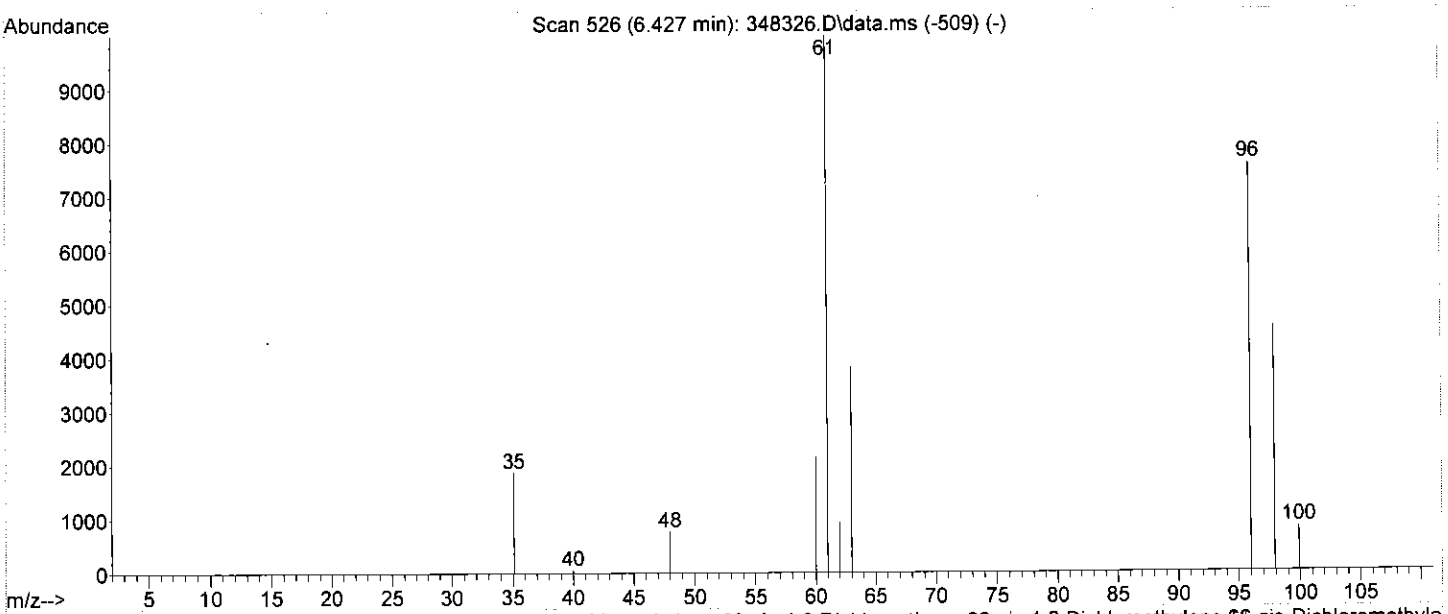


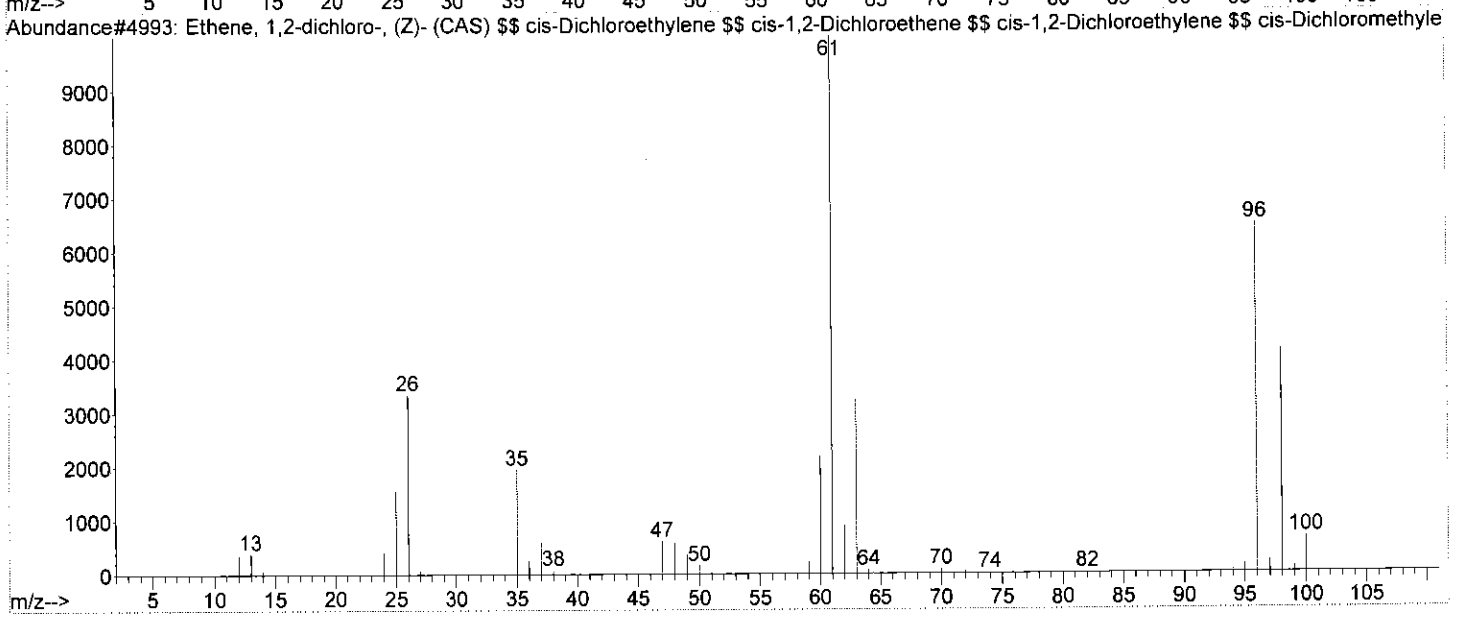
Library Searched : C:\Database\WILEY275.L
Quality : 74
ID : Ethane, 1,1-dichloro- (CAS) $$ 1,1-Dichloroethane $$ Ethylidene chloride $$ Ethylidene dichloride $$ Chlorinated hydrochloric ether $$ Dichloromethylmethane $$ CH3CHCl2 $$ Aethylidenchlorid $$ Chlorure D'ethylidene $$ Cloruro di etilidene $$ 1,1-Dichloore



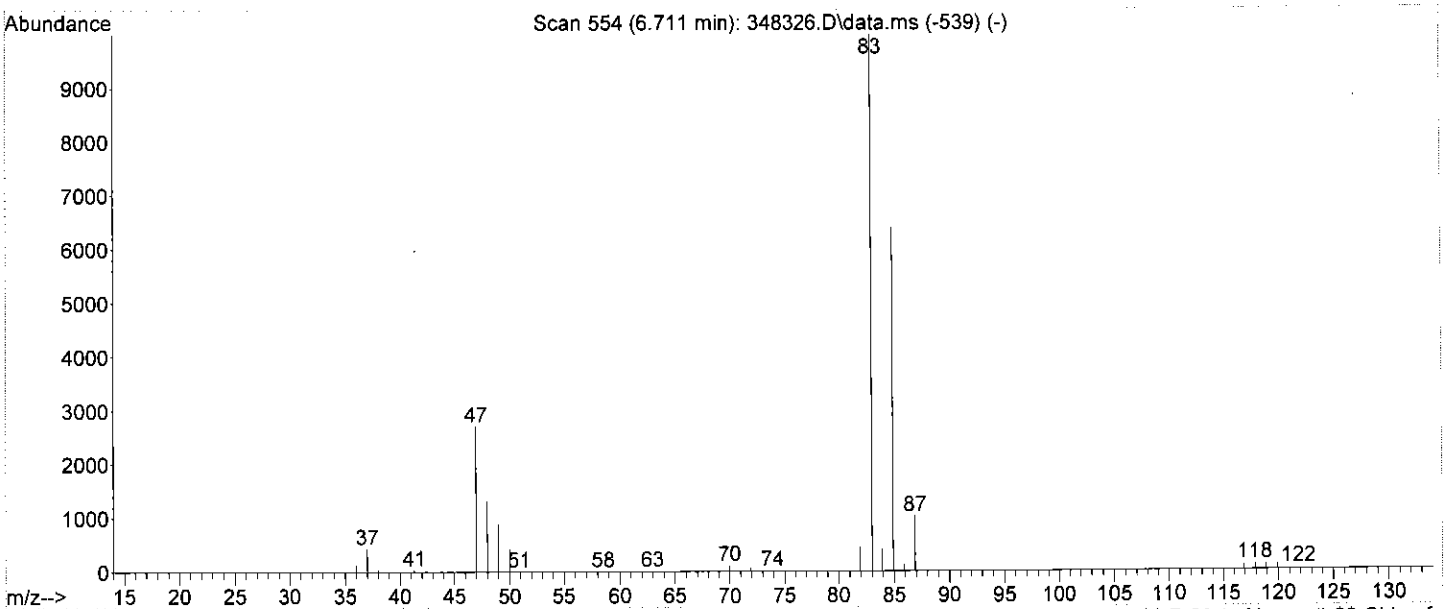


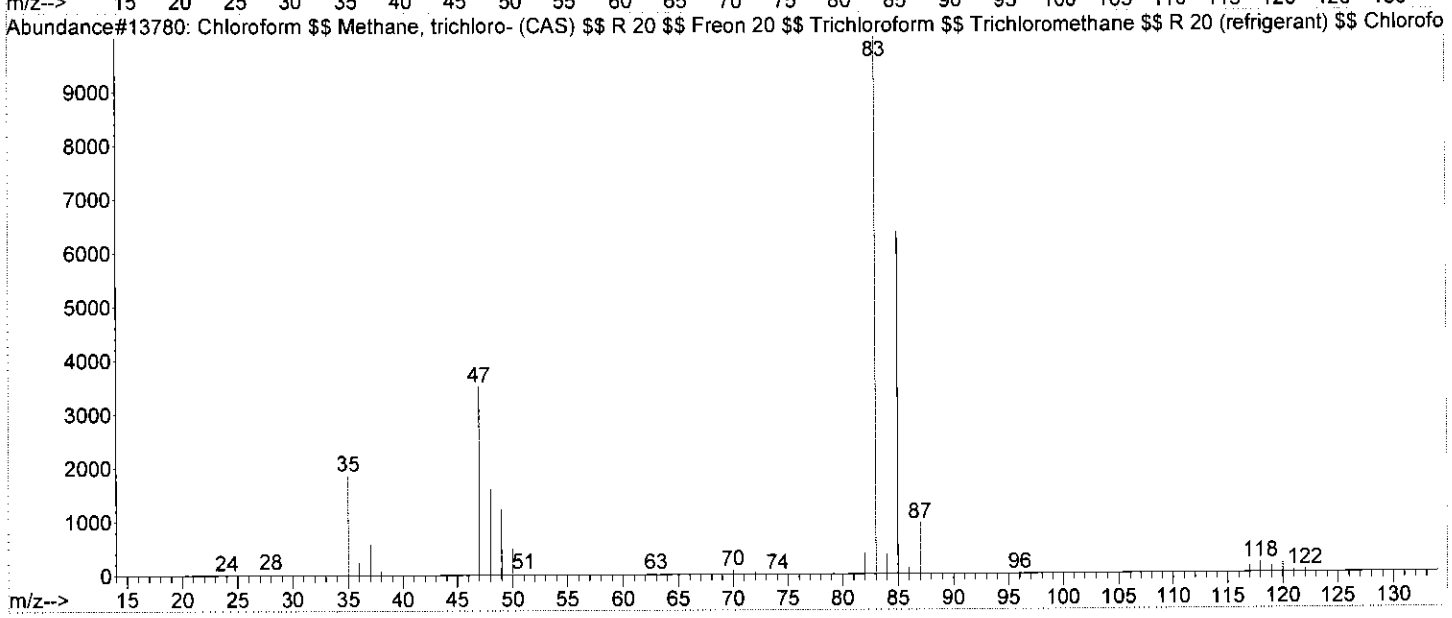
Library Searched : C:\Database\WILEY275.L
Quality : 94
ID : Ethene, 1,2-dichloro-, (Z)- (CAS) $$ cis-Dichloroethylene $$ cis-1,2-Dichloroethene $$ cis-1,2-Dichloroethylene $$ cis-Dichloromethylene $$ (Z)-1,2-Dichloroethylene $$ 1,2-cis-Dichloroethylene $$ cis-Di-1,2-Chloroethylene $$ Ethylene, 1,2-dichloro-, (Z)-



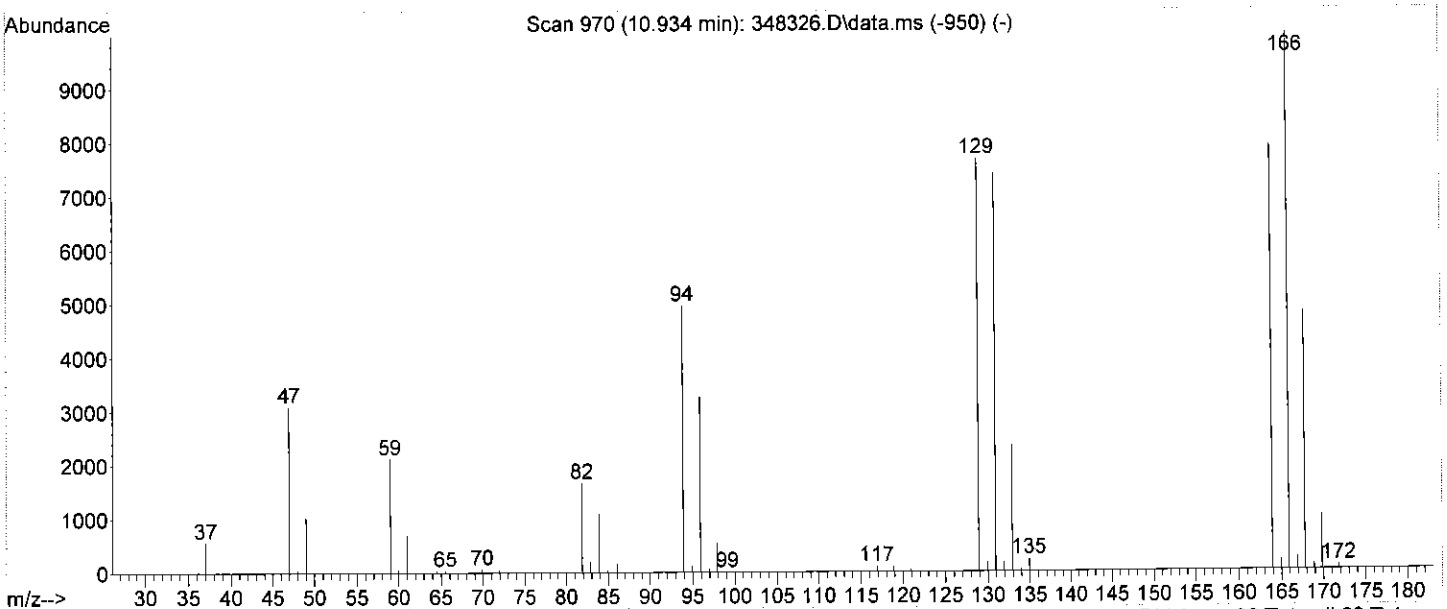


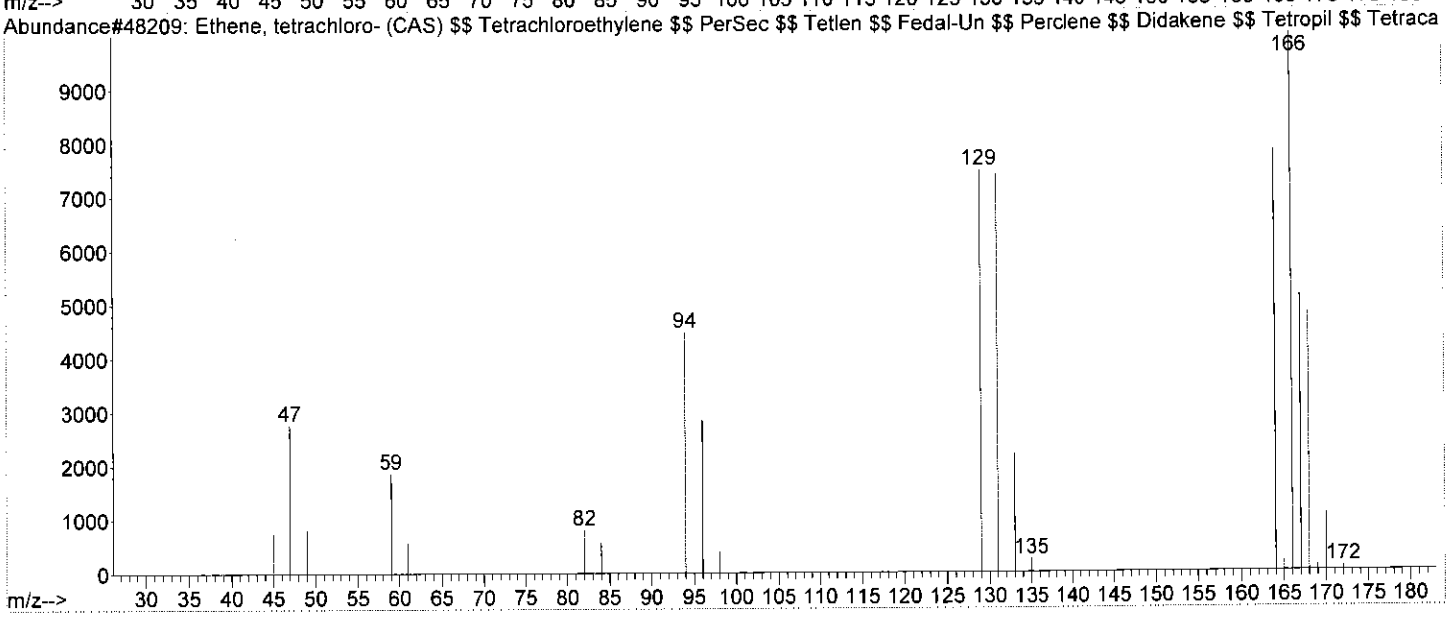
Library Searched : C:\Database\WILEY275.L
Quality : 64
ID : Chloroform $$ Methane, trichloro- (CAS) $$ R 20 $$ Freon 20 $$ Trichloroform $$ Trichloromethane $$ R 20 (refrigerant) $$ Chloroform (ACN)(DOT) $$ TRICHLORO METHANE (CHLOROFORM) $$ CHCl3 $$ Formyl trichloride $$ Methane trichloride $$ Methenyl trichloride





Library Searched : C:\Database\WILEY275.L
Quality : 99
ID : Ethene, tetrachloro- (CAS) $$ Tetrachloroethylene $$ PerSec $$ Tetlen $$ Fedal -Un $$ Perclene $$ Didakene $$ Tetropil $$ Tetracap $$ Antisal 1 $$ Tetraguer $$ Tetraleno $$ Ankilostin $$ Perchlorethylene $$ Perchloroethylene $$ Tetrach loroethene $$ Tetrach





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348326.D
q On : 5 Oct 2018 7:07 am
erator : NIVA
mple : 2951570
sc : RUN203484
S Vial : 38 Sample Multiplier: 1

ant Time: Oct 09 15:09:15 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	264397	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.193	114	430433	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	12.863	117	349009	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.914	152	132228	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	169361	20.63 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.15%		
39) STOLUENE-D8	10.193	98	485144	19.56 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.80%		
59) S4BRFLUOROBENZENE	15.137	95	152517	18.94 µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.70%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1735	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.533	94	136	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	4.376	61	253451	101.18 µg/L	94
11) IODOMETHANE	4.559	142	282	N.D.	
12) CARBON DISULFIDE	4.457	76	732	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D.	
15) TRANS12DICLETHENE	5.158	96	73	N.D.	
16) 11-DICHLOROETHANE	5.818	63	3562	0.60 µg/L #	90
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	6.427	96	2791	0.82 µg/L	86
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.711	83	921762	141.89 µg/L	100
22) BROMOCHLOROMETHANE	0.000		0	N.D. d	
25) TETRAHYDROFURAN	0.000		0	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	7.706	62	231	N.D.	
29) CARBONTETRACHLORIDE	6.863	117	674	N.D.	
30) BENZENE	7.452	78	771	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D. d	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.284	91	65	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	11.208	97	148	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348326.D
Acq On : 5 Oct 2018 7:07 am
Operator : NIVA
Sample : 2951570
Misc : RUN203484
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 09 15:09:15 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

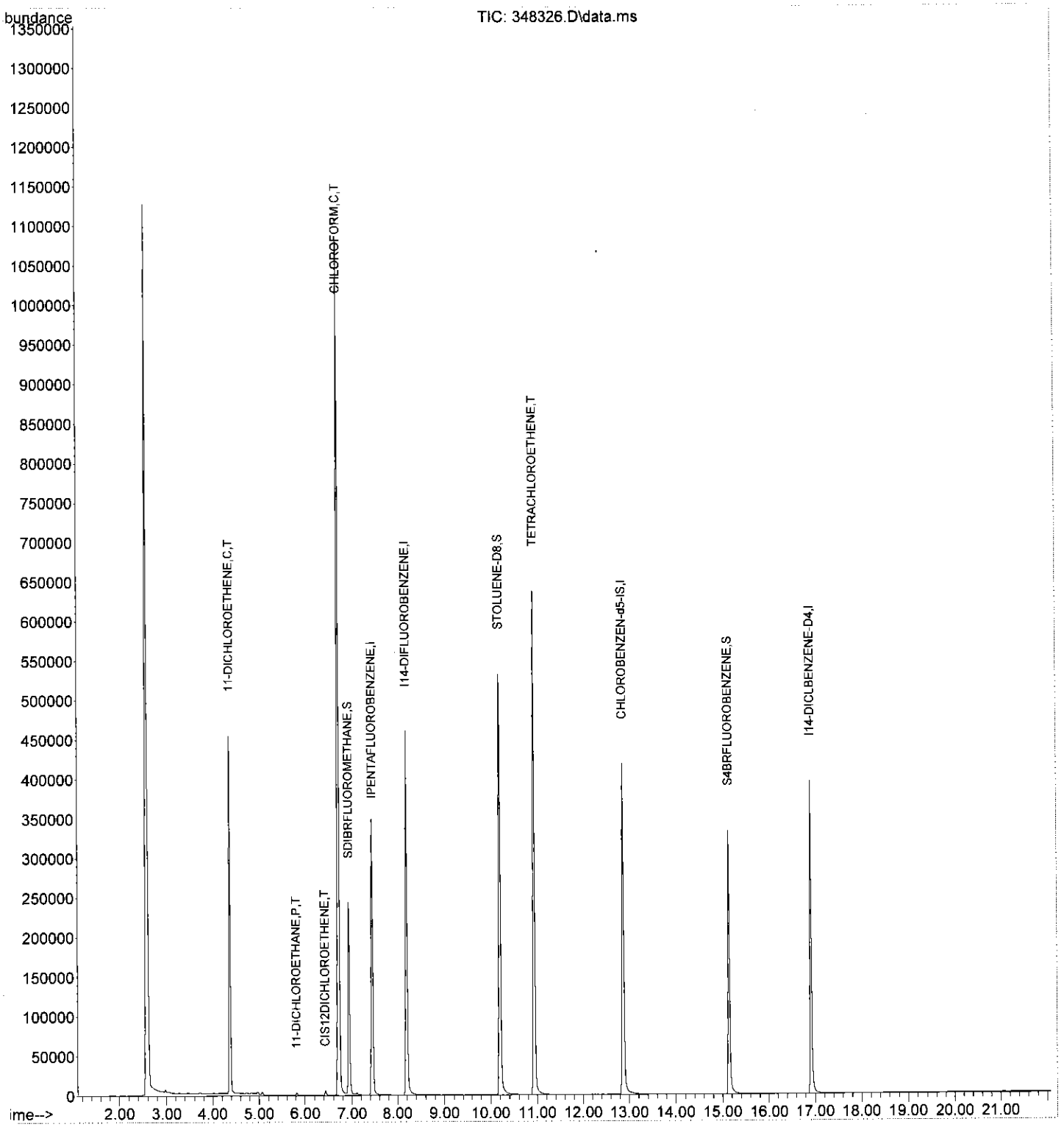
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.934	166	245259	85.08 µg/L	90
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.873	91	1042	N.D.	
53) MP-XYLENE	13.188	91	654	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.147	77	306	N.D.	
63) N-PROPYLBENZENE	15.137	91	537	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

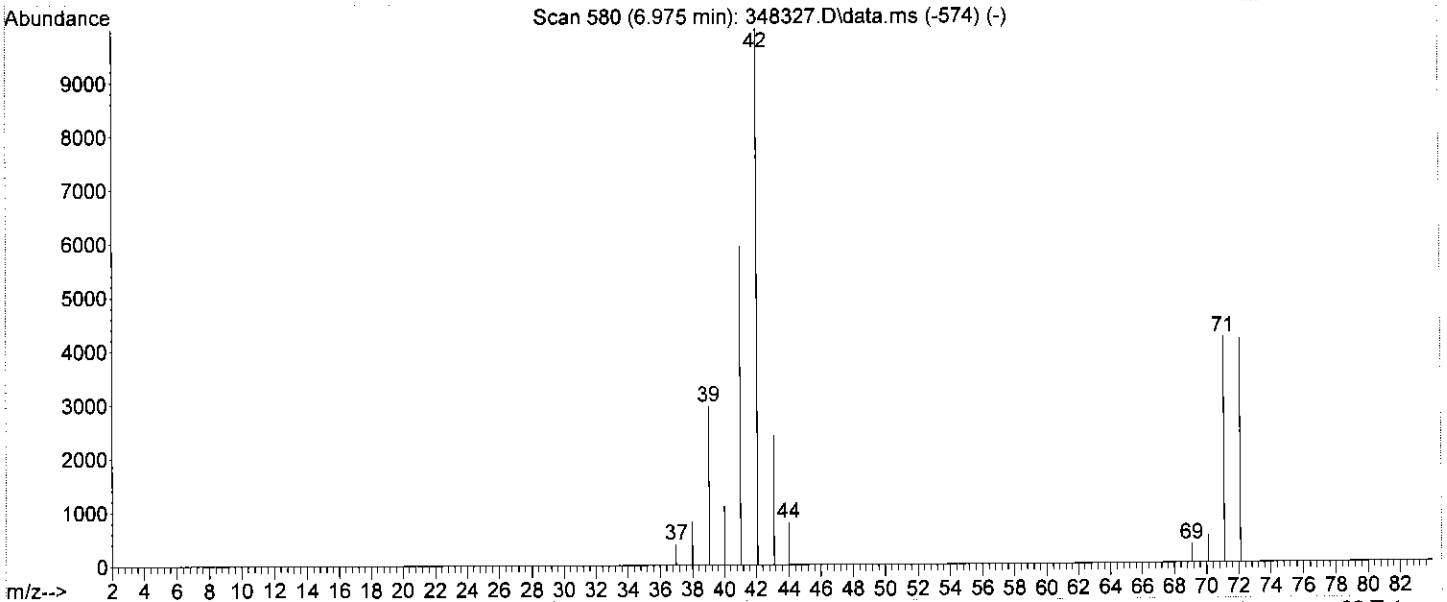
Quantitation Report (QT Reviewed)

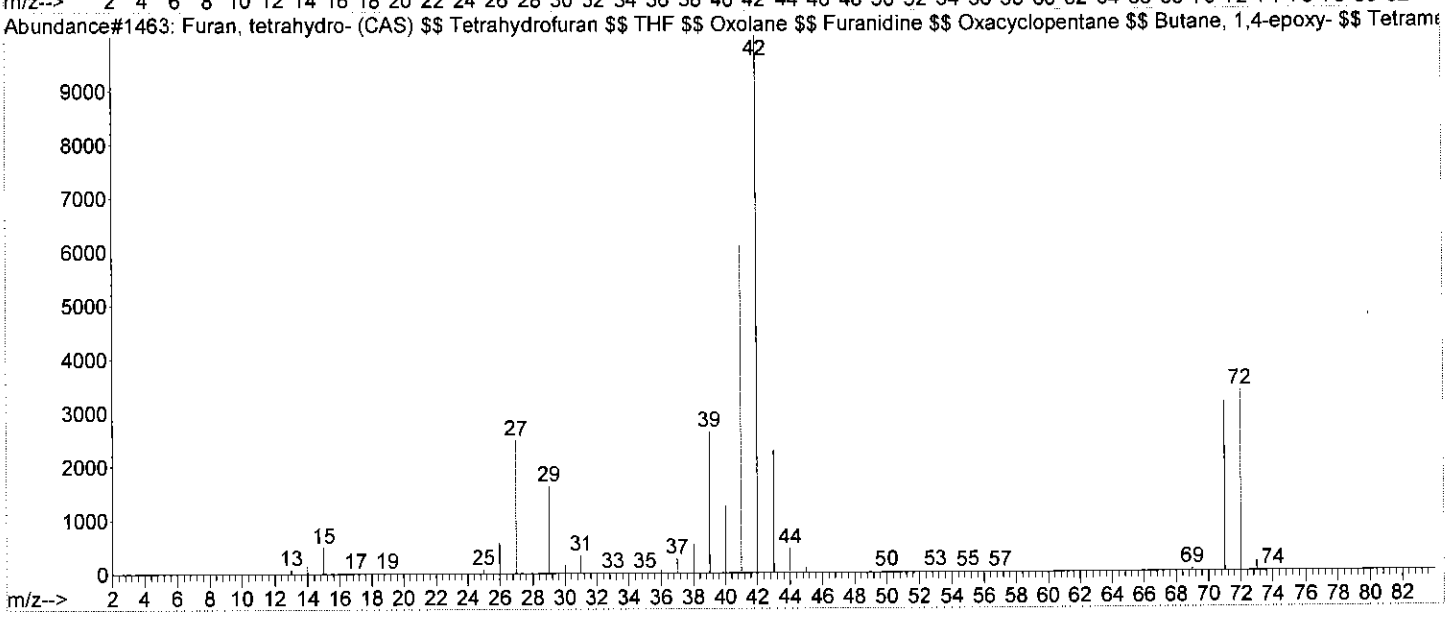
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348326.D
cq On : 5 Oct 2018 7:07 am
perator : NIVA
ample : 2951570
isc : RUN203484
LS Vial : 38 Sample Multiplier: 1

uant Time: Oct 09 15:09:15 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 90
ID : Furan, tetrahydro- (CAS) $$ Tetrahydrofuran $$ THF $$ Oxolane $$ Furanidine $$ Oxacyclopentane $$ Butane, 1,4-epoxy- $$ Tetramethylene oxide $$ Cyclotetramethylene oxide $$ Butane .alpha.,.delta.-oxide $$ Butylene Oxide $$ Diethylene oxide $$ Hydrofuran $





Quantitation Report (QT Reviewed)

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ta File : 348327.D
q On : 5 Oct 2018 7:33 am
erator : NIVA
mple : 2951571
sc : RUN203484
S Vial : 39 Sample Multiplier: 1

ant Time: Oct 09 15:10:30 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.452	168	256288	20.00 µg/L	0.02
23) I14-DIFLUOROBENZENE	8.193	114	413971	20.00 µg/L	0.01
48) CHLOROBENZEN-d5-IS	12.863	117	333668	20.00 µg/L	-0.01
71) I14-DICLBENZENE-D4	16.903	152	126361	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	159771	20.24 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.20%		
39) STOLUENE-D8	10.193	98	467580	19.60 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.00%		
59) S4BRFLUOROBENZENE	15.137	95	146178	18.98 µg/L	0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 94.90%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1545	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.543	94	154	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	4.376	61	422	N.D.	
11) IODOMETHANE	4.569	142	406	N.D.	
12) CARBON DISULFIDE	4.457	76	536	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.975	84	64	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.721	83	1104	N.D.	
22) BROMOCHLOROMETHANE	0.000		0	N.D.	
25) TETRAHYDROFURAN	6.955	42	25736	32.10 µg/L	97
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.863	117	548	N.D.	
30) BENZENE	7.452	78	155	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348327.D
Acq On : 5 Oct 2018 7:33 am
Operator : NIVA
Sample : 2951571
Misc : RUN203484
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 09 15:10:30 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

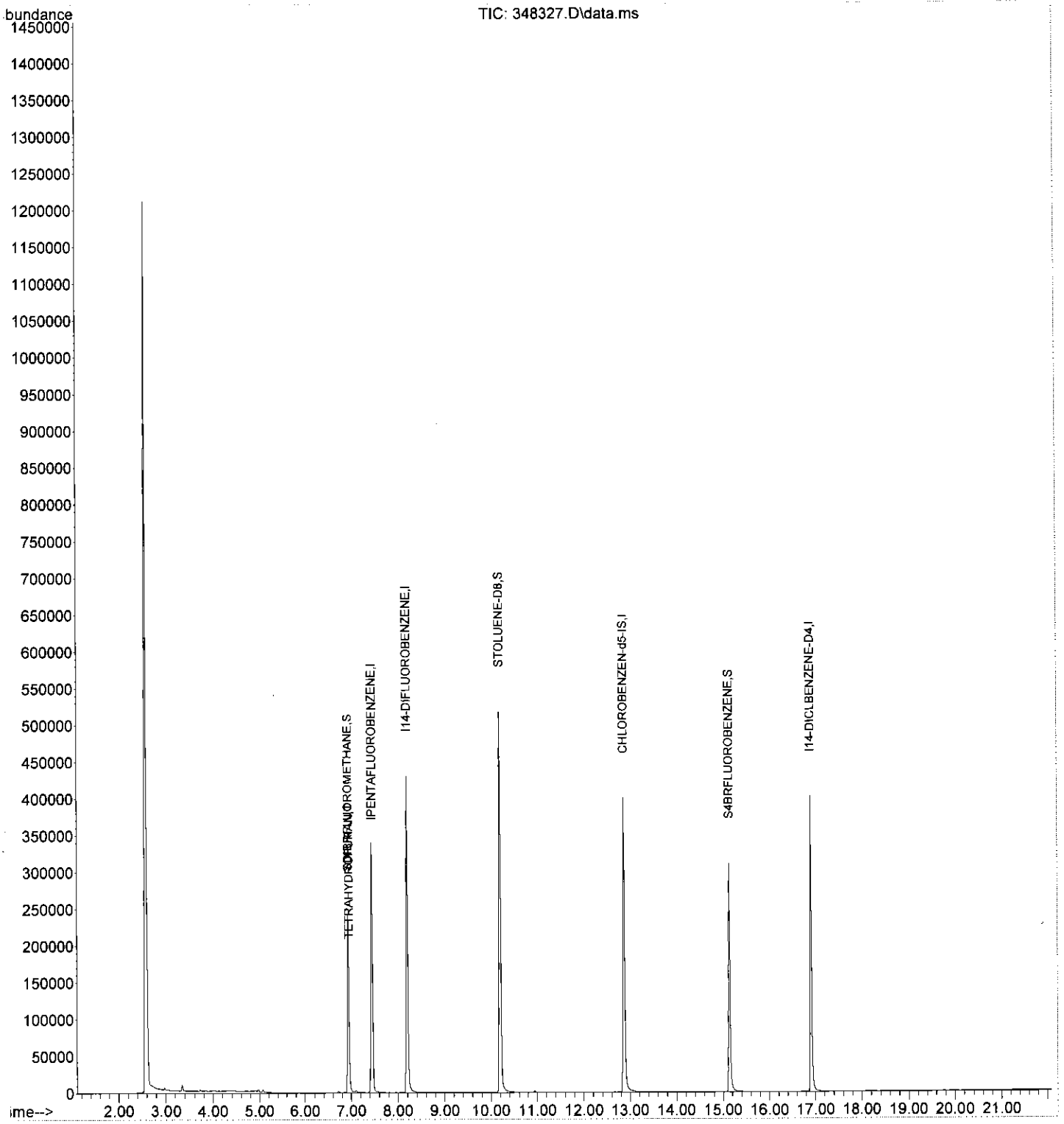
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.934	166	918	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.873	91	903	N.D.	
53) MP-XYLENE	13.188	91	528	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.127	77	729	N.D.	
63) N-PROPYLBENZENE	15.350	91	64	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348327.D
cq On : 5 Oct 2018 7:33 am
perator : NIVA
ample : 2951571
isc : RUN203484
LS Vial : 39 Sample Multiplier: 1

uant Time: Oct 09 15:10:30 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348328.D
q On : 5 Oct 2018 7:59 am
erator : NIVA
mple : 2947550
sc : RUN203487
S Vial : 40 Sample Multiplier: 1

ant Time: Oct 09 15:12:09 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.442	168	254544	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.193	114	416768	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	12.863	117	336418	20.00 µg/L	-0.01
71) I14-DICLBENZENE-D4	16.903	152	129012	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	160511	20.20 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.00%		
39) STOLUENE-D8	10.193	98	472790	19.68 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.40%		
59) S4BRFLUOROBENZENE	15.127	95	148081	19.07 µg/L	0.06
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.35%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1445	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.543	94	130	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D.	d
10) 11-DICHLOROETHENE	4.376	61	62	N.D.	
11) IODOMETHANE	4.569	142	280	N.D.	
12) CARBON DISULFIDE	4.457	76	582	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D.	d
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.711	83	510	N.D.	
22) BROMOCHLOROMETHANE	0.000		0	N.D.	
25) TETRAHYDROFURAN	6.965	42	141	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.863	117	705	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D.	d
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	10.284	91	362	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348328.D
Acq On : 5 Oct 2018 7:59 am
Operator : NIVA
Sample : 2947550
Misc : RUN203487
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Oct 09 15:12:09 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

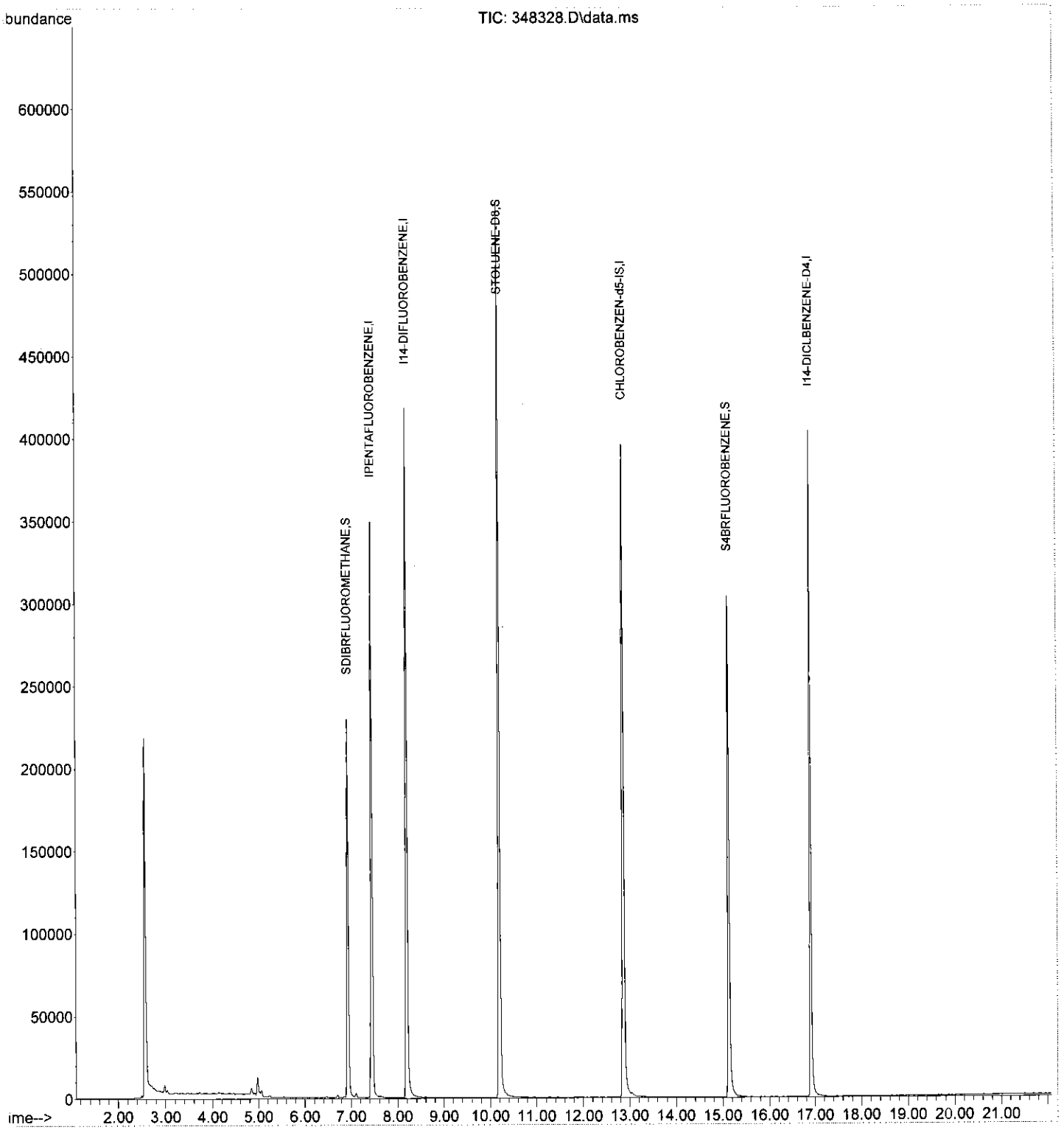
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.944	166	294	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.863	91	831	N.D.	
53) MP-XYLENE	13.188	91	545	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.127	77	919	N.D.	
63) N-PROPYLBENZENE	15.137	91	502	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	17.279	91	61	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

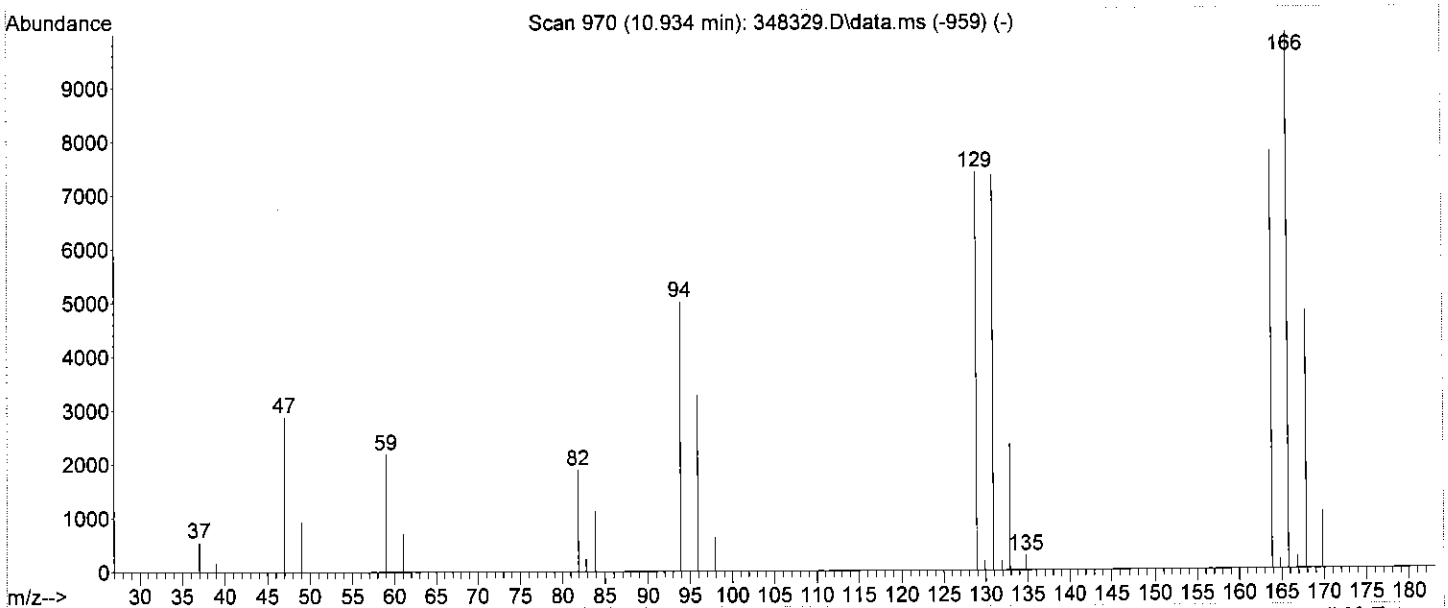
Quantitation Report (QT Reviewed)

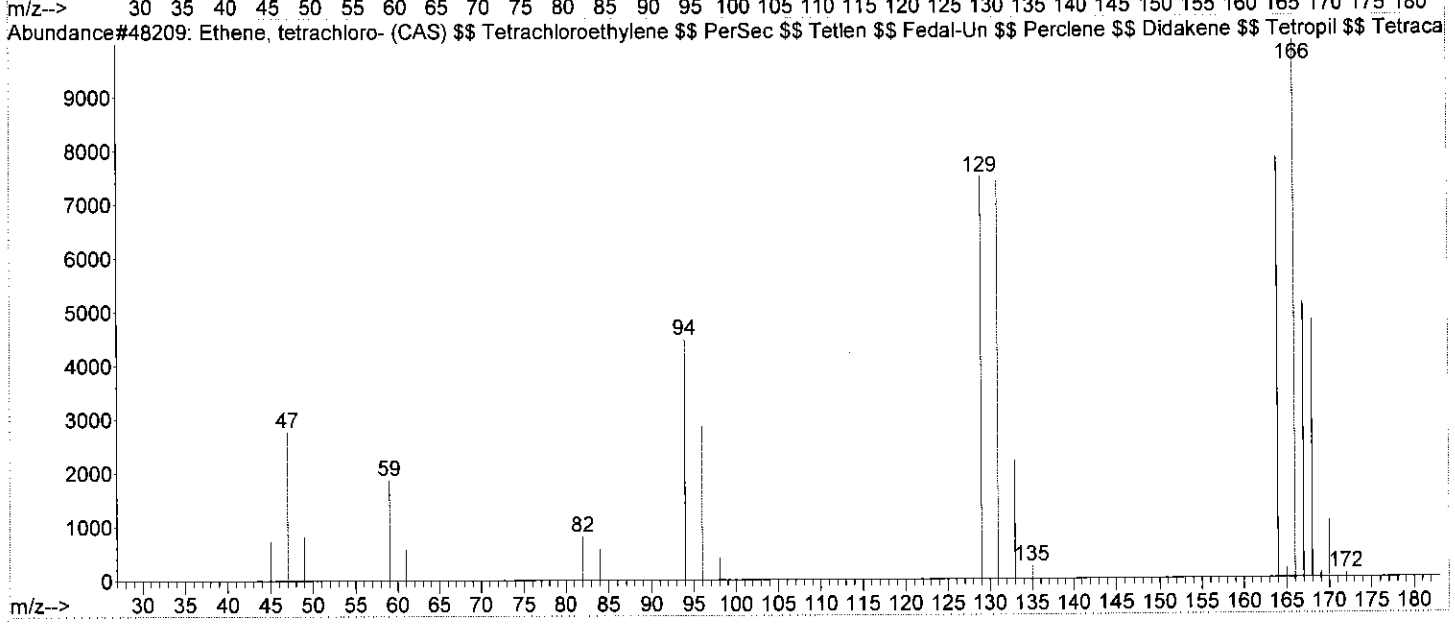
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348328.D
cq On : 5 Oct 2018 7:59 am
perator : NIVA
ample : 2947550
isc : RUN203487
LS Vial : 40 Sample Multiplier: 1

uant Time: Oct 09 15:12:09 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 99
ID : Ethene, tetrachloro- (CAS) $$ Tetrachloroethylene $$ PerSec $$ Tetlen $$ Fedal -Un $$ Perclene $$ Didakene $$ Tetropil $$ Tetracap $$ Antisal 1 $$ Tetraguer $$ Tetraleno $$ Ankilostin $$ Perchlorethylene $$ Perchloroethylene $$ Tetrach loroethene $$ Tetrach





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348329.D
q On : 5 Oct 2018 8:25 am
erator : NIVA
mple : 2947549
sc : RUN203487
S Vial : 41 Sample Multiplier: 1

ant Time: Oct 09 15:13:17 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.442	168	250109	20.00 µg/L	0.00
23) I14-DIFLUOROBENZENE	8.183	114	408291	20.00 µg/L	0.00
48) CHLOROBENZEN-d5-IS	12.863	117	329601	20.00 µg/L	0.00
71) I14-DICLBENZENE-D4	16.903	152	126600	20.00 µg/L	0.00
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.934	111	157944	20.28 µg/L	-0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.40%		
39) STOLUENE-D8	10.193	98	461953	19.63 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.15%		
59) S4BRFLUOROBENZENE	15.127	95	145700	19.16 µg/L	0.06
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.80%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.036	50	1501	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	0.000		0	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	d
7) TRICLFLUOROMETHANE	0.000		0	N.D.	d
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D.	d
10) 11-DICHLOROETHENE	0.000		0	N.D.	d
11) IODOMETHANE	4.559	142	178	N.D.	
12) CARBON DISULFIDE	4.447	76	487	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.975	84	464	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	5.939	63	358	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	d
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.711	83	2801	N.D.	
22) BROMOCHLOROMETHANE	6.711	49	186	N.D.	
25) TETRAHYDROFURAN	0.000		0	N.D.	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.853	117	829	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	8.193	132	1264	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	9.858	63	824	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D.	d
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348329.D
Acq On : 5 Oct 2018 8:25 am
Operator : NIVA
Sample : 2947549
Misc : RUN203487
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 09 15:13:17 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

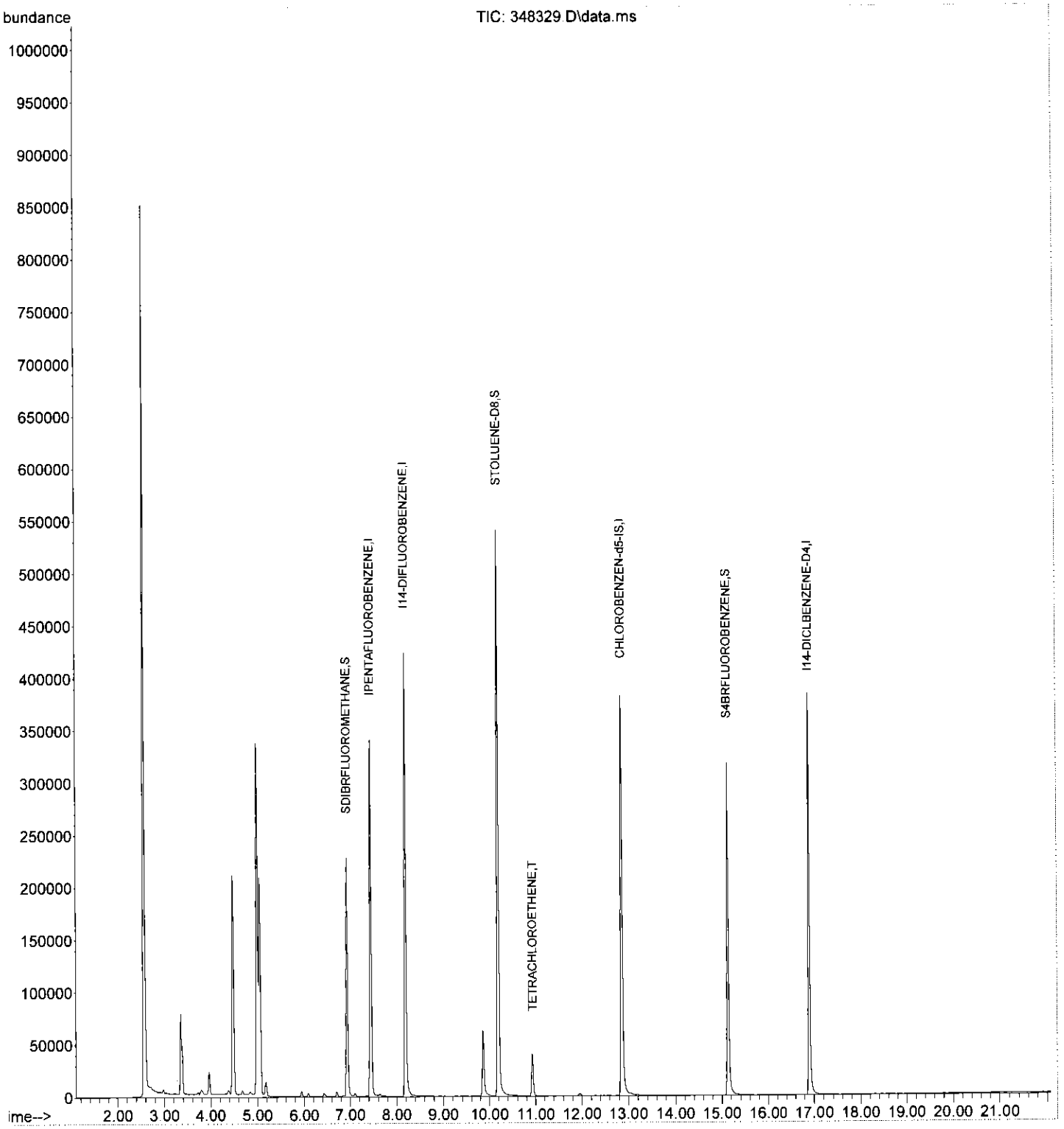
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	10.934	166	16618	6.08 µg/L	91
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.863	91	535	N.D.	
53) MP-XYLENE	13.178	91	587	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.137	77	537	N.D.	
63) N-PROPYLBENZENE	15.127	91	443	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

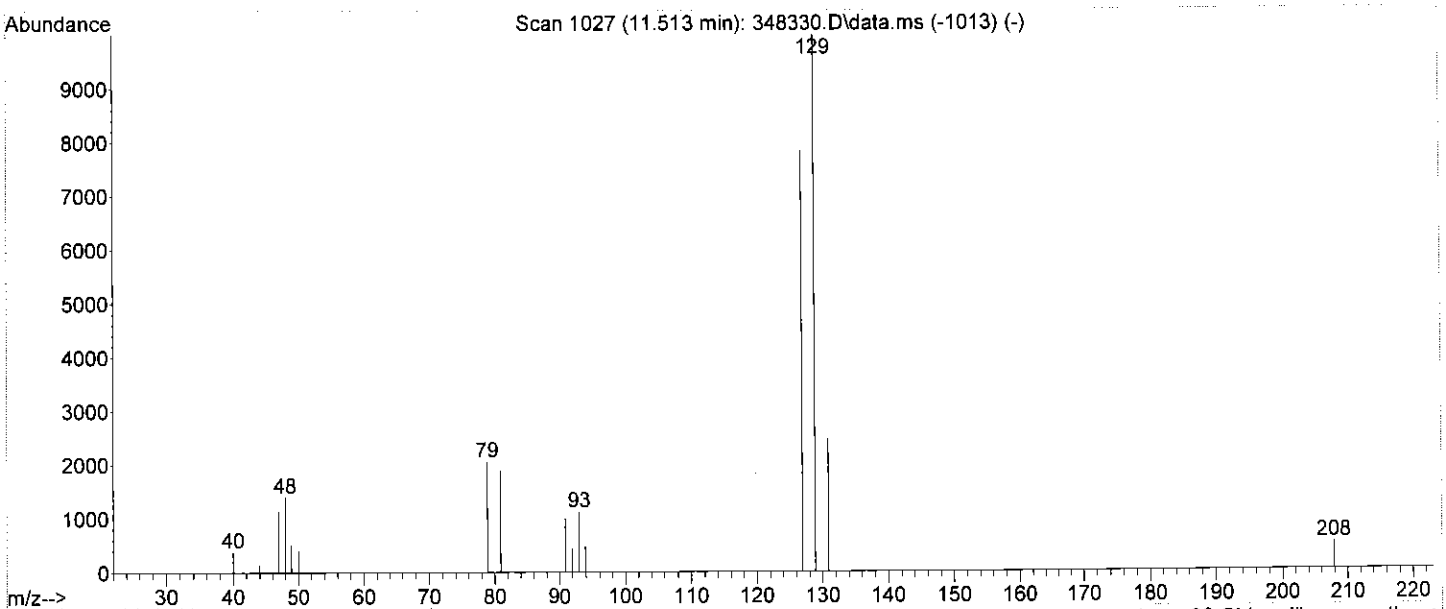
Quantitation Report (QT Reviewed)

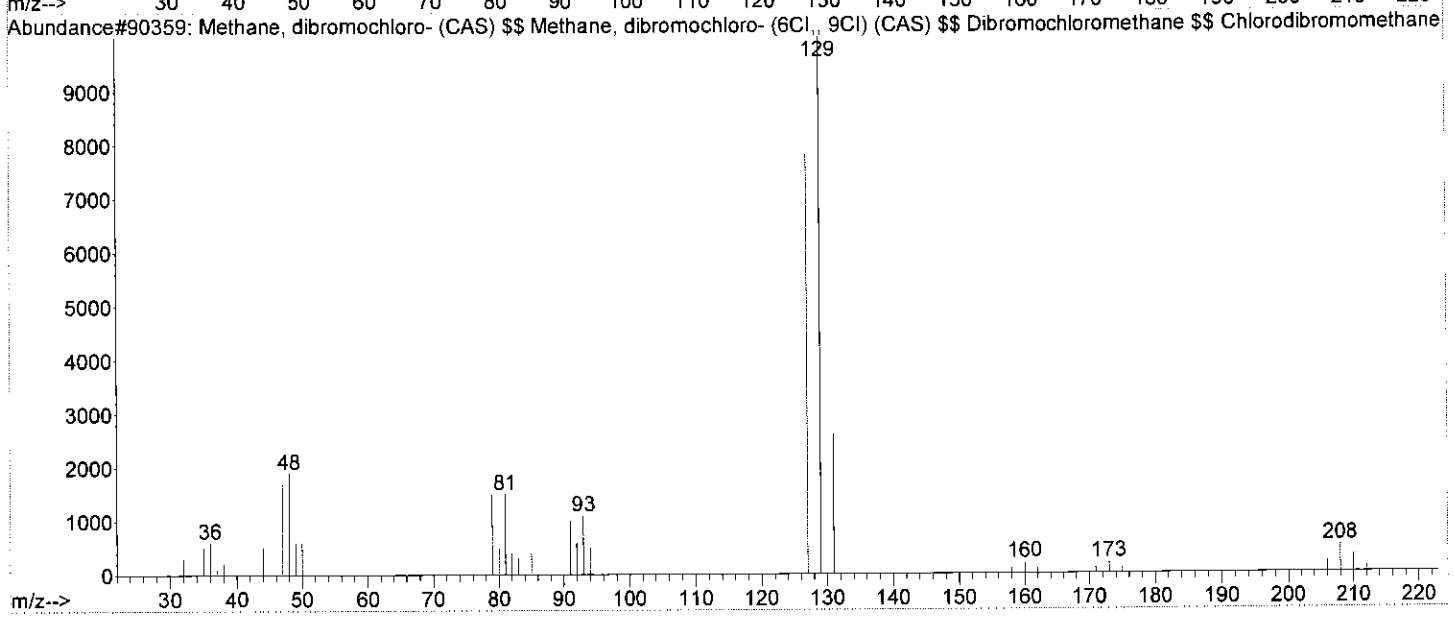
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348329.D
cq On : 5 Oct 2018 8:25 am
perator : NIVA
ample : 2947549
isc : RUN203487
LS Vial : 41 Sample Multiplier: 1

uant Time: Oct 09 15:13:17 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS

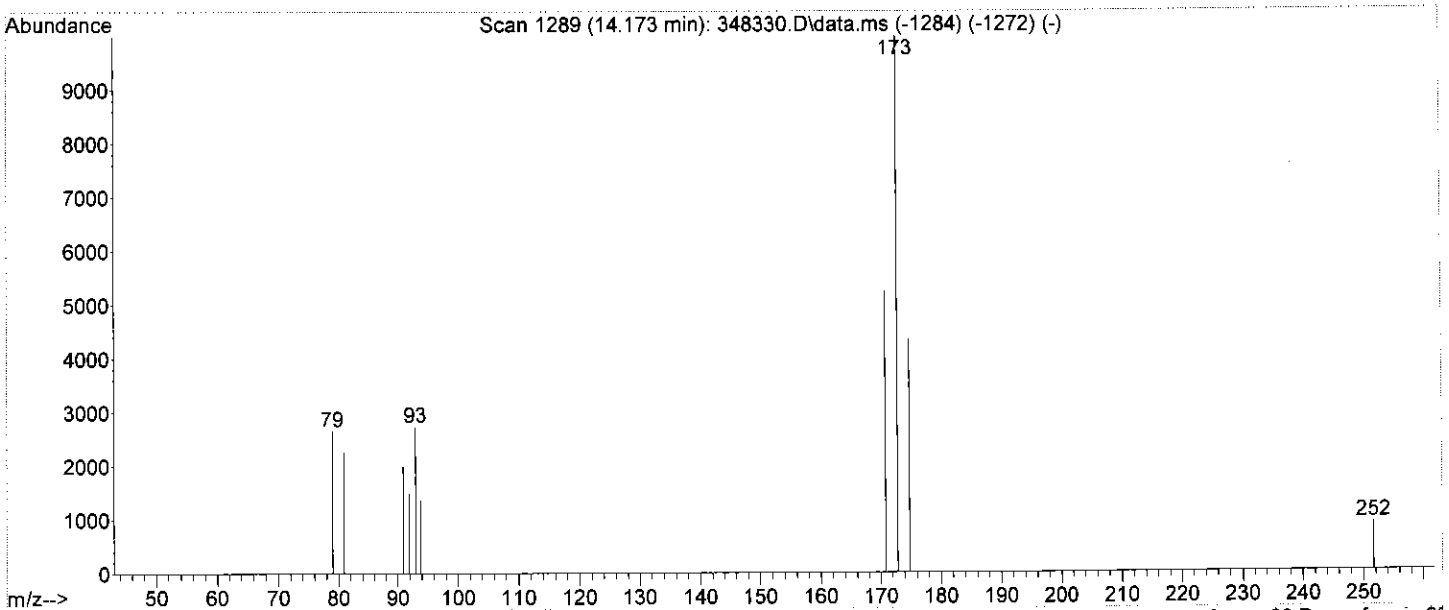


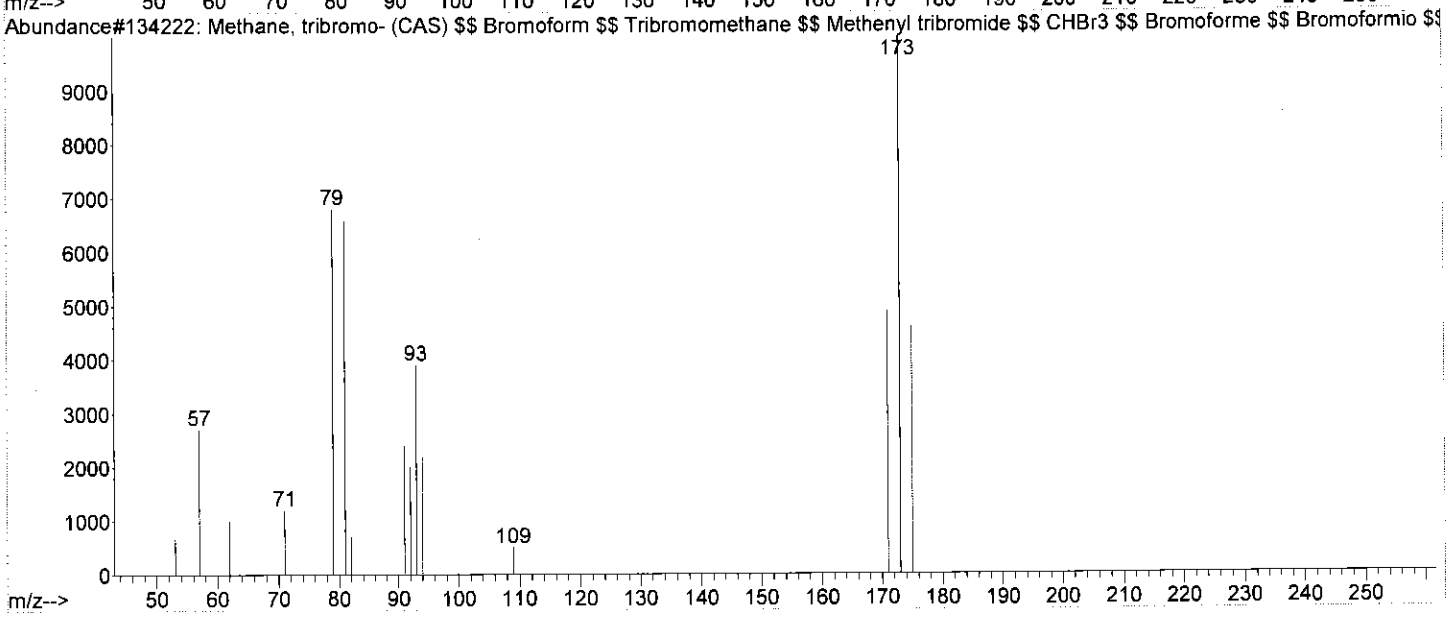
Library Searched : C:\Database\WILEY275.L
Quality : 94
ID : Methane, dibromochloro- (CAS) $$ Methane, dibromochloro- (6CI,, 9CI) (CAS) $$ Dibromochloromethane $$ Chlorodibromomethane $$ Monochlorodibromomethane $$ Dibromomonochloromethane $$ CHClBr2 $$ Methane, chlorodibromo- $$ Cdbm $$ NCI-C55254





Library Searched : C:\Database\WILEY275.L
Quality : 9
ID : Methane, tribromo- (CAS) $$ Bromoform $$ Tribromomethane $$ Methenyl tribromide $$ CHBr3 $$ Bromoforme $$ Bromoformio $$ NCI-C55130 $$ Tribrommethaan $$ Tribrommethan $$ Tribromometan $$ Rcra waste number U225 $$ UN 2515





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348330.D
q On : 5 Oct 2018 8:51 am
erator : NIVA
mple : 2947545
sc : RUN203487
S Vial : 42 Sample Multiplier: 1

ant Time: Oct 09 15:15:24 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.422	168	254023	20.00	µg/L	-0.01
23) I14-DIFLUOROBENZENE	8.173	114	414253	20.00	µg/L	-0.01
48) CHLOROBENZEN-d5-IS	12.843	117	341001	20.00	µg/L	-0.03
71) I14-DICLBENZENE-D4	16.883	152	131712	20.00	µg/L	-0.03
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.914	111	161959	20.50	µg/L	-0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.50%			
39) STOLUENE-D8	10.173	98	469617	19.67	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.35%			
59) S4BRFLUOROBENZENE	15.107	95	151584	19.26	µg/L	0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.30%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.		
3) CHLOROMETHANE	3.026	50	1697	N.D.		
4) VINYL CHLORIDE	0.000		0	N.D.		
5) BROMOMETHANE	3.513	94	262	N.D.		
6) CHLOROETHANE	0.000		0	N.D.		
7) TRICLFLUOROMETHANE	0.000		0	N.D.		
8) ACROLEIN	0.000		0	N.D.		
9) ACETONE	0.000		0	N.D.	d	
10) 11-DICHLOROETHENE	0.000		0	N.D.		
11) IODOMETHANE	4.549	142	746	N.D.		
12) CARBON DISULFIDE	4.437	76	502	N.D.		
13) ACRYLONITRILE	0.000		0	N.D.		
14) DICHLOROMETHANE	4.965	84	203	N.D.		
15) TRANS12DICLETHENE	0.000		0	N.D.		
16) 11-DICHLOROETHANE	0.000		0	N.D.		
17) VINYL ACETATE	0.000		0	N.D.		
18) 2-BUTANONE	7.066	43	235	N.D.		
19) CIS12DICHLOROETHENE	0.000		0	N.D.		
20) 22-DICHLOROPROPANE	0.000		0	N.D.		
21) CHLOROFORM	6.691	83	323	N.D.		
22) BROMOCHLOROMETHANE	0.000		0	N.D.		
25) TETRAHYDROFURAN	0.000		0	N.D.	d	
26) 111-TRICHLOROETHANE	0.000		0	N.D.		
27) 11-DICHLOROPROPENE	0.000		0	N.D.		
28) 12-DICHLOROETHANE	0.000		0	N.D.		
29) CARBONTETRACHLORIDE	6.843	117	699	N.D.		
30) BENZENE	0.000		0	N.D.		
31) TRICHLOROETHENE	0.000		0	N.D.		
32) 12-DICHLOROPROPANE	0.000		0	N.D.		
33) DIBROMOMETHANE	0.000		0	N.D.		
34) BROMODICLMETHANE	0.000		0	N.D.	d	
35) 2-CLETHYLVINYLETHER	9.848	63	722	N.D.		
36) EPICHLOROHYDRIN	0.000		0	N.D.	d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.		
38) CIS13DICLPROPENE	0.000		0	N.D.		
40) TOLUENE	0.000		0	N.D.		
41) TRANS13DICLPROPENE	0.000		0	N.D.		
42) 112-TRICHLOROETHANE	0.000		0	N.D.		
43) 2-HEXANONE	0.000		0	N.D.		
44) 13-DICHLOROPROPANE	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348330.D
Acq On : 5 Oct 2018 8:51 am
Operator : NIVA
Sample : 2947545
Misc : RUN203487
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 09 15:15:24 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

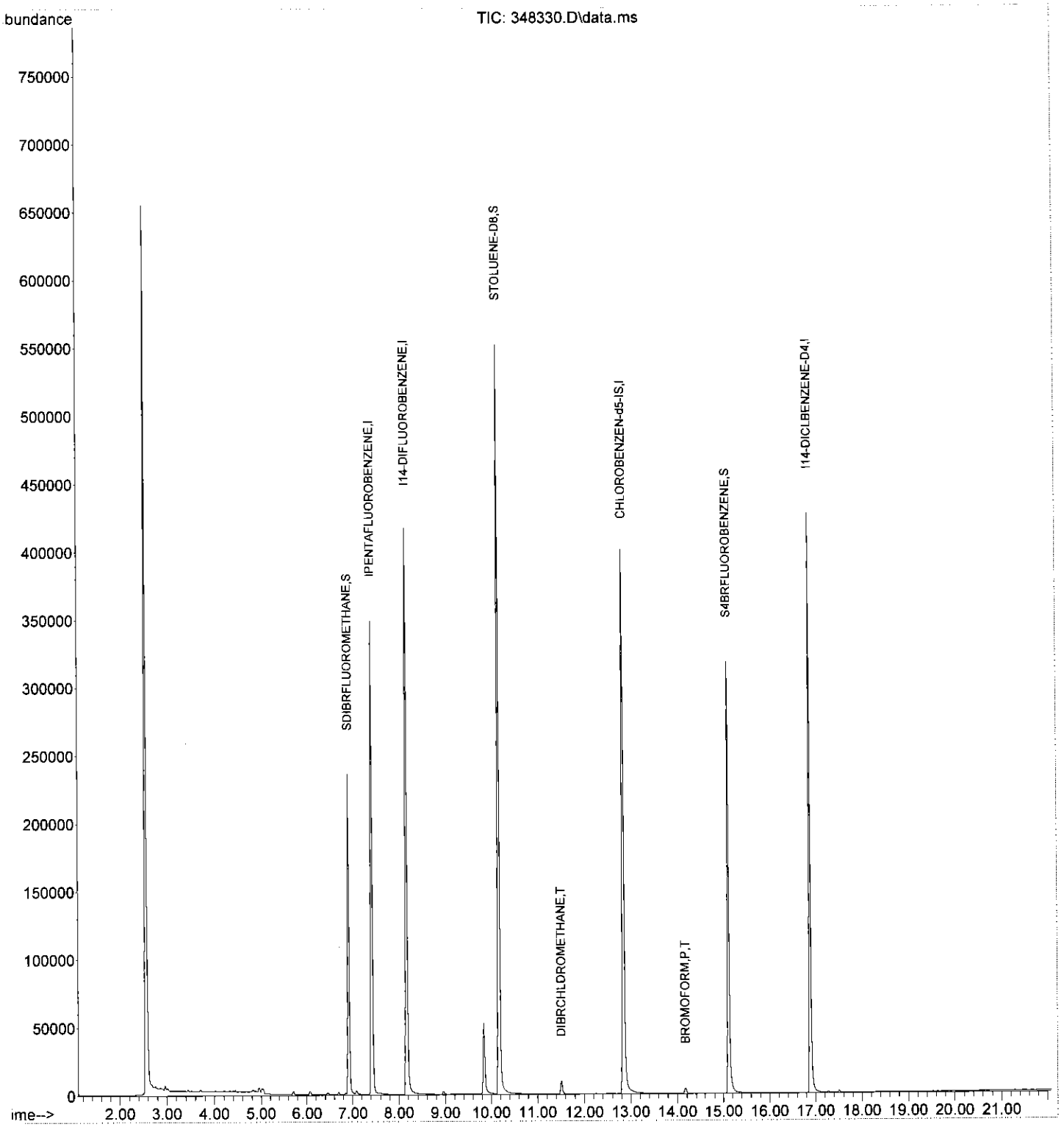
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.513	129	8497	2.40 µg/L	98
46) TETRACHLOROETHENE	10.914	166	82	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.843	91	626	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	14.173	173	3103	1.42 µg/L	96
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.117	77	451	N.D.	
63) N-PROPYLBENZENE	15.107	91	542	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348330.D
cq On : 5 Oct 2018 8:51 am
perator : NIVA
ample : 2947545
isc : RUN203487
LS Vial : 42 Sample Multiplier: 1

uant Time: Oct 09 15:15:24 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348331.D
q On : 5 Oct 2018 9:17 am
erator : NIVA
mple : 2947545DUP/2947546
sc : RUN203487
S Vial : 43 Sample Multiplier: 1

ant Time: Oct 09 15:18:29 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.412	168	227777	20.00 µg/L	-0.02
23) I14-DIFLUOROBENZENE	8.163	114	375074	20.00 µg/L	-0.02
48) CHLOROBENZEN-d5-IS	12.822	117	309306	20.00 µg/L	-0.05
71) I14-DICLBENZENE-D4	16.873	152	118712	20.00 µg/L	-0.04
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.904	111	146877	20.53 µg/L	-0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.65%		
39) STOLUENE-D8	10.163	98	427275	19.77 µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.85%		
59) S4BRFLUOROBENZENE	15.096	95	136221	19.08 µg/L	0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 95.40%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.016	50	1651	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.503	94	263	N.D.	
6) CHLOROETHANE	0.000		0	N.D.	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.539	142	516	N.D.	
12) CARBON DISULFIDE	4.427	76	498	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	4.955	84	218	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	7.066	43	312	N.D.	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.681	83	298	N.D.	
22) BROMOCHLOROMETHANE	0.000		0	N.D.	
25) TETRAHYDROFURAN	0.000		0	N.D. d	
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.823	117	707	N.D.	
30) BENZENE	0.000		0	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D. d	
35) 2-CLETHYLVINYLETHER	9.838	63	504	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348331.D
Acq On : 5 Oct 2018 9:17 am
Operator : NIVA
Sample : 2947545DUP/2947546
Misc : RUN203487
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Oct 09 15:18:29 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

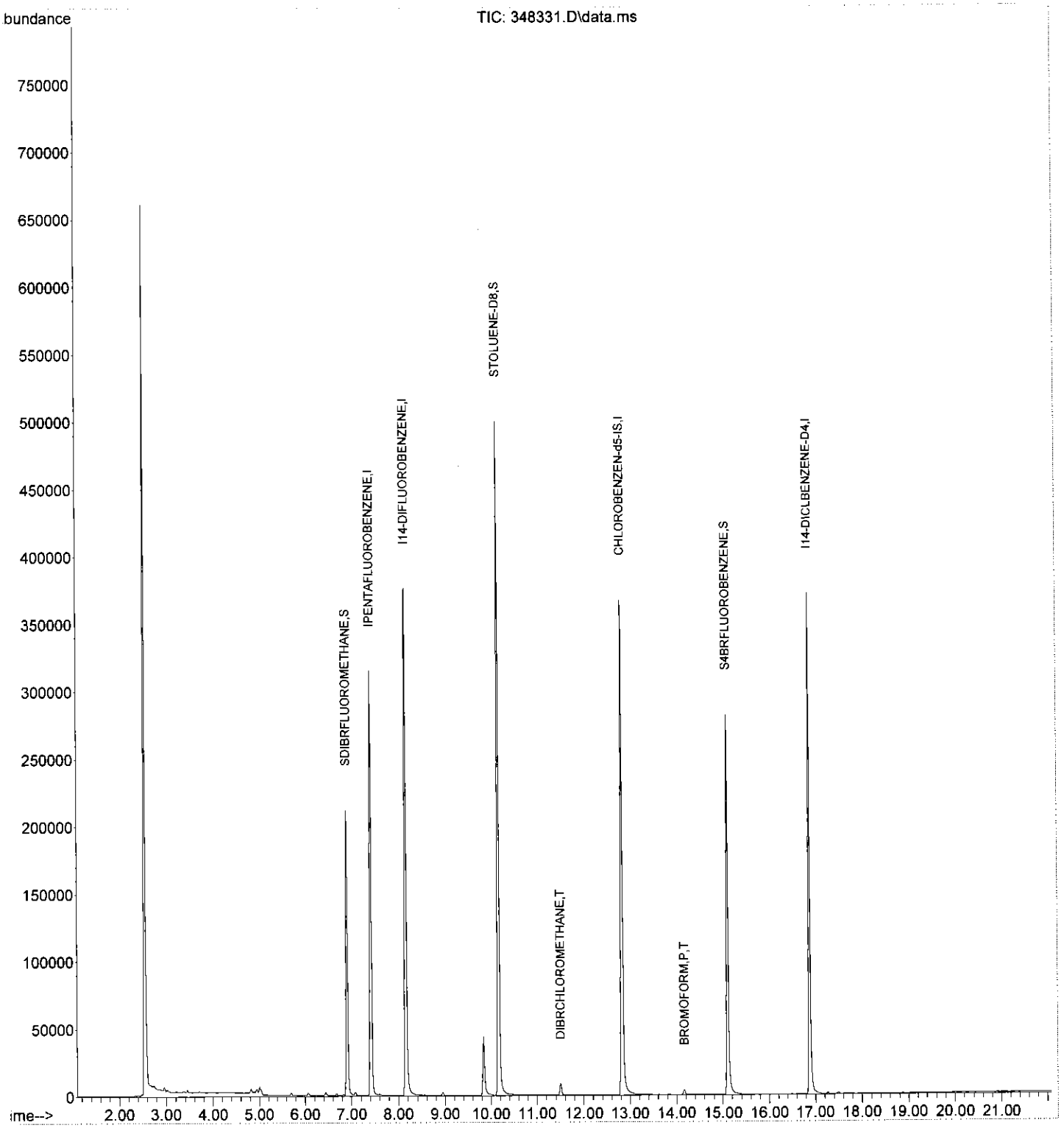
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.503	129	7437	2.32 µg/L	97
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.833	91	539	N.D.	
53) MP-XYLENE	0.000		0	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	14.163	173	2903	1.47 µg/L	100
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.107	77	927	N.D.	
63) N-PROPYLBENZENE	15.096	91	514	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

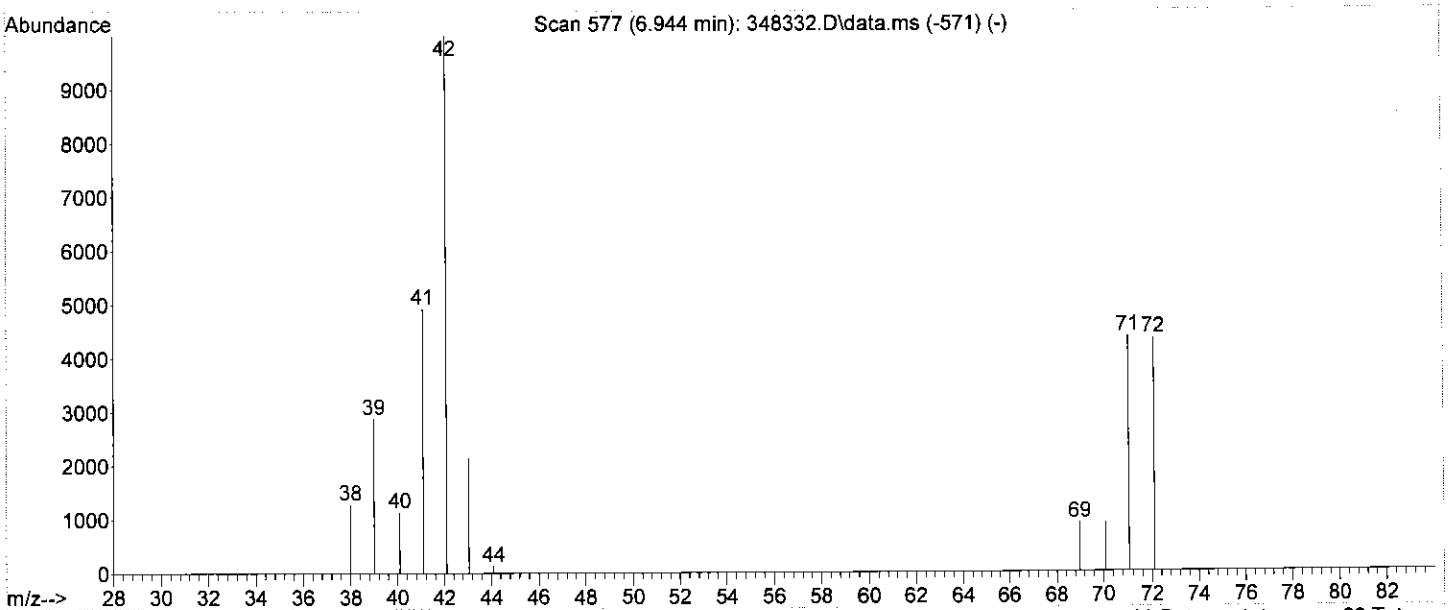
Quantitation Report (QT Reviewed)

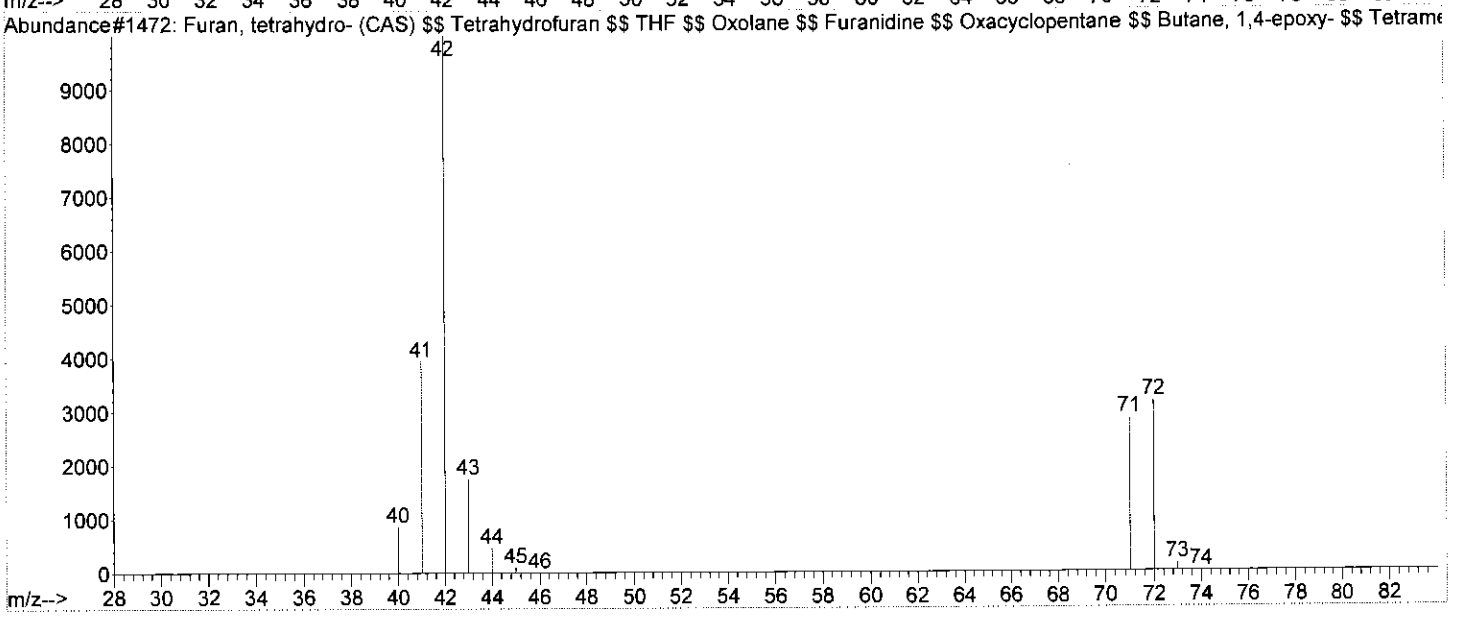
ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348331.D
cq On : 5 Oct 2018 9:17 am
perator : NIVA
ample : 2947545DUP/2947546
isc : RUN203487
LS Vial : 43 Sample Multiplier: 1

uant Time: Oct 09 15:18:29 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Library Searched : C:\Database\WILEY275.L
Quality : 83
ID : Furan, tetrahydro- (CAS) $$ Tetrahydrofuran $$ THF $$ Oxolane $$ Furanidine $$ Oxacyclopentane $$ Butane, 1,4-epoxy- $$ Tetramethylene oxide $$ Cyclotetramethylene oxide $$ Butane .alpha.,.delta.-oxide $$ Butylene Oxide $$ Diethylene oxide $$ Hydrofuran $





Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348332.D
q On : 5 Oct 2018 9:43 am
erator : NIVA
mple : 2951571DUP/2953647
sc : RUN203484
S Vial : 44 Sample Multiplier: 1

ant Time: Oct 09 15:19:50 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.401	168	264224	20.00 µg/L	-0.03
23) I14-DIFLUOROBENZENE	8.153	114	432825	20.00 µg/L	-0.03
48) CHLOROBENZEN-d5-IS	12.812	117	358817	20.00 µg/L	-0.06
71) I14-DICLBENZENE-D4	16.873	152	137979	20.00 µg/L	-0.04
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.894	111	172589	20.91 µg/L	-0.05
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.55%		
39) STOLUENE-D8	10.152	98	506858	20.32 µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.60%		
59) S4BRFLUOROBENZENE	15.086	95	159461	19.26 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 96.30%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	0.000		0	N.D.	
3) CHLOROMETHANE	3.016	50	1667	N.D.	
4) VINYL CHLORIDE	0.000		0	N.D.	
5) BROMOMETHANE	3.513	94	67	N.D.	
6) CHLOROETHANE	0.000		0	N.D. d	
7) TRICLFLUOROMETHANE	0.000		0	N.D.	
8) ACROLEIN	0.000		0	N.D.	
9) ACETONE	0.000		0	N.D. d	
10) 11-DICHLOROETHENE	0.000		0	N.D.	
11) IODOMETHANE	4.518	142	294	N.D.	
12) CARBON DISULFIDE	4.427	76	605	N.D.	
13) ACRYLONITRILE	0.000		0	N.D.	
14) DICHLOROMETHANE	0.000		0	N.D.	
15) TRANS12DICLETHENE	0.000		0	N.D.	
16) 11-DICHLOROETHANE	0.000		0	N.D.	
17) VINYL ACETATE	0.000		0	N.D.	
18) 2-BUTANONE	0.000		0	N.D. d	
19) CIS12DICHLOROETHENE	0.000		0	N.D.	
20) 22-DICHLOROPROPANE	0.000		0	N.D.	
21) CHLOROFORM	6.681	83	574	N.D.	
22) BROMOCHLOROMETHANE	6.670	49	74	N.D.	
25) TETRAHYDROFURAN	6.914	42	28745	34.30 µg/L	96
26) 111-TRICHLOROETHANE	0.000		0	N.D.	
27) 11-DICHLOROPROPENE	0.000		0	N.D.	
28) 12-DICHLOROETHANE	0.000		0	N.D.	
29) CARBONTETRACHLORIDE	6.823	117	757	N.D.	
30) BENZENE	7.411	78	241	N.D.	
31) TRICHLOROETHENE	0.000		0	N.D.	
32) 12-DICHLOROPROPANE	0.000		0	N.D.	
33) DIBROMOMETHANE	0.000		0	N.D.	
34) BROMODICLMETHANE	0.000		0	N.D.	
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	0.000		0	N.D. d	
37) 4METHYL-2-PENTANONE	0.000		0	N.D.	
38) CIS13DICLPROPENE	0.000		0	N.D.	
40) TOLUENE	0.000		0	N.D.	
41) TRANS13DICLPROPENE	0.000		0	N.D.	
42) 112-TRICHLOROETHANE	0.000		0	N.D.	
43) 2-HEXANONE	0.000		0	N.D.	
44) 13-DICHLOROPROPANE	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348332.D
Acq On : 5 Oct 2018 9:43 am
Operator : NIVA
Sample : 2951571DUP/2953647
Misc : RUN203484
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 09 15:19:50 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

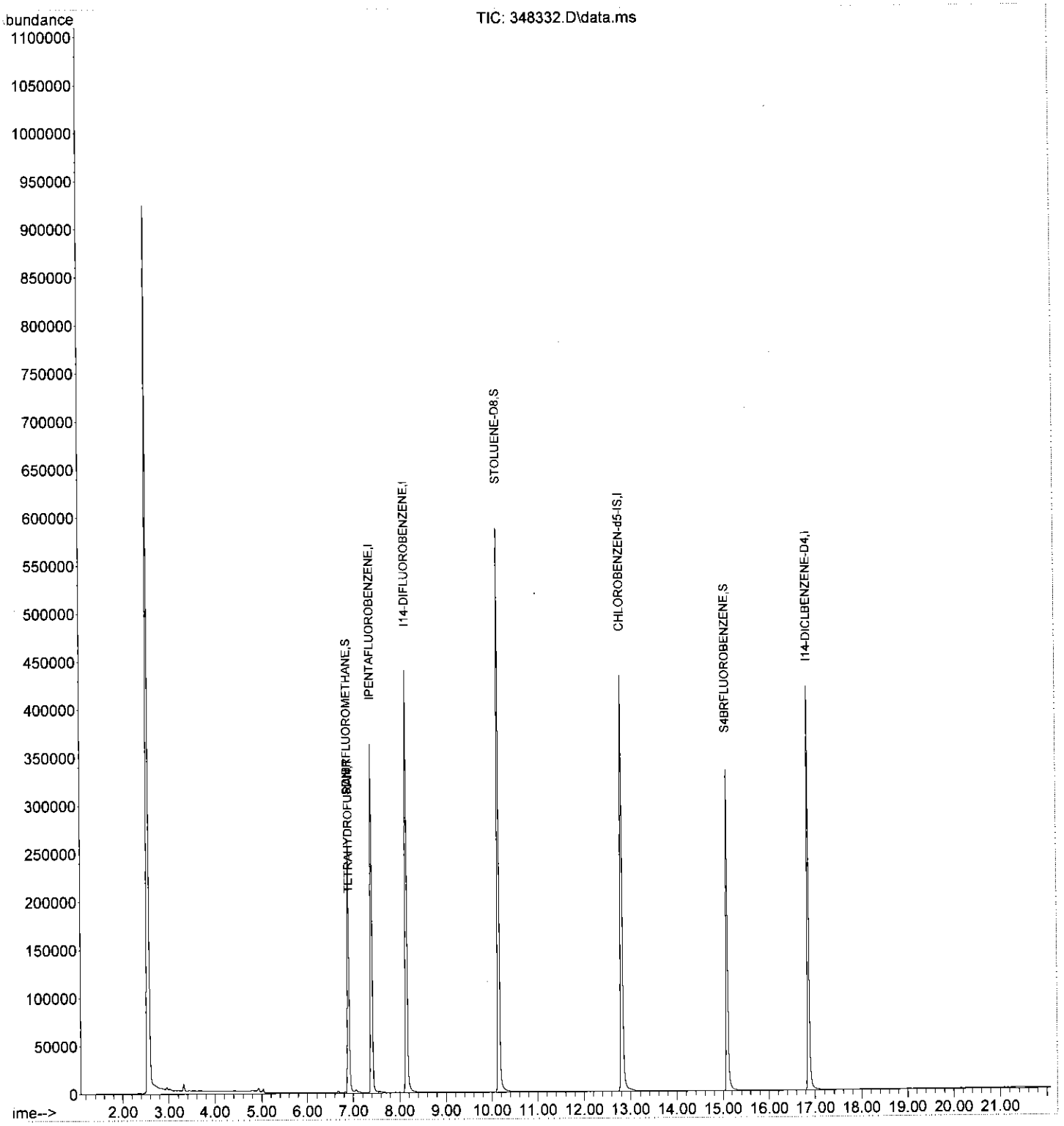
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	0.000		0	N.D.	
46) TETRACHLOROETHENE	0.000		0	N.D.	
47) 12-DIBROMOETHANE	0.000		0	N.D.	
49) CHLOROBENZENE	0.000		0	N.D.	
50) 1-CHLOROHEXANE	0.000		0	N.D.	
51) 1112-TETRACLETHANE	0.000		0	N.D.	
52) ETHYLBENZENE	12.812	91	819	N.D.	
53) MP-XYLENE	13.137	91	401	N.D.	
54) STYRENE	0.000		0	N.D.	
55) O-XYLENE	0.000		0	N.D.	
56) BROMOFORM	0.000		0	N.D.	
57) 1122-TETRACLETHANE	0.000		0	N.D.	
58) ISOPROPYL BENZENE	0.000		0	N.D.	
60) 123-TRICLPROPANE	0.000		0	N.D.	
61) TRANS14DICL2BUTENE	0.000		0	N.D.	
62) BROMOBENZENE	15.086	77	767	N.D.	
63) N-PROPYLBENZENE	15.096	91	663	N.D.	
64) 2-CHLOROTOLUENE	0.000		0	N.D.	
65) 4-CHLOROTOLUENE	0.000		0	N.D.	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	0.000		0	N.D.	
68) 124TRIMETHYLBENZENE	0.000		0	N.D.	
69) SEC-BUTYLBENZENE	0.000		0	N.D.	
70) 13-DICHLOROBENZENE	0.000		0	N.D.	
72) 4-ISOPROPYLTOLUENE	0.000		0	N.D.	
73) 14-DICHLOROBENZENE	0.000		0	N.D.	
74) 12-DICHLOROBENZENE	0.000		0	N.D.	
75) N-BUTYLBENZENE	0.000		0	N.D.	
76) 12-DIBR-3CLPROPANE	0.000		0	N.D.	
77) 124-TRICLBENZENE	0.000		0	N.D.	
78) NAPHTHALENE	0.000		0	N.D.	
79) HEXACHLOROBUTADIENE	0.000		0	N.D.	
80) 123-TRICLBENZENE	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348332.D
cq On : 5 Oct 2018 9:43 am
perator : NIVA
ample : 2951571DUP/2953647
isc : RUN203484
LS Vial : 44 Sample Multiplier: 1

uant Time: Oct 09 15:19:50 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348333.D
q On : 5 Oct 2018 10:09 am
erator : NIVA
mple : 2947545MS/2947547
sc : RUN203487
S Vial : 45 Sample Multiplier: 1

ant Time: Oct 09 15:23:06 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.401	168	270086	20.00 µg/L	-0.03
23) I14-DIFLUOROBENZENE	8.142	114	431953	20.00 µg/L	-0.04
48) CHLOROBENZEN-d5-IS	12.802	117	381823	20.00 µg/L	-0.07
71) I14-DICLBENZENE-D4	16.863	152	167571	20.00 µg/L	-0.05
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.894	111	175931	21.36 µg/L	-0.05
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.80%		
39) STOLUENE-D8	10.142	98	506575	20.35 µg/L	-0.03
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.75%		
59) S4BRFLUOROBENZENE	15.086	95	172583	19.59 µg/L	0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.95%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.762	85	74479m	23.55 µg/L	
3) CHLOROMETHANE	3.016	50	112357m	24.77 µg/L	
4) VINYL CHLORIDE	3.115	62	6613	1.84 µg/L	98
5) BROMOMETHANE	3.503	94	41556	39.72 µg/L	99
6) CHLOROETHANE	3.635	64	40224	149.47 µg/L #	87
7) TRICLFLUOROMETHANE	3.787	101	165056	38.69 µg/L	100
8) ACROLEIN	4.691	56	12044	38.82 µg/L	96
9) ACETONE	4.995	43	131016	110.23 µg/L #	96
10) 11-DICHLOROETHENE	4.346	61	56921	22.25 µg/L	93
11) IODOMETHANE	4.528	142	29868	8.70 µg/L	95
12) CARBON DISULFIDE	4.417	76	495326m	127.42 µg/L	
13) ACRYLONITRILE	5.838	53	140236	97.17 µg/L	99
14) DICHLOROMETHANE	4.945	84	72704	17.92 µg/L	86
15) TRANS12DICLETHENE	5.117	96	56483	19.45 µg/L #	79
16) 11-DICHLOROETHANE	5.777	63	127931	21.10 µg/L	96
17) VINYL ACETATE	5.858	43	290	N.D.	
18) 2-BUTANONE	7.026	43	194560	75.59 µg/L	97
19) CIS12DICHLOROETHENE	6.386	96	65700	18.99 µg/L #	81
20) 22-DICHLOROPROPANE	6.508	77	46022	10.76 µg/L	97
21) CHLOROFORM	6.670	83	142797	21.52 µg/L	100
22) BROMOCHLOROMETHANE	6.620	49	84066	21.92 µg/L	95
25) TETRAHYDROFURAN	6.914	42	13862	16.57 µg/L	94
26) 111-TRICHLOROETHANE	6.955	97	118704	22.85 µg/L	95
27) 11-DICHLOROPROPENE	7.097	75	15299	3.78 µg/L #	89
28) 12-DICHLOROETHANE	7.655	62	113879	21.62 µg/L #	98
29) CARBONTETRACHLORIDE	6.884	117	102294	22.37 µg/L	98
30) BENZENE	7.412	78	263561	20.95 µg/L #	97
31) TRICHLOROETHENE	8.142	132	64120	21.15 µg/L #	87
32) 12-DICHLOROPROPANE	8.863	63	70577	19.96 µg/L	98
33) DIBROMOMETHANE	8.741	174	45978	20.42 µg/L #	83
34) BROMODICLMETHANE	8.924	83	97968	22.04 µg/L	99
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	10.234	57	151007m	427.33 µg/L	
37) 4METHYL-2-PENTANONE	10.782	43	435220	101.36 µg/L #	91
38) CIS13DICLPROPENE	9.858	75	62216	11.46 µg/L	96
40) TOLUENE	10.234	91	109243	8.48 µg/L	100
41) TRANS13DICLPROPENE	10.873	75	59730	11.94 µg/L	96
42) 112-TRICHLOROETHANE	11.147	97	63596	20.18 µg/L	93
43) 2-HEXANONE	12.213	43	268097	95.26 µg/L #	93
44) 13-DICHLOROPROPANE	11.625	76	107647	19.88 µg/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348333.D
Acq On : 5 Oct 2018 10:09 am
Operator : NIVA
Sample : 2947545MS/2947547
Misc : RUN203487
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Oct 09 15:23:06 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

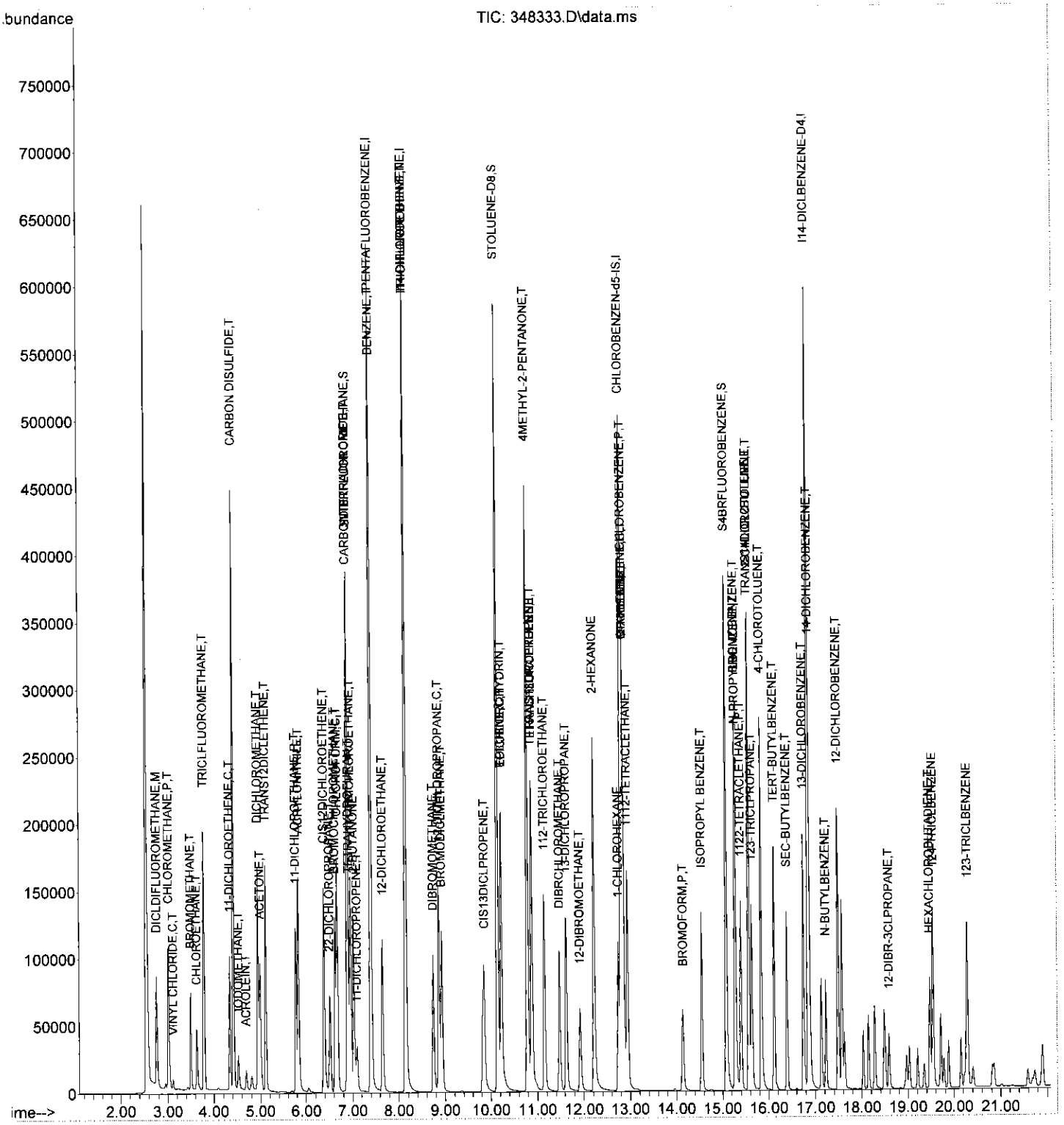
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.482	129	81005	21.98 µg/L	99
46) TETRACHLOROETHENE	10.883	166	61720	21.34 µg/L	89
47) 12-DIBROMOETHANE	11.919	107	63509	19.72 µg/L	98
49) CHLOROBENZENE	12.843	112	169064	19.42 µg/L	93
50) 1-CHLOROHEXANE	12.741	91	48602	18.17 µg/L	95
51) 1112-TETRACLETHANE	12.934	131	62163	21.36 µg/L	93
52) ETHYLBENZENE	12.853	91	136727	9.87 µg/L	99
53) MP-XYLENE	12.853	91	191268m	17.59 µg/L	
54) STYRENE	14.548	104	3718	N.D.	
55) O-XYLENE	12.853	91	192637m	17.53 µg/L	
56) BROMOFORM	14.142	173	45585	18.69 µg/L	99
57) 1122-TETRACLETHANE	15.401	83	88483	22.25 µg/L	100
58) ISOPROPYL BENZENE	14.548	105	118209	10.39 µg/L	95
60) 123-TRICLPROPANE	15.634	110	25486	20.18 µg/L	88
61) TRANS14DICL2BUTENE	15.563	53	520	0.75 µg/L #	1
62) BROMOBENZENE	15.279	77	110593	18.10 µg/L	93
63) N-PROPYLBENZENE	15.289	91	132260	10.44 µg/L	97
64) 2-CHLOROTOLUENE	15.574	91	258633	26.68 µg/L	99
65) 4-CHLOROTOLUENE	15.838	91	200288	23.72 µg/L	98
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	16.122	119	103503	13.83 µg/L	98
68) 124TRIMETHYLBENZENE	16.122	105	829	N.D.	
69) SEC-BUTYLBENZENE	16.396	105	107770	11.34 µg/L	99
70) 13-DICHLOROBENZENE	16.751	146	92701	19.18 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.609	119	1266	N.D.	
73) 14-DICHLOROBENZENE	16.883	146	103072	19.38 µg/L	91
74) 12-DICHLOROBENZENE	17.482	146	93505	18.62 µg/L	96
75) N-BUTYLBENZENE	17.228	91	56647	8.42 µg/L	97
76) 12-DIBR-3CLPROPANE	18.589	157	11635	18.87 µg/L #	81
77) 124-TRICLBENZENE	19.543	180	45024	21.17 µg/L #	89
78) NAPHTHALENE	19.888	128	1568	N.D.	
79) HEXACHLOROBUTADIENE	19.472	225	17125	18.49 µg/L	97
80) 123-TRICLBENZENE	20.294	182	44783	21.23 µg/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348333.D
cq On : 5 Oct 2018 10:09 am
perator : NIVA
ample : 2947545MS/2947547
isc : RUN203487
LS Vial : 45 Sample Multiplier: 1

uant Time: Oct 09 15:23:06 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348334.D
q On : 5 Oct 2018 10:36 am
erator : NIVA
mple : 2947545MSD/2947548
sc : RUN203487
S Vial : 46 Sample Multiplier: 1

ant Time: Oct 09 15:40:26 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Tue Oct 09 14:40:49 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.391	168	260024	20.00 µg/L	-0.04
23) I14-DIFLUOROBENZENE	8.132	114	481783m	20.00 µg/L	-0.05
48) CHLOROBENZEN-d5-IS	12.802	117	367829	20.00 µg/L	-0.07
71) I14-DICLBENZENE-D4	16.853	152	162199	20.00 µg/L	-0.06
ystem Monitoring Compounds					
24) SDIBRFLUOROMETHANE	6.884	111	169632	18.46 µg/L	-0.06
Spiked Amount 20.000	Range 80 - 120		Recovery = 92.30%		
39) STOLUENE-D8	10.132	98	483023	17.40 µg/L	-0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 87.00%		
59) S4BRFLUOROBENZENE	15.076	95	165863	19.54 µg/L	0.01
Spiked Amount 20.000	Range 80 - 120		Recovery = 97.70%		
arget Compounds					Qvalue
2) DICLDIFLUOROMETHANE	2.752	85	71434m	23.46 µg/L	
3) CHLOROMETHANE	3.006	50	115448m	26.44 µg/L	
4) VINYL CHLORIDE	3.107	62	12745m	3.68 µg/L	
5) BROMOMETHANE	3.493	94	43447	43.13 µg/L	98
6) CHLOROETHANE	3.635	64	38300	147.83 µg/L #	86
7) TRICLFLUOROMETHANE	3.787	101	159678	38.87 µg/L	98
8) ACROLEIN	4.681	56	10922m	36.57 µg/L	
9) ACETONE	4.985	43	129454m	113.13 µg/L	
10) 11-DICHLOROETHENE	4.335	61	55072m	22.36 µg/L	
11) IODOMETHANE	4.518	142	23335	7.06 µg/L	94
12) CARBON DISULFIDE	4.407	76	453067m	121.06 µg/L	
13) ACRYLONITRILE	5.828	53	157757	113.54 µg/L	99
14) DICHLOROMETHANE	4.934	84	82823	21.21 µg/L	88
15) TRANS12DICLETHENE	5.107	96	66651	23.84 µg/L #	80
16) 11-DICHLOROETHANE	5.767	63	145464	24.92 µg/L	95
17) VINYL ACETATE	5.868	43	237	N.D.	
18) 2-BUTANONE	7.016	43	194341m	78.43 µg/L	
19) CIS12DICHLOROETHENE	6.376	96	75082	22.54 µg/L #	82
20) 22-DICHLOROPROPANE	6.498	77	52543	12.76 µg/L	97
21) CHLOROFORM	6.660	83	152033m	23.80 µg/L	
22) BROMOCHLOROMETHANE	6.610	49	83639m	22.65 µg/L	
25) TETRAHYDROFURAN	6.904	42	16217	17.38 µg/L	95
26) 111-TRICHLOROETHANE	6.945	97	133924	23.12 µg/L	95
27) 11-DICHLOROPROPENE	7.087	75	34385	7.61 µg/L #	86
28) 12-DICHLOROETHANE	7.645	62	128165	21.81 µg/L #	99
29) CARBONTETRACHLORIDE	6.873	117	115121	22.57 µg/L	98
30) BENZENE	7.401	78	294081	20.96 µg/L #	97
31) TRICHLOROETHENE	8.132	132	69900	20.67 µg/L #	88
32) 12-DICHLOROPROPANE	8.853	63	79173	20.08 µg/L	98
33) DIBROMOMETHANE	8.731	174	50285	20.02 µg/L #	82
34) BROMODICLMETHANE	8.914	83	110797	22.35 µg/L	99
35) 2-CLETHYLVINYLETHER	0.000		0	N.D.	
36) EPICHLOROHYDRIN	10.224	57	173834m	441.05 µg/L	
37) 4METHYL-2-PENTANONE	10.772	43	490806	102.49 µg/L #	91
38) CIS13DICLPROPENE	9.848	75	82038	13.55 µg/L	97
40) TOLUENE	10.224	91	174082	12.11 µg/L	98
41) TRANS13DICLPROPENE	10.863	75	66696m	11.95 µg/L	
42) 112-TRICHLOROETHANE	11.137	97	72508	20.63 µg/L	94
43) 2-HEXANONE	12.203	43	310211	98.83 µg/L	92
44) 13-DICHLOROPROPANE	11.625	76	119669	19.82 µg/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348334.D
Acq On : 5 Oct 2018 10:36 am
Operator : NIVA
Sample : 2947545MSD/2947548
Misc : RUN203487
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Oct 09 15:40:26 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Tue Oct 09 14:40:49 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

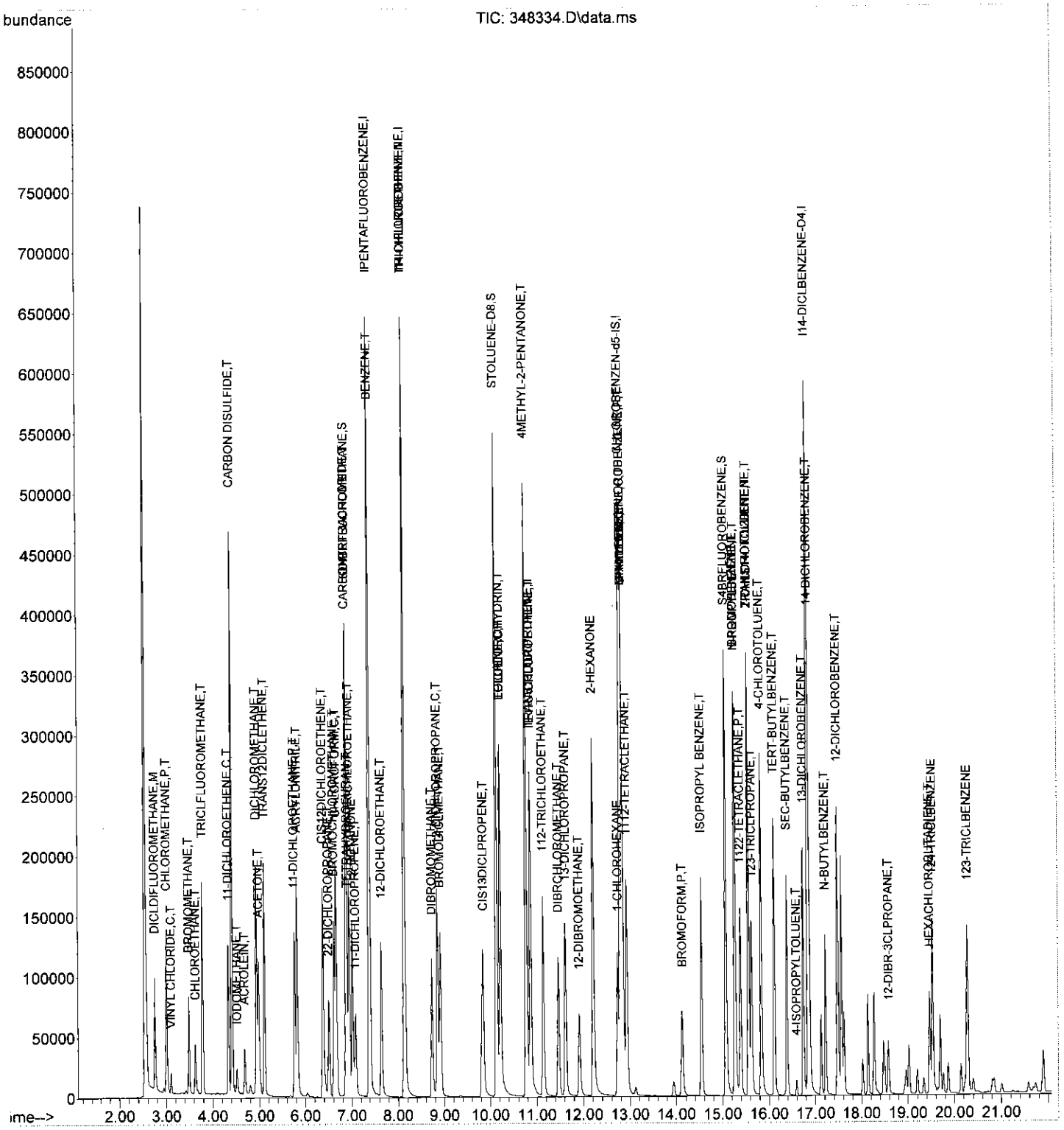
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.472	129	90574	22.04 µg/L	100
46) TETRACHLOROETHENE	10.873	166	69306	21.48 µg/L	89
47) 12-DIBROMOETHANE	11.909	107	72723	20.25 µg/L	99
49) CHLOROBENZENE	12.833	112	189852	22.63 µg/L	92
50) 1-CHLOROHEXANE	12.741	91	54715	21.23 µg/L	97
51) 1112-TETRACLETHANE	12.924	131	66541m	23.73 µg/L	
52) ETHYLBENZENE	12.843	91	139264m	10.44 µg/L	
53) MP-XYLENE	12.843	91	205625m	19.62 µg/L	
54) STYRENE	13.939	104	62	N.D.	
55) O-XYLENE	12.843	91	193252m	18.25 µg/L	
56) BROMOFORM	14.132	173	52582	22.38 µg/L	99
57) 1122-TETRACLETHANE	15.391	83	85929m	22.43 µg/L	
58) ISOPROPYL BENZENE	14.538	105	140207m	12.79 µg/L	
60) 123-TRICLPROPANE	15.634	110	28706	23.59 µg/L	92
61) TRANS14DICL2BUTENE	15.563	53	496	0.75 µg/L #	1
62) BROMOBENZENE	15.269	77	124494	21.16 µg/L	93
63) N-PROPYLBENZENE	15.279	91	158341m	12.97 µg/L	
64) 2-CHLOROTOLUENE	15.563	91	257222	27.54 µg/L	99
65) 4-CHLOROTOLUENE	15.827	91	201887m	24.82 µg/L	
66) 135TRIMETHYLBENZENE	0.000		0	N.D.	
67) TERT-BUTYLBENZENE	16.112	119	109736m	15.22 µg/L	
68) 124TRIMETHYLBENZENE	16.112	105	1067	N.D.	
69) SEC-BUTYLBENZENE	16.386	105	114999m	12.56 µg/L	
70) 13-DICHLOROBENZENE	16.751	146	105150	22.59 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.599	119	8287	1.02 µg/L	98
73) 14-DICHLOROBENZENE	16.873	146	113755	22.10 µg/L	92
74) 12-DICHLOROBENZENE	17.482	146	105820	21.77 µg/L	97
75) N-BUTYLBENZENE	17.218	91	73962m	11.35 µg/L	
76) 12-DIBR-3CLPROPANE	18.589	157	13516	22.64 µg/L	97
77) 124-TRICLBENZENE	19.533	180	44168m	21.46 µg/L	
78) NAPHTHALENE	19.878	128	1223	N.D.	
79) HEXACHLOROBUTADIENE	19.472	225	18047	20.13 µg/L	96
80) 123-TRICLBENZENE	20.284	182	42949m	21.03 µg/L	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348334.D
cq On : 5 Oct 2018 10:36 am
perator : NIVA
ample : 2947545MSD/2947548
isc : RUN203487
LS Vial : 46 Sample Multiplier: 1

uant Time: Oct 09 15:40:26 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Tue Oct 09 14:40:49 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348339.D
q On : 5 Oct 2018 12:47 pm
erator : NIVA
mple : LFB/2953694
sc : RUN203487
S Vial : 49 Sample Multiplier: 1

ant Time: Oct 09 15:42:35 2018
ant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
ant Title : Analysis of VOC'S by EPA 8260B
ast Update : Mon Oct 08 17:15:22 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.411	168	266418	20.00	µg/L	-0.02
23) I14-DIFLUOROBENZENE	8.163	114	427152	20.00	µg/L	-0.02
48) CHLOROBENZEN-d5-IS	12.843	117	379428	20.00	µg/L	-0.03
71) I14-DICLBENZENE-D4	16.893	152	179560	20.00	µg/L	-0.02
ystem Monitoring Compounds						
24) SDIBRFLUOROMETHANE	6.904	111	173776	21.33	µg/L	-0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.65%			
39) STOLUENE-D8	10.173	98	504609	20.50	µg/L	0.00
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.50%			
59) S4BRFLUOROBENZENE	15.117	95	180505	20.61	µg/L	0.05
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.05%			
arget Compounds						Qvalue
2) DICLDIFLUOROMETHANE	2.762	85	66178	21.21	µg/L	98
3) CHLOROMETHANE	3.016	50	90842	20.31	µg/L	99
4) VINYL CHLORIDE	3.120	62	81668	23.02	µg/L	98
5) BROMOMETHANE	3.493	94	24666m	23.90	µg/L	
6) CHLOROETHANE	3.625	64	6681m	25.17	µg/L	
7) TRICLFLUOROMETHANE	3.777	101	104569m	24.85	µg/L	
8) ACROLEIN	4.701	56	159835	522.27	µg/L	100
9) ACETONE	5.005	43	149208	127.26	µg/L	98
10) 11-DICHLOROETHENE	4.345	61	56597m	22.42	µg/L	
11) IODOMETHANE	4.528	142	319022m	94.25	µg/L	
12) CARBON DISULFIDE	4.417	76	456206m	118.97	µg/L	
13) ACRYLONITRILE	5.848	53	153574	107.88	µg/L	99
14) DICHLOROMETHANE	4.955	84	78306	19.57	µg/L	88
15) TRANS12DICLETHENE	5.127	96	57609	20.11	µg/L #	81
16) 11-DICHLOROETHANE	5.787	63	128360	21.46	µg/L	95
17) VINYL ACETATE	6.010	43	567872m	75.46	µg/L	
18) 2-BUTANONE	7.046	43	279560	110.12	µg/L	95
19) CIS12DICHLOROETHENE	6.396	96	68787	20.15	µg/L #	83
20) 22-DICHLOROPROPANE	6.528	77	65060m	15.42	µg/L	
21) CHLOROFORM	6.680	83	144762	22.12	µg/L	99
22) BROMOCHLOROMETHANE	6.630	49	87023	23.01	µg/L	96
25) TETRAHYDROFURAN	6.924	42	15391	18.61	µg/L	96
26) 111-TRICHLOROETHANE	6.975	97	116206	22.62	µg/L	97
27) 11-DICHLOROPROPENE	7.107	75	86550	21.61	µg/L #	88
28) 12-DICHLOROETHANE	7.675	62	117562	22.57	µg/L #	98
29) CARBONTETRACHLORIDE	6.904	117	98268	21.73	µg/L	98
30) BENZENE	7.422	78	265124	21.31	µg/L	96
31) TRICHLOROETHENE	8.163	132	66930	22.33	µg/L #	90
32) 12-DICHLOROPROPANE	8.883	63	72790	20.82	µg/L	99
33) DIBROMOMETHANE	8.762	174	48951	21.98	µg/L #	84
34) BROMODICLMETHANE	8.944	83	95195	21.65	µg/L	99
35) 2-CLETHYLVINYLETHER	9.726	63	200343	102.88	µg/L	93
36) EPICHLOROHYDRIN	10.254	57	149160	426.85	µg/L	92
37) 4METHYL-2-PENTANONE	10.812	43	466925	109.97	µg/L #	92
38) CIS13DICLPROPENE	9.878	75	94859	17.67	µg/L	98
40) TOLUENE	10.254	91	272849	21.41	µg/L	99
41) TRANS13DICLPROPENE	10.904	75	83517	16.88	µg/L	98
42) 112-TRICHLOROETHANE	11.178	97	67162	21.55	µg/L	94
43) 2-HEXANONE	12.244	43	295008	106.00	µg/L	93
44) 13-DICHLOROPROPANE	11.655	76	113139	21.13	µg/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348339.D
Acq On : 5 Oct 2018 12:47 pm
Operator : NIVA
Sample : LFB/2953694
Misc : RUN203487
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Oct 09 15:42:35 2018
Quant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
Quant Title : Analysis of VOC'S by EPA 8260B
QLast Update : Mon Oct 08 17:15:22 2018
Response via : Initial Calibration
InstName : V7-AG7890MS

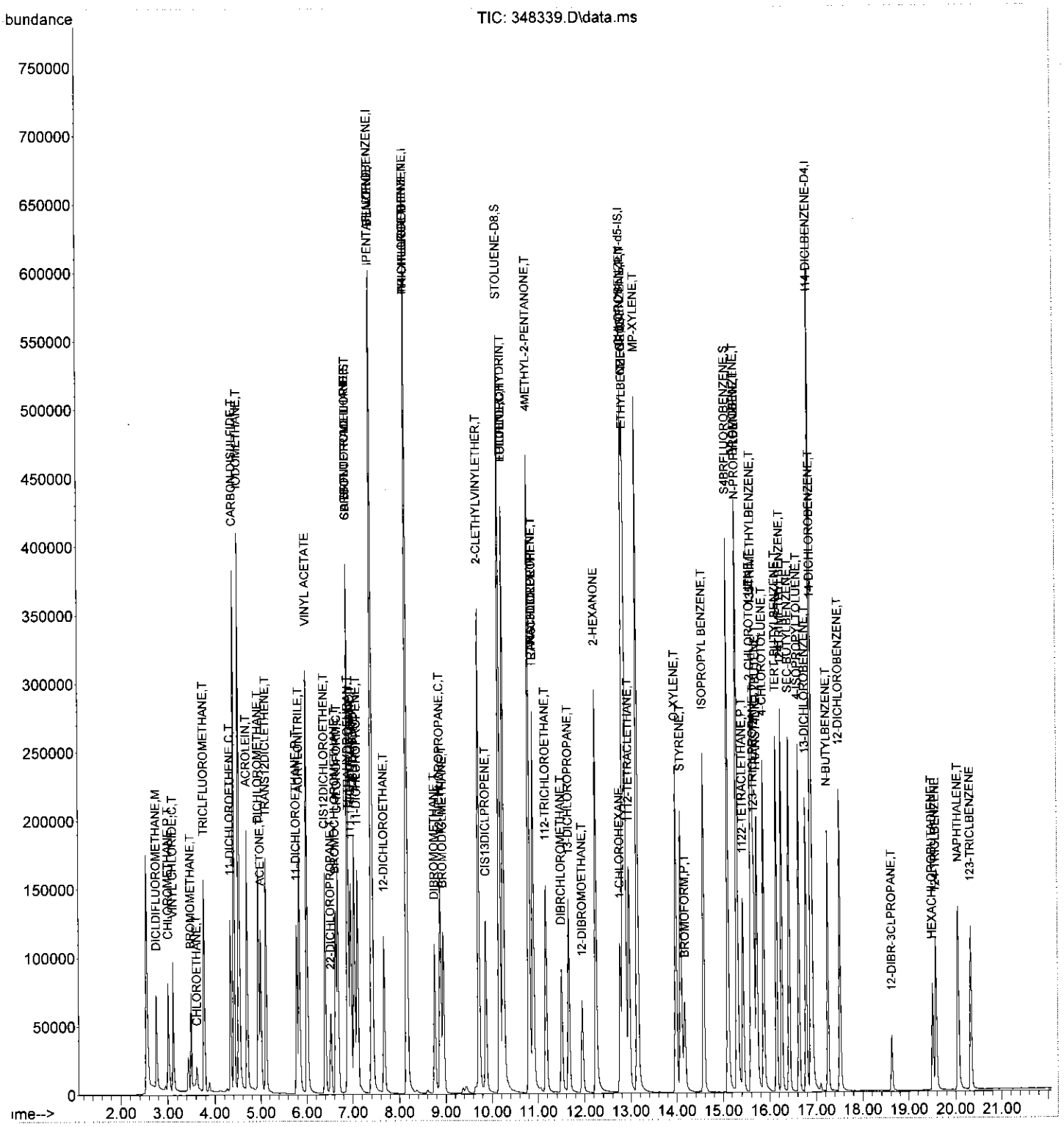
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
45) DIBRCHLOROMETHANE	11.503	129	68210	18.72 µg/L	99
46) TETRACHLOROETHENE	10.904	166	63251	22.11 µg/L	90
47) 12-DIBROMOETHANE	11.949	107	67827	21.30 µg/L	99
49) CHLOROBENZENE	12.873	112	177320	20.49 µg/L	88
50) 1-CHLOROHEXANE	12.772	91	48225	18.14 µg/L	93
51) 1112-TETRACLETHANE	12.964	131	62597	21.64 µg/L	94
52) ETHYLBENZENE	12.883	91	285263	20.73 µg/L	99
53) MP-XYLENE	13.147	91	438959	40.61 µg/L	100
54) STYRENE	14.091	104	162862	19.65 µg/L	99
55) O-XYLENE	13.980	91	215545	19.73 µg/L	97
56) BROMOFORM	14.172	173	42925	17.71 µg/L	98
57) 1122-TETRACLETHANE	15.431	83	90034	22.79 µg/L	100
58) ISOPROPYL BENZENE	14.579	105	231472	20.47 µg/L	96
60) 123-TRICLPROPANE	15.665	110	28886	23.02 µg/L	93
61) TRANS14DICL2BUTENE	15.726	53	56043	81.73 µg/L	90
62) BROMOBENZENE	15.309	77	128064	21.10 µg/L	94
63) N-PROPYLBENZENE	15.320	91	290190	23.04 µg/L	99
64) 2-CHLOROTOLUENE	15.604	91	200849	20.85 µg/L	88
65) 4-CHLOROTOLUENE	15.868	91	175931	20.97 µg/L	99
66) 135TRIMETHYLBENZENE	15.634	105	204856	21.12 µg/L	98
67) TERT-BUTYLBENZENE	16.152	119	157852	21.23 µg/L	97
68) 124TRIMETHYLBENZENE	16.264	105	202659	21.70 µg/L	99
69) SEC-BUTYLBENZENE	16.426	105	214397	22.71 µg/L	99
70) 13-DICHLOROBENZENE	16.781	146	107238	22.33 µg/L	98
72) 4-ISOPROPYLTOLUENE	16.629	119	174449	19.47 µg/L	98
73) 14-DICHLOROBENZENE	16.913	146	113501	19.92 µg/L	92
74) 12-DICHLOROBENZENE	17.512	146	104444	19.41 µg/L	97
75) N-BUTYLBENZENE	17.248	91	138645	19.22 µg/L	96
76) 12-DIBR-3CLPROPANE	18.629	157	12071	18.27 µg/L	84
77) 124-TRICLBENZENE	19.583	180	45730	20.07 µg/L #	91
78) NAPHTHALENE	20.061	128	153526	19.13 µg/L	98
79) HEXACHLOROBUTADIENE	19.512	225	17630	17.76 µg/L	95
80) 123-TRICLBENZENE	20.335	182	46237	20.45 µg/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

ata Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ata File : 348339.D
cq On : 5 Oct 2018 12:47 pm
perator : NIVA
ample : LFB/2953694
isc : RUN203487
LS Vial : 49 Sample Multiplier: 1

uant Time: Oct 09 15:42:35 2018
uant Method : C:\msdchem\1\METHODS\8260VOC-OCT-LIQ-18.M
uant Title : Analysis of VOC'S by EPA 8260B
Last Update : Mon Oct 08 17:15:22 2018
esponse via : Initial Calibration
nstName : V7-AG7890MS



Calibration Status Report V7-AG7890MS

ethod Path : C:\msdchem\1\METHODS\
ethod File : ETHANOL-ACETONIT-MTBE-OCT18.M
tle : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
esponse Via : Initial Calibration

ID	Conc	ISTD Conc	Path\File
1	75	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT01.D
2	125	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT02.D
3	250	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT03.D
4	500	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT04.D
5	1250	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT05.D
6	2500	20	C:\msdchem\1\DATA\203483-7CC8260EXT\CCEXT06.D

ID	Update Time	Quant Time	Acquisition Time
1	Oct 09 09:13 2018	Oct 09 09:13 2018	
2	Oct 09 09:07 2018	Oct 09 09:07 2018	
3	Oct 09 09:08 2018	Oct 09 09:07 2018	
4	Oct 09 09:08 2018	Oct 09 09:08 2018	
5	Oct 09 09:08 2018	Oct 09 09:08 2018	
6	Oct 09 09:08 2018	Oct 09 09:08 2018	

I \NOL-ACE...MTBE-OCT18.M Tue Oct 09 16:29:35 2018

Response Factor Report V7-AG7890MS

thod Path : C:\msdchem\1\METHODS\
thod File : ETHANOL-ACETONIT-MTBE-OCT18.M
tle : Analysis of VOC'S by 8260B,624
st Update : Tue Oct 09 09:13:10 2018
sponse Via : Initial Calibration

libration Files
=CCEXT01.D 2 =CCEXT02.D 3 =CCEXT03.D 4 =CCEXT04.D 5 =CCEXT05.D 6 =CCEXT06.D

	Compound	1	2	3	4	5	6	Avg	%RSD
I	IPENTAFLUOROBENZENE	----------ISTD----------							
T	ETHANOL	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	3.83
T	MTBE	0.761	0.773	0.799	0.764	0.819	0.890	0.801	6.13
T	ACETONITRILE	0.032	0.031	0.034	0.031	0.036	0.035	0.033#	6.08
I	I14-DIFLUOROBENZENE	----------ISTD----------							
S	SDIBRFLUOROMET...	0.371	0.371	0.374	0.378	0.380	0.384	0.376	1.36
S	STOLUENE-D8	1.144	1.143	1.144	1.141	1.143	1.147	1.144	0.17
I	CHLOROBENZEN-d5-IS	----------ISTD----------							
S	S4BRFLUOROBENZENE	0.454	0.447	0.445	0.446	0.447	0.449	0.448	0.74
I	I14-DICLBENZENE-D4	----------ISTD----------							

= Out of Range

Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348301.D
q On : 4 Oct 2018 8:16 pm
erator : NIVA
mple : LRB/2953644
sc : RUN203484
S Vial : 99 Sample Multiplier: 1

ant Time: Oct 09 16:33:50 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

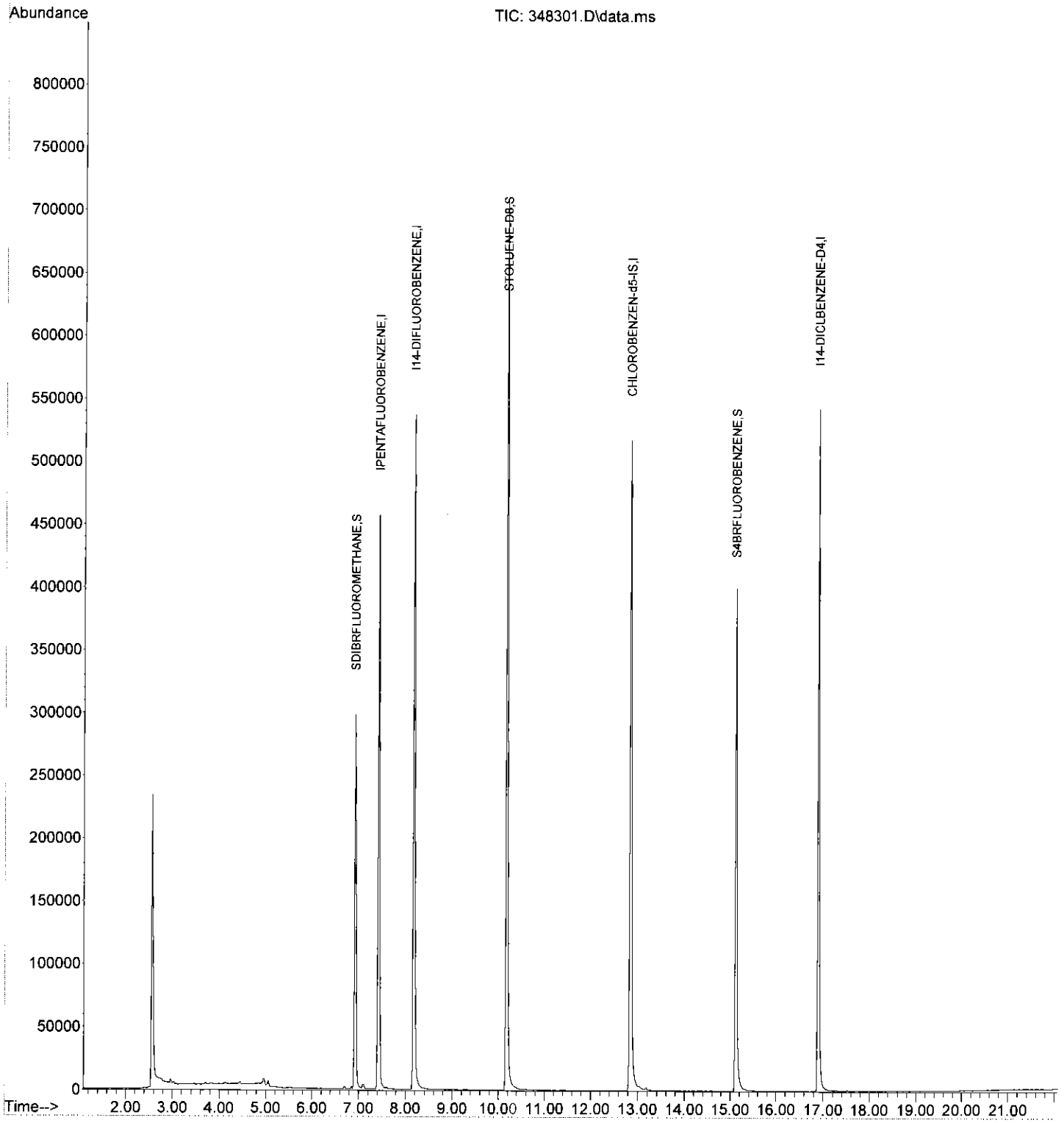
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.432	168	344405	20.00	µg/L	-0.09
5) I14-DIFLUOROBENZENE	8.183	114	539007	20.00	µg/L	-0.09
8) CHLOROBENZEN-d5-IS	12.853	117	438404	20.00	µg/L	-0.10
10) I14-DICLBENZENE-D4	16.893	152	177832	20.00	µg/L	-0.21
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.924	111	209514	20.66	µg/L	-0.10
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.30%			
7) STOLUENE-D8	10.183	98	622434	20.20	µg/L	-0.10
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.00%			
9) S4BRFLUOROBENZENE	15.117	95	197493	20.10	µg/L	-0.04
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.50%			
arget Compounds						Qvalue
2) ETHANOL	0.000		0	N.D. d		
3) MTBE	5.239	73	490	N.D.		
4) ACETONITRILE	0.000		0	N.D. d		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348301.D
Acq On : 4 Oct 2018 8:16 pm
Operator : NIVA
Sample : LRB/2953644
Misc : RUN203484
ALS Vial : 99 Sample Multiplier: 1

Quant Time: Oct 09 16:33:50 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348303.D
q On : 4 Oct 2018 9:08 pm
erator : NIVA
mple : MDLEXT/2953646
sc : RUN203484
S Vial : 15 Sample Multiplier: 1

ant Time: Oct 09 16:39:46 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

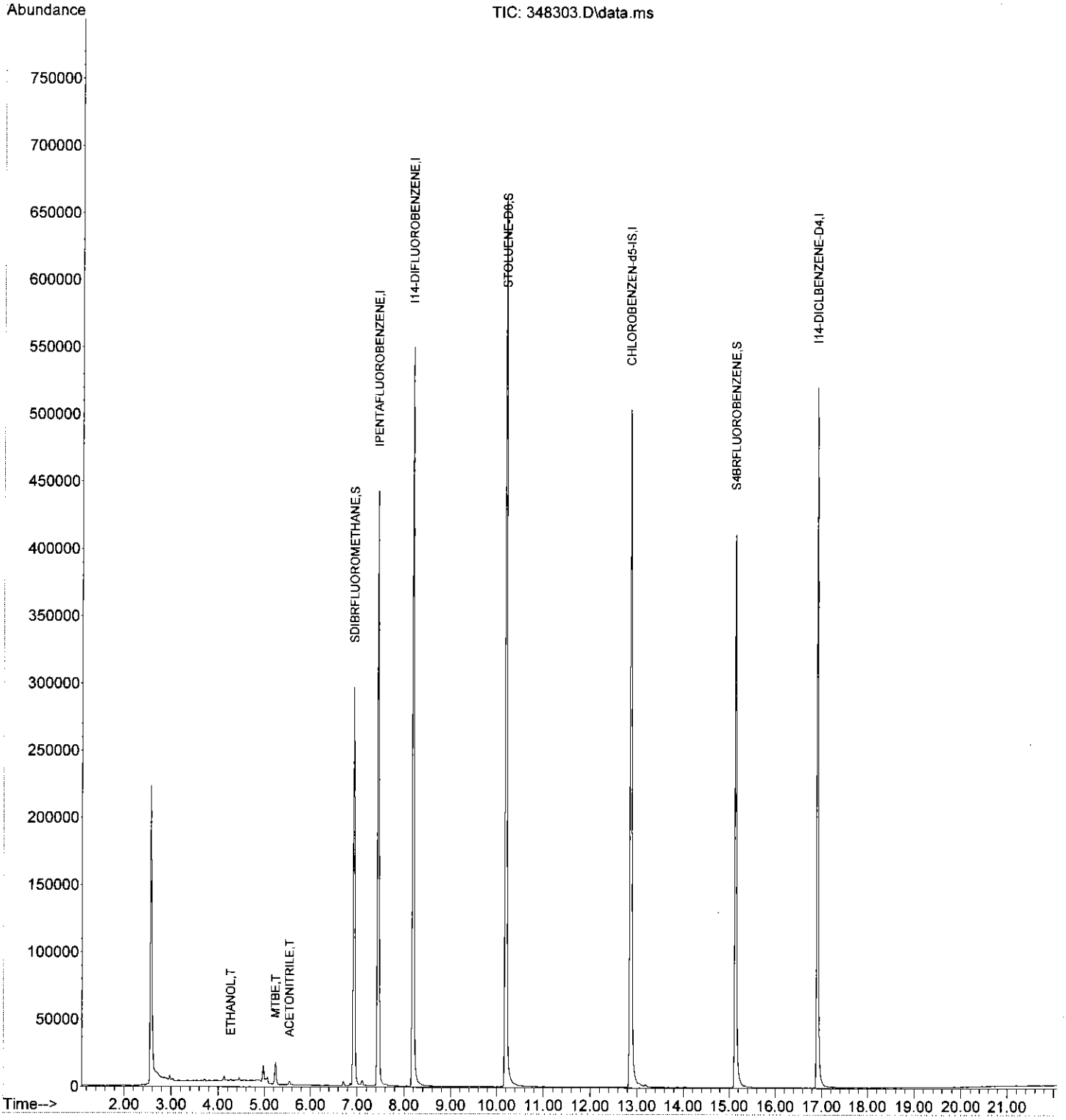
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.442	168	336491	20.00	µg/L	-0.08
5) I14-DIFLUOROBENZENE	8.193	114	531847	20.00	µg/L	-0.08
8) CHLOROBENZEN-d5-IS	12.863	117	425308	20.00	µg/L	-0.09
10) I14-DICLBENZENE-D4	16.903	152	171618	20.00	µg/L	-0.20
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.934	111	205363	20.52	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
7) STOLUENE-D8	10.203	98	612327	20.14	µg/L	-0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.70%			
9) S4BRFLUOROBENZENE	15.137	95	191108	20.05	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.25%			
arget Compounds						Qvalue
2) ETHANOL	4.264	45	284m	23.78	µg/L	
3) MTBE	5.239	73	16595	1.23	µg/L #	82
4) ACETONITRILE	5.543	41	2795m	5.01	µg/L	

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348303.D
Acq On : 4 Oct 2018 9:08 pm
Operator : NIVA
Sample : MDLEXT/2953646
Misc : RUN203484
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Oct 09 16:39:46 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Evaluate Continuing Calibration Report

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348305.D
q On : 4 Oct 2018 10:00 pm
erator : NIVA
mple : ICVEXT/2953645
sc : RUN~~201738~~ 203484
S Vial : 17 Sample Multiplier: 1

ant Time: Oct 09 16:40:15 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

n. RRF : 0.100 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
x. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
I	IPENTAFLUOROBENZENE	1.000	1.000	0.0	78	-0.07
T	ETHANOL	0.001	0.001#	0.0	88	-0.04
T	MTBE	0.801	0.832	-3.9	85	-0.06
T	ACETONITRILE	0.033	0.034#	-3.0	85	-0.06
I	I14-DIFLUOROBENZENE	1.000	1.000	0.0	79	-0.08
S	SDIBRFLUOROMETHANE	0.376	0.386	-2.7	80	-0.08
S	STOLUENE-D8	1.144	1.148	-0.3	79	-0.08
I	CHLOROBENZEN-d5-IS	1.000	1.000	0.0	78	-0.08
S	S4BRFLUOROBENZENE	0.448	0.448	0.0	78	-0.02
I	I14-DICLBENZENE-D4	1.000	1.000	0.0	78	-0.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348305.D
q On : 4 Oct 2018 10:00 pm
erator : NIVA
mple : ICVEXT/2953645
sc : RUN203484
S Vial : 17 Sample Multiplier: 1

ant Time: Oct 09 16:40:15 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

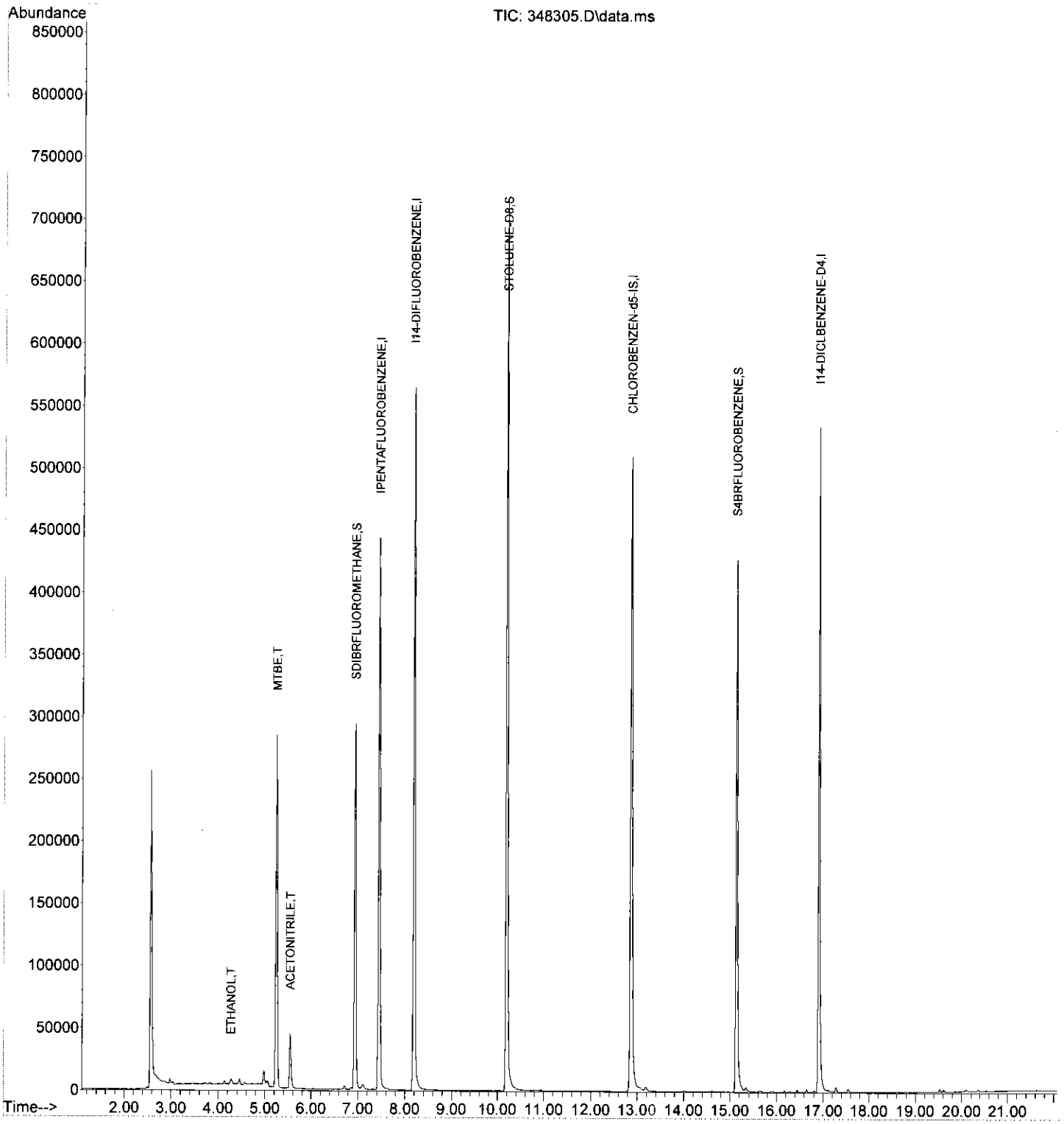
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.452	168	344508	20.00	µg/L	-0.07
5) I14-DIFLUOROBENZENE	8.193	114	544877	20.00	µg/L	-0.08
8) CHLOROBENZEN-d5-IS	12.873	117	438001	20.00	µg/L	-0.08
10) I14-DICLBENZENE-D4	16.903	152	176112	20.00	µg/L	-0.20
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.944	111	210354	20.52	µg/L	-0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.60%			
7) STOLUENE-D8	10.203	98	625347	20.07	µg/L	-0.08
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.35%			
9) S4BRFLUOROBENZENE	15.137	95	196443	20.01	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.05%			
arget Compounds						Qvalue
2) ETHANOL	4.275	45	6539	534.73	µg/L #	81
3) MTBE	5.249	73	286744	20.78	µg/L #	90
4) ACETONITRILE	5.544	41	58414	102.32	µg/L	98

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348305.D
Acq On : 4 Oct 2018 10:00 pm
Operator : NIVA
Sample : ICVEXT/2953645
Misc : RUN203484
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 09 16:40:15 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348324.D
q On : 5 Oct 2018 6:15 am
erator : NIVA
mple : 2951568
sc : RUN203484
S Vial : 36 Sample Multiplier: 1

ant Time: Oct 09 16:42:22 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

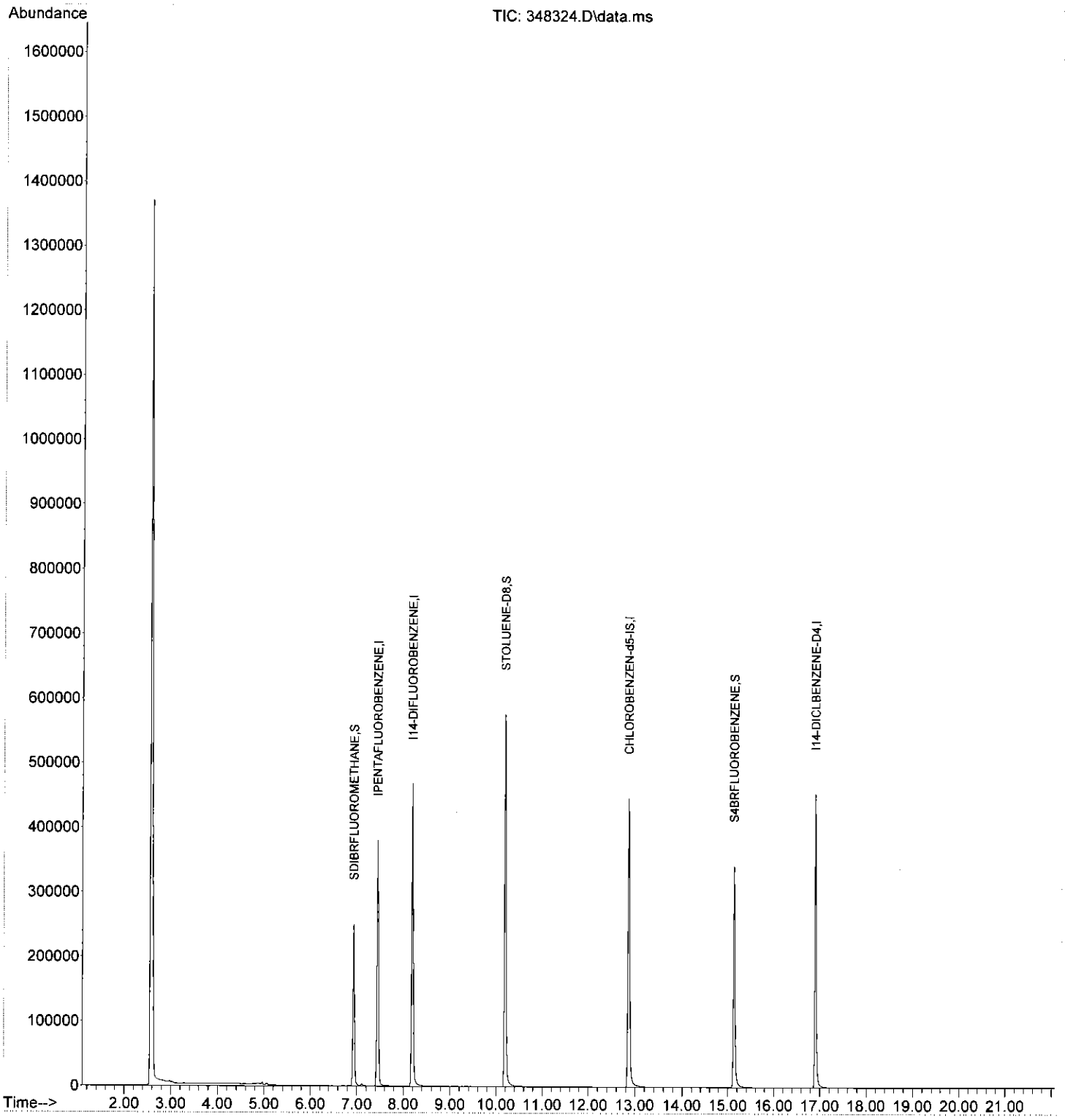
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
nternal Standards					
1) IPENTAFLUOROBENZENE	7.442	168	286981	20.00 µg/L	-0.08
5) I14-DIFLUOROBENZENE	8.193	114	457654	20.00 µg/L	-0.08
8) CHLOROBENZEN-d5-IS	12.863	117	367142	20.00 µg/L	-0.09
10) I14-DICLBENZENE-D4	16.903	152	143409	20.00 µg/L	-0.20
ystem Monitoring Compounds					
6) SDIBRFLUOROMETHANE	6.934	111	173345	20.13 µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.65%		
7) STOLUENE-D8	10.193	98	515209	19.69 µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.45%		
9) S4BRFLUOROBENZENE	15.137	95	162189	19.71 µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.55%		
arget Compounds					Qvalue
2) ETHANOL	0.000		0	N.D. d	
3) MTBE	0.000		0	N.D.	
4) ACETONITRILE	5.554	41	62	N.D.	

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348324.D
Acq On : 5 Oct 2018 6:15 am
Operator : NIVA
Sample : 2951568
Misc : RUN203484
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Oct 09 16:42:22 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348325.D
q On : 5 Oct 2018 6:41 am
erator : NIVA
mple : 2951569
sc : RUN203484
S Vial : 37 Sample Multiplier: 1

ant Time: Oct 09 16:43:09 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

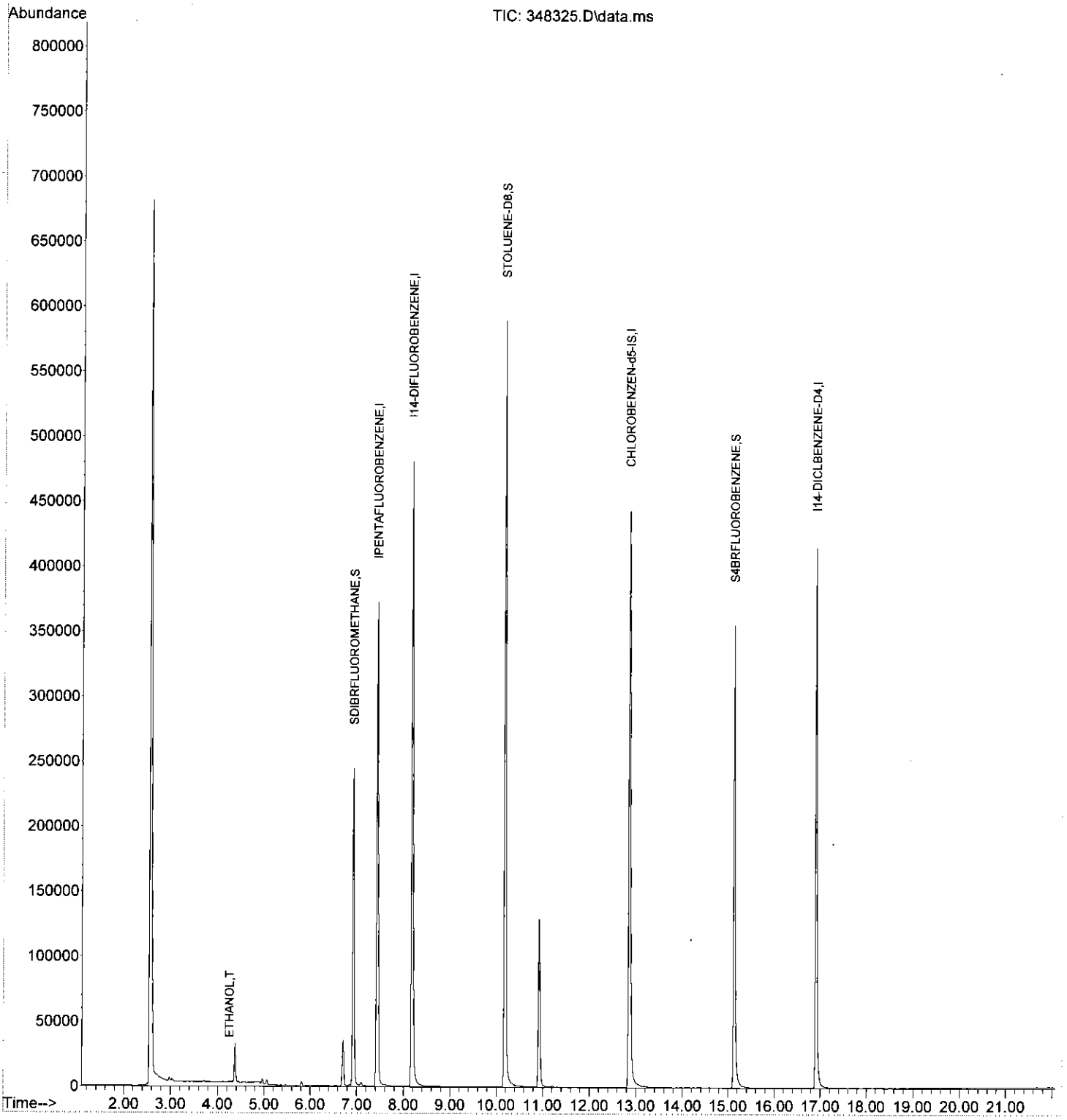
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.442	168	284413	20.00	µg/L	-0.08
5) I14-DIFLUOROBENZENE	8.183	114	458200	20.00	µg/L	-0.09
8) CHLOROBENZEN-d5-IS	12.863	117	365031	20.00	µg/L	-0.09
10) I14-DICLBENZENE-D4	16.914	152	141770	20.00	µg/L	-0.19
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.934	111	175020	20.30	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.50%			
7) STOLUENE-D8	10.193	98	517478	19.75	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
9) S4BRFLUOROBENZENE	15.137	95	161599	19.75	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
arget Compounds						Qvalue
2) ETHANOL	4.254	45	382	37.84	µg/L #	4
3) MTBE	0.000		0	N.D.		
4) ACETONITRILE	0.000		0	N.D.		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348325.D
Acq On : 5 Oct 2018 6:41 am
Operator : NIVA
Sample : 2951569
Misc : RUN203484
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 09 16:43:09 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348325.D
q On : 5 Oct 2018 6:41 am
erator : NIVA
mple : 2951569
sc : RUN203484
S Vial : 37 Sample Multiplier: 1

ant Time: Oct 09 16:44:03 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

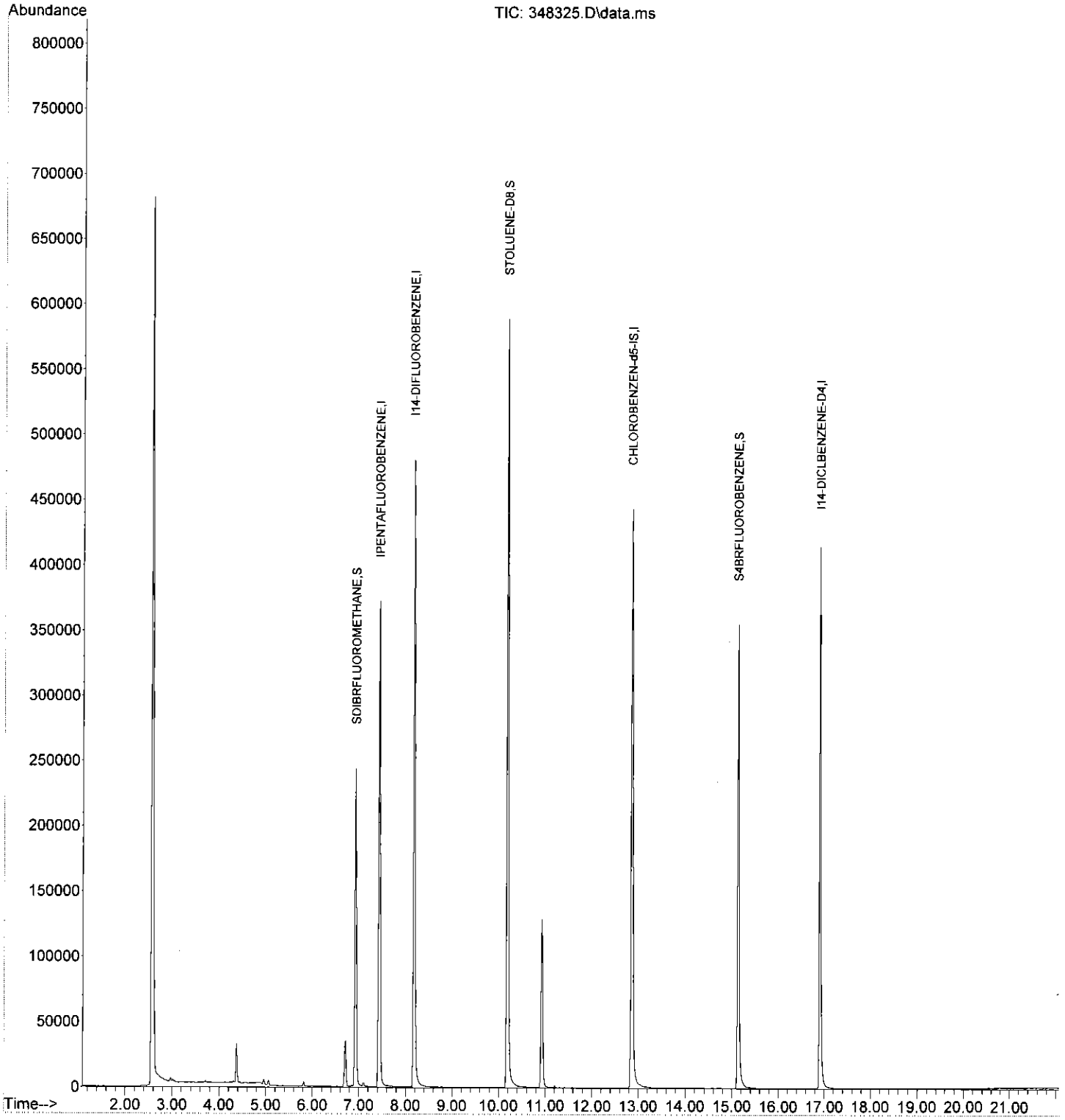
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.442	168	284413	20.00	µg/L	-0.08
5) I14-DIFLUOROBENZENE	8.183	114	458200	20.00	µg/L	-0.09
8) CHLOROBENZEN-d5-IS	12.863	117	365031	20.00	µg/L	-0.09
10) I14-DICLBENZENE-D4	16.914	152	141770	20.00	µg/L	-0.19
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.934	111	175020	20.30	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 101.50%			
7) STOLUENE-D8	10.193	98	517478	19.75	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
9) S4BRFLUOROBENZENE	15.137	95	161599	19.75	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
arget Compounds						Qvalue
2) ETHANOL	0.000		0	N.D. d		
3) MTBE	0.000		0	N.D.		
4) ACETONITRILE	0.000		0	N.D.		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348325.D
Acq On : 5 Oct 2018 6:41 am
Operator : NIVA
Sample : 2951569
Misc : RUN203484
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Oct 09 16:44:03 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348326.D
q On : 5 Oct 2018 7:07 am
erator : NIVA
mple : 2951570
sc : RUN203484
S Vial : 38 Sample Multiplier: 1

ant Time: Oct 09 16:44:21 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

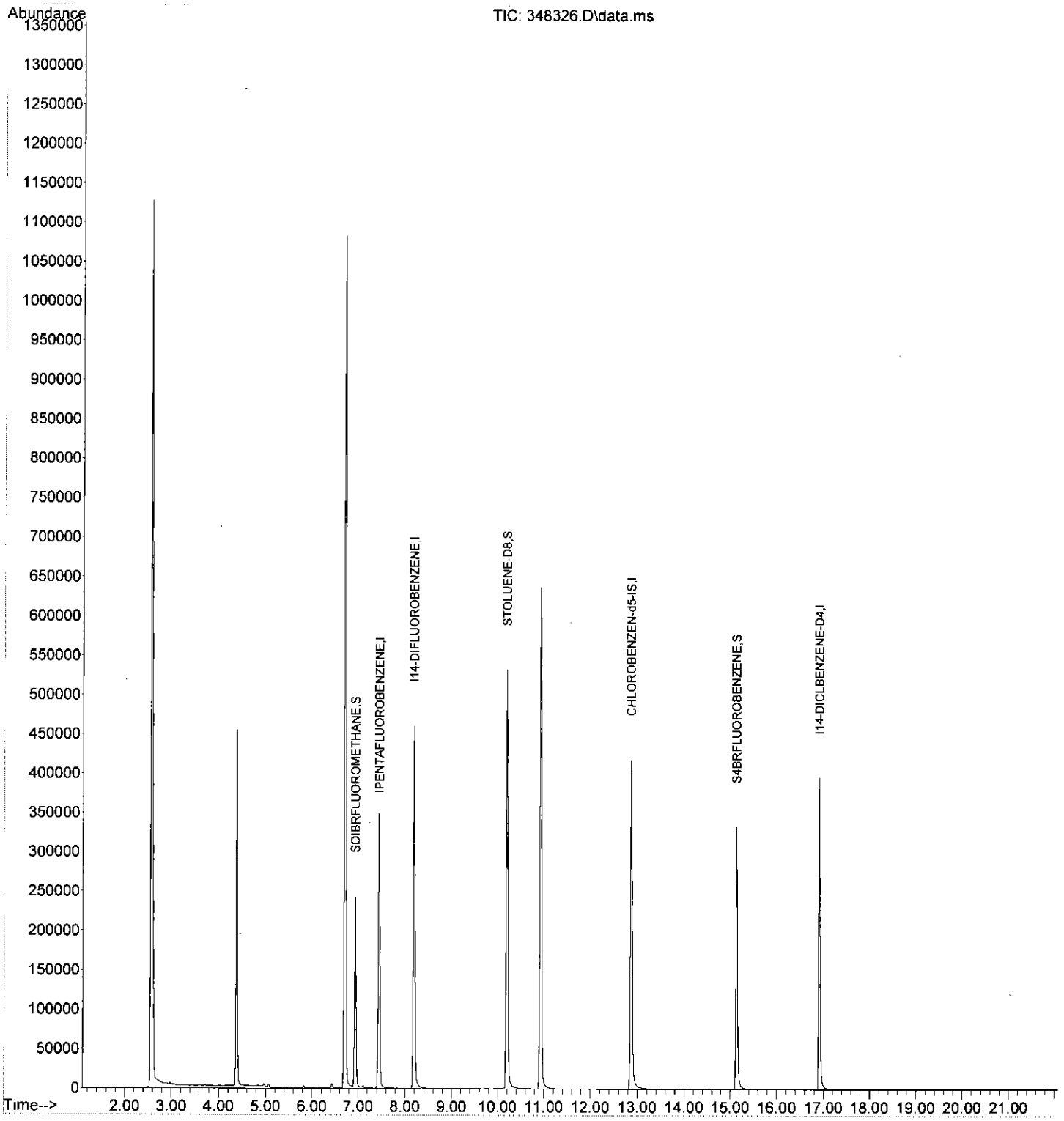
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.452	168	266399	20.00	µg/L	-0.07
5) I14-DIFLUOROBENZENE	8.193	114	430259	20.00	µg/L	-0.08
8) CHLOROBENZEN-d5-IS	12.863	117	343365	20.00	µg/L	-0.09
10) I14-DICLBENZENE-D4	16.914	152	132228	20.00	µg/L	-0.19
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.934	111	169361	20.92	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 104.60%			
7) STOLUENE-D8	10.193	98	485144	19.72	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.60%			
9) S4BRFLUOROBENZENE	15.137	95	152517	19.82	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.10%			
arget Compounds						Qvalue
2) ETHANOL	0.000		0	N.D.	d	
3) MTBE	5.249	73	74	N.D.		
4) ACETONITRILE	0.000		0	N.D.		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348326.D
Acq On : 5 Oct 2018 7:07 am
Operator : NIVA
Sample : 2951570
Misc : RUN203484
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Oct 09 16:44:21 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348327.D
q On : 5 Oct 2018 7:33 am
erator : NIVA
mple : 2951571
sc : RUN203484
S Vial : 39 Sample Multiplier: 1

ant Time: Oct 09 16:44:42 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

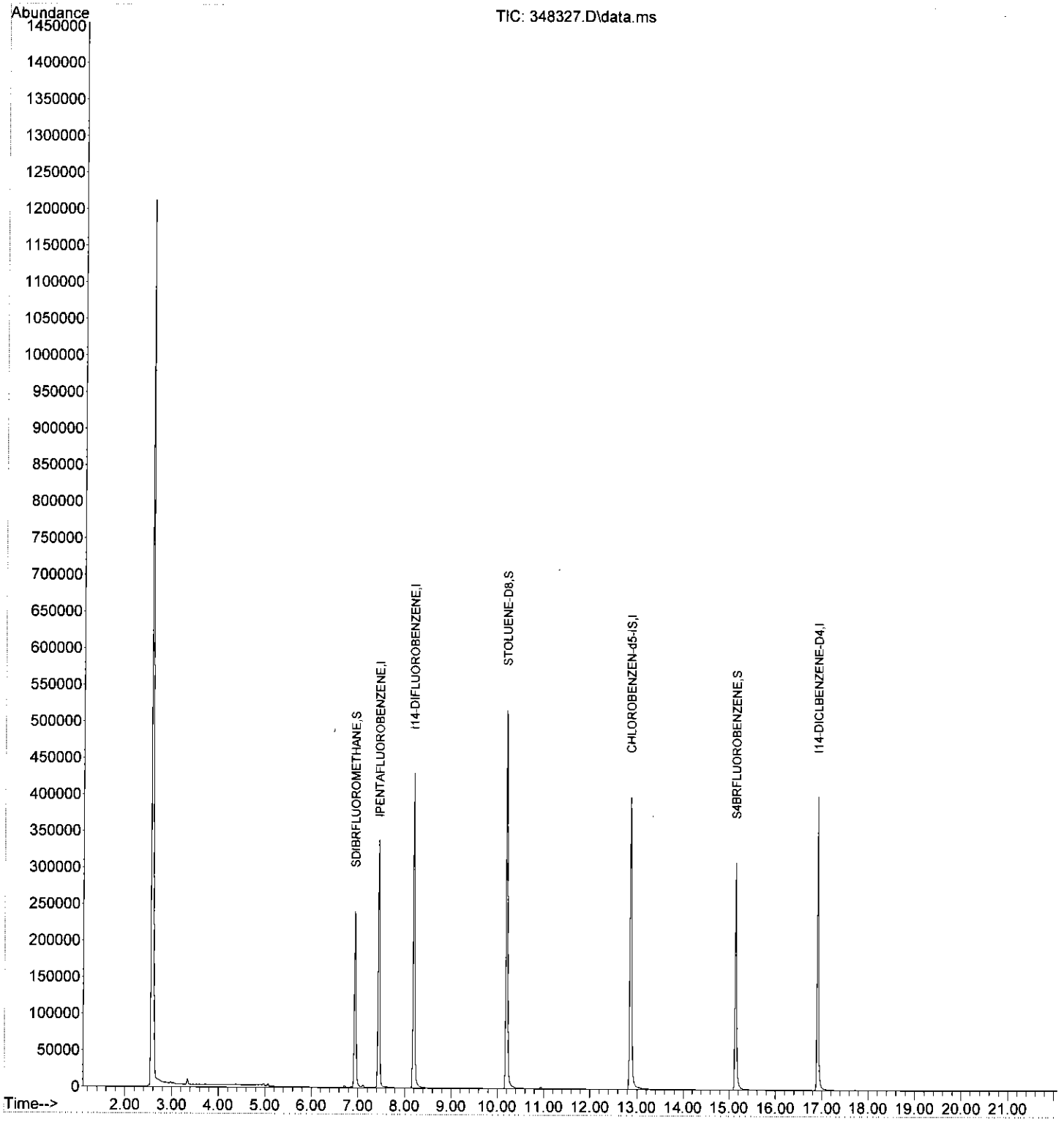
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.452	168	258316	20.00	µg/L	-0.07
5) I14-DIFLUOROBENZENE	8.193	114	413971	20.00	µg/L	-0.08
8) CHLOROBENZEN-d5-IS	12.863	117	328144	20.00	µg/L	-0.09
10) I14-DICLBENZENE-D4	16.903	152	126361	20.00	µg/L	-0.20
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.934	111	159771	20.51	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.55%			
7) STOLUENE-D8	10.193	98	467373	19.75	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 98.75%			
9) S4BRFLUOROBENZENE	15.137	95	146178	19.88	µg/L	-0.02
Spiked Amount 20.000	Range 80 - 120		Recovery = 99.40%			
arget Compounds						Qvalue
2) ETHANOL	0.000		0	N.D. d		
3) MTBE	0.000		0	N.D.		
4) ACETONITRILE	0.000		0	N.D.		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348327.D
Acq On : 5 Oct 2018 7:33 am
Operator : NIVA
Sample : 2951571
Misc : RUN203484
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Oct 09 16:44:42 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348332.D
q On : 5 Oct 2018 9:43 am
erator : NIVA
mple : 2951571DUP/2953647
sc : RUN203484
S Vial : 44 Sample Multiplier: 1

ant Time: Oct 09 16:46:07 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

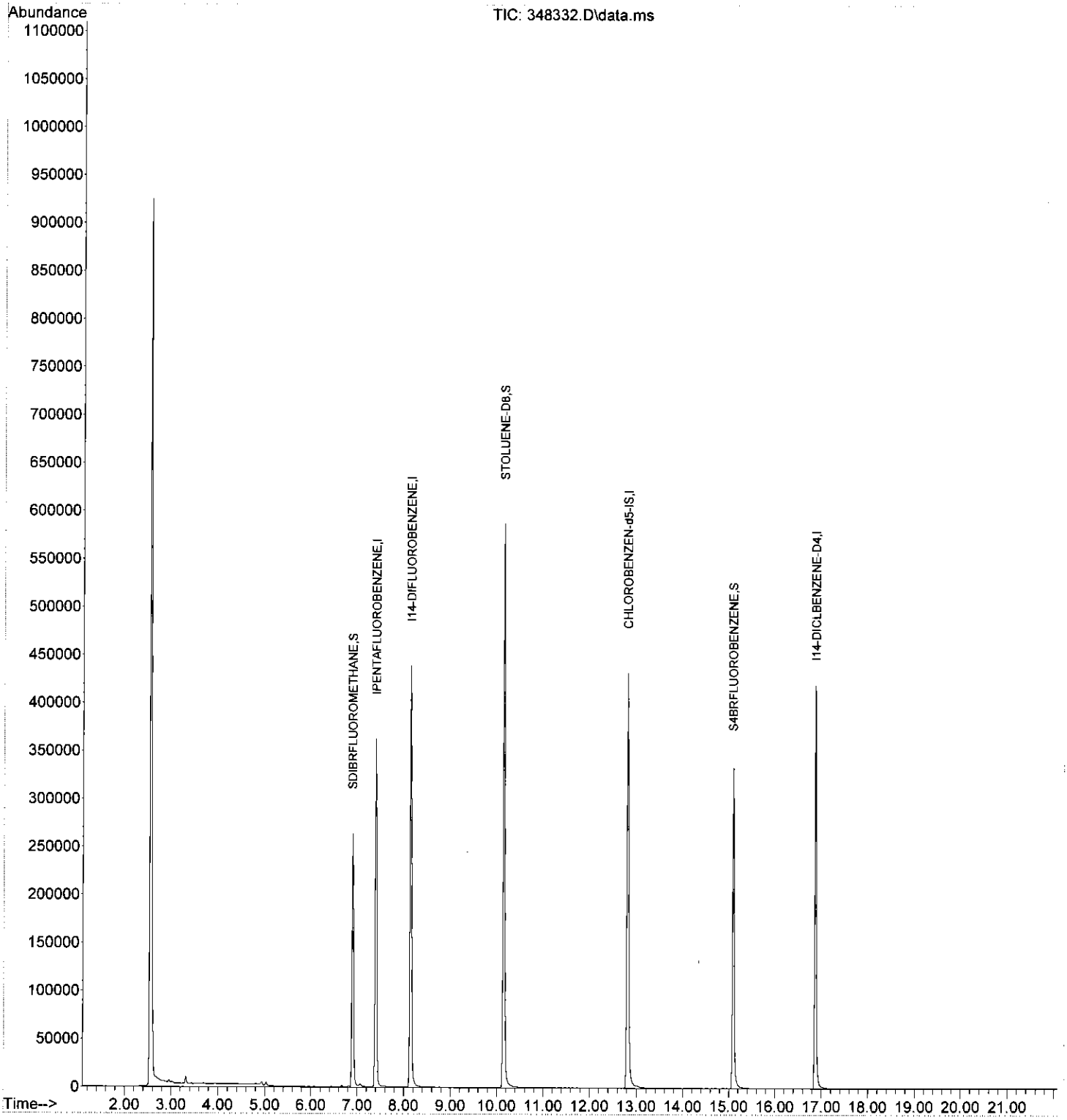
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.401	168	258468	20.00	µg/L	-0.12
5) I14-DIFLUOROBENZENE	8.153	114	432825	20.00	µg/L	-0.12
8) CHLOROBENZEN-d5-IS	12.812	117	352552	20.00	µg/L	-0.14
10) I14-DICLBENZENE-D4	16.873	152	138572	20.00	µg/L	-0.23
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.894	111	172589	21.19	µg/L	-0.13
Spiked Amount 20.000	Range 80 - 120		Recovery = 105.95%			
7) STOLUENE-D8	10.152	98	506609	20.47	µg/L	-0.13
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.35%			
9) S4BRFLUOROBENZENE	15.086	95	159461	20.18	µg/L	-0.07
Spiked Amount 20.000	Range 80 - 120		Recovery = 100.90%			
arget Compounds						Qvalue
2) ETHANOL	0.000		0	N.D. d		
3) MTBE	0.000		0	N.D.		
4) ACETONITRILE	0.000		0	N.D.		

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348332.D
Acq On : 5 Oct 2018 9:43 am
Operator : NIVA
Sample : 2951571DUP/2953647
Misc : RUN203484
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 09 16:46:07 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Quantitation Report (QT Reviewed)

ta Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
ta File : 348335.D
q On : 5 Oct 2018 11:02 am
erator : NIVA
mple : LFBEXT/2953651
sc : RUN203484
S Vial : 47 Sample Multiplier: 1

ant Time: Oct 09 16:47:25 2018
ant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
ant Title : Analysis of VOC'S by 8260B,624
ast Update : Tue Oct 09 09:13:10 2018
sponse via : Initial Calibration
stName : V7-AG7890MS

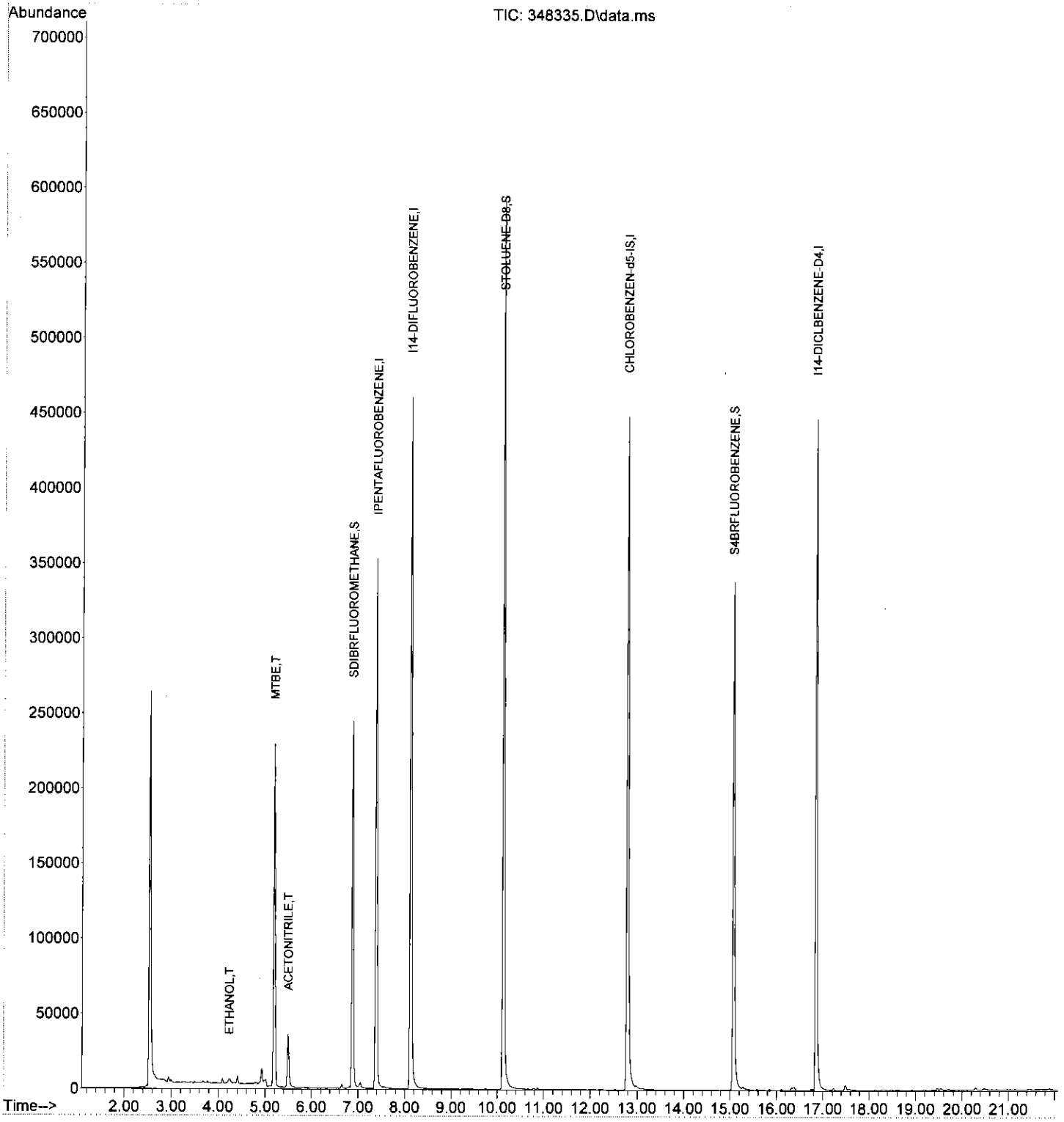
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
nternal Standards						
1) IPENTAFLUOROBENZENE	7.391	168	220399	20.00	µg/L	-0.13
5) I14-DIFLUOROBENZENE	8.132	114	430292	20.00	µg/L	-0.14
8) CHLOROBENZEN-d5-IS	12.792	117	356060	20.00	µg/L	-0.16
10) I14-DICLBENZENE-D4	16.853	152	147063	20.00	µg/L	-0.25
ystem Monitoring Compounds						
6) SDIBRFLUOROMETHANE	6.884	111	172915	21.36	µg/L	-0.14
Spiked Amount 20.000	Range 80 - 120		Recovery = 106.80%			
7) STOLUENE-D8	10.132	98	507523	20.63	µg/L	-0.15
Spiked Amount 20.000	Range 80 - 120		Recovery = 103.15%			
9) S4BRFLUOROBENZENE	15.066	95	163070	20.44	µg/L	-0.09
Spiked Amount 20.000	Range 80 - 120		Recovery = 102.20%			
arget Compounds						Qvalue
2) ETHANOL	4.234	45	4282m	547.34	µg/L	
3) MTBE	5.198	73	208064m	23.57	µg/L	
4) ACETONITRILE	5.493	41	42771m	117.11	µg/L	

#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\203483-7CC8260EXT\
Data File : 348335.D
Acq On : 5 Oct 2018 11:02 am
Operator : NIVA
Sample : LFBEXT/2953651
Misc : RUN203484
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Oct 09 16:47:25 2018
Quant Method : C:\msdchem\1\METHODS\ETHANOL-ACETONIT-MTBE-OCT18.M
Quant Title : Analysis of VOC'S by 8260B,624
QLast Update : Tue Oct 09 09:13:10 2018
Response via : Initial Calibration
InstName : V7-AG7890MS



Attachment 5
Sampling and Monitoring Field Form

ARCADIS Design & Consultancy for natural and built assets

Groundwater Extraction and Treatment System (GWETS) Sampling and Monitoring Field Form
Fibers Public Supply Wells Superfund Site
Guayama, Puerto Rico

Collection Date	Sample ID	Collection Time		Sampler's Initials
		Pace	Eqlab	
10/02/18	TB-20181002	LAB	LAB	LAB
10/02/18	INF-20181002	0833	0834	EN
10/02/18	EFF-20181002	0855	0901	EN
10/02/18	EFF DUP-20181002	0855	0901	EN
10/02/18	EFF MS-20181002	0855	0901	EN
10/02/18	EFF MSD-20181002	0855	0901	EN

GWETS Operational Data at Sample Collection

Extraction Wells

RW-2	Down	gpm
RW-4	154.6	gpm
RW-5	79.9	gpm

Compound Treatment System

Influent Flow Rate (FIT-101)	182.5	gpm
Effluent Flow Rate (FIT-301)	252.6	gpm
Blower (FIT-201A)	7338	scfm
Influent Flow Pressure (PIT-101)	2.2	psi
Effluent Flow Pressure (PIT-301)	8.4	psi
pH (pHIT-201A)	7.9	

Notes:
gpm = gallons per minute
scfm = standard cubic feet per minute
psi = pounds per square inch