Mr. Pete Campbell
ADEC – Contaminated Sites
43335 Kalifornsky Beach, Ste. 11
Soldotna, AK 99669

Arcadis U.S., Inc.
801 Corporate Center Drive
Suite 300
Raleigh
North Carolina 27607
Tel 919 854 1282
Fax 919 854 5448

Subject:

ART Second Annual Monitoring Report
Former TBE Machine Shop Property
Mile 22.5 Kenai Spur Highway
Nikiski, Alaska

ENVIRONMENT

Date:
August 18, 2016

Contact:
Matthew Pelton

Phone:
919 415 2308

Email:
Matthew.Pelton
@arcadis.com

Our ref:
B0031255

Dear Mr. Campbell:

This letter report has been prepared on behalf of the General Electric Company (GE) to document the second year of operation of the Accelerated Remediation Technologies (ART) in-well treatment system installed at the Former TBE Machine Shop Property located at 49200 Kenai Spur Highway (milepost 22.5) in Nikiski, Alaska (Figure 1); including quarterly system inspections, maintenance, groundwater/vapor monitoring, and subsequent system shutdown. Work was performed in accordance with the Alaska Department of Environmental Conservation- (ADEC-) approved *Work Plan, Accelerated Remediation Technologies Implementation* (Work Plan, URS Alaska, April 2013). Pursuant to 18 Alaska Administrative Code 75.335, the work described in this report was conducted under the supervision of a Qualified Person. The report is organized to provide a summary of activities in the following sections:

- System Operation and Maintenance
- Quarterly Monitoring
- Investigation-derived Waste (IDW) Management
- Data Quality Assurance (QA)/Quality Control (QC) Summary
- System Shutdown

SYSTEM OPERATION AND MAINTENANCE

As presented in the *ART Post-System Startup Report* (Arcadis U.S., Inc. [Arcadis], August 2014), the ART system was installed in May 2014 and system

startup activities were conducted in June 2014. The system was in continuous operation from June 18, 2014 to June 6, 2016, when the system was shutdown, with no significant issues noted and no down time, aside from routine maintenance periods. The most significant maintenance item during this second annual reporting period has been addressing scaling/fouling of the ART well pumps, tubing, and spray blocks. Fouling appeared to be related to iron accumulation on down-well equipment, and was addressed through routine maintenance as described below.

When flow rates were observed to drop off in the wells, down-well equipment was removed from the wells and cleaned, including cleaning of pump parts and spray blocks with soap and water and manual scrubbing. In addition, the pump wet ends and drop tubing were periodically replaced.

Inline cartridge filters installed in March 2015 were periodically changed when significant iron accumulation was observed or when flow rates dropped off.

Flow rates were monitored approximately every 2-4 weeks from June 2015 to June 2016. When flow rates were observed to drop below approximately 10 gallons per minute maintenance/cleaning was performed as described above. Table 1 presents the ART flow rate monitoring history since maintenance and monitoring were initiated in late 2014. Comprehensive operation, maintenance and monitoring (OMM) continued to be conducted on a quarterly basis during the second annual monitoring period and included the following:

- Quarterly system inspections, including inspection of wellhead components and vaults, and removing any accumulated water from vaults;
- Condensate management, including inspecting and emptying the Soil Vapor Extraction (SVE) knock out pot, and emptying the compressor condensation bucket (as needed);
- Documentation of system performance parameters (run times, air flow, applied pressures/vacuums, etc.);
- System integrity evaluation including valves, piping, dilution controls, wellhead inspection, and pump performance assessment;
- Removal, inspection, and cleaning of the down-well components of the ART system to address potential fouling issues described above;
- Routine equipment servicing, as needed, including oil and filter changes and equipment cleaning;
- Non-routine service, as needed, when system alarms were reported; and
- Groundwater and vapor monitoring, as described further below.

However, all in all, the ART system operated within the manufacturers design specifications during this period.

QUARTERLY MONITORING

Groundwater Sampling

Quarterly groundwater sampling was conducted during the second annual monitoring period in September 2015, December 2015, March 2016, and June 2016. Each quarterly event included static water level measurements at all 11 monitoring wells shown on Figure 1, as well as groundwater sampling

of five of the wells (MW-1, MW-2, MW-4, MW-5, and MW-7) for analysis of volatile organic compounds (VOCs), diesel-range organics (DRO), gasoline-range organics (GRO), and field measurements of water quality parameters and ferrous iron. An annual sampling event was conducted in June 2016 that included sampling of all 11 monitoring wells for the constituents listed above, as well as Heterotrophic Plate Count (HPC) at four wells (MW-1, MW-4, MW-5, and MW-7).

Static water level measurements were recorded at each monitoring well prior to sampling. Water levels are summarized in Table 2. Samples were collected from the wells following purging using low flow techniques. Samples were submitted for laboratory analysis for VOCs by United States Environmental Protection Agency (USEPA) SW-846 Method 8260B, GRO by AK Method 101, and DRO by AK Method 102. Samples for HPC were analyzed by USEPA SW-846 Method 9215B to evaluate biological activity. A summary of all groundwater data to date since baseline sampling, conducted shortly before system start is provided in Table 3. Copies of the laboratory reports from the second annual monitoring period are provided in Attachment 1. Laboratory Data Review Checklists are provided in Attachment 2.

Groundwater data are generally consistent with historical groundwater concentrations for VOCs in monitoring wells MW-1, MW-4, and MW-7. Tetrachloroethene and trichloroethene were largely removed in monitoring wells MW-2 and MW-5 during the first year of the ART remedial program and transformed into c-Dichloroethene (c-DCE), presumably through a reductive dechlorination pathway. The c-DCE values have stabilized during the second year of the program. GRO and DRO have remained below regulatory levels in MW-5 through this monitoring period. MW-5 is the primary well where these compounds have historically been present at elevated levels. Concentrations of VOCs, GRO, and DRO remained below regulatory levels in all wells sampled on an annual basis (MW-3, MW-6, and MW-8 through -11).

Vapor Monitoring

A summary of vapor data through the 2 years of operation is provided in Table 4 (photoionization detector readings) and Table 5 (Summa sample results). Copies of the laboratory reports for sampling events from September 2015 through June 2016 are provided in Attachment 1. Laboratory Data Review Checklists are provided in Attachment 2. The data show that the concentrations of detected VOCs and GRO in the vapor phase remain at low steady state levels.

IDW MANAGEMENT

Groundwater from well purging was treated on-site by pumping through a carbon drum. Treated groundwater was discharged to the ground per prior ADEC approval.

Surface water that had infiltrated the ART well vaults was also discharged to the ground per prior ADEC approval.

DATA QA/QC SUMMARY

As required by ADEC (Technical Memorandum 06-002, dated August 20, 2009), Arcadis completed a laboratory data review checklist for each TestAmerica Laboratories, Inc. (TestAmerica) laboratory report generated as part of the quarterly monitoring activities. The laboratory reports are included as Attachment 1 and the data review checklists are included as Attachment 2. The following QA summary describes parameters related to the quality and usability of the data presented in this report.

Sample Handling

Samples collected as part of the quarterly sampling program were either hand delivered to the TestAmerica receiving office in Anchorage, Alaska; or shipped overnight via FedEx to TestAmerica in Seattle, Washington or Sacramento, California (for vapor samples only) to perform the requested analyses, using the methods specified in the chain of custody records.

Sample receipt forms for each work order were reviewed to verify that samples were received in good condition and within the acceptable temperature range. All samples were received within the acceptable temperature range upon arrival at the laboratory.

Due to the very short 8 hour hold time for HPC samples (Method 9215B), samples for HPC could not be analyzed within the required hold time and were flagged by the laboratory. The ADEC QA/QC checklists (Attachment 2) contain details regarding this review.

Sensitivity

Laboratory method blanks were analyzed in association with samples collected for the quarterly sampling program to check for contributions to the analytical results possibly attributable to laboratory-based contamination. Trip blanks were submitted with groundwater samples for VOC analysis to verify that cross-contamination did not occur during sample handling and transport. Equipment rinsate blanks were submitted during the September 2015, December 2015, and March 2016 groundwater sampling events for VOC analysis to verify that proper equipment decontamination procedures were performed. An equipment blank was inadvertently not collected during the June 2016 groundwater sampling event. There were no blank detections affecting data quality for the reporting period.

Precision

Field duplicate samples were collected at a frequency of approximately 10 percent of the overall number of samples collected during the groundwater monitoring activities. The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) relative percent differences (RPDs) were outside the laboratory upper control limit for two analytes for groundwater collected during the June 2016 sampling event. However, the associated sample results were non-detections and qualification was not necessary. The data meet precision objectives for LCS and LCSD RPDs, and matrix spike (MS) and matrix spike duplicate (MSD) RPDs.

Accuracy

Accuracy is evaluated using percent recoveries for laboratory control samples such as LCS, LCSD, MS, and MSD. The LCS and/or LCSD percent recoveries were outside the laboratory upper control limit for at least one analyte for the December 2015 and June 2016 groundwater sampling events. However, the associated sample result was a non-detection, and qualification was not necessary. The MS and/or MSD percent recoveries were within laboratory control limits. The data meet accuracy objectives as indicated by the laboratory QC samples.

Completeness

The results appear to be valid and usable, and meet the ADEC completeness goal.

A review of the laboratory data packages indicates that the collected samples are considered to be representative of site conditions at the locations and times they were obtained. No samples were rejected as unusable due to quality control failures.

SYSTEM SHUTDOWN

The June 2016 groundwater sampling event also marked the end of the 2-year monitoring commitment required for the ART system. Based on the steady-state groundwater quality/constituents of concern (COC) concentrations observed in recent monitoring events, and discussions with ADEC, the ART system was shut down/moth balled following the June 2016 event. System shutdown activities included the following:

- Water/condensate was drained from system pipes, valves, tanks, and associated equipment.
- Hydraulic motors were drained and filled with new oil. Filters were also changed.
- ART well drop piping was drained and ART well tubing was pulled from each well.
- Well pumps were pulled, drained, cleaned, and stored.
- The SVE exhaust stack was covered and secured to prevent rainwater from infiltrating the blower.
- Electrical components and equipment were locked out to prevent accidental restart of the system.

RECOMMENDATIONS

Based on the improvements noted in MW-2 and MW-5 during the first year of the ART remedial program and the limited changes in groundwater quality observed during the second year of ART pumping/system operation, GE proposes to monitor for groundwater rebound and long term groundwater quality trends with the ART system off. Additional groundwater sampling is proposed semi-annually for the next 2 years, followed by annual sampling for the following 2 years with further evaluation of groundwater trends at that time. Wells MW-1, MW-2, MW-4, MW-5, and MW-7 that have shown more frequent detections of COCs and were previously monitored quarterly will be sampled during each semi-annual event (~September 2016 and 2017), and wells MW-3, MW-6, and MW-8 through MW-11 showing less frequent detections of COCs and previously sampled on an annual basis will continue to be sampled only during

the annual events (~March of each year). Wells will be sampled for VOCs, DRO, and GRO. Field parameters to be collected include dissolved oxygen, oxidation-reduction potential, pH, specific conductivity, temperature, and turbidity. No further collection of ferrous iron or HPC data is proposed.

SUMMARY

Quarterly OMM has been conducted over the 2 years of ART system operation. The system operated continuously from June 18, 2014 to June 6, 2016 with no significant issues. Following completion of the second annual groundwater monitoring event, the system was shut down and mothballed.

Because the concentration of some COCs in groundwater remain above ADEC screening levels, further monitoring is proposed. Specifically, semi-annual groundwater monitoring is proposed for the next 2 years with the first post-shutdown event performed in September 2016.

If you have any questions or concerns, please feel free to call me at 919-415-2308 or Bob Witsell at 706-291-3319

Sincerely,

Arcadis U.S., Inc.

Matthew Pelton
Principal Environmental Engineer

Copies:
Bob Witsell (GE)
Rebecca Andresen (Arcadis)

Enclosures:

Tables

1 ART Well Flow Measurements and Maintenance Information
2 Monitoring Well Construction Information and Groundwater Elevations
3 Quarterly Groundwater Analytical Results – Detected Analytes
4 ART System PID Readings
5 Summary of Vapor Sample Analytical Results in ART System Effluent

Figure

1 Site Plan

Attachments

1 Laboratory Reports
2 Laboratory Data Review Checklists

ARCADIS

Tables

TABLE 1
ART FLOW RATE MEASUREMENTS AND MAINTENANCE INFORMATION
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Date	Flow Rate (gpm)		Comments
	ART-1	ART-2	
11/11/14	7.6	1.2	
12/4/14	13.2	12.7	Pumps and spray blocks cleaned, drop tubing replaced, and pump wet ends replaced
1/12/15	12.2	5.3	
1/28/15	12.2	5.1	
2/10/15	12.2	5.1	
2/25/15	11.66	9.04	No pump cleaning, ART-2 flow rate increased without any maintenance/cleaning.
3/2/15	11.54	10.68	
3/4/15	11.7	11.07	Inline canister filters installed
3/11/15	NM	10.82	ART1 Vault lid frozen, no access
3/25/15	NM	11.04	ART1 Vault lid frozen, no access
4/8/15	12.16	10.35	Water in ART1 vault removed
4/29/15	10.9	10	Water in ART1 vault removed, ART2 filter changed based on visual accumulation, but no change in flow rate noted
5/11/15	7.36	10.12	Water in ART1 vault removed, ART1 filter changed based on visual accumulation, but no change in flow rate noted
5/26/15	6.37	9.8	
5/27/15	13.08	12.94	Pumps and spray blocks cleaned, pump wet ends, filters, and drop tubing replaced
7/4/15	11.84	12.06	
8/19/15	11.4	11.5	
6/6/16	7.4	8.8	System shutdown/mothballed

TABLE 2
MONITORING WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

ARCADIS Design & Consultancy for natural and built assets

Location ID	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	June 10, 2014		September 9, 2014		December 3, 2014		March 2, 2015		May 27, 2015	
			Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)
MW-1	127.46	130.16	41.24	88.92	41.35	88.81	41.24	88.92	42.18	87.98	42.29	87.87
MW-2	127.72	130.61	41.68	88.93	41.78	88.83	41.69	88.92	42.62	87.99	42.67	87.94
MW-3	128.44	131.42	42.43	88.99	42.58	88.84	42.48	88.94	43.42	88.00	43.51	87.91
MW-4	128.45	131.33	42.38	88.95	42.48	88.85	42.35	88.98	43.32	88.01	43.47	87.86
MW-5	127.93	131.07	41.2	89.87	42.23	88.84	42.1	88.97	43.06	88.01	43.18	87.89
MW-6	127.68	130.82	41.87	88.95	41.97	88.85	41.89	88.93	42.82	88.00	42.89	87.93
MW-7	128.44	131.75	42.82	88.93	42.93	88.82	42.81	88.94	43.75	88.00	43.65	88.10
MW-8	128.65	131.33	42.39	88.94	42.52	88.81	42.36	88.97	43.33	88.00	43.48	87.85
MW-9	129.07	131.89	42.94	88.95	43.08	88.81	42.95	88.94	43.9	87.99	43.97	87.92
MW-10	126.67	129.3	40.34	88.96	40.45	88.85	40.36	88.94	41.28	88.02	41.36	87.94
MW-11	125.3	128.3	39.32	88.98	39.42	88.88	39.35	88.95	40.25	88.05	40.21	88.09

TABLE 2
MONITORING WELL CONSTRUCTION INFORMATION AND GROUNDWATER ELEVATIONS
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	September 9, 2015		December 1, 2015		March 15, 2016		June 8, 2016	
			Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)	Depth to Water (ft btoc)	GW Elevation (ft amsl)
MW-1	127.46	130.16	43.10	87.06	40.82	89.34	41.96	88.20	43.20	86.96
MW-2	127.72	130.61	44.51	86.10	41.27	89.34	42.39	88.22	42.24	88.37
MW-3	128.44	131.42	44.33	87.09	42.05	89.37	43.20	88.22	43.06	88.36
MW-4	128.45	131.33	44.27	87.06	41.96	89.37	43.09	88.24	43.00	88.33
MW-5	127.93	131.07	44.00	87.07	41.70	89.37	42.84	88.23	42.67	88.40
MW-6	127.68	130.82	43.71	87.11	41.47	89.35	42.60	88.22	42.45	88.37
MW-7	128.44	131.75	44.67	87.08	42.42	89.33	43.53	88.22	43.40	88.35
MW-8	128.65	131.33	44.30	87.03	42.00	89.33	42.09	89.24	43.00	88.33
MW-9	129.07	131.89	44.78	87.11	42.57	89.32	43.65	88.24	46.32	85.57
MW-10	126.67	129.3	42.23	87.07	39.96	89.34	41.07	88.23	43.45	85.85
MW-11	125.3	128.3	41.11	87.19	38.91	89.39	46.07	82.23	42.95	85.35

Notes:

TOC Elevations are taken from the 2011 land survey reported by URS in the 2011 Groundwater Characterization Report

Survey coordinates provided in Alaska State Plane Zone 4, NAD 27.

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

ARCADIS Design & Consultancy for natural and built assets

Location ID:	Groundwater		MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-01	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-2	MW-3	MW-3	MW-3
Date Collected:	Cleanup Level	Units	06/10/14	09/09/14	12/05/14	03/02/15	05/27/15	09/09/15	12/02/15	03/15/16	06/07/16	06/10/14	09/09/14	12/05/14	03/02/15	05/27/15	09/09/15	12/02/15	03/15/16	06/08/16	06/10/14	05/27/15	06/08/16
Detected Volatile Organics																							
m-Xylene & p-Xylene	10,000	ug/L	2 U [2 U]	2 U* [2 U]	2 U [2 U]	3 U [3 U]	12	160 H	3 U	13	10 [8.9]	3.6	36 *	230	310	3 U	4.2	3 U [3 U]	760	96	2 U	3 U	3 U
1,1,1-Trichloroethane	200	ug/L	7.5 [7.5]	5.2 [5.4]	4.1 [4.5]	4.5 [4.2]	3.8	4.2	3 U	5	3 U [3 U]	1.5	1.6	2	3 U	3 U	3 U	3 U [3 U]	20 U	3 U	2.6	3 U	3 U
1,1-Dichloroethane	7,300	ug/L	3.3 [3.5]	6.2 [6.3]	5 [4.3]	4.6 [4.4]	8.1	7.3	2 U	4.8	2.7 [2]	7.1	6.5	6.1	4.9	4.7	4.4	5.1 [4.9]	20 U	6.2	3.2	3.9	6.1
1,1-Dichloroethene	7	ug/L	1 U [1 U]	1 U [1 U]	1 U* [1 U*]	2 U [2 U]	2 U^	2 U	2 U	1 U	2 U [2 U]	1 U	1 U	1 U*	2 U	2 U^	2 U	2 U [2 U]	20 U	2 U	1 U	2 U^	2 U*F1
1,2,4-Trimethylbenzene	1,800	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	9.2	29	3 U	2.6	3 U [3 U]	9.3	39 *	96	84	14	7.1	3 U [3 U]	88	19	1 U	3 U	3 U
1,2-Dichlorobenzene	600	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	2 U [2 U]	2 U	2 U	2 U	1 U	2 U [2 U]	1.3	2.8 *	5.6	5.8	2.2	2 U	2 U [2 U]	20 U	2 U	1 U	2 U	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	5.3 [5.6]	17 [17]	22 [18]	27 [25]	56	57	1 U	56	35 [30]	**84**	**110**	**150**	**170**	**78**	52	25 [25]	**430**	**160**	2	3	4.6 F1
1,3,5-Trimethylbenzene	1,800	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	9.5	3 U	1 U	3 U [3 U]	1 U	7 *	20	24	3 U	3 U	3 U [3 U]	25	4.7	1 U	3 U	3 U
1,4-Dichlorobenzene	75	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	2 U [2 U]	2 U	2 U	2 U	1 U	4 U [4 U]	1 U	1 U*	1 U	2	2 U	2 U	2 U [2 U]	20 U	4 U	1 U	2 U	4 U
2-Phenylbutane	370	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	3 U	3 U	1 U	3 U [3 U]	1.1	1 U*	1 U	4.7	3 U	3 U	3 U [3 U]	20 U	3 U	1 U	3 U	3 U
Cymene	- -	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	3 U	3 U	1 U	3 U [3 U]	1 U	1 U*	2.4	3.1	3 U	3 U	3 U [3 U]	20 U	3 U	1 U	3 U	3 U*
Ethylbenzene	700	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	26	140 H	3 U	14	8.6 [7.1]	10	92 *	350	420	18	6.2	3 U [3 U]	590	95	1 U	3 U	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	2 U [2 U]	4.3	3.9	2 U	1.2	2 U [2 U]	2.8	5.9 *	9.9	9.3	4.9	3.8	2 U [2 U]	20 U	2.4	1 U	2 U	2 U
Naphthalene	730	ug/L	3 U [3 U]	3 U* [3 U]	3 U [3 U]	2 U [2 U]	2 U*	2 U	2 U	1 U	2 U [2 U]	3 U	3 *	6.6	6	2 U*	2 U	2 U [2 U]	20 U	2 U	3 U	2 U*	2 U
n-Butylbenzene	370	ug/L	2 U [2 U]	2 U* [2 U]	2 U [2 U]	3 U [3 U]	3 U	3 U	3 U	1 U	3 U [3 U]	2 U	3.7 *	2 U	3 U	3 U	3 U	3 U [3 U]	20 U	3 U	2 U	3 U	3 U
n-Propylbenzene	370	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	3 U	3 U	1 U	3 U [3 U]	1 U	2.1 *	7	6.7	3 U	3 U	3 U [3 U]	20 U	3 U	1 U	3 U	3 U
tert-Butylbenzene	370	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	3 U	3 U	1 U	3 U [3 U]	1 U	1 U*	1.1	3 U	3 U	3 U	3 U [3 U]	20 U	3 U	1 U	3 U	3 U
Tetrachloroethene (PCE)	5	ug/L	**34 [31]**	**38 * [41]**	**58 [57]**	**59 [51]**	**71**	**59**	3 U	**56**	**22 [21]**	**6.6**	**5.7 ***	**15**	3 U	3 U	3 U	3 U [3 U]	20 U	3 U	2.4	3 U	3 U
Toluene	1,000	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	2 U [2 U]	2 U	8.1	2 U	1 U	2 U [2 U]	1 U	1 U*	11	9.3	2 U	2 U	2 U [2 U]	20 U	2	1 U	2 U	2 U
Trichloroethene (TCE)	5	ug/L	**18 [18]**	**19 [21]**	**20 [19]**	**21 [21]**	**26**	**27**	3 U*	**21**	**9.8 [9.2]**	**12**	**8.4**	**14**	3 U	3 U	3 U	3 U [3 U]	20 U	3 U	1.2	3 U	3 U
Vinyl chloride	2	ug/L	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	20 U	1 U	1 U	1 U	1 UF1
Xylenes (o)	10,000	ug/L	1 U [1 U]	1 U* [1 U]	1 U* [1 U*]	2 U [2 U]	19	72	2 U	6.6	3.5 [2.9]	90	150 *	380	370	31	9.3	2 U [2 U]	410	70	1 U	2 U	2 U
Detected Miscellaneous																							
Ferrous Iron	- -	mg/L	2.8	0.1	0.4	0.6	3.6	3.3	3.1	3	2.4	3.2	1.8	2.8	2	5.8	5.5	5.5	4.5	4.6	0.6	0.2	0.2
Heterotrophic Plate Count	- -	CFU/mL	210 Hcn	NA	NA	NA	3,100 H	NA	NA	NA	760 H	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Detected Gasoline Range Organics																							
Gasoline Range Organics (GRO)-C6-C10	2.2	mg/L	0.05 U [0.05 U]	0.05 U [0.05 U]	NA	NA	0.18	NA	NA	NA	0.066 [0.05 U	0.3	0.56	NA	NA	0.18	NA	NA	NA	0.58	0.05 U	0.05 U	0.05 U
Detected Diesel Range Organics																							
DRO (nC10-<nC25)	1.5	mg/L	0.38 U [0.39 U]	0.66 Y [0.78 Y]	NA	NA	0.94 Y	NA	NA	NA	0.48 [0.36]	1.3	0.8 Y	NA	NA	0.58 Y	NA	NA	NA	0.53	0.39 U	0.37 Y	0.29
Detected Field Parameters																							
Dissolved oxygen	- -	mg/L	0.65	1.09	1.13	0.91	0.96	0.85	0.68	0.38	0.62	3.31	0.63	0.99	0.58	1.69	0.74	0.54	0.54	0.88	1.09	0.52	0.68
ORP	- -	mV	247.9	143.7	161.7	173.9	113.9	51	-194.7	100.4	9.15	30.3	4.4	73.8	74.3	87.2	-18.5	-125.6	15.2	29.6	184.9	150.9	-59.1
pH	- -	SU	3.77	5.63	5.78	5.66	5.9	6	6.11	6	6.42	6.43	6.25	6.31	6.19	6.13	6.14	6.02	6.23	7.13	5.33	5.37	5.66
Specific conductivity	- -	mS/cm	0.205	0.231	0.172	0.177	0.229	0.248	0.378	0.311	0.283	0.549	0.449	0.391	0.373	0.381	0.361	0.52	0.61	0.529	0.098	0.111	0.175
Temperature	- -	°C	5.94	8.07	4.53	4.55	5.97	6.61	5.08	5.69	9.15	5.88	8.81	4.58	4.65	6.27	6.27	4.24	5.66	14.32	5.85	5.84	6.12
Turbidity	- -	NTU	4.39	45.1	1.3	4.8	2.9	5.46	13.9	28.9	66.1	6.43	6.5	26.2	4.2	4.8	4.93	15.5	5.7	9.47	4.87	15.9	102

Notes:

1. Groundwater cleanup levels are the Alaska Department of Environmental Conservation's Groundwater Cleanup Levels (Article 3 - 18 AAC 75.345).

Duplicate sample concentrations are presented in brackets.

Exceedances are bolded and shaded.

-- = No cleanup level available
B = Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery exceeds the control limits.
H = sample was prepped or analyzed beyond the specified hold time
J = estimated value
U = not detected
Y = The chromatographic response resembles a typical fuel pattern.
NA = not analyzed
Hcn = Sample was prepped or analyzed beyond the specified holding time. Due to the very short holding time of 8 hours, samples could not be analyzed within the hold time.
* = LCS or LCSD exceeds the control limits
µg/L = micrograms per liter
mg/L = milligrams per liter
CFU/mL = colony forming units per milliliter
mV = Millivolts
S.U. = Standard unit
mS/cm = Millisiemen per centimeter
°C = Degree Celsius
NTU = Nephelometric turbidity units

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

ARCADIS Design & Consultancy for natural and built assets

Location ID:	Groundwater		MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4RA	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6
Date Collected:	Cleanup Level	Units	06/10/14	09/09/14	12/05/14	03/02/15	05/27/15	09/08/15	12/02/15	12/02/15	03/15/16	06/07/16	06/10/14	09/09/14	12/05/14	03/02/15	05/27/15	09/09/15	12/01/15	03/15/16	06/08/16	06/10/14	05/27/15
Detected Volatile Organics																							
m-Xylene & p-Xylene	10,000	ug/L	2 U	2 U	2 U	3 U	3 U [3 U]	3 U	130	3 UH	1 U	3 U	250	320	390	250 F1	330 H	310 H [310 H]	340 [310]	230 [240]	230 [230]	2 U	3 U
1,1,1-Trichloroethane	200	ug/L	2.9	5.7	3.4	3.2	3.9 [4]	3.8	4.8	4.1 H	3.6	3	1.7	1 U	1 U*	3 U	3 U	3 U [3 U]	3 U [3 U]	5 U [5 U]	3 U [3 U]	1 U	3 U
1,1-Dichloroethane	7,300	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	2 U	11	2 UH	1 U	2 U	1 U	1 U	1 U	2 U	2 U	2 U [2 U]	2 U [2 U]	5 U [5 U]	2 U [2 U]	1 U	2 U
1,1-Dichloroethene	7	ug/L	1 U	1 U	1 U*	2 U	2 U^ [2 U^]	2 U	2 U	2 UH	1 U	2 U	1.8	1 U	1 U*	2 U	2 U^	2 U [2 U]	2 U [2 U]	5 U [5 U]	2 U [2 U]	1 U	2 U^
1,2,4-Trimethylbenzene	1,800	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	24	3 UH	1 U	3 U	6.7	28	35	32 F1	55	24 [22]	21 [24]	16 [16]	11 [12]	1 U	3 U
1,2-Dichlorobenzene	600	ug/L	1 U	1 U*	1 U	2 U	2 U [2 U]	2 U	2 U	2 UH	1 U	2 U	2.7	2.3	2.3	2 U	3.4	2 [2 U]	2 U [2 U]	5 U [5 U]	2 U [2 U]	1 U	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	**88**	1 UH	1 U	1 U	**370**	**88**	**140**	**520 F1**	**520 H**	**430 H [440 H]**	**120 [120]**	**120 [120]**	**230 [240]**	1 U	1 U
1,3,5-Trimethylbenzene	1,800	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	6.7	3 UH	1 U	3 U	15	17	23	22 F1	29	18 [17]	15 [17]	13 [13]	9.4 [9.8]	1 U	3 U
1,4-Dichlorobenzene	75	ug/L	1 U	1 U*	1 U	2 U	2 U [2 U]	2 U	2 U	2 UH	1 U	4 U	10	1 U	1 U	5 F1	6.6	7.5 [7]	5.2 [2 U]	5 U [5 U]	4 U [4 U]	1 U	2 U
2-Phenylbutane	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	3 U	3 UH	1 U	3 U	1 U	1 U	1 U	3 U	3 U	3 U [3 U]	3 U [3 U]	5 U [5 U]	3 U [3 U]	1 U	3 U
Cymene	- -	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	3 U	3 UH	1 U	3 U	1 U	1.5	1.7	3 U	3.3	3 U [3 U]	3 U [3 U]	5 U [5 U]	3 U [3 U]	1 U	3 U
Ethylbenzene	700	ug/L	1 U	1 U	1 U	3 U	3 U [3 U]	3 U	130	3 UH	1 U	3 U	200	230	280	180 F1	310 H	220 H [220 H]	250 [220]	150 [160]	170 [170]	1 U	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	2 U	3.6	2 UH	1 U	2 U	1 U	1.3	1.5	2 U	2 U	2 U [2 U]	2 U [2 U]	5 U [5 U]	2 U [2 U]	1 U	2 U
Naphthalene	730	ug/L	3 U	3 U*	3 U	2 U	2 U* [2 U*]	2 U	2 U	2 UH	1 U	2 U	3.1	4.2	3.4	2 U	5.8 H	2.4 [2.3]	2 [2.4]	5 U [5 U]	2 U [2 U]	3 U	2 U*
n-Butylbenzene	370	ug/L	2 U	2 U*	2 U	3 U	3 U [3 U]	3 U	3 U	3 UH	1 U	3 U	2	10	2 U	3 U	3 U	12 [11]	9.1 [9.8]	5 U [5 U]	8.3 [8.2]	2 U	3 U
n-Propylbenzene	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	3 U	3 UH	1 U	3 U	1 U	1.5	1.8	3 U	3 U	3 U [3 U]	3 U [3 U]	5 U [5 U]	3 U [3 U]	1 U	3 U
tert-Butylbenzene	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	3 U	3 U	3 UH	1 U	3 U	1.2	1 U	1.1	3 U	3 U	3 U [3 U]	3 U [3 U]	5 U [5 U]	3 U [3 U]	1 U	3 U
Tetrachloroethene (PCE)	5	ug/L	**11**	**14**	**14**	**13**	**16 [16]**	**14**	**52**	**15 H**	**14**	**14**	**98**	**59**	**50**	3	3 U	3 U [3 U]	**6.7 [6.4]**	5 U [5 U]	3 U [3 U]	1 U	3 U
Toluene	1,000	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	2 U	8.2	2 UH	1 U	2 U	4.2	5.6	1.5	2 U	7	3.5 [3.4]	2 U [2 U]	5 U [5 U]	2 U [2 U]	1 U	2 U
Trichloroethene (TCE)	5	ug/L	3.2	4.9	3.4	3.3	4.5 [4.3]	3.7	4.6 H	NA	3.5	3.9	**20**	**23**	**16**	3 UF1	3 U	3 U [3 U]	3.1 [3.2]	5 U [5 U]	3 U [3 U]	1 U	3 U
Vinyl chloride	2	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1.7 [1.5]	5 U [5 U]	1 U [1 U]	1 U	1 U
Xylenes (o)	10,000	ug/L	1 U	1 U	1 U*	2 U	2 U [2 U]	2 U	76	2 UH	1 U	2 U	160	120	120	99 F1	290 H	140 H [140 H]	120 [130]	82 [85]	86 [89]	1 U	2 U
Detected Miscellaneous																							
Ferrous Iron	- -	mg/L	0.6	0	0	0	0.2	0.2	0	NA	0	0	2.2	4.2	2.4	2.2	4	4.2	5	3.8	3	0.2	0.6
Heterotrophic Plate Count	- -	CFU/mL	110 Hcn	NA	NA	NA	130 H	NA	NA	NA	NA	3,700 H	790 Hcn	NA	NA	NA	130 H	NA	NA	NA	620 H	NA	NA
Detected Gasoline Range Organics																							
Gasoline Range Organics (GRO)-C6-C10	2.2	mg/L	0.05 U	0.05 U	NA	NA	0.05 U [0.05 U]	NA	NA	NA	NA	0.05 U	1.7	1.8 B	1.4	1.3	**2.9**	2.1 [2]	1.6 [1.7]	1.2 [1.2]	1.2 [1.2]	0.05 U	0.05 U
Detected Diesel Range Organics																							
DRO (nC10-<nC25)	1.5	mg/L	0.38 U	0.23 Y	NA	NA	0.33 Y [0.37 Y]	NA	NA	NA	NA	0.57	**1.6**	1.2 Y	1.1 Y	0.69 Y	1.2 Y	1.1 Y [1.2 Y]	0.87 [0.89]	1 [1.2]	0.92 [0.85]	0.38 U	0.21 Y
Detected Field Parameters																							
Dissolved oxygen	- -	mg/L	2.54	1.42	3.52	2.83	1.39	2.89	3.02	NA	3.9	3	0.51	0.54	1.61	0.62	0.67	0.44	0.89	0.49	0.46	1.75	3.31
ORP	- -	mV	214	155.5	198.5	119.2	203	231	-108.6	NA	168.7	72.15	-95.2	-1.3	19.5	58.7	32.7	-32.6	-231.2	-40.6	-100.9	217.9	163
pH	- -	SU	5.55	5.51	4.18	5.48	5.25	5.38	5.61	NA	5.6	5.46	5.52	5.97	6.04	5.98	6.01	6.12	6.28	6.07	7.29	5.28	5.28
Specific conductivity	- -	mS/cm	0.085	0.119	0.082	0.067	0.104	0.104	0.134	NA	0.112	0.144	0.18	0.157	0.122	0.132	0.115	0.149	0.209	0.259	0.225	0.126	0.115
Temperature	- -	°C	5.89	7.54	4.17	4.33	6.17	6.1	4.56	NA	4.97	7.69	6.37	10.02	8.25	8.51	10.73	10.52	8.63	10.62	13.25	5.47	6.27
Turbidity	- -	NTU	30.9	28.5	104.7	47.1	32.2	9.95	45.2	NA	21.2	95.1	31.9	43.1	4.7	3.1	0.9	6.82	10.9	29.5	7.91	177	149.3

Notes:

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TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

ARCADIS Design & Consultancy for natural and built assets

Location ID:	Groundwater		MW-6	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-8	MW-8	MW-8	MW-9	MW-9	MW-9	MW-10	MW-10	MW-10	MW-11	MW-11
Date Collected:	Cleanup Level	Units	06/08/16	06/11/14	09/10/14	12/05/14	03/02/15	05/27/15	09/09/15	12/01/15	03/15/16	06/08/16	06/11/14	05/27/15	06/07/16	06/11/14	05/27/15	06/08/16	06/11/14	05/27/15	06/08/16	06/11/14	05/27/15
Detected Volatile Organics																							
m-Xylene & p-Xylene	10,000	ug/L	3 U	2 U	2 U	2 U	3 U	3 U	3 U	3 U	1 U	3 U	2 U	3 U [3 U]	3 U	2 U	3 U	3 U	2 U	3 U	3 U	2 U	3 U
1,1,1-Trichloroethane	200	ug/L	3 U	2.4	1 U	1 U*	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
1,1-Dichloroethane	7,300	ug/L	2 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U [2 U]	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U
1,1-Dichloroethene	7	ug/L	2 U	1 U	1 U	1 U*	2 U	2 U^	2 U	2 U	1 U	2 U	1 U	2 U^ [2 U^]	2 U	1 U	2 U^	2 U*	1 U	2 U^	2 U*	1 U	2 U^
1,2,4-Trimethylbenzene	1,800	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
1,2-Dichlorobenzene	600	ug/L	2 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U [2 U]	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	1 U	1 U	3.6	2.7	1.5	1	1 U	1.2	1.5	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	1,800	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
1,4-Dichlorobenzene	75	ug/L	4 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	4 U	1 U	2 U [2 U]	4 U	1 U	2 U	4 U	1 U	2 U	4 U	1 U	2 U
2-Phenylbutane	370	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
Cymene	- -	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U*	1 U	3 U	3 U*	1 U	3 U
Ethylbenzene	700	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	2 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U [2 U]	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U
Naphthalene	730	ug/L	2 U	3 U	3 U	3 U	2 U	2 U*	2 U	2 U	1 U	2 U	3 U	2 U* [2 U*]	2 U	3 U	2 U*	2 U	3 U	2 U*	2 U	3 U	2 U*
n-Butylbenzene	370	ug/L	3 U	2 U	2 U	2 U	3 U	3 U	3 U	3 U	1 U	3 U	2 U	3 U [3 U]	3 U	2 U	3 U	3 U	2 U	3 U	3 U	2 U	3 U
n-Propylbenzene	370	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
tert-Butylbenzene	370	ug/L	3 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	1 U	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
Tetrachloroethene (PCE)	5	ug/L	3 U	**24**	**17**	**21**	**18**	**25**	**24**	**23**	**24**	**18**	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
Toluene	1,000	ug/L	2 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U [2 U]	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U
Trichloroethene (TCE)	5	ug/L	3 U	1.7	2.8	2.1	3 U	3 U	3 U	3.1	2.3	3 U	1 U	3 U [3 U]	3 U	1 U	3 U	3 U	1 U	3 U	3 U	1 U	3 U
Vinyl chloride	2	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes (o)	10,000	ug/L	2 U	1 U	1 U	1 U*	2 U	2 U	2 U	2 U	1 U	2 U	1 U	2 U [2 U]	2 U	1 U	2 U	2 U	1 U	2 U	2 U	1 U	2 U
Detected Miscellaneous																							
Ferrous Iron	- -	mg/L	3.2	0.4	1.2	0	0.2	0.2	0.2	0	0	0	0.4	0.2	0.2	0.4	0	0	0.4	0.2	0	0.4	0.1
Heterotrophic Plate Count	- -	CFU/mL	NA	18 Hcn	NA	NA	NA	7.5 H	NA	NA	NA	93 H	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Detected Gasoline Range Organics																							
Gasoline Range Organics (GRO)-C6-C10	2.2	mg/L	0.05 U	0.05 U	0.05 U	NA	NA	0.05 U	NA	NA	NA	0.05 U	0.05 U	0.05 U [0.05 U]	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Detected Diesel Range Organics																							
DRO (nC10-<nC25)	1.5	mg/L	0.15	0.39 U	0.15 Y	NA	NA	0.2 U	NA	NA	NA	0.1 U	0.38 U	0.2 U [0.2 U]	0.11 U	0.39 U	0.21 U	0.11 U	0.4 U	0.21 U	0.11 U	0.38 U	0.2 U
Detected Field Parameters																							
Dissolved oxygen	- -	mg/L	0.81	3.67	7.16	3.69	3.59	1.82	1.02	2.3	1.9	2.5	6.55	6.91	5.03	4.27	4.23	2.08	4.35	3.92	3.19	1.39	4.31
ORP	- -	mV	-40.3	212.1	82.9	184.7	119.2	102.4	150.1	-165.3	-150.1	-86.2	212.1	110.4	67.1	290	138.7	-69.7	236.1	149.7	-9.8	272.1	155.9
pH	- -	SU	6.98	4.8	5.97	5.93	5.92	5.5	6.02	6.02	6.1	6.95	5.44	5.62	5.69	3.22	5.46	7.52	4.79	5.34	7.12	4.59	5.35
Specific conductivity	- -	mS/cm	0.137	0.124	0.099	0.084	0.078	0.12	0.137	0.207	0.161	0.138	0.062	0.067	0.071	0.108	0.093	0.079	0.107	0.071	0.078	0.162	0.113
Temperature	- -	°C	14.1	5.69	9.24	5.87	8.13	1.1	9.29	7.43	5.91	13.42	6.29	5.2	9.9	4.84	4.48	7.67	5.05	4.42	7.12	4.81	4.48
Turbidity	- -	NTU	229	36	23	26.7	13.6	0	10.1	158.2	181.2	196	22.2	49	39.5	4.21	0	9.8	60.1	39.2	33.8	74.9	208.3

Notes:

1. Groundwater cleanup levels are the Alaska Department of Environmental Conservation's Groundwater Cleanup Levels (Article 3 - 18 AAC 75.345).

Duplicate sample concentrations are presented in brackets.

Exceedances are bolded and shaded.

-- = No cleanup level available
B = Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery exceeds the control limits.
H = sample was prepped or analyzed beyond the specified hold time
J = estimated value
U = not detected
Y = The chromatographic response resembles a typical fuel pattern.
NA = not analyzed
Hcn = Sample was prepped or analyzed beyond the specified holding time. Due to the very short holding time of 8 hours, samples could not be analyzed within the hold time.
* = LCS or LCSD exceeds the control limits
µg/L = micrograms per liter
mg/L = milligrams per liter
CFU/mL = colony forming units per milliliter
mV = Millivolts
S.U. = Standard unit
mS/cm = Millisiemen per centimeter
°C = Degree Celsius
NTU = Nephelometric turbidity units

TABLE 3
QUARTERLY GROUNDWATER ANALYTICAL RESULTS - DETECTED ANALYTES
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID:	Groundwater		MW-11
Date Collected:	Cleanup Level	Units	06/08/16
Detected Volatile Organics			
m-Xylene & p-Xylene	10,000	ug/L	3 U
1,1,1-Trichloroethane	200	ug/L	3 U
1,1-Dichloroethane	7,300	ug/L	2 U
1,1-Dichloroethene	7	ug/L	2 U*
1,2,4-Trimethylbenzene	1,800	ug/L	3 U
1,2-Dichlorobenzene	600	ug/L	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	1 U
1,3,5-Trimethylbenzene	1,800	ug/L	3 U
1,4-Dichlorobenzene	75	ug/L	4 U
2-Phenylbutane	370	ug/L	3 U
Cymene	- -	ug/L	3 U*
Ethylbenzene	700	ug/L	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	2 U
Naphthalene	730	ug/L	2 U
n-Butylbenzene	370	ug/L	3 U
n-Propylbenzene	370	ug/L	3 U
tert-Butylbenzene	370	ug/L	3 U
Tetrachloroethene (PCE)	5	ug/L	3 U
Toluene	1,000	ug/L	2 U
Trichloroethene (TCE)	5	ug/L	3 U
Vinyl chloride	2	ug/L	1 U
Xylenes (o)	10,000	ug/L	2 U
Detected Miscellaneous			
Ferrous Iron	- -	mg/L	0
Heterotrophic Plate Count	- -	CFU/mL	NA
Detected Gasoline Range Organics			
Gasoline Range Organics (GRO)-C6-C10	2.2	mg/L	0.05 U
Detected Diesel Range Organics			
DRO (nC10-<nC25)	1.5	mg/L	0.11 U
Detected Field Parameters			
Dissolved oxygen	- -	mg/L	1.19
ORP	- -	mV	-57.2
pH	- -	SU	5.88
Specific conductivity	- -	mS/cm	0.149
Temperature	- -	°C	7.94
Turbidity	- -	NTU	34.3

Notes:
1. Groundwater cleanup levels are the Alaska Department of Environmental Conservation's Groundwater Cleanup Levels (Article 3 - 18 AAC 75.345).

Duplicate sample concentrations are presented in brackets.
Exceedances are bolded and shaded.
-- = No cleanup level available
B = Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery exceeds the control limits.
H = sample was prepped or analyzed beyond the specified hold time
J = estimated value
U = not detected
Y = The chromatographic response resembles a typical fuel pattern.
NA = not analyzed
Hcn = Sample was prepped or analyzed beyond the specified holding time. Due to the very short holding time of 8 hours, samples could not be analyzed within the hold time.
* = LCS or LCSD exceeds the control limits
µg/L = micrograms per liter
mg/L = milligrams per liter
CFU/mL = colony forming units per milliliter
mV = Millivolts
S.U. = Standard unit
mS/cm = Millisiemen per centimeter
°C = Degree Celsius
NTU = Nephelometric turbidity units

TABLE 4
ART SYSTEM PID READINGS
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Date	PID Concentration (parts per million)		
	Effluent Stack Flow	ART-1 SVE Manifold	ART-2 SVE Manifold
6/18/2014	6.7	12.6	53.7
6/19/2014	2.7	9.6	49.1
6/20/2014	4.5	5.4	33.0
6/21/2014	4.5	5.4	33.0
6/22/2014	4.5	4.7	24.7
6/23/2014	6.3	4.5	30.5
6/24/2014	6.4	4.1	20.9
6/25/2014	2.4	3.4	19.4
6/26/2014	4.6	2.5	13.2
7/3/2014	1.4	1.5	4.0
7/10/2014	0.0	0.3	1.0
7/18/2014	1.7	1.4	0.8
8/13/2014	0.0	0.0	0.0
12/5/2014	0.0	0.0	0.0
3/3/2015	0.0	0.0	0.0
5/26/2015	0.0	0.0	0.0
9/8/2015	0.0	0.0	0.0
12/1/2015	0.0	0.0	0.0
3/15/2016	0.0	0.0	0.0
6/6/2016	0.0	0.0	0.0

TABLE 5
SUMMARY OF VAPOR SAMPLE ANALYTICAL RESULTS IN ART SYSTEM EFFLUENT
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID:		Effluent-A	Effluent-A	Effluent-A	Effluent-A	Effluent-A	Effluent-A	Effluent-A
Date Collected:		06/19/14	06/20/14	06/23/14	07/03/14	07/10/14	07/18/14	08/13/14
Days of Operation Since Startup:	Units	1	2	5	15	22	30	55
Detected Volatile Organic Compounds in System Effluent								
Gasoline Range Organics (C6-C12)	ppb v/v	2,100	1,700	650	NA/1	330	220	330
1,1,1-Trichloroethane	ppb v/v	6.6	5.3	2.5	NA/1	0.64	0.66	< 0.30
Ethylbenzene	ppb v/v	180	230	63	NA/1	29	18	13
Tetrachloroethene (PCE)	ppb v/v	42	46	16	NA/1	8.4	6.8	3.4
Trichloroethene (TCE)	ppb v/v	26	25	12	NA/1	5.6	5.8	2.6

Notes:
ppb v/v - parts per billion on a volumetric basis
/1 - the sample collected on July 3, 2014 was lost due to a leaking valve on the summa canister.
NA - Not Analyzed

TABLE 5
SUMMARY OF VAPOR SAMPLE ANALYTICAL RESULTS IN ART SYSTEM EFFLUENT
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID:		Effluent-A	Effluent-A	Effluent-A	Effluent-A
Date Collected:		09/08/14	12/03/14	03/03/15	05/26/15
Days of Operation Since Startup:	Units	81	168	258	342
Detected Volatile Organic Compounds in System Effl					
Gasoline Range Organics (C6-C12)	ppb v/v	< 100	< 100	< 100	< 100
1,1,1-Trichloroethane	ppb v/v	< 0.30	< 0.30	0.30	< 0.30
Ethylbenzene	ppb v/v	0.51	1.3	0.82	0.77
Tetrachloroethene (PCE)	ppb v/v	< 0.40	1.3	3.1	< 0.40
Trichloroethene (TCE)	ppb v/v	< 0.40	1.2	0.98	0.54

Notes:
ppb v/v - parts per billion on a volumetric basis
/1 - the sample collected on July 3, 2014 was lost due to
NA - Not Analyzed

TABLE 5
SUMMARY OF VAPOR SAMPLE ANALYTICAL RESULTS IN ART SYSTEM EFFLUENT
SECOND ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID:		Effluent-A	Effluent-A	Effluent-A	Effluent-A
Date Collected:		09/08/15	12/01/15	03/15/16	06/06/16
Days of Operation Since Startup:	Units	447	531	636	719
Detected Volatile Organic Compounds in System Effl					
Gasoline Range Organics (C6-C12)	ppb v/v	110	< 100	< 100	< 100
1,1,1-Trichloroethane	ppb v/v	< 0.30	< 0.30	< 0.30	< 0.30
Ethylbenzene	ppb v/v	4.8	7.1	0.53	8.4
Tetrachloroethene (PCE)	ppb v/v	1.3	1.1	0.62	1.1
Trichloroethene (TCE)	ppb v/v	1.2	1.5	0.91	0.96

Notes:
ppb v/v - parts per billion on a volumetric basis
/1 - the sample collected on July 3, 2014 was lost due to
NA - Not Analyzed

ARCADIS

Figure

LOT 11, BERNICE LAKE, ALASKA INDUSTRIAL SUBDIVISION

SITE BOUNDARY

LIMITS OF HOMER ELECTRIC ASSOCIATION EASEMENT

KENAI SPUR HIGHWAY R.O.W.

TIKOPIA STREET 83' R/W

OHE

CHAIN LINK FENCE

TREATMENT ENCLOSURE FOUNDATION

ELECTRIC SERVICE POLE

UGE

ART-1

ART-2

PIPING AND CONDUIT

ART WELLS

FORMER TBE MACHINE SHOP

MW-1

MW-2

MW-3

MW-4

MW-5

MW-6

MW-7

MW-8

MW-9

MW-10

MW-11

LOT 12, BERNICE LAKE, ALASKA INDUSTRIAL SUBDIVISION

LOT 13, WADE OILFIELD

0 30' 60'

GRAPHIC SCALE

LEGEND:

- EXISTING GROUNDWATER MONITORING WELL
- TREATMENT WELL
- EXISTING POWER POLE
- SERVICE POWER POLE
- OHE OHE — OVERHEAD ELECTRIC
- UGE UGE — UNDERGROUND ELECTRIC
- SVE AND AIR SPARGE PIPING
- X — CHAIN FENCE

NOTE:

1. BASE MAP SURVEY PROVIDED BY McLANE CONSULTING INC., AT A SCALE OF 1"=40'. COORDINATES ARE ALASKA STATE PLANE ZONE 4 NAD83. ELEVATIONS ARE NAVD88 IN FEET COMPUTED FROM AN OPUS SOLUTION USING GEOD09. BASIS OF HORIZONTAL CONTROL NAD83 POSITION (EPOCH 2003) AND VERTICAL CONTROL (NAVD88) WAS AN OPUS SOLUTION FROM CORS STATIONS ANC2 ANC AIRPORT 2 CORS ARP, TSEA ANCHORAGE CORS ARP AND UAAG U ALASKA COOP CORS ARP TO ESTABLISH THE POSITION AND ELEVATION OF CP-4.

GENERAL ELECTRIC COMPANY
FORMER MACHINE SHOP
NIKISKI, ALASKA

SITE MAP

ARCADIS

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB/LD: L.POSENAUER PM: M.PELTON LYR:(Opt)ON=*OFF=*REF*
V:\ENVCAD\SYRACUSE\ACTIVE\B0031255\15020000\2\DWG\SITE\31255B01.dwg LAYOUT: 1 SAVED: 9/2/2015 2:16 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 9/2/2015 2:19 PM BY: POSENAUER, LISA
XREFS:
31255X01
31255X00
IMAGES:

Attachment 1

Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-53330-1
Client Project/Site: Former TBE Machine Shop Property
Revision: 1

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
10/6/2015 4:09:35 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Job ID: 580-53330-1

Laboratory: TestAmerica Seattle

Narrative

Report was revised 10-6-15 to change the reported analyte list for 8260.

Job Narrative
580-53330-1

Comments
No additional comments.

Receipt
The samples were received on 9/11/2015 9:40 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.1° C.

GC/MS VOA
Method(s) 8260B: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-1 (580-53330-1), MW-5 (580-53330-4) and BD-1 (580-53330-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Reanalysis of the following samples was performed outside of the analytical holding time due to analytes recovering above the calibration range: MW-1 (580-53330-1), MW-5 (580-53330-4) and BD-1 (580-53330-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) AK102 & 103: The following samples from preparation batch 580-201337 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-5 (580-53330-4) and BD-1 (580-53330-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: MW-1

Date Collected: 09/09/15 10:30
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	72		2.0		ug/L			09/19/15 23:17	1
Tetrachloroethene	59		3.0		ug/L			09/19/15 23:17	1
Trichloroethene	27		3.0		ug/L			09/19/15 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/19/15 23:17*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*09/19/15 23:17*	*1*
Dibromofluoromethane (Surr)	*101*		*85 - 115*		*09/19/15 23:17*	*1*
Trifluorotoluene (Surr)	*101*		*70 - 136*		*09/19/15 23:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*		*09/19/15 23:17*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	140	H	30		ug/L			09/29/15 17:15	10
m-Xylene & p-Xylene	160	H	30		ug/L			09/29/15 17:15	10
Xylenes, Total	220	H	30		ug/L			09/29/15 17:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*85 - 120*		*09/29/15 17:15*	*10*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*		*09/29/15 17:15*	*10*
Dibromofluoromethane (Surr)	*93*		*85 - 115*		*09/29/15 17:15*	*10*
Trifluorotoluene (Surr)	*95*		*70 - 136*		*09/29/15 17:15*	*10*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 120*		*09/29/15 17:15*	*10*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: MW-2
Date Collected: 09/09/15 11:25
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**6.2**		3.0		ug/L			09/19/15 23:44	1
m-Xylene & p-Xylene	**4.2**		3.0		ug/L			09/19/15 23:44	1
o-Xylene	**9.3**		2.0		ug/L			09/19/15 23:44	1
Tetrachloroethene	ND		3.0		ug/L			09/19/15 23:44	1
Trichloroethene	ND		3.0		ug/L			09/19/15 23:44	1
Xylenes, Total	**14**		3.0		ug/L			09/19/15 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/19/15 23:44*	*1*
4-Bromofluorobenzene (Surr)	*109*		*75 - 120*		*09/19/15 23:44*	*1*
Dibromofluoromethane (Surr)	*100*		*85 - 115*		*09/19/15 23:44*	*1*
Trifluorotoluene (Surr)	*100*		*70 - 136*		*09/19/15 23:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 120*		*09/19/15 23:44*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: MW-4
Date Collected: 09/08/15 15:35
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/19/15 20:10	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/19/15 20:10	1
o-Xylene	ND		2.0		ug/L			09/19/15 20:10	1
Tetrachloroethene	**14**		3.0		ug/L			09/19/15 20:10	1
Trichloroethene	**3.7**		3.0		ug/L			09/19/15 20:10	1
Xylenes, Total	ND		3.0		ug/L			09/19/15 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*85 - 120*		*09/19/15 20:10*	*1*
4-Bromofluorobenzene (Surr)	*108*		*75 - 120*		*09/19/15 20:10*	*1*
Dibromofluoromethane (Surr)	*100*		*85 - 115*		*09/19/15 20:10*	*1*
Trifluorotoluene (Surr)	*97*		*70 - 136*		*09/19/15 20:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 120*		*09/19/15 20:10*	*1*

Client Sample ID: MW-5

Date Collected: 09/09/15 12:25
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		3.0		ug/L			09/20/15 00:11	1
Trichloroethene	ND		3.0		ug/L			09/20/15 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*85 - 120*		*09/20/15 00:11*	*1*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*09/20/15 00:11*	*1*
Dibromofluoromethane (Surr)	*103*		*85 - 115*		*09/20/15 00:11*	*1*
Trifluorotoluene (Surr)	*97*		*70 - 136*		*09/20/15 00:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 120*		*09/20/15 00:11*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**220**	**H**	30		ug/L			09/29/15 17:42	10
m-Xylene & p-Xylene	**310**	**H**	30		ug/L			09/29/15 17:42	10
o-Xylene	**140**	**H**	20		ug/L			09/29/15 17:42	10
Xylenes, Total	**450**	**H**	30		ug/L			09/29/15 17:42	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*85 - 120*		*09/29/15 17:42*	*10*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*09/29/15 17:42*	*10*
Dibromofluoromethane (Surr)	*92*		*85 - 115*		*09/29/15 17:42*	*10*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*09/29/15 17:42*	*10*
1,2-Dichloroethane-d4 (Surr)	*86*		*70 - 120*		*09/29/15 17:42*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**2.1**		0.050		mg/L			09/18/15 03:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*110*		*50 - 150*		*09/18/15 03:12*	*1*
4-Bromofluorobenzene (Surr)	*126*		*50 - 150*		*09/18/15 03:12*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**1.1**	**Y**	0.11		mg/L		09/21/15 13:26	09/24/15 04:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*78*		*50 - 150*	*09/21/15 13:26*	*09/24/15 04:26*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: MW-7
Date Collected: 09/09/15 13:30
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/21/15 20:17	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/21/15 20:17	1
o-Xylene	ND		2.0		ug/L			09/21/15 20:17	1
Tetrachloroethene	**24**		3.0		ug/L			09/21/15 20:17	1
Trichloroethene	ND		3.0		ug/L			09/21/15 20:17	1
Xylenes, Total	ND		3.0		ug/L			09/21/15 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*85 - 120*		*09/21/15 20:17*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*09/21/15 20:17*	*1*
Dibromofluoromethane (Surr)	*99*		*85 - 115*		*09/21/15 20:17*	*1*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*09/21/15 20:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 120*		*09/21/15 20:17*	*1*

Client Sample ID: BD-1

Date Collected: 09/09/15 00:00
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		3.0		ug/L			09/21/15 20:44	1
Trichloroethene	ND		3.0		ug/L			09/21/15 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/21/15 20:44*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*09/21/15 20:44*	*1*
Dibromofluoromethane (Surr)	*101*		*85 - 115*		*09/21/15 20:44*	*1*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*09/21/15 20:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 120*		*09/21/15 20:44*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**220**	**H**	30		ug/L			09/29/15 18:10	10
m-Xylene & p-Xylene	**310**	**H**	30		ug/L			09/29/15 18:10	10
o-Xylene	**140**	**H**	20		ug/L			09/29/15 18:10	10
Xylenes, Total	**450**	**H**	30		ug/L			09/29/15 18:10	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*85 - 120*		*09/29/15 18:10*	*10*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*		*09/29/15 18:10*	*10*
Dibromofluoromethane (Surr)	*94*		*85 - 115*		*09/29/15 18:10*	*10*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*09/29/15 18:10*	*10*
1,2-Dichloroethane-d4 (Surr)	*87*		*70 - 120*		*09/29/15 18:10*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**2.0**		0.050		mg/L			09/18/15 03:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*107*		*50 - 150*		*09/18/15 03:45*	*1*
4-Bromofluorobenzene (Surr)	*126*		*50 - 150*		*09/18/15 03:45*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**1.2**	**Y**	0.10		mg/L		09/21/15 13:26	09/24/15 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*09/21/15 13:26*	*09/24/15 04:44*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: EB-1
Date Collected: 09/09/15 13:45
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/21/15 14:57	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/21/15 14:57	1
o-Xylene	ND		2.0		ug/L			09/21/15 14:57	1
Tetrachloroethene	ND		3.0		ug/L			09/21/15 14:57	1
Trichloroethene	ND		3.0		ug/L			09/21/15 14:57	1
Xylenes, Total	ND		3.0		ug/L			09/21/15 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*09/21/15 14:57*	*1*
4-Bromofluorobenzene (Surr)	*108*		*75 - 120*		*09/21/15 14:57*	*1*
Dibromofluoromethane (Surr)	*97*		*85 - 115*		*09/21/15 14:57*	*1*
Trifluorotoluene (Surr)	*100*		*70 - 136*		*09/21/15 14:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 120*		*09/21/15 14:57*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			09/18/15 04:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*107*		*50 - 150*		*09/18/15 04:18*	*1*
4-Bromofluorobenzene (Surr)	*90*		*50 - 150*		*09/18/15 04:18*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.11		mg/L		09/21/15 13:26	09/24/15 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*09/21/15 13:26*	*09/24/15 05:01*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: Trip Blank
Date Collected: 09/08/15 00:00
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/19/15 19:17	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/19/15 19:17	1
o-Xylene	ND		2.0		ug/L			09/19/15 19:17	1
Tetrachloroethene	ND		3.0		ug/L			09/19/15 19:17	1
Trichloroethene	ND		3.0		ug/L			09/19/15 19:17	1
Xylenes, Total	ND		3.0		ug/L			09/19/15 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*85 - 120*		*09/19/15 19:17*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*09/19/15 19:17*	*1*
Dibromofluoromethane (Surr)	*100*		*85 - 115*		*09/19/15 19:17*	*1*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*09/19/15 19:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 120*		*09/19/15 19:17*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-201253/4
Matrix: Water
Analysis Batch: 201253

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/19/15 14:51	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/19/15 14:51	1
o-Xylene	ND		2.0		ug/L			09/19/15 14:51	1
Tetrachloroethene	ND		3.0		ug/L			09/19/15 14:51	1
Trichloroethene	ND		3.0		ug/L			09/19/15 14:51	1
Xylenes, Total	ND		3.0		ug/L			09/19/15 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*85 - 120*		*09/19/15 14:51*	*1*
4-Bromofluorobenzene (Surr)	*104*		*75 - 120*		*09/19/15 14:51*	*1*
Dibromofluoromethane (Surr)	*98*		*85 - 115*		*09/19/15 14:51*	*1*
Trifluorotoluene (Surr)	*105*		*70 - 136*		*09/19/15 14:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*		*09/19/15 14:51*	*1*

Lab Sample ID: LCS 580-201253/5
Matrix: Water
Analysis Batch: 201253

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.1	18.5		ug/L		92	75 - 125
m-Xylene & p-Xylene	20.0	19.8		ug/L		99	75 - 130
o-Xylene	20.0	19.9		ug/L		99	80 - 120
Tetrachloroethene	20.1	20.2		ug/L		101	45 - 150
Trichloroethene	20.0	20.1		ug/L		100	70 - 125
Xylenes, Total	40.1	39.7		ug/L		99	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*85 - 120*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*85 - 115*
Trifluorotoluene (Surr)	*102*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 120*

Lab Sample ID: LCSD 580-201253/6
Matrix: Water
Analysis Batch: 201253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.1	18.6		ug/L		93	75 - 125	0	30
m-Xylene & p-Xylene	20.0	19.8		ug/L		99	75 - 130	0	30
o-Xylene	20.0	19.5		ug/L		97	80 - 120	2	30
Tetrachloroethene	20.1	20.1		ug/L		100	45 - 150	1	30
Trichloroethene	20.0	20.1		ug/L		100	70 - 125	0	30
Xylenes, Total	40.1	39.3		ug/L		98	75 - 125	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*85 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-201253/6
Matrix: Water
Analysis Batch: 201253

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*
Dibromofluoromethane (Surr)	*99*		*85 - 115*
Trifluorotoluene (Surr)	*104*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*

Lab Sample ID: MB 580-201303/4
Matrix: Water
Analysis Batch: 201303

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/21/15 13:10	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/21/15 13:10	1
o-Xylene	ND		2.0		ug/L			09/21/15 13:10	1
Tetrachloroethene	ND		3.0		ug/L			09/21/15 13:10	1
Trichloroethene	ND		3.0		ug/L			09/21/15 13:10	1
Xylenes, Total	ND		3.0		ug/L			09/21/15 13:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*85 - 120*		*09/21/15 13:10*	*1*
4-Bromofluorobenzene (Surr)	*108*		*75 - 120*		*09/21/15 13:10*	*1*
Dibromofluoromethane (Surr)	*99*		*85 - 115*		*09/21/15 13:10*	*1*
Trifluorotoluene (Surr)	*102*		*70 - 136*		*09/21/15 13:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 120*		*09/21/15 13:10*	*1*

Lab Sample ID: LCS 580-201303/5
Matrix: Water
Analysis Batch: 201303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.1	18.2		ug/L		91	75 - 125
m-Xylene & p-Xylene	20.0	19.5		ug/L		97	75 - 130
o-Xylene	20.0	19.5		ug/L		97	80 - 120
Tetrachloroethene	20.1	20.0		ug/L		100	45 - 150
Trichloroethene	20.0	19.8		ug/L		99	70 - 125
Xylenes, Total	40.1	39.0		ug/L		97	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*85 - 120*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*100*		*85 - 115*
Trifluorotoluene (Surr)	*102*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-201303/6
Matrix: Water
Analysis Batch: 201303

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	20.1	18.8		ug/L		94	75 - 125	3	30
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	75 - 130	3	30
o-Xylene	20.0	19.6		ug/L		98	80 - 120	1	30
Tetrachloroethene	20.1	20.7		ug/L		103	45 - 150	4	30
Trichloroethene	20.0	20.1		ug/L		100	70 - 125	1	30
Xylenes, Total	40.1	39.8		ug/L		99	75 - 125	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*85 - 120*
4-Bromofluorobenzene (Surr)	*105*		*75 - 120*
Dibromofluoromethane (Surr)	*100*		*85 - 115*
Trifluorotoluene (Surr)	*103*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*

Lab Sample ID: MB 580-202013/4
Matrix: Water
Analysis Batch: 202013

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			09/29/15 15:01	1
m-Xylene & p-Xylene	ND		3.0		ug/L			09/29/15 15:01	1
o-Xylene	ND		2.0		ug/L			09/29/15 15:01	1
Xylenes, Total	ND		3.0		ug/L			09/29/15 15:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*85 - 120*		*09/29/15 15:01*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*09/29/15 15:01*	*1*
Dibromofluoromethane (Surr)	*92*		*85 - 115*		*09/29/15 15:01*	*1*
Trifluorotoluene (Surr)	*98*		*70 - 136*		*09/29/15 15:01*	*1*
1,2-Dichloroethane-d4 (Surr)	*85*		*70 - 120*		*09/29/15 15:01*	*1*

Lab Sample ID: LCS 580-202013/5
Matrix: Water
Analysis Batch: 202013

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.1	18.3		ug/L		91	75 - 125
m-Xylene & p-Xylene	20.0	18.1		ug/L		90	75 - 130
o-Xylene	20.0	17.6		ug/L		88	80 - 120
Xylenes, Total	40.1	35.7		ug/L		89	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*85 - 120*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*
Dibromofluoromethane (Surr)	*93*		*85 - 115*
Trifluorotoluene (Surr)	*101*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*82*		*70 - 120*

Lab Sample ID: LCSD 580-202013/6
Matrix: Water
Analysis Batch: 202013

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.1	18.6		ug/L		93	75 - 125	2	30
m-Xylene & p-Xylene			20.0	18.6		ug/L		93	75 - 130	3	30
o-Xylene			20.0	17.9		ug/L		89	80 - 120	1	30
Xylenes, Total			40.1	36.5		ug/L		91	75 - 125	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*85 - 120*
4-Bromofluorobenzene (Surr)	*99*		*75 - 120*
Dibromofluoromethane (Surr)	*94*		*85 - 115*
Trifluorotoluene (Surr)	*102*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*83*		*70 - 120*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Lab Sample ID: MB 580-201090/5
Matrix: Water
Analysis Batch: 201090

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			09/17/15 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*09/17/15 16:09*	*1*
4-Bromofluorobenzene (Surr)	*89*		*50 - 150*		*09/17/15 16:09*	*1*

Lab Sample ID: LCS 580-201090/6
Matrix: Water
Analysis Batch: 201090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			1.16	1.09		mg/L		93	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*116*		*50 - 150*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*

Lab Sample ID: LCSD 580-201090/7
Matrix: Water
Analysis Batch: 201090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			1.16	1.04		mg/L		90	60 - 120	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*110*		*50 - 150*
4-Bromofluorobenzene (Surr)	*96*		*50 - 150*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-201337/1-A
Matrix: Water
Analysis Batch: 201572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		09/21/15 13:26	09/23/15 21:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*09/21/15 13:26*	*09/23/15 21:40*	*1*

Lab Sample ID: LCS 580-201337/2-A
Matrix: Water
Analysis Batch: 201572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 201337

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (nC10-<nC25)			2.00	1.72		mg/L		86	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Lab Sample ID: LCSD 580-201337/3-A
Matrix: Water
Analysis Batch: 201572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 201337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)			2.00	1.64		mg/L		82	75 - 125	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*82*		*50 - 150*

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: MW-1
Date Collected: 09/09/15 10:30
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	202013	09/29/15 17:15	CJ	TAL SEA
Total/NA	Analysis	8260B		1	201253	09/19/15 23:17	K1K	TAL SEA

Client Sample ID: MW-2
Date Collected: 09/09/15 11:25
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201253	09/19/15 23:44	K1K	TAL SEA

Client Sample ID: MW-4
Date Collected: 09/08/15 15:35
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201253	09/19/15 20:10	K1K	TAL SEA

Client Sample ID: MW-5
Date Collected: 09/09/15 12:25
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	202013	09/29/15 17:42	CJ	TAL SEA
Total/NA	Analysis	8260B		1	201253	09/20/15 00:11	K1K	TAL SEA
Total/NA	Analysis	AK101		1	201090	09/18/15 03:12	HDK	TAL SEA
Total/NA	Prep	3510C			201337	09/21/15 13:26	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	201572	09/24/15 04:26	KW	TAL SEA

Client Sample ID: MW-7
Date Collected: 09/09/15 13:30
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201303	09/21/15 20:17	TL1	TAL SEA

Client Sample ID: BD-1
Date Collected: 09/09/15 00:00
Date Received: 09/11/15 09:40

Lab Sample ID: 580-53330-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	202013	09/29/15 18:10	CJ	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Client Sample ID: BD-1

Lab Sample ID: 580-53330-6

Date Collected: 09/09/15 00:00
Matrix: Water
Date Received: 09/11/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201303	09/21/15 20:44	TL1	TAL SEA
Total/NA	Analysis	AK101		1	201090	09/18/15 03:45	HDK	TAL SEA
Total/NA	Prep	3510C			201337	09/21/15 13:26	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	201572	09/24/15 04:44	KW	TAL SEA

Client Sample ID: EB-1

Lab Sample ID: 580-53330-7

Date Collected: 09/09/15 13:45
Matrix: Water
Date Received: 09/11/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201303	09/21/15 14:57	TL1	TAL SEA
Total/NA	Analysis	AK101		1	201090	09/18/15 04:18	HDK	TAL SEA
Total/NA	Prep	3510C			201337	09/21/15 13:26	DCC	TAL SEA
Total/NA	Analysis	AK102 & 103		1	201572	09/24/15 05:01	KW	TAL SEA

Client Sample ID: Trip Blank

Lab Sample ID: 580-53330-8

Date Collected: 09/08/15 00:00
Matrix: Water
Date Received: 09/11/15 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	201253	09/19/15 19:17	K1K	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-53330-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-53330-1	MW-1	Water	09/09/15 10:30	09/11/15 09:40
580-53330-2	MW-2	Water	09/09/15 11:25	09/11/15 09:40
580-53330-3	MW-4	Water	09/08/15 15:35	09/11/15 09:40
580-53330-4	MW-5	Water	09/09/15 12:25	09/11/15 09:40
580-53330-5	MW-7	Water	09/09/15 13:30	09/11/15 09:40
580-53330-6	BD-1	Water	09/09/15 00:00	09/11/15 09:40
580-53330-7	EB-1	Water	09/09/15 13:45	09/11/15 09:40
580-53330-8	Trip Blank	Water	09/08/15 00:00	09/11/15 09:40

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

580-53330 Chain of Custody

11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
[illegible] International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: 53330

CLIENT: ARCADIS

REPORT TO: Matt Pelton
ADDRESS: 301 Corporate Drive, STE 300
Raleigh, NC 27607
PHONE: 919.415.2308 FAX:

INVOICE TO: ARCADIS U.S. Inc.
630 Plaza Drive STE 100
Highlands Ranch, CO 80129

P.O. NUMBER: B0031255.1404.00005

PROJECT NAME: GE-TBE Machine Shop
PROJECT NUMBER: B0031255.1404.00005
SAMPLED BY: Michael MacDaniel

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [X] STD. [10] [7] [5] [4] [3] [2] [1] [<1]
Petroleum Hydrocarbon Analyses: [X] STD. [4] [3] [2] [1] [<1]
[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE			REQUESTED ANALYSES									MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
			HCl	HCl	HCl													
			VOCs 8260	GRO AK 101	DRO AK 102													
1	MW-1	9/9/15 @ 10:30	✓												W	3		
2	MW-2	9/9/15 @ 11:25	✓												W	3		
3	MW-4	9/8/15 @ 15:35	✓												W	3		
4	MW-5	9/9/15 @ 12:25	✓	✓	✓										W	8		
5	MW-7	9/9/15 @ 13:30	✓												W	3		
6	BD-1	9/9/15 @ —	✓	✓	✓										W	8		
7	EB-1	9/9/15 @ 13:45	✓	✓	✓										W	8		
8	Trip Blank		✓															
9																		
10																		

Cooler/CB A2 Dig/IR cor 0.1 unc 0.0 °C
Cooler Dsc Lg Blue/White @ Lab —
Wet/Packs Packing Bubble
VTSR

RELEASED BY: Michael MacDaniel — DATE: 9/10/15 — TIME: 10:00
PRINT NAME: Michael MacDaniel — FIRM: ARCADIS
RECEIVED BY: Andrew Pilch — DATE: 9/10/15 — TIME: 10:00
PRINT NAME: Andrew Pilch — FIRM: TA-AK

RELEASED BY: Andrew Pilch — DATE: 9/10/15 — TIME: 11:45
PRINT NAME: Andrew Pilch — FIRM: TA-AK
RECEIVED BY: Francisco Luna, Jr — DATE: 9/11/15 — TIME: 0040
PRINT NAME: Francisco Luna, Jr — FIRM: TASEN

ADDITIONAL REMARKS:

TEMP: 4.8 — PAGE OF

TAL-1000 (0714)

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-53330-1

Login Number: 53330
List Number: 1
Creator: Pilch, Andrew C

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-55696-1
Client Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy
Revision: 1

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
1/8/2016 1:02:57 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Job ID: 580-55696-1

Laboratory: TestAmerica Seattle

Narrative

Report revised 1-8-16 to include method 8260 results from batch 580-20809 for sample MW-4 (580-55696-3).

Job Narrative
580-55696-1

Comments
No additional comments.

Receipt
The samples were received on 12/4/2015 1:26 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.0º C.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): The sample times on the labels for sample MW-3 and MW-4 do not match the sample times on the COC. The samples were logged in per the COC.

The following sample(s) was received at the laboratory without a sample collection time documented on the chain of custody: EB-1, EB-2, and trip blanks. The samples were logged in with a default time of 0.01.

One or more containers for the following sample(s) was received broken or leaking: 40mL voa vial with HCL for sample ID MW-7 (580-55696-5).

GC/MS VOA
Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 580-207714 recovered outside control limits for the following analyte: Benzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-5 (580-55696-4) and BD-1 (580-55696-6). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 580-207793 recovered outside control limits for the following analytes: Chloromethane. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: Reanalysis of the following sample was performed outside of the analytical holding time due to the instrument indicating a high bias for the analyte trichloroethene in the initial analysis; the sample contained the the affected compound: MW-4 (580-55696-3).

Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 580-208079 recovered outside control limits for the following analytes: Benzene, Dibromomethane and Trichloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) AK102 & 103: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes: BD-1 (580-55696-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-1
Date Collected: 12/02/15 12:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/15/15 00:11	1
Chloromethane	ND		5.0		ug/L			12/15/15 00:11	1
Vinyl chloride	ND		1.0		ug/L			12/15/15 00:11	1
Bromomethane	ND		5.0		ug/L			12/15/15 00:11	1
Chloroethane	ND		5.0		ug/L			12/15/15 00:11	1
Trichlorofluoromethane	ND		3.0		ug/L			12/15/15 00:11	1
1,1-Dichloroethene	ND		2.0		ug/L			12/15/15 00:11	1
Methylene Chloride	ND		5.0		ug/L			12/15/15 00:11	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/15/15 00:11	1
1,1-Dichloroethane	ND		2.0		ug/L			12/15/15 00:11	1
2,2-Dichloropropane	ND		3.0		ug/L			12/15/15 00:11	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/15/15 00:11	1
Chlorobromomethane	ND		2.0		ug/L			12/15/15 00:11	1
Chloroform	ND		1.0		ug/L			12/15/15 00:11	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/15/15 00:11	1
Carbon tetrachloride	ND		3.0		ug/L			12/15/15 00:11	1
1,1-Dichloropropene	ND		3.0		ug/L			12/15/15 00:11	1
Benzene	ND	*	2.0		ug/L			12/15/15 00:11	1
1,2-Dichloroethane	ND		1.0		ug/L			12/15/15 00:11	1
Trichloroethene	ND	*	3.0		ug/L			12/15/15 00:11	1
1,2-Dichloropropane	ND		1.0		ug/L			12/15/15 00:11	1
Dibromomethane	ND	*	1.0		ug/L			12/15/15 00:11	1
Dichlorobromomethane	ND		2.0		ug/L			12/15/15 00:11	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/15/15 00:11	1
Toluene	ND		2.0		ug/L			12/15/15 00:11	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/15/15 00:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/15/15 00:11	1
Tetrachloroethene	ND		3.0		ug/L			12/15/15 00:11	1
1,3-Dichloropropane	ND		1.0		ug/L			12/15/15 00:11	1
Chlorodibromomethane	ND		1.0		ug/L			12/15/15 00:11	1
Ethylene Dibromide	ND		1.0		ug/L			12/15/15 00:11	1
Chlorobenzene	ND		2.0		ug/L			12/15/15 00:11	1
Ethylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/15/15 00:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/15/15 00:11	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/15/15 00:11	1
o-Xylene	ND		2.0		ug/L			12/15/15 00:11	1
Styrene	ND		5.0		ug/L			12/15/15 00:11	1
Bromoform	ND		1.0		ug/L			12/15/15 00:11	1
Isopropylbenzene	ND		2.0		ug/L			12/15/15 00:11	1
Bromobenzene	ND		2.0		ug/L			12/15/15 00:11	1
N-Propylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/15/15 00:11	1
2-Chlorotoluene	ND		3.0		ug/L			12/15/15 00:11	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
4-Chlorotoluene	ND		2.0		ug/L			12/15/15 00:11	1
tert-Butylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
sec-Butylbenzene	ND		3.0		ug/L			12/15/15 00:11	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-1
Date Collected: 12/02/15 12:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:11	1
4-Isopropyltoluene	ND		3.0		ug/L			12/15/15 00:11	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:11	1
n-Butylbenzene	ND		3.0		ug/L			12/15/15 00:11	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:11	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/15/15 00:11	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/15/15 00:11	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/15/15 00:11	1
Hexachlorobutadiene	ND		2.0		ug/L			12/15/15 00:11	1
Naphthalene	ND		2.0		ug/L			12/15/15 00:11	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/15/15 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*85 - 120*		*12/15/15 00:11*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 120*		*12/15/15 00:11*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*12/15/15 00:11*	*1*
Trifluorotoluene (Surr)	*96*		*70 - 136*		*12/15/15 00:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 120*		*12/15/15 00:11*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-2
Date Collected: 12/02/15 11:35
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 18:55	1
Chloromethane	ND		5.0		ug/L			12/14/15 18:55	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 18:55	1
Bromomethane	ND		5.0		ug/L			12/14/15 18:55	1
Chloroethane	ND		5.0		ug/L			12/14/15 18:55	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 18:55	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 18:55	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 18:55	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 18:55	1
1,1-Dichloroethane	**5.1**		2.0		ug/L			12/14/15 18:55	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 18:55	1
cis-1,2-Dichloroethene	**25**		1.0		ug/L			12/14/15 18:55	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 18:55	1
Chloroform	ND		1.0		ug/L			12/14/15 18:55	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 18:55	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 18:55	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 18:55	1
Benzene	ND	*	2.0		ug/L			12/14/15 18:55	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 18:55	1
Trichloroethene	ND		3.0		ug/L			12/14/15 18:55	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 18:55	1
Dibromomethane	ND		1.0		ug/L			12/14/15 18:55	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 18:55	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 18:55	1
Toluene	ND		2.0		ug/L			12/14/15 18:55	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 18:55	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 18:55	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 18:55	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 18:55	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 18:55	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 18:55	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 18:55	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 18:55	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 18:55	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 18:55	1
o-Xylene	ND		2.0		ug/L			12/14/15 18:55	1
Styrene	ND		5.0		ug/L			12/14/15 18:55	1
Bromoform	ND		1.0		ug/L			12/14/15 18:55	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 18:55	1
Bromobenzene	ND		2.0		ug/L			12/14/15 18:55	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 18:55	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 18:55	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 18:55	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 18:55	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-2
Date Collected: 12/02/15 11:35
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:55	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 18:55	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:55	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 18:55	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:55	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 18:55	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 18:55	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 18:55	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 18:55	1
Naphthalene	ND		2.0		ug/L			12/14/15 18:55	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*85 - 120*		*12/14/15 18:55*	*1*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*		*12/14/15 18:55*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*12/14/15 18:55*	*1*
Trifluorotoluene (Surr)	*97*		*70 - 136*		*12/14/15 18:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*		*12/14/15 18:55*	*1*

Client Sample ID: MW-4

Date Collected: 12/02/15 13:20
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/15/15 00:40	1
Chloromethane	ND		5.0		ug/L			12/15/15 00:40	1
Vinyl chloride	ND		1.0		ug/L			12/15/15 00:40	1
Bromomethane	ND		5.0		ug/L			12/15/15 00:40	1
Chloroethane	ND		5.0		ug/L			12/15/15 00:40	1
Trichlorofluoromethane	ND		3.0		ug/L			12/15/15 00:40	1
1,1-Dichloroethene	ND		2.0		ug/L			12/15/15 00:40	1
Methylene Chloride	ND		5.0		ug/L			12/15/15 00:40	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/15/15 00:40	1
1,1-Dichloroethane	**11**		2.0		ug/L			12/15/15 00:40	1
2,2-Dichloropropane	ND		3.0		ug/L			12/15/15 00:40	1
cis-1,2-Dichloroethene	**88**		1.0		ug/L			12/15/15 00:40	1
Chlorobromomethane	ND		2.0		ug/L			12/15/15 00:40	1
Chloroform	ND		1.0		ug/L			12/15/15 00:40	1
1,1,1-Trichloroethane	**4.8**		3.0		ug/L			12/15/15 00:40	1
Carbon tetrachloride	ND		3.0		ug/L			12/15/15 00:40	1
1,1-Dichloropropene	ND		3.0		ug/L			12/15/15 00:40	1
Benzene	ND	*	2.0		ug/L			12/15/15 00:40	1
1,2-Dichloroethane	ND		1.0		ug/L			12/15/15 00:40	1
1,2-Dichloropropane	ND		1.0		ug/L			12/15/15 00:40	1
Dibromomethane	ND	*	1.0		ug/L			12/15/15 00:40	1
Dichlorobromomethane	ND		2.0		ug/L			12/15/15 00:40	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/15/15 00:40	1
Toluene	**8.2**		2.0		ug/L			12/15/15 00:40	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/15/15 00:40	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/15/15 00:40	1
Tetrachloroethene	**52**		3.0		ug/L			12/15/15 00:40	1
1,3-Dichloropropane	ND		1.0		ug/L			12/15/15 00:40	1
Chlorodibromomethane	ND		1.0		ug/L			12/15/15 00:40	1
Ethylene Dibromide	ND		1.0		ug/L			12/15/15 00:40	1
Chlorobenzene	ND		2.0		ug/L			12/15/15 00:40	1
Ethylbenzene	**130**		3.0		ug/L			12/15/15 00:40	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/15/15 00:40	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/15/15 00:40	1
m-Xylene & p-Xylene	**130**		3.0		ug/L			12/15/15 00:40	1
o-Xylene	**76**		2.0		ug/L			12/15/15 00:40	1
Styrene	ND		5.0		ug/L			12/15/15 00:40	1
Bromoform	ND		1.0		ug/L			12/15/15 00:40	1
Isopropylbenzene	**3.6**		2.0		ug/L			12/15/15 00:40	1
Bromobenzene	ND		2.0		ug/L			12/15/15 00:40	1
N-Propylbenzene	ND		3.0		ug/L			12/15/15 00:40	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/15/15 00:40	1
2-Chlorotoluene	ND		3.0		ug/L			12/15/15 00:40	1
1,3,5-Trimethylbenzene	**6.7**		3.0		ug/L			12/15/15 00:40	1
4-Chlorotoluene	ND		2.0		ug/L			12/15/15 00:40	1
tert-Butylbenzene	ND		3.0		ug/L			12/15/15 00:40	1
1,2,4-Trimethylbenzene	**24**		3.0		ug/L			12/15/15 00:40	1
sec-Butylbenzene	ND		3.0		ug/L			12/15/15 00:40	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:40	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-4
Date Collected: 12/02/15 13:20
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		3.0		ug/L			12/15/15 00:40	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:40	1
n-Butylbenzene	ND		3.0		ug/L			12/15/15 00:40	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/15/15 00:40	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/15/15 00:40	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/15/15 00:40	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/15/15 00:40	1
Hexachlorobutadiene	ND		2.0		ug/L			12/15/15 00:40	1
Naphthalene	ND		2.0		ug/L			12/15/15 00:40	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/15/15 00:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*85 - 120*		*12/15/15 00:40*	*1*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*12/15/15 00:40*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*12/15/15 00:40*	*1*
Trifluorotoluene (Surr)	*102*		*70 - 136*		*12/15/15 00:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*		*12/15/15 00:40*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	H	2.0		ug/L			12/17/15 18:15	1
Chloromethane	ND	H *	5.0		ug/L			12/17/15 18:15	1
Bromomethane	ND	H	5.0		ug/L			12/17/15 18:15	1
Chloroethane	ND	H	5.0		ug/L			12/17/15 18:15	1
Trichlorofluoromethane	ND	H	3.0		ug/L			12/17/15 18:15	1
1,1-Dichloroethene	ND	H	2.0		ug/L			12/17/15 18:15	1
Methylene Chloride	ND	H	5.0		ug/L			12/17/15 18:15	1
trans-1,2-Dichloroethene	ND	H	1.0		ug/L			12/17/15 18:15	1
1,1-Dichloroethane	ND	H	2.0		ug/L			12/17/15 18:15	1
2,2-Dichloropropane	ND	H	3.0		ug/L			12/17/15 18:15	1
cis-1,2-Dichloroethene	ND	H	1.0		ug/L			12/17/15 18:15	1
Chlorobromomethane	ND	H	2.0		ug/L			12/17/15 18:15	1
Chloroform	ND	H	1.0		ug/L			12/17/15 18:15	1
1,1,1-Trichloroethane	**4.1**	**H**	3.0		ug/L			12/17/15 18:15	1
Carbon tetrachloride	ND	H	3.0		ug/L			12/17/15 18:15	1
1,1-Dichloropropene	ND	H	3.0		ug/L			12/17/15 18:15	1
Benzene	ND	H	2.0		ug/L			12/17/15 18:15	1
1,2-Dichloroethane	ND	H	1.0		ug/L			12/17/15 18:15	1
Trichloroethene	**4.6**	**H**	3.0		ug/L			12/17/15 18:15	1
1,2-Dichloropropane	ND	H	1.0		ug/L			12/17/15 18:15	1
Dibromomethane	ND	H	1.0		ug/L			12/17/15 18:15	1
Dichlorobromomethane	ND	H	2.0		ug/L			12/17/15 18:15	1
cis-1,3-Dichloropropene	ND	H	1.0		ug/L			12/17/15 18:15	1
Toluene	ND	H	2.0		ug/L			12/17/15 18:15	1
trans-1,3-Dichloropropene	ND	H	1.0		ug/L			12/17/15 18:15	1
1,1,2-Trichloroethane	ND	H	1.0		ug/L			12/17/15 18:15	1
Tetrachloroethene	**15**	**H**	3.0		ug/L			12/17/15 18:15	1
1,3-Dichloropropane	ND	H	1.0		ug/L			12/17/15 18:15	1
Chlorodibromomethane	ND	H	1.0		ug/L			12/17/15 18:15	1
Ethylene Dibromide	ND	H	1.0		ug/L			12/17/15 18:15	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-4
Date Collected: 12/02/15 13:20
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
Ethylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,1,1,2-Tetrachloroethane	ND	H	2.0		ug/L			12/17/15 18:15	1
1,1,2,2-Tetrachloroethane	ND	H	1.0		ug/L			12/17/15 18:15	1
m-Xylene & p-Xylene	ND	H	3.0		ug/L			12/17/15 18:15	1
o-Xylene	ND	H	2.0		ug/L			12/17/15 18:15	1
Styrene	ND	H	5.0		ug/L			12/17/15 18:15	1
Bromoform	ND	H	1.0		ug/L			12/17/15 18:15	1
Isopropylbenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
Bromobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
N-Propylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,2,3-Trichloropropane	ND	H	2.0		ug/L			12/17/15 18:15	1
2-Chlorotoluene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,3,5-Trimethylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
4-Chlorotoluene	ND	H	2.0		ug/L			12/17/15 18:15	1
tert-Butylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,2,4-Trimethylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
sec-Butylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,3-Dichlorobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
4-Isopropyltoluene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,4-Dichlorobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
n-Butylbenzene	ND	H	3.0		ug/L			12/17/15 18:15	1
1,2-Dichlorobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
1,2-Dibromo-3-Chloropropane	ND	H	2.0		ug/L			12/17/15 18:15	1
1,2,4-Trichlorobenzene	ND	H	1.0		ug/L			12/17/15 18:15	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			12/17/15 18:15	1
Hexachlorobutadiene	ND	H	2.0		ug/L			12/17/15 18:15	1
Naphthalene	ND	H	2.0		ug/L			12/17/15 18:15	1
Methyl tert-butyl ether	ND	H	1.0		ug/L			12/17/15 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*85 - 120*		*12/17/15 18:15*	*1*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*12/17/15 18:15*	*1*
Dibromofluoromethane (Surr)	*101*		*85 - 115*		*12/17/15 18:15*	*1*
Trifluorotoluene (Surr)	*94*		*70 - 136*		*12/17/15 18:15*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 120*		*12/17/15 18:15*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-5
Date Collected: 12/01/15 14:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 16:59	1
Chloromethane	ND		5.0		ug/L			12/14/15 16:59	1
Vinyl chloride	**1.7**		1.0		ug/L			12/14/15 16:59	1
Bromomethane	ND		5.0		ug/L			12/14/15 16:59	1
Chloroethane	ND		5.0		ug/L			12/14/15 16:59	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 16:59	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 16:59	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 16:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 16:59	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 16:59	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 16:59	1
cis-1,2-Dichloroethene	**120**		1.0		ug/L			12/14/15 16:59	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 16:59	1
Chloroform	ND		1.0		ug/L			12/14/15 16:59	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 16:59	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 16:59	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 16:59	1
Benzene	ND	*	2.0		ug/L			12/14/15 16:59	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 16:59	1
Trichloroethene	**3.1**		3.0		ug/L			12/14/15 16:59	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 16:59	1
Dibromomethane	ND		1.0		ug/L			12/14/15 16:59	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 16:59	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 16:59	1
Toluene	ND		2.0		ug/L			12/14/15 16:59	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 16:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 16:59	1
Tetrachloroethene	**6.7**		3.0		ug/L			12/14/15 16:59	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 16:59	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 16:59	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 16:59	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 16:59	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 16:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 16:59	1
o-Xylene	**120**		2.0		ug/L			12/14/15 16:59	1
Styrene	ND		5.0		ug/L			12/14/15 16:59	1
Bromoform	ND		1.0		ug/L			12/14/15 16:59	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 16:59	1
Bromobenzene	ND		2.0		ug/L			12/14/15 16:59	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 16:59	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 16:59	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 16:59	1
1,3,5-Trimethylbenzene	**15**		3.0		ug/L			12/14/15 16:59	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 16:59	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 16:59	1
1,2,4-Trimethylbenzene	**21**		3.0		ug/L			12/14/15 16:59	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 16:59	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 16:59	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 16:59	1

Client Sample ID: MW-5

Date Collected: 12/01/15 14:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	5.2		2.0		ug/L			12/14/15 16:59	1
n-Butylbenzene	9.1		3.0		ug/L			12/14/15 16:59	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 16:59	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 16:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 16:59	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 16:59	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 16:59	1
Naphthalene	2.0		2.0		ug/L			12/14/15 16:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*85 - 120*		*12/14/15 16:59*	*1*
4-Bromofluorobenzene (Surr)	*107*		*75 - 120*		*12/14/15 16:59*	*1*
Dibromofluoromethane (Surr)	*99*		*85 - 115*		*12/14/15 16:59*	*1*
Trifluorotoluene (Surr)	*96*		*70 - 136*		*12/14/15 16:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 120*		*12/14/15 16:59*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	250		30		ug/L			12/15/15 14:15	10
m-Xylene & p-Xylene	340		30		ug/L			12/15/15 14:15	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*85 - 120*		*12/15/15 14:15*	*10*
4-Bromofluorobenzene (Surr)	*106*		*75 - 120*		*12/15/15 14:15*	*10*
Dibromofluoromethane (Surr)	*105*		*85 - 115*		*12/15/15 14:15*	*10*
Trifluorotoluene (Surr)	*98*		*70 - 136*		*12/15/15 14:15*	*10*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 120*		*12/15/15 14:15*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	1.6		0.050		mg/L			12/09/15 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*114*		*50 - 150*		*12/09/15 22:21*	*1*
4-Bromofluorobenzene (Surr)	*106*		*50 - 150*		*12/09/15 22:21*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	0.87		0.11		mg/L		12/09/15 11:59	12/11/15 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*12/09/15 11:59*	*12/11/15 12:54*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-7
Date Collected: 12/01/15 16:00
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 17:28	1
Chloromethane	ND		5.0		ug/L			12/14/15 17:28	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 17:28	1
Bromomethane	ND		5.0		ug/L			12/14/15 17:28	1
Chloroethane	ND		5.0		ug/L			12/14/15 17:28	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 17:28	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 17:28	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 17:28	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 17:28	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 17:28	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 17:28	1
cis-1,2-Dichloroethene	**1.2**		1.0		ug/L			12/14/15 17:28	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 17:28	1
Chloroform	ND		1.0		ug/L			12/14/15 17:28	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 17:28	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 17:28	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 17:28	1
Benzene	ND	*	2.0		ug/L			12/14/15 17:28	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 17:28	1
Trichloroethene	**3.1**		3.0		ug/L			12/14/15 17:28	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 17:28	1
Dibromomethane	ND		1.0		ug/L			12/14/15 17:28	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 17:28	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 17:28	1
Toluene	ND		2.0		ug/L			12/14/15 17:28	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 17:28	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 17:28	1
Tetrachloroethene	**23**		3.0		ug/L			12/14/15 17:28	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 17:28	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 17:28	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 17:28	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 17:28	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 17:28	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 17:28	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 17:28	1
o-Xylene	ND		2.0		ug/L			12/14/15 17:28	1
Styrene	ND		5.0		ug/L			12/14/15 17:28	1
Bromoform	ND		1.0		ug/L			12/14/15 17:28	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 17:28	1
Bromobenzene	ND		2.0		ug/L			12/14/15 17:28	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 17:28	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 17:28	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 17:28	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 17:28	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-7
Date Collected: 12/01/15 16:00
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:28	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 17:28	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:28	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 17:28	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:28	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 17:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 17:28	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 17:28	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 17:28	1
Naphthalene	ND		2.0		ug/L			12/14/15 17:28	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*85 - 120*		*12/14/15 17:28*	*1*
4-Bromofluorobenzene (Surr)	*92*		*75 - 120*		*12/14/15 17:28*	*1*
Dibromofluoromethane (Surr)	*98*		*85 - 115*		*12/14/15 17:28*	*1*
Trifluorotoluene (Surr)	*99*		*70 - 136*		*12/14/15 17:28*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 120*		*12/14/15 17:28*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: BD-1
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 16:30	1
Chloromethane	ND		5.0		ug/L			12/14/15 16:30	1
Vinyl chloride	**1.5**		1.0		ug/L			12/14/15 16:30	1
Bromomethane	ND		5.0		ug/L			12/14/15 16:30	1
Chloroethane	ND		5.0		ug/L			12/14/15 16:30	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 16:30	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 16:30	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 16:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 16:30	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 16:30	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 16:30	1
cis-1,2-Dichloroethene	**120**		1.0		ug/L			12/14/15 16:30	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 16:30	1
Chloroform	ND		1.0		ug/L			12/14/15 16:30	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 16:30	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 16:30	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 16:30	1
Benzene	ND	*	2.0		ug/L			12/14/15 16:30	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 16:30	1
Trichloroethene	**3.2**		3.0		ug/L			12/14/15 16:30	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 16:30	1
Dibromomethane	ND		1.0		ug/L			12/14/15 16:30	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 16:30	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 16:30	1
Toluene	ND		2.0		ug/L			12/14/15 16:30	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 16:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 16:30	1
Tetrachloroethene	**6.4**		3.0		ug/L			12/14/15 16:30	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 16:30	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 16:30	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 16:30	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 16:30	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 16:30	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 16:30	1
o-Xylene	**130**		2.0		ug/L			12/14/15 16:30	1
Styrene	ND		5.0		ug/L			12/14/15 16:30	1
Bromoform	ND		1.0		ug/L			12/14/15 16:30	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 16:30	1
Bromobenzene	ND		2.0		ug/L			12/14/15 16:30	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 16:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 16:30	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 16:30	1
1,3,5-Trimethylbenzene	**17**		3.0		ug/L			12/14/15 16:30	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 16:30	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 16:30	1
1,2,4-Trimethylbenzene	**24**		3.0		ug/L			12/14/15 16:30	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 16:30	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 16:30	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 16:30	1

Client Sample ID: BD-1

Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 16:30	1
n-Butylbenzene	**9.8**		3.0		ug/L			12/14/15 16:30	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 16:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 16:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 16:30	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 16:30	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 16:30	1
Naphthalene	**2.4**		2.0		ug/L			12/14/15 16:30	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*85 - 120*		*12/14/15 16:30*	*1*
4-Bromofluorobenzene (Surr)	*98*		*75 - 120*		*12/14/15 16:30*	*1*
Dibromofluoromethane (Surr)	*91*		*85 - 115*		*12/14/15 16:30*	*1*
Trifluorotoluene (Surr)	*103*		*70 - 136*		*12/14/15 16:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*70 - 120*		*12/14/15 16:30*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**220**		30		ug/L			12/15/15 14:45	10
m-Xylene & p-Xylene	**310**		30		ug/L			12/15/15 14:45	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*85 - 120*		*12/15/15 14:45*	*10*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*		*12/15/15 14:45*	*10*
Dibromofluoromethane (Surr)	*106*		*85 - 115*		*12/15/15 14:45*	*10*
Trifluorotoluene (Surr)	*107*		*70 - 136*		*12/15/15 14:45*	*10*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*		*12/15/15 14:45*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**1.7**		0.050		mg/L			12/09/15 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*117*		*50 - 150*		*12/09/15 22:52*	*1*
4-Bromofluorobenzene (Surr)	*107*		*50 - 150*		*12/09/15 22:52*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.89**		0.10		mg/L		12/09/15 11:59	12/11/15 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*12/09/15 11:59*	*12/11/15 13:14*	*1*

Client Sample ID: BD-2
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 17:57	1
Chloromethane	ND		5.0		ug/L			12/14/15 17:57	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 17:57	1
Bromomethane	ND		5.0		ug/L			12/14/15 17:57	1
Chloroethane	ND		5.0		ug/L			12/14/15 17:57	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 17:57	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 17:57	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 17:57	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 17:57	1
1,1-Dichloroethane	**4.9**		2.0		ug/L			12/14/15 17:57	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 17:57	1
cis-1,2-Dichloroethene	**25**		1.0		ug/L			12/14/15 17:57	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 17:57	1
Chloroform	ND		1.0		ug/L			12/14/15 17:57	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 17:57	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 17:57	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 17:57	1
Benzene	ND	*	2.0		ug/L			12/14/15 17:57	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 17:57	1
Trichloroethene	ND		3.0		ug/L			12/14/15 17:57	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 17:57	1
Dibromomethane	ND		1.0		ug/L			12/14/15 17:57	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 17:57	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 17:57	1
Toluene	ND		2.0		ug/L			12/14/15 17:57	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 17:57	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 17:57	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 17:57	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 17:57	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 17:57	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 17:57	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 17:57	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 17:57	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 17:57	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 17:57	1
o-Xylene	ND		2.0		ug/L			12/14/15 17:57	1
Styrene	ND		5.0		ug/L			12/14/15 17:57	1
Bromoform	ND		1.0		ug/L			12/14/15 17:57	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 17:57	1
Bromobenzene	ND		2.0		ug/L			12/14/15 17:57	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 17:57	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 17:57	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 17:57	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 17:57	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: BD-2
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:57	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 17:57	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:57	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 17:57	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 17:57	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 17:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 17:57	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 17:57	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 17:57	1
Naphthalene	ND		2.0		ug/L			12/14/15 17:57	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*85 - 120*		*12/14/15 17:57*	*1*
4-Bromofluorobenzene (Surr)	*95*		*75 - 120*		*12/14/15 17:57*	*1*
Dibromofluoromethane (Surr)	*110*		*85 - 115*		*12/14/15 17:57*	*1*
Trifluorotoluene (Surr)	*101*		*70 - 136*		*12/14/15 17:57*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 120*		*12/14/15 17:57*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: EB-1
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 18:26	1
Chloromethane	ND		5.0		ug/L			12/14/15 18:26	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 18:26	1
Bromomethane	ND		5.0		ug/L			12/14/15 18:26	1
Chloroethane	ND		5.0		ug/L			12/14/15 18:26	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 18:26	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 18:26	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 18:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 18:26	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 18:26	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 18:26	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 18:26	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 18:26	1
Chloroform	ND		1.0		ug/L			12/14/15 18:26	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 18:26	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 18:26	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 18:26	1
Benzene	ND	*	2.0		ug/L			12/14/15 18:26	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 18:26	1
Trichloroethene	ND		3.0		ug/L			12/14/15 18:26	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 18:26	1
Dibromomethane	ND		1.0		ug/L			12/14/15 18:26	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 18:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 18:26	1
Toluene	ND		2.0		ug/L			12/14/15 18:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 18:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 18:26	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 18:26	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 18:26	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 18:26	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 18:26	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 18:26	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 18:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 18:26	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 18:26	1
o-Xylene	ND		2.0		ug/L			12/14/15 18:26	1
Styrene	ND		5.0		ug/L			12/14/15 18:26	1
Bromoform	ND		1.0		ug/L			12/14/15 18:26	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 18:26	1
Bromobenzene	ND		2.0		ug/L			12/14/15 18:26	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 18:26	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 18:26	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 18:26	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 18:26	1

Client Sample ID: EB-1
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:26	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 18:26	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:26	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 18:26	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 18:26	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 18:26	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 18:26	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 18:26	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 18:26	1
Naphthalene	ND		2.0		ug/L			12/14/15 18:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*85 - 120*		*12/14/15 18:26*	*1*
4-Bromofluorobenzene (Surr)	*89*		*75 - 120*		*12/14/15 18:26*	*1*
Dibromofluoromethane (Surr)	*98*		*85 - 115*		*12/14/15 18:26*	*1*
Trifluorotoluene (Surr)	*93*		*70 - 136*		*12/14/15 18:26*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 120*		*12/14/15 18:26*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			12/09/15 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*116*		*50 - 150*		*12/09/15 23:23*	*1*
4-Bromofluorobenzene (Surr)	*94*		*50 - 150*		*12/09/15 23:23*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		12/09/15 11:59	12/11/15 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*12/09/15 11:59*	*12/11/15 13:35*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: Trip Blank
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 11:40	1
Chloromethane	ND		5.0		ug/L			12/14/15 11:40	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 11:40	1
Bromomethane	ND		5.0		ug/L			12/14/15 11:40	1
Chloroethane	ND		5.0		ug/L			12/14/15 11:40	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 11:40	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 11:40	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 11:40	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 11:40	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 11:40	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 11:40	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 11:40	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 11:40	1
Chloroform	ND		1.0		ug/L			12/14/15 11:40	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 11:40	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 11:40	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 11:40	1
Benzene	ND	*	2.0		ug/L			12/14/15 11:40	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 11:40	1
Trichloroethene	ND		3.0		ug/L			12/14/15 11:40	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 11:40	1
Dibromomethane	ND		1.0		ug/L			12/14/15 11:40	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 11:40	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 11:40	1
Toluene	ND		2.0		ug/L			12/14/15 11:40	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 11:40	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 11:40	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 11:40	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 11:40	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 11:40	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 11:40	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 11:40	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 11:40	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 11:40	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 11:40	1
o-Xylene	ND		2.0		ug/L			12/14/15 11:40	1
Styrene	ND		5.0		ug/L			12/14/15 11:40	1
Bromoform	ND		1.0		ug/L			12/14/15 11:40	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 11:40	1
Bromobenzene	ND		2.0		ug/L			12/14/15 11:40	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 11:40	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 11:40	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 11:40	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 11:40	1

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: Trip Blank
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 11:40	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 11:40	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 11:40	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 11:40	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 11:40	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 11:40	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 11:40	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 11:40	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 11:40	1
Naphthalene	ND		2.0		ug/L			12/14/15 11:40	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*85 - 120*		*12/14/15 11:40*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*12/14/15 11:40*	*1*
Dibromofluoromethane (Surr)	*105*		*85 - 115*		*12/14/15 11:40*	*1*
Trifluorotoluene (Surr)	*93*		*70 - 136*		*12/14/15 11:40*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 120*		*12/14/15 11:40*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			12/09/15 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*114*		*50 - 150*		*12/09/15 16:09*	*1*
4-Bromofluorobenzene (Surr)	*93*		*50 - 150*		*12/09/15 16:09*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-207714/4
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 10:13	1
Chloromethane	ND		5.0		ug/L			12/14/15 10:13	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 10:13	1
Bromomethane	ND		5.0		ug/L			12/14/15 10:13	1
Chloroethane	ND		5.0		ug/L			12/14/15 10:13	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 10:13	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 10:13	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 10:13	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 10:13	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 10:13	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 10:13	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 10:13	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 10:13	1
Chloroform	ND		1.0		ug/L			12/14/15 10:13	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 10:13	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 10:13	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 10:13	1
Benzene	ND		2.0		ug/L			12/14/15 10:13	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 10:13	1
Trichloroethene	ND		3.0		ug/L			12/14/15 10:13	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 10:13	1
Dibromomethane	ND		1.0		ug/L			12/14/15 10:13	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 10:13	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 10:13	1
Toluene	ND		2.0		ug/L			12/14/15 10:13	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 10:13	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 10:13	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 10:13	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 10:13	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 10:13	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 10:13	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 10:13	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 10:13	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 10:13	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 10:13	1
o-Xylene	ND		2.0		ug/L			12/14/15 10:13	1
Styrene	ND		5.0		ug/L			12/14/15 10:13	1
Bromoform	ND		1.0		ug/L			12/14/15 10:13	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 10:13	1
Bromobenzene	ND		2.0		ug/L			12/14/15 10:13	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 10:13	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 10:13	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 10:13	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 10:13	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-207714/4
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 10:13	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 10:13	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 10:13	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 10:13	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 10:13	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 10:13	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 10:13	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 10:13	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 10:13	1
Naphthalene	ND		2.0		ug/L			12/14/15 10:13	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 10:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*85 - 120*		*12/14/15 10:13*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*12/14/15 10:13*	*1*
Dibromofluoromethane (Surr)	*96*		*85 - 115*		*12/14/15 10:13*	*1*
Trifluorotoluene (Surr)	*97*		*70 - 136*		*12/14/15 10:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*		*12/14/15 10:13*	*1*

Lab Sample ID: LCS 580-207714/5
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	20.0	22.6		ug/L		113	30 - 155
Chloromethane	20.1	22.9		ug/L		114	40 - 125
Vinyl chloride	20.1	20.8		ug/L		103	50 - 145
Bromomethane	20.0	22.2		ug/L		111	30 - 145
Chloroethane	20.1	22.8		ug/L		113	60 - 135
Trichlorofluoromethane	20.0	20.9		ug/L		105	60 - 145
1,1-Dichloroethene	20.2	22.9		ug/L		114	70 - 130
Methylene Chloride	20.1	23.0		ug/L		115	55 - 140
trans-1,2-Dichloroethene	20.0	22.4		ug/L		112	60 - 140
1,1-Dichloroethane	20.0	20.9		ug/L		104	70 - 135
2,2-Dichloropropane	20.0	25.0		ug/L		125	70 - 135
cis-1,2-Dichloroethene	20.0	21.7		ug/L		108	70 - 125
Chlorobromomethane	20.0	22.8		ug/L		114	65 - 130
Chloroform	20.0	20.7		ug/L		103	65 - 135
1,1,1-Trichloroethane	20.1	24.4		ug/L		121	65 - 130
Carbon tetrachloride	20.0	24.0		ug/L		120	65 - 140
1,1-Dichloropropene	20.0	20.8		ug/L		104	75 - 130
Benzene	20.1	24.3	*	ug/L		121	80 - 120
1,2-Dichloroethane	20.0	22.9		ug/L		114	70 - 130
Trichloroethene	20.0	20.8		ug/L		104	70 - 125
1,2-Dichloropropane	20.0	21.7		ug/L		108	75 - 125
Dibromomethane	20.1	23.6		ug/L		118	75 - 125
Dichlorobromomethane	20.1	20.9		ug/L		104	75 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-207714/5
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	20.1	19.8		ug/L		99	70 - 130
Toluene	20.0	20.3		ug/L		101	75 - 120
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	55 - 140
1,1,2-Trichloroethane	20.1	20.8		ug/L		104	75 - 125
Tetrachloroethene	20.1	20.2		ug/L		101	45 - 150
1,3-Dichloropropane	20.0	18.5		ug/L		92	75 - 125
Chlorodibromomethane	20.0	20.5		ug/L		103	60 - 135
Ethylene Dibromide	20.0	20.1		ug/L		100	80 - 120
Chlorobenzene	20.1	19.6		ug/L		97	80 - 120
Ethylbenzene	20.1	21.0		ug/L		105	75 - 125
1,1,1,2-Tetrachloroethane	20.1	20.6		ug/L		103	80 - 130
1,1,2,2-Tetrachloroethane	20.0	22.6		ug/L		113	65 - 130
m-Xylene & p-Xylene	20.0	20.7		ug/L		103	75 - 130
o-Xylene	20.0	22.3		ug/L		111	80 - 120
Styrene	20.0	21.3		ug/L		106	65 - 135
Bromoform	20.1	21.0		ug/L		105	70 - 130
Isopropylbenzene	20.0	22.8		ug/L		114	75 - 125
Bromobenzene	20.0	21.7		ug/L		108	75 - 125
N-Propylbenzene	20.0	20.3		ug/L		102	70 - 130
1,2,3-Trichloropropane	20.0	20.4		ug/L		102	75 - 125
2-Chlorotoluene	20.0	20.9		ug/L		104	75 - 125
1,3,5-Trimethylbenzene	20.0	21.9		ug/L		109	75 - 130
4-Chlorotoluene	20.1	21.7		ug/L		108	75 - 130
tert-Butylbenzene	20.0	22.5		ug/L		112	70 - 130
1,2,4-Trimethylbenzene	20.0	22.4		ug/L		112	75 - 130
sec-Butylbenzene	20.0	22.5		ug/L		112	70 - 125
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	75 - 125
4-Isopropyltoluene	20.0	20.6		ug/L		103	75 - 130
1,4-Dichlorobenzene	20.1	20.1		ug/L		100	75 - 125
n-Butylbenzene	20.0	20.4		ug/L		102	70 - 135
1,2-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	18.8		ug/L		94	50 - 130
1,2,4-Trichlorobenzene	20.0	17.0		ug/L		85	65 - 135
1,2,3-Trichlorobenzene	20.0	17.8		ug/L		89	55 - 140
Hexachlorobutadiene	20.0	18.4		ug/L		92	50 - 140
Naphthalene	20.0	16.9		ug/L		84	55 - 140
Methyl tert-butyl ether	20.0	24.3		ug/L		121	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*85 - 120*
4-Bromofluorobenzene (Surr)	*102*		*75 - 120*
Dibromofluoromethane (Surr)	*106*		*85 - 115*
Trifluorotoluene (Surr)	*95*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-207714/6
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	20.0	19.4		ug/L		97	30 - 155	15	30
Chloromethane	20.1	19.8		ug/L		98	40 - 125	15	30
Vinyl chloride	20.1	18.1		ug/L		90	50 - 145	14	30
Bromomethane	20.0	19.4		ug/L		97	30 - 145	13	30
Chloroethane	20.1	21.2		ug/L		105	60 - 135	7	30
Trichlorofluoromethane	20.0	19.9		ug/L		99	60 - 145	5	30
1,1-Dichloroethene	20.2	20.2		ug/L		100	70 - 130	12	30
Methylene Chloride	20.1	19.5		ug/L		97	55 - 140	17	30
trans-1,2-Dichloroethene	20.0	20.3		ug/L		102	60 - 140	9	30
1,1-Dichloroethane	20.0	19.5		ug/L		98	70 - 135	7	30
2,2-Dichloropropane	20.0	22.1		ug/L		110	70 - 135	13	30
cis-1,2-Dichloroethene	20.0	19.8		ug/L		99	70 - 125	9	30
Chlorobromomethane	20.0	21.3		ug/L		106	65 - 130	7	30
Chloroform	20.0	19.4		ug/L		97	65 - 135	6	30
1,1,1-Trichloroethane	20.1	22.0		ug/L		110	65 - 130	10	30
Carbon tetrachloride	20.0	21.8		ug/L		109	65 - 140	10	30
1,1-Dichloropropene	20.0	20.5		ug/L		102	75 - 130	1	30
Benzene	20.1	23.3		ug/L		116	80 - 120	4	30
1,2-Dichloroethane	20.0	21.8		ug/L		109	70 - 130	5	30
Trichloroethene	20.0	20.9		ug/L		105	70 - 125	1	30
1,2-Dichloropropane	20.0	21.3		ug/L		107	75 - 125	2	30
Dibromomethane	20.1	24.8		ug/L		123	75 - 125	5	30
Dichlorobromomethane	20.1	19.9		ug/L		99	75 - 120	5	30
cis-1,3-Dichloropropene	20.1	21.0		ug/L		105	70 - 130	6	30
Toluene	20.0	20.5		ug/L		102	75 - 120	1	30
trans-1,3-Dichloropropene	20.0	20.9		ug/L		104	55 - 140	3	30
1,1,2-Trichloroethane	20.1	22.2		ug/L		111	75 - 125	7	30
Tetrachloroethene	20.1	21.9		ug/L		109	45 - 150	8	30
1,3-Dichloropropane	20.0	19.1		ug/L		95	75 - 125	3	30
Chlorodibromomethane	20.0	20.6		ug/L		103	60 - 135	1	30
Ethylene Dibromide	20.0	19.6		ug/L		98	80 - 120	2	30
Chlorobenzene	20.1	19.4		ug/L		97	80 - 120	1	30
Ethylbenzene	20.1	21.1		ug/L		105	75 - 125	1	30
1,1,1,2-Tetrachloroethane	20.1	19.7		ug/L		98	80 - 130	5	30
1,1,2,2-Tetrachloroethane	20.0	22.3		ug/L		111	65 - 130	1	30
m-Xylene & p-Xylene	20.0	21.1		ug/L		105	75 - 130	2	30
o-Xylene	20.0	21.3		ug/L		106	80 - 120	5	30
Styrene	20.0	20.7		ug/L		103	65 - 135	3	30
Bromoform	20.1	19.8		ug/L		99	70 - 130	6	30
Isopropylbenzene	20.0	22.0		ug/L		110	75 - 125	3	30
Bromobenzene	20.0	21.6		ug/L		108	75 - 125	0	30
N-Propylbenzene	20.0	20.2		ug/L		101	70 - 130	0	30
1,2,3-Trichloropropane	20.0	19.9		ug/L		99	75 - 125	2	30
2-Chlorotoluene	20.0	21.1		ug/L		105	75 - 125	1	30
1,3,5-Trimethylbenzene	20.0	21.7		ug/L		108	75 - 130	1	30
4-Chlorotoluene	20.1	22.1		ug/L		110	75 - 130	2	30
tert-Butylbenzene	20.0	22.6		ug/L		113	70 - 130	0	30
1,2,4-Trimethylbenzene	20.0	21.8		ug/L		109	75 - 130	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-207714/6
Matrix: Water
Analysis Batch: 207714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene			20.0	22.7		ug/L		113	70 - 125	1	30
1,3-Dichlorobenzene			20.0	19.8		ug/L		99	75 - 125	3	30
4-Isopropyltoluene			20.0	21.1		ug/L		105	75 - 130	2	30
1,4-Dichlorobenzene			20.1	19.7		ug/L		98	75 - 125	2	30
n-Butylbenzene			20.0	20.6		ug/L		103	70 - 135	1	30
1,2-Dichlorobenzene			20.0	20.5		ug/L		102	70 - 120	1	30
1,2-Dibromo-3-Chloropropane			20.0	21.8		ug/L		109	50 - 130	15	30
1,2,4-Trichlorobenzene			20.0	19.8		ug/L		99	65 - 135	15	30
1,2,3-Trichlorobenzene			20.0	21.1		ug/L		105	55 - 140	17	30
Hexachlorobutadiene			20.0	22.0		ug/L		110	50 - 140	18	30
Naphthalene			20.0	20.4		ug/L		102	55 - 140	19	30
Methyl tert-butyl ether			20.0	22.3		ug/L		111	65 - 125	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*85 - 120*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Dibromofluoromethane (Surr)	*104*		*85 - 115*
Trifluorotoluene (Surr)	*99*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*94*		*70 - 120*

Lab Sample ID: MB 580-207793/4
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/14/15 20:50	1
Chloromethane	ND		5.0		ug/L			12/14/15 20:50	1
Vinyl chloride	ND		1.0		ug/L			12/14/15 20:50	1
Bromomethane	ND		5.0		ug/L			12/14/15 20:50	1
Chloroethane	ND		5.0		ug/L			12/14/15 20:50	1
Trichlorofluoromethane	ND		3.0		ug/L			12/14/15 20:50	1
1,1-Dichloroethene	ND		2.0		ug/L			12/14/15 20:50	1
Methylene Chloride	ND		5.0		ug/L			12/14/15 20:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 20:50	1
1,1-Dichloroethane	ND		2.0		ug/L			12/14/15 20:50	1
2,2-Dichloropropane	ND		3.0		ug/L			12/14/15 20:50	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/14/15 20:50	1
Chlorobromomethane	ND		2.0		ug/L			12/14/15 20:50	1
Chloroform	ND		1.0		ug/L			12/14/15 20:50	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/14/15 20:50	1
Carbon tetrachloride	ND		3.0		ug/L			12/14/15 20:50	1
1,1-Dichloropropene	ND		3.0		ug/L			12/14/15 20:50	1
Benzene	ND		2.0		ug/L			12/14/15 20:50	1
1,2-Dichloroethane	ND		1.0		ug/L			12/14/15 20:50	1
Trichloroethene	ND		3.0		ug/L			12/14/15 20:50	1
1,2-Dichloropropane	ND		1.0		ug/L			12/14/15 20:50	1
Dibromomethane	ND		1.0		ug/L			12/14/15 20:50	1
Dichlorobromomethane	ND		2.0		ug/L			12/14/15 20:50	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-207793/4
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 20:50	1
Toluene	ND		2.0		ug/L			12/14/15 20:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/14/15 20:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/14/15 20:50	1
Tetrachloroethene	ND		3.0		ug/L			12/14/15 20:50	1
1,3-Dichloropropane	ND		1.0		ug/L			12/14/15 20:50	1
Chlorodibromomethane	ND		1.0		ug/L			12/14/15 20:50	1
Ethylene Dibromide	ND		1.0		ug/L			12/14/15 20:50	1
Chlorobenzene	ND		2.0		ug/L			12/14/15 20:50	1
Ethylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/14/15 20:50	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/14/15 20:50	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/14/15 20:50	1
o-Xylene	ND		2.0		ug/L			12/14/15 20:50	1
Styrene	ND		5.0		ug/L			12/14/15 20:50	1
Bromoform	ND		1.0		ug/L			12/14/15 20:50	1
Isopropylbenzene	ND		2.0		ug/L			12/14/15 20:50	1
Bromobenzene	ND		2.0		ug/L			12/14/15 20:50	1
N-Propylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/14/15 20:50	1
2-Chlorotoluene	ND		3.0		ug/L			12/14/15 20:50	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
4-Chlorotoluene	ND		2.0		ug/L			12/14/15 20:50	1
tert-Butylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
sec-Butylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/14/15 20:50	1
4-Isopropyltoluene	ND		3.0		ug/L			12/14/15 20:50	1
1,4-Dichlorobenzene	ND		2.0		ug/L			12/14/15 20:50	1
n-Butylbenzene	ND		3.0		ug/L			12/14/15 20:50	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/14/15 20:50	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/14/15 20:50	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/14/15 20:50	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/14/15 20:50	1
Hexachlorobutadiene	ND		2.0		ug/L			12/14/15 20:50	1
Naphthalene	ND		2.0		ug/L			12/14/15 20:50	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/14/15 20:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*85 - 120*		*12/14/15 20:50*	*1*
4-Bromofluorobenzene (Surr)	*93*		*75 - 120*		*12/14/15 20:50*	*1*
Dibromofluoromethane (Surr)	*98*		*85 - 115*		*12/14/15 20:50*	*1*
Trifluorotoluene (Surr)	*97*		*70 - 136*		*12/14/15 20:50*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 120*		*12/14/15 20:50*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-207793/5
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	20.0	21.0		ug/L		105	30 - 155
Chloromethane	20.1	20.3		ug/L		101	40 - 125
Vinyl chloride	20.1	19.2		ug/L		96	50 - 145
Bromomethane	20.0	20.5		ug/L		102	30 - 145
Chloroethane	20.1	22.4		ug/L		111	60 - 135
Trichlorofluoromethane	20.0	20.1		ug/L		101	60 - 145
1,1-Dichloroethene	20.2	21.4		ug/L		106	70 - 130
Methylene Chloride	20.1	19.4		ug/L		97	55 - 140
trans-1,2-Dichloroethene	20.0	21.6		ug/L		108	60 - 140
1,1-Dichloroethane	20.0	20.6		ug/L		103	70 - 135
2,2-Dichloropropane	20.0	23.2		ug/L		116	70 - 135
cis-1,2-Dichloroethene	20.0	20.8		ug/L		104	70 - 125
Chlorobromomethane	20.0	23.0		ug/L		115	65 - 130
Chloroform	20.0	21.1		ug/L		105	65 - 135
1,1,1-Trichloroethane	20.1	24.8		ug/L		124	65 - 130
Carbon tetrachloride	20.0	25.3		ug/L		126	65 - 140
1,1-Dichloropropene	20.0	23.3		ug/L		117	75 - 130
Benzene	20.1	25.9	*	ug/L		129	80 - 120
1,2-Dichloroethane	20.0	22.2		ug/L		111	70 - 130
Trichloroethene	20.0	26.1	*	ug/L		130	70 - 125
1,2-Dichloropropane	20.0	24.0		ug/L		120	75 - 125
Dibromomethane	20.1	25.5	*	ug/L		127	75 - 125
Dichlorobromomethane	20.1	23.0		ug/L		115	75 - 120
cis-1,3-Dichloropropene	20.1	22.4		ug/L		112	70 - 130
Toluene	20.0	23.7		ug/L		118	75 - 120
trans-1,3-Dichloropropene	20.0	22.0		ug/L		110	55 - 140
1,1,2-Trichloroethane	20.1	23.2		ug/L		115	75 - 125
Tetrachloroethene	20.1	25.3		ug/L		126	45 - 150
1,3-Dichloropropane	20.0	20.4		ug/L		102	75 - 125
Chlorodibromomethane	20.0	22.4		ug/L		112	60 - 135
Ethylene Dibromide	20.0	21.1		ug/L		105	80 - 120
Chlorobenzene	20.1	21.6		ug/L		108	80 - 120
Ethylbenzene	20.1	23.3		ug/L		116	75 - 125
1,1,1,2-Tetrachloroethane	20.1	21.9		ug/L		109	80 - 130
1,1,2,2-Tetrachloroethane	20.0	20.9		ug/L		105	65 - 130
m-Xylene & p-Xylene	20.0	23.3		ug/L		116	75 - 130
o-Xylene	20.0	23.1		ug/L		115	80 - 120
Styrene	20.0	23.7		ug/L		119	65 - 135
Bromoform	20.1	21.7		ug/L		108	70 - 130
Isopropylbenzene	20.0	25.1		ug/L		125	75 - 125
Bromobenzene	20.0	23.5		ug/L		117	75 - 125
N-Propylbenzene	20.0	22.0		ug/L		110	70 - 130
1,2,3-Trichloropropane	20.0	19.5		ug/L		97	75 - 125
2-Chlorotoluene	20.0	22.8		ug/L		114	75 - 125
1,3,5-Trimethylbenzene	20.0	23.5		ug/L		117	75 - 130
4-Chlorotoluene	20.1	22.8		ug/L		113	75 - 130
tert-Butylbenzene	20.0	24.7		ug/L		123	70 - 130
1,2,4-Trimethylbenzene	20.0	24.1		ug/L		120	75 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-207793/5
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
sec-Butylbenzene			20.0	24.8		ug/L		124	70 - 125		
1,3-Dichlorobenzene			20.0	21.9		ug/L		109	75 - 125		
4-Isopropyltoluene			20.0	23.0		ug/L		115	75 - 130		
1,4-Dichlorobenzene			20.1	21.2		ug/L		106	75 - 125		
n-Butylbenzene			20.0	22.7		ug/L		113	70 - 135		
1,2-Dichlorobenzene			20.0	22.0		ug/L		110	70 - 120		
1,2-Dibromo-3-Chloropropane			20.0	20.7		ug/L		103	50 - 130		
1,2,4-Trichlorobenzene			20.0	22.5		ug/L		112	65 - 135		
1,2,3-Trichlorobenzene			20.0	23.1		ug/L		115	55 - 140		
Hexachlorobutadiene			20.0	24.1		ug/L		120	50 - 140		
Naphthalene			20.0	21.3		ug/L		107	55 - 140		
Methyl tert-butyl ether			20.0	22.0		ug/L		110	65 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*85 - 120*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*
Dibromofluoromethane (Surr)	*95*		*85 - 115*
Trifluorotoluene (Surr)	*104*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 120*

Lab Sample ID: LCSD 580-207793/6
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane			20.0	22.7		ug/L		113	30 - 155	8	30
Chloromethane			20.1	22.2		ug/L		110	40 - 125	9	30
Vinyl chloride			20.1	20.0		ug/L		99	50 - 145	4	30
Bromomethane			20.0	21.3		ug/L		106	30 - 145	4	30
Chloroethane			20.1	22.8		ug/L		114	60 - 135	2	30
Trichlorofluoromethane			20.0	21.4		ug/L		107	60 - 145	6	30
1,1-Dichloroethene			20.2	22.0		ug/L		109	70 - 130	3	30
Methylene Chloride			20.1	19.3		ug/L		96	55 - 140	1	30
trans-1,2-Dichloroethene			20.0	23.5		ug/L		117	60 - 140	9	30
1,1-Dichloroethane			20.0	21.2		ug/L		106	70 - 135	3	30
2,2-Dichloropropane			20.0	24.1		ug/L		120	70 - 135	4	30
cis-1,2-Dichloroethene			20.0	21.5		ug/L		107	70 - 125	3	30
Chlorobromomethane			20.0	23.3		ug/L		116	65 - 130	1	30
Chloroform			20.0	21.4		ug/L		107	65 - 135	2	30
1,1,1-Trichloroethane			20.1	24.9		ug/L		124	65 - 130	0	30
Carbon tetrachloride			20.0	25.5		ug/L		127	65 - 140	1	30
1,1-Dichloropropene			20.0	22.4		ug/L		112	75 - 130	4	30
Benzene			20.1	24.8	*	ug/L		124	80 - 120	4	30
1,2-Dichloroethane			20.0	22.8		ug/L		114	70 - 130	3	30
Trichloroethene			20.0	24.4		ug/L		122	70 - 125	7	30
1,2-Dichloropropane			20.0	21.9		ug/L		109	75 - 125	9	30
Dibromomethane			20.1	24.0		ug/L		120	75 - 125	6	30
Dichlorobromomethane			20.1	20.4		ug/L		101	75 - 120	12	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-207793/6
Matrix: Water
Analysis Batch: 207793

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			20.1	19.5		ug/L		97	70 - 130	14	30
Toluene			20.0	20.7		ug/L		103	75 - 120	14	30
trans-1,3-Dichloropropene			20.0	19.4		ug/L		97	55 - 140	12	30
1,1,2-Trichloroethane			20.1	21.0		ug/L		105	75 - 125	10	30
Tetrachloroethene			20.1	22.1		ug/L		110	45 - 150	13	30
1,3-Dichloropropane			20.0	18.5		ug/L		92	75 - 125	10	30
Chlorodibromomethane			20.0	20.6		ug/L		103	60 - 135	9	30
Ethylene Dibromide			20.0	19.2		ug/L		96	80 - 120	10	30
Chlorobenzene			20.1	19.9		ug/L		99	80 - 120	8	30
Ethylbenzene			20.1	21.3		ug/L		106	75 - 125	9	30
1,1,1,2-Tetrachloroethane			20.1	20.3		ug/L		101	80 - 130	8	30
1,1,2,2-Tetrachloroethane			20.0	20.1		ug/L		101	65 - 130	4	30
m-Xylene & p-Xylene			20.0	21.6		ug/L		108	75 - 130	8	30
o-Xylene			20.0	21.5		ug/L		108	80 - 120	7	30
Styrene			20.0	21.1		ug/L		105	65 - 135	12	30
Bromoform			20.1	19.9		ug/L		99	70 - 130	9	30
Isopropylbenzene			20.0	22.9		ug/L		114	75 - 125	9	30
Bromobenzene			20.0	22.3		ug/L		112	75 - 125	5	30
N-Propylbenzene			20.0	21.3		ug/L		106	70 - 130	3	30
1,2,3-Trichloropropane			20.0	19.5		ug/L		98	75 - 125	0	30
2-Chlorotoluene			20.0	22.5		ug/L		113	75 - 125	1	30
1,3,5-Trimethylbenzene			20.0	22.7		ug/L		113	75 - 130	3	30
4-Chlorotoluene			20.1	22.0		ug/L		109	75 - 130	4	30
tert-Butylbenzene			20.0	23.5		ug/L		118	70 - 130	5	30
1,2,4-Trimethylbenzene			20.0	22.8		ug/L		114	75 - 130	6	30
sec-Butylbenzene			20.0	23.9		ug/L		119	70 - 125	4	30
1,3-Dichlorobenzene			20.0	19.9		ug/L		99	75 - 125	9	30
4-Isopropyltoluene			20.0	21.3		ug/L		107	75 - 130	7	30
1,4-Dichlorobenzene			20.1	19.8		ug/L		99	75 - 125	7	30
n-Butylbenzene			20.0	20.3		ug/L		101	70 - 135	11	30
1,2-Dichlorobenzene			20.0	20.2		ug/L		101	70 - 120	8	30
1,2-Dibromo-3-Chloropropane			20.0	21.6		ug/L		108	50 - 130	4	30
1,2,4-Trichlorobenzene			20.0	20.9		ug/L		104	65 - 135	7	30
1,2,3-Trichlorobenzene			20.0	22.6		ug/L		113	55 - 140	2	30
Hexachlorobutadiene			20.0	23.2		ug/L		116	50 - 140	4	30
Naphthalene			20.0	20.3		ug/L		101	55 - 140	5	30
Methyl tert-butyl ether			20.0	23.8		ug/L		119	65 - 125	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*85 - 120*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*
Dibromofluoromethane (Surr)	*104*		*85 - 115*
Trifluorotoluene (Surr)	*105*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-207825/4
Matrix: Water
Analysis Batch: 207825

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0		ug/L			12/15/15 12:49	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/15/15 12:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*110*		*85 - 120*		*12/15/15 12:49*	*1*
4-Bromofluorobenzene (Surr)	*88*		*75 - 120*		*12/15/15 12:49*	*1*
Dibromofluoromethane (Surr)	*101*		*85 - 115*		*12/15/15 12:49*	*1*
Trifluorotoluene (Surr)	*98*		*70 - 136*		*12/15/15 12:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 120*		*12/15/15 12:49*	*1*

Lab Sample ID: LCS 580-207825/5
Matrix: Water
Analysis Batch: 207825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethylbenzene			20.1	23.5		ug/L		117	75 - 125		
m-Xylene & p-Xylene			20.0	22.7		ug/L		113	75 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*96*		*85 - 120*
4-Bromofluorobenzene (Surr)	*90*		*75 - 120*
Dibromofluoromethane (Surr)	*105*		*85 - 115*
Trifluorotoluene (Surr)	*103*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*89*		*70 - 120*

Lab Sample ID: LCSD 580-207825/6
Matrix: Water
Analysis Batch: 207825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			20.1	23.0		ug/L		115	75 - 125	2	30
m-Xylene & p-Xylene			20.0	22.5		ug/L		112	75 - 130	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*85 - 120*
4-Bromofluorobenzene (Surr)	*103*		*75 - 120*
Dibromofluoromethane (Surr)	*101*		*85 - 115*
Trifluorotoluene (Surr)	*102*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 120*

Lab Sample ID: MB 580-208079/5
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			12/17/15 14:45	1
Chloromethane	ND		5.0		ug/L			12/17/15 14:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-208079/5
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.0		ug/L			12/17/15 14:45	1
Chloroethane	ND		5.0		ug/L			12/17/15 14:45	1
Trichlorofluoromethane	ND		3.0		ug/L			12/17/15 14:45	1
1,1-Dichloroethene	ND		2.0		ug/L			12/17/15 14:45	1
Methylene Chloride	ND		5.0		ug/L			12/17/15 14:45	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/17/15 14:45	1
1,1-Dichloroethane	ND		2.0		ug/L			12/17/15 14:45	1
2,2-Dichloropropane	ND		3.0		ug/L			12/17/15 14:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/17/15 14:45	1
Chlorobromomethane	ND		2.0		ug/L			12/17/15 14:45	1
Chloroform	ND		1.0		ug/L			12/17/15 14:45	1
1,1,1-Trichloroethane	ND		3.0		ug/L			12/17/15 14:45	1
Carbon tetrachloride	ND		3.0		ug/L			12/17/15 14:45	1
1,1-Dichloropropene	ND		3.0		ug/L			12/17/15 14:45	1
Benzene	ND		2.0		ug/L			12/17/15 14:45	1
1,2-Dichloroethane	ND		1.0		ug/L			12/17/15 14:45	1
Trichloroethene	ND		3.0		ug/L			12/17/15 14:45	1
1,2-Dichloropropane	ND		1.0		ug/L			12/17/15 14:45	1
Dibromomethane	ND		1.0		ug/L			12/17/15 14:45	1
Dichlorobromomethane	ND		2.0		ug/L			12/17/15 14:45	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/17/15 14:45	1
Toluene	ND		2.0		ug/L			12/17/15 14:45	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/17/15 14:45	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/17/15 14:45	1
Tetrachloroethene	ND		3.0		ug/L			12/17/15 14:45	1
1,3-Dichloropropane	ND		1.0		ug/L			12/17/15 14:45	1
Chlorodibromomethane	ND		1.0		ug/L			12/17/15 14:45	1
Ethylene Dibromide	ND		1.0		ug/L			12/17/15 14:45	1
Chlorobenzene	ND		2.0		ug/L			12/17/15 14:45	1
Ethylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			12/17/15 14:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/17/15 14:45	1
m-Xylene & p-Xylene	ND		3.0		ug/L			12/17/15 14:45	1
o-Xylene	ND		2.0		ug/L			12/17/15 14:45	1
Styrene	ND		5.0		ug/L			12/17/15 14:45	1
Bromoform	ND		1.0		ug/L			12/17/15 14:45	1
Isopropylbenzene	ND		2.0		ug/L			12/17/15 14:45	1
Bromobenzene	ND		2.0		ug/L			12/17/15 14:45	1
N-Propylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/17/15 14:45	1
2-Chlorotoluene	ND		3.0		ug/L			12/17/15 14:45	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
4-Chlorotoluene	ND		2.0		ug/L			12/17/15 14:45	1
tert-Butylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
sec-Butylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
1,3-Dichlorobenzene	ND		2.0		ug/L			12/17/15 14:45	1
4-Isopropyltoluene	ND		3.0		ug/L			12/17/15 14:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-208079/5
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		2.0		ug/L			12/17/15 14:45	1
n-Butylbenzene	ND		3.0		ug/L			12/17/15 14:45	1
1,2-Dichlorobenzene	ND		2.0		ug/L			12/17/15 14:45	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/17/15 14:45	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/17/15 14:45	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			12/17/15 14:45	1
Hexachlorobutadiene	ND		2.0		ug/L			12/17/15 14:45	1
Naphthalene	ND		2.0		ug/L			12/17/15 14:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/17/15 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*85 - 120*		*12/17/15 14:45*	*1*
4-Bromofluorobenzene (Surr)	*96*		*75 - 120*		*12/17/15 14:45*	*1*
Dibromofluoromethane (Surr)	*104*		*85 - 115*		*12/17/15 14:45*	*1*
Trifluorotoluene (Surr)	*101*		*70 - 136*		*12/17/15 14:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 120*		*12/17/15 14:45*	*1*

Lab Sample ID: LCS 580-208079/6
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	20.0	24.4		ug/L		122	30 - 155
Chloromethane	20.1	22.9		ug/L		114	40 - 125
Bromomethane	20.0	22.7		ug/L		113	30 - 145
Chloroethane	20.1	22.4		ug/L		112	60 - 135
Trichlorofluoromethane	20.0	21.5		ug/L		107	60 - 145
1,1-Dichloroethene	20.2	19.6		ug/L		97	70 - 130
Methylene Chloride	20.1	20.8		ug/L		103	55 - 140
trans-1,2-Dichloroethene	20.0	19.7		ug/L		98	60 - 140
1,1-Dichloroethane	20.0	20.6		ug/L		103	70 - 135
2,2-Dichloropropane	20.0	19.7		ug/L		99	70 - 135
cis-1,2-Dichloroethene	20.0	21.0		ug/L		105	70 - 125
Chlorobromomethane	20.0	21.0		ug/L		105	65 - 130
Chloroform	20.0	20.4		ug/L		102	65 - 135
1,1,1-Trichloroethane	20.1	20.4		ug/L		102	65 - 130
Carbon tetrachloride	20.0	20.0		ug/L		100	65 - 140
1,1-Dichloropropene	20.0	20.9		ug/L		104	75 - 130
Benzene	20.1	20.9		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	20.2		ug/L		101	70 - 130
Trichloroethene	20.0	21.8		ug/L		109	70 - 125
1,2-Dichloropropane	20.0	21.7		ug/L		108	75 - 125
Dibromomethane	20.1	21.9		ug/L		109	75 - 125
Dichlorobromomethane	20.1	21.9		ug/L		109	75 - 120
cis-1,3-Dichloropropene	20.1	21.8		ug/L		109	70 - 130
Toluene	20.0	20.6		ug/L		103	75 - 120
trans-1,3-Dichloropropene	20.0	22.6		ug/L		113	55 - 140
1,1,2-Trichloroethane	20.1	21.7		ug/L		108	75 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-208079/6
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	20.1	20.7		ug/L		103	45 - 150
1,3-Dichloropropane	20.0	22.0		ug/L		110	75 - 125
Chlorodibromomethane	20.0	21.5		ug/L		107	60 - 135
Ethylene Dibromide	20.0	22.1		ug/L		111	80 - 120
Chlorobenzene	20.1	20.6		ug/L		103	80 - 120
Ethylbenzene	20.1	21.0		ug/L		105	75 - 125
1,1,1,2-Tetrachloroethane	20.1	20.5		ug/L		102	80 - 130
1,1,2,2-Tetrachloroethane	20.0	21.5		ug/L		107	65 - 130
m-Xylene & p-Xylene	20.0	20.9		ug/L		104	75 - 130
o-Xylene	20.0	20.9		ug/L		104	80 - 120
Styrene	20.0	21.9		ug/L		109	65 - 135
Bromoform	20.1	20.6		ug/L		103	70 - 130
Isopropylbenzene	20.0	20.7		ug/L		103	75 - 125
Bromobenzene	20.0	20.8		ug/L		104	75 - 125
N-Propylbenzene	20.0	20.2		ug/L		101	70 - 130
1,2,3-Trichloropropane	20.0	21.8		ug/L		109	75 - 125
2-Chlorotoluene	20.0	20.5		ug/L		102	75 - 125
1,3,5-Trimethylbenzene	20.0	20.0		ug/L		100	75 - 130
4-Chlorotoluene	20.1	20.7		ug/L		103	75 - 130
tert-Butylbenzene	20.0	20.4		ug/L		102	70 - 130
1,2,4-Trimethylbenzene	20.0	20.3		ug/L		101	75 - 130
sec-Butylbenzene	20.0	20.1		ug/L		100	70 - 125
1,3-Dichlorobenzene	20.0	20.4		ug/L		102	75 - 125
4-Isopropyltoluene	20.0	20.0		ug/L		100	75 - 130
1,4-Dichlorobenzene	20.1	20.5		ug/L		102	75 - 125
n-Butylbenzene	20.0	20.1		ug/L		101	70 - 135
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	22.7		ug/L		113	50 - 130
1,2,4-Trichlorobenzene	20.0	21.1		ug/L		105	65 - 135
1,2,3-Trichlorobenzene	20.0	21.3		ug/L		106	55 - 140
Hexachlorobutadiene	20.0	21.4		ug/L		107	50 - 140
Naphthalene	20.0	22.3		ug/L		111	55 - 140
Methyl tert-butyl ether	20.0	20.4		ug/L		102	65 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*85 - 120*
4-Bromofluorobenzene (Surr)	*101*		*75 - 120*
Dibromofluoromethane (Surr)	*98*		*85 - 115*
Trifluorotoluene (Surr)	*98*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*

Lab Sample ID: LCSD 580-208079/7
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	20.0	26.8		ug/L		134	30 - 155	9	30
Chloromethane	20.1	25.7	*	ug/L		128	40 - 125	12	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-208079/7
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromomethane	20.0	25.3		ug/L		126	30 - 145	11	30
Chloroethane	20.1	25.1		ug/L		125	60 - 135	11	30
Trichlorofluoromethane	20.0	24.1		ug/L		120	60 - 145	11	30
1,1-Dichloroethene	20.2	22.3		ug/L		111	70 - 130	13	30
Methylene Chloride	20.1	22.5		ug/L		112	55 - 140	8	30
trans-1,2-Dichloroethene	20.0	22.2		ug/L		111	60 - 140	12	30
1,1-Dichloroethane	20.0	22.5		ug/L		112	70 - 135	9	30
2,2-Dichloropropane	20.0	22.8		ug/L		114	70 - 135	15	30
cis-1,2-Dichloroethene	20.0	22.4		ug/L		112	70 - 125	6	30
Chlorobromomethane	20.0	22.1		ug/L		110	65 - 130	5	30
Chloroform	20.0	22.1		ug/L		111	65 - 135	8	30
1,1,1-Trichloroethane	20.1	22.8		ug/L		114	65 - 130	11	30
Carbon tetrachloride	20.0	22.5		ug/L		112	65 - 140	12	30
1,1-Dichloropropene	20.0	22.4		ug/L		112	75 - 130	7	30
Benzene	20.1	21.9		ug/L		109	80 - 120	5	30
1,2-Dichloroethane	20.0	20.3		ug/L		101	70 - 130	0	30
Trichloroethene	20.0	22.5		ug/L		112	70 - 125	3	30
1,2-Dichloropropane	20.0	21.5		ug/L		107	75 - 125	1	30
Dibromomethane	20.1	21.4		ug/L		107	75 - 125	2	30
Dichlorobromomethane	20.1	20.8		ug/L		104	75 - 120	5	30
cis-1,3-Dichloropropene	20.1	21.9		ug/L		109	70 - 130	0	30
Toluene	20.0	22.1		ug/L		110	75 - 120	7	30
trans-1,3-Dichloropropene	20.0	21.2		ug/L		106	55 - 140	6	30
1,1,2-Trichloroethane	20.1	21.2		ug/L		106	75 - 125	2	30
Tetrachloroethene	20.1	22.7		ug/L		113	45 - 150	9	30
1,3-Dichloropropane	20.0	21.0		ug/L		105	75 - 125	5	30
Chlorodibromomethane	20.0	21.4		ug/L		107	60 - 135	0	30
Ethylene Dibromide	20.0	20.9		ug/L		104	80 - 120	6	30
Chlorobenzene	20.1	21.0		ug/L		105	80 - 120	2	30
Ethylbenzene	20.1	22.0		ug/L		110	75 - 125	5	30
1,1,1,2-Tetrachloroethane	20.1	22.9		ug/L		114	80 - 130	11	30
1,1,2,2-Tetrachloroethane	20.0	21.4		ug/L		107	65 - 130	0	30
m-Xylene & p-Xylene	20.0	22.0		ug/L		110	75 - 130	5	30
o-Xylene	20.0	22.8		ug/L		114	80 - 120	9	30
Styrene	20.0	21.5		ug/L		108	65 - 135	1	30
Bromoform	20.1	20.8		ug/L		103	70 - 130	1	30
Isopropylbenzene	20.0	22.7		ug/L		113	75 - 125	10	30
Bromobenzene	20.0	21.3		ug/L		107	75 - 125	3	30
N-Propylbenzene	20.0	22.5		ug/L		112	70 - 130	10	30
1,2,3-Trichloropropane	20.0	22.4		ug/L		112	75 - 125	2	30
2-Chlorotoluene	20.0	22.9		ug/L		115	75 - 125	11	30
1,3,5-Trimethylbenzene	20.0	22.7		ug/L		113	75 - 130	12	30
4-Chlorotoluene	20.1	21.5		ug/L		107	75 - 130	4	30
tert-Butylbenzene	20.0	22.0		ug/L		110	70 - 130	8	30
1,2,4-Trimethylbenzene	20.0	22.6		ug/L		113	75 - 130	11	30
sec-Butylbenzene	20.0	22.4		ug/L		112	70 - 125	11	30
1,3-Dichlorobenzene	20.0	21.1		ug/L		105	75 - 125	3	30
4-Isopropyltoluene	20.0	22.0		ug/L		110	75 - 130	10	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-208079/7
Matrix: Water
Analysis Batch: 208079

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene			20.1	20.5		ug/L		102	75 - 125	0	30
n-Butylbenzene			20.0	22.0		ug/L		110	70 - 135	9	30
1,2-Dichlorobenzene			20.0	22.0		ug/L		110	70 - 120	8	30
1,2-Dibromo-3-Chloropropane			20.0	23.6		ug/L		118	50 - 130	4	30
1,2,4-Trichlorobenzene			20.0	23.1		ug/L		116	65 - 135	9	30
1,2,3-Trichlorobenzene			20.0	23.8		ug/L		119	55 - 140	11	30
Hexachlorobutadiene			20.0	21.0		ug/L		105	50 - 140	2	30
Naphthalene			20.0	24.3		ug/L		121	55 - 140	9	30
Methyl tert-butyl ether			20.0	21.8		ug/L		109	65 - 125	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*85 - 120*
4-Bromofluorobenzene (Surr)	*100*		*75 - 120*
Dibromofluoromethane (Surr)	*102*		*85 - 115*
Trifluorotoluene (Surr)	*100*		*70 - 136*
1,2-Dichloroethane-d4 (Surr)	*100*		*70 - 120*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Lab Sample ID: MB 580-207454/5
Matrix: Water
Analysis Batch: 207454

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			12/09/15 14:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*114*		*50 - 150*		*12/09/15 14:36*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 150*		*12/09/15 14:36*	*1*

Lab Sample ID: LCS 580-207454/6
Matrix: Water
Analysis Batch: 207454

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10			1.16	1.17		mg/L		101	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*114*		*50 - 150*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*

Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 580-207454/7
Matrix: Water
Analysis Batch: 207454

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			1.16	1.17		mg/L		101	60 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*113*		*50 - 150*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-207448/1-A
Matrix: Water
Analysis Batch: 207588

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 207448

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		12/09/15 11:58	12/11/15 02:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*85*		*50 - 150*	*12/09/15 11:58*	*12/11/15 02:04*	*1*

Lab Sample ID: LCS 580-207448/2-A
Matrix: Water
Analysis Batch: 207588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 207448

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)			2.00	1.88		mg/L		94	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*84*		*50 - 150*

Lab Sample ID: LCSD 580-207448/3-A
Matrix: Water
Analysis Batch: 207588

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 207448

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)			2.00	2.10		mg/L		105	75 - 125	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*88*		*50 - 150*

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: MW-1
Date Collected: 12/02/15 12:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207793	12/15/15 00:11	CJ	TAL SEA

Client Sample ID: MW-2
Date Collected: 12/02/15 11:35
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 18:55	D1R	TAL SEA

Client Sample ID: MW-4
Date Collected: 12/02/15 13:20
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207793	12/15/15 00:40	CJ	TAL SEA
Total/NA	Analysis	8260B	RA	1	208079	12/17/15 18:15	D1R	TAL SEA

Client Sample ID: MW-5
Date Collected: 12/01/15 14:25
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 16:59	D1R	TAL SEA
Total/NA	Analysis	8260B	DL	10	207825	12/15/15 14:15	D1R	TAL SEA
Total/NA	Analysis	AK101		1	207454	12/09/15 22:21	D1R	TAL SEA
Total/NA	Prep	3510C			207448	12/09/15 11:59	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	207636	12/11/15 12:54	KZ1	TAL SEA

Client Sample ID: MW-7
Date Collected: 12/01/15 16:00
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 17:28	D1R	TAL SEA

Client Sample ID: BD-1
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Lab Sample ID: 580-55696-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 16:30	D1R	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Client Sample ID: BD-1

Lab Sample ID: 580-55696-6
Matrix: Water
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	207825	12/15/15 14:45	D1R	TAL SEA
Total/NA	Analysis	AK101		1	207454	12/09/15 22:52	D1R	TAL SEA
Total/NA	Prep	3510C			207448	12/09/15 11:59	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	207636	12/11/15 13:14	KZ1	TAL SEA

Client Sample ID: BD-2

Lab Sample ID: 580-55696-7
Matrix: Water
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 17:57	D1R	TAL SEA

Client Sample ID: EB-1

Lab Sample ID: 580-55696-8
Matrix: Water
Date Collected: 12/02/15 00:01
Date Received: 12/04/15 13:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 18:26	D1R	TAL SEA
Total/NA	Analysis	AK101		1	207454	12/09/15 23:23	D1R	TAL SEA
Total/NA	Prep	3510C			207448	12/09/15 11:59	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	207636	12/11/15 13:35	KZ1	TAL SEA

Client Sample ID: Trip Blank

Lab Sample ID: 580-55696-9
Matrix: Water
Date Collected: 12/01/15 00:01
Date Received: 12/04/15 13:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	207714	12/14/15 11:40	D1R	TAL SEA
Total/NA	Analysis	AK101		1	207454	12/09/15 16:09	D1R	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: GE Nikiski, Alaska 49200 Kenai Spur Hwy

TestAmerica Job ID: 580-55696-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-55696-1	MW-1	Water	12/02/15 12:25	12/04/15 13:26
580-55696-2	MW-2	Water	12/02/15 11:35	12/04/15 13:26
580-55696-3	MW-4	Water	12/02/15 13:20	12/04/15 13:26
580-55696-4	MW-5	Water	12/01/15 14:25	12/04/15 13:26
580-55696-5	MW-7	Water	12/01/15 16:00	12/04/15 13:26
580-55696-6	BD-1	Water	12/01/15 00:01	12/04/15 13:26
580-55696-7	BD-2	Water	12/02/15 00:01	12/04/15 13:26
580-55696-8	EB-1	Water	12/02/15 00:01	12/04/15 13:26
580-55696-9	Trip Blank	Water	12/01/15 00:01	12/04/15 13:26

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold

Chain of Custody Record

Client	Client Contact	Date	Chain of Custody Number
GE / ARCADIS	Matt Pelton	12/3/2015	15273
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
801 Corporate Center Dr. STE 300	919.415.2308		
City / **State** / **Zip Code**	**Sampler**	**Lab Contact**	
Raliegh / NC / 27607	M. MacDaniel		
Project Name and Location (State)	**Billing Contact**		
GE Nikiski, Alaska 49200 Kenai Spur Hwy			
Contract/Purchase Order/Quote No.			
B0031255.14104.00005			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: VOCs	GRO	DRO	EPA 8260	AK 101	AK 102
MW-1	12/2/15	1225		X						X			X					
MW-2	12/2/15	11:35		X						X			X					
MW-4	12/2/15	1320		X						X			X					
MW-5	12/1/15	1425		X						X			X	X	X			
MW-7	12/1/15	1600		X						X			X					
BD-1	12/1/15	—		X						X			X	X	X			
BD-2	12/2/15	—		X						X			X					
EB-1	12/2/15			X						X			X	X	X			
Trip Blank	—			X									X	X				

Special Instructions/ Conditions of Receipt

580-55696 Chain of Custody

TB A2 Cooler Cor 0.0 Unc 0.2
Cooler Dsc Client @Lab
Wet/Packs Packing Bubble
Lab Courier NCS

Cooler	Possible Hazard Identification	Sample Disposal	
☐ Yes ☐ No Cooler Temp:_____	☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	☐ Return To Client	☒ Disposal By Lab ☐ Archive For _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By Sign/Print	12/3/15	10:00	1. Received By Sign/Print	12/3/15	11:15
2. Relinquished By Sign/Print	12/3/15	12:40	2. Received By Sign/Print Robert Eisler TALSea	12/4/15	1326
3. Relinquished By Sign/Print			3. Received By Sign/Print		

Comments

Anc -T: 3.6

0.0/0.2 A2

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-55696-1

Login Number: 55696
List Number: 1
Creator: Simpson, Jennell 1

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	For one sample Id and COC do not match
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	One broken voa vial
Sample collection date/times are provided.	False	No sample time for two samples.
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4" in one or more vials, one vial with accpt. headspace
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-58156-1
Client Project/Site: GE, Nikiski, Alaska

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Authorized for release by:
4/4/2016 3:55:47 PM
Kim Presley, Project Management Assistant I
(253)922-2310
kim.presley@testamericainc.com

Designee for

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-58156-1

Laboratory: TestAmerica Seattle

Narrative

Receipt
The samples were received on 3/18/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4º C.

GC/MS VOA
Method(s) AK101: Reanalysis of the following sample was performed outside of the analytical holding time due to a poor injection on the in-hold run. The septa on the vial was malformed so the autosampler was not able to pull water from the first analysis vial.: EB-1 (580-58156-8).

Method(s) 8260C: The following samples was diluted to bring the concentration of target analytes within the calibration range: MW-2 (580-58156-2), MW-5 (580-58156-4) and BD-1 (580-58156-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) AK102 & 103: Sample 580-58156-A-4-A contained a hydrocarbon pattern in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-1
Date Collected: 03/15/16 16:30
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/25/16 18:32	1
Chloromethane	ND		1.0		ug/L			03/25/16 18:32	1
Vinyl chloride	ND		1.0		ug/L			03/25/16 18:32	1
Bromomethane	ND		1.0		ug/L			03/25/16 18:32	1
Chloroethane	ND		1.0		ug/L			03/25/16 18:32	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 18:32	1
1,1-Dichloroethene	ND		1.0		ug/L			03/25/16 18:32	1
Methylene Chloride	ND		1.0		ug/L			03/25/16 18:32	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/25/16 18:32	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 18:32	1
1,1-Dichloroethane	**4.8**		1.0		ug/L			03/25/16 18:32	1
2,2-Dichloropropane	ND		1.0		ug/L			03/25/16 18:32	1
cis-1,2-Dichloroethene	**56**		1.0		ug/L			03/25/16 18:32	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 18:32	1
Chloroform	ND		1.0		ug/L			03/25/16 18:32	1
1,1,1-Trichloroethane	**5.0**		1.0		ug/L			03/25/16 18:32	1
Carbon tetrachloride	ND		1.0		ug/L			03/25/16 18:32	1
1,1-Dichloropropene	ND		1.0		ug/L			03/25/16 18:32	1
Benzene	ND		1.0		ug/L			03/25/16 18:32	1
1,2-Dichloroethane	ND		1.0		ug/L			03/25/16 18:32	1
Trichloroethene	**21**		1.0		ug/L			03/25/16 18:32	1
1,2-Dichloropropane	ND		1.0		ug/L			03/25/16 18:32	1
Dibromomethane	ND		1.0		ug/L			03/25/16 18:32	1
Dichlorobromomethane	ND		1.0		ug/L			03/25/16 18:32	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 18:32	1
Toluene	ND		1.0		ug/L			03/25/16 18:32	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 18:32	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/25/16 18:32	1
Tetrachloroethene	**56**		1.0		ug/L			03/25/16 18:32	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 18:32	1
Chlorodibromomethane	ND		1.0		ug/L			03/25/16 18:32	1
Ethylene Dibromide	ND		2.0		ug/L			03/25/16 18:32	1
Chlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 18:32	1
Ethylbenzene	**14**		1.0		ug/L			03/25/16 18:32	1
m-Xylene & p-Xylene	**13**		1.0		ug/L			03/25/16 18:32	1
o-Xylene	**6.6**		1.0		ug/L			03/25/16 18:32	1
Styrene	ND		1.0		ug/L			03/25/16 18:32	1
Bromoform	ND		1.0		ug/L			03/25/16 18:32	1
Isopropylbenzene	**1.2**		1.0		ug/L			03/25/16 18:32	1
Bromobenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 18:32	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/25/16 18:32	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 18:32	1
2-Chlorotoluene	ND		1.0		ug/L			03/25/16 18:32	1
4-Chlorotoluene	ND		1.0		ug/L			03/25/16 18:32	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,2,4-Trimethylbenzene	**2.6**		1.0		ug/L			03/25/16 18:32	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 18:32	1

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-1
Date Collected: 03/15/16 16:30
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 18:32	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/25/16 18:32	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 18:32	1
Naphthalene	ND		1.0		ug/L			03/25/16 18:32	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 18:32	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/25/16 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*78 - 120*		*03/25/16 18:32*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/25/16 18:32*	*1*
4-Bromofluorobenzene (Surr)	*108*		*74 - 120*		*03/25/16 18:32*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 123*		*03/25/16 18:32*	*1*

Client Sample ID: MW-2
Date Collected: 03/15/16 17:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		20		ug/L			03/25/16 16:39	20
Chloromethane	ND		20		ug/L			03/25/16 16:39	20
Vinyl chloride	ND		20		ug/L			03/25/16 16:39	20
Bromomethane	ND		20		ug/L			03/25/16 16:39	20
Chloroethane	ND		20		ug/L			03/25/16 16:39	20
Trichlorofluoromethane	ND		20		ug/L			03/25/16 16:39	20
1,1-Dichloroethene	ND		20		ug/L			03/25/16 16:39	20
Methylene Chloride	ND		20		ug/L			03/25/16 16:39	20
Methyl tert-butyl ether	ND		40		ug/L			03/25/16 16:39	20
trans-1,2-Dichloroethene	ND		20		ug/L			03/25/16 16:39	20
1,1-Dichloroethane	ND		20		ug/L			03/25/16 16:39	20
2,2-Dichloropropane	ND		20		ug/L			03/25/16 16:39	20
cis-1,2-Dichloroethene	**430**		20		ug/L			03/25/16 16:39	20
Chlorobromomethane	ND		20		ug/L			03/25/16 16:39	20
Chloroform	ND		20		ug/L			03/25/16 16:39	20
1,1,1-Trichloroethane	ND		20		ug/L			03/25/16 16:39	20
Carbon tetrachloride	ND		20		ug/L			03/25/16 16:39	20
1,1-Dichloropropene	ND		20		ug/L			03/25/16 16:39	20
Benzene	ND		20		ug/L			03/25/16 16:39	20
1,2-Dichloroethane	ND		20		ug/L			03/25/16 16:39	20
Trichloroethene	ND		20		ug/L			03/25/16 16:39	20
1,2-Dichloropropane	ND		20		ug/L			03/25/16 16:39	20
Dibromomethane	ND		20		ug/L			03/25/16 16:39	20
Dichlorobromomethane	ND		20		ug/L			03/25/16 16:39	20
cis-1,3-Dichloropropene	ND		20		ug/L			03/25/16 16:39	20
Toluene	ND		20		ug/L			03/25/16 16:39	20
trans-1,3-Dichloropropene	ND		20		ug/L			03/25/16 16:39	20
1,1,2-Trichloroethane	ND		20		ug/L			03/25/16 16:39	20
Tetrachloroethene	ND		20		ug/L			03/25/16 16:39	20
1,3-Dichloropropane	ND		20		ug/L			03/25/16 16:39	20
Chlorodibromomethane	ND		20		ug/L			03/25/16 16:39	20
Ethylene Dibromide	ND		40		ug/L			03/25/16 16:39	20
Chlorobenzene	ND		20		ug/L			03/25/16 16:39	20
1,1,1,2-Tetrachloroethane	ND		20		ug/L			03/25/16 16:39	20
Ethylbenzene	**590**		20		ug/L			03/25/16 16:39	20
m-Xylene & p-Xylene	**760**		20		ug/L			03/25/16 16:39	20
o-Xylene	**410**		20		ug/L			03/25/16 16:39	20
Styrene	ND		20		ug/L			03/25/16 16:39	20
Bromoform	ND		20		ug/L			03/25/16 16:39	20
Isopropylbenzene	ND		20		ug/L			03/25/16 16:39	20
Bromobenzene	ND		20		ug/L			03/25/16 16:39	20
1,1,2,2-Tetrachloroethane	ND		20		ug/L			03/25/16 16:39	20
1,2,3-Trichloropropane	ND		20		ug/L			03/25/16 16:39	20
N-Propylbenzene	ND		20		ug/L			03/25/16 16:39	20
2-Chlorotoluene	ND		20		ug/L			03/25/16 16:39	20
4-Chlorotoluene	ND		20		ug/L			03/25/16 16:39	20
tert-Butylbenzene	ND		20		ug/L			03/25/16 16:39	20
1,2,4-Trimethylbenzene	**88**		20		ug/L			03/25/16 16:39	20
sec-Butylbenzene	ND		20		ug/L			03/25/16 16:39	20

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-2
Date Collected: 03/15/16 17:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		20		ug/L			03/25/16 16:39	20
1,3-Dichlorobenzene	ND		20		ug/L			03/25/16 16:39	20
1,4-Dichlorobenzene	ND		20		ug/L			03/25/16 16:39	20
n-Butylbenzene	ND		20		ug/L			03/25/16 16:39	20
1,2-Dichlorobenzene	ND		20		ug/L			03/25/16 16:39	20
1,2-Dibromo-3-Chloropropane	ND		40		ug/L			03/25/16 16:39	20
1,2,4-Trichlorobenzene	ND		20		ug/L			03/25/16 16:39	20
Hexachlorobutadiene	ND		20		ug/L			03/25/16 16:39	20
Naphthalene	ND		20		ug/L			03/25/16 16:39	20
1,2,3-Trichlorobenzene	ND		20		ug/L			03/25/16 16:39	20
1,3,5-Trimethylbenzene	**25**		20		ug/L			03/25/16 16:39	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*78 - 120*		*03/25/16 16:39*	*20*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/25/16 16:39*	*20*
4-Bromofluorobenzene (Surr)	*110*		*74 - 120*		*03/25/16 16:39*	*20*
Dibromofluoromethane (Surr)	*92*		*80 - 123*		*03/25/16 16:39*	*20*

Client Sample ID: MW-4
Date Collected: 03/15/16 18:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/25/16 18:55	1
Chloromethane	ND		1.0		ug/L			03/25/16 18:55	1
Vinyl chloride	ND		1.0		ug/L			03/25/16 18:55	1
Bromomethane	ND		1.0		ug/L			03/25/16 18:55	1
Chloroethane	ND		1.0		ug/L			03/25/16 18:55	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 18:55	1
1,1-Dichloroethene	ND		1.0		ug/L			03/25/16 18:55	1
Methylene Chloride	ND		1.0		ug/L			03/25/16 18:55	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/25/16 18:55	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 18:55	1
1,1-Dichloroethane	ND		1.0		ug/L			03/25/16 18:55	1
2,2-Dichloropropane	ND		1.0		ug/L			03/25/16 18:55	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 18:55	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 18:55	1
Chloroform	ND		1.0		ug/L			03/25/16 18:55	1
1,1,1-Trichloroethane	**3.6**		1.0		ug/L			03/25/16 18:55	1
Carbon tetrachloride	ND		1.0		ug/L			03/25/16 18:55	1
1,1-Dichloropropene	ND		1.0		ug/L			03/25/16 18:55	1
Benzene	ND		1.0		ug/L			03/25/16 18:55	1
1,2-Dichloroethane	ND		1.0		ug/L			03/25/16 18:55	1
Trichloroethene	**3.5**		1.0		ug/L			03/25/16 18:55	1
1,2-Dichloropropane	ND		1.0		ug/L			03/25/16 18:55	1
Dibromomethane	ND		1.0		ug/L			03/25/16 18:55	1
Dichlorobromomethane	ND		1.0		ug/L			03/25/16 18:55	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 18:55	1
Toluene	ND		1.0		ug/L			03/25/16 18:55	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 18:55	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/25/16 18:55	1
Tetrachloroethene	**14**		1.0		ug/L			03/25/16 18:55	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 18:55	1
Chlorodibromomethane	ND		1.0		ug/L			03/25/16 18:55	1
Ethylene Dibromide	ND		2.0		ug/L			03/25/16 18:55	1
Chlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 18:55	1
Ethylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/25/16 18:55	1
o-Xylene	ND		1.0		ug/L			03/25/16 18:55	1
Styrene	ND		1.0		ug/L			03/25/16 18:55	1
Bromoform	ND		1.0		ug/L			03/25/16 18:55	1
Isopropylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
Bromobenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 18:55	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/25/16 18:55	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
2-Chlorotoluene	ND		1.0		ug/L			03/25/16 18:55	1
4-Chlorotoluene	ND		1.0		ug/L			03/25/16 18:55	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 18:55	1

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-4
Date Collected: 03/15/16 18:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 18:55	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/25/16 18:55	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 18:55	1
Naphthalene	ND		1.0		ug/L			03/25/16 18:55	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 18:55	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/25/16 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*78 - 120*		*03/25/16 18:55*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*72 - 123*		*03/25/16 18:55*	*1*
4-Bromofluorobenzene (Surr)	*103*		*74 - 120*		*03/25/16 18:55*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 123*		*03/25/16 18:55*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-5
Date Collected: 03/15/16 19:15
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0		ug/L			03/25/16 17:02	5
Chloromethane	ND		5.0		ug/L			03/25/16 17:02	5
Vinyl chloride	ND		5.0		ug/L			03/25/16 17:02	5
Bromomethane	ND		5.0		ug/L			03/25/16 17:02	5
Chloroethane	ND		5.0		ug/L			03/25/16 17:02	5
Trichlorofluoromethane	ND		5.0		ug/L			03/25/16 17:02	5
1,1-Dichloroethene	ND		5.0		ug/L			03/25/16 17:02	5
Methylene Chloride	ND		5.0		ug/L			03/25/16 17:02	5
Methyl tert-butyl ether	ND		10		ug/L			03/25/16 17:02	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			03/25/16 17:02	5
1,1-Dichloroethane	ND		5.0		ug/L			03/25/16 17:02	5
2,2-Dichloropropane	ND		5.0		ug/L			03/25/16 17:02	5
cis-1,2-Dichloroethene	**120**		5.0		ug/L			03/25/16 17:02	5
Chlorobromomethane	ND		5.0		ug/L			03/25/16 17:02	5
Chloroform	ND		5.0		ug/L			03/25/16 17:02	5
1,1,1-Trichloroethane	ND		5.0		ug/L			03/25/16 17:02	5
Carbon tetrachloride	ND		5.0		ug/L			03/25/16 17:02	5
1,1-Dichloropropene	ND		5.0		ug/L			03/25/16 17:02	5
Benzene	ND		5.0		ug/L			03/25/16 17:02	5
1,2-Dichloroethane	ND		5.0		ug/L			03/25/16 17:02	5
Trichloroethene	ND		5.0		ug/L			03/25/16 17:02	5
1,2-Dichloropropane	ND		5.0		ug/L			03/25/16 17:02	5
Dibromomethane	ND		5.0		ug/L			03/25/16 17:02	5
Dichlorobromomethane	ND		5.0		ug/L			03/25/16 17:02	5
cis-1,3-Dichloropropene	ND		5.0		ug/L			03/25/16 17:02	5
Toluene	ND		5.0		ug/L			03/25/16 17:02	5
trans-1,3-Dichloropropene	ND		5.0		ug/L			03/25/16 17:02	5
1,1,2-Trichloroethane	ND		5.0		ug/L			03/25/16 17:02	5
Tetrachloroethene	ND		5.0		ug/L			03/25/16 17:02	5
1,3-Dichloropropane	ND		5.0		ug/L			03/25/16 17:02	5
Chlorodibromomethane	ND		5.0		ug/L			03/25/16 17:02	5
Ethylene Dibromide	ND		10		ug/L			03/25/16 17:02	5
Chlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			03/25/16 17:02	5
Ethylbenzene	**150**		5.0		ug/L			03/25/16 17:02	5
m-Xylene & p-Xylene	**230**		5.0		ug/L			03/25/16 17:02	5
o-Xylene	**82**		5.0		ug/L			03/25/16 17:02	5
Styrene	ND		5.0		ug/L			03/25/16 17:02	5
Bromoform	ND		5.0		ug/L			03/25/16 17:02	5
Isopropylbenzene	ND		5.0		ug/L			03/25/16 17:02	5
Bromobenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			03/25/16 17:02	5
1,2,3-Trichloropropane	ND		5.0		ug/L			03/25/16 17:02	5
N-Propylbenzene	ND		5.0		ug/L			03/25/16 17:02	5
2-Chlorotoluene	ND		5.0		ug/L			03/25/16 17:02	5
4-Chlorotoluene	ND		5.0		ug/L			03/25/16 17:02	5
tert-Butylbenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,2,4-Trimethylbenzene	**16**		5.0		ug/L			03/25/16 17:02	5
sec-Butylbenzene	ND		5.0		ug/L			03/25/16 17:02	5

Client Sample ID: MW-5

Date Collected: 03/15/16 19:15
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		5.0		ug/L			03/25/16 17:02	5
1,3-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,4-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
n-Butylbenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,2-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			03/25/16 17:02	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
Hexachlorobutadiene	ND		5.0		ug/L			03/25/16 17:02	5
Naphthalene	ND		5.0		ug/L			03/25/16 17:02	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			03/25/16 17:02	5
1,3,5-Trimethylbenzene	**13**		5.0		ug/L			03/25/16 17:02	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*78 - 120*		*03/25/16 17:02*	*5*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/25/16 17:02*	*5*
4-Bromofluorobenzene (Surr)	*109*		*74 - 120*		*03/25/16 17:02*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 123*		*03/25/16 17:02*	*5*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**1.2**		0.050		mg/L			03/25/16 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*107*		*50 - 150*		*03/25/16 18:00*	*1*
4-Bromofluorobenzene (Surr)	*133*		*50 - 150*		*03/25/16 18:00*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**1.0**		0.10		mg/L		03/23/16 09:06	03/24/16 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*68*		*50 - 150*	*03/23/16 09:06*	*03/24/16 14:40*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-7
Date Collected: 03/15/16 20:25
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/25/16 19:17	1
Chloromethane	ND		1.0		ug/L			03/25/16 19:17	1
Vinyl chloride	ND		1.0		ug/L			03/25/16 19:17	1
Bromomethane	ND		1.0		ug/L			03/25/16 19:17	1
Chloroethane	ND		1.0		ug/L			03/25/16 19:17	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 19:17	1
1,1-Dichloroethene	ND		1.0		ug/L			03/25/16 19:17	1
Methylene Chloride	ND		1.0		ug/L			03/25/16 19:17	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/25/16 19:17	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 19:17	1
1,1-Dichloroethane	ND		1.0		ug/L			03/25/16 19:17	1
2,2-Dichloropropane	ND		1.0		ug/L			03/25/16 19:17	1
cis-1,2-Dichloroethene	**1.5**		1.0		ug/L			03/25/16 19:17	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 19:17	1
Chloroform	ND		1.0		ug/L			03/25/16 19:17	1
1,1,1-Trichloroethane	ND		1.0		ug/L			03/25/16 19:17	1
Carbon tetrachloride	ND		1.0		ug/L			03/25/16 19:17	1
1,1-Dichloropropene	ND		1.0		ug/L			03/25/16 19:17	1
Benzene	ND		1.0		ug/L			03/25/16 19:17	1
1,2-Dichloroethane	ND		1.0		ug/L			03/25/16 19:17	1
Trichloroethene	**2.3**		1.0		ug/L			03/25/16 19:17	1
1,2-Dichloropropane	ND		1.0		ug/L			03/25/16 19:17	1
Dibromomethane	ND		1.0		ug/L			03/25/16 19:17	1
Dichlorobromomethane	ND		1.0		ug/L			03/25/16 19:17	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 19:17	1
Toluene	ND		1.0		ug/L			03/25/16 19:17	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 19:17	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/25/16 19:17	1
Tetrachloroethene	**24**		1.0		ug/L			03/25/16 19:17	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 19:17	1
Chlorodibromomethane	ND		1.0		ug/L			03/25/16 19:17	1
Ethylene Dibromide	ND		2.0		ug/L			03/25/16 19:17	1
Chlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 19:17	1
Ethylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/25/16 19:17	1
o-Xylene	ND		1.0		ug/L			03/25/16 19:17	1
Styrene	ND		1.0		ug/L			03/25/16 19:17	1
Bromoform	ND		1.0		ug/L			03/25/16 19:17	1
Isopropylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
Bromobenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 19:17	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/25/16 19:17	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
2-Chlorotoluene	ND		1.0		ug/L			03/25/16 19:17	1
4-Chlorotoluene	ND		1.0		ug/L			03/25/16 19:17	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 19:17	1

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-7
Date Collected: 03/15/16 20:25
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 19:17	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/25/16 19:17	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 19:17	1
Naphthalene	ND		1.0		ug/L			03/25/16 19:17	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 19:17	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/25/16 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*78 - 120*		*03/25/16 19:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/25/16 19:17*	*1*
4-Bromofluorobenzene (Surr)	*103*		*74 - 120*		*03/25/16 19:17*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 123*		*03/25/16 19:17*	*1*

Client Sample ID: BD-1
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		5.0		ug/L			03/25/16 17:24	5
Chloromethane	ND		5.0		ug/L			03/25/16 17:24	5
Vinyl chloride	ND		5.0		ug/L			03/25/16 17:24	5
Bromomethane	ND		5.0		ug/L			03/25/16 17:24	5
Chloroethane	ND		5.0		ug/L			03/25/16 17:24	5
Trichlorofluoromethane	ND		5.0		ug/L			03/25/16 17:24	5
1,1-Dichloroethene	ND		5.0		ug/L			03/25/16 17:24	5
Methylene Chloride	ND		5.0		ug/L			03/25/16 17:24	5
Methyl tert-butyl ether	ND		10		ug/L			03/25/16 17:24	5
trans-1,2-Dichloroethene	ND		5.0		ug/L			03/25/16 17:24	5
1,1-Dichloroethane	ND		5.0		ug/L			03/25/16 17:24	5
2,2-Dichloropropane	ND		5.0		ug/L			03/25/16 17:24	5
cis-1,2-Dichloroethene	**120**		5.0		ug/L			03/25/16 17:24	5
Chlorobromomethane	ND		5.0		ug/L			03/25/16 17:24	5
Chloroform	ND		5.0		ug/L			03/25/16 17:24	5
1,1,1-Trichloroethane	ND		5.0		ug/L			03/25/16 17:24	5
Carbon tetrachloride	ND		5.0		ug/L			03/25/16 17:24	5
1,1-Dichloropropene	ND		5.0		ug/L			03/25/16 17:24	5
Benzene	ND		5.0		ug/L			03/25/16 17:24	5
1,2-Dichloroethane	ND		5.0		ug/L			03/25/16 17:24	5
Trichloroethene	ND		5.0		ug/L			03/25/16 17:24	5
1,2-Dichloropropane	ND		5.0		ug/L			03/25/16 17:24	5
Dibromomethane	ND		5.0		ug/L			03/25/16 17:24	5
Dichlorobromomethane	ND		5.0		ug/L			03/25/16 17:24	5
cis-1,3-Dichloropropene	ND		5.0		ug/L			03/25/16 17:24	5
Toluene	ND		5.0		ug/L			03/25/16 17:24	5
trans-1,3-Dichloropropene	ND		5.0		ug/L			03/25/16 17:24	5
1,1,2-Trichloroethane	ND		5.0		ug/L			03/25/16 17:24	5
Tetrachloroethene	ND		5.0		ug/L			03/25/16 17:24	5
1,3-Dichloropropane	ND		5.0		ug/L			03/25/16 17:24	5
Chlorodibromomethane	ND		5.0		ug/L			03/25/16 17:24	5
Ethylene Dibromide	ND		10		ug/L			03/25/16 17:24	5
Chlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,1,1,2-Tetrachloroethane	ND		5.0		ug/L			03/25/16 17:24	5
Ethylbenzene	**160**		5.0		ug/L			03/25/16 17:24	5
m-Xylene & p-Xylene	**240**		5.0		ug/L			03/25/16 17:24	5
o-Xylene	**85**		5.0		ug/L			03/25/16 17:24	5
Styrene	ND		5.0		ug/L			03/25/16 17:24	5
Bromoform	ND		5.0		ug/L			03/25/16 17:24	5
Isopropylbenzene	ND		5.0		ug/L			03/25/16 17:24	5
Bromobenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,1,2,2-Tetrachloroethane	ND		5.0		ug/L			03/25/16 17:24	5
1,2,3-Trichloropropane	ND		5.0		ug/L			03/25/16 17:24	5
N-Propylbenzene	ND		5.0		ug/L			03/25/16 17:24	5
2-Chlorotoluene	ND		5.0		ug/L			03/25/16 17:24	5
4-Chlorotoluene	ND		5.0		ug/L			03/25/16 17:24	5
tert-Butylbenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,2,4-Trimethylbenzene	**16**		5.0		ug/L			03/25/16 17:24	5
sec-Butylbenzene	ND		5.0		ug/L			03/25/16 17:24	5

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: BD-1
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		5.0		ug/L			03/25/16 17:24	5
1,3-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,4-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
n-Butylbenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,2-Dichlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			03/25/16 17:24	5
1,2,4-Trichlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
Hexachlorobutadiene	ND		5.0		ug/L			03/25/16 17:24	5
Naphthalene	ND		5.0		ug/L			03/25/16 17:24	5
1,2,3-Trichlorobenzene	ND		5.0		ug/L			03/25/16 17:24	5
1,3,5-Trimethylbenzene	**13**		5.0		ug/L			03/25/16 17:24	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*78 - 120*		*03/25/16 17:24*	*5*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/25/16 17:24*	*5*
4-Bromofluorobenzene (Surr)	*110*		*74 - 120*		*03/25/16 17:24*	*5*
Dibromofluoromethane (Surr)	*92*		*80 - 123*		*03/25/16 17:24*	*5*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**1.2**		0.050		mg/L			03/25/16 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*106*		*50 - 150*		*03/25/16 18:32*	*1*
4-Bromofluorobenzene (Surr)	*135*		*50 - 150*		*03/25/16 18:32*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**1.2**		0.10		mg/L		03/23/16 09:06	03/24/16 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*67*		*50 - 150*	*03/23/16 09:06*	*03/24/16 15:01*	*1*

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: EB-1
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/24/16 15:44	1
Chloromethane	ND		1.0		ug/L			03/24/16 15:44	1
Vinyl chloride	ND		1.0		ug/L			03/24/16 15:44	1
Bromomethane	ND		1.0		ug/L			03/24/16 15:44	1
Chloroethane	ND		1.0		ug/L			03/24/16 15:44	1
Trichlorofluoromethane	ND		1.0		ug/L			03/24/16 15:44	1
1,1-Dichloroethene	ND		1.0		ug/L			03/24/16 15:44	1
Methylene Chloride	ND		1.0		ug/L			03/24/16 15:44	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/24/16 15:44	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 15:44	1
1,1-Dichloroethane	ND		1.0		ug/L			03/24/16 15:44	1
2,2-Dichloropropane	ND		1.0		ug/L			03/24/16 15:44	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 15:44	1
Chlorobromomethane	ND		1.0		ug/L			03/24/16 15:44	1
Chloroform	ND		1.0		ug/L			03/24/16 15:44	1
1,1,1-Trichloroethane	ND		1.0		ug/L			03/24/16 15:44	1
Carbon tetrachloride	ND		1.0		ug/L			03/24/16 15:44	1
1,1-Dichloropropene	ND		1.0		ug/L			03/24/16 15:44	1
Benzene	ND		1.0		ug/L			03/24/16 15:44	1
1,2-Dichloroethane	ND		1.0		ug/L			03/24/16 15:44	1
Trichloroethene	ND		1.0		ug/L			03/24/16 15:44	1
1,2-Dichloropropane	ND		1.0		ug/L			03/24/16 15:44	1
Dibromomethane	ND		1.0		ug/L			03/24/16 15:44	1
Dichlorobromomethane	ND		1.0		ug/L			03/24/16 15:44	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 15:44	1
Toluene	ND		1.0		ug/L			03/24/16 15:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 15:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/24/16 15:44	1
Tetrachloroethene	ND		1.0		ug/L			03/24/16 15:44	1
1,3-Dichloropropane	ND		1.0		ug/L			03/24/16 15:44	1
Chlorodibromomethane	ND		1.0		ug/L			03/24/16 15:44	1
Ethylene Dibromide	ND		2.0		ug/L			03/24/16 15:44	1
Chlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 15:44	1
Ethylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/24/16 15:44	1
o-Xylene	ND		1.0		ug/L			03/24/16 15:44	1
Styrene	ND		1.0		ug/L			03/24/16 15:44	1
Bromoform	ND		1.0		ug/L			03/24/16 15:44	1
Isopropylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
Bromobenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 15:44	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/24/16 15:44	1
N-Propylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
2-Chlorotoluene	ND		1.0		ug/L			03/24/16 15:44	1
4-Chlorotoluene	ND		1.0		ug/L			03/24/16 15:44	1
tert-Butylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
sec-Butylbenzene	ND		1.0		ug/L			03/24/16 15:44	1

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: EB-1
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			03/24/16 15:44	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
n-Butylbenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/24/16 15:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
Hexachlorobutadiene	ND		1.0		ug/L			03/24/16 15:44	1
Naphthalene	ND		1.0		ug/L			03/24/16 15:44	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/24/16 15:44	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/24/16 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*78 - 120*		*03/24/16 15:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*72 - 123*		*03/24/16 15:44*	*1*
4-Bromofluorobenzene (Surr)	*104*		*74 - 120*		*03/24/16 15:44*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 123*		*03/24/16 15:44*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND	H	0.050		mg/L			03/29/16 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*104*		*50 - 150*		*03/29/16 19:25*	*1*
4-Bromofluorobenzene (Surr)	*99*		*50 - 150*		*03/29/16 19:25*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		03/23/16 09:06	03/24/16 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*03/23/16 09:06*	*03/24/16 15:21*	*1*

Client Sample ID: Trip Blank
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/24/16 16:06	1
Chloromethane	ND		1.0		ug/L			03/24/16 16:06	1
Vinyl chloride	ND		1.0		ug/L			03/24/16 16:06	1
Bromomethane	ND		1.0		ug/L			03/24/16 16:06	1
Chloroethane	ND		1.0		ug/L			03/24/16 16:06	1
Trichlorofluoromethane	ND		1.0		ug/L			03/24/16 16:06	1
1,1-Dichloroethene	ND		1.0		ug/L			03/24/16 16:06	1
Methylene Chloride	ND		1.0		ug/L			03/24/16 16:06	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/24/16 16:06	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 16:06	1
1,1-Dichloroethane	ND		1.0		ug/L			03/24/16 16:06	1
2,2-Dichloropropane	ND		1.0		ug/L			03/24/16 16:06	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 16:06	1
Chlorobromomethane	ND		1.0		ug/L			03/24/16 16:06	1
Chloroform	ND		1.0		ug/L			03/24/16 16:06	1
1,1,1-Trichloroethane	ND		1.0		ug/L			03/24/16 16:06	1
Carbon tetrachloride	ND		1.0		ug/L			03/24/16 16:06	1
1,1-Dichloropropene	ND		1.0		ug/L			03/24/16 16:06	1
Benzene	ND		1.0		ug/L			03/24/16 16:06	1
1,2-Dichloroethane	ND		1.0		ug/L			03/24/16 16:06	1
Trichloroethene	ND		1.0		ug/L			03/24/16 16:06	1
1,2-Dichloropropane	ND		1.0		ug/L			03/24/16 16:06	1
Dibromomethane	ND		1.0		ug/L			03/24/16 16:06	1
Dichlorobromomethane	ND		1.0		ug/L			03/24/16 16:06	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 16:06	1
Toluene	ND		1.0		ug/L			03/24/16 16:06	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 16:06	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/24/16 16:06	1
Tetrachloroethene	ND		1.0		ug/L			03/24/16 16:06	1
1,3-Dichloropropane	ND		1.0		ug/L			03/24/16 16:06	1
Chlorodibromomethane	ND		1.0		ug/L			03/24/16 16:06	1
Ethylene Dibromide	ND		2.0		ug/L			03/24/16 16:06	1
Chlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 16:06	1
Ethylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/24/16 16:06	1
o-Xylene	ND		1.0		ug/L			03/24/16 16:06	1
Styrene	ND		1.0		ug/L			03/24/16 16:06	1
Bromoform	ND		1.0		ug/L			03/24/16 16:06	1
Isopropylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
Bromobenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 16:06	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/24/16 16:06	1
N-Propylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
2-Chlorotoluene	ND		1.0		ug/L			03/24/16 16:06	1
4-Chlorotoluene	ND		1.0		ug/L			03/24/16 16:06	1
tert-Butylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
sec-Butylbenzene	ND		1.0		ug/L			03/24/16 16:06	1

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: Trip Blank
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			03/24/16 16:06	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
n-Butylbenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/24/16 16:06	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
Hexachlorobutadiene	ND		1.0		ug/L			03/24/16 16:06	1
Naphthalene	ND		1.0		ug/L			03/24/16 16:06	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/24/16 16:06	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/24/16 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*78 - 120*		*03/24/16 16:06*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*72 - 123*		*03/24/16 16:06*	*1*
4-Bromofluorobenzene (Surr)	*103*		*74 - 120*		*03/24/16 16:06*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 123*		*03/24/16 16:06*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 320-104344/6
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/24/16 12:31	1
Chloromethane	ND		1.0		ug/L			03/24/16 12:31	1
Vinyl chloride	ND		1.0		ug/L			03/24/16 12:31	1
Bromomethane	ND		1.0		ug/L			03/24/16 12:31	1
Chloroethane	ND		1.0		ug/L			03/24/16 12:31	1
Trichlorofluoromethane	ND		1.0		ug/L			03/24/16 12:31	1
1,1-Dichloroethene	ND		1.0		ug/L			03/24/16 12:31	1
Methylene Chloride	ND		1.0		ug/L			03/24/16 12:31	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/24/16 12:31	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 12:31	1
1,1-Dichloroethane	ND		1.0		ug/L			03/24/16 12:31	1
2,2-Dichloropropane	ND		1.0		ug/L			03/24/16 12:31	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/24/16 12:31	1
Chlorobromomethane	ND		1.0		ug/L			03/24/16 12:31	1
Chloroform	ND		1.0		ug/L			03/24/16 12:31	1
1,1,1-Trichloroethane	ND		1.0		ug/L			03/24/16 12:31	1
Carbon tetrachloride	ND		1.0		ug/L			03/24/16 12:31	1
1,1-Dichloropropene	ND		1.0		ug/L			03/24/16 12:31	1
Benzene	ND		1.0		ug/L			03/24/16 12:31	1
1,2-Dichloroethane	ND		1.0		ug/L			03/24/16 12:31	1
Trichloroethene	ND		1.0		ug/L			03/24/16 12:31	1
1,2-Dichloropropane	ND		1.0		ug/L			03/24/16 12:31	1
Dibromomethane	ND		1.0		ug/L			03/24/16 12:31	1
Dichlorobromomethane	ND		1.0		ug/L			03/24/16 12:31	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 12:31	1
Toluene	ND		1.0		ug/L			03/24/16 12:31	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/24/16 12:31	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/24/16 12:31	1
Tetrachloroethene	ND		1.0		ug/L			03/24/16 12:31	1
1,3-Dichloropropane	ND		1.0		ug/L			03/24/16 12:31	1
Chlorodibromomethane	ND		1.0		ug/L			03/24/16 12:31	1
Ethylene Dibromide	ND		2.0		ug/L			03/24/16 12:31	1
Chlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 12:31	1
Ethylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/24/16 12:31	1
o-Xylene	ND		1.0		ug/L			03/24/16 12:31	1
Styrene	ND		1.0		ug/L			03/24/16 12:31	1
Bromoform	ND		1.0		ug/L			03/24/16 12:31	1
Isopropylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
Bromobenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/24/16 12:31	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/24/16 12:31	1
N-Propylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
2-Chlorotoluene	ND		1.0		ug/L			03/24/16 12:31	1
4-Chlorotoluene	ND		1.0		ug/L			03/24/16 12:31	1
tert-Butylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/24/16 12:31	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 320-104344/6
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
4-Isopropyltoluene	ND		1.0		ug/L			03/24/16 12:31	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
n-Butylbenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/24/16 12:31	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
Hexachlorobutadiene	ND		1.0		ug/L			03/24/16 12:31	1
Naphthalene	ND		1.0		ug/L			03/24/16 12:31	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/24/16 12:31	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/24/16 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*78 - 120*		*03/24/16 12:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*72 - 123*		*03/24/16 12:31*	*1*
4-Bromofluorobenzene (Surr)	*104*		*74 - 120*		*03/24/16 12:31*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 123*		*03/24/16 12:31*	*1*

Lab Sample ID: LCS 320-104344/3
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	20.0	19.9		ug/L		100	39 - 161
Chloromethane	20.0	18.4		ug/L		92	62 - 129
Vinyl chloride	20.0	18.5		ug/L		93	68 - 121
Bromomethane	20.0	21.5		ug/L		108	65 - 132
Chloroethane	20.0	21.4		ug/L		107	65 - 123
Trichlorofluoromethane	20.0	18.9		ug/L		94	60 - 135
1,1-Dichloroethene	20.0	19.3		ug/L		97	74 - 120
Methylene Chloride	20.0	19.3		ug/L		97	77 - 120
Methyl tert-butyl ether	20.0	19.1		ug/L		95	71 - 125
trans-1,2-Dichloroethene	20.0	19.4		ug/L		97	76 - 120
1,1-Dichloroethane	20.0	19.2		ug/L		96	79 - 120
2,2-Dichloropropane	20.0	19.7		ug/L		98	75 - 127
cis-1,2-Dichloroethene	20.0	19.5		ug/L		98	78 - 120
Chlorobromomethane	20.0	19.2		ug/L		96	80 - 120
Chloroform	20.0	19.3		ug/L		97	80 - 120
1,1,1-Trichloroethane	20.0	19.1		ug/L		96	79 - 121
Carbon tetrachloride	20.0	18.8		ug/L		94	78 - 124
1,1-Dichloropropene	20.0	18.9		ug/L		94	77 - 120
Benzene	20.0	19.4		ug/L		97	79 - 120
1,2-Dichloroethane	20.0	18.3		ug/L		91	77 - 128
Trichloroethene	20.0	18.6		ug/L		93	74 - 120
1,2-Dichloropropane	20.0	20.0		ug/L		100	75 - 125
Dibromomethane	20.0	19.0		ug/L		95	80 - 121
Dichlorobromomethane	20.0	20.1		ug/L		101	80 - 124

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 320-104344/3
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	80 - 131
Toluene	20.0	19.0		ug/L		95	79 - 126
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	75 - 133
1,1,2-Trichloroethane	20.0	19.7		ug/L		99	79 - 127
Tetrachloroethene	20.0	20.6		ug/L		103	74 - 120
1,3-Dichloropropane	20.0	21.3		ug/L		107	79 - 120
Chlorodibromomethane	20.0	20.0		ug/L		100	80 - 122
Ethylene Dibromide	20.0	21.5		ug/L		107	78 - 120
Chlorobenzene	20.0	20.6		ug/L		103	78 - 120
1,1,1,2-Tetrachloroethane	20.0	22.0		ug/L		110	79 - 120
Ethylbenzene	20.0	21.0		ug/L		105	80 - 120
m-Xylene & p-Xylene	20.0	21.0		ug/L		105	80 - 121
o-Xylene	20.0	20.8		ug/L		104	80 - 124
Styrene	20.0	21.8		ug/L		109	80 - 120
Bromoform	20.0	19.1		ug/L		95	80 - 120
Isopropylbenzene	20.0	21.1		ug/L		105	80 - 121
Bromobenzene	20.0	21.6		ug/L		108	80 - 120
1,1,2,2-Tetrachloroethane	20.0	22.9		ug/L		115	74 - 137
1,2,3-Trichloropropane	20.0	21.2		ug/L		106	73 - 120
N-Propylbenzene	20.0	22.0		ug/L		110	76 - 120
2-Chlorotoluene	20.0	21.5		ug/L		107	79 - 120
4-Chlorotoluene	20.0	21.6		ug/L		108	80 - 121
tert-Butylbenzene	20.0	21.2		ug/L		106	78 - 120
1,2,4-Trimethylbenzene	20.0	22.2		ug/L		111	76 - 120
sec-Butylbenzene	20.0	21.7		ug/L		108	77 - 120
4-Isopropyltoluene	20.0	21.9		ug/L		110	76 - 120
1,3-Dichlorobenzene	20.0	21.8		ug/L		109	78 - 120
1,4-Dichlorobenzene	20.0	22.0		ug/L		110	74 - 120
n-Butylbenzene	20.0	22.0		ug/L		110	72 - 120
1,2-Dichlorobenzene	20.0	21.9		ug/L		109	77 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.9		ug/L		100	66 - 121
1,2,4-Trichlorobenzene	20.0	19.8		ug/L		99	61 - 130
Hexachlorobutadiene	20.0	18.2		ug/L		91	69 - 120
Naphthalene	20.0	21.2		ug/L		106	56 - 143
1,2,3-Trichlorobenzene	20.0	20.4		ug/L		102	47 - 162
1,3,5-Trimethylbenzene	20.0	22.1		ug/L		111	79 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*78 - 120*
1,2-Dichloroethane-d4 (Surr)	*94*		*72 - 123*
4-Bromofluorobenzene (Surr)	*104*		*74 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 123*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 320-104344/4
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	20.0	19.1		ug/L		96	39 - 161	4	51
Chloromethane	20.0	17.1		ug/L		85	62 - 129	7	25
Vinyl chloride	20.0	17.4		ug/L		87	68 - 121	6	33
Bromomethane	20.0	19.9		ug/L		100	65 - 132	8	40
Chloroethane	20.0	20.2		ug/L		101	65 - 123	6	40
Trichlorofluoromethane	20.0	18.3		ug/L		91	60 - 135	3	41
1,1-Dichloroethene	20.0	19.3		ug/L		97	74 - 120	0	22
Methylene Chloride	20.0	19.9		ug/L		99	77 - 120	3	20
Methyl tert-butyl ether	20.0	19.4		ug/L		97	71 - 125	2	24
trans-1,2-Dichloroethene	20.0	19.7		ug/L		98	76 - 120	2	20
1,1-Dichloroethane	20.0	19.5		ug/L		97	79 - 120	1	21
2,2-Dichloropropane	20.0	19.6		ug/L		98	75 - 127	0	25
cis-1,2-Dichloroethene	20.0	19.8		ug/L		99	78 - 120	1	18
Chlorobromomethane	20.0	19.8		ug/L		99	80 - 120	3	19
Chloroform	20.0	19.5		ug/L		98	80 - 120	1	22
1,1,1-Trichloroethane	20.0	19.4		ug/L		97	79 - 121	1	25
Carbon tetrachloride	20.0	18.7		ug/L		94	78 - 124	0	25
1,1-Dichloropropene	20.0	18.9		ug/L		95	77 - 120	0	20
Benzene	20.0	19.5		ug/L		97	79 - 120	1	21
1,2-Dichloroethane	20.0	18.5		ug/L		92	77 - 128	1	25
Trichloroethene	20.0	19.0		ug/L		95	74 - 120	2	20
1,2-Dichloropropane	20.0	20.3		ug/L		101	75 - 125	2	27
Dibromomethane	20.0	19.5		ug/L		97	80 - 121	2	17
Dichlorobromomethane	20.0	20.3		ug/L		101	80 - 124	1	20
cis-1,3-Dichloropropene	20.0	21.0		ug/L		105	80 - 131	1	24
Toluene	20.0	19.1		ug/L		95	79 - 126	0	20
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	75 - 133	0	29
1,1,2-Trichloroethane	20.0	19.9		ug/L		100	79 - 127	1	30
Tetrachloroethene	20.0	20.7		ug/L		103	74 - 120	0	18
1,3-Dichloropropane	20.0	21.5		ug/L		107	79 - 120	1	15
Chlorodibromomethane	20.0	20.2		ug/L		101	80 - 122	1	17
Ethylene Dibromide	20.0	21.6		ug/L		108	78 - 120	1	15
Chlorobenzene	20.0	20.8		ug/L		104	78 - 120	1	15
1,1,1,2-Tetrachloroethane	20.0	22.3		ug/L		112	79 - 120	1	23
Ethylbenzene	20.0	21.2		ug/L		106	80 - 120	1	15
m-Xylene & p-Xylene	20.0	21.2		ug/L		106	80 - 121	1	15
o-Xylene	20.0	21.1		ug/L		106	80 - 124	1	18
Styrene	20.0	22.1		ug/L		111	80 - 120	2	15
Bromoform	20.0	19.4		ug/L		97	80 - 120	2	16
Isopropylbenzene	20.0	21.3		ug/L		107	80 - 121	1	17
Bromobenzene	20.0	22.2		ug/L		111	80 - 120	3	17
1,1,2,2-Tetrachloroethane	20.0	23.3		ug/L		116	74 - 137	1	27
1,2,3-Trichloropropane	20.0	21.4		ug/L		107	73 - 120	1	22
N-Propylbenzene	20.0	22.6		ug/L		113	76 - 120	3	26
2-Chlorotoluene	20.0	22.0		ug/L		110	79 - 120	3	19
4-Chlorotoluene	20.0	22.3		ug/L		112	80 - 121	3	19
tert-Butylbenzene	20.0	21.7		ug/L		108	78 - 120	2	19
1,2,4-Trimethylbenzene	20.0	22.2		ug/L		111	76 - 120	0	17

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 320-104344/4
Matrix: Water
Analysis Batch: 104344

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene			20.0	21.7		ug/L		109	77 - 120	0	19
4-Isopropyltoluene			20.0	21.6		ug/L		108	76 - 120	2	18
1,3-Dichlorobenzene			20.0	22.1		ug/L		111	78 - 120	2	17
1,4-Dichlorobenzene			20.0	22.2		ug/L		111	74 - 120	1	15
n-Butylbenzene			20.0	21.5		ug/L		108	72 - 120	2	25
1,2-Dichlorobenzene			20.0	21.8		ug/L		109	77 - 120	0	19
1,2-Dibromo-3-Chloropropane			20.0	19.5		ug/L		98	66 - 121	2	33
1,2,4-Trichlorobenzene			20.0	18.6		ug/L		93	61 - 130	6	40
Hexachlorobutadiene			20.0	17.0		ug/L		85	69 - 120	7	30
Naphthalene			20.0	20.4		ug/L		102	56 - 143	4	48
1,2,3-Trichlorobenzene			20.0	19.6		ug/L		98	47 - 162	4	45
1,3,5-Trimethylbenzene			20.0	22.3		ug/L		111	79 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*78 - 120*
1,2-Dichloroethane-d4 (Surr)	*96*		*72 - 123*
4-Bromofluorobenzene (Surr)	*106*		*74 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 123*

Lab Sample ID: MB 320-104424/7
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			03/25/16 13:39	1
Chloromethane	ND		1.0		ug/L			03/25/16 13:39	1
Vinyl chloride	ND		1.0		ug/L			03/25/16 13:39	1
Bromomethane	ND		1.0		ug/L			03/25/16 13:39	1
Chloroethane	ND		1.0		ug/L			03/25/16 13:39	1
Trichlorofluoromethane	ND		1.0		ug/L			03/25/16 13:39	1
1,1-Dichloroethene	ND		1.0		ug/L			03/25/16 13:39	1
Methylene Chloride	ND		1.0		ug/L			03/25/16 13:39	1
Methyl tert-butyl ether	ND		2.0		ug/L			03/25/16 13:39	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 13:39	1
1,1-Dichloroethane	ND		1.0		ug/L			03/25/16 13:39	1
2,2-Dichloropropane	ND		1.0		ug/L			03/25/16 13:39	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/25/16 13:39	1
Chlorobromomethane	ND		1.0		ug/L			03/25/16 13:39	1
Chloroform	ND		1.0		ug/L			03/25/16 13:39	1
1,1,1-Trichloroethane	ND		1.0		ug/L			03/25/16 13:39	1
Carbon tetrachloride	ND		1.0		ug/L			03/25/16 13:39	1
1,1-Dichloropropene	ND		1.0		ug/L			03/25/16 13:39	1
Benzene	ND		1.0		ug/L			03/25/16 13:39	1
1,2-Dichloroethane	ND		1.0		ug/L			03/25/16 13:39	1
Trichloroethene	ND		1.0		ug/L			03/25/16 13:39	1
1,2-Dichloropropane	ND		1.0		ug/L			03/25/16 13:39	1
Dibromomethane	ND		1.0		ug/L			03/25/16 13:39	1
Dichlorobromomethane	ND		1.0		ug/L			03/25/16 13:39	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 320-104424/7
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 13:39	1
Toluene	ND		1.0		ug/L			03/25/16 13:39	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/25/16 13:39	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/25/16 13:39	1
Tetrachloroethene	ND		1.0		ug/L			03/25/16 13:39	1
1,3-Dichloropropane	ND		1.0		ug/L			03/25/16 13:39	1
Chlorodibromomethane	ND		1.0		ug/L			03/25/16 13:39	1
Ethylene Dibromide	ND		2.0		ug/L			03/25/16 13:39	1
Chlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 13:39	1
Ethylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
m-Xylene & p-Xylene	ND		1.0		ug/L			03/25/16 13:39	1
o-Xylene	ND		1.0		ug/L			03/25/16 13:39	1
Styrene	ND		1.0		ug/L			03/25/16 13:39	1
Bromoform	ND		1.0		ug/L			03/25/16 13:39	1
Isopropylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
Bromobenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/25/16 13:39	1
1,2,3-Trichloropropane	ND		1.0		ug/L			03/25/16 13:39	1
N-Propylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
2-Chlorotoluene	ND		1.0		ug/L			03/25/16 13:39	1
4-Chlorotoluene	ND		1.0		ug/L			03/25/16 13:39	1
tert-Butylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
sec-Butylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
4-Isopropyltoluene	ND		1.0		ug/L			03/25/16 13:39	1
1,3-Dichlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,4-Dichlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
n-Butylbenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,2-Dichlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/25/16 13:39	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
Hexachlorobutadiene	ND		1.0		ug/L			03/25/16 13:39	1
Naphthalene	ND		1.0		ug/L			03/25/16 13:39	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			03/25/16 13:39	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			03/25/16 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*78 - 120*		*03/25/16 13:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*72 - 123*		*03/25/16 13:39*	*1*
4-Bromofluorobenzene (Surr)	*105*		*74 - 120*		*03/25/16 13:39*	*1*
Dibromofluoromethane (Surr)	*89*		*80 - 123*		*03/25/16 13:39*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 320-104424/4
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	20.0	17.9		ug/L		89	39 - 161
Chloromethane	20.0	17.7		ug/L		88	62 - 129
Vinyl chloride	20.0	17.3		ug/L		87	68 - 121
Bromomethane	20.0	20.9		ug/L		104	65 - 132
Chloroethane	20.0	20.7		ug/L		104	65 - 123
Trichlorofluoromethane	20.0	18.5		ug/L		93	60 - 135
1,1-Dichloroethene	20.0	19.1		ug/L		95	74 - 120
Methylene Chloride	20.0	19.7		ug/L		99	77 - 120
Methyl tert-butyl ether	20.0	19.5		ug/L		98	71 - 125
trans-1,2-Dichloroethene	20.0	19.4		ug/L		97	76 - 120
1,1-Dichloroethane	20.0	19.4		ug/L		97	79 - 120
2,2-Dichloropropane	20.0	19.9		ug/L		99	75 - 127
cis-1,2-Dichloroethene	20.0	19.5		ug/L		98	78 - 120
Chlorobromomethane	20.0	19.6		ug/L		98	80 - 120
Chloroform	20.0	19.6		ug/L		98	80 - 120
1,1,1-Trichloroethane	20.0	19.2		ug/L		96	79 - 121
Carbon tetrachloride	20.0	19.1		ug/L		96	78 - 124
1,1-Dichloropropene	20.0	19.1		ug/L		95	77 - 120
Benzene	20.0	19.5		ug/L		98	79 - 120
1,2-Dichloroethane	20.0	18.7		ug/L		93	77 - 128
Trichloroethene	20.0	19.1		ug/L		95	74 - 120
1,2-Dichloropropane	20.0	20.4		ug/L		102	75 - 125
Dibromomethane	20.0	19.6		ug/L		98	80 - 121
Dichlorobromomethane	20.0	20.6		ug/L		103	80 - 124
cis-1,3-Dichloropropene	20.0	20.9		ug/L		105	80 - 131
Toluene	20.0	19.2		ug/L		96	79 - 126
trans-1,3-Dichloropropene	20.0	20.0		ug/L		100	75 - 133
1,1,2-Trichloroethane	20.0	20.3		ug/L		101	79 - 127
Tetrachloroethene	20.0	20.5		ug/L		102	74 - 120
1,3-Dichloropropane	20.0	21.3		ug/L		107	79 - 120
Chlorodibromomethane	20.0	20.0		ug/L		100	80 - 122
Ethylene Dibromide	20.0	21.7		ug/L		109	78 - 120
Chlorobenzene	20.0	20.9		ug/L		105	78 - 120
1,1,1,2-Tetrachloroethane	20.0	22.4		ug/L		112	79 - 120
Ethylbenzene	20.0	21.2		ug/L		106	80 - 120
m-Xylene & p-Xylene	20.0	21.1		ug/L		105	80 - 121
o-Xylene	20.0	21.0		ug/L		105	80 - 124
Styrene	20.0	22.1		ug/L		110	80 - 120
Bromoform	20.0	19.1		ug/L		95	80 - 120
Isopropylbenzene	20.0	21.3		ug/L		107	80 - 121
Bromobenzene	20.0	22.5		ug/L		112	80 - 120
1,1,2,2-Tetrachloroethane	20.0	23.2		ug/L		116	74 - 137
1,2,3-Trichloropropane	20.0	21.7		ug/L		109	73 - 120
N-Propylbenzene	20.0	22.9		ug/L		115	76 - 120
2-Chlorotoluene	20.0	22.3		ug/L		112	79 - 120
4-Chlorotoluene	20.0	22.4		ug/L		112	80 - 121
tert-Butylbenzene	20.0	21.8		ug/L		109	78 - 120
1,2,4-Trimethylbenzene	20.0	22.7		ug/L		113	76 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 320-104424/4
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	20.0	22.1		ug/L		111	77 - 120
4-Isopropyltoluene	20.0	21.9		ug/L		110	76 - 120
1,3-Dichlorobenzene	20.0	22.4		ug/L		112	78 - 120
1,4-Dichlorobenzene	20.0	22.3		ug/L		111	74 - 120
n-Butylbenzene	20.0	21.9		ug/L		110	72 - 120
1,2-Dichlorobenzene	20.0	21.9		ug/L		110	77 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.0		ug/L		95	66 - 121
1,2,4-Trichlorobenzene	20.0	18.9		ug/L		94	61 - 130
Hexachlorobutadiene	20.0	17.3		ug/L		87	69 - 120
Naphthalene	20.0	20.2		ug/L		101	56 - 143
1,2,3-Trichlorobenzene	20.0	19.8		ug/L		99	47 - 162
1,3,5-Trimethylbenzene	20.0	22.6		ug/L		113	79 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*78 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 123*
4-Bromofluorobenzene (Surr)	*104*		*74 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 123*

Lab Sample ID: LCSD 320-104424/5
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	20.0	18.4		ug/L		92	39 - 161	3	51
Chloromethane	20.0	17.1		ug/L		86	62 - 129	3	25
Vinyl chloride	20.0	17.3		ug/L		86	68 - 121	0	33
Bromomethane	20.0	18.9		ug/L		94	65 - 132	10	40
Chloroethane	20.0	19.3		ug/L		96	65 - 123	7	40
Trichlorofluoromethane	20.0	18.1		ug/L		90	60 - 135	2	41
1,1-Dichloroethene	20.0	19.1		ug/L		96	74 - 120	0	22
Methylene Chloride	20.0	19.9		ug/L		99	77 - 120	1	20
Methyl tert-butyl ether	20.0	19.6		ug/L		98	71 - 125	0	24
trans-1,2-Dichloroethene	20.0	19.5		ug/L		97	76 - 120	0	20
1,1-Dichloroethane	20.0	19.6		ug/L		98	79 - 120	1	21
2,2-Dichloropropane	20.0	19.9		ug/L		99	75 - 127	0	25
cis-1,2-Dichloroethene	20.0	19.9		ug/L		99	78 - 120	2	18
Chlorobromomethane	20.0	20.1		ug/L		100	80 - 120	2	19
Chloroform	20.0	19.8		ug/L		99	80 - 120	1	22
1,1,1-Trichloroethane	20.0	19.3		ug/L		96	79 - 121	0	25
Carbon tetrachloride	20.0	19.0		ug/L		95	78 - 124	1	25
1,1-Dichloropropene	20.0	19.0		ug/L		95	77 - 120	0	20
Benzene	20.0	19.5		ug/L		98	79 - 120	0	21
1,2-Dichloroethane	20.0	18.9		ug/L		94	77 - 128	1	25
Trichloroethene	20.0	19.0		ug/L		95	74 - 120	0	20
1,2-Dichloropropane	20.0	20.5		ug/L		102	75 - 125	1	27
Dibromomethane	20.0	19.7		ug/L		98	80 - 121	0	17
Dichlorobromomethane	20.0	20.7		ug/L		103	80 - 124	1	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 320-104424/5
Matrix: Water
Analysis Batch: 104424

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene			20.0	21.2		ug/L		106	80 - 131	1	24
Toluene			20.0	19.2		ug/L		96	79 - 126	0	20
trans-1,3-Dichloropropene			20.0	20.3		ug/L		101	75 - 133	1	29
1,1,2-Trichloroethane			20.0	20.1		ug/L		101	79 - 127	1	30
Tetrachloroethene			20.0	20.3		ug/L		101	74 - 120	1	18
1,3-Dichloropropane			20.0	21.4		ug/L		107	79 - 120	0	15
Chlorodibromomethane			20.0	20.2		ug/L		101	80 - 122	1	17
Ethylene Dibromide			20.0	21.7		ug/L		109	78 - 120	0	15
Chlorobenzene			20.0	20.9		ug/L		104	78 - 120	0	15
1,1,1,2-Tetrachloroethane			20.0	22.5		ug/L		112	79 - 120	0	23
Ethylbenzene			20.0	21.4		ug/L		107	80 - 120	1	15
m-Xylene & p-Xylene			20.0	21.1		ug/L		106	80 - 121	0	15
o-Xylene			20.0	21.2		ug/L		106	80 - 124	1	18
Styrene			20.0	22.4		ug/L		112	80 - 120	1	15
Bromoform			20.0	18.9		ug/L		95	80 - 120	1	16
Isopropylbenzene			20.0	21.4		ug/L		107	80 - 121	0	17
Bromobenzene			20.0	22.5		ug/L		112	80 - 120	0	17
1,1,2,2-Tetrachloroethane			20.0	24.0		ug/L		120	74 - 137	4	27
1,2,3-Trichloropropane			20.0	22.0		ug/L		110	73 - 120	1	22
N-Propylbenzene			20.0	22.8		ug/L		114	76 - 120	1	26
2-Chlorotoluene			20.0	22.3		ug/L		112	79 - 120	0	19
4-Chlorotoluene			20.0	22.5		ug/L		113	80 - 121	0	19
tert-Butylbenzene			20.0	21.5		ug/L		108	78 - 120	1	19
1,2,4-Trimethylbenzene			20.0	22.7		ug/L		113	76 - 120	0	17
sec-Butylbenzene			20.0	21.9		ug/L		109	77 - 120	1	19
4-Isopropyltoluene			20.0	21.8		ug/L		109	76 - 120	1	18
1,3-Dichlorobenzene			20.0	22.2		ug/L		111	78 - 120	1	17
1,4-Dichlorobenzene			20.0	22.4		ug/L		112	74 - 120	1	15
n-Butylbenzene			20.0	21.8		ug/L		109	72 - 120	1	25
1,2-Dichlorobenzene			20.0	22.1		ug/L		110	77 - 120	0	19
1,2-Dibromo-3-Chloropropane			20.0	19.7		ug/L		98	66 - 121	4	33
1,2,4-Trichlorobenzene			20.0	18.7		ug/L		93	61 - 130	1	40
Hexachlorobutadiene			20.0	17.3		ug/L		87	69 - 120	0	30
Naphthalene			20.0	20.6		ug/L		103	56 - 143	2	48
1,2,3-Trichlorobenzene			20.0	19.4		ug/L		97	47 - 162	2	45
1,3,5-Trimethylbenzene			20.0	22.6		ug/L		113	79 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*92*		*78 - 120*
1,2-Dichloroethane-d4 (Surr)	*95*		*72 - 123*
4-Bromofluorobenzene (Surr)	*104*		*74 - 120*
Dibromofluoromethane (Surr)	*91*		*80 - 123*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Lab Sample ID: MB 580-213688/5
Matrix: Water
Analysis Batch: 213688

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			03/25/16 14:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*105*		*50 - 150*		*03/25/16 14:05*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 150*		*03/25/16 14:05*	*1*

Lab Sample ID: LCS 580-213688/6
Matrix: Water
Analysis Batch: 213688

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10	1.17	1.31		mg/L		112	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*106*		*50 - 150*
4-Bromofluorobenzene (Surr)	*103*		*50 - 150*

Lab Sample ID: LCSD 580-213688/7
Matrix: Water
Analysis Batch: 213688

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	1.17	1.34		mg/L		115	60 - 120	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*107*		*50 - 150*
4-Bromofluorobenzene (Surr)	*105*		*50 - 150*

Lab Sample ID: MB 580-213887/5
Matrix: Water
Analysis Batch: 213887

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			03/29/16 15:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*103*		*50 - 150*		*03/29/16 15:07*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*		*03/29/16 15:07*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCS 580-213887/6
Matrix: Water
Analysis Batch: 213887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			1.17	1.33		mg/L		114	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*107*		*50 - 150*
4-Bromofluorobenzene (Surr)	*104*		*50 - 150*

Lab Sample ID: LCSD 580-213887/7
Matrix: Water
Analysis Batch: 213887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			1.17	1.33		mg/L		114	60 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*106*		*50 - 150*
4-Bromofluorobenzene (Surr)	*104*		*50 - 150*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-213444/1-A
Matrix: Water
Analysis Batch: 213535

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 213444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		03/23/16 09:06	03/24/16 06:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*03/23/16 09:06*	*03/24/16 06:53*	*1*

Lab Sample ID: LCS 580-213444/2-A
Matrix: Water
Analysis Batch: 213535

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 213444

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (nC10-<nC25)			2.00	1.68		mg/L		84	75 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*69*		*50 - 150*

Lab Sample ID: LCSD 580-213444/3-A
Matrix: Water
Analysis Batch: 213535

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 213444

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)			2.00	1.77		mg/L		88	75 - 125	5	20

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

Lab Sample ID: LCSD 580-213444/3-A
Matrix: Water
Analysis Batch: 213535

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 213444

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	*73*		*50 - 150*

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: MW-1
Date Collected: 03/15/16 16:30
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	104424	03/25/16 18:32	SS	TAL SAC

Client Sample ID: MW-2
Date Collected: 03/15/16 17:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	104424	03/25/16 16:39	SS	TAL SAC

Client Sample ID: MW-4
Date Collected: 03/15/16 18:10
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	104424	03/25/16 18:55	SS	TAL SAC

Client Sample ID: MW-5
Date Collected: 03/15/16 19:15
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	104424	03/25/16 17:02	SS	TAL SAC
Total/NA	Analysis	AK101		1	213688	03/25/16 18:00	D1R	TAL SEA
Total/NA	Prep	3510C			213444	03/23/16 09:06	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	213535	03/24/16 14:40	CJ	TAL SEA

Client Sample ID: MW-7
Date Collected: 03/15/16 20:25
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	104424	03/25/16 19:17	SS	TAL SAC

Client Sample ID: BD-1
Date Collected: 03/15/16 00:01
Date Received: 03/18/16 10:00

Lab Sample ID: 580-58156-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	104424	03/25/16 17:24	SS	TAL SAC
Total/NA	Analysis	AK101		1	213688	03/25/16 18:32	D1R	TAL SEA
Total/NA	Prep	3510C			213444	03/23/16 09:06	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	213535	03/24/16 15:01	CJ	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Client Sample ID: EB-1

Lab Sample ID: 580-58156-8

Date Collected: 03/15/16 00:01

Matrix: Water

Date Received: 03/18/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	104344	03/24/16 15:44	SS	TAL SAC
Total/NA	Analysis	AK101		1	213887	03/29/16 19:25	HDK	TAL SEA
Total/NA	Prep	3510C			213444	03/23/16 09:06	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	213535	03/24/16 15:21	CJ	TAL SEA

Client Sample ID: Trip Blank

Lab Sample ID: 580-58156-9

Date Collected: 03/15/16 00:01

Matrix: Water

Date Received: 03/18/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	104344	03/24/16 16:06	SS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-16

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: GE, Nikiski, Alaska

TestAmerica Job ID: 580-58156-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-58156-1	MW-1	Water	03/15/16 16:30	03/18/16 10:00
580-58156-2	MW-2	Water	03/15/16 17:10	03/18/16 10:00
580-58156-3	MW-4	Water	03/15/16 18:10	03/18/16 10:00
580-58156-4	MW-5	Water	03/15/16 19:15	03/18/16 10:00
580-58156-5	MW-7	Water	03/15/16 20:25	03/18/16 10:00
580-58156-6	BD-1	Water	03/15/16 00:01	03/18/16 10:00
580-58156-8	EB-1	Water	03/15/16 00:01	03/18/16 10:00
580-58156-9	Trip Blank	Water	03/15/16 00:01	03/18/16 10:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

58156

☐ Rush
☐ Short Hold

Chain of Custody Record

Client: GE / Arcadis
Client Contact: Matt Pelton
Date:
Chain of Custody Number: 29771
Address: 801 Corporate Center Dr. Ste. 300
Telephone Number (Area Code)/Fax Number: 919. 415. 2308
Lab Number:
Page 1 of 1
City: Raliegh State: NC Zip Code: 27607
Sampler: D. Beaudoin
Lab Contact:
Project Name and Location (State): GE, Nikiski, Alaska 49224 Spurlthing
Billing Contact: Matt Pelton
Contract/Purchase Order/Quote No.: B0031255. 1404. 00005

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC EPA 8260	GRO AK101	DRO AK102	Special Instructions/ Conditions of Receipt
MW-1	03/15/16	1630		✓						✓			✓			
MW-2	03/15/16	1710		✓						✓			✓			
MW-4	03/15/16	1810		✓						✓			✓			
MW-5	03/15/16	1915		✓						✓			✓	✓	✓	
MW-7	03/15/16	2025		✓						✓			✓			
BD-1	03/15/16	—		✓						✓			✓	✓	✓	
BD-2	03/15/16	—		✓						✓			✓			Hold until requested to run
EB-1	03/15/16	—		✓						✓			✓	✓	✓	
Trip blank	—	—		✓									✓			

580-58156 Chain of Custody

TB ___ Cooler 122 Cor 1.4 Unc 1.5
Cooler Dsc [illegible] @Lab [illegible]
Wet Packs Packing [illegible]

Cooler: ☒ Yes ☐ No Cooler Temp: 2.4°C
Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ... By L... For ___ Months (... samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other ____
QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By Sign/Print: [signature] / David G. Beaudoin	03/17/16	1000	1. Received By Sign/Print: [signature] Troy Engstrom	3-17-16	10:00
2. Relinquished By Sign/Print: [signature] / Troy Engstrom	3-17-16	15:20	2. Received By Sign/Print: [signature] / Rebecca Kidder	3/18/16	0930
3. Relinquished By Sign/Print			3. Received By Sign/Print		

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Allen, Kristine D	Carrier Tracking No(s)	COC No: 580-37026 1
Client Contact: Shipping/Receiving	Phone	E-Mail: kristine.allen@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc				Job #: 580-58156-1
Address: 880 Riverside Parkway,	Due Date Requested: 3/30/2016			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #			
Email	WO #			
Project Name: GE, Nikiski, Alaska	Project #: 58007486			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	8260C/5030C (MOD) Standard List Volatile Organics	8260C/5030C (MOD) Standard List Volatile Organics (Hold)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1 (580-58156-1)	3/15/16	16:30 Alaskan		Water		X			
MW-2 (580-58156-2)	3/15/16	17:10 Alaskan		Water		X			
MW-4 (580-58156-3)	3/15/16	18:10 Alaskan		Water		X			
MW-5 (580-58156-4)	3/15/16	19:15 Alaskan		Water		X			
MW-7 (580-58156-5)	3/15/16	20:25 Alaskan		Water		X			
BD-1 (580-58156-6)	3/15/16	00:01 Alaskan		Water		X			
BD-2 (580-58156-7)	3/15/16	00:01 Alaskan		Water			X		
EB-1 (580-58156-8)	3/15/16	00:01 Alaskan		Water		X			
Trip Blank (580-58156-9)	3/15/16	00:01 Alaskan		Water		X			

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4/4/2016

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: Tom [signature]	3/22/16	TA-Sea	[signature]	3-23-16 1015	TAS
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.9

* Vial with large enough bubble on 3-23-16

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-58156-1

Login Number: 58156
List Number: 1
Creator: Gall, Brandon A

List Source: TestAmerica Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-58156-1

Login Number: 58156
List Number: 2
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 03/23/16 01:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4".
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-60244-1
Client Project/Site: Former TBE Machine Shop Property

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
6/24/2016 2:02:35 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-60244-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-60244-1

Comments
No additional comments.

Receipt
The samples were received on 6/11/2016 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.0º C and 2.0º C.

GC/MS VOA
Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 580-219849 recovered outside control limits for the following analytes: 1,1-Dichloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260C: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch analytical batch 580-219849 recovered outside control limits for the following analytes: 2-Chlorotoluene and 4-Isopropyltoluene.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 580-219972 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-2-W-060816 (580-60244-2) and MW-5-W-060816 (580-60244-5), BD-2-W-060716 (580-60244-13). Elevated reporting limits (RLs) are provided.

Method(s) AK101: Analytical batch 219563 was run with only the secondary source standard for the CCVs, LCS and LCSD. A new primary gas standard was made and failed low. (CCV 580-219755/11), (CCV 580-219755/20), (CCV 580-219755/28) and (CCVRT 580-219755/4)

Method(s) AK101: Analytical batch 219899 was run with only the secondary source standard for the CCVs, LCS and LCSD. A new primary gas standard was made and failed low. (CCV 580-219899/13), (CCV 580-219899/22) and (CCVRT 580-219899/4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) AK102 & 103: The following samples contained a hydrocarbon pattern in the DRO (C10-C25) range; however, the elution pattern was later than the typical DRO (C10-C25) fuel pattern used by the laboratory for quantitative purposes: MW-3-W-060816 (580-60244-3), MW-4-W-060716 (580-60244-4) and MW-6-W-060816 (580-60244-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Biology
Method(s) SM 9215B: The following samples was received outside of holding time: MW-1-W-060716 (580-60244-1), MW-4-W-060716 (580-60244-4), MW-5-W-060816 (580-60244-5) and MW-7-W-060816 (580-60244-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Biology

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-1-W-060716
Date Collected: 06/07/16 14:10
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 19:56	1
Bromobenzene	ND		2.0		ug/L			06/14/16 19:56	1
Bromoform	ND		1.0		ug/L			06/14/16 19:56	1
Bromomethane	ND		5.0		ug/L			06/14/16 19:56	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 19:56	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 19:56	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 19:56	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 19:56	1
Chloroethane	ND		5.0		ug/L			06/14/16 19:56	1
Chloroform	ND		5.0		ug/L			06/14/16 19:56	1
Chloromethane	ND		5.0		ug/L			06/14/16 19:56	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 19:56	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 19:56	1
cis-1,2-Dichloroethene	**35**		1.0		ug/L			06/14/16 19:56	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:56	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 19:56	1
Dibromomethane	ND		1.0		ug/L			06/14/16 19:56	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:56	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:56	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 19:56	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 19:56	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 19:56	1
1,1-Dichloroethane	**2.7**		2.0		ug/L			06/14/16 19:56	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 19:56	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 19:56	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 19:56	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 19:56	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 19:56	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 19:56	1
Ethylbenzene	**8.6**		3.0		ug/L			06/14/16 19:56	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 19:56	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 19:56	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 19:56	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 19:56	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 19:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 19:56	1
m-Xylene & p-Xylene	**10**		3.0		ug/L			06/14/16 19:56	1
Naphthalene	ND		2.0		ug/L			06/14/16 19:56	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
o-Xylene	**3.5**		2.0		ug/L			06/14/16 19:56	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
Styrene	ND		5.0		ug/L			06/14/16 19:56	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 19:56	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 19:56	1
Tetrachloroethene	**22**		3.0		ug/L			06/14/16 19:56	1
Toluene	ND		2.0		ug/L			06/14/16 19:56	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 19:56	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-1-W-060716
Date Collected: 06/07/16 14:10
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:56	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 19:56	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 19:56	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 19:56	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 19:56	1
Trichloroethene	**9.8**		3.0		ug/L			06/14/16 19:56	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 19:56	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 19:56	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:56	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*75 - 125*		*06/14/16 19:56*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/14/16 19:56*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 143*		*06/14/16 19:56*	*1*
Toluene-d8 (Surr)	*100*		*82 - 122*		*06/14/16 19:56*	*1*
Trifluorotoluene (Surr)	*96*		*80 - 141*		*06/14/16 19:56*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**0.066**		0.050		mg/L			06/14/16 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*109*		*50 - 150*		*06/14/16 16:45*	*1*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*		*06/14/16 16:45*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.48**		0.10		mg/L		06/21/16 10:23	06/23/16 07:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*06/21/16 10:23*	*06/23/16 07:12*	*1*

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	**760**	**H**	10		CFU/mL			06/14/16 14:36	10

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-2-W-060816
Date Collected: 06/08/16 17:30
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/16/16 15:17	1
Bromobenzene	ND		2.0		ug/L			06/16/16 15:17	1
Bromoform	ND		1.0		ug/L			06/16/16 15:17	1
Bromomethane	ND		5.0		ug/L			06/16/16 15:17	1
Carbon tetrachloride	ND		3.0		ug/L			06/16/16 15:17	1
Chlorobenzene	ND		2.0		ug/L			06/16/16 15:17	1
Chlorobromomethane	ND		2.0		ug/L			06/16/16 15:17	1
Chlorodibromomethane	ND		1.0		ug/L			06/16/16 15:17	1
Chloroethane	ND		5.0		ug/L			06/16/16 15:17	1
Chloroform	ND		5.0		ug/L			06/16/16 15:17	1
Chloromethane	ND		5.0		ug/L			06/16/16 15:17	1
2-Chlorotoluene	ND		3.0		ug/L			06/16/16 15:17	1
4-Chlorotoluene	ND		2.0		ug/L			06/16/16 15:17	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 15:17	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/16/16 15:17	1
Dibromomethane	ND		1.0		ug/L			06/16/16 15:17	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/16/16 15:17	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/16/16 15:17	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/16/16 15:17	1
Dichlorobromomethane	ND		2.0		ug/L			06/16/16 15:17	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/16/16 15:17	1
1,1-Dichloroethane	**6.2**		2.0		ug/L			06/16/16 15:17	1
1,2-Dichloroethane	ND		1.0		ug/L			06/16/16 15:17	1
1,1-Dichloroethene	ND		2.0		ug/L			06/16/16 15:17	1
1,2-Dichloropropane	ND		1.0		ug/L			06/16/16 15:17	1
1,3-Dichloropropane	ND		1.0		ug/L			06/16/16 15:17	1
2,2-Dichloropropane	ND		3.0		ug/L			06/16/16 15:17	1
1,1-Dichloropropene	ND		3.0		ug/L			06/16/16 15:17	1
Ethylbenzene	**95**		3.0		ug/L			06/16/16 15:17	1
Ethylene Dibromide	ND		1.0		ug/L			06/16/16 15:17	1
Hexachlorobutadiene	ND		2.0		ug/L			06/16/16 15:17	1
Isopropylbenzene	**2.4**		2.0		ug/L			06/16/16 15:17	1
4-Isopropyltoluene	ND		3.0		ug/L			06/16/16 15:17	1
Methylene Chloride	ND		5.0		ug/L			06/16/16 15:17	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/16/16 15:17	1
m-Xylene & p-Xylene	**96**		3.0		ug/L			06/16/16 15:17	1
Naphthalene	ND		2.0		ug/L			06/16/16 15:17	1
n-Butylbenzene	ND		3.0		ug/L			06/16/16 15:17	1
N-Propylbenzene	ND		3.0		ug/L			06/16/16 15:17	1
o-Xylene	**70**		2.0		ug/L			06/16/16 15:17	1
sec-Butylbenzene	ND		3.0		ug/L			06/16/16 15:17	1
Styrene	ND		5.0		ug/L			06/16/16 15:17	1
tert-Butylbenzene	ND		3.0		ug/L			06/16/16 15:17	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/16/16 15:17	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/16/16 15:17	1
Tetrachloroethene	ND		3.0		ug/L			06/16/16 15:17	1
Toluene	**2.0**		2.0		ug/L			06/16/16 15:17	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/16/16 15:17	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 15:17	1

Client Sample ID: MW-2-W-060816
Date Collected: 06/08/16 17:30
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/16/16 15:17	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/16/16 15:17	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/16/16 15:17	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/16/16 15:17	1
Trichloroethene	ND		3.0		ug/L			06/16/16 15:17	1
Trichlorofluoromethane	ND		3.0		ug/L			06/16/16 15:17	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/16/16 15:17	1
1,2,4-Trimethylbenzene	**19**		3.0		ug/L			06/16/16 15:17	1
1,3,5-Trimethylbenzene	**4.7**		3.0		ug/L			06/16/16 15:17	1
Vinyl chloride	ND		1.0		ug/L			06/16/16 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 125*		*06/16/16 15:17*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 118*		*06/16/16 15:17*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*65 - 143*		*06/16/16 15:17*	*1*
Toluene-d8 (Surr)	*102*		*82 - 122*		*06/16/16 15:17*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/16/16 15:17*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**160**		10		ug/L			06/20/16 12:22	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 125*		*06/20/16 12:22*	*10*
Dibromofluoromethane (Surr)	*95*		*77 - 118*		*06/20/16 12:22*	*10*
1,2-Dichloroethane-d4 (Surr)	*86*		*65 - 143*		*06/20/16 12:22*	*10*
Toluene-d8 (Surr)	*105*		*82 - 122*		*06/20/16 12:22*	*10*
Trifluorotoluene (Surr)	*95*		*80 - 141*		*06/20/16 12:22*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**0.58**		0.050		mg/L			06/14/16 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 17:17*	*1*
4-Bromofluorobenzene (Surr)	*105*		*50 - 150*		*06/14/16 17:17*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.53**		0.10		mg/L		06/21/16 10:23	06/23/16 07:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/21/16 10:23*	*06/23/16 07:34*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-3-W-060816
Date Collected: 06/08/16 10:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/15/16 19:31	1
Bromobenzene	ND		2.0		ug/L			06/15/16 19:31	1
Bromoform	ND		1.0		ug/L			06/15/16 19:31	1
Bromomethane	ND		5.0		ug/L			06/15/16 19:31	1
Carbon tetrachloride	ND		3.0		ug/L			06/15/16 19:31	1
Chlorobenzene	ND		2.0		ug/L			06/15/16 19:31	1
Chlorobromomethane	ND		2.0		ug/L			06/15/16 19:31	1
Chlorodibromomethane	ND		1.0		ug/L			06/15/16 19:31	1
Chloroethane	ND		5.0		ug/L			06/15/16 19:31	1
Chloroform	ND		5.0		ug/L			06/15/16 19:31	1
Chloromethane	ND		5.0		ug/L			06/15/16 19:31	1
2-Chlorotoluene	ND	*	3.0		ug/L			06/15/16 19:31	1
4-Chlorotoluene	ND		2.0		ug/L			06/15/16 19:31	1
cis-1,2-Dichloroethene	**4.6**	**F1**	1.0		ug/L			06/15/16 19:31	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 19:31	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/15/16 19:31	1
Dibromomethane	ND		1.0		ug/L			06/15/16 19:31	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/15/16 19:31	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/15/16 19:31	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/15/16 19:31	1
Dichlorobromomethane	ND		2.0		ug/L			06/15/16 19:31	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/15/16 19:31	1
1,1-Dichloroethane	**6.1**		2.0		ug/L			06/15/16 19:31	1
1,2-Dichloroethane	ND		1.0		ug/L			06/15/16 19:31	1
1,1-Dichloroethene	ND	* F1	2.0		ug/L			06/15/16 19:31	1
1,2-Dichloropropane	ND		1.0		ug/L			06/15/16 19:31	1
1,3-Dichloropropane	ND		1.0		ug/L			06/15/16 19:31	1
2,2-Dichloropropane	ND		3.0		ug/L			06/15/16 19:31	1
1,1-Dichloropropene	ND		3.0		ug/L			06/15/16 19:31	1
Ethylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
Ethylene Dibromide	ND		1.0		ug/L			06/15/16 19:31	1
Hexachlorobutadiene	ND		2.0		ug/L			06/15/16 19:31	1
Isopropylbenzene	ND		2.0		ug/L			06/15/16 19:31	1
4-Isopropyltoluene	ND	*	3.0		ug/L			06/15/16 19:31	1
Methylene Chloride	ND		5.0		ug/L			06/15/16 19:31	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/15/16 19:31	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/15/16 19:31	1
Naphthalene	ND		2.0		ug/L			06/15/16 19:31	1
n-Butylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
N-Propylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
o-Xylene	ND		2.0		ug/L			06/15/16 19:31	1
sec-Butylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
Styrene	ND		5.0		ug/L			06/15/16 19:31	1
tert-Butylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/15/16 19:31	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/15/16 19:31	1
Tetrachloroethene	ND		3.0		ug/L			06/15/16 19:31	1
Toluene	ND		2.0		ug/L			06/15/16 19:31	1
trans-1,2-Dichloroethene	ND	F1	3.0		ug/L			06/15/16 19:31	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-3-W-060816
Date Collected: 06/08/16 10:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 19:31	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/15/16 19:31	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/15/16 19:31	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/15/16 19:31	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/15/16 19:31	1
Trichloroethene	ND		3.0		ug/L			06/15/16 19:31	1
Trichlorofluoromethane	ND		3.0		ug/L			06/15/16 19:31	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/15/16 19:31	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/15/16 19:31	1
Vinyl chloride	ND	F1	1.0		ug/L			06/15/16 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*75 - 125*		*06/15/16 19:31*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/15/16 19:31*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 143*		*06/15/16 19:31*	*1*
Toluene-d8 (Surr)	*97*		*82 - 122*		*06/15/16 19:31*	*1*
Trifluorotoluene (Surr)	*97*		*80 - 141*		*06/15/16 19:31*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/15/16 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/15/16 19:20*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*		*06/15/16 19:20*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.29**		0.10		mg/L		06/21/16 10:23	06/23/16 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*06/21/16 10:23*	*06/23/16 07:56*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-4-W-060716
Date Collected: 06/07/16 13:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 19:02	1
Bromobenzene	ND		2.0		ug/L			06/14/16 19:02	1
Bromoform	ND		1.0		ug/L			06/14/16 19:02	1
Bromomethane	ND		5.0		ug/L			06/14/16 19:02	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 19:02	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 19:02	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 19:02	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 19:02	1
Chloroethane	ND		5.0		ug/L			06/14/16 19:02	1
Chloroform	ND		5.0		ug/L			06/14/16 19:02	1
Chloromethane	ND		5.0		ug/L			06/14/16 19:02	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 19:02	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 19:02	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/14/16 19:02	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:02	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 19:02	1
Dibromomethane	ND		1.0		ug/L			06/14/16 19:02	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:02	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:02	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 19:02	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 19:02	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 19:02	1
1,1-Dichloroethane	ND		2.0		ug/L			06/14/16 19:02	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 19:02	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 19:02	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 19:02	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 19:02	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 19:02	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 19:02	1
Ethylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 19:02	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 19:02	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 19:02	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 19:02	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 19:02	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 19:02	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/14/16 19:02	1
Naphthalene	ND		2.0		ug/L			06/14/16 19:02	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
o-Xylene	ND		2.0		ug/L			06/14/16 19:02	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
Styrene	ND		5.0		ug/L			06/14/16 19:02	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 19:02	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 19:02	1
Tetrachloroethene	**14**		3.0		ug/L			06/14/16 19:02	1
Toluene	ND		2.0		ug/L			06/14/16 19:02	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 19:02	1

Client Sample ID: MW-4-W-060716
Date Collected: 06/07/16 13:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:02	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 19:02	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 19:02	1
1,1,1-Trichloroethane	**3.0**		3.0		ug/L			06/14/16 19:02	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 19:02	1
Trichloroethene	**3.9**		3.0		ug/L			06/14/16 19:02	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 19:02	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 19:02	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:02	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 125*		*06/14/16 19:02*	*1*
Dibromofluoromethane (Surr)	*93*		*77 - 118*		*06/14/16 19:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*89*		*65 - 143*		*06/14/16 19:02*	*1*
Toluene-d8 (Surr)	*101*		*82 - 122*		*06/14/16 19:02*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/14/16 19:02*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*110*		*50 - 150*		*06/14/16 17:49*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*		*06/14/16 17:49*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.57**		0.10		mg/L		06/21/16 10:23	06/23/16 09:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*06/21/16 10:23*	*06/23/16 09:03*	*1*

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	**3700**	**H**	10		CFU/mL			06/14/16 14:36	10

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-5-W-060816
Date Collected: 06/08/16 16:00
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/16/16 15:44	1
Bromobenzene	ND		2.0		ug/L			06/16/16 15:44	1
Bromoform	ND		1.0		ug/L			06/16/16 15:44	1
Bromomethane	ND		5.0		ug/L			06/16/16 15:44	1
Carbon tetrachloride	ND		3.0		ug/L			06/16/16 15:44	1
Chlorobenzene	ND		2.0		ug/L			06/16/16 15:44	1
Chlorobromomethane	ND		2.0		ug/L			06/16/16 15:44	1
Chlorodibromomethane	ND		1.0		ug/L			06/16/16 15:44	1
Chloroethane	ND		5.0		ug/L			06/16/16 15:44	1
Chloroform	ND		5.0		ug/L			06/16/16 15:44	1
Chloromethane	ND		5.0		ug/L			06/16/16 15:44	1
2-Chlorotoluene	ND		3.0		ug/L			06/16/16 15:44	1
4-Chlorotoluene	ND		2.0		ug/L			06/16/16 15:44	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 15:44	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/16/16 15:44	1
Dibromomethane	ND		1.0		ug/L			06/16/16 15:44	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/16/16 15:44	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/16/16 15:44	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/16/16 15:44	1
Dichlorobromomethane	ND		2.0		ug/L			06/16/16 15:44	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/16/16 15:44	1
1,1-Dichloroethane	ND		2.0		ug/L			06/16/16 15:44	1
1,2-Dichloroethane	ND		1.0		ug/L			06/16/16 15:44	1
1,1-Dichloroethene	ND		2.0		ug/L			06/16/16 15:44	1
1,2-Dichloropropane	ND		1.0		ug/L			06/16/16 15:44	1
1,3-Dichloropropane	ND		1.0		ug/L			06/16/16 15:44	1
2,2-Dichloropropane	ND		3.0		ug/L			06/16/16 15:44	1
1,1-Dichloropropene	ND		3.0		ug/L			06/16/16 15:44	1
Ethylene Dibromide	ND		1.0		ug/L			06/16/16 15:44	1
Hexachlorobutadiene	ND		2.0		ug/L			06/16/16 15:44	1
Isopropylbenzene	ND		2.0		ug/L			06/16/16 15:44	1
4-Isopropyltoluene	ND		3.0		ug/L			06/16/16 15:44	1
Methylene Chloride	ND		5.0		ug/L			06/16/16 15:44	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/16/16 15:44	1
Naphthalene	ND		2.0		ug/L			06/16/16 15:44	1
n-Butylbenzene	**8.3**		3.0		ug/L			06/16/16 15:44	1
N-Propylbenzene	ND		3.0		ug/L			06/16/16 15:44	1
o-Xylene	**86**		2.0		ug/L			06/16/16 15:44	1
sec-Butylbenzene	ND		3.0		ug/L			06/16/16 15:44	1
Styrene	ND		5.0		ug/L			06/16/16 15:44	1
tert-Butylbenzene	ND		3.0		ug/L			06/16/16 15:44	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/16/16 15:44	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/16/16 15:44	1
Tetrachloroethene	ND		3.0		ug/L			06/16/16 15:44	1
Toluene	ND		2.0		ug/L			06/16/16 15:44	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/16/16 15:44	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 15:44	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/16/16 15:44	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/16/16 15:44	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-5-W-060816
Date Collected: 06/08/16 16:00
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.0		ug/L			06/16/16 15:44	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/16/16 15:44	1
Trichloroethene	ND		3.0		ug/L			06/16/16 15:44	1
Trichlorofluoromethane	ND		3.0		ug/L			06/16/16 15:44	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/16/16 15:44	1
1,2,4-Trimethylbenzene	**11**		3.0		ug/L			06/16/16 15:44	1
1,3,5-Trimethylbenzene	**9.4**		3.0		ug/L			06/16/16 15:44	1
Vinyl chloride	ND		1.0		ug/L			06/16/16 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*06/16/16 15:44*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/16/16 15:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 143*		*06/16/16 15:44*	*1*
Toluene-d8 (Surr)	*98*		*82 - 122*		*06/16/16 15:44*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/16/16 15:44*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**230**		10		ug/L			06/20/16 12:48	10
Ethylbenzene	**170**		30		ug/L			06/20/16 12:48	10
m-Xylene & p-Xylene	**230**		30		ug/L			06/20/16 12:48	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 125*		*06/20/16 12:48*	*10*
Dibromofluoromethane (Surr)	*102*		*77 - 118*		*06/20/16 12:48*	*10*
1,2-Dichloroethane-d4 (Surr)	*86*		*65 - 143*		*06/20/16 12:48*	*10*
Toluene-d8 (Surr)	*103*		*82 - 122*		*06/20/16 12:48*	*10*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/20/16 12:48*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**1.2**		0.050		mg/L			06/14/16 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*109*		*50 - 150*		*06/14/16 18:22*	*1*
4-Bromofluorobenzene (Surr)	*130*		*50 - 150*		*06/14/16 18:22*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.92**		0.10		mg/L		06/21/16 10:23	06/23/16 09:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*06/21/16 10:23*	*06/23/16 09:25*	*1*

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	**620**	**H**	10		CFU/mL			06/14/16 14:36	10

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-6-W-060816
Date Collected: 06/08/16 16:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/16/16 16:10	1
Bromobenzene	ND		2.0		ug/L			06/16/16 16:10	1
Bromoform	ND		1.0		ug/L			06/16/16 16:10	1
Bromomethane	ND		5.0		ug/L			06/16/16 16:10	1
Carbon tetrachloride	ND		3.0		ug/L			06/16/16 16:10	1
Chlorobenzene	ND		2.0		ug/L			06/16/16 16:10	1
Chlorobromomethane	ND		2.0		ug/L			06/16/16 16:10	1
Chlorodibromomethane	ND		1.0		ug/L			06/16/16 16:10	1
Chloroethane	ND		5.0		ug/L			06/16/16 16:10	1
Chloroform	ND		5.0		ug/L			06/16/16 16:10	1
Chloromethane	ND		5.0		ug/L			06/16/16 16:10	1
2-Chlorotoluene	ND		3.0		ug/L			06/16/16 16:10	1
4-Chlorotoluene	ND		2.0		ug/L			06/16/16 16:10	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/16/16 16:10	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 16:10	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/16/16 16:10	1
Dibromomethane	ND		1.0		ug/L			06/16/16 16:10	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/16/16 16:10	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/16/16 16:10	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/16/16 16:10	1
Dichlorobromomethane	ND		2.0		ug/L			06/16/16 16:10	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/16/16 16:10	1
1,1-Dichloroethane	ND		2.0		ug/L			06/16/16 16:10	1
1,2-Dichloroethane	ND		1.0		ug/L			06/16/16 16:10	1
1,1-Dichloroethene	ND		2.0		ug/L			06/16/16 16:10	1
1,2-Dichloropropane	ND		1.0		ug/L			06/16/16 16:10	1
1,3-Dichloropropane	ND		1.0		ug/L			06/16/16 16:10	1
2,2-Dichloropropane	ND		3.0		ug/L			06/16/16 16:10	1
1,1-Dichloropropene	ND		3.0		ug/L			06/16/16 16:10	1
Ethylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
Ethylene Dibromide	ND		1.0		ug/L			06/16/16 16:10	1
Hexachlorobutadiene	ND		2.0		ug/L			06/16/16 16:10	1
Isopropylbenzene	ND		2.0		ug/L			06/16/16 16:10	1
4-Isopropyltoluene	ND		3.0		ug/L			06/16/16 16:10	1
Methylene Chloride	ND		5.0		ug/L			06/16/16 16:10	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/16/16 16:10	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/16/16 16:10	1
Naphthalene	ND		2.0		ug/L			06/16/16 16:10	1
n-Butylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
N-Propylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
o-Xylene	ND		2.0		ug/L			06/16/16 16:10	1
sec-Butylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
Styrene	ND		5.0		ug/L			06/16/16 16:10	1
tert-Butylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/16/16 16:10	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/16/16 16:10	1
Tetrachloroethene	ND		3.0		ug/L			06/16/16 16:10	1
Toluene	ND		2.0		ug/L			06/16/16 16:10	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/16/16 16:10	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-6-W-060816
Date Collected: 06/08/16 16:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 16:10	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/16/16 16:10	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/16/16 16:10	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/16/16 16:10	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/16/16 16:10	1
Trichloroethene	ND		3.0		ug/L			06/16/16 16:10	1
Trichlorofluoromethane	ND		3.0		ug/L			06/16/16 16:10	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/16/16 16:10	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/16/16 16:10	1
Vinyl chloride	ND		1.0		ug/L			06/16/16 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*75 - 125*		*06/16/16 16:10*	*1*
Dibromofluoromethane (Surr)	*92*		*77 - 118*		*06/16/16 16:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 143*		*06/16/16 16:10*	*1*
Toluene-d8 (Surr)	*97*		*82 - 122*		*06/16/16 16:10*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/16/16 16:10*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 18:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*110*		*50 - 150*		*06/14/16 18:54*	*1*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*		*06/14/16 18:54*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.15**		0.10		mg/L		06/21/16 10:23	06/23/16 09:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*06/21/16 10:23*	*06/23/16 09:48*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-7-W-060816
Date Collected: 06/08/16 14:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/16/16 16:37	1
Bromobenzene	ND		2.0		ug/L			06/16/16 16:37	1
Bromoform	ND		1.0		ug/L			06/16/16 16:37	1
Bromomethane	ND		5.0		ug/L			06/16/16 16:37	1
Carbon tetrachloride	ND		3.0		ug/L			06/16/16 16:37	1
Chlorobenzene	ND		2.0		ug/L			06/16/16 16:37	1
Chlorobromomethane	ND		2.0		ug/L			06/16/16 16:37	1
Chlorodibromomethane	ND		1.0		ug/L			06/16/16 16:37	1
Chloroethane	ND		5.0		ug/L			06/16/16 16:37	1
Chloroform	ND		5.0		ug/L			06/16/16 16:37	1
Chloromethane	ND		5.0		ug/L			06/16/16 16:37	1
2-Chlorotoluene	ND		3.0		ug/L			06/16/16 16:37	1
4-Chlorotoluene	ND		2.0		ug/L			06/16/16 16:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/16/16 16:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 16:37	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/16/16 16:37	1
Dibromomethane	ND		1.0		ug/L			06/16/16 16:37	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/16/16 16:37	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/16/16 16:37	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/16/16 16:37	1
Dichlorobromomethane	ND		2.0		ug/L			06/16/16 16:37	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/16/16 16:37	1
1,1-Dichloroethane	ND		2.0		ug/L			06/16/16 16:37	1
1,2-Dichloroethane	ND		1.0		ug/L			06/16/16 16:37	1
1,1-Dichloroethene	ND		2.0		ug/L			06/16/16 16:37	1
1,2-Dichloropropane	ND		1.0		ug/L			06/16/16 16:37	1
1,3-Dichloropropane	ND		1.0		ug/L			06/16/16 16:37	1
2,2-Dichloropropane	ND		3.0		ug/L			06/16/16 16:37	1
1,1-Dichloropropene	ND		3.0		ug/L			06/16/16 16:37	1
Ethylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
Ethylene Dibromide	ND		1.0		ug/L			06/16/16 16:37	1
Hexachlorobutadiene	ND		2.0		ug/L			06/16/16 16:37	1
Isopropylbenzene	ND		2.0		ug/L			06/16/16 16:37	1
4-Isopropyltoluene	ND		3.0		ug/L			06/16/16 16:37	1
Methylene Chloride	ND		5.0		ug/L			06/16/16 16:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/16/16 16:37	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/16/16 16:37	1
Naphthalene	ND		2.0		ug/L			06/16/16 16:37	1
n-Butylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
N-Propylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
o-Xylene	ND		2.0		ug/L			06/16/16 16:37	1
sec-Butylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
Styrene	ND		5.0		ug/L			06/16/16 16:37	1
tert-Butylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/16/16 16:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/16/16 16:37	1
Tetrachloroethene	**18**		3.0		ug/L			06/16/16 16:37	1
Toluene	ND		2.0		ug/L			06/16/16 16:37	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/16/16 16:37	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-7-W-060816
Date Collected: 06/08/16 14:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-7
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 16:37	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/16/16 16:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/16/16 16:37	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/16/16 16:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/16/16 16:37	1
Trichloroethene	ND		3.0		ug/L			06/16/16 16:37	1
Trichlorofluoromethane	ND		3.0		ug/L			06/16/16 16:37	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/16/16 16:37	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/16/16 16:37	1
Vinyl chloride	ND		1.0		ug/L			06/16/16 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 125*		*06/16/16 16:37*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/16/16 16:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 143*		*06/16/16 16:37*	*1*
Toluene-d8 (Surr)	*99*		*82 - 122*		*06/16/16 16:37*	*1*
Trifluorotoluene (Surr)	*98*		*80 - 141*		*06/16/16 16:37*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 19:27*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*		*06/14/16 19:27*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		06/21/16 10:23	06/23/16 10:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/21/16 10:23*	*06/23/16 10:10*	*1*

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	**93**	**H**	1.0		CFU/mL			06/14/16 14:36	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-8-W-060716
Date Collected: 06/07/16 14:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 18:36	1
Bromobenzene	ND		2.0		ug/L			06/14/16 18:36	1
Bromoform	ND		1.0		ug/L			06/14/16 18:36	1
Bromomethane	ND		5.0		ug/L			06/14/16 18:36	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 18:36	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 18:36	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 18:36	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 18:36	1
Chloroethane	ND		5.0		ug/L			06/14/16 18:36	1
Chloroform	ND		5.0		ug/L			06/14/16 18:36	1
Chloromethane	ND		5.0		ug/L			06/14/16 18:36	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 18:36	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 18:36	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/14/16 18:36	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 18:36	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 18:36	1
Dibromomethane	ND		1.0		ug/L			06/14/16 18:36	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 18:36	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 18:36	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 18:36	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 18:36	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 18:36	1
1,1-Dichloroethane	ND		2.0		ug/L			06/14/16 18:36	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 18:36	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 18:36	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 18:36	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 18:36	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 18:36	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 18:36	1
Ethylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 18:36	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 18:36	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 18:36	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 18:36	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 18:36	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 18:36	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/14/16 18:36	1
Naphthalene	ND		2.0		ug/L			06/14/16 18:36	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
o-Xylene	ND		2.0		ug/L			06/14/16 18:36	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
Styrene	ND		5.0		ug/L			06/14/16 18:36	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 18:36	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 18:36	1
Tetrachloroethene	ND		3.0		ug/L			06/14/16 18:36	1
Toluene	ND		2.0		ug/L			06/14/16 18:36	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 18:36	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-8-W-060716
Date Collected: 06/07/16 14:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-8
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 18:36	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 18:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 18:36	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 18:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 18:36	1
Trichloroethene	ND		3.0		ug/L			06/14/16 18:36	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 18:36	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 18:36	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 18:36	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*06/14/16 18:36*	*1*
Dibromofluoromethane (Surr)	*97*		*77 - 118*		*06/14/16 18:36*	*1*
1,2-Dichloroethane-d4 (Surr)	*90*		*65 - 143*		*06/14/16 18:36*	*1*
Toluene-d8 (Surr)	*99*		*82 - 122*		*06/14/16 18:36*	*1*
Trifluorotoluene (Surr)	*102*		*80 - 141*		*06/14/16 18:36*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 20:00*	*1*
4-Bromofluorobenzene (Surr)	*97*		*50 - 150*		*06/14/16 20:00*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.11		mg/L		06/21/16 10:23	06/23/16 10:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*87*		*50 - 150*	*06/21/16 10:23*	*06/23/16 10:33*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-9-W-060816
Date Collected: 06/08/16 13:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/15/16 18:12	1
Bromobenzene	ND		2.0		ug/L			06/15/16 18:12	1
Bromoform	ND		1.0		ug/L			06/15/16 18:12	1
Bromomethane	ND		5.0		ug/L			06/15/16 18:12	1
Carbon tetrachloride	ND		3.0		ug/L			06/15/16 18:12	1
Chlorobenzene	ND		2.0		ug/L			06/15/16 18:12	1
Chlorobromomethane	ND		2.0		ug/L			06/15/16 18:12	1
Chlorodibromomethane	ND		1.0		ug/L			06/15/16 18:12	1
Chloroethane	ND		5.0		ug/L			06/15/16 18:12	1
Chloroform	ND		5.0		ug/L			06/15/16 18:12	1
Chloromethane	ND		5.0		ug/L			06/15/16 18:12	1
2-Chlorotoluene	ND	*	3.0		ug/L			06/15/16 18:12	1
4-Chlorotoluene	ND		2.0		ug/L			06/15/16 18:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/15/16 18:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 18:12	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/15/16 18:12	1
Dibromomethane	ND		1.0		ug/L			06/15/16 18:12	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/15/16 18:12	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/15/16 18:12	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/15/16 18:12	1
Dichlorobromomethane	ND		2.0		ug/L			06/15/16 18:12	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/15/16 18:12	1
1,1-Dichloroethane	ND		2.0		ug/L			06/15/16 18:12	1
1,2-Dichloroethane	ND		1.0		ug/L			06/15/16 18:12	1
1,1-Dichloroethene	ND	*	2.0		ug/L			06/15/16 18:12	1
1,2-Dichloropropane	ND		1.0		ug/L			06/15/16 18:12	1
1,3-Dichloropropane	ND		1.0		ug/L			06/15/16 18:12	1
2,2-Dichloropropane	ND		3.0		ug/L			06/15/16 18:12	1
1,1-Dichloropropene	ND		3.0		ug/L			06/15/16 18:12	1
Ethylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
Ethylene Dibromide	ND		1.0		ug/L			06/15/16 18:12	1
Hexachlorobutadiene	ND		2.0		ug/L			06/15/16 18:12	1
Isopropylbenzene	ND		2.0		ug/L			06/15/16 18:12	1
4-Isopropyltoluene	ND	*	3.0		ug/L			06/15/16 18:12	1
Methylene Chloride	ND		5.0		ug/L			06/15/16 18:12	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/15/16 18:12	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/15/16 18:12	1
Naphthalene	ND		2.0		ug/L			06/15/16 18:12	1
n-Butylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
N-Propylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
o-Xylene	ND		2.0		ug/L			06/15/16 18:12	1
sec-Butylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
Styrene	ND		5.0		ug/L			06/15/16 18:12	1
tert-Butylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/15/16 18:12	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/15/16 18:12	1
Tetrachloroethene	ND		3.0		ug/L			06/15/16 18:12	1
Toluene	ND		2.0		ug/L			06/15/16 18:12	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/15/16 18:12	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-9-W-060816
Date Collected: 06/08/16 13:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-9
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 18:12	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/15/16 18:12	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/15/16 18:12	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/15/16 18:12	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/15/16 18:12	1
Trichloroethene	ND		3.0		ug/L			06/15/16 18:12	1
Trichlorofluoromethane	ND		3.0		ug/L			06/15/16 18:12	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/15/16 18:12	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/15/16 18:12	1
Vinyl chloride	ND		1.0		ug/L			06/15/16 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*		*06/15/16 18:12*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/15/16 18:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*65 - 143*		*06/15/16 18:12*	*1*
Toluene-d8 (Surr)	*98*		*82 - 122*		*06/15/16 18:12*	*1*
Trifluorotoluene (Surr)	*98*		*80 - 141*		*06/15/16 18:12*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 20:32*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 150*		*06/14/16 20:32*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.11		mg/L		06/21/16 10:23	06/23/16 11:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*06/21/16 10:23*	*06/23/16 11:24*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-10-W-060816
Date Collected: 06/08/16 12:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/15/16 18:38	1
Bromobenzene	ND		2.0		ug/L			06/15/16 18:38	1
Bromoform	ND		1.0		ug/L			06/15/16 18:38	1
Bromomethane	ND		5.0		ug/L			06/15/16 18:38	1
Carbon tetrachloride	ND		3.0		ug/L			06/15/16 18:38	1
Chlorobenzene	ND		2.0		ug/L			06/15/16 18:38	1
Chlorobromomethane	ND		2.0		ug/L			06/15/16 18:38	1
Chlorodibromomethane	ND		1.0		ug/L			06/15/16 18:38	1
Chloroethane	ND		5.0		ug/L			06/15/16 18:38	1
Chloroform	ND		5.0		ug/L			06/15/16 18:38	1
Chloromethane	ND		5.0		ug/L			06/15/16 18:38	1
2-Chlorotoluene	ND	*	3.0		ug/L			06/15/16 18:38	1
4-Chlorotoluene	ND		2.0		ug/L			06/15/16 18:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/15/16 18:38	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 18:38	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/15/16 18:38	1
Dibromomethane	ND		1.0		ug/L			06/15/16 18:38	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/15/16 18:38	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/15/16 18:38	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/15/16 18:38	1
Dichlorobromomethane	ND		2.0		ug/L			06/15/16 18:38	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/15/16 18:38	1
1,1-Dichloroethane	ND		2.0		ug/L			06/15/16 18:38	1
1,2-Dichloroethane	ND		1.0		ug/L			06/15/16 18:38	1
1,1-Dichloroethene	ND	*	2.0		ug/L			06/15/16 18:38	1
1,2-Dichloropropane	ND		1.0		ug/L			06/15/16 18:38	1
1,3-Dichloropropane	ND		1.0		ug/L			06/15/16 18:38	1
2,2-Dichloropropane	ND		3.0		ug/L			06/15/16 18:38	1
1,1-Dichloropropene	ND		3.0		ug/L			06/15/16 18:38	1
Ethylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
Ethylene Dibromide	ND		1.0		ug/L			06/15/16 18:38	1
Hexachlorobutadiene	ND		2.0		ug/L			06/15/16 18:38	1
Isopropylbenzene	ND		2.0		ug/L			06/15/16 18:38	1
4-Isopropyltoluene	ND	*	3.0		ug/L			06/15/16 18:38	1
Methylene Chloride	ND		5.0		ug/L			06/15/16 18:38	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/15/16 18:38	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/15/16 18:38	1
Naphthalene	ND		2.0		ug/L			06/15/16 18:38	1
n-Butylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
N-Propylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
o-Xylene	ND		2.0		ug/L			06/15/16 18:38	1
sec-Butylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
Styrene	ND		5.0		ug/L			06/15/16 18:38	1
tert-Butylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/15/16 18:38	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/15/16 18:38	1
Tetrachloroethene	ND		3.0		ug/L			06/15/16 18:38	1
Toluene	ND		2.0		ug/L			06/15/16 18:38	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/15/16 18:38	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-10-W-060816
Date Collected: 06/08/16 12:50
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-10
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 18:38	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/15/16 18:38	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/15/16 18:38	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/15/16 18:38	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/15/16 18:38	1
Trichloroethene	ND		3.0		ug/L			06/15/16 18:38	1
Trichlorofluoromethane	ND		3.0		ug/L			06/15/16 18:38	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/15/16 18:38	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/15/16 18:38	1
Vinyl chloride	ND		1.0		ug/L			06/15/16 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 125*		*06/15/16 18:38*	*1*
Dibromofluoromethane (Surr)	*99*		*77 - 118*		*06/15/16 18:38*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*65 - 143*		*06/15/16 18:38*	*1*
Toluene-d8 (Surr)	*102*		*82 - 122*		*06/15/16 18:38*	*1*
Trifluorotoluene (Surr)	*96*		*80 - 141*		*06/15/16 18:38*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 21:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 21:37*	*1*
4-Bromofluorobenzene (Surr)	*99*		*50 - 150*		*06/14/16 21:37*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.11		mg/L		06/21/16 10:23	06/23/16 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*06/21/16 10:23*	*06/23/16 11:46*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-11-W-060816
Date Collected: 06/08/16 12:10
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/15/16 19:05	1
Bromobenzene	ND		2.0		ug/L			06/15/16 19:05	1
Bromoform	ND		1.0		ug/L			06/15/16 19:05	1
Bromomethane	ND		5.0		ug/L			06/15/16 19:05	1
Carbon tetrachloride	ND		3.0		ug/L			06/15/16 19:05	1
Chlorobenzene	ND		2.0		ug/L			06/15/16 19:05	1
Chlorobromomethane	ND		2.0		ug/L			06/15/16 19:05	1
Chlorodibromomethane	ND		1.0		ug/L			06/15/16 19:05	1
Chloroethane	ND		5.0		ug/L			06/15/16 19:05	1
Chloroform	ND		5.0		ug/L			06/15/16 19:05	1
Chloromethane	ND		5.0		ug/L			06/15/16 19:05	1
2-Chlorotoluene	ND	*	3.0		ug/L			06/15/16 19:05	1
4-Chlorotoluene	ND		2.0		ug/L			06/15/16 19:05	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/15/16 19:05	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 19:05	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/15/16 19:05	1
Dibromomethane	ND		1.0		ug/L			06/15/16 19:05	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/15/16 19:05	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/15/16 19:05	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/15/16 19:05	1
Dichlorobromomethane	ND		2.0		ug/L			06/15/16 19:05	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/15/16 19:05	1
1,1-Dichloroethane	ND		2.0		ug/L			06/15/16 19:05	1
1,2-Dichloroethane	ND		1.0		ug/L			06/15/16 19:05	1
1,1-Dichloroethene	ND	*	2.0		ug/L			06/15/16 19:05	1
1,2-Dichloropropane	ND		1.0		ug/L			06/15/16 19:05	1
1,3-Dichloropropane	ND		1.0		ug/L			06/15/16 19:05	1
2,2-Dichloropropane	ND		3.0		ug/L			06/15/16 19:05	1
1,1-Dichloropropene	ND		3.0		ug/L			06/15/16 19:05	1
Ethylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
Ethylene Dibromide	ND		1.0		ug/L			06/15/16 19:05	1
Hexachlorobutadiene	ND		2.0		ug/L			06/15/16 19:05	1
Isopropylbenzene	ND		2.0		ug/L			06/15/16 19:05	1
4-Isopropyltoluene	ND	*	3.0		ug/L			06/15/16 19:05	1
Methylene Chloride	ND		5.0		ug/L			06/15/16 19:05	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/15/16 19:05	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/15/16 19:05	1
Naphthalene	ND		2.0		ug/L			06/15/16 19:05	1
n-Butylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
N-Propylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
o-Xylene	ND		2.0		ug/L			06/15/16 19:05	1
sec-Butylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
Styrene	ND		5.0		ug/L			06/15/16 19:05	1
tert-Butylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/15/16 19:05	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/15/16 19:05	1
Tetrachloroethene	ND		3.0		ug/L			06/15/16 19:05	1
Toluene	ND		2.0		ug/L			06/15/16 19:05	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/15/16 19:05	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-11-W-060816
Date Collected: 06/08/16 12:10
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-11
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 19:05	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/15/16 19:05	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/15/16 19:05	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/15/16 19:05	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/15/16 19:05	1
Trichloroethene	ND		3.0		ug/L			06/15/16 19:05	1
Trichlorofluoromethane	ND		3.0		ug/L			06/15/16 19:05	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/15/16 19:05	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/15/16 19:05	1
Vinyl chloride	ND		1.0		ug/L			06/15/16 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 125*		*06/15/16 19:05*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/15/16 19:05*	*1*
1,2-Dichloroethane-d4 (Surr)	*91*		*65 - 143*		*06/15/16 19:05*	*1*
Toluene-d8 (Surr)	*98*		*82 - 122*		*06/15/16 19:05*	*1*
Trifluorotoluene (Surr)	*98*		*80 - 141*		*06/15/16 19:05*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*109*		*50 - 150*		*06/14/16 22:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*		*06/14/16 22:10*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.11		mg/L		06/21/16 10:23	06/23/16 12:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*06/21/16 10:23*	*06/23/16 12:09*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: BD-1-W-060716
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 19:29	1
Bromobenzene	ND		2.0		ug/L			06/14/16 19:29	1
Bromoform	ND		1.0		ug/L			06/14/16 19:29	1
Bromomethane	ND		5.0		ug/L			06/14/16 19:29	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 19:29	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 19:29	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 19:29	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 19:29	1
Chloroethane	ND		5.0		ug/L			06/14/16 19:29	1
Chloroform	ND		5.0		ug/L			06/14/16 19:29	1
Chloromethane	ND		5.0		ug/L			06/14/16 19:29	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 19:29	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 19:29	1
cis-1,2-Dichloroethene	**30**		1.0		ug/L			06/14/16 19:29	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:29	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 19:29	1
Dibromomethane	ND		1.0		ug/L			06/14/16 19:29	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:29	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 19:29	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 19:29	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 19:29	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 19:29	1
1,1-Dichloroethane	**2.0**		2.0		ug/L			06/14/16 19:29	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 19:29	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 19:29	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 19:29	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 19:29	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 19:29	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 19:29	1
Ethylbenzene	**7.1**		3.0		ug/L			06/14/16 19:29	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 19:29	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 19:29	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 19:29	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 19:29	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 19:29	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 19:29	1
m-Xylene & p-Xylene	**8.9**		3.0		ug/L			06/14/16 19:29	1
Naphthalene	ND		2.0		ug/L			06/14/16 19:29	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
o-Xylene	**2.9**		2.0		ug/L			06/14/16 19:29	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
Styrene	ND		5.0		ug/L			06/14/16 19:29	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 19:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 19:29	1
Tetrachloroethene	**21**		3.0		ug/L			06/14/16 19:29	1
Toluene	ND		2.0		ug/L			06/14/16 19:29	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 19:29	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: BD-1-W-060716
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-12
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 19:29	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 19:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 19:29	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 19:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 19:29	1
Trichloroethene	**9.2**		3.0		ug/L			06/14/16 19:29	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 19:29	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 19:29	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 19:29	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*06/14/16 19:29*	*1*
Dibromofluoromethane (Surr)	*97*		*77 - 118*		*06/14/16 19:29*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 143*		*06/14/16 19:29*	*1*
Toluene-d8 (Surr)	*99*		*82 - 122*		*06/14/16 19:29*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 141*		*06/14/16 19:29*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*108*		*50 - 150*		*06/14/16 22:43*	*1*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*		*06/14/16 22:43*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.36**		0.10		mg/L		06/21/16 10:23	06/23/16 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*06/21/16 10:23*	*06/23/16 12:32*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: BD-2-W-060716
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 18:09	1
Bromobenzene	ND		2.0		ug/L			06/14/16 18:09	1
Bromoform	ND		1.0		ug/L			06/14/16 18:09	1
Bromomethane	ND		5.0		ug/L			06/14/16 18:09	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 18:09	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 18:09	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 18:09	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 18:09	1
Chloroethane	ND		5.0		ug/L			06/14/16 18:09	1
Chloroform	ND		5.0		ug/L			06/14/16 18:09	1
Chloromethane	ND		5.0		ug/L			06/14/16 18:09	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 18:09	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 18:09	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 18:09	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 18:09	1
Dibromomethane	ND		1.0		ug/L			06/14/16 18:09	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 18:09	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 18:09	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 18:09	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 18:09	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 18:09	1
1,1-Dichloroethane	ND		2.0		ug/L			06/14/16 18:09	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 18:09	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 18:09	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 18:09	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 18:09	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 18:09	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 18:09	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 18:09	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 18:09	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 18:09	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 18:09	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 18:09	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 18:09	1
Naphthalene	ND		2.0		ug/L			06/14/16 18:09	1
n-Butylbenzene	**8.2**		3.0		ug/L			06/14/16 18:09	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 18:09	1
o-Xylene	**89**		2.0		ug/L			06/14/16 18:09	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 18:09	1
Styrene	ND		5.0		ug/L			06/14/16 18:09	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 18:09	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 18:09	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 18:09	1
Tetrachloroethene	ND		3.0		ug/L			06/14/16 18:09	1
Toluene	ND		2.0		ug/L			06/14/16 18:09	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 18:09	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 18:09	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 18:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 18:09	1

Client Sample ID: BD-2-W-060716
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-13
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 18:09	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 18:09	1
Trichloroethene	ND		3.0		ug/L			06/14/16 18:09	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 18:09	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 18:09	1
1,2,4-Trimethylbenzene	**12**		3.0		ug/L			06/14/16 18:09	1
1,3,5-Trimethylbenzene	**9.8**		3.0		ug/L			06/14/16 18:09	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*06/14/16 18:09*	*1*
Dibromofluoromethane (Surr)	*95*		*77 - 118*		*06/14/16 18:09*	*1*
1,2-Dichloroethane-d4 (Surr)	*94*		*65 - 143*		*06/14/16 18:09*	*1*
Toluene-d8 (Surr)	*99*		*82 - 122*		*06/14/16 18:09*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 141*		*06/14/16 18:09*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	**240**		10		ug/L			06/15/16 17:45	10
Ethylbenzene	**170**		30		ug/L			06/15/16 17:45	10
m-Xylene & p-Xylene	**230**		30		ug/L			06/15/16 17:45	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*75 - 125*		*06/15/16 17:45*	*10*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/15/16 17:45*	*10*
1,2-Dichloroethane-d4 (Surr)	*91*		*65 - 143*		*06/15/16 17:45*	*10*
Toluene-d8 (Surr)	*100*		*82 - 122*		*06/15/16 17:45*	*10*
Trifluorotoluene (Surr)	*95*		*80 - 141*		*06/15/16 17:45*	*10*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	**1.2**		0.050		mg/L			06/15/16 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*105*		*50 - 150*		*06/15/16 20:57*	*1*
4-Bromofluorobenzene (Surr)	*132*		*50 - 150*		*06/15/16 20:57*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.85**		0.11		mg/L		06/21/16 10:23	06/23/16 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*06/21/16 10:23*	*06/23/16 12:55*	*1*

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: Trip Blank
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 17:43	1
Bromobenzene	ND		2.0		ug/L			06/14/16 17:43	1
Bromoform	ND		1.0		ug/L			06/14/16 17:43	1
Bromomethane	ND		5.0		ug/L			06/14/16 17:43	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 17:43	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 17:43	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 17:43	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 17:43	1
Chloroethane	ND		5.0		ug/L			06/14/16 17:43	1
Chloroform	ND		5.0		ug/L			06/14/16 17:43	1
Chloromethane	ND		5.0		ug/L			06/14/16 17:43	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 17:43	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 17:43	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/14/16 17:43	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 17:43	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 17:43	1
Dibromomethane	ND		1.0		ug/L			06/14/16 17:43	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 17:43	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 17:43	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 17:43	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 17:43	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 17:43	1
1,1-Dichloroethane	ND		2.0		ug/L			06/14/16 17:43	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 17:43	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 17:43	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 17:43	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 17:43	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 17:43	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 17:43	1
Ethylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 17:43	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 17:43	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 17:43	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 17:43	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 17:43	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 17:43	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/14/16 17:43	1
Naphthalene	ND		2.0		ug/L			06/14/16 17:43	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
o-Xylene	ND		2.0		ug/L			06/14/16 17:43	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
Styrene	ND		5.0		ug/L			06/14/16 17:43	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 17:43	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 17:43	1
Tetrachloroethene	ND		3.0		ug/L			06/14/16 17:43	1
Toluene	ND		2.0		ug/L			06/14/16 17:43	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 17:43	1

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: Trip Blank
Date Collected: 06/07/16 00:01
Date Received: 06/11/16 09:45

Lab Sample ID: 580-60244-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 17:43	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 17:43	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 17:43	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 17:43	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 17:43	1
Trichloroethene	ND		3.0		ug/L			06/14/16 17:43	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 17:43	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 17:43	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 17:43	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*75 - 125*		*06/14/16 17:43*	*1*
Dibromofluoromethane (Surr)	*96*		*77 - 118*		*06/14/16 17:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 143*		*06/14/16 17:43*	*1*
Toluene-d8 (Surr)	*102*		*82 - 122*		*06/14/16 17:43*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 141*		*06/14/16 17:43*	*1*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*110*		*50 - 150*		*06/14/16 14:34*	*1*
4-Bromofluorobenzene (Surr)	*96*		*50 - 150*		*06/14/16 14:34*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-219713/5
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/14/16 10:37	1
Bromobenzene	ND		2.0		ug/L			06/14/16 10:37	1
Bromoform	ND		1.0		ug/L			06/14/16 10:37	1
Bromomethane	ND		5.0		ug/L			06/14/16 10:37	1
Carbon tetrachloride	ND		3.0		ug/L			06/14/16 10:37	1
Chlorobenzene	ND		2.0		ug/L			06/14/16 10:37	1
Chlorobromomethane	ND		2.0		ug/L			06/14/16 10:37	1
Chlorodibromomethane	ND		1.0		ug/L			06/14/16 10:37	1
Chloroethane	ND		5.0		ug/L			06/14/16 10:37	1
Chloroform	ND		5.0		ug/L			06/14/16 10:37	1
Chloromethane	ND		5.0		ug/L			06/14/16 10:37	1
2-Chlorotoluene	ND		3.0		ug/L			06/14/16 10:37	1
4-Chlorotoluene	ND		2.0		ug/L			06/14/16 10:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/14/16 10:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 10:37	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/14/16 10:37	1
Dibromomethane	ND		1.0		ug/L			06/14/16 10:37	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/14/16 10:37	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/14/16 10:37	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/14/16 10:37	1
Dichlorobromomethane	ND		2.0		ug/L			06/14/16 10:37	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/14/16 10:37	1
1,1-Dichloroethane	ND		2.0		ug/L			06/14/16 10:37	1
1,2-Dichloroethane	ND		1.0		ug/L			06/14/16 10:37	1
1,1-Dichloroethene	ND		2.0		ug/L			06/14/16 10:37	1
1,2-Dichloropropane	ND		1.0		ug/L			06/14/16 10:37	1
1,3-Dichloropropane	ND		1.0		ug/L			06/14/16 10:37	1
2,2-Dichloropropane	ND		3.0		ug/L			06/14/16 10:37	1
1,1-Dichloropropene	ND		3.0		ug/L			06/14/16 10:37	1
Ethylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
Ethylene Dibromide	ND		1.0		ug/L			06/14/16 10:37	1
Hexachlorobutadiene	ND		2.0		ug/L			06/14/16 10:37	1
Isopropylbenzene	ND		2.0		ug/L			06/14/16 10:37	1
4-Isopropyltoluene	ND		3.0		ug/L			06/14/16 10:37	1
Methylene Chloride	ND		5.0		ug/L			06/14/16 10:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/14/16 10:37	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/14/16 10:37	1
Naphthalene	ND		2.0		ug/L			06/14/16 10:37	1
n-Butylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
N-Propylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
o-Xylene	ND		2.0		ug/L			06/14/16 10:37	1
sec-Butylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
Styrene	ND		5.0		ug/L			06/14/16 10:37	1
tert-Butylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/14/16 10:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/14/16 10:37	1
Tetrachloroethene	ND		3.0		ug/L			06/14/16 10:37	1
Toluene	ND		2.0		ug/L			06/14/16 10:37	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-219713/5
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/14/16 10:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/14/16 10:37	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/14/16 10:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/14/16 10:37	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/14/16 10:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/14/16 10:37	1
Trichloroethene	ND		3.0		ug/L			06/14/16 10:37	1
Trichlorofluoromethane	ND		3.0		ug/L			06/14/16 10:37	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/14/16 10:37	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/14/16 10:37	1
Vinyl chloride	ND		1.0		ug/L			06/14/16 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*		*06/14/16 10:37*	*1*
Dibromofluoromethane (Surr)	*95*		*77 - 118*		*06/14/16 10:37*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*65 - 143*		*06/14/16 10:37*	*1*
Toluene-d8 (Surr)	*101*		*82 - 122*		*06/14/16 10:37*	*1*
Trifluorotoluene (Surr)	*99*		*80 - 141*		*06/14/16 10:37*	*1*

Lab Sample ID: LCS 580-219713/6
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.1		ug/L		101	80 - 120
Bromobenzene	10.0	9.60		ug/L		96	75 - 115
Bromoform	10.0	9.05		ug/L		90	55 - 130
Bromomethane	10.0	9.44		ug/L		94	55 - 125
Carbon tetrachloride	10.0	9.62		ug/L		96	65 - 124
Chlorobenzene	10.0	9.92		ug/L		99	80 - 120
Chlorobromomethane	10.0	10.5		ug/L		105	65 - 120
Chlorodibromomethane	10.0	8.90		ug/L		89	71 - 118
Chloroethane	10.0	9.93		ug/L		99	60 - 126
Chloroform	10.0	9.29		ug/L		93	80 - 119
Chloromethane	10.0	9.26		ug/L		93	40 - 149
2-Chlorotoluene	10.0	8.85		ug/L		89	69 - 125
4-Chlorotoluene	10.0	9.48		ug/L		95	68 - 121
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	70 - 111
cis-1,3-Dichloropropene	10.0	10.0		ug/L		100	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	58 - 141
Dibromomethane	10.0	10.4		ug/L		103	61 - 142
1,2-Dichlorobenzene	10.0	9.87		ug/L		99	70 - 120
1,3-Dichlorobenzene	10.0	8.63		ug/L		86	72 - 116
1,4-Dichlorobenzene	10.0	9.24		ug/L		92	75 - 117
Dichlorobromomethane	10.0	9.74		ug/L		97	75 - 120
Dichlorodifluoromethane	10.0	8.29		ug/L		83	20 - 141
1,1-Dichloroethane	10.0	10.2		ug/L		102	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-219713/6
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	10.0	9.13		ug/L		91	58 - 143
1,1-Dichloroethene	10.1	9.72		ug/L		96	70 - 117
1,2-Dichloropropane	10.0	10.3		ug/L		103	58 - 150
1,3-Dichloropropane	10.0	9.18		ug/L		92	69 - 134
2,2-Dichloropropane	10.0	8.85		ug/L		89	50 - 140
1,1-Dichloropropene	10.0	9.33		ug/L		93	75 - 120
Ethylbenzene	10.0	9.70		ug/L		97	75 - 119
Ethylene Dibromide	10.0	10.6		ug/L		106	66 - 133
Hexachlorobutadiene	10.0	9.27		ug/L		93	56 - 125
Isopropylbenzene	10.0	9.50		ug/L		95	75 - 125
4-Isopropyltoluene	10.0	9.19		ug/L		92	66 - 120
Methylene Chloride	10.0	10.1		ug/L		101	70 - 115
Methyl tert-butyl ether	10.0	9.39		ug/L		94	65 - 125
m-Xylene & p-Xylene	10.0	9.41		ug/L		94	75 - 119
Naphthalene	10.0	9.18		ug/L		92	55 - 134
n-Butylbenzene	10.0	9.91		ug/L		99	70 - 120
N-Propylbenzene	10.0	9.27		ug/L		93	70 - 124
o-Xylene	10.0	9.60		ug/L		96	74 - 120
sec-Butylbenzene	10.0	9.35		ug/L		93	70 - 125
Styrene	10.0	9.40		ug/L		94	76 - 116
tert-Butylbenzene	10.0	8.81		ug/L		88	70 - 121
1,1,1,2-Tetrachloroethane	10.0	8.93		ug/L		89	64 - 130
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	65 - 130
Tetrachloroethene	10.0	10.8		ug/L		107	70 - 124
Toluene	10.0	9.77		ug/L		98	75 - 120
trans-1,2-Dichloroethene	10.0	9.84		ug/L		98	72 - 113
trans-1,3-Dichloropropene	10.0	9.62		ug/L		96	73 - 122
1,2,3-Trichlorobenzene	10.0	9.23		ug/L		92	55 - 133
1,2,4-Trichlorobenzene	10.0	8.62		ug/L		86	56 - 129
1,1,1-Trichloroethane	10.0	9.36		ug/L		93	65 - 130
1,1,2-Trichloroethane	10.0	9.08		ug/L		91	69 - 135
Trichloroethene	10.0	9.50		ug/L		95	70 - 125
Trichlorofluoromethane	10.0	9.31		ug/L		93	49 - 130
1,2,3-Trichloropropane	10.0	8.26		ug/L		83	65 - 135
1,2,4-Trimethylbenzene	10.0	8.66		ug/L		87	75 - 121
1,3,5-Trimethylbenzene	10.0	8.60		ug/L		86	75 - 122
Vinyl chloride	10.0	10.5		ug/L		105	56 - 114

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*75 - 125*
Dibromofluoromethane (Surr)	*95*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*96*		*65 - 143*
Toluene-d8 (Surr)	*100*		*82 - 122*
Trifluorotoluene (Surr)	*100*		*80 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-219713/7
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	10.1		ug/L		101	80 - 120	0	14
Bromobenzene	10.0	10.2		ug/L		102	75 - 115	6	13
Bromoform	10.0	8.59		ug/L		86	55 - 130	5	20
Bromomethane	10.0	10.1		ug/L		101	55 - 125	7	30
Carbon tetrachloride	10.0	8.87		ug/L		89	65 - 124	8	19
Chlorobenzene	10.0	9.56		ug/L		95	80 - 120	4	15
Chlorobromomethane	10.0	9.23		ug/L		92	65 - 120	13	17
Chlorodibromomethane	10.0	8.49		ug/L		85	71 - 118	5	21
Chloroethane	10.0	10.5		ug/L		105	60 - 126	5	30
Chloroform	10.0	8.94		ug/L		89	80 - 119	4	15
Chloromethane	10.0	9.48		ug/L		95	40 - 149	2	22
2-Chlorotoluene	10.0	9.36		ug/L		94	69 - 125	6	15
4-Chlorotoluene	10.0	10.2		ug/L		102	68 - 121	8	15
cis-1,2-Dichloroethene	10.0	9.10		ug/L		91	70 - 111	0	15
cis-1,3-Dichloropropene	10.0	9.67		ug/L		96	77 - 117	3	24
1,2-Dibromo-3-Chloropropane	10.0	9.78	J	ug/L		98	58 - 141	3	30
Dibromomethane	10.0	10.3		ug/L		103	61 - 142	1	15
1,2-Dichlorobenzene	10.0	9.02		ug/L		90	70 - 120	9	15
1,3-Dichlorobenzene	10.0	9.30		ug/L		93	72 - 116	7	14
1,4-Dichlorobenzene	10.0	9.84		ug/L		98	75 - 117	6	17
Dichlorobromomethane	10.0	9.40		ug/L		94	75 - 120	4	14
Dichlorodifluoromethane	10.0	8.78		ug/L		88	20 - 141	6	35
1,1-Dichloroethane	10.0	9.72		ug/L		97	70 - 135	5	20
1,2-Dichloroethane	10.0	9.29		ug/L		93	58 - 143	2	17
1,1-Dichloroethene	10.1	10.3		ug/L		102	70 - 117	5	21
1,2-Dichloropropane	10.0	10.5		ug/L		105	58 - 150	3	15
1,3-Dichloropropane	10.0	9.95		ug/L		99	69 - 134	8	23
2,2-Dichloropropane	10.0	8.85		ug/L		89	50 - 140	0	20
1,1-Dichloropropene	10.0	9.95		ug/L		99	75 - 120	7	20
Ethylbenzene	10.0	9.40		ug/L		94	75 - 119	3	14
Ethylene Dibromide	10.0	10.2		ug/L		102	66 - 133	4	17
Hexachlorobutadiene	10.0	10.5		ug/L		105	56 - 125	13	19
Isopropylbenzene	10.0	9.21		ug/L		92	75 - 125	3	20
4-Isopropyltoluene	10.0	9.19		ug/L		92	66 - 120	0	13
Methylene Chloride	10.0	11.2		ug/L		111	70 - 115	10	19
Methyl tert-butyl ether	10.0	10.2		ug/L		102	65 - 125	8	18
m-Xylene & p-Xylene	10.0	9.00		ug/L		90	75 - 119	5	14
Naphthalene	10.0	9.34		ug/L		93	55 - 134	2	30
n-Butylbenzene	10.0	8.78		ug/L		88	70 - 120	12	20
N-Propylbenzene	10.0	9.86		ug/L		99	70 - 124	6	13
o-Xylene	10.0	9.41		ug/L		94	74 - 120	2	16
sec-Butylbenzene	10.0	9.25		ug/L		92	70 - 125	1	15
Styrene	10.0	8.99		ug/L		90	76 - 116	4	16
tert-Butylbenzene	10.0	9.18		ug/L		92	70 - 121	4	14
1,1,1,2-Tetrachloroethane	10.0	8.08		ug/L		80	64 - 130	10	20
1,1,2,2-Tetrachloroethane	10.0	10.5		ug/L		105	65 - 130	1	18
Tetrachloroethene	10.0	9.32		ug/L		93	70 - 124	14	20
Toluene	10.0	9.73		ug/L		97	75 - 120	0	19

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-219713/7
Matrix: Water
Analysis Batch: 219713

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			10.0	9.42		ug/L		94	72 - 113	4	21
trans-1,3-Dichloropropene			10.0	9.63		ug/L		96	73 - 122	0	30
1,2,3-Trichlorobenzene			10.0	9.22		ug/L		92	55 - 133	0	35
1,2,4-Trichlorobenzene			10.0	9.16		ug/L		92	56 - 129	6	22
1,1,1-Trichloroethane			10.0	9.00		ug/L		90	65 - 130	4	18
1,1,2-Trichloroethane			10.0	9.68		ug/L		97	69 - 135	6	24
Trichloroethene			10.0	10.1		ug/L		101	70 - 125	6	23
Trichlorofluoromethane			10.0	8.50		ug/L		85	49 - 130	9	35
1,2,3-Trichloropropane			10.0	9.12		ug/L		91	65 - 135	10	22
1,2,4-Trimethylbenzene			10.0	8.93		ug/L		89	75 - 121	3	16
1,3,5-Trimethylbenzene			10.0	9.05		ug/L		90	75 - 122	5	14
Vinyl chloride			10.0	10.6		ug/L		106	56 - 114	1	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*75 - 125*
Dibromofluoromethane (Surr)	*95*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*95*		*65 - 143*
Toluene-d8 (Surr)	*94*		*82 - 122*
Trifluorotoluene (Surr)	*100*		*80 - 141*

Lab Sample ID: MB 580-219849/5
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/15/16 10:41	1
Bromobenzene	ND		2.0		ug/L			06/15/16 10:41	1
Bromoform	ND		1.0		ug/L			06/15/16 10:41	1
Bromomethane	ND		5.0		ug/L			06/15/16 10:41	1
Carbon tetrachloride	ND		3.0		ug/L			06/15/16 10:41	1
Chlorobenzene	ND		2.0		ug/L			06/15/16 10:41	1
Chlorobromomethane	ND		2.0		ug/L			06/15/16 10:41	1
Chlorodibromomethane	ND		1.0		ug/L			06/15/16 10:41	1
Chloroethane	ND		5.0		ug/L			06/15/16 10:41	1
Chloroform	ND		5.0		ug/L			06/15/16 10:41	1
Chloromethane	ND		5.0		ug/L			06/15/16 10:41	1
2-Chlorotoluene	ND		3.0		ug/L			06/15/16 10:41	1
4-Chlorotoluene	ND		2.0		ug/L			06/15/16 10:41	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/15/16 10:41	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 10:41	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/15/16 10:41	1
Dibromomethane	ND		1.0		ug/L			06/15/16 10:41	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/15/16 10:41	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/15/16 10:41	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/15/16 10:41	1
Dichlorobromomethane	ND		2.0		ug/L			06/15/16 10:41	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/15/16 10:41	1
1,1-Dichloroethane	ND		2.0		ug/L			06/15/16 10:41	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-219849/5
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0		ug/L			06/15/16 10:41	1
1,1-Dichloroethene	ND		2.0		ug/L			06/15/16 10:41	1
1,2-Dichloropropane	ND		1.0		ug/L			06/15/16 10:41	1
1,3-Dichloropropane	ND		1.0		ug/L			06/15/16 10:41	1
2,2-Dichloropropane	ND		3.0		ug/L			06/15/16 10:41	1
1,1-Dichloropropene	ND		3.0		ug/L			06/15/16 10:41	1
Ethylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
Ethylene Dibromide	ND		1.0		ug/L			06/15/16 10:41	1
Hexachlorobutadiene	ND		2.0		ug/L			06/15/16 10:41	1
Isopropylbenzene	ND		2.0		ug/L			06/15/16 10:41	1
4-Isopropyltoluene	ND		3.0		ug/L			06/15/16 10:41	1
Methylene Chloride	ND		5.0		ug/L			06/15/16 10:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/15/16 10:41	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/15/16 10:41	1
Naphthalene	ND		2.0		ug/L			06/15/16 10:41	1
n-Butylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
N-Propylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
o-Xylene	ND		2.0		ug/L			06/15/16 10:41	1
sec-Butylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
Styrene	ND		5.0		ug/L			06/15/16 10:41	1
tert-Butylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/15/16 10:41	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/15/16 10:41	1
Tetrachloroethene	ND		3.0		ug/L			06/15/16 10:41	1
Toluene	ND		2.0		ug/L			06/15/16 10:41	1
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/15/16 10:41	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/15/16 10:41	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/15/16 10:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/15/16 10:41	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/15/16 10:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/15/16 10:41	1
Trichloroethene	ND		3.0		ug/L			06/15/16 10:41	1
Trichlorofluoromethane	ND		3.0		ug/L			06/15/16 10:41	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/15/16 10:41	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/15/16 10:41	1
Vinyl chloride	ND		1.0		ug/L			06/15/16 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*75 - 125*		*06/15/16 10:41*	*1*
Dibromofluoromethane (Surr)	*94*		*77 - 118*		*06/15/16 10:41*	*1*
1,2-Dichloroethane-d4 (Surr)	*88*		*65 - 143*		*06/15/16 10:41*	*1*
Toluene-d8 (Surr)	*102*		*82 - 122*		*06/15/16 10:41*	*1*
Trifluorotoluene (Surr)	*98*		*80 - 141*		*06/15/16 10:41*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-219849/6
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	11.1		ug/L		111	80 - 120
Bromobenzene	10.0	9.53		ug/L		95	75 - 115
Bromoform	10.0	8.63		ug/L		86	55 - 130
Bromomethane	10.0	10.9		ug/L		109	55 - 125
Carbon tetrachloride	10.0	9.08		ug/L		91	65 - 124
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chlorobromomethane	10.0	9.70		ug/L		97	65 - 120
Chlorodibromomethane	10.0	9.43		ug/L		94	71 - 118
Chloroethane	10.0	11.8		ug/L		118	60 - 126
Chloroform	10.0	9.06		ug/L		91	80 - 119
Chloromethane	10.0	9.24		ug/L		92	40 - 149
2-Chlorotoluene	10.0	8.91		ug/L		89	69 - 125
4-Chlorotoluene	10.0	10.1		ug/L		100	68 - 121
cis-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 111
cis-1,3-Dichloropropene	10.0	9.93		ug/L		99	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	8.44	J	ug/L		84	58 - 141
Dibromomethane	10.0	9.95		ug/L		99	61 - 142
1,2-Dichlorobenzene	10.0	9.57		ug/L		96	70 - 120
1,3-Dichlorobenzene	10.0	9.71		ug/L		97	72 - 116
1,4-Dichlorobenzene	10.0	9.54		ug/L		95	75 - 117
Dichlorobromomethane	10.0	9.34		ug/L		93	75 - 120
Dichlorodifluoromethane	10.0	7.12		ug/L		71	20 - 141
1,1-Dichloroethane	10.0	10.2		ug/L		102	70 - 135
1,2-Dichloroethane	10.0	8.77		ug/L		88	58 - 143
1,1-Dichloroethene	10.1	12.0	*	ug/L		119	70 - 117
1,2-Dichloropropane	10.0	11.5		ug/L		115	58 - 150
1,3-Dichloropropane	10.0	10.0		ug/L		100	69 - 134
2,2-Dichloropropane	10.0	8.80		ug/L		88	50 - 140
1,1-Dichloropropene	10.0	9.45		ug/L		94	75 - 120
Ethylbenzene	10.0	10.1		ug/L		101	75 - 119
Ethylene Dibromide	10.0	10.4		ug/L		104	66 - 133
Hexachlorobutadiene	10.0	8.61		ug/L		86	56 - 125
Isopropylbenzene	10.0	9.79		ug/L		98	75 - 125
4-Isopropyltoluene	10.0	8.84		ug/L		88	66 - 120
Methylene Chloride	10.0	11.0		ug/L		110	70 - 115
Methyl tert-butyl ether	10.0	9.42		ug/L		94	65 - 125
m-Xylene & p-Xylene	10.0	9.95		ug/L		99	75 - 119
Naphthalene	10.0	8.63		ug/L		86	55 - 134
n-Butylbenzene	10.0	10.4		ug/L		104	70 - 120
N-Propylbenzene	10.0	10.0		ug/L		100	70 - 124
o-Xylene	10.0	9.43		ug/L		94	74 - 120
sec-Butylbenzene	10.0	9.42		ug/L		94	70 - 125
Styrene	10.0	10.4		ug/L		103	76 - 116
tert-Butylbenzene	10.0	9.13		ug/L		91	70 - 121
1,1,1,2-Tetrachloroethane	10.0	8.86		ug/L		88	64 - 130
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	65 - 130
Tetrachloroethene	10.0	9.59		ug/L		96	70 - 124
Toluene	10.0	10.5		ug/L		105	75 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-219849/6
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	10.0	9.87		ug/L		99	72 - 113
trans-1,3-Dichloropropene	10.0	9.41		ug/L		94	73 - 122
1,2,3-Trichlorobenzene	10.0	8.37		ug/L		84	55 - 133
1,2,4-Trichlorobenzene	10.0	8.48		ug/L		85	56 - 129
1,1,1-Trichloroethane	10.0	9.06		ug/L		90	65 - 130
1,1,2-Trichloroethane	10.0	9.78		ug/L		98	69 - 135
Trichloroethene	10.0	9.54		ug/L		95	70 - 125
Trichlorofluoromethane	10.0	8.98		ug/L		90	49 - 130
1,2,3-Trichloropropane	10.0	8.57		ug/L		86	65 - 135
1,2,4-Trimethylbenzene	10.0	9.03		ug/L		90	75 - 121
1,3,5-Trimethylbenzene	10.0	9.11		ug/L		91	75 - 122
Vinyl chloride	10.0	10.8		ug/L		108	56 - 114

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*75 - 125*
Dibromofluoromethane (Surr)	*92*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*88*		*65 - 143*
Toluene-d8 (Surr)	*97*		*82 - 122*
Trifluorotoluene (Surr)	*102*		*80 - 141*

Lab Sample ID: LCSD 580-219849/7
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	11.2		ug/L		112	80 - 120	1	14
Bromobenzene	10.0	10.3		ug/L		103	75 - 115	8	13
Bromoform	10.0	9.26		ug/L		92	55 - 130	7	20
Bromomethane	10.0	10.6		ug/L		106	55 - 125	3	30
Carbon tetrachloride	10.0	9.44		ug/L		94	65 - 124	4	19
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120	4	15
Chlorobromomethane	10.0	10.5		ug/L		104	65 - 120	8	17
Chlorodibromomethane	10.0	9.26		ug/L		92	71 - 118	2	21
Chloroethane	10.0	10.8		ug/L		108	60 - 126	9	30
Chloroform	10.0	10.2		ug/L		102	80 - 119	12	15
Chloromethane	10.0	8.89		ug/L		89	40 - 149	4	22
2-Chlorotoluene	10.0	10.5	*	ug/L		105	69 - 125	17	15
4-Chlorotoluene	10.0	10.3		ug/L		103	68 - 121	2	15
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	70 - 111	1	15
cis-1,3-Dichloropropene	10.0	10.7		ug/L		107	77 - 117	8	24
1,2-Dibromo-3-Chloropropane	10.0	9.10	J	ug/L		91	58 - 141	8	30
Dibromomethane	10.0	10.9		ug/L		108	61 - 142	9	15
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	70 - 120	5	15
1,3-Dichlorobenzene	10.0	9.59		ug/L		96	72 - 116	1	14
1,4-Dichlorobenzene	10.0	9.66		ug/L		96	75 - 117	1	17
Dichlorobromomethane	10.0	9.97		ug/L		99	75 - 120	7	14
Dichlorodifluoromethane	10.0	7.49		ug/L		75	20 - 141	5	35
1,1-Dichloroethane	10.0	10.5		ug/L		105	70 - 135	3	20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-219849/7
Matrix: Water
Analysis Batch: 219849

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane			10.0	9.23		ug/L		92	58 - 143	5	17
1,1-Dichloroethene			10.1	11.8		ug/L		117	70 - 117	2	21
1,2-Dichloropropane			10.0	11.3		ug/L		113	58 - 150	1	15
1,3-Dichloropropane			10.0	9.87		ug/L		99	69 - 134	2	23
2,2-Dichloropropane			10.0	8.76		ug/L		88	50 - 140	0	20
1,1-Dichloropropene			10.0	10.9		ug/L		109	75 - 120	14	20
Ethylbenzene			10.0	10.7		ug/L		106	75 - 119	5	14
Ethylene Dibromide			10.0	10.4		ug/L		104	66 - 133	0	17
Hexachlorobutadiene			10.0	9.80		ug/L		98	56 - 125	13	19
Isopropylbenzene			10.0	10.5		ug/L		105	75 - 125	7	20
4-Isopropyltoluene			10.0	10.1	*	ug/L		101	66 - 120	14	13
Methylene Chloride			10.0	11.0		ug/L		109	70 - 115	1	19
Methyl tert-butyl ether			10.0	10.1		ug/L		100	65 - 125	7	18
m-Xylene & p-Xylene			10.0	9.81		ug/L		98	75 - 119	1	14
Naphthalene			10.0	10.3		ug/L		103	55 - 134	18	30
n-Butylbenzene			10.0	10.7		ug/L		107	70 - 120	2	20
N-Propylbenzene			10.0	10.4		ug/L		104	70 - 124	3	13
o-Xylene			10.0	10.2		ug/L		102	74 - 120	8	16
sec-Butylbenzene			10.0	10.3		ug/L		102	70 - 125	9	15
Styrene			10.0	10.0		ug/L		100	76 - 116	3	16
tert-Butylbenzene			10.0	9.68		ug/L		97	70 - 121	6	14
1,1,1,2-Tetrachloroethane			10.0	9.62		ug/L		96	64 - 130	8	20
1,1,2,2-Tetrachloroethane			10.0	10.4		ug/L		104	65 - 130	0	18
Tetrachloroethene			10.0	10.2		ug/L		102	70 - 124	7	20
Toluene			10.0	10.9		ug/L		109	75 - 120	4	19
trans-1,2-Dichloroethene			10.0	10.8		ug/L		107	72 - 113	9	21
trans-1,3-Dichloropropene			10.0	9.56		ug/L		96	73 - 122	2	30
1,2,3-Trichlorobenzene			10.0	10.2		ug/L		102	55 - 133	20	35
1,2,4-Trichlorobenzene			10.0	10.2		ug/L		102	56 - 129	18	22
1,1,1-Trichloroethane			10.0	9.45		ug/L		94	65 - 130	4	18
1,1,2-Trichloroethane			10.0	9.86		ug/L		98	69 - 135	1	24
Trichloroethene			10.0	10.9		ug/L		108	70 - 125	13	23
Trichlorofluoromethane			10.0	9.95		ug/L		99	49 - 130	10	35
1,2,3-Trichloropropane			10.0	9.23		ug/L		92	65 - 135	7	22
1,2,4-Trimethylbenzene			10.0	9.94		ug/L		99	75 - 121	10	16
1,3,5-Trimethylbenzene			10.0	9.73		ug/L		97	75 - 122	6	14
Vinyl chloride			10.0	11.0		ug/L		110	56 - 114	2	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 125*
Dibromofluoromethane (Surr)	*98*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*90*		*65 - 143*
Toluene-d8 (Surr)	*101*		*82 - 122*
Trifluorotoluene (Surr)	*101*		*80 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 580-60244-3 MS
Matrix: Water
Analysis Batch: 219849

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		10.0	11.1		ug/L		110	80 - 120
Bromobenzene	ND		10.0	10.0		ug/L		100	75 - 115
Bromoform	ND		10.0	8.99		ug/L		90	55 - 130
Bromomethane	ND		10.0	10.4		ug/L		104	55 - 125
Carbon tetrachloride	ND		10.0	10.1		ug/L		101	65 - 124
Chlorobenzene	ND		10.0	9.82		ug/L		98	80 - 120
Chlorobromomethane	ND		10.0	9.28		ug/L		93	65 - 120
Chlorodibromomethane	ND		10.0	8.75		ug/L		87	71 - 118
Chloroethane	ND		10.0	10.7		ug/L		107	60 - 126
Chloroform	ND		10.0	9.48		ug/L		95	80 - 119
Chloromethane	ND		10.0	10.4		ug/L		104	40 - 149
2-Chlorotoluene	ND	*	10.0	10.4		ug/L		104	69 - 125
4-Chlorotoluene	ND		10.0	9.95		ug/L		99	68 - 121
cis-1,2-Dichloroethene	4.6	F1	10.0	15.9	F1	ug/L		112	70 - 111
cis-1,3-Dichloropropene	ND		10.0	9.44		ug/L		94	77 - 117
1,2-Dibromo-3-Chloropropane	ND		10.0	10.2		ug/L		102	58 - 141
Dibromomethane	ND		10.0	9.07		ug/L		90	61 - 142
1,2-Dichlorobenzene	ND		10.0	9.57		ug/L		96	70 - 120
1,3-Dichlorobenzene	ND		10.0	9.77		ug/L		97	72 - 116
1,4-Dichlorobenzene	ND		10.0	10.2		ug/L		102	75 - 117
Dichlorobromomethane	ND		10.0	10.2		ug/L		101	75 - 120
Dichlorodifluoromethane	ND		10.0	9.14		ug/L		91	20 - 141
1,1-Dichloroethane	6.1		10.0	17.5		ug/L		115	70 - 135
1,2-Dichloroethane	ND		10.0	9.44		ug/L		94	58 - 143
1,1-Dichloroethene	ND	* F1	10.1	12.3	F1	ug/L		122	70 - 117
1,2-Dichloropropane	ND		10.0	11.9		ug/L		119	58 - 150
1,3-Dichloropropane	ND		10.0	10.0		ug/L		100	69 - 134
2,2-Dichloropropane	ND		10.0	10.2		ug/L		102	50 - 140
1,1-Dichloropropene	ND		10.0	11.0		ug/L		110	75 - 120
Ethylbenzene	ND		10.0	10.7		ug/L		106	75 - 119
Ethylene Dibromide	ND		10.0	9.40		ug/L		94	66 - 133
Hexachlorobutadiene	ND		10.0	9.33		ug/L		93	56 - 125
Isopropylbenzene	ND		10.0	10.4		ug/L		104	75 - 125
4-Isopropyltoluene	ND	*	10.0	9.66		ug/L		97	66 - 120
Methylene Chloride	ND		10.0	10.7		ug/L		107	70 - 115
Methyl tert-butyl ether	ND		10.0	9.61		ug/L		96	65 - 125
m-Xylene & p-Xylene	ND		10.0	9.76		ug/L		97	75 - 119
Naphthalene	ND		10.0	10.0		ug/L		100	55 - 134
n-Butylbenzene	ND		10.0	10.5		ug/L		105	70 - 120
N-Propylbenzene	ND		10.0	10.6		ug/L		106	70 - 124
o-Xylene	ND		10.0	9.50		ug/L		95	74 - 120
sec-Butylbenzene	ND		10.0	10.5		ug/L		105	70 - 125
Styrene	ND		10.0	9.55		ug/L		95	76 - 116
tert-Butylbenzene	ND		10.0	9.75		ug/L		97	70 - 121
1,1,1,2-Tetrachloroethane	ND		10.0	10.2		ug/L		102	64 - 130
1,1,2,2-Tetrachloroethane	ND		10.0	10.8		ug/L		108	65 - 130
Tetrachloroethene	ND		10.0	12.1		ug/L		104	70 - 124
Toluene	ND		10.0	11.0		ug/L		110	75 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 580-60244-3 MS
Matrix: Water
Analysis Batch: 219849

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	ND	F1	10.0	11.7	F1	ug/L		117	72 - 113
trans-1,3-Dichloropropene	ND		10.0	9.19		ug/L		92	73 - 122
1,2,3-Trichlorobenzene	ND		10.0	8.88		ug/L		89	55 - 133
1,2,4-Trichlorobenzene	ND		10.0	9.40		ug/L		94	56 - 129
1,1,1-Trichloroethane	ND		10.0	12.6		ug/L		110	65 - 130
1,1,2-Trichloroethane	ND		10.0	9.05		ug/L		90	69 - 135
Trichloroethene	ND		10.0	12.2		ug/L		111	70 - 125
Trichlorofluoromethane	ND		10.0	9.91		ug/L		99	49 - 130
1,2,3-Trichloropropane	ND		10.0	8.14		ug/L		81	65 - 135
1,2,4-Trimethylbenzene	ND		10.0	9.66		ug/L		97	75 - 121
1,3,5-Trimethylbenzene	ND		10.0	9.85		ug/L		98	75 - 122
Vinyl chloride	ND	F1	10.0	12.6	F1	ug/L		126	56 - 114

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 125*
Dibromofluoromethane (Surr)	*99*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*95*		*65 - 143*
Toluene-d8 (Surr)	*99*		*82 - 122*
Trifluorotoluene (Surr)	*98*		*80 - 141*

Lab Sample ID: 580-60244-3 MSD
Matrix: Water
Analysis Batch: 219849

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		10.0	10.1		ug/L		100	80 - 120	10	35
Bromobenzene	ND		10.0	9.53		ug/L		95	75 - 115	5	35
Bromoform	ND		10.0	7.95		ug/L		79	55 - 130	12	35
Bromomethane	ND		10.0	10.4		ug/L		104	55 - 125	1	35
Carbon tetrachloride	ND		10.0	9.00		ug/L		90	65 - 124	12	35
Chlorobenzene	ND		10.0	9.83		ug/L		98	80 - 120	0	35
Chlorobromomethane	ND		10.0	8.99		ug/L		90	65 - 120	3	35
Chlorodibromomethane	ND		10.0	9.73		ug/L		97	71 - 118	11	35
Chloroethane	ND		10.0	10.8		ug/L		108	60 - 126	1	35
Chloroform	ND		10.0	8.92		ug/L		89	80 - 119	6	35
Chloromethane	ND		10.0	9.73		ug/L		97	40 - 149	7	35
2-Chlorotoluene	ND	*	10.0	9.77		ug/L		98	69 - 125	7	35
4-Chlorotoluene	ND		10.0	9.54		ug/L		95	68 - 121	4	35
cis-1,2-Dichloroethene	4.6	F1	10.0	14.6		ug/L		99	70 - 111	8	35
cis-1,3-Dichloropropene	ND		10.0	9.85		ug/L		98	77 - 117	4	35
1,2-Dibromo-3-Chloropropane	ND		10.0	ND		ug/L		74	58 - 141	32	35
Dibromomethane	ND		10.0	10.5		ug/L		105	61 - 142	15	35
1,2-Dichlorobenzene	ND		10.0	9.39		ug/L		94	70 - 120	2	35
1,3-Dichlorobenzene	ND		10.0	9.35		ug/L		93	72 - 116	4	35
1,4-Dichlorobenzene	ND		10.0	9.29		ug/L		93	75 - 117	9	35
Dichlorobromomethane	ND		10.0	8.78		ug/L		88	75 - 120	15	35
Dichlorodifluoromethane	ND		10.0	9.34		ug/L		93	20 - 141	2	35
1,1-Dichloroethane	6.1		10.0	16.5		ug/L		104	70 - 135	6	35

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 580-60244-3 MSD
Matrix: Water
Analysis Batch: 219849

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	ND		10.0	9.07		ug/L		91	58 - 143	4	35
1,1-Dichloroethene	ND	* F1	10.1	11.5		ug/L		114	70 - 117	6	35
1,2-Dichloropropane	ND		10.0	10.9		ug/L		109	58 - 150	9	35
1,3-Dichloropropane	ND		10.0	9.72		ug/L		97	69 - 134	3	35
2,2-Dichloropropane	ND		10.0	8.74		ug/L		87	50 - 140	16	35
1,1-Dichloropropene	ND		10.0	10.1		ug/L		101	75 - 120	8	35
Ethylbenzene	ND		10.0	9.88		ug/L		98	75 - 119	8	35
Ethylene Dibromide	ND		10.0	9.66		ug/L		96	66 - 133	3	35
Hexachlorobutadiene	ND		10.0	8.28		ug/L		83	56 - 125	12	35
Isopropylbenzene	ND		10.0	9.72		ug/L		97	75 - 125	7	35
4-Isopropyltoluene	ND	*	10.0	8.89		ug/L		89	66 - 120	8	35
Methylene Chloride	ND		10.0	10.2		ug/L		102	70 - 115	5	35
Methyl tert-butyl ether	ND		10.0	8.78		ug/L		88	65 - 125	9	35
m-Xylene & p-Xylene	ND		10.0	9.76		ug/L		97	75 - 119	0	35
Naphthalene	ND		10.0	7.90		ug/L		79	55 - 134	24	35
n-Butylbenzene	ND		10.0	9.12		ug/L		91	70 - 120	14	35
N-Propylbenzene	ND		10.0	9.80		ug/L		98	70 - 124	8	35
o-Xylene	ND		10.0	9.50		ug/L		95	74 - 120	0	35
sec-Butylbenzene	ND		10.0	9.40		ug/L		94	70 - 125	11	35
Styrene	ND		10.0	10.1		ug/L		101	76 - 116	6	35
tert-Butylbenzene	ND		10.0	9.68		ug/L		97	70 - 121	1	35
1,1,1,2-Tetrachloroethane	ND		10.0	9.09		ug/L		91	64 - 130	12	35
1,1,2,2-Tetrachloroethane	ND		10.0	9.57		ug/L		96	65 - 130	12	35
Tetrachloroethene	ND		10.0	12.2		ug/L		106	70 - 124	1	35
Toluene	ND		10.0	10.5		ug/L		105	75 - 120	5	35
trans-1,2-Dichloroethene	ND	F1	10.0	9.84		ug/L		98	72 - 113	17	35
trans-1,3-Dichloropropene	ND		10.0	9.06		ug/L		90	73 - 122	1	35
1,2,3-Trichlorobenzene	ND		10.0	7.75		ug/L		77	55 - 133	14	35
1,2,4-Trichlorobenzene	ND		10.0	8.64		ug/L		86	56 - 129	8	35
1,1,1-Trichloroethane	ND		10.0	11.5		ug/L		99	65 - 130	9	35
1,1,2-Trichloroethane	ND		10.0	9.62		ug/L		96	69 - 135	6	35
Trichloroethene	ND		10.0	11.4		ug/L		104	70 - 125	7	35
Trichlorofluoromethane	ND		10.0	9.35		ug/L		93	49 - 130	6	35
1,2,3-Trichloropropane	ND		10.0	7.62		ug/L		76	65 - 135	7	35
1,2,4-Trimethylbenzene	ND		10.0	9.23		ug/L		92	75 - 121	5	35
1,3,5-Trimethylbenzene	ND		10.0	8.78		ug/L		88	75 - 122	12	35
Vinyl chloride	ND	F1	10.0	11.2		ug/L		112	56 - 114	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*75 - 125*
Dibromofluoromethane (Surr)	*96*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*89*		*65 - 143*
Toluene-d8 (Surr)	*101*		*82 - 122*
Trifluorotoluene (Surr)	*99*		*80 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-219972/5
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.0		ug/L			06/16/16 10:45	1
Bromobenzene	ND		2.0		ug/L			06/16/16 10:45	1
Bromoform	ND		1.0		ug/L			06/16/16 10:45	1
Bromomethane	ND		5.0		ug/L			06/16/16 10:45	1
Carbon tetrachloride	ND		3.0		ug/L			06/16/16 10:45	1
Chlorobenzene	ND		2.0		ug/L			06/16/16 10:45	1
Chlorobromomethane	ND		2.0		ug/L			06/16/16 10:45	1
Chlorodibromomethane	ND		1.0		ug/L			06/16/16 10:45	1
Chloroethane	ND		5.0		ug/L			06/16/16 10:45	1
Chloroform	ND		5.0		ug/L			06/16/16 10:45	1
Chloromethane	ND		5.0		ug/L			06/16/16 10:45	1
2-Chlorotoluene	ND		3.0		ug/L			06/16/16 10:45	1
4-Chlorotoluene	ND		2.0		ug/L			06/16/16 10:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/16/16 10:45	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 10:45	1
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/16/16 10:45	1
Dibromomethane	ND		1.0		ug/L			06/16/16 10:45	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/16/16 10:45	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/16/16 10:45	1
1,4-Dichlorobenzene	ND		4.0		ug/L			06/16/16 10:45	1
Dichlorobromomethane	ND		2.0		ug/L			06/16/16 10:45	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/16/16 10:45	1
1,1-Dichloroethane	ND		2.0		ug/L			06/16/16 10:45	1
1,2-Dichloroethane	ND		1.0		ug/L			06/16/16 10:45	1
1,1-Dichloroethene	ND		2.0		ug/L			06/16/16 10:45	1
1,2-Dichloropropane	ND		1.0		ug/L			06/16/16 10:45	1
1,3-Dichloropropane	ND		1.0		ug/L			06/16/16 10:45	1
2,2-Dichloropropane	ND		3.0		ug/L			06/16/16 10:45	1
1,1-Dichloropropene	ND		3.0		ug/L			06/16/16 10:45	1
Ethylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
Ethylene Dibromide	ND		1.0		ug/L			06/16/16 10:45	1
Hexachlorobutadiene	ND		2.0		ug/L			06/16/16 10:45	1
Isopropylbenzene	ND		2.0		ug/L			06/16/16 10:45	1
4-Isopropyltoluene	ND		3.0		ug/L			06/16/16 10:45	1
Methylene Chloride	ND		5.0		ug/L			06/16/16 10:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/16/16 10:45	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/16/16 10:45	1
Naphthalene	ND		2.0		ug/L			06/16/16 10:45	1
n-Butylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
N-Propylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
o-Xylene	ND		2.0		ug/L			06/16/16 10:45	1
sec-Butylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
Styrene	ND		5.0		ug/L			06/16/16 10:45	1
tert-Butylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/16/16 10:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/16/16 10:45	1
Tetrachloroethene	ND		3.0		ug/L			06/16/16 10:45	1
Toluene	ND		2.0		ug/L			06/16/16 10:45	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 580-219972/5
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		3.0		ug/L			06/16/16 10:45	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/16/16 10:45	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/16/16 10:45	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/16/16 10:45	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/16/16 10:45	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/16/16 10:45	1
Trichloroethene	ND		3.0		ug/L			06/16/16 10:45	1
Trichlorofluoromethane	ND		3.0		ug/L			06/16/16 10:45	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/16/16 10:45	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/16/16 10:45	1
Vinyl chloride	ND		1.0		ug/L			06/16/16 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*06/16/16 10:45*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 118*		*06/16/16 10:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 143*		*06/16/16 10:45*	*1*
Toluene-d8 (Surr)	*101*		*82 - 122*		*06/16/16 10:45*	*1*
Trifluorotoluene (Surr)	*96*		*80 - 141*		*06/16/16 10:45*	*1*

Lab Sample ID: LCS 580-219972/6
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	10.0	10.4		ug/L		103	80 - 120
Bromobenzene	10.0	9.38		ug/L		94	75 - 115
Bromoform	10.0	8.71		ug/L		87	55 - 130
Bromomethane	10.0	10.2		ug/L		102	55 - 125
Carbon tetrachloride	10.0	9.20		ug/L		92	65 - 124
Chlorobenzene	10.0	9.35		ug/L		93	80 - 120
Chlorobromomethane	10.0	10.3		ug/L		103	65 - 120
Chlorodibromomethane	10.0	9.52		ug/L		95	71 - 118
Chloroethane	10.0	9.88		ug/L		99	60 - 126
Chloroform	10.0	9.55		ug/L		95	80 - 119
Chloromethane	10.0	9.00		ug/L		90	40 - 149
2-Chlorotoluene	10.0	9.95		ug/L		100	69 - 125
4-Chlorotoluene	10.0	9.40		ug/L		94	68 - 121
cis-1,2-Dichloroethene	10.0	10.2		ug/L		102	70 - 111
cis-1,3-Dichloropropene	10.0	10.2		ug/L		101	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	8.91	J	ug/L		89	58 - 141
Dibromomethane	10.0	9.92		ug/L		99	61 - 142
1,2-Dichlorobenzene	10.0	9.72		ug/L		97	70 - 120
1,3-Dichlorobenzene	10.0	10.1		ug/L		100	72 - 116
1,4-Dichlorobenzene	10.0	9.33		ug/L		93	75 - 117
Dichlorobromomethane	10.0	9.34		ug/L		93	75 - 120
Dichlorodifluoromethane	10.0	6.96		ug/L		70	20 - 141
1,1-Dichloroethane	10.0	10.8		ug/L		108	70 - 135

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-219972/6
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	10.0	9.18		ug/L		92	58 - 143
1,1-Dichloroethene	10.1	10.1		ug/L		100	70 - 117
1,2-Dichloropropane	10.0	10.4		ug/L		104	58 - 150
1,3-Dichloropropane	10.0	9.35		ug/L		93	69 - 134
2,2-Dichloropropane	10.0	9.27		ug/L		93	50 - 140
1,1-Dichloropropene	10.0	9.82		ug/L		98	75 - 120
Ethylbenzene	10.0	9.76		ug/L		97	75 - 119
Ethylene Dibromide	10.0	9.32		ug/L		93	66 - 133
Hexachlorobutadiene	10.0	9.27		ug/L		93	56 - 125
Isopropylbenzene	10.0	10.4		ug/L		103	75 - 125
4-Isopropyltoluene	10.0	9.56		ug/L		96	66 - 120
Methylene Chloride	10.0	10.2		ug/L		101	70 - 115
Methyl tert-butyl ether	10.0	9.29		ug/L		93	65 - 125
m-Xylene & p-Xylene	10.0	9.83		ug/L		98	75 - 119
Naphthalene	10.0	9.34		ug/L		93	55 - 134
n-Butylbenzene	10.0	9.79		ug/L		98	70 - 120
N-Propylbenzene	10.0	10.0		ug/L		100	70 - 124
o-Xylene	10.0	9.80		ug/L		98	74 - 120
sec-Butylbenzene	10.0	9.47		ug/L		95	70 - 125
Styrene	10.0	10.2		ug/L		101	76 - 116
tert-Butylbenzene	10.0	9.40		ug/L		94	70 - 121
1,1,1,2-Tetrachloroethane	10.0	9.60		ug/L		96	64 - 130
1,1,2,2-Tetrachloroethane	10.0	9.95		ug/L		99	65 - 130
Tetrachloroethene	10.0	9.97		ug/L		99	70 - 124
Toluene	10.0	10.3		ug/L		103	75 - 120
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	72 - 113
trans-1,3-Dichloropropene	10.0	9.14		ug/L		91	73 - 122
1,2,3-Trichlorobenzene	10.0	9.63		ug/L		96	55 - 133
1,2,4-Trichlorobenzene	10.0	10.0		ug/L		100	56 - 129
1,1,1-Trichloroethane	10.0	9.43		ug/L		94	65 - 130
1,1,2-Trichloroethane	10.0	10.2		ug/L		102	69 - 135
Trichloroethene	10.0	9.06		ug/L		90	70 - 125
Trichlorofluoromethane	10.0	9.46		ug/L		95	49 - 130
1,2,3-Trichloropropane	10.0	8.05		ug/L		80	65 - 135
1,2,4-Trimethylbenzene	10.0	9.16		ug/L		92	75 - 121
1,3,5-Trimethylbenzene	10.0	9.27		ug/L		93	75 - 122
Vinyl chloride	10.0	10.7		ug/L		107	56 - 114

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*75 - 125*
Dibromofluoromethane (Surr)	*97*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*92*		*65 - 143*
Toluene-d8 (Surr)	*99*		*82 - 122*
Trifluorotoluene (Surr)	*97*		*80 - 141*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-219972/7
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	10.0	10.5		ug/L		104	80 - 120	1	14
Bromobenzene	10.0	9.72		ug/L		97	75 - 115	4	13
Bromoform	10.0	8.23		ug/L		82	55 - 130	6	20
Bromomethane	10.0	9.57		ug/L		96	55 - 125	6	30
Carbon tetrachloride	10.0	8.88		ug/L		89	65 - 124	3	19
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120	9	15
Chlorobromomethane	10.0	9.70		ug/L		97	65 - 120	6	17
Chlorodibromomethane	10.0	9.44		ug/L		94	71 - 118	1	21
Chloroethane	10.0	10.2		ug/L		102	60 - 126	3	30
Chloroform	10.0	9.73		ug/L		97	80 - 119	2	15
Chloromethane	10.0	8.29		ug/L		83	40 - 149	8	22
2-Chlorotoluene	10.0	10.4		ug/L		104	69 - 125	5	15
4-Chlorotoluene	10.0	10.4		ug/L		103	68 - 121	10	15
cis-1,2-Dichloroethene	10.0	10.2		ug/L		101	70 - 111	0	15
cis-1,3-Dichloropropene	10.0	10.3		ug/L		102	77 - 117	1	24
1,2-Dibromo-3-Chloropropane	10.0	7.90	J	ug/L		79	58 - 141	12	30
Dibromomethane	10.0	10.3		ug/L		102	61 - 142	3	15
1,2-Dichlorobenzene	10.0	9.97		ug/L		100	70 - 120	3	15
1,3-Dichlorobenzene	10.0	9.76		ug/L		97	72 - 116	3	14
1,4-Dichlorobenzene	10.0	10.6		ug/L		106	75 - 117	13	17
Dichlorobromomethane	10.0	8.90		ug/L		89	75 - 120	5	14
Dichlorodifluoromethane	10.0	7.64		ug/L		76	20 - 141	9	35
1,1-Dichloroethane	10.0	10.4		ug/L		104	70 - 135	4	20
1,2-Dichloroethane	10.0	9.24		ug/L		92	58 - 143	1	17
1,1-Dichloroethene	10.1	9.98		ug/L		99	70 - 117	1	21
1,2-Dichloropropane	10.0	11.6		ug/L		115	58 - 150	10	15
1,3-Dichloropropane	10.0	10.1		ug/L		101	69 - 134	8	23
2,2-Dichloropropane	10.0	9.40		ug/L		94	50 - 140	1	20
1,1-Dichloropropene	10.0	9.81		ug/L		98	75 - 120	0	20
Ethylbenzene	10.0	10.4		ug/L		103	75 - 119	6	14
Ethylene Dibromide	10.0	10.0		ug/L		100	66 - 133	7	17
Hexachlorobutadiene	10.0	10.7		ug/L		107	56 - 125	14	19
Isopropylbenzene	10.0	9.91		ug/L		99	75 - 125	4	20
4-Isopropyltoluene	10.0	9.79		ug/L		98	66 - 120	2	13
Methylene Chloride	10.0	10.0		ug/L		100	70 - 115	2	19
Methyl tert-butyl ether	10.0	9.30		ug/L		93	65 - 125	0	18
m-Xylene & p-Xylene	10.0	9.65		ug/L		96	75 - 119	2	14
Naphthalene	10.0	8.38		ug/L		84	55 - 134	11	30
n-Butylbenzene	10.0	10.2		ug/L		101	70 - 120	4	20
N-Propylbenzene	10.0	9.87		ug/L		99	70 - 124	2	13
o-Xylene	10.0	9.49		ug/L		95	74 - 120	3	16
sec-Butylbenzene	10.0	9.62		ug/L		96	70 - 125	2	15
Styrene	10.0	10.2		ug/L		102	76 - 116	0	16
tert-Butylbenzene	10.0	9.50		ug/L		95	70 - 121	1	14
1,1,1,2-Tetrachloroethane	10.0	9.26		ug/L		92	64 - 130	4	20
1,1,2,2-Tetrachloroethane	10.0	9.43		ug/L		94	65 - 130	5	18
Tetrachloroethene	10.0	10.1		ug/L		101	70 - 124	1	20
Toluene	10.0	10.1		ug/L		101	75 - 120	2	19

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 580-219972/7
Matrix: Water
Analysis Batch: 219972

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			10.0	10.0		ug/L		100	72 - 113	1	21
trans-1,3-Dichloropropene			10.0	9.40		ug/L		94	73 - 122	3	30
1,2,3-Trichlorobenzene			10.0	8.92		ug/L		89	55 - 133	8	35
1,2,4-Trichlorobenzene			10.0	9.33		ug/L		93	56 - 129	7	22
1,1,1-Trichloroethane			10.0	8.97		ug/L		89	65 - 130	5	18
1,1,2-Trichloroethane			10.0	10.1		ug/L		101	69 - 135	1	24
Trichloroethene			10.0	10.2		ug/L		101	70 - 125	11	23
Trichlorofluoromethane			10.0	7.46		ug/L		75	49 - 130	24	35
1,2,3-Trichloropropane			10.0	8.25		ug/L		82	65 - 135	3	22
1,2,4-Trimethylbenzene			10.0	9.18		ug/L		92	75 - 121	0	16
1,3,5-Trimethylbenzene			10.0	9.30		ug/L		93	75 - 122	0	14
Vinyl chloride			10.0	10.3		ug/L		103	56 - 114	4	23

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*
Dibromofluoromethane (Surr)	*95*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*93*		*65 - 143*
Toluene-d8 (Surr)	*100*		*82 - 122*
Trifluorotoluene (Surr)	*98*		*80 - 141*

Lab Sample ID: MB 580-220278/5
Matrix: Water
Analysis Batch: 220278

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/20/16 11:03	1
Ethylbenzene	ND		3.0		ug/L			06/20/16 11:03	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/20/16 11:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*75 - 125*		*06/20/16 11:03*	*1*
Dibromofluoromethane (Surr)	*99*		*77 - 118*		*06/20/16 11:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*87*		*65 - 143*		*06/20/16 11:03*	*1*
Toluene-d8 (Surr)	*105*		*82 - 122*		*06/20/16 11:03*	*1*
Trifluorotoluene (Surr)	*94*		*80 - 141*		*06/20/16 11:03*	*1*

Lab Sample ID: LCS 580-220278/6
Matrix: Water
Analysis Batch: 220278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,2-Dichloroethene			10.0	10.7		ug/L		107	70 - 111
Ethylbenzene			10.0	10.4		ug/L		103	75 - 119
m-Xylene & p-Xylene			10.0	9.90		ug/L		99	75 - 119

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*75 - 125*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 580-220278/6
Matrix: Water
Analysis Batch: 220278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*88*		*65 - 143*
Toluene-d8 (Surr)	*100*		*82 - 122*
Trifluorotoluene (Surr)	*99*		*80 - 141*

Lab Sample ID: LCSD 580-220278/7
Matrix: Water
Analysis Batch: 220278

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,2-Dichloroethene			10.0	9.88		ug/L		99	70 - 111	8	15
Ethylbenzene			10.0	10.1		ug/L		100	75 - 119	3	14
m-Xylene & p-Xylene			10.0	10.3		ug/L		102	75 - 119	4	14

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*75 - 125*
Dibromofluoromethane (Surr)	*99*		*77 - 118*
1,2-Dichloroethane-d4 (Surr)	*88*		*65 - 143*
Toluene-d8 (Surr)	*100*		*82 - 122*
Trifluorotoluene (Surr)	*97*		*80 - 141*

Method: AK101 - Alaska - Gasoline Range Organics (GC)

Lab Sample ID: MB 580-219755/5
Matrix: Water
Analysis Batch: 219755

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/14/16 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*113*		*50 - 150*		*06/14/16 12:56*	*1*
4-Bromofluorobenzene (Surr)	*98*		*50 - 150*		*06/14/16 12:56*	*1*

Lab Sample ID: LCS 580-219755/6
Matrix: Water
Analysis Batch: 219755

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			1.17	1.30		mg/L		111	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*113*		*50 - 150*
4-Bromofluorobenzene (Surr)	*104*		*50 - 150*

Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCSD 580-219755/7
Matrix: Water
Analysis Batch: 219755

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			1.17	1.30		mg/L		112	60 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*111*		*50 - 150*
4-Bromofluorobenzene (Surr)	*103*		*50 - 150*

Lab Sample ID: MB 580-219899/5
Matrix: Water
Analysis Batch: 219899

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			06/15/16 14:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*109*		*50 - 150*		*06/15/16 14:27*	*1*
4-Bromofluorobenzene (Surr)	*96*		*50 - 150*		*06/15/16 14:27*	*1*

Lab Sample ID: LCS 580-219899/6
Matrix: Water
Analysis Batch: 219899

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C6-C10			1.17	1.33		mg/L		114	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*111*		*50 - 150*
4-Bromofluorobenzene (Surr)	*104*		*50 - 150*

Lab Sample ID: LCSD 580-219899/7
Matrix: Water
Analysis Batch: 219899

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10			1.17	1.33		mg/L		114	60 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*111*		*50 - 150*
4-Bromofluorobenzene (Surr)	*106*		*50 - 150*

Method: AK101 - Alaska - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: 580-60244-3 MS
Matrix: Water
Analysis Batch: 219899

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C6-C10	ND		1.17	1.13		mg/L		97	60 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*105*		*50 - 150*
4-Bromofluorobenzene (Surr)	*103*		*50 - 150*

Lab Sample ID: 580-60244-3 MSD
Matrix: Water
Analysis Batch: 219899

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C6-C10	ND		1.17	1.14		mg/L		98	60 - 120	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*107*		*50 - 150*
4-Bromofluorobenzene (Surr)	*102*		*50 - 150*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-220411/1-A
Matrix: Water
Analysis Batch: 220593

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 220411

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		06/21/16 10:23	06/23/16 05:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*06/21/16 10:23*	*06/23/16 05:44*	*1*

Lab Sample ID: LCS 580-220411/2-A
Matrix: Water
Analysis Batch: 220593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 220411

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	2.00	1.88		mg/L		94	75 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*88*		*50 - 150*

Lab Sample ID: LCSD 580-220411/3-A
Matrix: Water
Analysis Batch: 220593

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 220411

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)	2.00	1.84		mg/L		92	75 - 125	2	20

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

Lab Sample ID: LCSD 580-220411/3-A
Matrix: Water
Analysis Batch: 220593

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 220411

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	85		50 - 150

Lab Sample ID: 580-60244-3 MS
Matrix: Water
Analysis Batch: 220593

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA
Prep Batch: 220411

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	0.29		2.21	2.26		mg/L		89	75 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	87		50 - 150

Lab Sample ID: 580-60244-3 MSD
Matrix: Water
Analysis Batch: 220593

Client Sample ID: MW-3-W-060816
Prep Type: Total/NA
Prep Batch: 220411

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)	0.29		2.05	2.04		mg/L		86	75 - 125	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	87		50 - 150

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: MW-1-W-060716

Lab Sample ID: 580-60244-1

Date Collected: 06/07/16 14:10
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 19:56	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 16:45	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 07:12	KZ1	TAL SEA
Total/NA	Analysis	SM 9215B		10	336783		KRW	TAL IRV
						(Start) 06/14/16 14:36		
						(End) 06/16/16 15:02		

Client Sample ID: MW-2-W-060816

Lab Sample ID: 580-60244-2

Date Collected: 06/08/16 17:30
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219972	06/16/16 15:17	STA	TAL SEA
Total/NA	Analysis	8260C	DL	10	220278	06/20/16 12:22	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 17:17	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 07:34	KZ1	TAL SEA

Client Sample ID: MW-3-W-060816

Lab Sample ID: 580-60244-3

Date Collected: 06/08/16 10:50
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219849	06/15/16 19:31	STA	TAL SEA
Total/NA	Analysis	AK101		1	219899	06/15/16 19:20	CJ	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 07:56	KZ1	TAL SEA

Client Sample ID: MW-4-W-060716

Lab Sample ID: 580-60244-4

Date Collected: 06/07/16 13:50
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 19:02	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 17:49	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 09:03	KZ1	TAL SEA
Total/NA	Analysis	SM 9215B		10	336783		KRW	TAL IRV
						(Start) 06/14/16 14:36		
						(End) 06/16/16 15:02		

Client Sample ID: MW-5-W-060816

Lab Sample ID: 580-60244-5

Date Collected: 06/08/16 16:00

Matrix: Water

Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219972	06/16/16 15:44	STA	TAL SEA
Total/NA	Analysis	8260C	DL	10	220278	06/20/16 12:48	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 18:22	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 09:25	KZ1	TAL SEA
Total/NA	Analysis	SM 9215B		10	336783		KRW	TAL IRV
						(Start) 06/14/16 14:36		
						(End) 06/16/16 15:02		

Client Sample ID: MW-6-W-060816

Lab Sample ID: 580-60244-6

Date Collected: 06/08/16 16:50

Matrix: Water

Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219972	06/16/16 16:10	STA	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 18:54	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 09:48	KZ1	TAL SEA

Client Sample ID: MW-7-W-060816

Lab Sample ID: 580-60244-7

Date Collected: 06/08/16 14:50

Matrix: Water

Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219972	06/16/16 16:37	STA	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 19:27	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 10:10	KZ1	TAL SEA
Total/NA	Analysis	SM 9215B		1	336783		KRW	TAL IRV
						(Start) 06/14/16 14:36		
						(End) 06/16/16 15:02		

Client Sample ID: MW-8-W-060716

Lab Sample ID: 580-60244-8

Date Collected: 06/07/16 14:50

Matrix: Water

Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 18:36	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 20:00	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 10:33	KZ1	TAL SEA

Client Sample ID: MW-9-W-060816 — **Lab Sample ID: 580-60244-9**
Date Collected: 06/08/16 13:50 — **Matrix: Water**
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219849	06/15/16 18:12	STA	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 20:32	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 11:24	KZ1	TAL SEA

Client Sample ID: MW-10-W-060816 — **Lab Sample ID: 580-60244-10**
Date Collected: 06/08/16 12:50 — **Matrix: Water**
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219849	06/15/16 18:38	STA	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 21:37	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 11:46	KZ1	TAL SEA

Client Sample ID: MW-11-W-060816 — **Lab Sample ID: 580-60244-11**
Date Collected: 06/08/16 12:10 — **Matrix: Water**
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219849	06/15/16 19:05	STA	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 22:10	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 12:09	KZ1	TAL SEA

Client Sample ID: BD-1-W-060716 — **Lab Sample ID: 580-60244-12**
Date Collected: 06/07/16 00:01 — **Matrix: Water**
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 19:29	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 22:43	TL1	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 12:32	KZ1	TAL SEA

Client Sample ID: BD-2-W-060716 — **Lab Sample ID: 580-60244-13**
Date Collected: 06/07/16 00:01 — **Matrix: Water**
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 18:09	W1T	TAL SEA
Total/NA	Analysis	8260C	DL	10	219849	06/15/16 17:45	STA	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Client Sample ID: BD-2-W-060716

Lab Sample ID: 580-60244-13

Date Collected: 06/07/16 00:01
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK101		1	219899	06/15/16 20:57	CJ	TAL SEA
Total/NA	Prep	3510C			220411	06/21/16 10:23	MDD	TAL SEA
Total/NA	Analysis	AK102 & 103		1	220593	06/23/16 12:55	KZ1	TAL SEA

Client Sample ID: Trip Blank

Lab Sample ID: 580-60244-14

Date Collected: 06/07/16 00:01
Matrix: Water
Date Received: 06/11/16 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	219713	06/14/16 17:43	W1T	TAL SEA
Total/NA	Analysis	AK101		1	219755	06/14/16 14:34	TL1	TAL SEA

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16 *
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-16 *
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312016-2	07-31-16
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 580-60244-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-60244-1	MW-1-W-060716	Water	06/07/16 14:10	06/11/16 09:45
580-60244-2	MW-2-W-060816	Water	06/08/16 17:30	06/11/16 09:45
580-60244-3	MW-3-W-060816	Water	06/08/16 10:50	06/11/16 09:45
580-60244-4	MW-4-W-060716	Water	06/07/16 13:50	06/11/16 09:45
580-60244-5	MW-5-W-060816	Water	06/08/16 16:00	06/11/16 09:45
580-60244-6	MW-6-W-060816	Water	06/08/16 16:50	06/11/16 09:45
580-60244-7	MW-7-W-060816	Water	06/08/16 14:50	06/11/16 09:45
580-60244-8	MW-8-W-060716	Water	06/07/16 14:50	06/11/16 09:45
580-60244-9	MW-9-W-060816	Water	06/08/16 13:50	06/11/16 09:45
580-60244-10	MW-10-W-060816	Water	06/08/16 12:50	06/11/16 09:45
580-60244-11	MW-11-W-060816	Water	06/08/16 12:10	06/11/16 09:45
580-60244-12	BD-1-W-060716	Water	06/07/16 00:01	06/11/16 09:45
580-60244-13	BD-2-W-060716	Water	06/07/16 00:01	06/11/16 09:45
580-60244-14	Trip Blank	Water	06/07/16 00:01	06/11/16 09:45

>>> Select a Laboratory <<<

#N/A
#N/A
#N/A
#N/A

Chain of Custody Record

Loc: 580
60244

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Matthew Pelton	Site Contact: Michael MacDaniel	Date: 6/10/16	COC No:
ARCADIS - Matthew Pelton	Tel/Fax: 919.415.2308	Lab Contact:	Carrier:	1 of 1 COCs
801 Corporate Center Dr. STE 300	Analysis Turnaround Time			Sampler:
Raleigh, NC 27607	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(919) 415-2308 Phone	TAT if different from Below STD 10			Walk-In Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Former TBE Machine Shop	☐ 1 week			
Site: Nikiski	☐ 2 days			Job / SDG No.:
P O # B0031255.1404.00005	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	VOCs 8260B	GRO AK101	DRO AK102	9215B (HPC)	Sample Specific Notes:
MW-1-W-060716	6/7/2016	1410	G	W	9			X	X	X	X	
MW-2-W-060816	6/8/2016	1730	G	W	8			X	X	X		
MW-3-W-060816	6/8/2016	1050	G	W	8		Y	X	X	X		Additional Volume collected for MS/MSD
MW-4-W-060716	6/7/2016	1350	G	W	9			X	X	X	X	
MW-5-W-060816	6/8/2016	1600	G	W	9			X	X	X	X	
MW-6-W-060816	6/8/2016	1650	G	W	8			X	X	X		
MW-7-W-060816	6/8/2016	1450	G	W	9			X	X	X	X	
MW-8-W-060716	6/7/2016	1450	G	W	8			X	X	X		
MW-9-W-060816	6/8/2016	1350	G	W	8			X	X	X		
MW-10-W-060816	6/8/2016	1250	G	W	8			X	X	X		
MW-11-W-060816	6/8/2016	1210	G	W	8			X	X	X		
BD-1-W-060716	6/7/2016	--	G	W	8			X	X	X		
BD-2-W-060816	6/8/2016	--	G	W	8			X	X	X		
#3MS MS-W-060816	6/8/2016	1050	G	W	8			X	X	X		
#3MSD MSD-W-060816	6/8/2016	1050	G	W	8			X	X	X		
Trip Blank	--	--	--	W	4			X	X			
								2	2	2	6	

580-60244 Chain of Custody

TB A2 Cooler ___ Cor 2.0 Unc 2.0
Cooler Dsc LG B/W @Lab ___
Wet/Packs Packing BUBBLE
W/CS GOLD

TB A2 Cooler ___ Cor 1.0 Unc 1.0
Cooler Dsc LG B/W @Lab ___
Wet/Packs Packing BUBBLE
W/CS GOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Sodium Thiosulfate

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for ___ Months

Special Instructions/QC Requirements & Comments:

Relinquished: 6/10/16 12:52 Rcvd: anakelly 6/11/16 0945 D.9, 4.1°C

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: ___ Corr'd: ___	Therm ID No.: ___
Relinquished by: Michael MacDaniel	Company: ARCADIS	Date/Time: 6/10/16 1130	Received by:	Company: TA-AK	Date/Time: 6/10/16 11:34

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Test America Anchorage Cooler Receipt Form for Direct Ship Samples

CLIENT: Arcadis **PROJECT:** former TBE machine shop

Date /Time Cooler Arrived 6 / 10 / 16 11 : 34 Cooler signed for by: Andrew Pilch
(Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received *or* ____/____/____ ☐ Cooler not opened

Cooler opened by (print) Andrew Pilch (sign) [signature]

1. Delivered by ☐ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☒ CLIENT ☐ Other: ____

Shipment Tracking # if applicable ____ (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ____ Date ____/____/____

Were custody seals unbroken and intact on arrival? ☐ Yes ☐ No

3. Were custody papers sealed in a plastic bag? ☐ Yes ☒ No ☐ Not checked

4. Were custody papers filled out properly (ink, signed, etc.)? ☒ Yes ☐ No ☐ Not checked

5. Did you sign the custody papers in the appropriate place? ☒ Yes ☐ No ☐ Not checked

6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☐ gel ice ☒ real ice ☐ dry ice Condition of Ice: partially melted

Temperature by Digi-Thermo Probe 0.9 °C Thermometer # Rec #5
Acceptance Criteria: 0 - 6°C 4.1

7. Was ice changed or added? ☒ Yes ☐ No ☐ Not checked

8. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☒ cardboard ☐ Other: ____

9. Did samples arrive in plastic bags? ☐ Yes ☒ No ☐ Not checked

10. Did all bottles arrive unbroken, and with labels in good condition? ☒ Yes ☐ No ☐ Not checked

Comments

Form No. AK-FORM-SPL-003, June 2010

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Allen, Kristine D	Carrier Tracking No(s):	COC No: 580-39046.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristine.allen@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc				Job #: 580-60244-1
Address: 17461 Derian Ave, Suite 100,	Due Date Requested: 6/15/2016			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92614-5817				
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:			
Email:	WO #:			
Project Name: Former TBE Machine Shop Property	Project #: 58007486			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9215B	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1-W-060716 (580-60244-1)	6/7/16	14:10 Alaskan		Water			X	1	
MW-4-W-060716 (580-60244-4)	6/7/16	13:50 Alaskan		Water			X	1	
MW-5-W-060816 (580-60244-5)	6/8/16	16:00 Alaskan		Water			X	1	
MW-7-W-060816 (580-60244-7)	6/8/16	14:50 Alaskan		Water			X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 4/13/16 13:30	Company TA-Sea	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/24/2016

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Allen, Kristine D	Carrier Tracking No(s):	COC No: 580-39046.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: kristine.allen@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc				Job #: 580-60244-1
Address: 17461 Derian Ave, Suite 100,	Due Date Requested: 6/15/2016			
City: Irvine	TAT Requested (days):			
State, Zip: CA, 92614-5817				
Phone: 949-261-1022(Tel) 949-260-3297(Fax)	PO #:			
Email:	WO #:			
Project Name: Former TBE Machine Shop Property	Project #: 58007486			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	9215B	Total Number of containers	Special Instructions/Note:
			Preservation Code:					
MW-1-W-060716 (580-60244-1)	6/7/16	14:10 Alaskan		Water		X	1	
MW-4-W-060716 (580-60244-4)	6/7/16	13:50 Alaskan		Water		X	1	
MW-5-W-060816 (580-60244-5)	6/8/16	16:00 Alaskan		Water		X	1	
MW-7-W-060816 (580-60244-7)	6/8/16	14:50 Alaskan		Water		X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment: Fed-Ex 6769 6810 1722		
Relinquished by: [signature]	Date/Time: 4/13/16 13:30	Company TA-SEA	Received by: [signature]	Date/Time: 6/14/16 9:30	Company TAI	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: (05) 2.7/2.4 IR-74

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6/24/2016

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-60244-1

Login Number: 60244

List Source: TestAmerica Seattle

List Number: 1

Creator: Gall, Brandon A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-60244-1

Login Number: 60244
List Number: 2
Creator: Skinner, Alma D

List Source: TestAmerica Irvine
List Creation: 06/14/16 11:51 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-14871-1
Client Project/Site: Former TBE Machine Shop Property

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
9/21/2015 4:58:30 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 320-14871-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-14871-1

Comments
No additional comments.

Receipt
The sample was received on 9/11/2015 9:30 AM.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): Effluent-A-090815 (320-14871-1). The canister ID lists 34000465, while the COC lists C8455.

The sample tag for 1 of the 6 liter cans was not filled out. The COC gave instructions that both cans are the same sample. Effluent-A-090815 (320-14871-1)

Air - GC/MS VOA
Method(s) TO-15: Surrogate 1,2-Dichloroethane-d4 (Surr) recovery for the following samples was outside control limits: (CCV 320-86580/8) and (LCS 320-86580/9). This analyte is not used as a monitoring analyte.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Client Sample ID: Effluent-A-090815

Lab Sample ID: 320-14871-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	4.8		0.40		ppb v/v	1		TO-15	Total/NA
Gasoline Range Organics (C6-C12)	110		100		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	1.3		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	1.2		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Client Sample ID: Effluent-A-090815
Lab Sample ID: 320-14871-1
Date Collected: 09/08/15 12:00
Matrix: Air
Date Received: 09/11/15 09:30
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			09/19/15 23:38	1
Ethylbenzene	**4.8**		0.40		ppb v/v			09/19/15 23:38	1
Gasoline Range Organics (C6-C12)	**110**		100		ppb v/v			09/19/15 23:38	1
Tetrachloroethene	**1.3**		0.40		ppb v/v			09/19/15 23:38	1
Trichloroethene	**1.2**		0.40		ppb v/v			09/19/15 23:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*		*09/19/15 23:38*	*1*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*		*09/19/15 23:38*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*09/19/15 23:38*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
320-14871-1	Effluent-A-090815	99	99	99
LCS 320-86580/3	Lab Control Sample	103	102	101
LCS 320-86580/9	Lab Control Sample	158 X	101	102
MB 320-86580/11	Method Blank	102	93	98

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-86580/11
Matrix: Air
Analysis Batch: 86580

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			09/19/15 16:18	1
Ethylbenzene	ND		0.40		ppb v/v			09/19/15 16:18	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			09/19/15 16:18	1
Tetrachloroethene	ND		0.40		ppb v/v			09/19/15 16:18	1
Trichloroethene	ND		0.40		ppb v/v			09/19/15 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*		*09/19/15 16:18*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*09/19/15 16:18*	*1*
Toluene-d8 (Surr)	*98*		*70 - 130*		*09/19/15 16:18*	*1*

Lab Sample ID: LCS 320-86580/3
Matrix: Air
Analysis Batch: 86580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.4		ppb v/v		92	65 - 124
Ethylbenzene	20.0	21.2		ppb v/v		106	76 - 136
Tetrachloroethene	20.0	18.9		ppb v/v		94	56 - 138
Trichloroethene	20.0	18.8		ppb v/v		94	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 130*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 320-86580/9
Matrix: Air
Analysis Batch: 86580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	5000	4900		ppb v/v		98	70 - 130
TPH (as Gasoline)	5000	4150		ppb v/v		83	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*158*	*X*	*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Air - GC/MS VOA

Analysis Batch: 86580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-14871-1	Effluent-A-090815	Total/NA	Air	TO-15	
LCS 320-86580/3	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-86580/9	Lab Control Sample	Total/NA	Air	TO-15	
MB 320-86580/11	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Client Sample ID: Effluent-A-090815
Date Collected: 09/08/15 12:00
Date Received: 09/11/15 09:30

Lab Sample ID: 320-14871-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	493 mL	250 mL	86580	09/19/15 23:38	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-15

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-14871-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-14871-1	Effluent-A-090815	Air	09/08/15 12:00	09/11/15 09:30

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916.374 4378 fax 916 372 1059

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	Project Manager: Matt Pelton	Samples Collected By: Michael MacDaniel	COC No: 1 of 1 COCs
Company Name: ARCADIS	Phone: 919.436.2303		
Address: 801 Corporate Center Dr.	Email: Matthew.Pelton@arcadis-us.com		For Lab Use Only:
City/State/Zip: Raleigh, NC 27607 STE 300			Walk-in Client:
Phone: 919.436.2308	Site Contact:		Lab Sampling:
FAX: 919.854.5798	TA Contact:		Job / SDG No.:
Project Name: Former TBE Machine shop	Anaylsis Turnaround Time		(See below for Add'l Items)
Site/Location: GE / N. Kinsti AR	Standard (Specific):		
P O # BOD 31255. 1404. 0003:5	Rush (Specify):		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes.
Effluent-A-090815	9.8.15	12:00	12:00	-30	-5	—	C8455	✓														GRO, TCE, PCE, Ethylbenzene, 1,1,1-TCA

	Temperature (Fahrenheit)		
Start	Interior	Ambient	
Stop			

	Temperature (Fahrenheit)		
Start	Interior	Ambient	
Stop			

320-14871 Chain of Custody

Special Instructions/QC Requirements & Comments:
Both Canisters filled w/ same sample.

Samples Shipped by: Michael MacDaniel	Date/Time: 9/10/15 10:00	Samples Received by:	9/10/15 10:00
Samples Relinquished by:	Date/Time: 9/10/15 10:45	Received by:	9/11/15 930
Relinquished by:	Date/Time:	Received by:	

Lab Use Only: Shipper Name: Opened by: Condition:

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-14871
Sample # A-1

Client/Project:		VFR ID:		
Canister Serial #:	34000102	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	11.75	09/14/15	KY
FINAL PRESSURE (PSIA)	23.21	09/14/15	KY
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.98			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.98		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
9/19/2015	ATMS2	

Canister DF = 1.98 X Load DF = 0.5070994 (LVf (mLs) 250, LVi (mLs) 493) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1.001683138

Date	Instr.	File #

Canister DF = 1.98 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = 1.98 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-14871
Sample # B-1

Client/Project:		VFR ID:		
Canister Serial #:	34000465	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	11.67	09/14/15	KY
FINAL PRESSURE (PSIA)	23.18	09/14/15	KY
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 1.99			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			1.99		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Canister DF		Load DF / LVf (mLs) / LVi (mLs)		Bag DF / BVf (mLs) / Bvi (mLs)		Date	Instr.	File #	FINAL DF
1.99	X	#DIV/0!	X	1	=				#DIV/0!
1.99	X	#DIV/0!	X	1	=				#DIV/0!
1.99	X	#DIV/0!	X	1	=				#DIV/0!

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-14871-1

Login Number: 14871
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Canister QC Certification

Certification Type: TO-15 SCAN

Date Cleaned/Batch ID D72715 320-14155

Date of QC 7/29/15

Data File Number 150729 22

320-14155 Chain of Custody

CANISTER ID NUMBERS

34000837	* 34000142	
1279	7838	
0465	7903	
2034	8351	
1524		
0599		
1124		
1439		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

1st level Reviewed By: _____ Date: 7/31/15

2nd level Reviewed By: _____ Date: 8/3/15

Q:\FORMS\QA-814 CAN QC CERT 20130729.DOC
QA-814

ERS 7/29/2013

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-14155-1

SDG No.:

Client Sample ID: 34000142 Lab Sample ID: 320-14155-9

Matrix: Air Lab File ID: 15072922.D

Analysis Method: TO-15 Date Collected: 07/27/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 07/30/2015 02:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 81201 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.42	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	ND		0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.11
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-14155-1

SDG No.:

Client Sample ID: 34000142 Lab Sample ID: 320-14155-9

Matrix: Air Lab File ID: 15072922.D

Analysis Method: TO-15 Date Collected: 07/27/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 07/30/2015 02:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 81201 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.050
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	ND		0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	0.12	J B	0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.079
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-14155-1

SDG No.:

Client Sample ID: 34000142 Lab Sample ID: 320-14155-9

Matrix: Air Lab File ID: 15072922.D

Analysis Method: TO-15 Date Collected: 07/27/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 07/30/2015 02:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 81201 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	97		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-130
2037-26-5	Toluene-d8 (Surr)	95		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS2\20150729-23791.b\15072922.D
Lims ID: 320-14155-A-9 Lab Sample ID: 320-14155-9
Client ID: 34000142
Sample Type: Client
Inject. Date: 30-Jul-2015 02:57:30 ALS Bottle#: 14 Worklist Smp#: 37
Purge Vol: 250.000 mL Dil. Factor: 1.0000
Sample Info: 320-14155-A-9
Misc. Info.: 500mL
Operator ID: SRS Instrument ID: ATMS2

Method: \\ChromNA\Sacramento\ChromData\ATMS2\20150729-23791.b\TO15_ATMS2N.m
Limit Group: MSA - TO15 - ICAL
Last Update: 30-Jul-2015 11:00:00 Calib Date: 11-Jun-2015 07:16:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS2\20150610-22452.b\15061026.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK052

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	10.236	10.236	0.000	93	40109	4.00	
* 2 1,4-Difluorobenzene	114	11.587	11.581	0.006	95	167051	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.888	15.888	0.000	88	136951	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	11.003	10.997	0.006	94	65332	4.68	
$ 5 Toluene-d8 (Surr)	100	13.759	13.759	0.000	98	92971	3.78	
$ 6 4-Bromofluorobenzene (Surr	174	17.646	17.640	0.006	93	82915	3.87	
14 Propene	41	4.122	4.122	0.000	35	1204	0.1236	
31 Acetone	43	6.945	6.903	0.042	98	5992	0.4161	
88 n-Octane	43	13.747	13.728	0.019	42	837	0.0258	
85 Toluene	91	13.862	13.868	-0.006	82	1870	0.0495	
97 Ethylbenzene	91	16.046	16.046	0.000	1	541	0.0126	
98 m-Xylene & p-Xylene	91	16.162	16.168	-0.006	1	1648	0.0493	
101 o-Xylene	91	16.801	16.794	0.007	1	822	0.0241	
107 N-Propylbenzene	91	17.920	17.926	-0.006	1	1092	0.0201	
110 4-Ethyltoluene	120	18.163	18.096	0.067	1	712	0.0474	
111 1,3,5-Trimethylbenzene	120	18.163	18.157	0.006	1	712	0.0344	
114 tert-Butylbenzene	91	18.705	18.699	0.006	1	788	0.0262	
115 1,2,4-Trimethylbenzene	120	18.759	18.747	0.012	1	890	0.0447	
116 sec-Butylbenzene	105	19.033	19.027	0.006	95	1914	0.0323	
121 4-Isopropyltoluene	119	19.222	19.222	0.000	93	4189	0.0822	
117 1,3-Dichlorobenzene	146	19.331	19.337	-0.006	70	992	0.0322	
118 Benzyl chloride	91	19.611	19.593	0.018	1	835	0.0212	
123 n-Butylbenzene	92	19.836	19.836	0.000	1	495	0.0239	
122 1,2-Dichlorobenzene	146	20.037	20.037	0.000	14	1120	0.0394	
128 Hexachlorobutadiene	225	23.194	23.188	0.006	84	2739	0.1230	
127 Naphthalene	128	23.310	23.310	0.000	1	811	0.0214	

Reagents:

VASUISIM_00195 Amount Added: 50.00 Units: mL Run Reagent

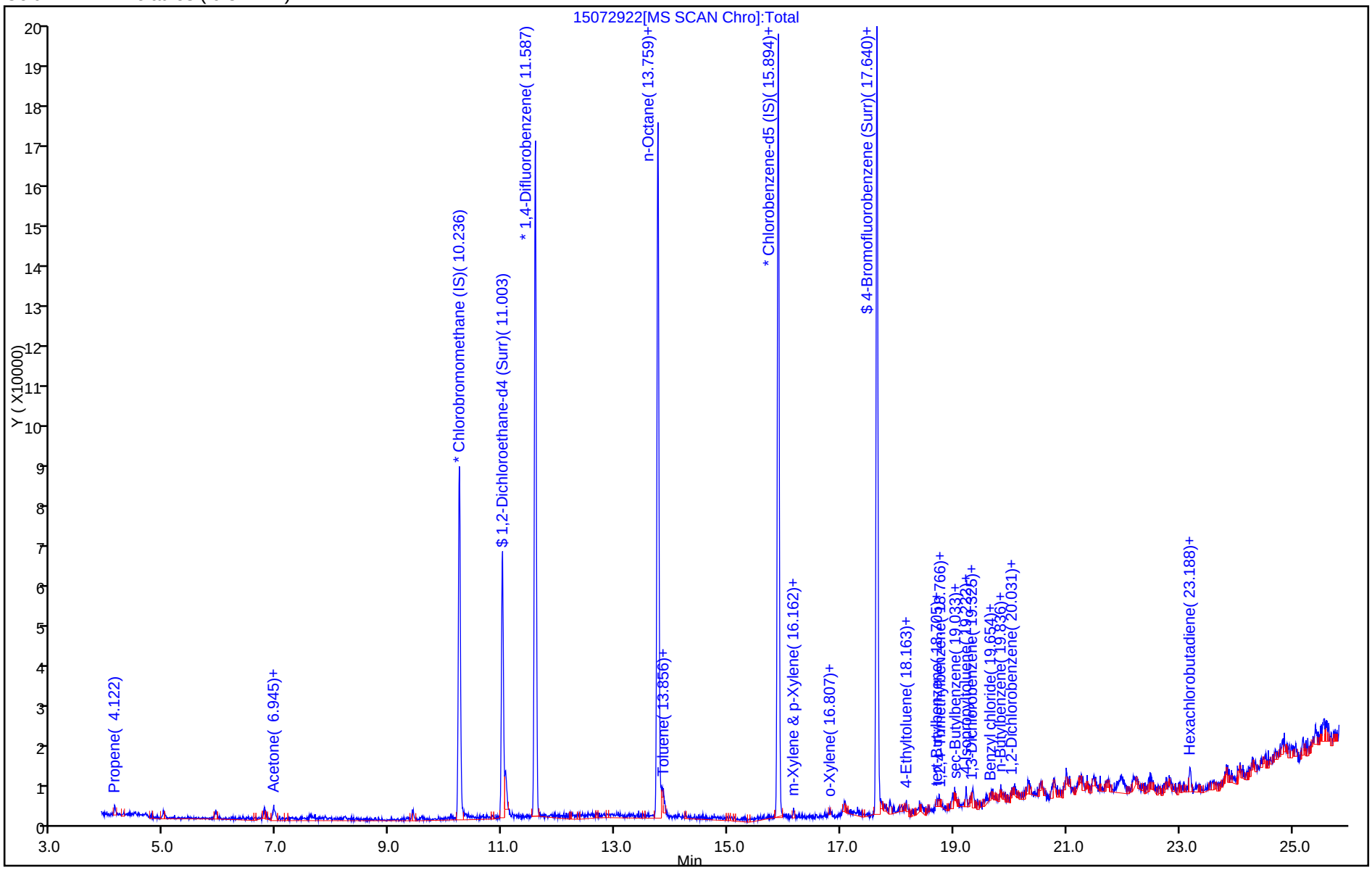
Report Date: 31-Jul-2015 15:06:39 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS2\20150729-23791.b\15072922.D

Injection Date:	30-Jul-2015 02:57:30	Instrument ID:	ATMS2	Operator ID:	SRS
Lims ID:	320-14155-A-9	Lab Sample ID:	320-14155-9	Worklist Smp#:	37
Client ID:	34000142				
Purge Vol:	250.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	TO15_ATMS2N	Limit Group:	MSA - TO15 - ICAL		

Column: RTX Volatiles (0.32 mm)



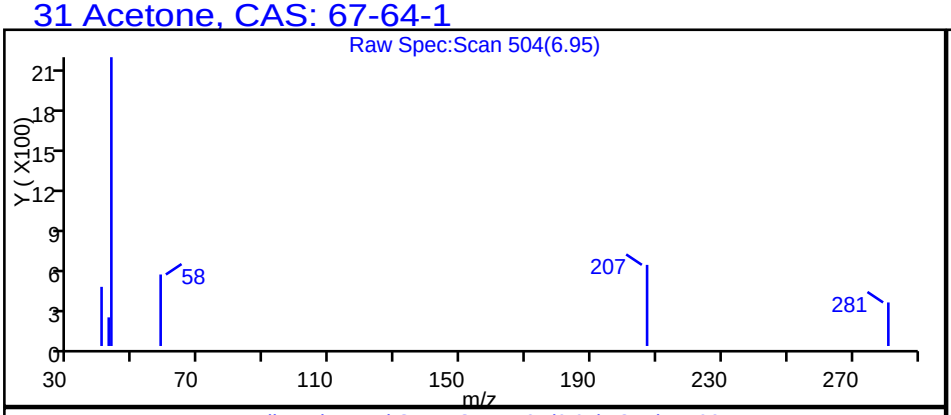
Report Date: 31-Jul-2015 15:06:39 Chrom Revision: 2.2 23-Jul-2015 08:26:08

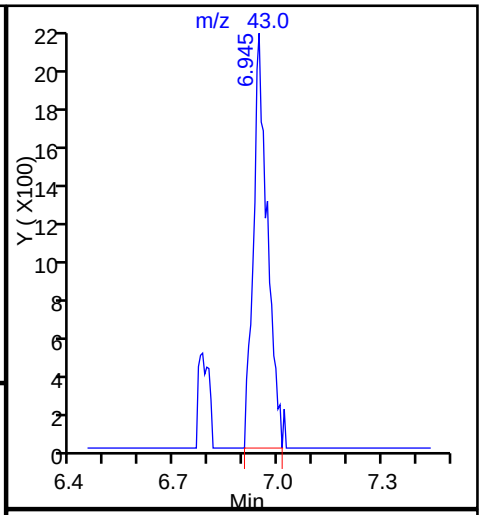
TestAmerica Sacramento

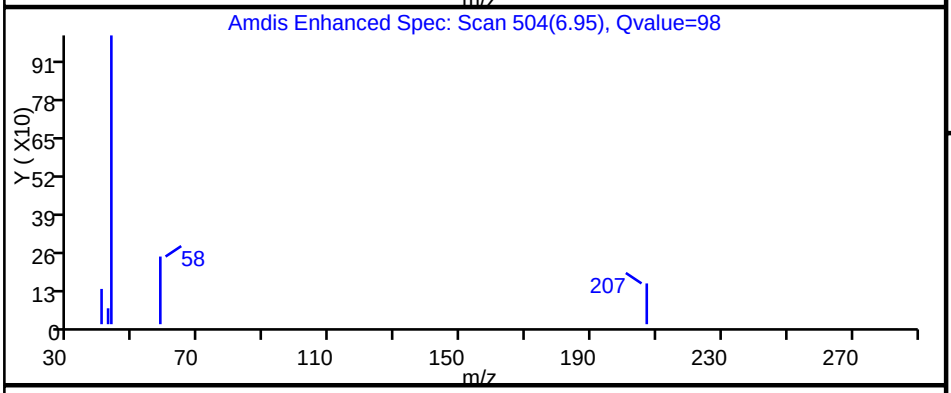
Data File: \\ChromNA\Sacramento\ChromData\ATMS2\20150729-23791.b\15072922.D

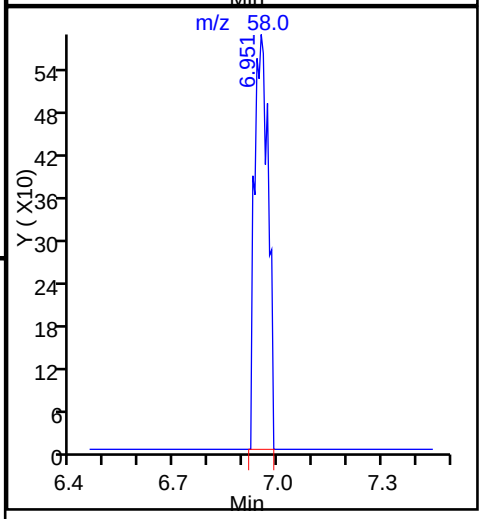
Injection Date:	30-Jul-2015 02:57:30	Instrument ID:	ATMS2		
Lims ID:	320-14155-A-9	Lab Sample ID:	320-14155-9		
Client ID:	34000142				
Operator ID:	SRS	ALS Bottle#:	14	Worklist Smp#:	37
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS2N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

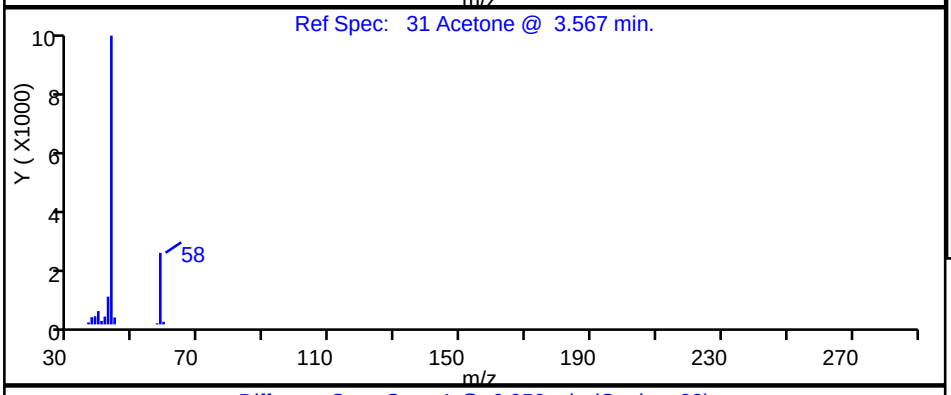
31 Acetone, CAS: 67-64-1

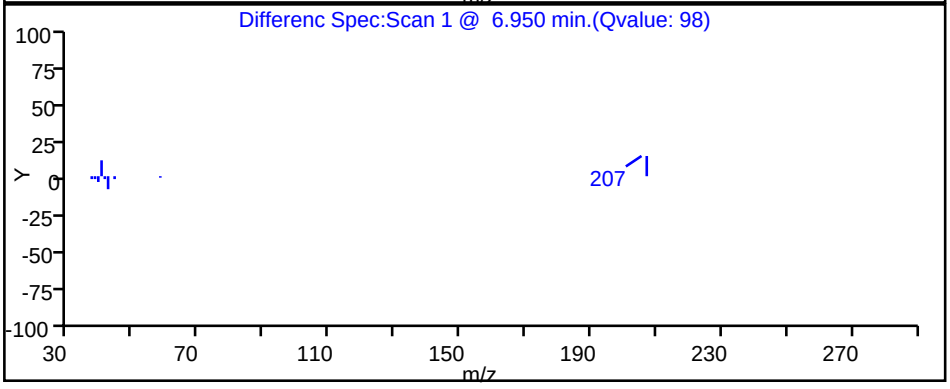












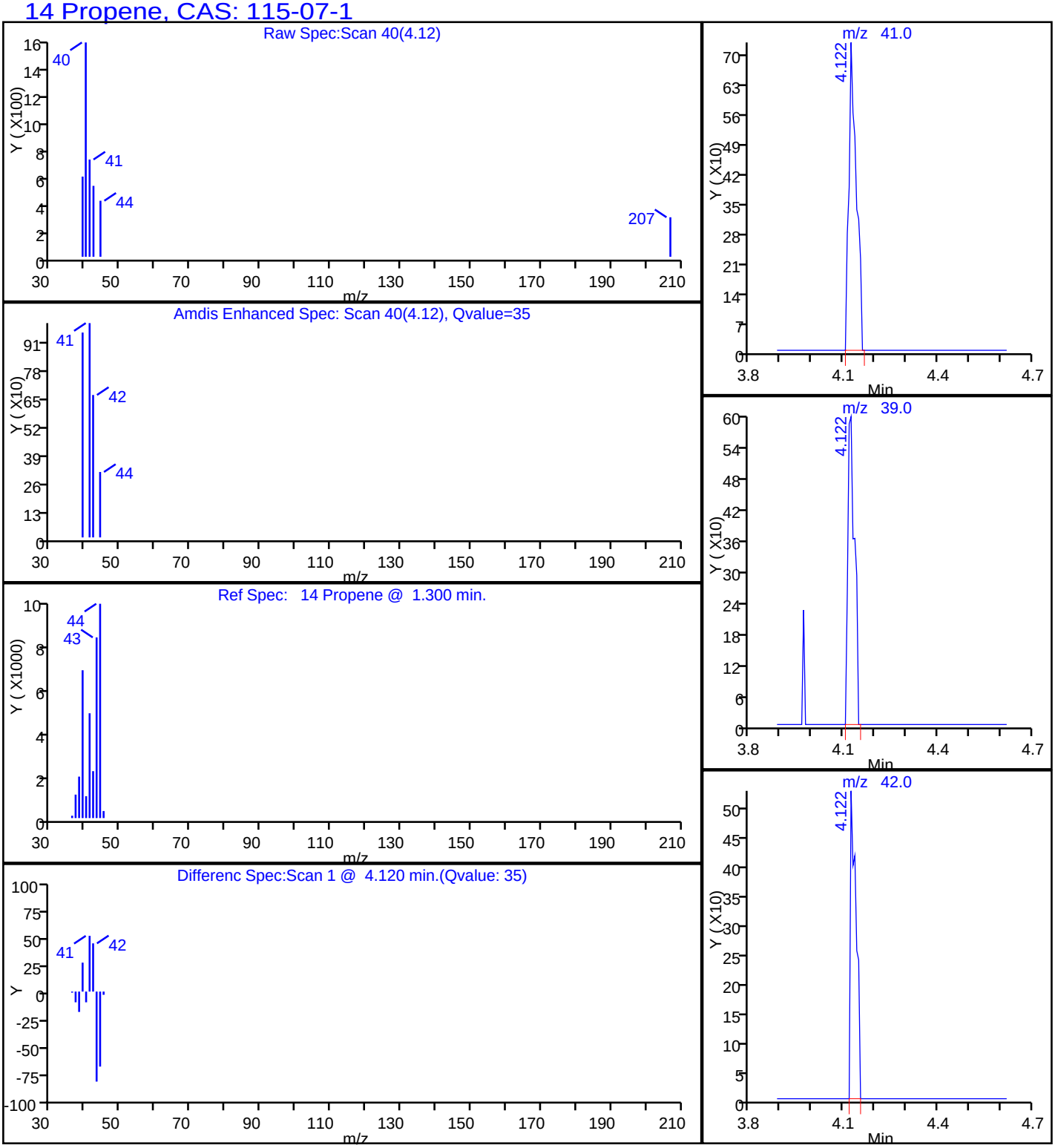
Report Date: 31-Jul-2015 15:06:39 Chrom Revision: 2.2 23-Jul-2015 08:26:08

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS2\20150729-23791.b\15072922.D

Injection Date:	30-Jul-2015 02:57:30	Instrument ID:	ATMS2		
Lims ID:	320-14155-A-9	Lab Sample ID:	320-14155-9		
Client ID:	34000142				
Operator ID:	SRS	ALS Bottle#:	14	Worklist Smp#:	37
Purge Vol:	250.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS2N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

14 Propene, CAS: 115-07-1



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-16295-1
Client Project/Site: Former TBE Machine Shop Property

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
12/18/2015 4:23:43 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Job ID: 320-16295-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-16295-1

Comments
No additional comments.

Receipt
The sample was received on 12/4/2015 10:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Client Sample ID: EFFLUENT-A-120115

Lab Sample ID: 320-16295-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	7.1		0.40		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	1.1		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	1.5		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: EFFLUENT-A-120115
Lab Sample ID: 320-16295-1
Date Collected: 12/01/15 11:00
Matrix: Air
Date Received: 12/04/15 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			12/17/15 19:02	1
Ethylbenzene	**7.1**		0.40		ppb v/v			12/17/15 19:02	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			12/17/15 19:02	1
Tetrachloroethene	**1.1**		0.40		ppb v/v			12/17/15 19:02	1
Trichloroethene	**1.5**		0.40		ppb v/v			12/17/15 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*72*		*70 - 130*		*12/17/15 19:02*	*1*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*		*12/17/15 19:02*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*12/17/15 19:02*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
320-16295-1	EFFLUENT-A-120115	72	105	102
LCS 320-95928/3	Lab Control Sample	73	108	100
LCS 320-95928/5	Lab Control Sample	93	107	102
MB 320-95928/7	Method Blank	71	103	101

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-95928/7
Matrix: Air
Analysis Batch: 95928

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			12/17/15 18:13	1
Ethylbenzene	ND		0.40		ppb v/v			12/17/15 18:13	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			12/17/15 18:13	1
Tetrachloroethene	ND		0.40		ppb v/v			12/17/15 18:13	1
Trichloroethene	ND		0.40		ppb v/v			12/17/15 18:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*71*		*70 - 130*		*12/17/15 18:13*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*		*12/17/15 18:13*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*12/17/15 18:13*	*1*

Lab Sample ID: LCS 320-95928/3
Matrix: Air
Analysis Batch: 95928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	16.8		ppb v/v		84	65 - 124
Ethylbenzene	20.0	19.5		ppb v/v		98	76 - 136
Tetrachloroethene	20.0	20.3		ppb v/v		101	56 - 138
Trichloroethene	20.0	20.8		ppb v/v		104	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*73*		*70 - 130*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCS 320-95928/5
Matrix: Air
Analysis Batch: 95928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	5000	4380		ppb v/v		88	70 - 130
TPH (as Gasoline)	5000	4530		ppb v/v		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*70 - 130*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Air - GC/MS VOA

Analysis Batch: 95928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-16295-1	EFFLUENT-A-120115	Total/NA	Air	TO-15	
LCS 320-95928/3	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-95928/5	Lab Control Sample	Total/NA	Air	TO-15	
MB 320-95928/7	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Client Sample ID: EFFLUENT-A-120115 — **Lab Sample ID: 320-16295-1**
Date Collected: 12/01/15 11:00 — **Matrix: Air**
Date Received: 12/04/15 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	527 mL	250 mL	95928	12/17/15 19:02	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-16

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-16

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-16295-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-16295-1	EFFLUENT-A-120115	Air	12/01/15 11:00	12/04/15 10:00

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916.374 4378 fax 916.372.1059

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information		Project Manager: Matt Pitten	Samples Collected By: M. MacDaniel	COC No
Company Name: ARCADIS		Phone: 919.415.2308		___ of ___ COCs
Address: 801 Corporate Center Dr 300		Email: Matthew.Pitten@arcadis.com		For Lab Use Only:
City/State/Zip: Raleigh, NC 27607				Walk-in Client:
Phone: 919.415.2308		Site Contact:		Lab Sampling
FAX: 919.854.5444		TA Contact:		
Project Name: GE-Nikiski		Analysis Turnaround Time		Job / SDG No
Site/Location: 49200 Kenai Spur Hwy		Standard (Specific)		(See below for Add'l Items)
PO # B0031255.1404.00005		Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15 (Med / Std / Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
Effluent-A-120115	12/1/15	1100	1100	-29	-5		3400-465	✓														GRO, TCE, PCE, Ethylbenzene 1,1,1-TCA

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

320-16295 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	Date / Time:	Samples Received by:
Samples Relinquished by: [signature]	Date / Time: 12/3/15 11:20	Received by: [signature] 12/3/15 11:27
Relinquished by: [signature]	Date / Time: 12/3/15 12:00	Received by: [signature] 12/4/15 1000
Lab Use Only: Shipper Name:	Opened by:	Condition:

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-16295
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34000465	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	11.33	12/15/15	SV
FINAL PRESSURE (PSIA)	23.91	12/15/15	SV
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 2.11			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.11		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
12/17/2015	ATMS2	

Canister DF = 2.11 X Load DF = 0.4743833 (LVf (mLs) 250, LVi (mLs) 527) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1.001103684

Date	Instr.	File #

Canister DF = 2.11 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = 2.11 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-16295-1

Login Number: 16295
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

320-15930 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Canister QC Certification
Batch Certification

Certification Type: TO-15 Scan

Date Cleaned/Batch ID: 11/12/15 320-15930

Date of QC: 11/14/15 @ MS9

Data File Number: MS9111410.d

C:\MSDCHEM\1\DATA\151114\

CANISTER ID NUMBERS

34000512	↓ 2159	
0248	8338	
0530	8232 *	
0407	8128	
1556		
0020		
0465		
↓ 0845		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

Hoseung Lee — 1st level Reviewed By: — Date: 11/17/15

2nd level Reviewed By: — Date: 11/18/15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-15930-1

SDG No.:

Client Sample ID: 8232 Lab Sample ID: 320-15930-11

Matrix: Air Lab File ID: MS9111410.D

Analysis Method: TO-15 Date Collected: 11/12/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 11/14/2015 19:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 92399 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.79	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	0.46	J	0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	0.32	J	0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.11
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-15930-1

SDG No.:

Client Sample ID: 8232 Lab Sample ID: 320-15930-11

Matrix: Air Lab File ID: MS9111410.D

Analysis Method: TO-15 Date Collected: 11/12/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 11/14/2015 19:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 92399 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	0.066	J	0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	0.26	J	0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.050
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	ND		0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	0.24	J	0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.079
108-88-3	Toluene	0.13	J	0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-15930-1

SDG No.:

Client Sample ID: 8232 Lab Sample ID: 320-15930-11

Matrix: Air Lab File ID: MS9111410.D

Analysis Method: TO-15 Date Collected: 11/12/2015 00:00

Sample wt/vol: 250(mL) Date Analyzed: 11/14/2015 19:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 92399 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	0.13	J	0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		70-130
2037-26-5	Toluene-d8 (Surr)	97		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D
Lims ID: 320-15930-A-11 Lab Sample ID: 320-15930-11
Client ID: 8232
Sample Type: Client
Inject. Date: 14-Nov-2015 19:54:30 ALS Bottle#: 8 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 320-15930-A-11
Misc. Info.: 500 mL
Operator ID: srs Instrument ID: ATMS9

Method: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\TO15_ATMS9N.m
Limit Group: MSA - TO15 - ICAL
Last Update: 17-Nov-2015 11:37:36 Calib Date: 14-Nov-2015 01:17:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS9\20151113-26436.b\MS9111312.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: yangk Date: 16-Nov-2015 18:07:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.433	12.439	-0.006	88	38760	4.00	
* 2 1,4-Difluorobenzene	114	14.532	14.544	-0.012	94	165921	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.457	20.457	0.000	87	143252	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	13.607	13.620	-0.013	96	51024	3.88	
$ 5 Toluene-d8 (Surr)	100	17.702	17.708	-0.006	99	105357	3.87	
$ 6 4-Bromofluorobenzene (Surr	174	22.374	22.374	0.000	94	88781	4.00	
14 Propene	41	4.166	4.129	0.037	34	1571	0.2440	
31 Acetone	43	7.670	7.615	0.055	95	11531	0.7866	
48 Carbon disulfide	76	9.008	9.002	0.006	97	8418	0.3206	
54 2-Butanone (MEK)	72	11.411	11.381	0.030	98	2325	0.4622	
74 Isooctane	57	13.534	13.547	-0.013	84	3292	0.0584	
75 n-Heptane	43	14.051	14.064	-0.013	75	506	0.0297	
85 Toluene	91	17.848	17.860	-0.012	92	5503	0.1285	
97 Ethylbenzene	91	20.640	20.646	-0.006	91	3822	0.0661	
98 m-Xylene & p-Xylene	91	20.780	20.786	-0.006	96	5882	0.1289	
101 o-Xylene	91	21.480	21.480	0.000	92	2131	0.0465	
100 Styrene	104	21.504	21.504	0.000	86	1137	0.0321	
107 N-Propylbenzene	91	22.648	22.648	0.000	92	1031	0.0129	
110 4-Ethyltoluene	120	22.787	22.812	-0.025	79	683	0.0323	
111 1,3,5-Trimethylbenzene	120	22.879	22.879	0.000	89	480	0.0165	
115 1,2,4-Trimethylbenzene	120	23.420	23.432	-0.012	92	1022	0.0359	
121 4-Isopropyltoluene	119	23.858	23.858	0.000	97	18474	0.2612	
120 1,4-Dichlorobenzene	146	24.095	24.095	0.000	89	807	0.0221	
126 1,2,4-Trichlorobenzene	180	26.821	26.821	0.000	1	266	0.009622	

Reagents:

VASUISIM_00224 Amount Added: 50.00 Units: mL Run Reagent

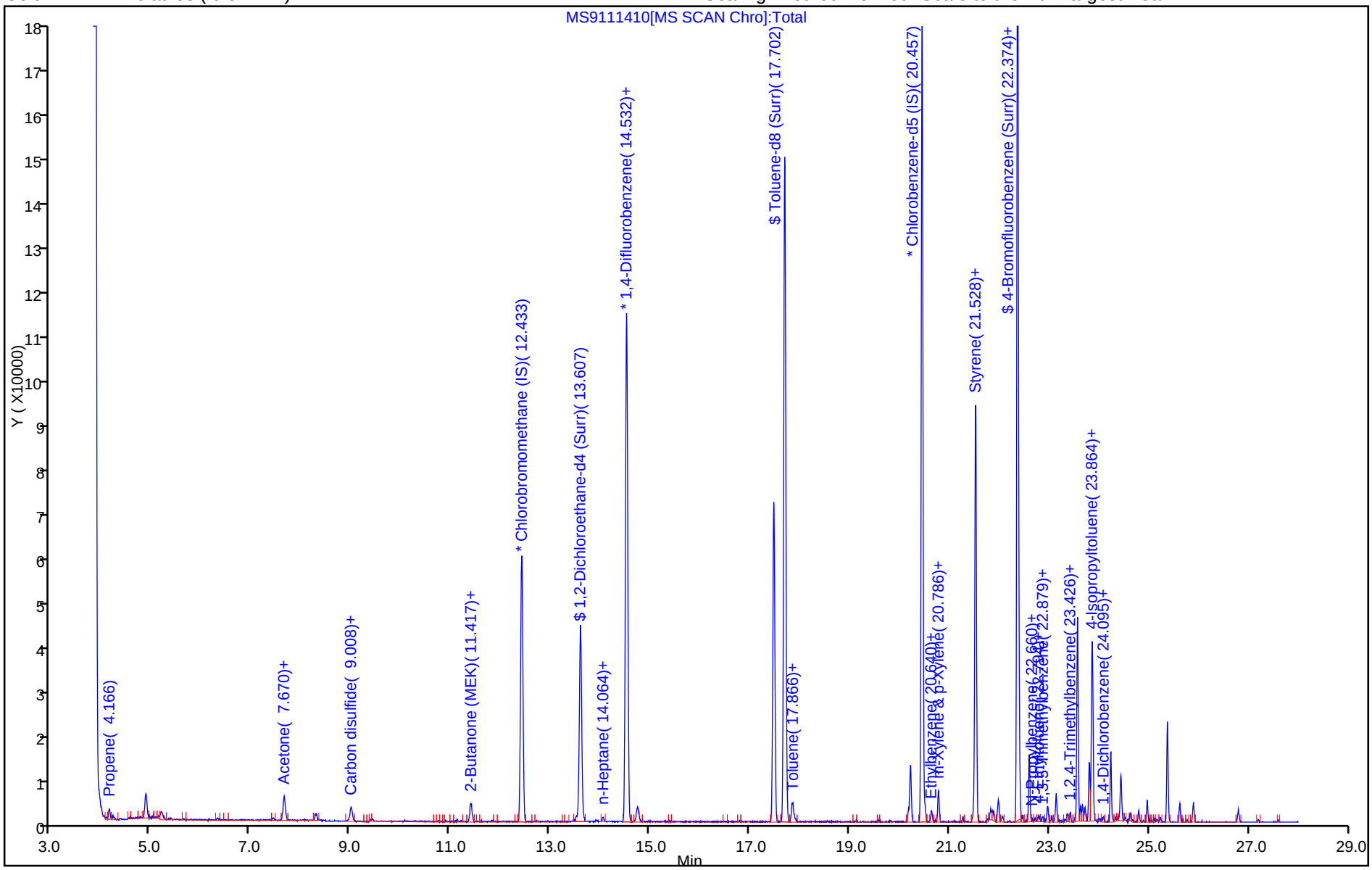
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9	Operator ID:	srs
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11	Worklist Smp#:	20
Client ID:	8232				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		

Column: RTX Volatiles (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



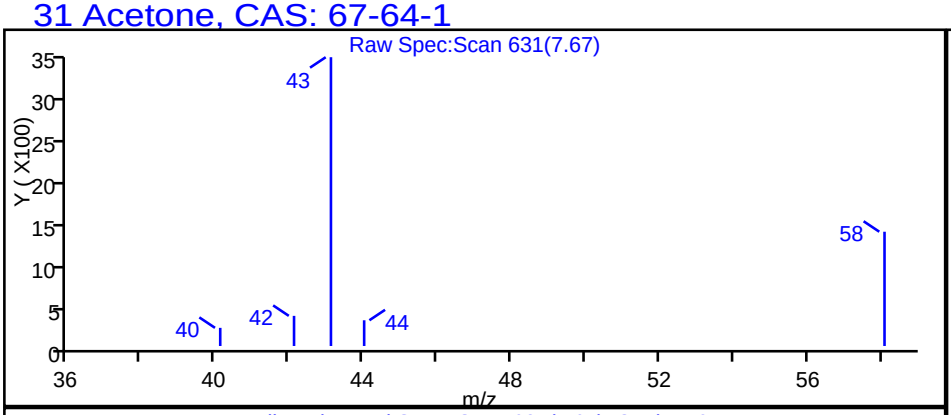
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

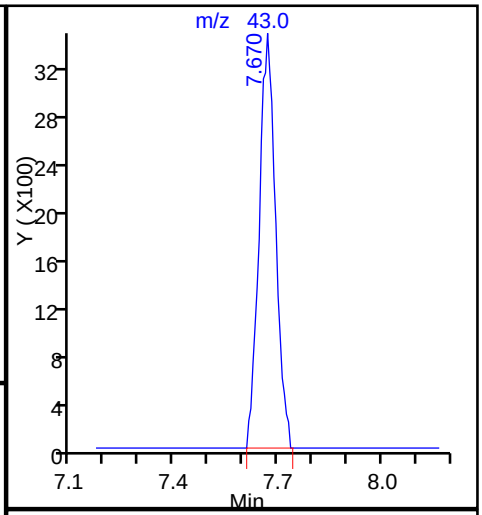
TestAmerica Sacramento

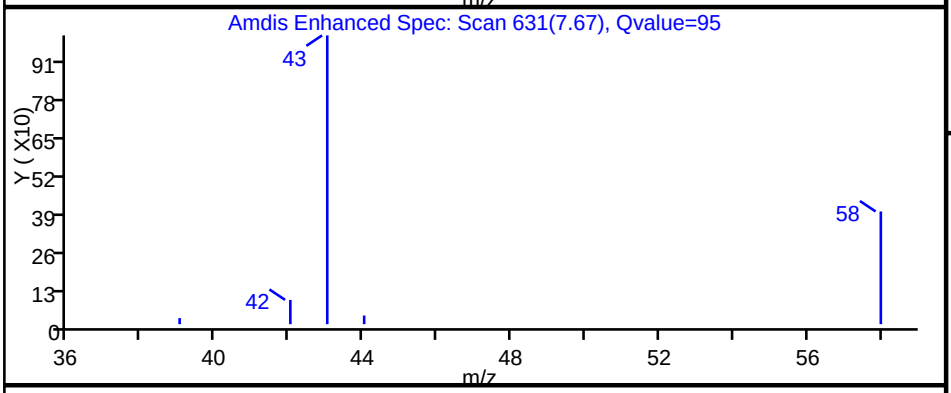
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

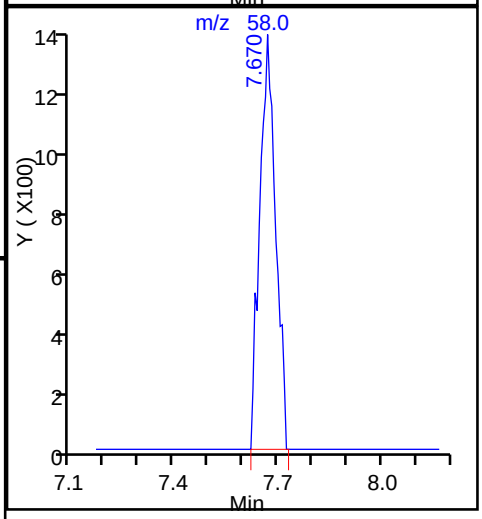
Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

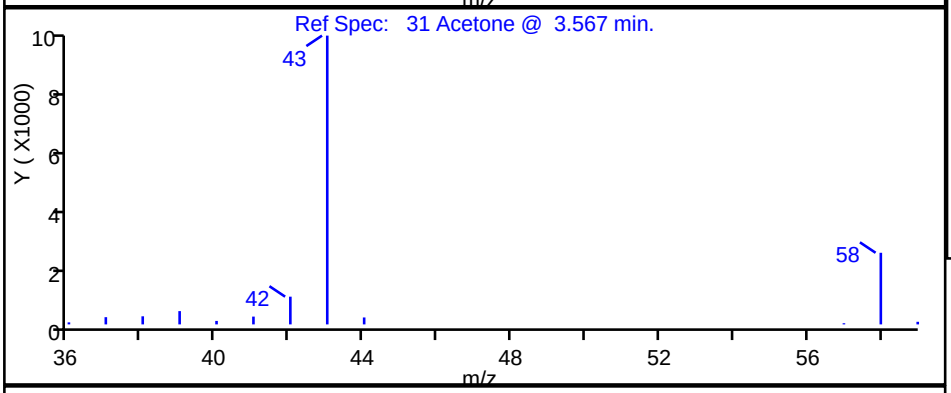
31 Acetone, CAS: 67-64-1

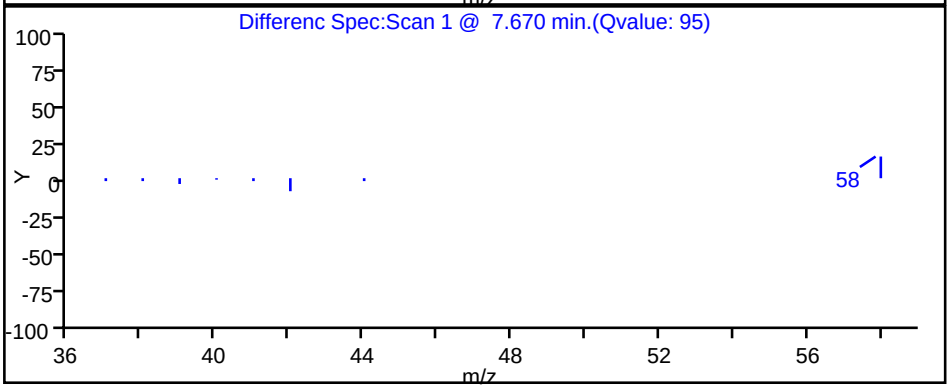












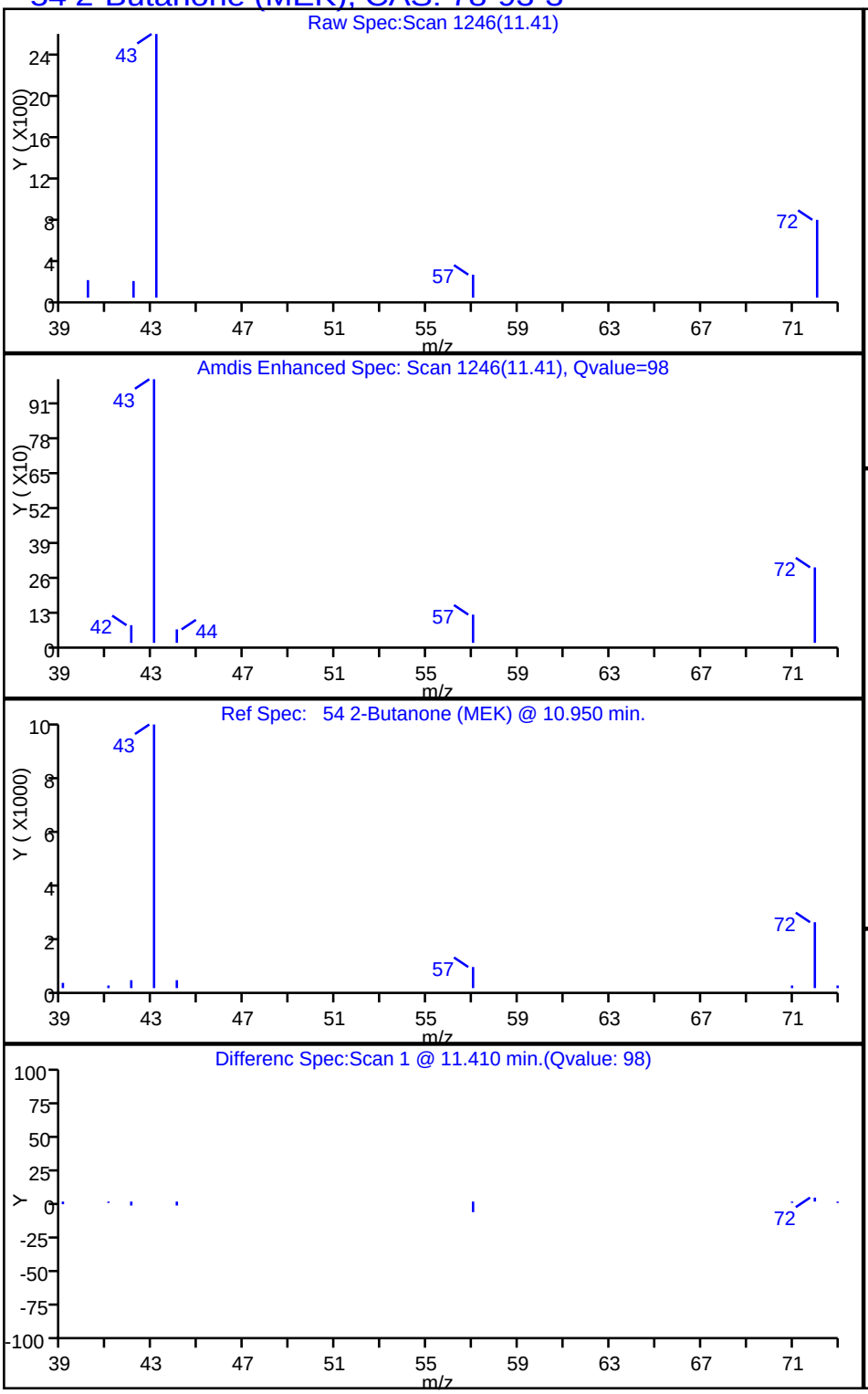
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

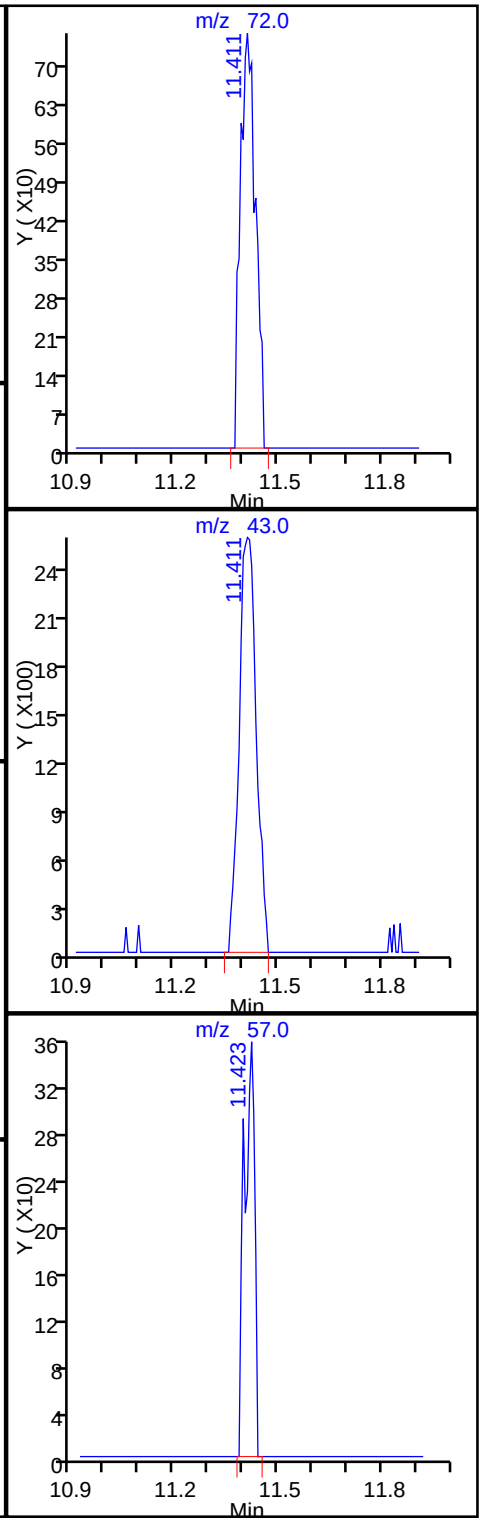
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

54 2-Butanone (MEK), CAS: 78-93-3





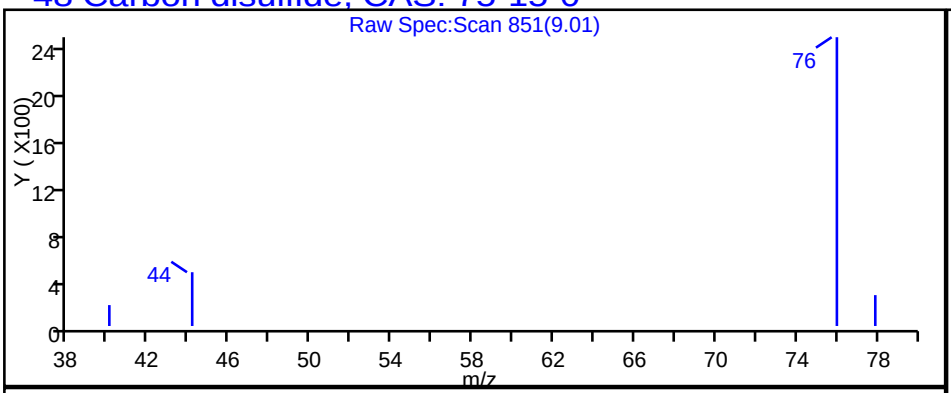
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

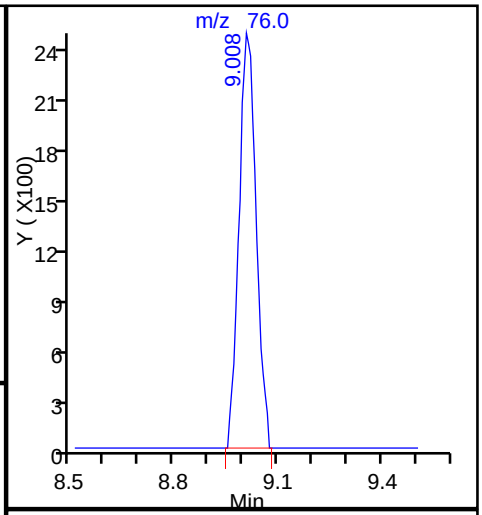
TestAmerica Sacramento

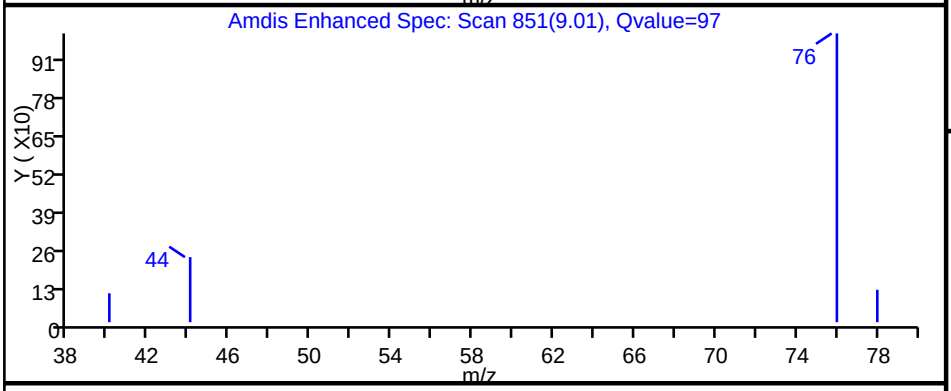
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

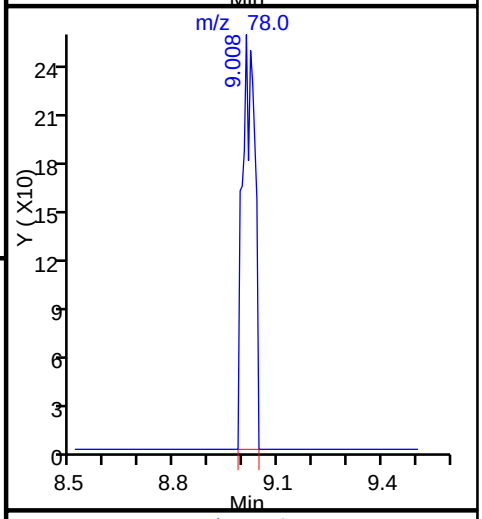
Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

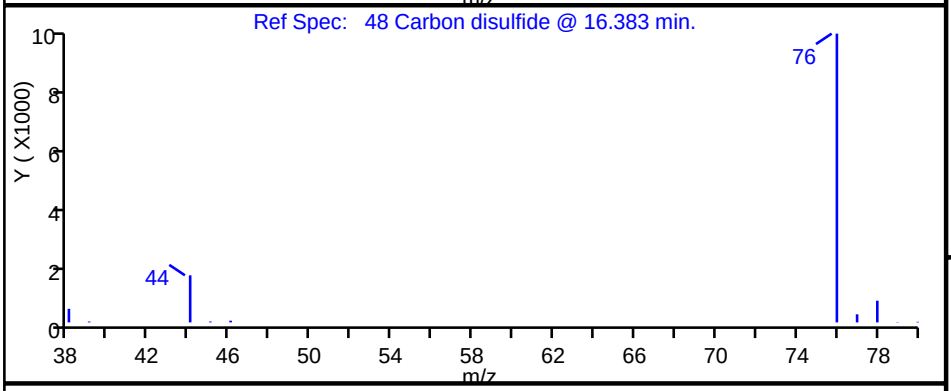
48 Carbon disulfide, CAS: 75-15-0

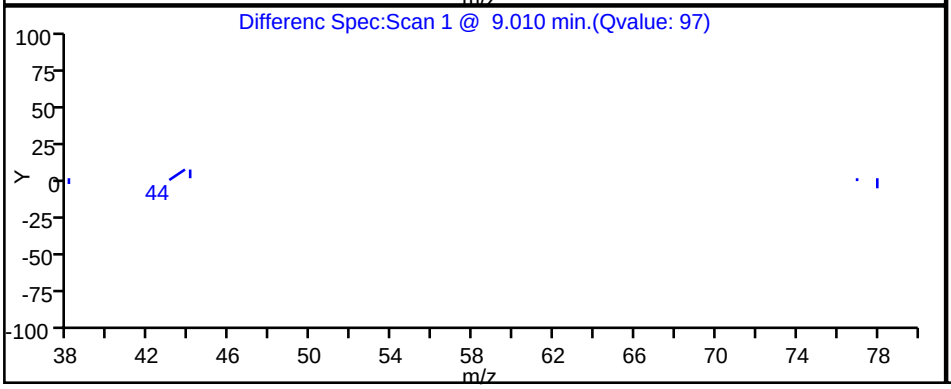


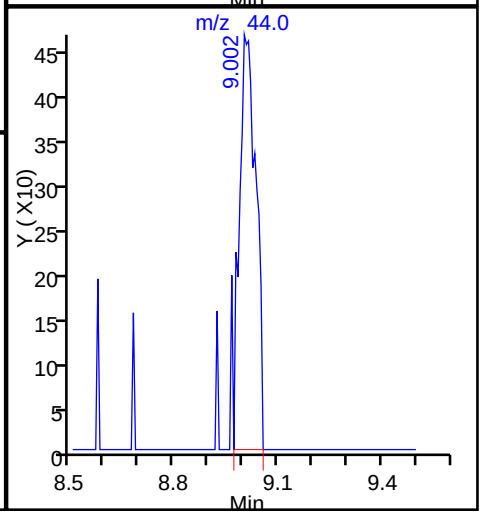






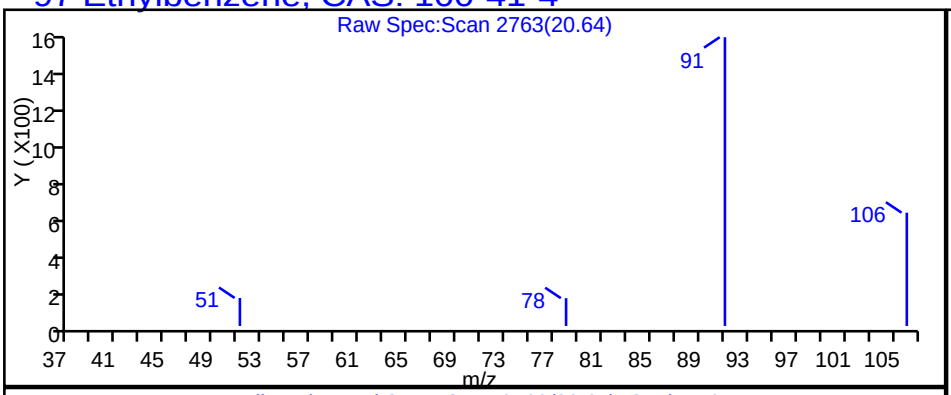


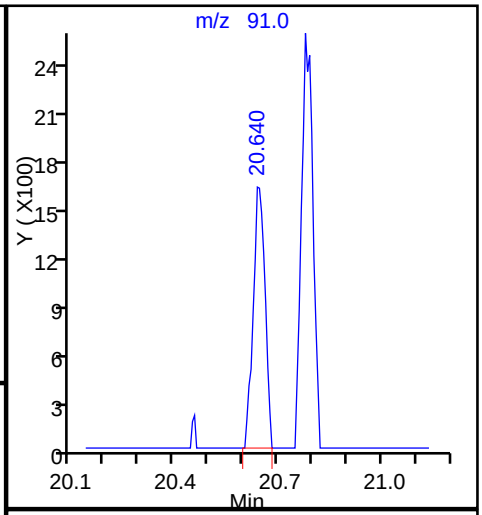


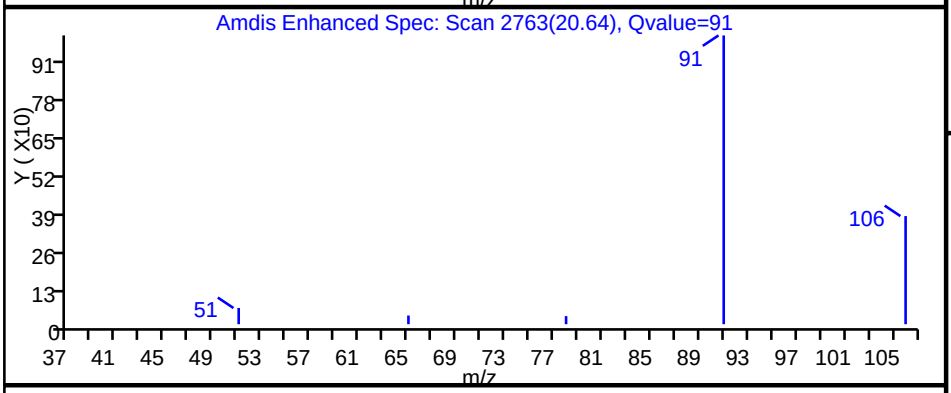


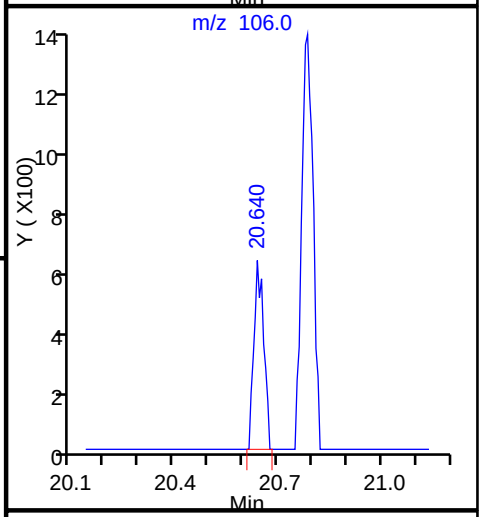
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D
Injection Date: 14-Nov-2015 19:54:30 Instrument ID: ATMS9
Lims ID: 320-15930-A-11 Lab Sample ID: 320-15930-11
Client ID: 8232
Operator ID: srs ALS Bottle#: 8 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: TO15_ATMS9N Limit Group: MSA - TO15 - ICAL
Column: RTX Volatiles (0.32 mm) Detector MS SCAN

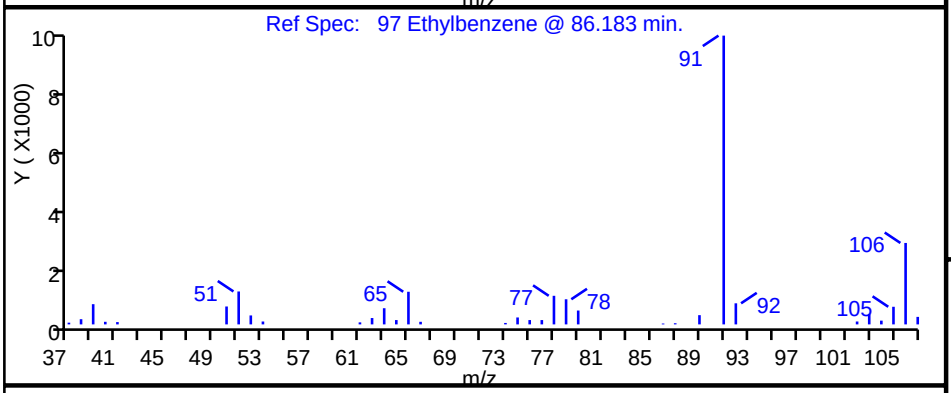
97 Ethylbenzene, CAS: 100-41-4

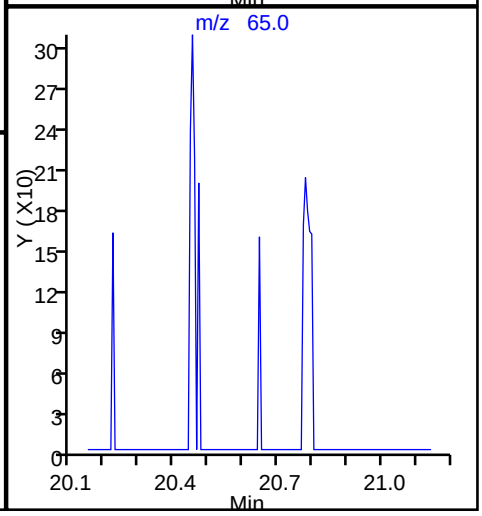


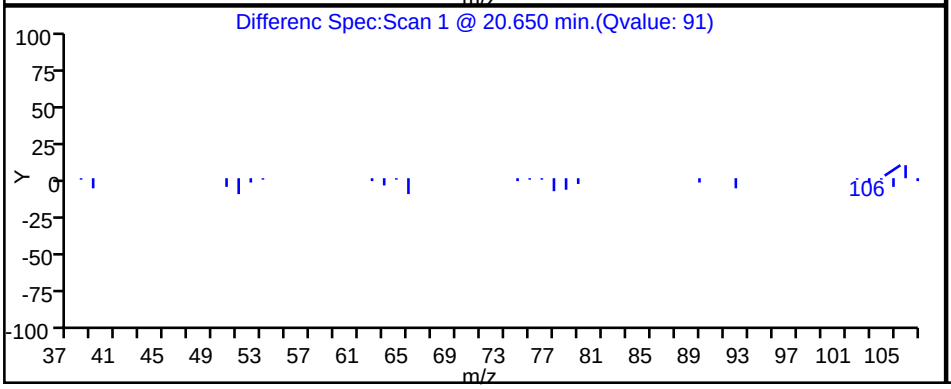








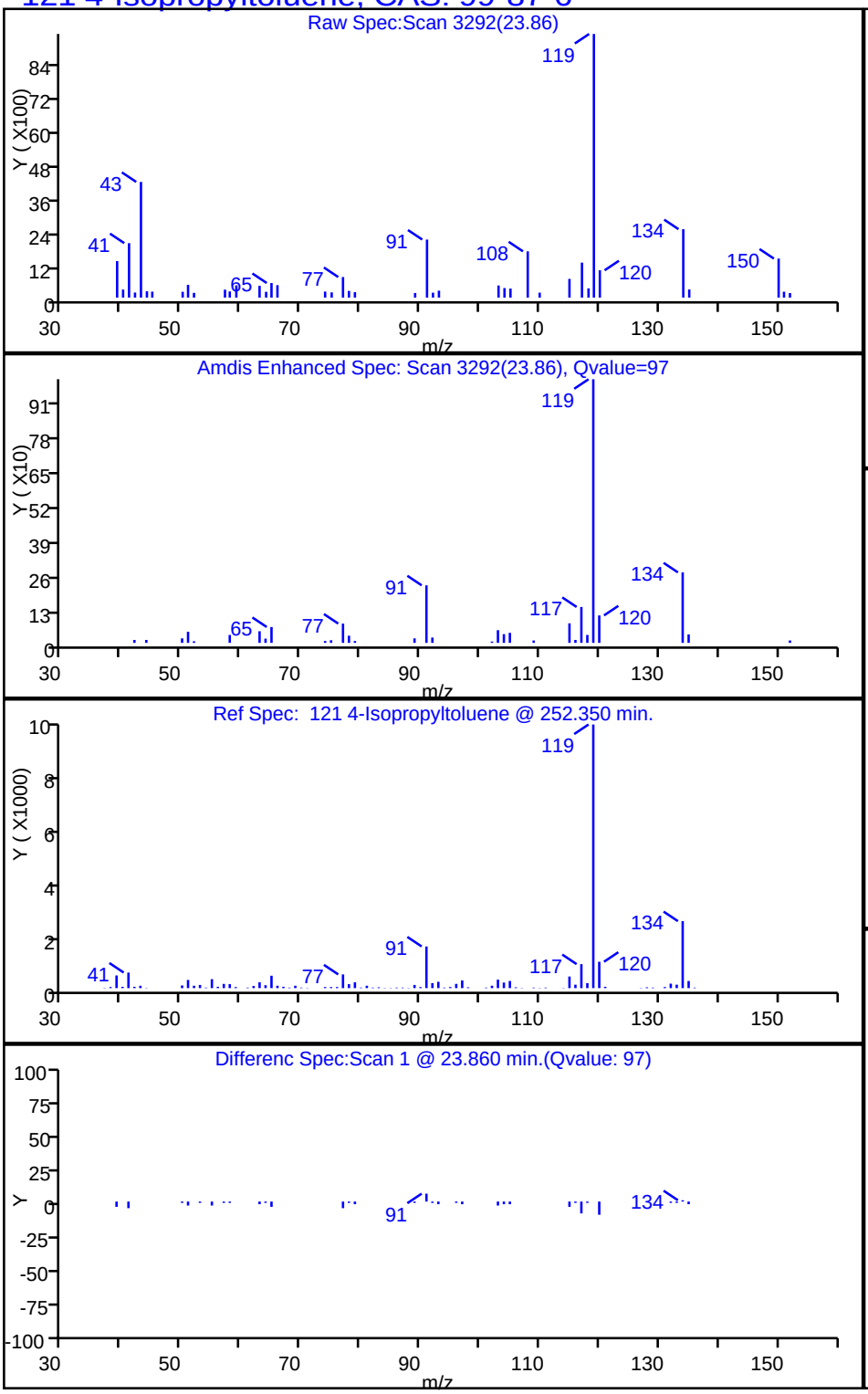


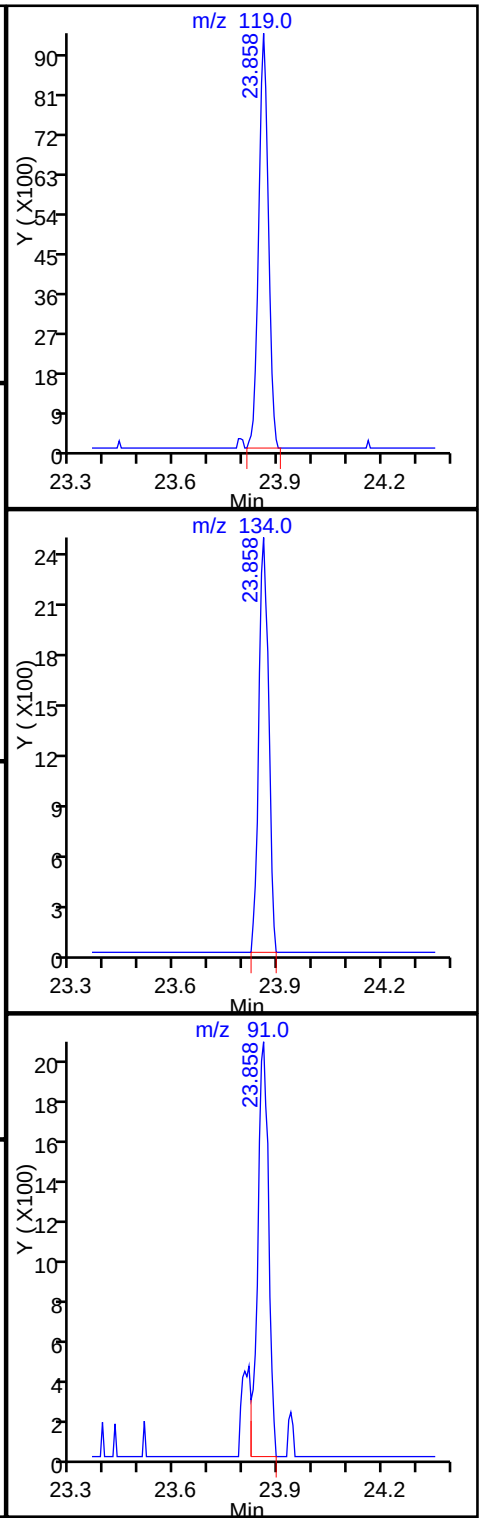


TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D				
Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

121 4-Isopropyltoluene, CAS: 99-87-6





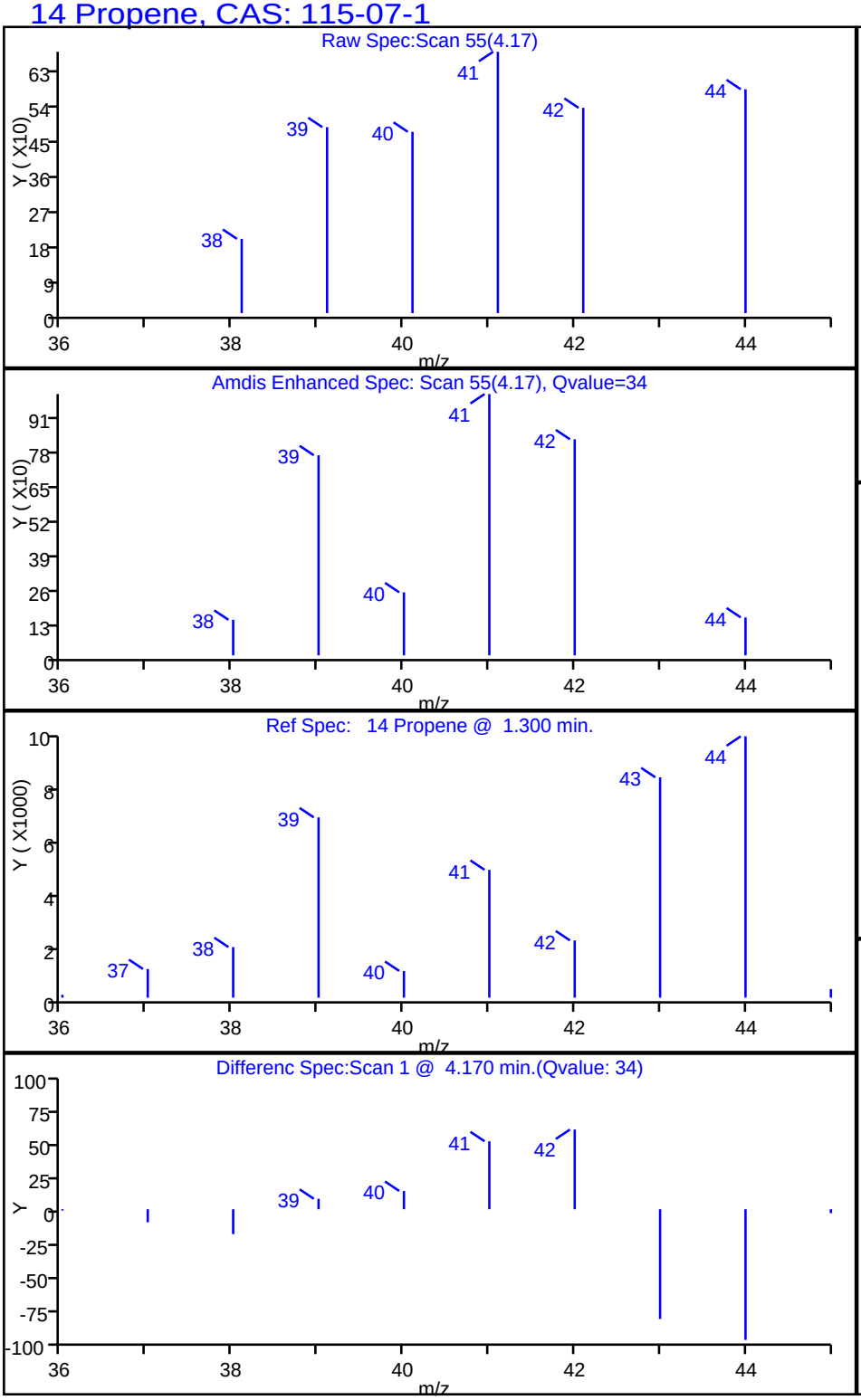
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

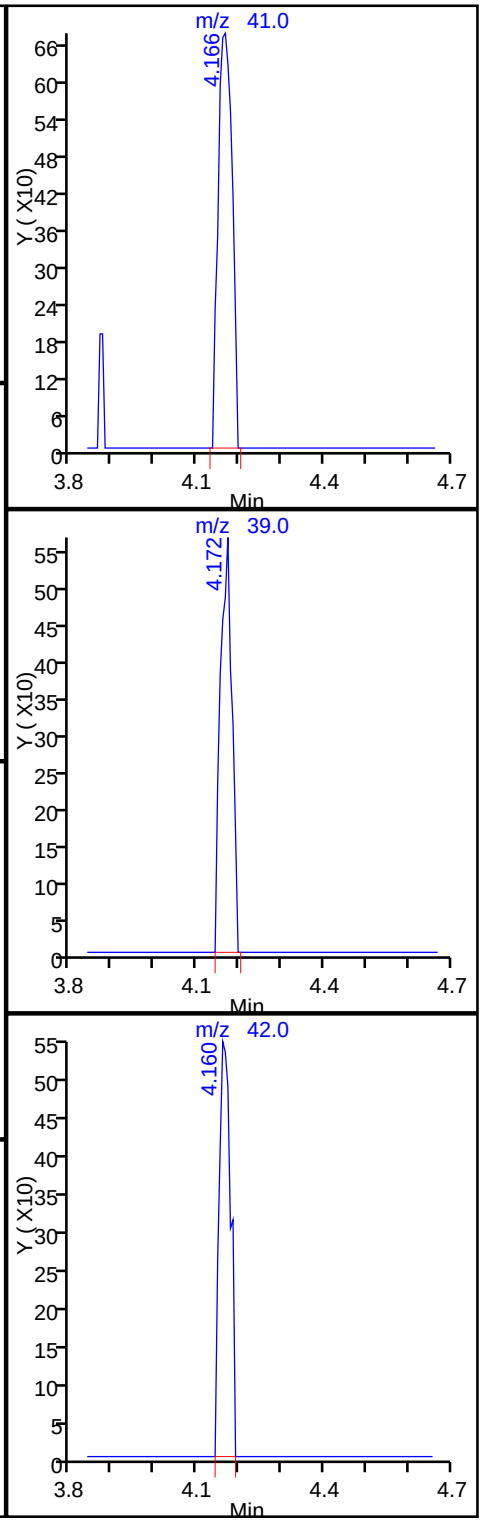
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

14 Propene, CAS: 115-07-1

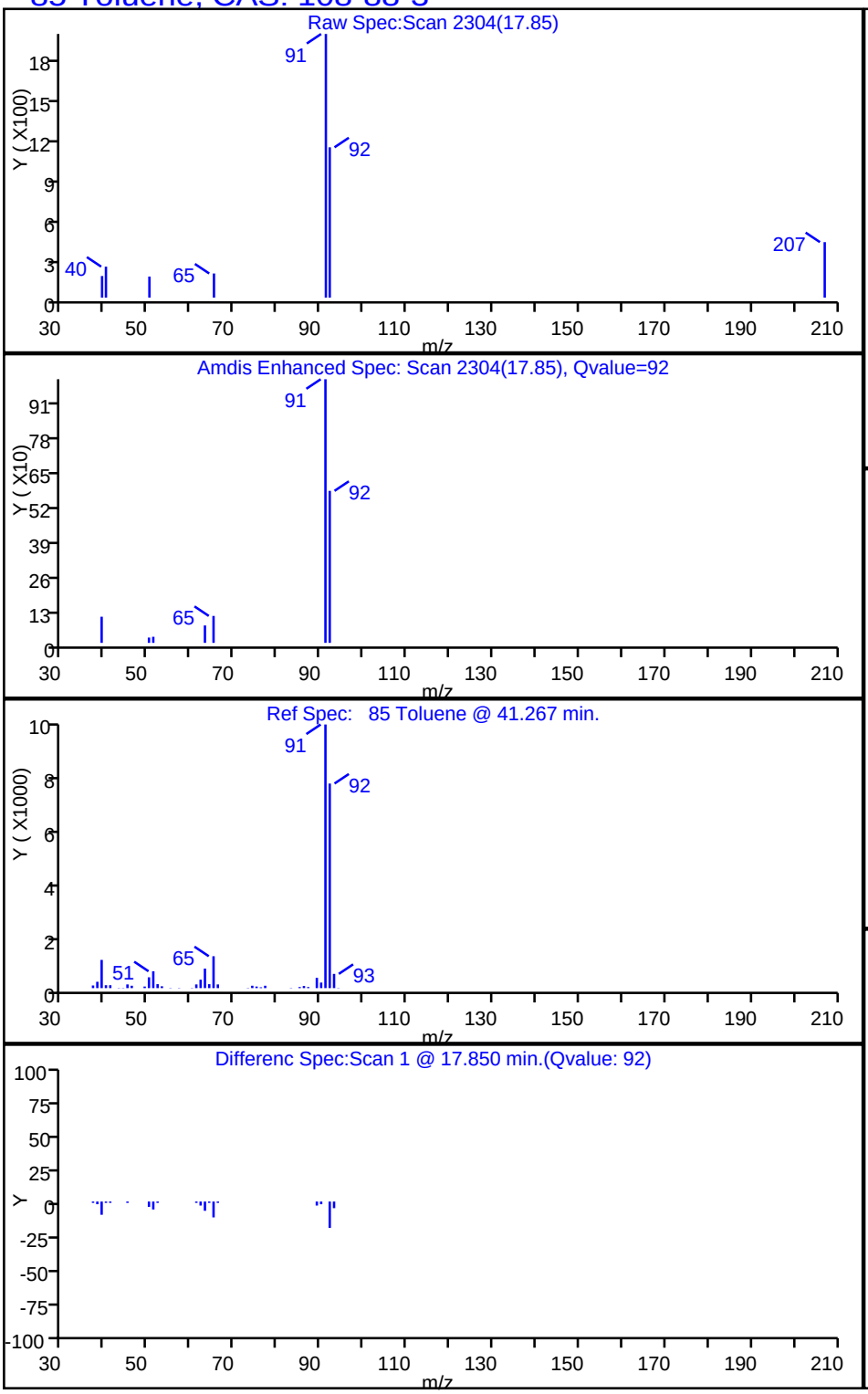


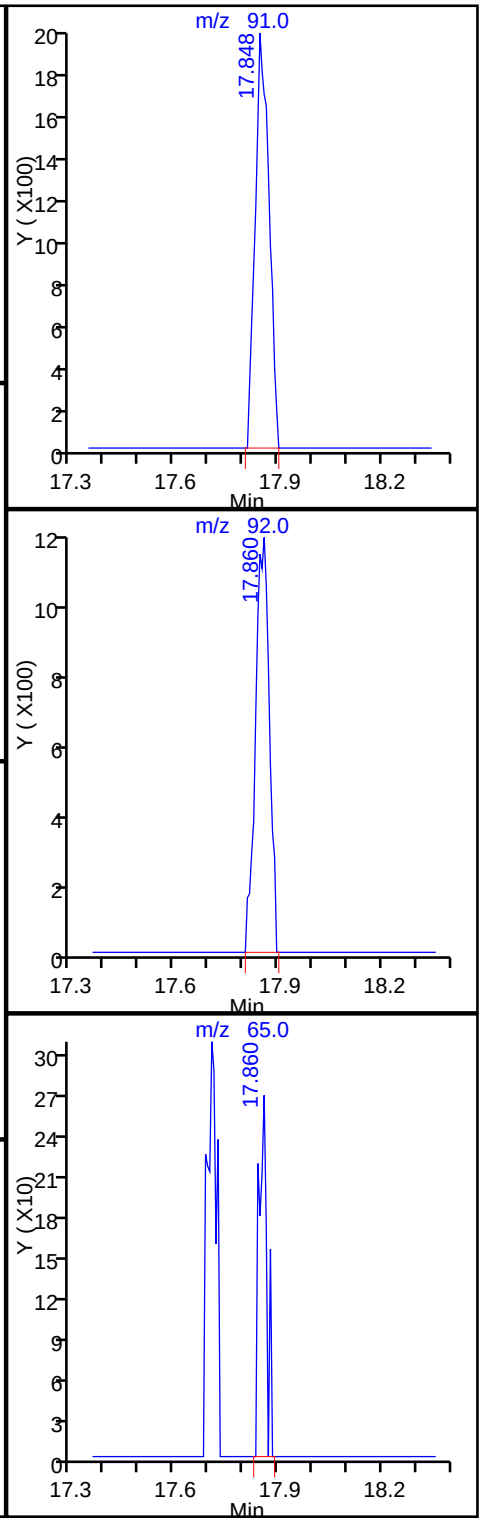


TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D				
Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

85 Toluene, CAS: 108-88-3





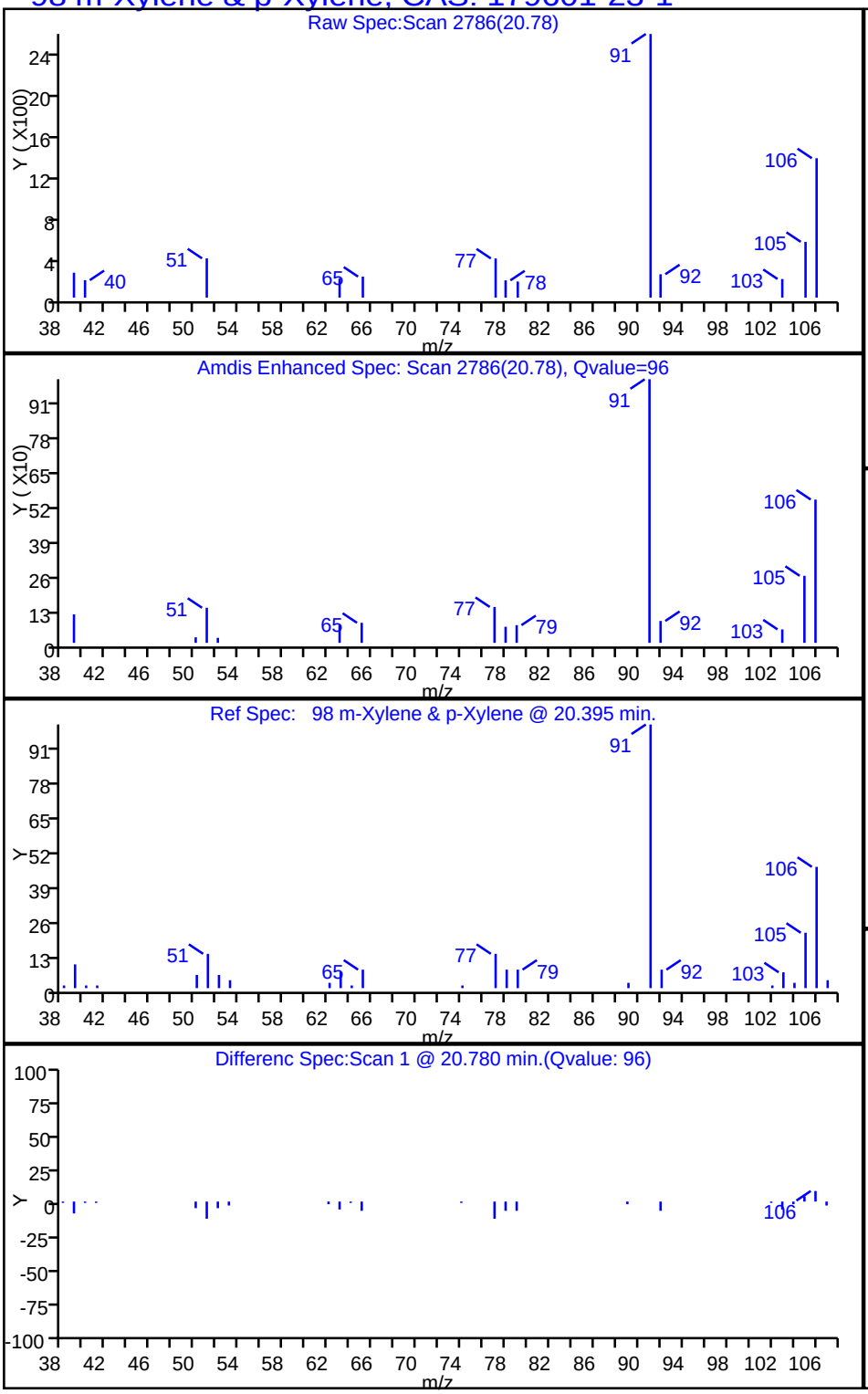
Report Date: 17-Nov-2015 11:37:50 Chrom Revision: 2.2 08-Oct-2015 07:17:48

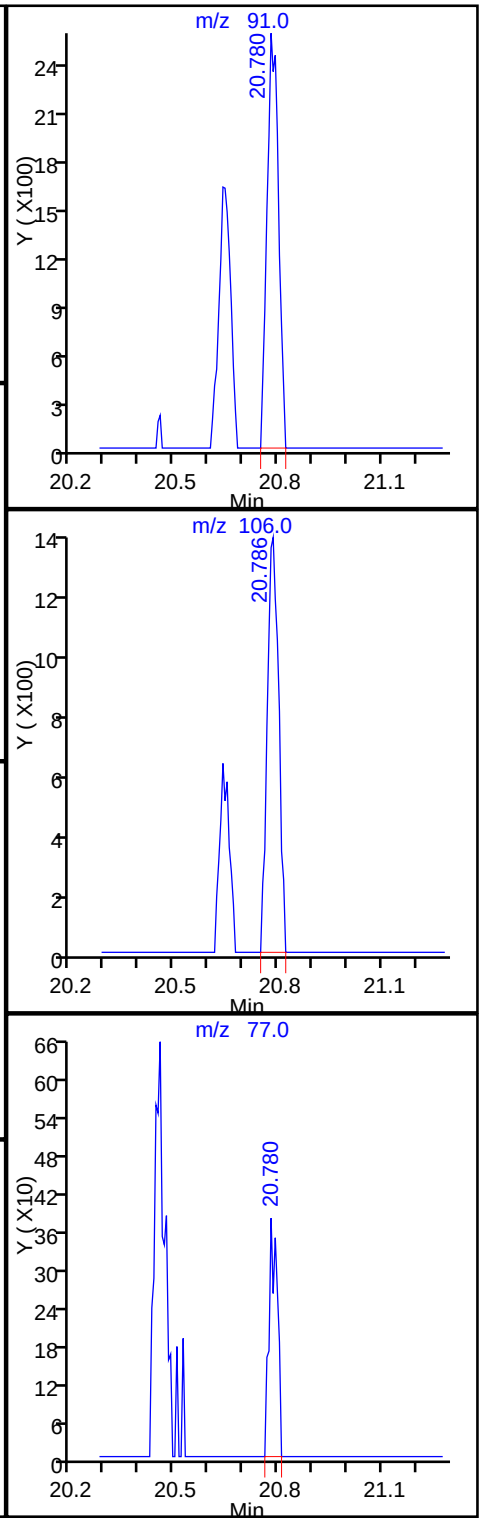
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20151114-26454.b\MS9111410.D

Injection Date:	14-Nov-2015 19:54:30	Instrument ID:	ATMS9		
Lims ID:	320-15930-A-11	Lab Sample ID:	320-15930-11		
Client ID:	8232				
Operator ID:	srs	ALS Bottle#:	8	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

98 m-Xylene & p-Xylene, CAS: 179601-23-1





TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-17829-1
Client Project/Site: Former TBE Machine Shop Property

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Authorized for release by:
4/7/2016 12:58:27 PM
Kim Presley, Project Management Assistant I
(253)922-2310
kim.presley@testamericainc.com

Designee for

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Job ID: 320-17829-1

Laboratory: TestAmerica Sacramento

Narrative

Receipt
The sample was received on 3/19/2016 9:10 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Client Sample ID: EFFLUENT-A-031516

Lab Sample ID: 320-17829-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.53		0.40		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.62		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.91		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Client Sample ID: EFFLUENT-A-031516
Date Collected: 03/15/16 15:35
Date Received: 03/19/16 09:10
Sample Container: Summa Canister 6L

Lab Sample ID: 320-17829-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			04/04/16 18:42	1
Ethylbenzene	**0.53**		0.40		ppb v/v			04/04/16 18:42	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			04/04/16 18:42	1
Tetrachloroethene	**0.62**		0.40		ppb v/v			04/04/16 18:42	1
Trichloroethene	**0.91**		0.40		ppb v/v			04/04/16 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*		*04/04/16 18:42*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*		*04/04/16 18:42*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*04/04/16 18:42*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
320-17829-1	EFFLUENT-A-031516	96	97	99
LCS 320-105259/3	Lab Control Sample	104	100	101
LCS 320-105259/6	Lab Control Sample	129	99	100
LCSD 320-105259/4	Lab Control Sample Dup	102	100	100
LCSD 320-105259/7	Lab Control Sample Dup	129	98	100
MB 320-105259/9	Method Blank	98	94	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-105259/9
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			04/04/16 17:06	1
Ethylbenzene	ND		0.40		ppb v/v			04/04/16 17:06	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			04/04/16 17:06	1
Tetrachloroethene	ND		0.40		ppb v/v			04/04/16 17:06	1
Trichloroethene	ND		0.40		ppb v/v			04/04/16 17:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*04/04/16 17:06*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*		*04/04/16 17:06*	*1*
Toluene-d8 (Surr)	*99*		*70 - 130*		*04/04/16 17:06*	*1*

Lab Sample ID: LCS 320-105259/3
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.4		ppb v/v		87	65 - 124
Ethylbenzene	20.0	16.7		ppb v/v		84	76 - 136
Tetrachloroethene	20.0	16.1		ppb v/v		81	56 - 138
Trichloroethene	20.0	16.4		ppb v/v		82	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCS 320-105259/6
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	5000	3840		ppb v/v		77	70 - 130
TPH (as Gasoline)	5000	3970		ppb v/v		79	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*129*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 320-105259/4
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	16.9		ppb v/v		85	65 - 124	3	25
Ethylbenzene	20.0	16.6		ppb v/v		83	76 - 136	1	25

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-105259/4
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	16.1		ppb v/v		81	56 - 138	0	25
Trichloroethene			20.0	16.2		ppb v/v		81	64 - 127	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 320-105259/7
Matrix: Air
Analysis Batch: 105259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)			5000	3840		ppb v/v		77	70 - 130	0	25
TPH (as Gasoline)			5000	3940		ppb v/v		79	70 - 130	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*129*		*70 - 130*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Air - GC/MS VOA

Analysis Batch: 105259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-17829-1	EFFLUENT-A-031516	Total/NA	Air	TO-15	
LCS 320-105259/3	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-105259/6	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-105259/4	Lab Control Sample Dup	Total/NA	Air	TO-15	
LCSD 320-105259/7	Lab Control Sample Dup	Total/NA	Air	TO-15	
MB 320-105259/9	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Client Sample ID: EFFLUENT-A-031516
Date Collected: 03/15/16 15:35
Date Received: 03/19/16 09:10

Lab Sample ID: 320-17829-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	551 mL	250 mL	105259	04/04/16 18:42	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-16

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-17829-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-17829-1	EFFLUENT-A-031516	Air	03/15/16 15:35	03/19/16 09:10

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916.374.4378 fax 916 372.1059

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc assumes no liability with respect to the collection and shipment of these samples

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact Information	**Project Manager:** Matt Pelton	**Samples Collected By:** David Beaudin	COC No
Company Name. Arcadis	**Phone:** 919. 415. 2308		1 of 1 COCs
Address: 801 Corporate Center Dr. Ste 300	**Email:** Matthew.Pelton@arcadis.com		
City/State/Zip Raleigh / NC / 27607			**For Lab Use Only:**
Phone. 919 415 2308	**Site Contact:** Matt Pelton		Walk-in Client:
FAX	**TA Contact:**		Lab Sampling
Project Name: Former TBE Machine Shop Property	**Anaylsis Turnaround Time**		Job / SDG No.:
Site/Location: Nikiski, Alaska	Standard (Specific):		(See below for Add'l Items)
P O #	Rush (Specify):		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, 'Hg (Start)'	Canister Vacuum in Field, 'Hg (Stop)'	Flow Controller ID	Canister ID	TO-15 (Med (Std) Low / SIM)	MA-APH	EPA 3C	EPA 25C / 25.3	ASTM D-1946 / 1945 / 3588	EPA 15/16	TO-3	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
Effluent-A-0315/6	03.15.16	1535	1535	-30	-5	—	3400074	✓													(111-TCA, TCE, PCE, EB, GRO)

	Temperature (Fahrenheit)		
	Start	Interior	Ambient
	Stop		

	Temperature (Fahrenheit)		
	Start	Interior	Ambient
	Stop		

320-17829 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by:	**Date / Time:**	**Samples Received by:**	
Samples Relinquished by: David G. Beaudin	**Date / Time:** 03.17.16 / 10:00	**Received by:** Troy Engstrom	3-17-16 @ 10:00
Relinquished by:	**Date / Time:** 3/18/16 10:00	**Received by:**	3-18-16 910
Lab Use Only: **Shipper Name:**	**Opened by:**	**Condition:**	

Form No. CA-C-WI-003, Rev. 1, dated 05/10/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-17829
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34000074	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	10.54	03/30/16	KY
FINAL PRESSURE (PSIA)	23.27	03/30/16	KY
Pressurization Gas: ☐ N2 ☐ He	SCREENED ☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 2.21			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.21		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
4/1/2016	ATMS2	

Canister DF = 2.21 X Load DF = 0.4537205 (LVf (mLs) 250, LVi (mLs) 551) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1.001715012

Date	Instr.	File #

Canister DF = 2.21 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = 2.21 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-17829-1

Login Number: 17829
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

320-17199 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Canister QC Certification
Batch Certification

Certification Type	TO-15 Scan
Date Cleaned/Batch ID	2/8/16 320-17199
Date of QC	2/14/16
Data File Number	MS021310.D

CANISTER ID NUMBERS

34001572 *	1577	
0430	1368	
1524	8189	
0505	8253	
1421		
0074		
0132		
1409		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

1st level Reviewed By: _____ Date: 2/16/16

2nd level Reviewed By: _____ Date: 2/26/16

Q:\FORMS\QA-814 BATCH CAN QC 20130729.DOC
QA-814

ERS 7/29/2013

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-17199-1

SDG No.:

Client Sample ID: 34001572 Lab Sample ID: 320-17199-1

Matrix: Air Lab File ID: MS9021310.D

Analysis Method: TO-15 Date Collected: 02/08/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 02/14/2016 00:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 100388 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.27	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	ND		0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.11
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-17199-1

SDG No.:

Client Sample ID: 34001572 Lab Sample ID: 320-17199-1

Matrix: Air Lab File ID: MS9021310.D

Analysis Method: TO-15 Date Collected: 02/08/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 02/14/2016 00:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 100388 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.050
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	0.094	J	0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	0.13	J B	0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.079
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-17199-1

SDG No.:

Client Sample ID: 34001572 Lab Sample ID: 320-17199-1

Matrix: Air Lab File ID: MS9021310.D

Analysis Method: TO-15 Date Collected: 02/08/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 02/14/2016 00:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 100388 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	93		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		70-130
2037-26-5	Toluene-d8 (Surr)	94		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D
Lims ID: 320-17199-A-1 Lab Sample ID: 320-17199-1
Client ID: 34001572
Sample Type: Client
Inject. Date: 14-Feb-2016 00:23:30 ALS Bottle#: 4 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 320-17199-A-1
Misc. Info.: 500 mL
Operator ID: KY Instrument ID: ATMS9

Method: \\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\TO15_ATMS9N.m
Limit Group: MSA - TO15 - ICAL
Last Update: 15-Feb-2016 16:51:22 Calib Date: 13-Jan-2016 01:45:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS9\20160112-27765.b\MS9011212.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: yangk Date: 15-Feb-2016 15:54:42

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.431	12.443	-0.012	93	31810	4.00	
* 2 1,4-Difluorobenzene	114	14.536	14.536	0.000	93	132463	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.455	20.455	0.000	86	107584	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	13.611	13.617	-0.006	98	42456	4.01	
$ 5 Toluene-d8 (Surr)	100	17.700	17.706	-0.006	98	80093	3.77	
$ 6 4-Bromofluorobenzene (Surr	174	22.366	22.372	-0.006	93	60060	3.72	
14 Propene	41	4.200	4.164	0.036	39	661	0.1289	
15 Dichlorodifluoromethane	85	4.267	4.237	0.030	75	869	0.0499	
22 Butane	43	4.961	4.930	0.031	89	543	0.0469	
31 Acetone	43	7.698	7.625	0.073	94	3116	0.2686	
47 Methylene Chloride	49	8.982	8.957	0.025	3	845	0.0945	M
85 Toluene	91	17.852	17.852	0.000	90	991	0.0314	
98 m-Xylene & p-Xylene	91	20.784	20.784	0.000	1	994	0.0330	M
107 N-Propylbenzene	91	22.639	22.645	-0.006	92	1223	0.0241	
110 4-Ethyltoluene	120	22.810	22.810	0.000	78	132	0.009783	M
111 1,3,5-Trimethylbenzene	120	22.871	22.877	-0.006	82	406	0.0215	
114 tert-Butylbenzene	91	23.382	23.382	0.000	88	495	0.0188	
115 1,2,4-Trimethylbenzene	120	23.424	23.424	0.000	88	248	0.0126	
121 4-Isopropyltoluene	119	23.856	23.856	0.000	91	1006	0.0218	
117 1,3-Dichlorobenzene	146	23.953	23.960	-0.007	75	781	0.0363	
120 1,4-Dichlorobenzene	146	24.093	24.093	0.000	88	653	0.0309	
122 1,2-Dichlorobenzene	146	24.580	24.574	0.006	89	777	0.0378	
128 Hexachlorobutadiene	225	27.093	27.086	0.007	69	366	0.0215	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VASUISIM_00267	Amount Added:	50.00	Units: mL	Run Reagent

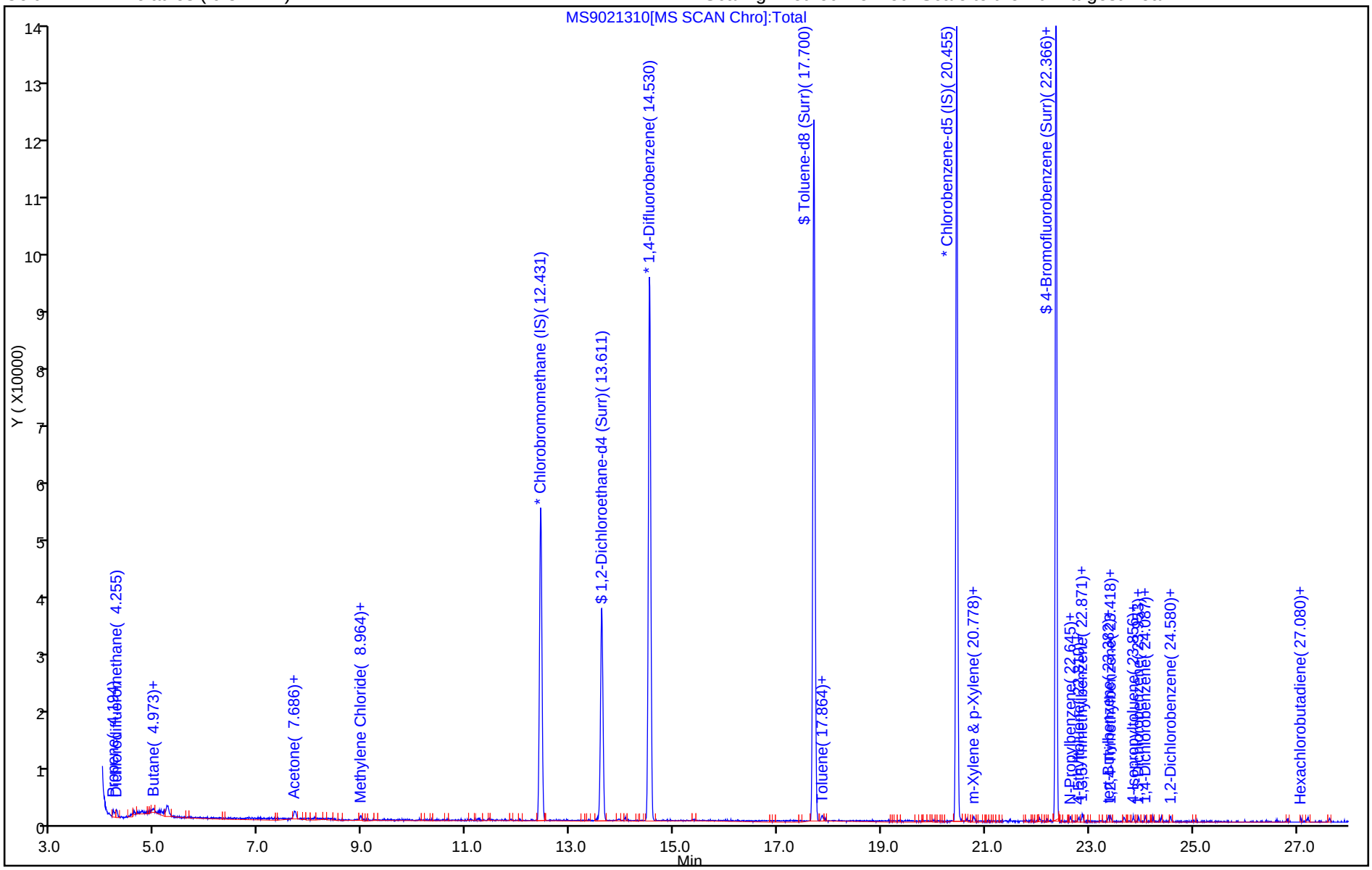
Report Date: 15-Feb-2016 16:51:51 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D

Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9	Operator ID:	KY
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1	Worklist Smp#:	10
Client ID:	34001572				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		

Column: RTX Volatiles (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2



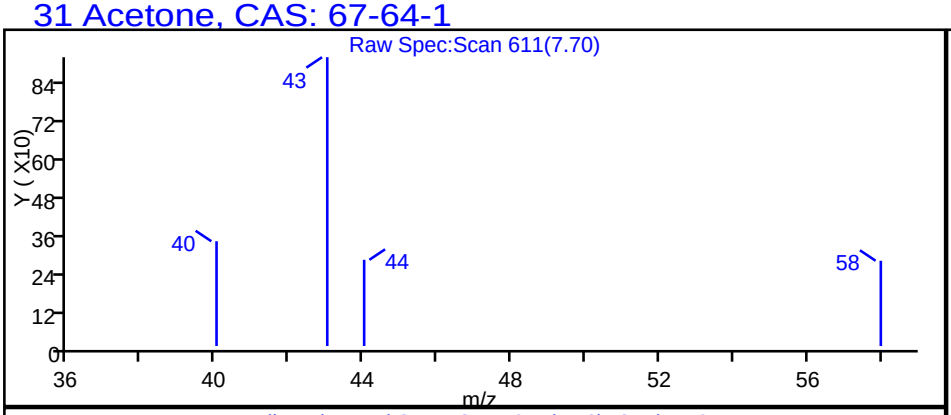
Report Date: 15-Feb-2016 16:51:51 Chrom Revision: 2.2 02-Dec-2015 11:51:48

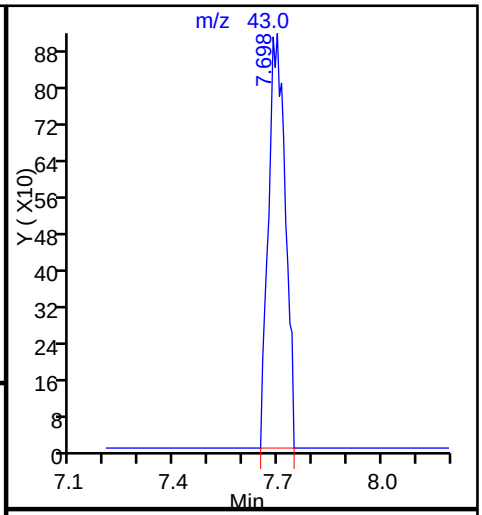
TestAmerica Sacramento

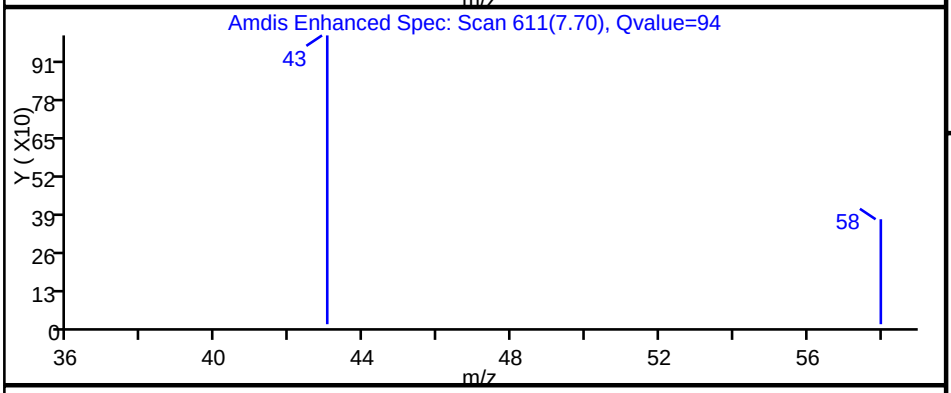
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D

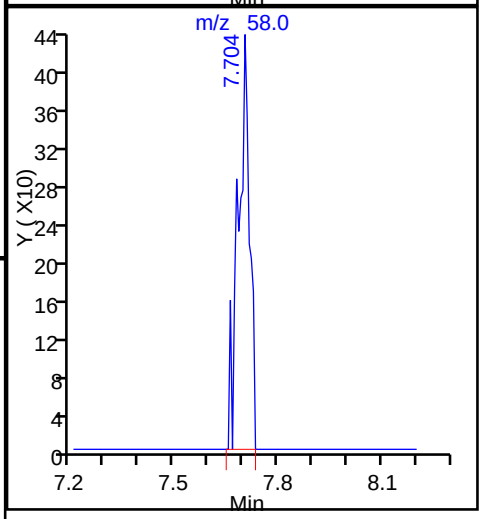
Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

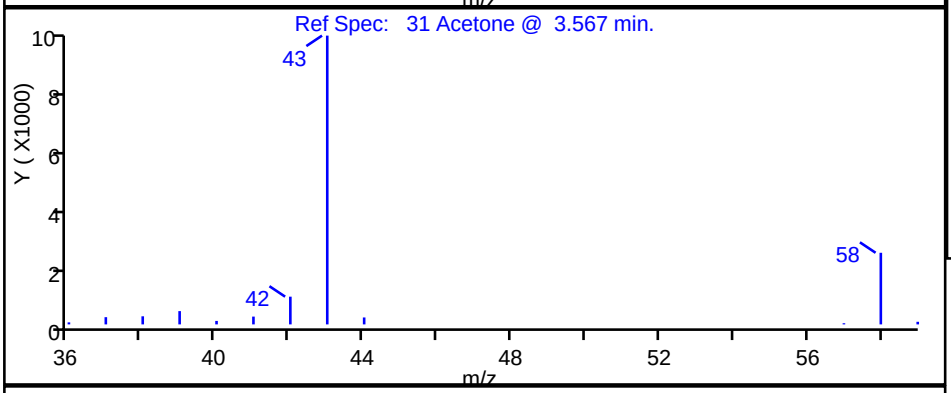
31 Acetone, CAS: 67-64-1

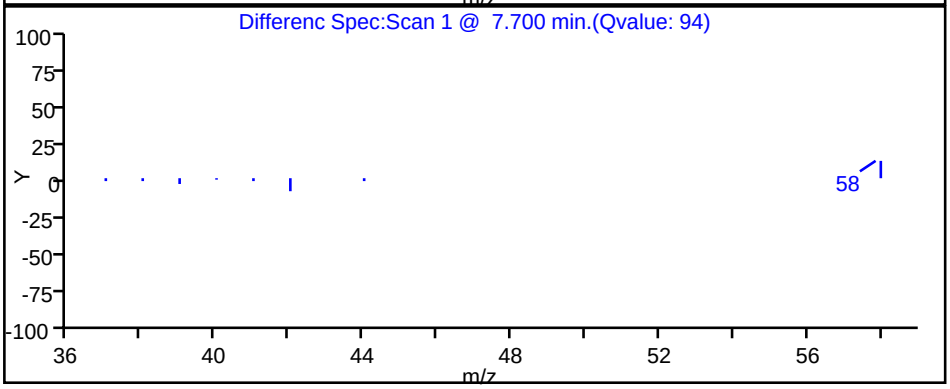








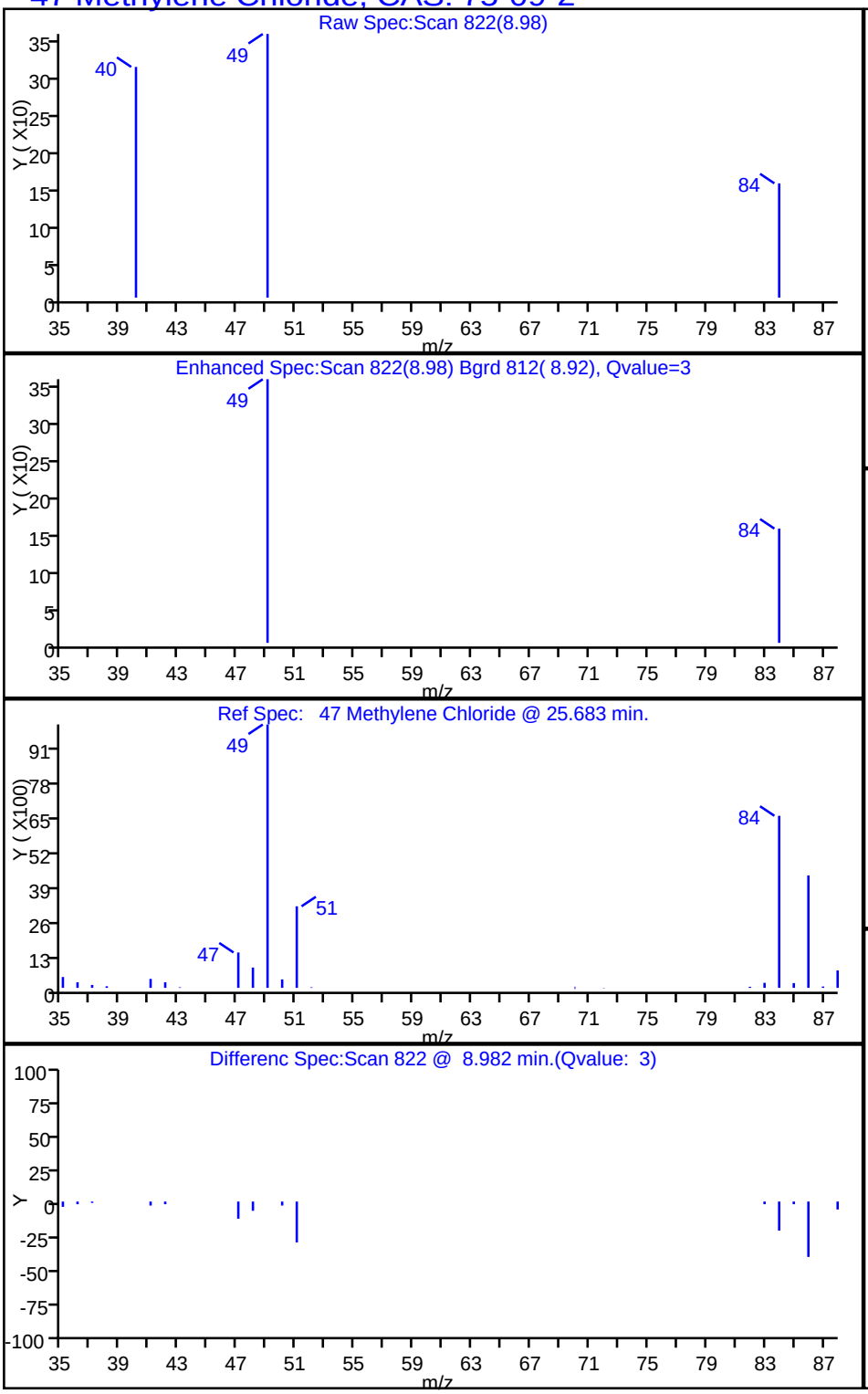


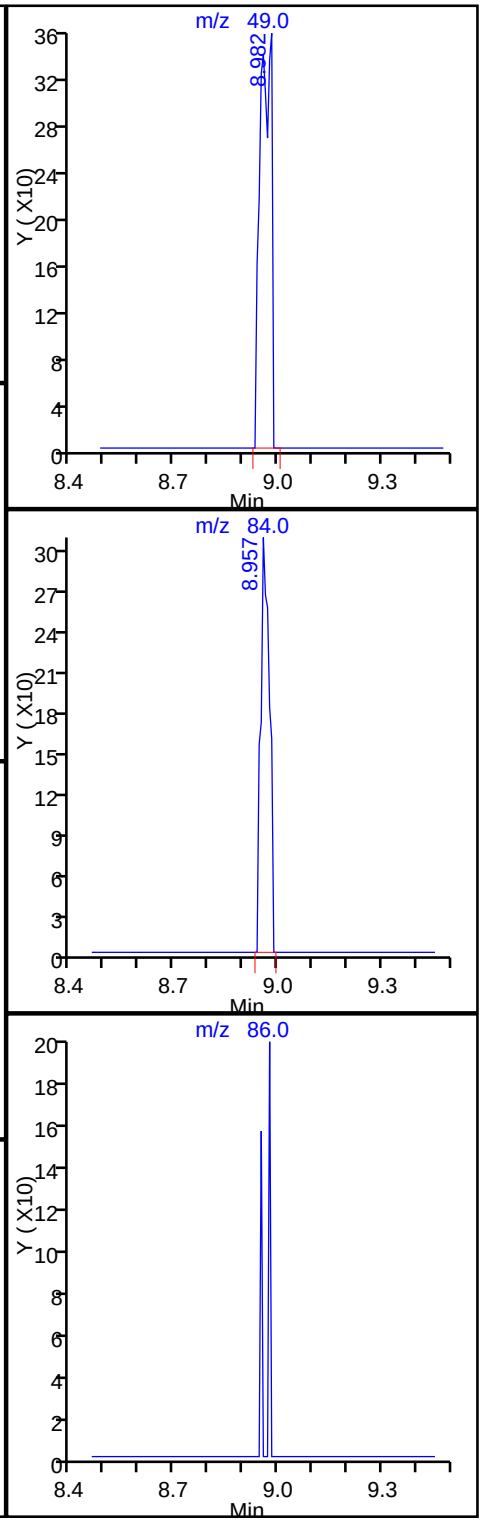


TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D				
Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

47 Methylene Chloride, CAS: 75-09-2





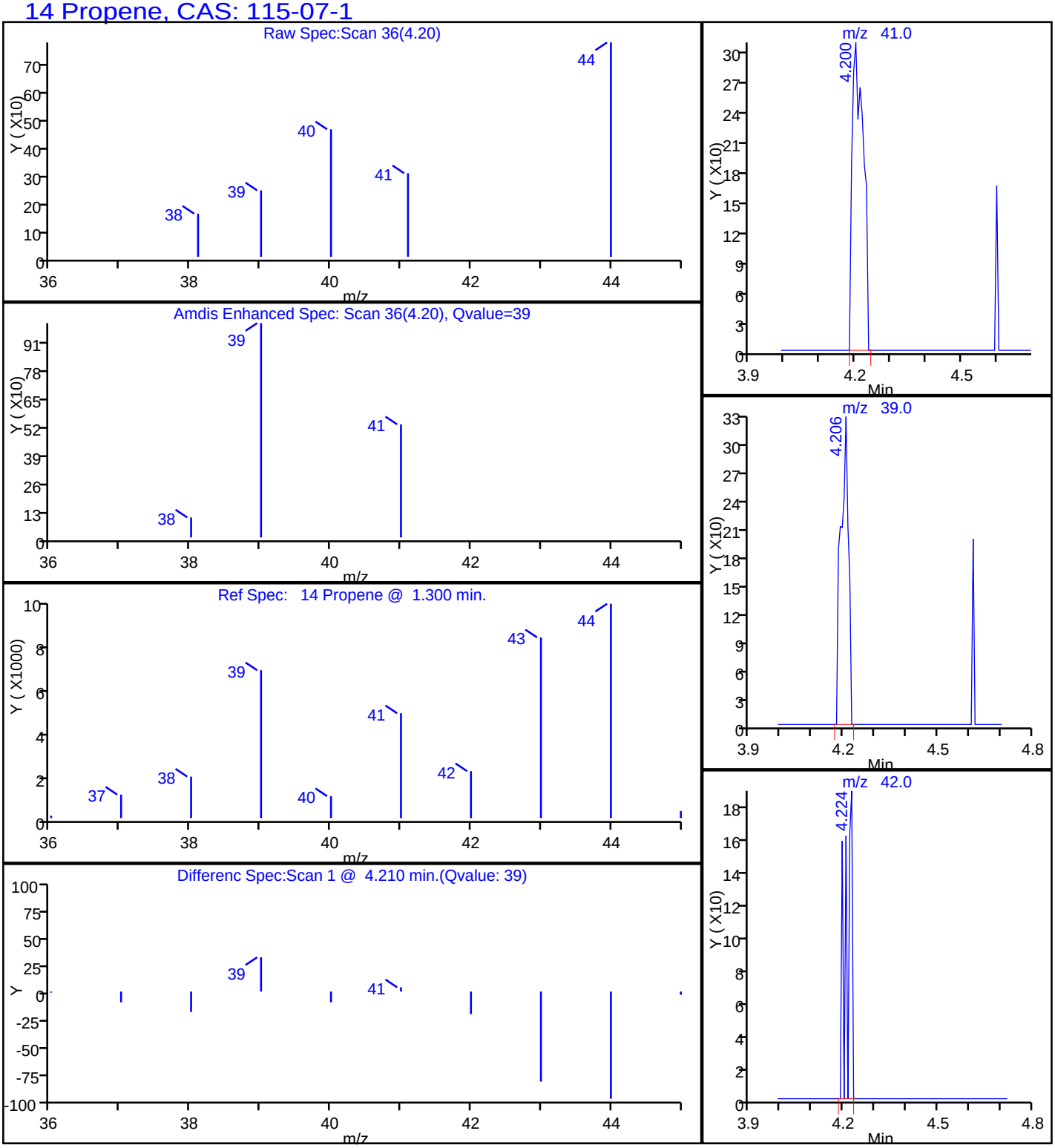
Report Date: 15-Feb-2016 16:51:51 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D

Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

14 Propene, CAS: 115-07-1



Manual Integration/User Assign Peak Report

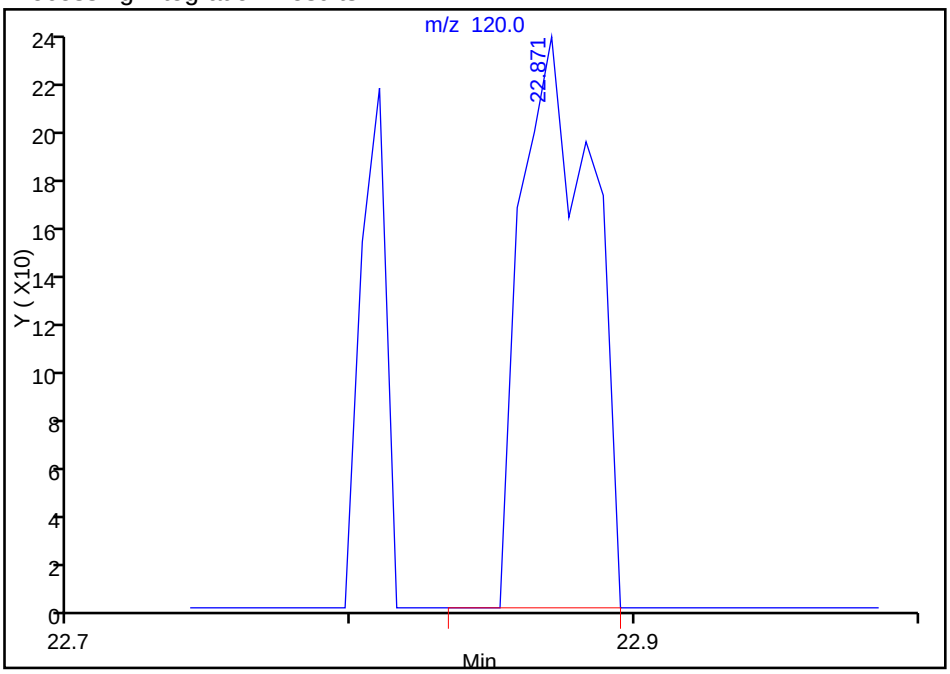
TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D				
Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

110 4-Ethyltoluene, CAS: 622-96-8

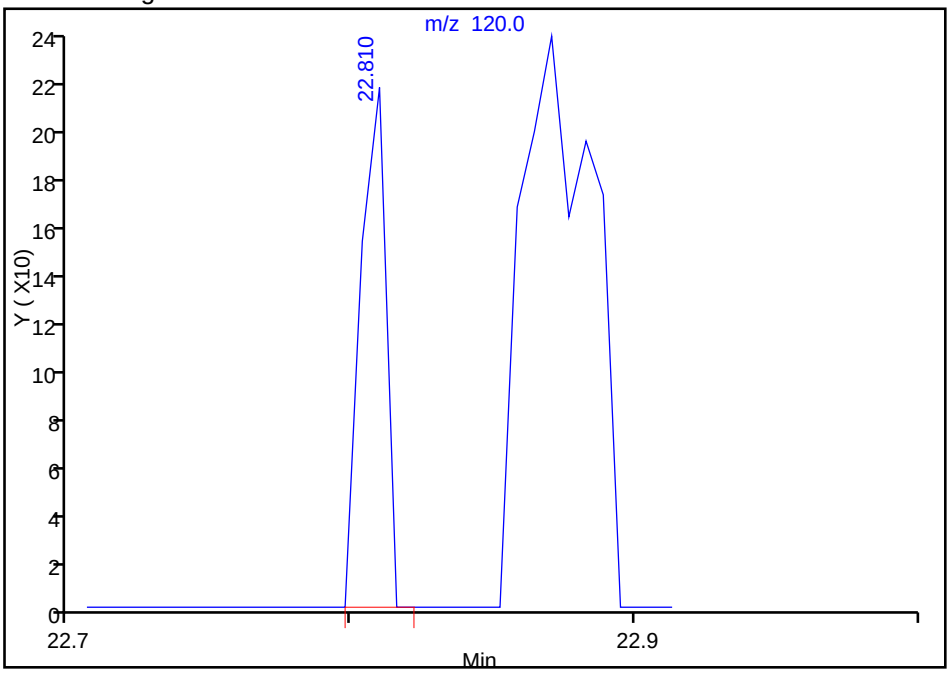
Processing Integration Results

RT: 22.87
Area: 406
Amount: 0.030091
Amount Units: ppb v/v



Manual Integration Results

RT: 22.81
Area: 132
Amount: 0.009783
Amount Units: ppb v/v



Reviewer: yangk, 15-Feb-2016 15:54:42
Audit Action: Manually Integrated
Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

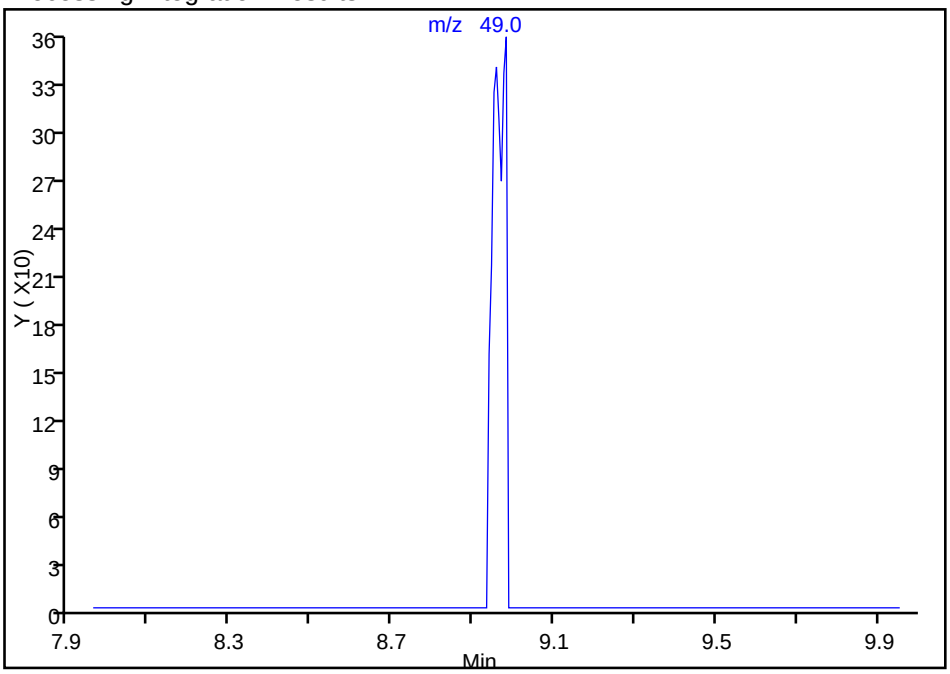
TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D				
Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

47 Methylene Chloride, CAS: 75-09-2

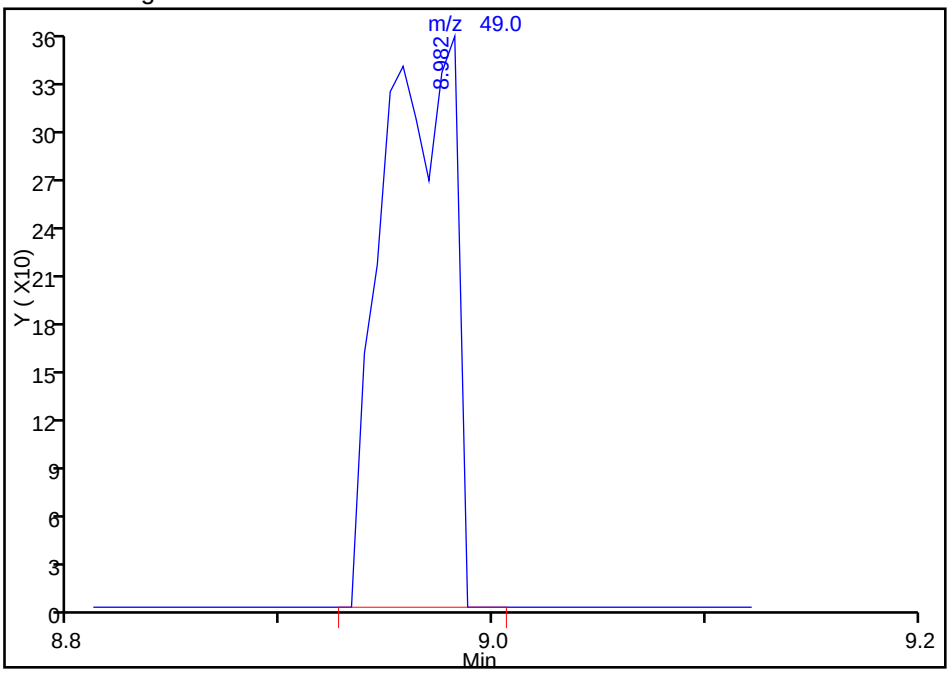
Not Detected
Expected RT: 8.96

Processing Integration Results



Manual Integration Results

RT: 8.98
Area: 845
Amount: 0.094474
Amount Units: ppb v/v



Reviewer: yangk, 15-Feb-2016 15:54:42
Audit Action: Manually Integrated
Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

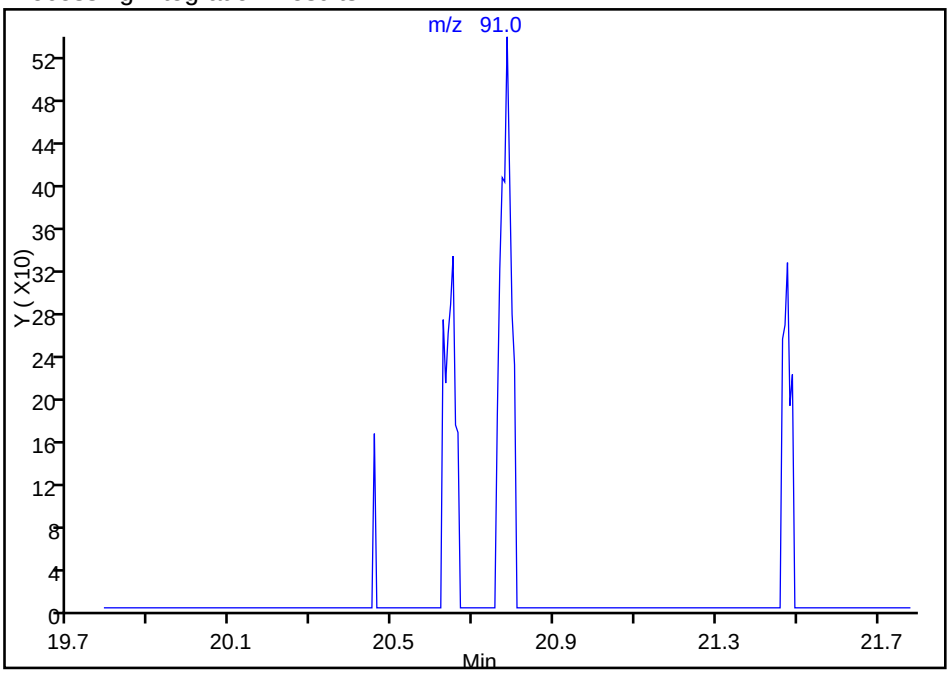
TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160215-28375.b\MS9021310.D				
Injection Date:	14-Feb-2016 00:23:30	Instrument ID:	ATMS9		
Lims ID:	320-17199-A-1	Lab Sample ID:	320-17199-1		
Client ID:	34001572				
Operator ID:	KY	ALS Bottle#:	4	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

98 m-Xylene & p-Xylene, CAS: 179601-23-1

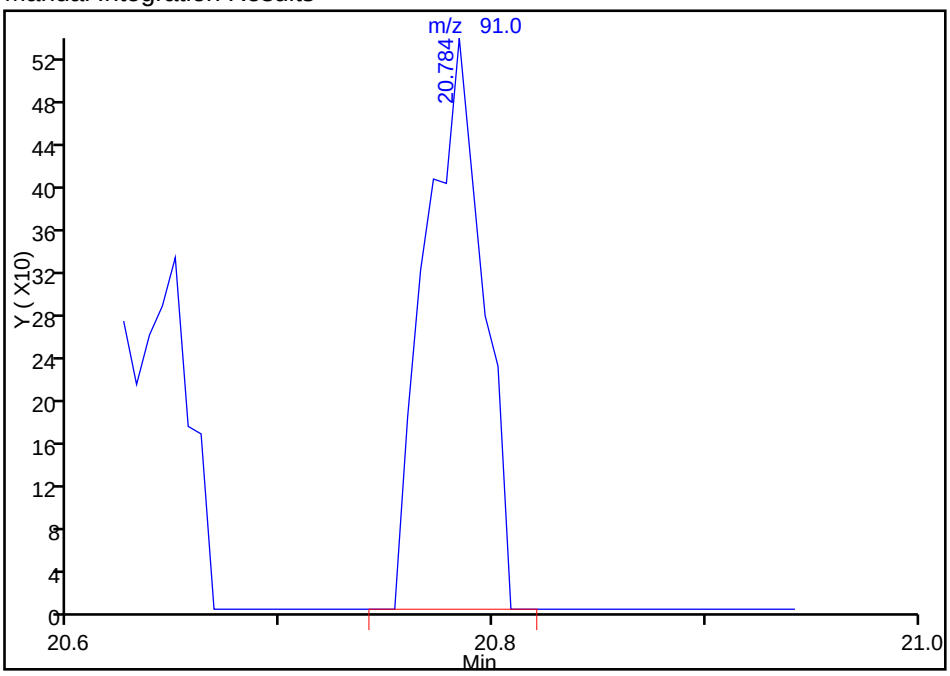
Not Detected
Expected RT: 20.78

Processing Integration Results



Manual Integration Results

RT: 20.78
Area: 994
Amount: 0.032978
Amount Units: ppb v/v



Reviewer: yangk, 15-Feb-2016 15:54:42
Audit Action: Manually Integrated
Audit Reason: Missed Peak

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-19515-1
Client Project/Site: Former TBE Machine Shop Property

For:
ARCADIS U.S. Inc
4915 Prospectus Drive
Suite F
Durham, North Carolina 27713

Attn: Mr. Matthew Pelton

Kristine D. Allen

Authorized for release by:
6/27/2016 5:15:52 PM

Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Table of Contents

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 320-19515-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-19515-1

Comments
No additional comments.

Receipt
The sample was received on 6/14/2016 9:40 AM; the sample arrived in good condition.

Air - GC/MS VOA
Method(s) TO-15: Surrogate 1,2-Dichloroethane-d4 (Surr) recovery for the following samples was outside control limits: (CCV 320-115203/5), (LCS 320-115203/6) and (LCSD 320-115203/7). This analyte is not used as a monitoring analyte.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Client Sample ID: EFFLUENT-A-060616

Lab Sample ID: 320-19515-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	8.4		0.40		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	1.1		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.96		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Client Sample ID: EFFLUENT-A-060616
Date Collected: 06/06/16 09:30
Date Received: 06/14/16 09:40
Sample Container: Summa Canister 6L

Lab Sample ID: 320-19515-1
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			06/25/16 04:32	1
Ethylbenzene	**8.4**		0.40		ppb v/v			06/25/16 04:32	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			06/25/16 04:32	1
Tetrachloroethene	**1.1**		0.40		ppb v/v			06/25/16 04:32	1
Trichloroethene	**0.96**		0.40		ppb v/v			06/25/16 04:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*121*		*70 - 130*		*06/25/16 04:32*	*1*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*		*06/25/16 04:32*	*1*
Toluene-d8 (Surr)	*119*		*70 - 130*		*06/25/16 04:32*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		12DCE	BFB	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
320-19515-1	EFFLUENT-A-060616	121	110	119
LCS 320-115203/3	Lab Control Sample	120	117	117
LCS 320-115203/6	Lab Control Sample	162 X	113	117
LCSD 320-115203/4	Lab Control Sample Dup	119	116	119
LCSD 320-115203/7	Lab Control Sample Dup	161 X	114	121
MB 320-115203/23	Method Blank	119	108	118

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-115203/23
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.30		ppb v/v			06/25/16 10:27	1
Ethylbenzene	ND		0.40		ppb v/v			06/25/16 10:27	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			06/25/16 10:27	1
Tetrachloroethene	ND		0.40		ppb v/v			06/25/16 10:27	1
Trichloroethene	ND		0.40		ppb v/v			06/25/16 10:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 130*		*06/25/16 10:27*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*		*06/25/16 10:27*	*1*
Toluene-d8 (Surr)	*118*		*70 - 130*		*06/25/16 10:27*	*1*

Lab Sample ID: LCS 320-115203/3
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.5		ppb v/v		92	65 - 124
Ethylbenzene	20.0	21.3		ppb v/v		106	76 - 136
Tetrachloroethene	20.0	17.5		ppb v/v		88	56 - 138
Trichloroethene	20.0	19.9		ppb v/v		99	64 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*120*		*70 - 130*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
Toluene-d8 (Surr)	*117*		*70 - 130*

Lab Sample ID: LCS 320-115203/6
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (C6-C12)	5000	4650		ppb v/v		93	70 - 130
TPH (as Gasoline)	5000	4840		ppb v/v		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*162*	*X*	*70 - 130*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
Toluene-d8 (Surr)	*117*		*70 - 130*

Lab Sample ID: LCSD 320-115203/4
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	18.0		ppb v/v		90	65 - 124	3	25
Ethylbenzene	20.0	21.6		ppb v/v		108	76 - 136	1	25

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-115203/4
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrachloroethene			20.0	17.4		ppb v/v		87	56 - 138	1	25
Trichloroethene			20.0	19.7		ppb v/v		99	64 - 127	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*119*		*70 - 130*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
Toluene-d8 (Surr)	*119*		*70 - 130*

Lab Sample ID: LCSD 320-115203/7
Matrix: Air
Analysis Batch: 115203

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)			5000	4730		ppb v/v		95	70 - 130	2	25
TPH (as Gasoline)			5000	4920		ppb v/v		98	70 - 130	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*161*	*X*	*70 - 130*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
Toluene-d8 (Surr)	*121*		*70 - 130*

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Air - GC/MS VOA

Analysis Batch: 115203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-19515-1	EFFLUENT-A-060616	Total/NA	Air	TO-15	
LCS 320-115203/3	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-115203/6	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-115203/4	Lab Control Sample Dup	Total/NA	Air	TO-15	
LCSD 320-115203/7	Lab Control Sample Dup	Total/NA	Air	TO-15	
MB 320-115203/23	Method Blank	Total/NA	Air	TO-15	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Client Sample ID: EFFLUENT-A-060616
Date Collected: 06/06/16 09:30
Date Received: 06/14/16 09:40

Lab Sample ID: 320-19515-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	512 mL	250 mL	115203	06/25/16 04:32	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-16

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	1,1,1-Trichloroethane
TO-15		Air	Ethylbenzene
TO-15		Air	Gasoline Range Organics (C6-C12)
TO-15		Air	Tetrachloroethene
TO-15		Air	Trichloroethene

Laboratory: TestAmerica Seattle

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-02-17

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Former TBE Machine Shop Property

TestAmerica Job ID: 320-19515-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-19515-1	EFFLUENT-A-060616	Air	06/06/16 09:30	06/14/16 09:40

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5755 8th Street East, Tacoma, WA 98424-1317 253-922-2310 FAX 922-5047
11922 E. First Ave., Spokane WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave., Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: GE

INVOICE TO: Matthew.Pelton@arcadis.com

REPORT TO: Matthew Pelton
ADDRESS: 801 Corporate Center Dr. STE 300
Raleigh, NC 27607
PHONE: 919.415.2338 FAX: 919.854.5748

P.O. NUMBER: B003125.1404.00005

PROJECT NAME: Former TBE Machine Shop
PROJECT NUMBER: B003125.1404.00005
SAMPLED BY: M. MacDaniel

TURNAROUND REQUEST
in Business Days *
Organic & Inorganic Analyses: 10 STD. | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses: 5 STD. | 4 | 3 | 2 | 1 | <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: NONE

REQUESTED ANALYSES: Initial Vac | Final Vac | 15 TO-15 X

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	Effluent-A-060616	6/6/16 / 930			QRO, TCE, PCE, Ethylbenzene	
2					111, -TCA	
3					Canister:	
4					#3400455	
5						
6						
7						
8						
9						
10						

320-19515 Chain of Custody

RELEASED BY:		DATE: 6/10/16	RECEIVED BY:		DATE: 6/10/16
PRINT NAME: Michael MacDaniel	FIRM: ARCADIS	TIME: 11:30	PRINT NAME: Andrew Pilch	FIRM: TA-AK	TIME: 11.34
RELEASED BY:		DATE: 6/13/16	RECEIVED BY:		DATE: 6/14/16
PRINT NAME: Andrew Pilch	FIRM: TA-AK	TIME: 9:22	PRINT NAME: Kim Nelson	FIRM: TAAS	TIME: 940

ADDITIONAL REMARKS:

TEMP:

PAGE OF

TAL-1000 (0612)

TestAmerica
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CANISTER FIELD DATA RECORD

Sacramento

JOB # 320-19515
Sample # 1

Client/Project:		VFR ID:		
Canister Serial #:	34001455	Duration:		☐ Hrs ☐ Min
Cleaning Job:		Flow:		mL/min
Client ID:		Initials:		
Site Location:				

FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY			
READING	PRESS.	DATE	INITIALS
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT
☐ Helium Pre-dilution - Final Pressure (INCHES Hg)			
INITIAL PRESSURE (PSIA)	11.35	06/16/16	SV
FINAL PRESSURE (PSIA)	23.25	06/16/16	SV
Pressurization Gas: ☐ N2 ☐ He	☐	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor = 2.05			

CANISTER REPRESSURIZATION

Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.05		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors

Date	Instr.	File #
6/24/2016	ATMS2	

Canister DF = 2.05 X Load DF = 0.4882813 (LVf (mLs) 250, LVi (mLs) 512) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF 1.000223706

Date	Instr.	File #

Canister DF = 2.05 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Date	Instr.	File #

Canister DF = 2.05 X Load DF = #DIV/0! (LVf (mLs), LVi (mLs)) X Bag DF = 1 (BVf (mLs), Bvi (mLs)) = FINAL DF #DIV/0!

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-19515-1

Login Number: 19515
List Number: 1
Creator: Nelson, Kym D

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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320-18553 Chain of Custody

Canister QC Certificate
Batch Certification

Certification Type: TO-15 Scan

Date Cleaned/Batch ID: 4/27/16 320-18553

Date of QC: 5/4/16

Data File Number: MS050318.D

CANISTER ID NUMBERS

34000510	0219		
0101	0426		
1329	~~0419~~ KW 4/28/16		
0348	0605		
1785	8056 *		
0298			
0084 KW ~~0219~~ 4/28/16			
0269			

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

1st level Reviewed By: _____ Date: 5/4/16

2nd level Reviewed By: _____ Date: 5/9/16

Q:\FORMS\QA-814 BATCH CAN QC 20130729.DOC
QA-814

ERS 7/29/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

320-18648 Chain of Custody

...cramento
...rtification
Batch Certification

Certification Type: TO15 Scan

Date Cleaned/Batch ID: 5/3/16 320-18648

Date of QC: 5/10/16

Data File Number: C:\MSDCHEM\1\DATA\160510\

MS7051021.d

CANISTER ID NUMBERS

34000094 *	0107	
0134	1459	
1506	1455	
0787	1400	
1386		
1391		
0030		
1331		

The above canisters were cleaned as a batch. This certifies this batch contains no target analyte concentration greater than or equal to the method criteria for the "*Certification Type*" indicated above.

"*" INDICATES THE CAN OR CANS WHICH WERE SCREENED.

1st level Reviewed By: _____ Date: 5/11/16

2nd level Reviewed By: _____ Date: 5/16/16

Q:\FORMS\QA-814 BATCH CAN QC 20130729.DOC
QA-814

ERS 7/29/2013

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18553-1

SDG No.:

Client Sample ID: 8056 Lab Sample ID: 320-18553-12

Matrix: Air Lab File ID: MS9050318.D

Analysis Method: TO-15 Date Collected: 04/27/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 05/04/2016 06:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108609 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	1.8	J	5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	ND		0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	0.38	J	0.80	0.11
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	0.55	J	0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	0.39	J	0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18553-1

SDG No.:

Client Sample ID: 8056 Lab Sample ID: 320-18553-12

Matrix: Air Lab File ID: MS9050318.D

Analysis Method: TO-15 Date Collected: 04/27/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 05/04/2016 06:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108609 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.050
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	0.38	J B	0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	0.34	J	0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.079
108-88-3	Toluene	0.12	J	0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18553-1

SDG No.:

Client Sample ID: 8056 Lab Sample ID: 320-18553-12

Matrix: Air Lab File ID: MS9050318.D

Analysis Method: TO-15 Date Collected: 04/27/2016 00:00

Sample wt/vol: 250(mL) Date Analyzed: 05/04/2016 06:29

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 108609 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	0.27	J	0.80	0.10
95-47-6	o-Xylene	0.083	J	0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	80		70-130
2037-26-5	Toluene-d8 (Surr)	74		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D
Lims ID: 320-18553-A-12
Client ID: 8056
Sample Type: Client
Inject. Date: 04-May-2016 06:29:30 ALS Bottle#: 11 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 320-18553-A-12
Misc. Info.: 500 mL
Operator ID: KY Instrument ID: ATMS9

Method: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\TO15_ATMS9N.m
Limit Group: MSA - TO15 - ICAL
Last Update: 04-May-2016 10:56:52 Calib Date: 12-Mar-2016 18:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS9\20160314-29063.b\MS9031212.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK034

First Level Reviewer: yangk Date: 04-May-2016 10:49:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.437	12.443	-0.006	98	39874	4.00	
* 2 1,4-Difluorobenzene	114	14.536	14.542	-0.006	96	175318	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.462	20.462	0.000	89	133187	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	13.618	13.618	0.000	98	49373	3.20	
$ 5 Toluene-d8 (Surr)	100	17.706	17.706	0.000	97	82263	2.95	
$ 6 4-Bromofluorobenzene (Surr	174	22.378	22.378	0.000	93	80562	4.25	
14 Propene	41	4.182	4.170	0.012	81	3196	0.3370	
13 Chlorodifluoromethane	51	4.224	4.188	0.036	78	7298	0.3754	
15 Dichlorodifluoromethane	85	4.255	4.237	0.018	98	10729	0.3891	
18 Chloromethane	50	4.729	4.705	0.024	96	6442	0.5516	
22 Butane	43	4.948	4.936	0.012	87	2347	0.1191	
28 Trichlorofluoromethane	101	6.749	6.737	0.012	94	4746	0.1773	
31 Acetone	43	7.686	7.637	0.049	97	34739	1.79	
43 1,1,2-Trichloro-1,2,2-trif	101	7.796	7.789	0.007	67	921	0.0453	
47 Methylene Chloride	49	8.957	8.958	-0.001	97	5718	0.3794	
54 2-Butanone (MEK)	72	11.446	11.385	0.061	98	260	0.0472	
74 Isooctane	57	13.545	13.551	-0.007	94	3800	0.0516	
68 Benzene	78	13.940	13.946	-0.006	87	1910	0.0528	
85 Toluene	91	17.858	17.858	0.000	93	5673	0.1224	
97 Ethylbenzene	91	20.644	20.650	-0.006	94	3140	0.0587	
98 m-Xylene & p-Xylene	91	20.790	20.790	0.000	99	11182	0.2691	
101 o-Xylene	91	21.484	21.484	0.000	95	3465	0.0827	

Reagents:

VAMSIS20_00001 Amount Added: 50.00 Units: mL Run Reagent

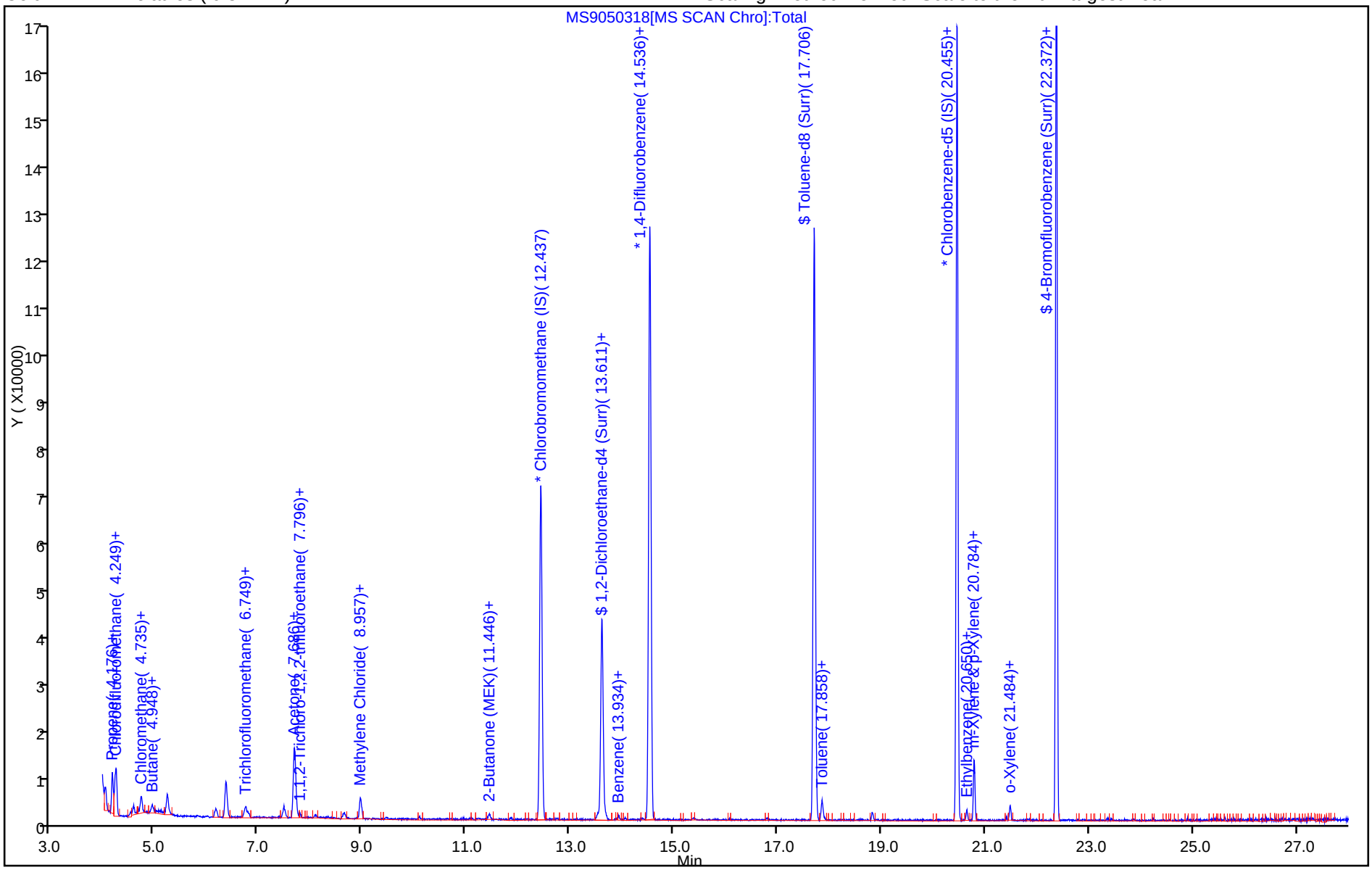
Report Date: 04-May-2016 10:57:36 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

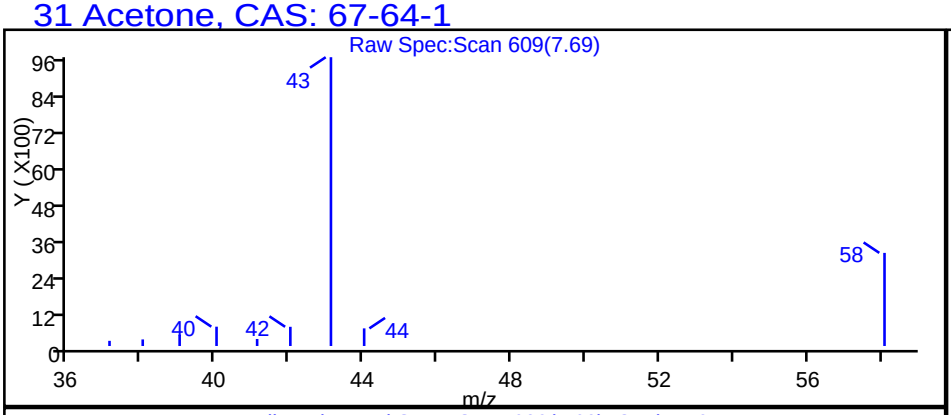
Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9	Operator ID:	KY
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12	Worklist Smp#:	18
Client ID:	8056				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		

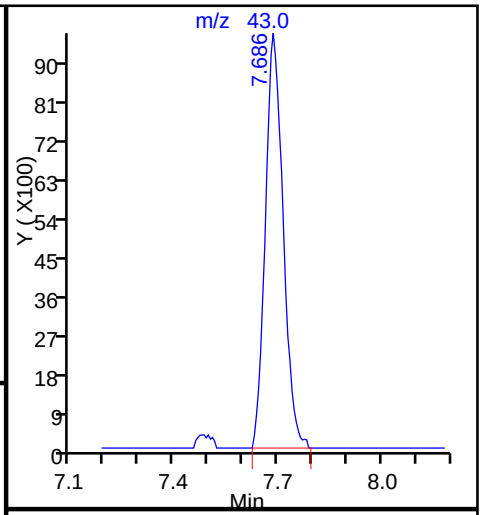
Column: RTX Volatiles (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 2

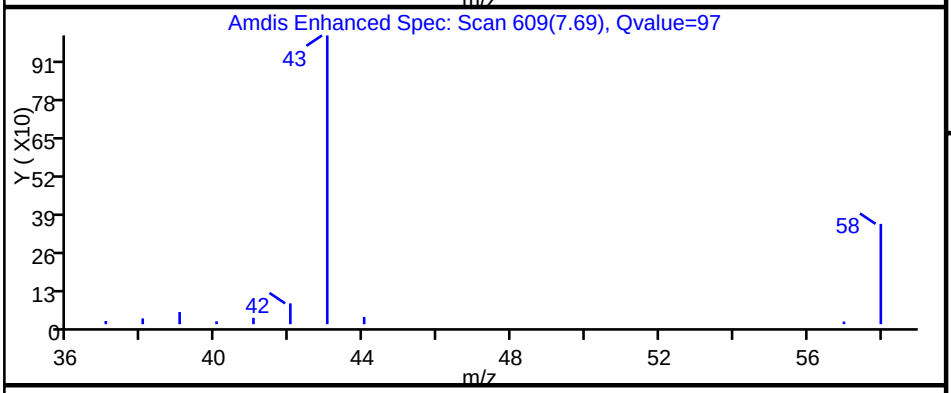


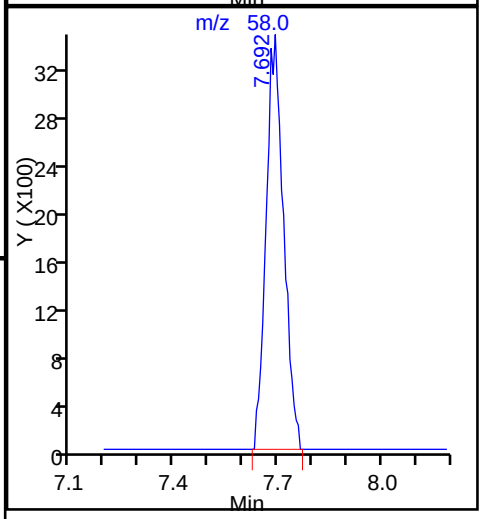
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D
Injection Date: 04-May-2016 06:29:30 Instrument ID: ATMS9
Lims ID: 320-18553-A-12 Lab Sample ID: 320-18553-12
Client ID: 8056
Operator ID: KY ALS Bottle#: 11 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: TO15_ATMS9N Limit Group: MSA - TO15 - ICAL
Column: RTX Volatiles (0.32 mm) Detector MS SCAN

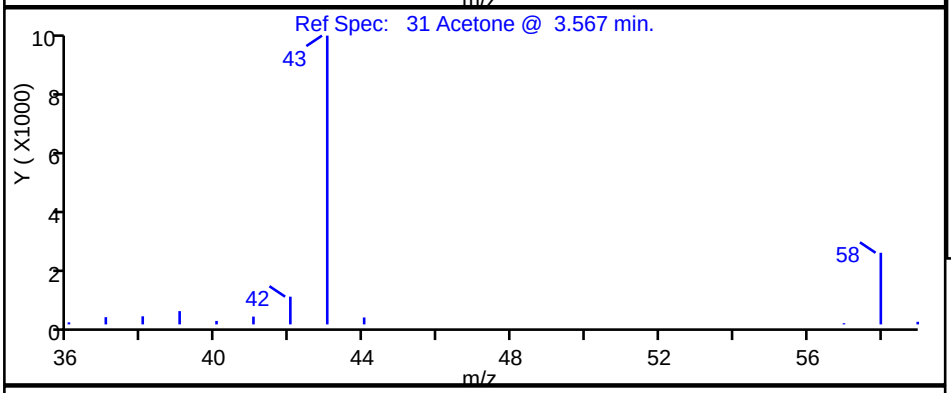
31 Acetone, CAS: 67-64-1

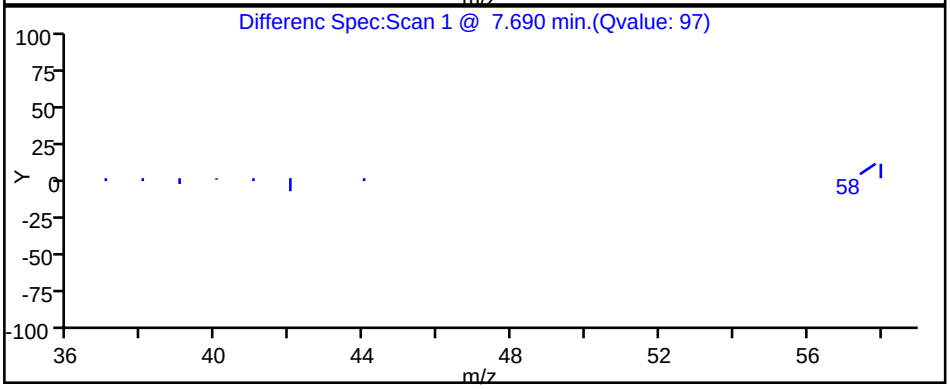








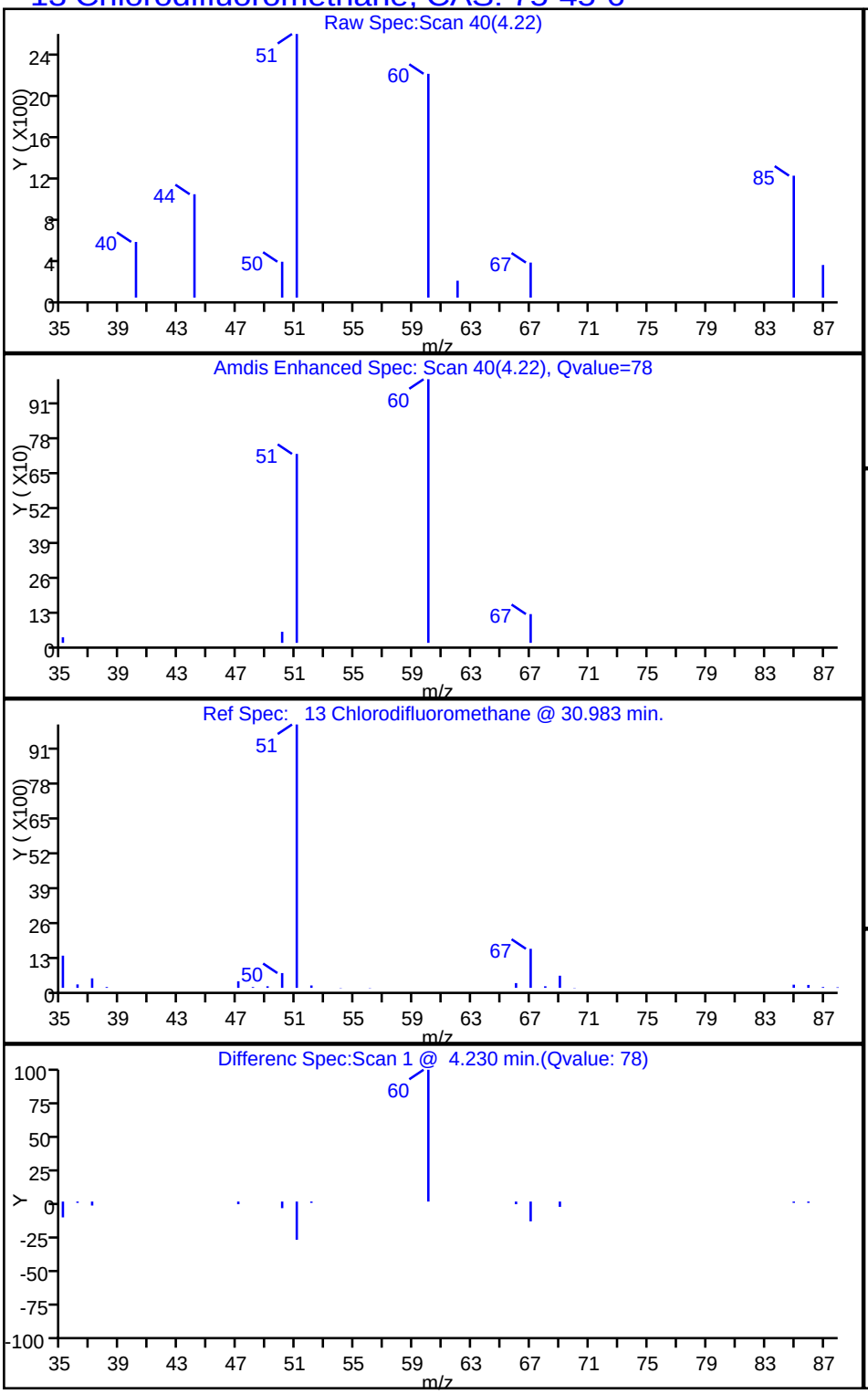


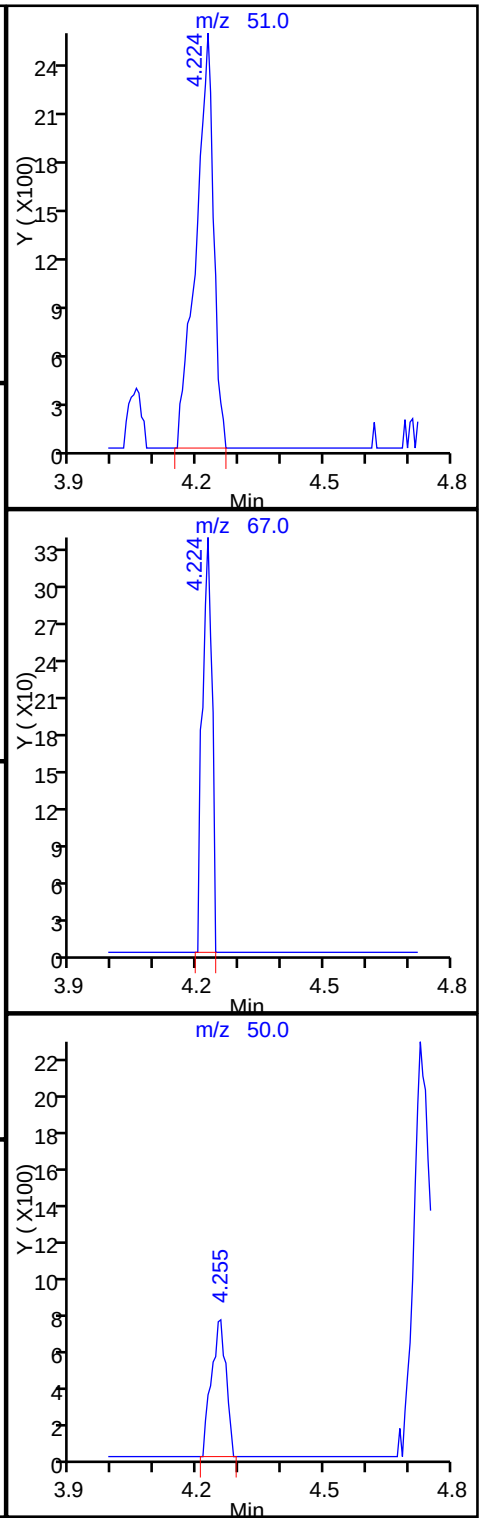


TestAmerica Sacramento

Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D				
Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

13 Chlorodifluoromethane, CAS: 75-45-6





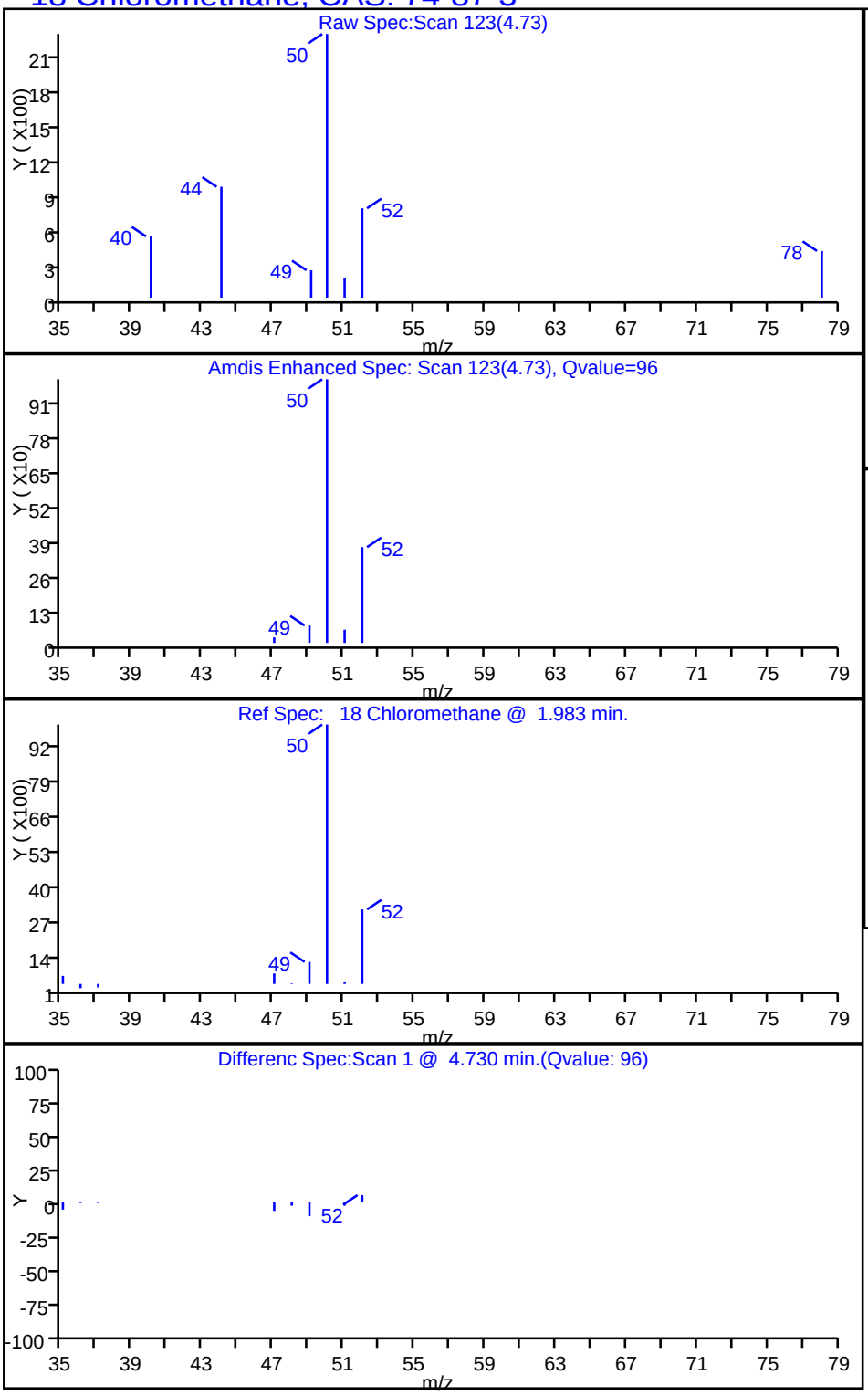
Report Date: 04-May-2016 10:57:36 Chrom Revision: 2.2 20-Apr-2016 13:59:46

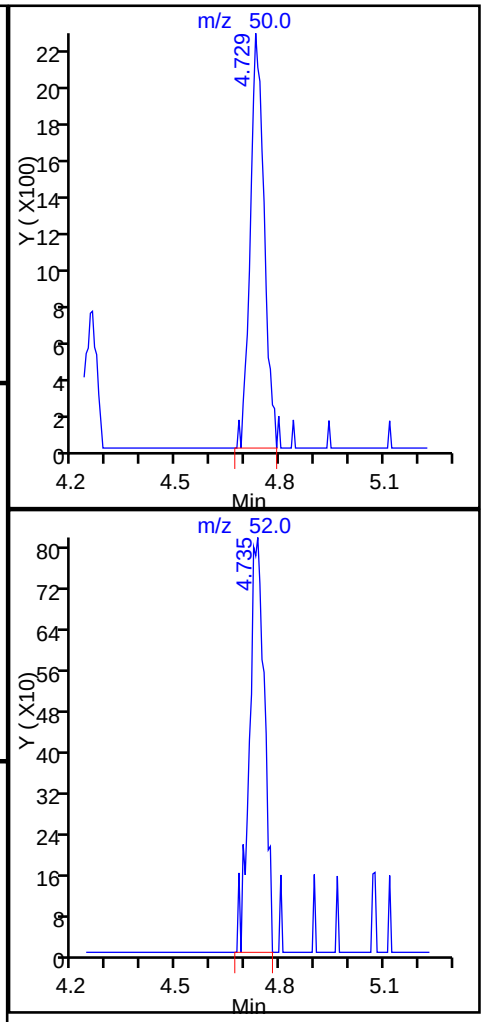
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

18 Chloromethane, CAS: 74-87-3

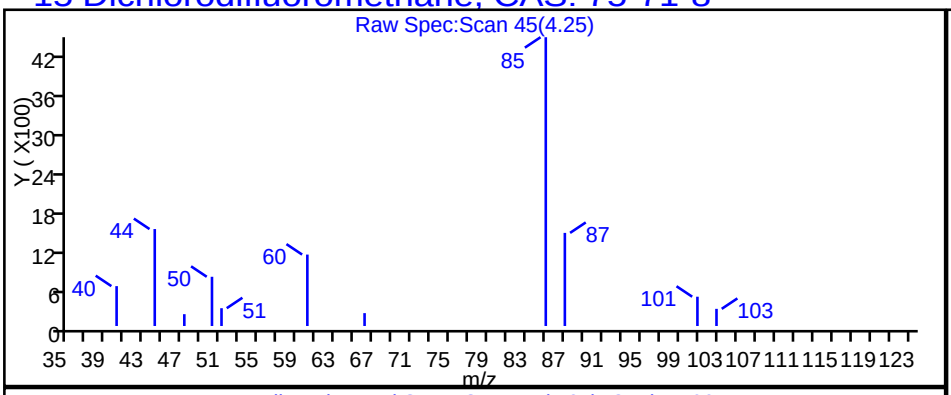


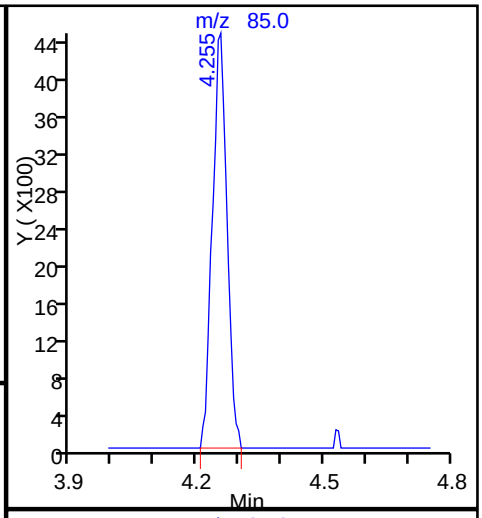


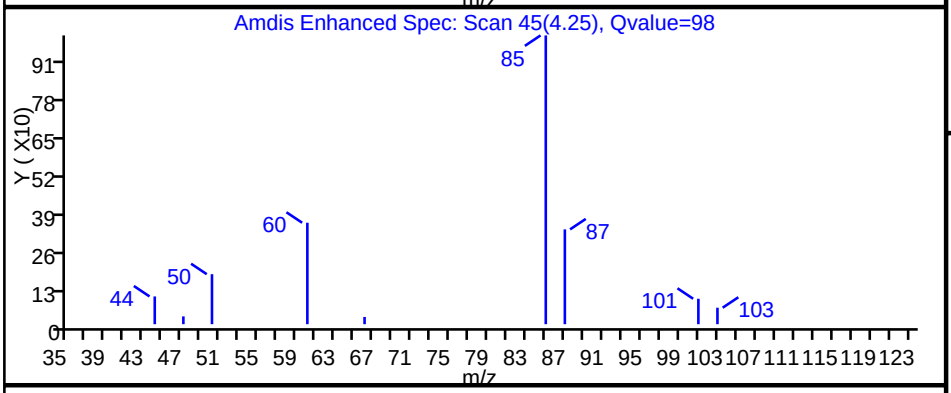
TestAmerica Sacramento

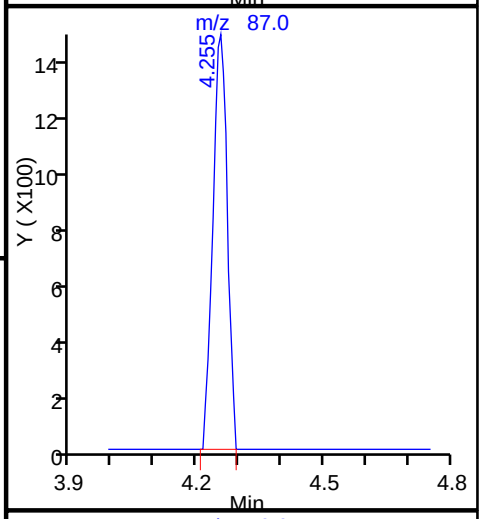
Data File:	\\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D				
Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

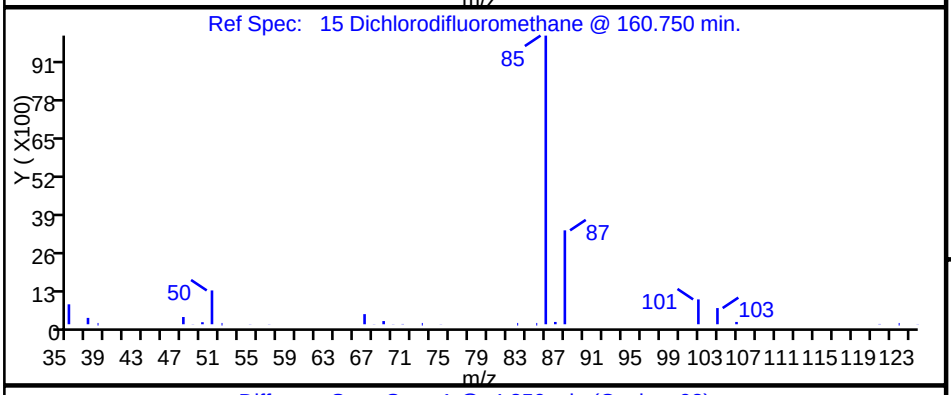
15 Dichlorodifluoromethane, CAS: 75-71-8

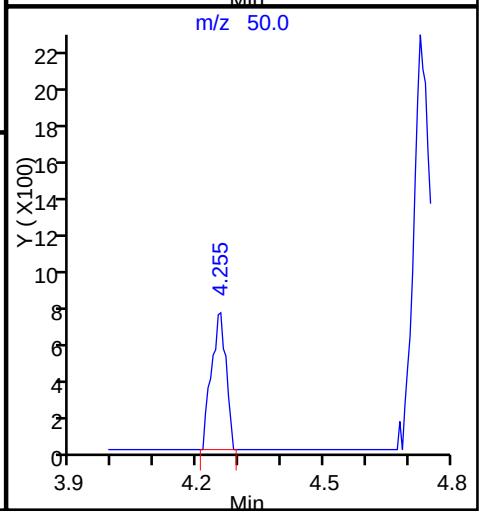


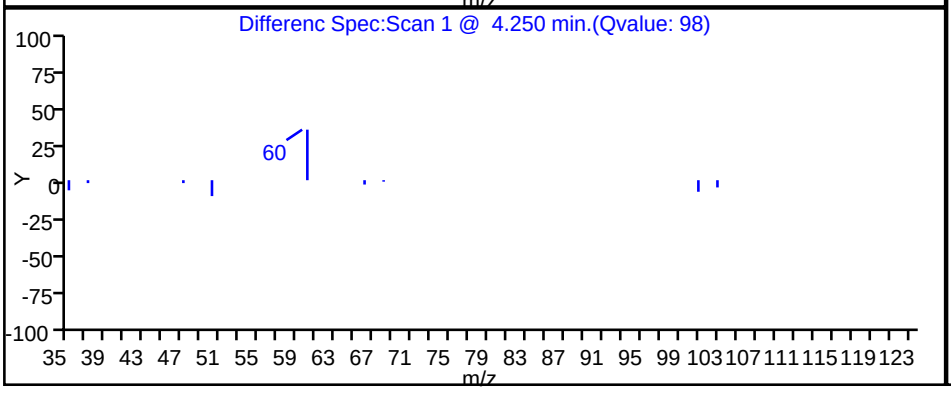












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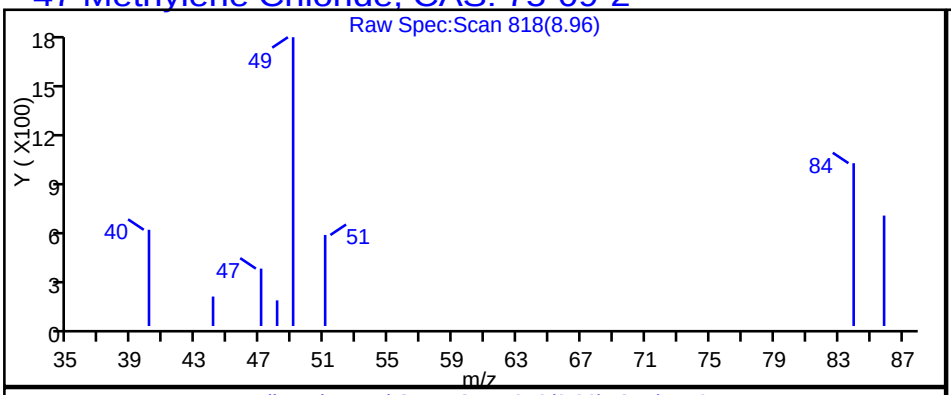
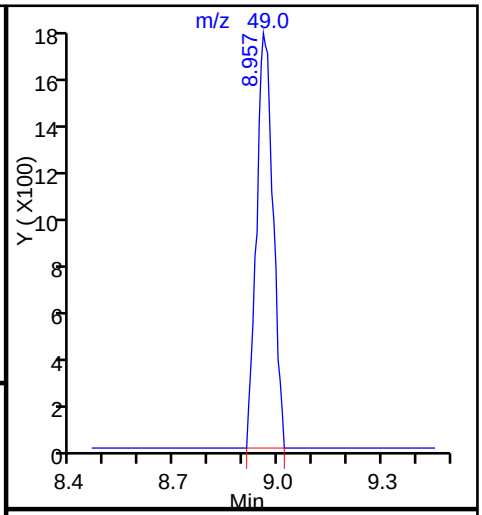
TestAmerica Sacramento

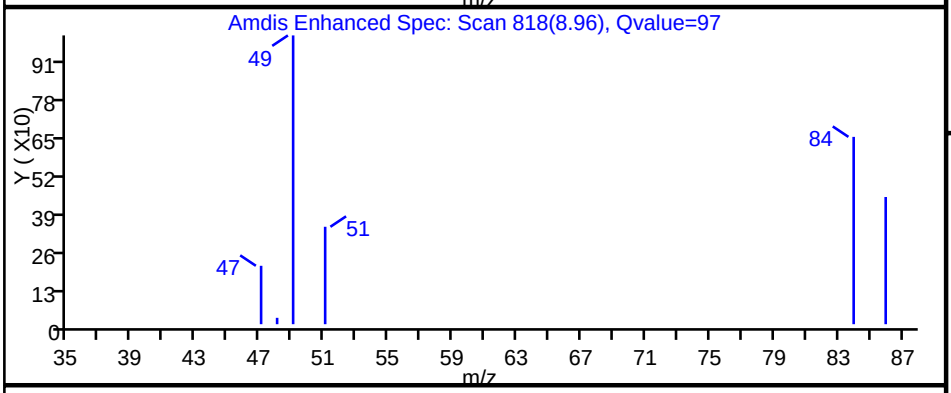
Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

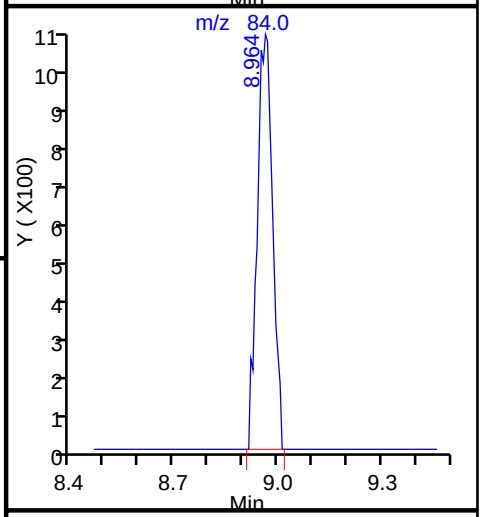
Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

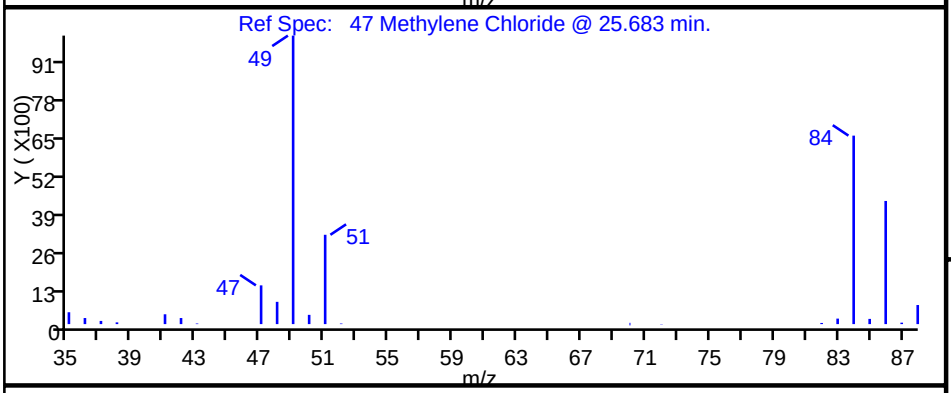
47 Methylene Chloride, CAS: 75-09-2

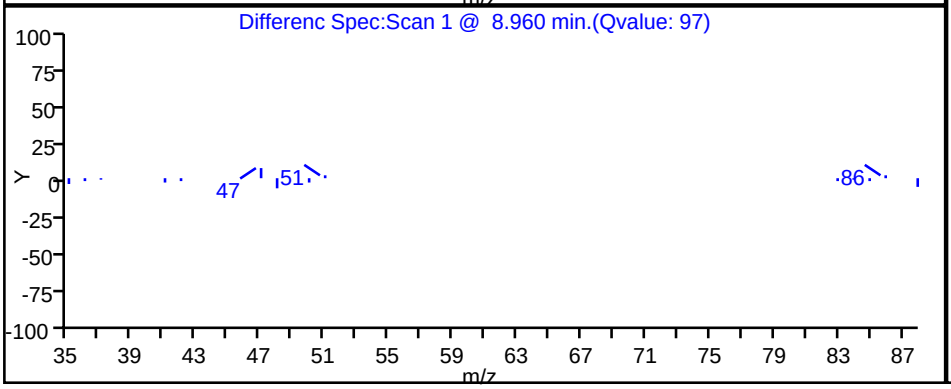


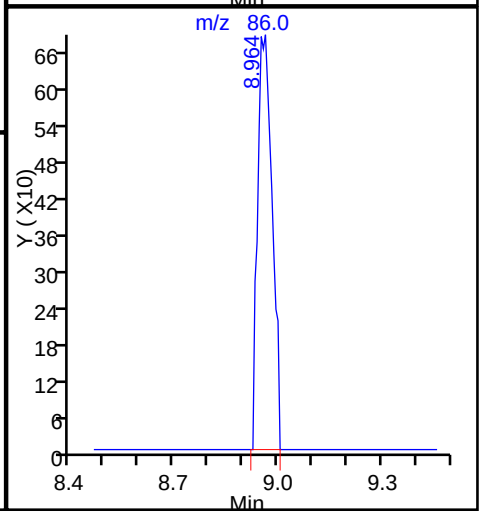












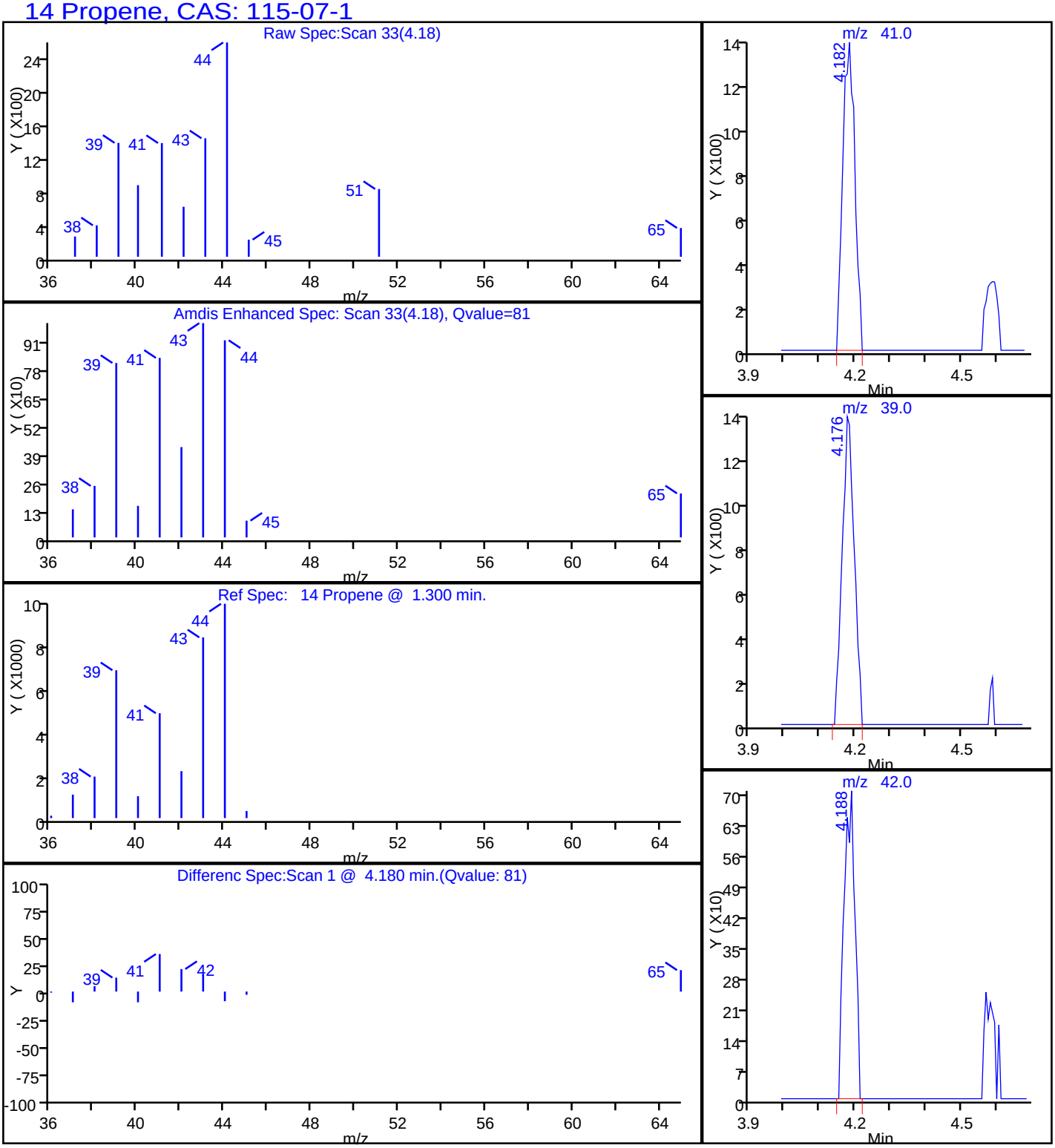
Report Date: 04-May-2016 10:57:36 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

14 Propene, CAS: 115-07-1



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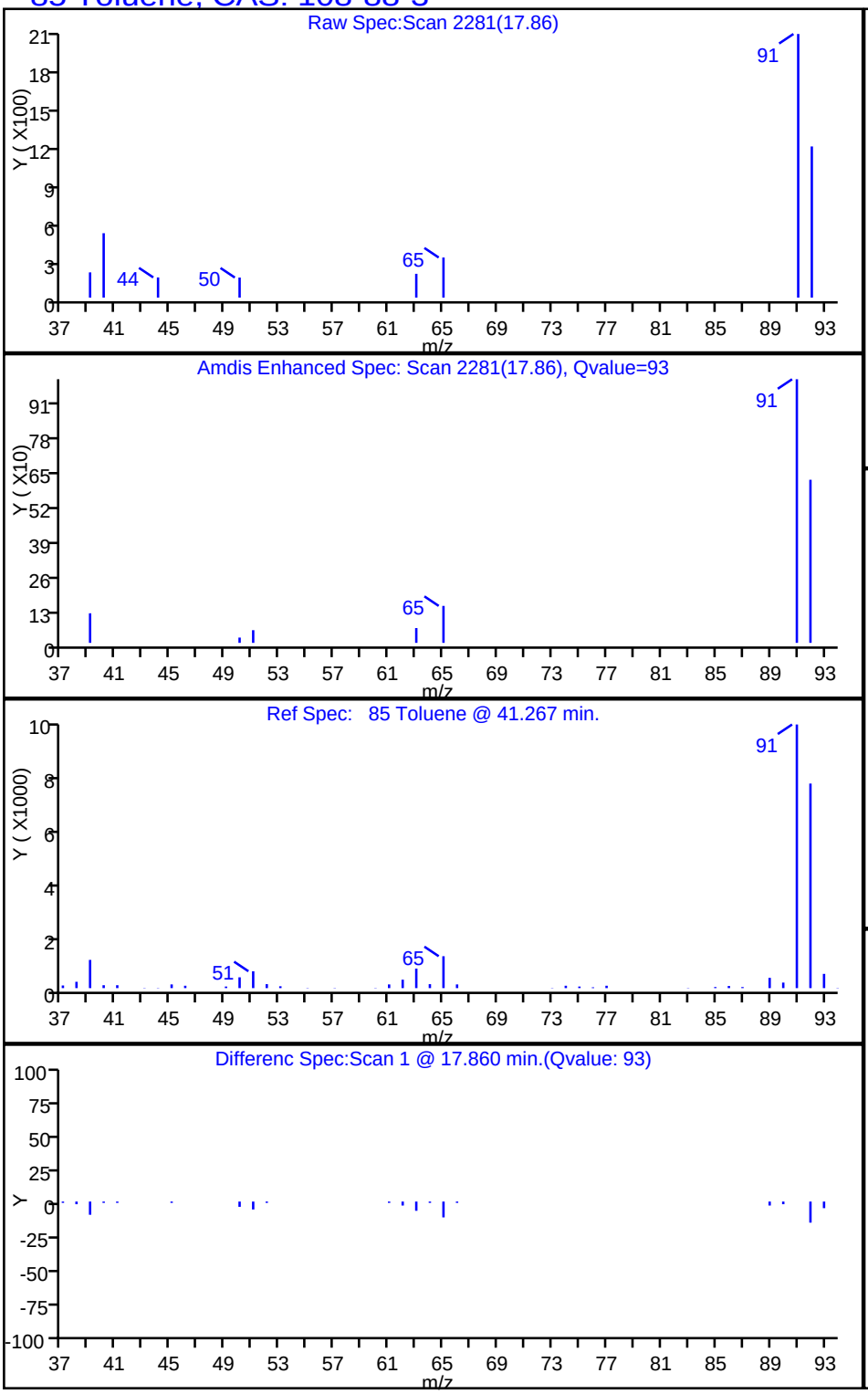
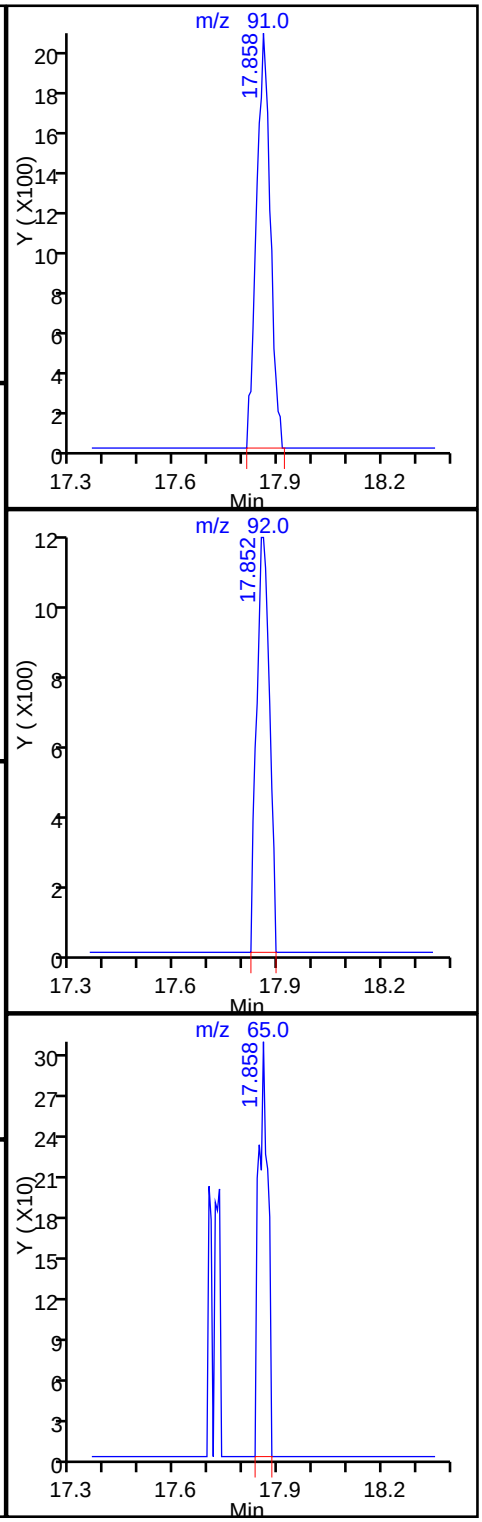
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

85 Toluene, CAS: 108-88-3





Report Date: 04-May-2016 10:57:36 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS9\20160503-30418.b\MS9050318.D

Injection Date: 04-May-2016 06:29:30 Instrument ID: ATMS9

Lims ID: 320-18553-A-12 Lab Sample ID: 320-18553-12

Client ID: 8056

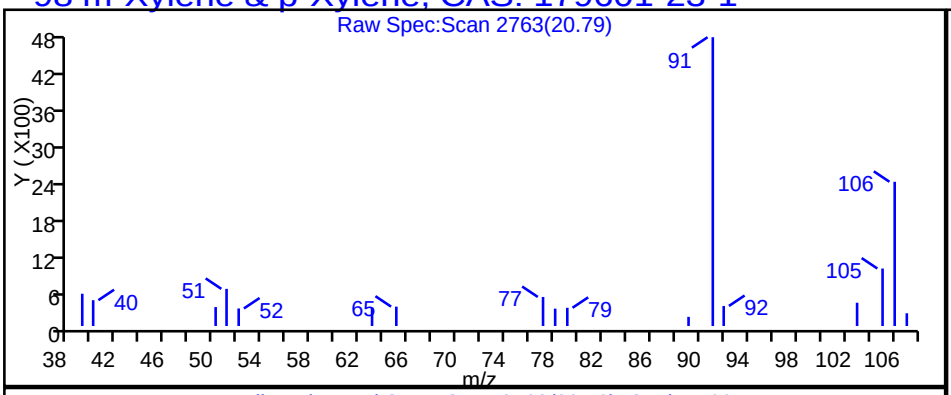
Operator ID: KY ALS Bottle#: 11 Worklist Smp#: 18

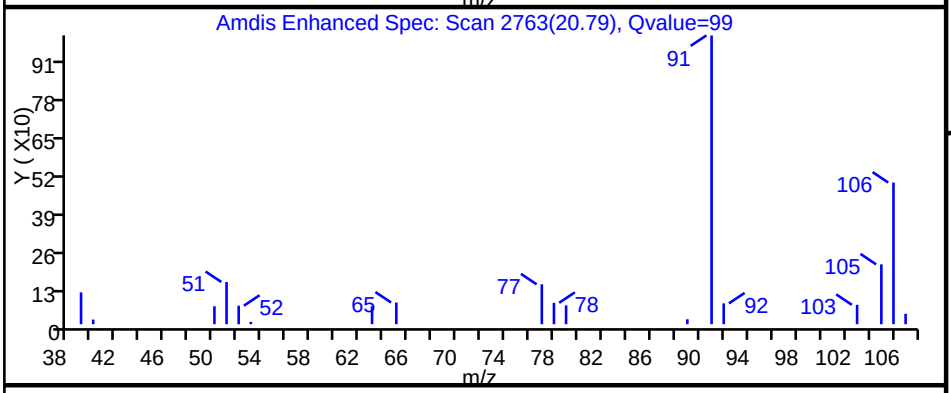
Purge Vol: 5.000 mL Dil. Factor: 1.0000

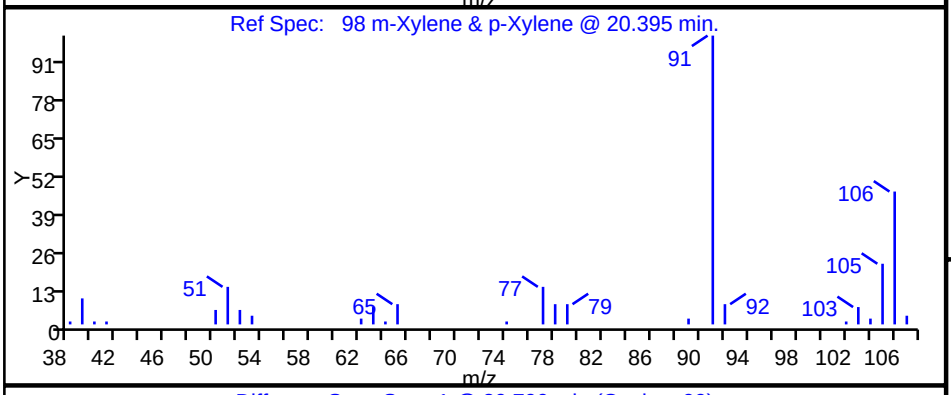
Method: TO15_ATMS9N Limit Group: MSA - TO15 - ICAL

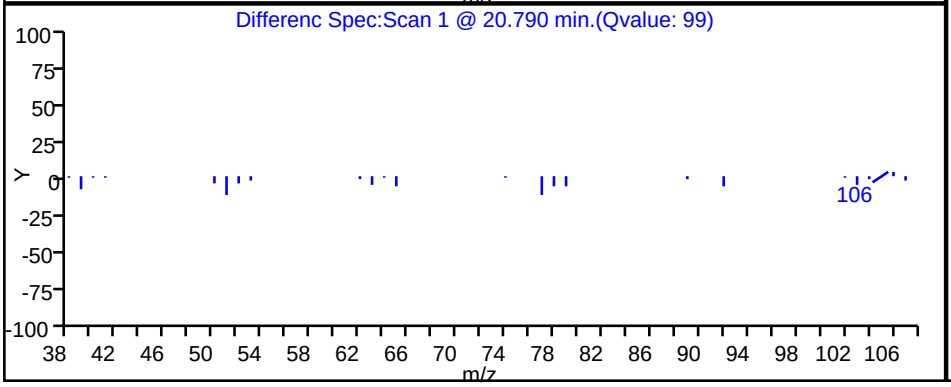
Column: RTX Volatiles (0.32 mm) Detector MS SCAN

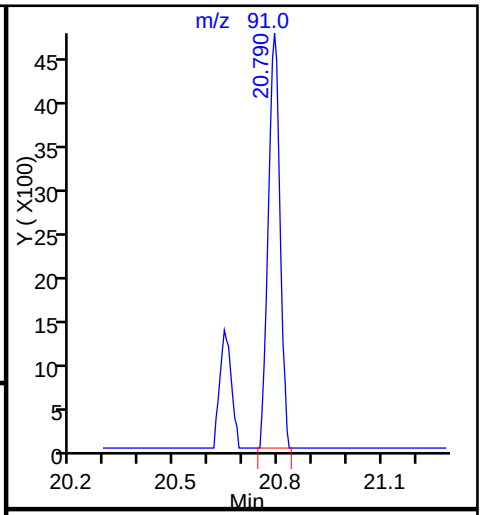
98 m-Xylene & p-Xylene, CAS: 179601-23-1

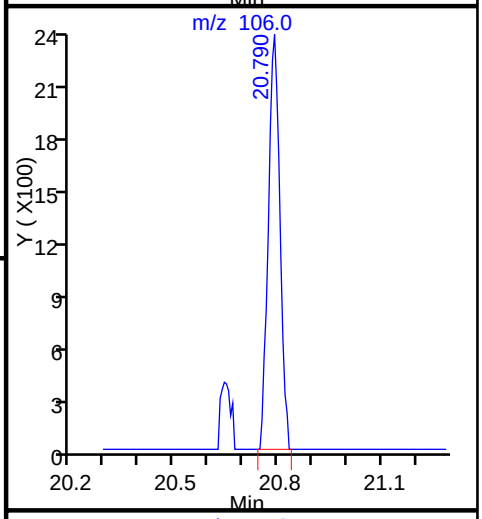


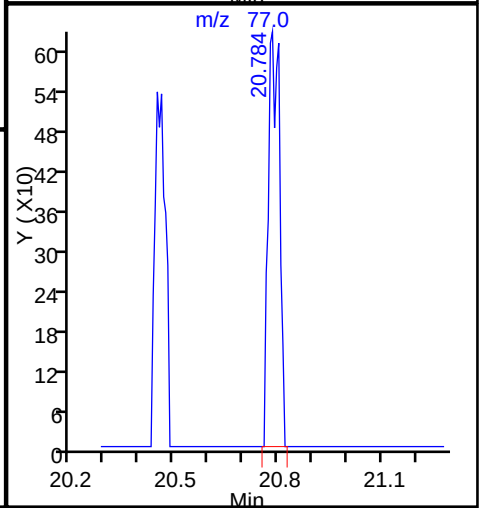












Report Date: 04-May-2016 10:57:36 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Sacramento

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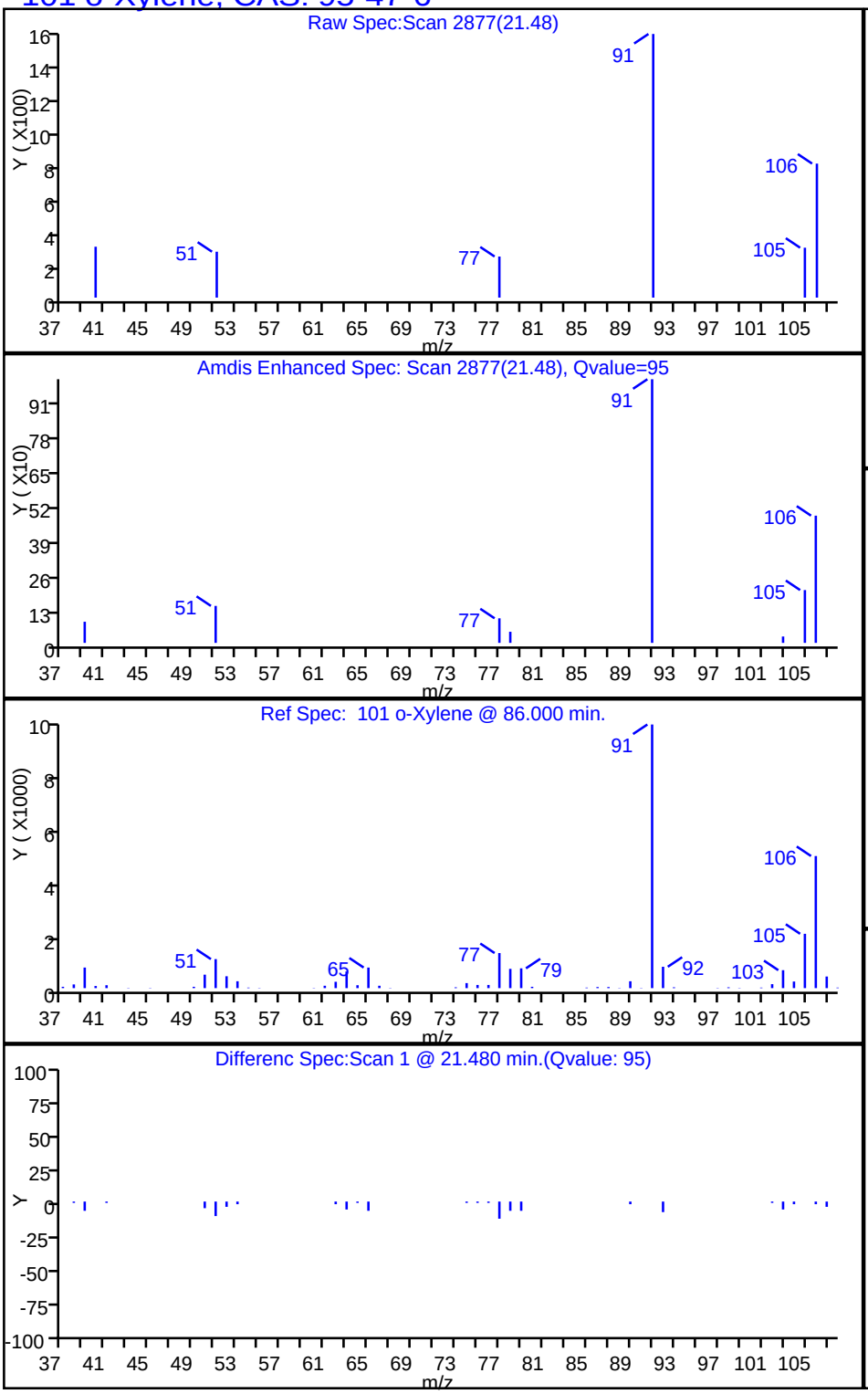
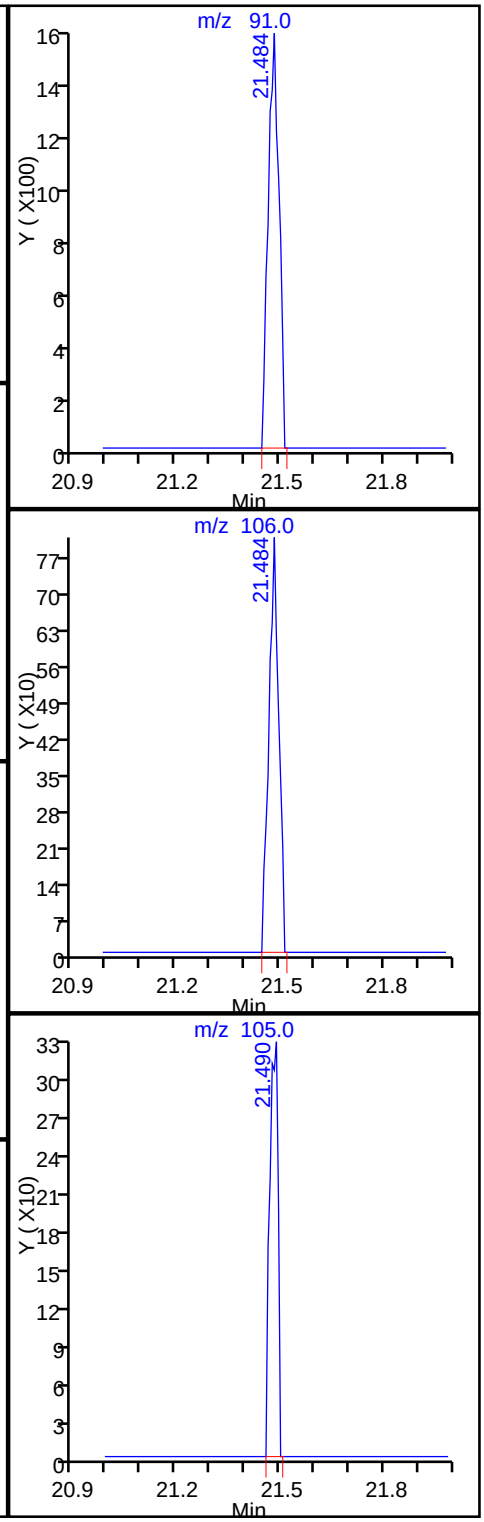
Injection Date:	04-May-2016 06:29:30	Instrument ID:	ATMS9		
Lims ID:	320-18553-A-12	Lab Sample ID:	320-18553-12		
Client ID:	8056				
Operator ID:	KY	ALS Bottle#:	11	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS9N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

101 o-Xylene, CAS: 95-47-6





FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18648-1

SDG No.:

Client Sample ID: 34000094 Lab Sample ID: 320-18648-1

Matrix: Air Lab File ID: MS7051021.D

Analysis Method: TO-15 Date Collected: 05/03/2016 00:00

Sample wt/vol: 500(mL) Date Analyzed: 05/11/2016 07:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109398 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	ND		5.0	0.18
107-02-8	Acrolein	ND		2.0	0.22
107-13-1	Acrylonitrile	ND		2.0	0.19
107-05-1	Allyl chloride	ND		0.80	0.11
71-43-2	Benzene	ND		0.40	0.079
100-44-7	Benzyl chloride	ND		0.80	0.16
75-27-4	Bromodichloromethane	ND		0.30	0.066
75-25-2	Bromoform	ND		0.40	0.070
74-83-9	Bromomethane	ND		0.80	0.34
106-99-0	1,3-Butadiene	ND		0.80	0.15
106-97-8	n-Butane	ND		0.40	0.15
78-93-3	2-Butanone (MEK)	ND		0.80	0.20
75-65-0	tert-Butyl alcohol (TBA)	ND		2.0	0.11
104-51-8	n-Butylbenzene	ND		0.40	0.18
135-98-8	sec-Butylbenzene	ND		0.40	0.070
98-06-6	tert-Butylbenzene	ND		0.80	0.068
75-15-0	Carbon disulfide	0.12	J	0.80	0.078
56-23-5	Carbon tetrachloride	ND		0.80	0.064
108-90-7	Chlorobenzene	ND		0.30	0.064
75-45-6	Chlorodifluoromethane	ND		0.80	0.11
75-00-3	Chloroethane	ND		0.80	0.31
67-66-3	Chloroform	ND		0.30	0.095
74-87-3	Chloromethane	ND		0.80	0.20
95-49-8	2-Chlorotoluene	ND		0.40	0.080
110-82-7	Cyclohexane	ND		0.40	0.084
124-48-1	Dibromochloromethane	ND		0.40	0.079
106-93-4	1,2-Dibromoethane (EDB)	ND		0.80	0.075
74-95-3	Dibromomethane	ND		0.40	0.057
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.16
95-50-1	1,2-Dichlorobenzene	ND		0.40	0.13
541-73-1	1,3-Dichlorobenzene	ND		0.40	0.11
106-46-7	1,4-Dichlorobenzene	ND		0.40	0.15
75-71-8	Dichlorodifluoromethane	ND		0.40	0.15
75-34-3	1,1-Dichloroethane	ND		0.30	0.072
107-06-2	1,2-Dichloroethane	ND		0.80	0.088

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18648-1

SDG No.:

Client Sample ID: 34000094 Lab Sample ID: 320-18648-1

Matrix: Air Lab File ID: MS7051021.D

Analysis Method: TO-15 Date Collected: 05/03/2016 00:00

Sample wt/vol: 500(mL) Date Analyzed: 05/11/2016 07:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109398 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-35-4	1,1-Dichloroethene	ND		0.80	0.13
156-59-2	cis-1,2-Dichloroethene	ND		0.40	0.089
156-60-5	trans-1,2-Dichloroethene	ND		0.40	0.10
78-87-5	1,2-Dichloropropane	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	ND		0.40	0.10
10061-02-6	trans-1,3-Dichloropropene	ND		0.40	0.088
123-91-1	1,4-Dioxane	ND		0.80	0.10
141-78-6	Ethyl acetate	ND		0.30	0.18
100-41-4	Ethylbenzene	ND		0.40	0.063
622-96-8	4-Ethyltoluene	ND		0.40	0.19
142-82-5	n-Heptane	ND		0.80	0.063
87-68-3	Hexachlorobutadiene	ND		2.0	0.43
110-54-3	n-Hexane	ND		0.80	0.075
591-78-6	2-Hexanone	ND		0.40	0.087
98-82-8	Isopropylbenzene	ND		0.80	0.10
99-87-6	4-Isopropyltoluene	ND		0.80	0.12
1634-04-4	Methyl-t-Butyl Ether (MTBE)	ND		0.80	0.050
80-62-6	Methyl methacrylate	ND		0.80	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.40	0.14
75-09-2	Methylene Chloride	ND		0.40	0.072
98-83-9	alpha-Methylstyrene	ND		0.40	0.065
91-20-3	Naphthalene	ND		0.80	0.56
111-65-9	n-Octane	ND		0.40	0.055
109-66-0	n-Pentane	ND		0.80	0.26
115-07-1	Propylene	ND		0.40	0.099
103-65-1	N-Propylbenzene	ND		0.40	0.059
100-42-5	Styrene	ND		0.40	0.059
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.40	0.069
127-18-4	Tetrachloroethene	ND		0.40	0.051
109-99-9	Tetrahydrofuran	ND		0.80	0.079
108-88-3	Toluene	ND		0.40	0.051
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.40	0.16
120-82-1	1,2,4-Trichlorobenzene	ND		2.0	0.43
71-55-6	1,1,1-Trichloroethane	ND		0.30	0.065
79-00-5	1,1,2-Trichloroethane	ND		0.40	0.067

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-18648-1

SDG No.:

Client Sample ID: 34000094 Lab Sample ID: 320-18648-1

Matrix: Air Lab File ID: MS7051021.D

Analysis Method: TO-15 Date Collected: 05/03/2016 00:00

Sample wt/vol: 500(mL) Date Analyzed: 05/11/2016 07:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: RTX-Volatiles ID: 0.32(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 109398 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.40	0.11
75-69-4	Trichlorofluoromethane	ND		0.40	0.20
96-18-4	1,2,3-Trichloropropane	ND		0.40	0.17
95-63-6	1,2,4-Trimethylbenzene	ND		0.80	0.16
108-67-8	1,3,5-Trimethylbenzene	ND		0.40	0.13
540-84-1	2,2,4-Trimethylpentane	ND		0.40	0.071
108-05-4	Vinyl acetate	ND		0.80	0.15
593-60-2	Vinyl bromide	ND		0.80	0.26
75-01-4	Vinyl chloride	ND		0.40	0.12
179601-23-1	m,p-Xylene	ND		0.80	0.10
95-47-6	o-Xylene	ND		0.40	0.054

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	80		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		70-130
2037-26-5	Toluene-d8 (Surr)	105		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20160510-30605.b\MS7051021.D
Lims ID: 320-18648-A-1
Client ID: 34000094
Sample Type: Client
Inject. Date: 11-May-2016 07:15:30 ALS Bottle#: 2 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 320-18648-A-1
Misc. Info.: 500 mL CAN CERT
Operator ID: LHS Instrument ID: ATMS7

Method: \\ChromNA\Sacramento\ChromData\ATMS7\20160510-30605.b\TO15_ATMS7N.m
Limit Group: MSA - TO15 - ICAL
Last Update: 11-May-2016 08:03:29 Calib Date: 15-Mar-2016 17:30:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\ATMS7\20160315-29097.b\MS7031422.D

Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
Process Host: XAWRK012

First Level Reviewer: leeh Date: 11-May-2016 08:03:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.372	12.390	-0.018	92	60948	4.00	
* 2 1,4-Difluorobenzene	114	14.525	14.544	-0.019	97	279373	4.00	
* 3 Chlorobenzene-d5 (IS)	117	21.199	21.217	-0.018	93	250320	4.00	
$ 4 1,2-Dichloroethane-d4 (Sur	65	13.576	13.595	-0.019	96	115872	4.69	
$ 5 Toluene-d8 (Surr)	100	17.932	17.951	-0.018	96	189217	4.22	
$ 6 4-Bromofluorobenzene (Surr	95	23.736	23.754	-0.018	85	129038	3.19	
39 Methylene Chloride	49	8.795	8.795	0.000	1	1595	0.0573	
40 Carbon disulfide	76	8.856	8.843	0.013	91	6858	0.1199	
73 n-Octane	43	17.938	17.963	-0.025	46	2889	0.0275	

Reagents:

VASUISIM_00292 Amount Added: 50.00 Units: mL Run Reagent

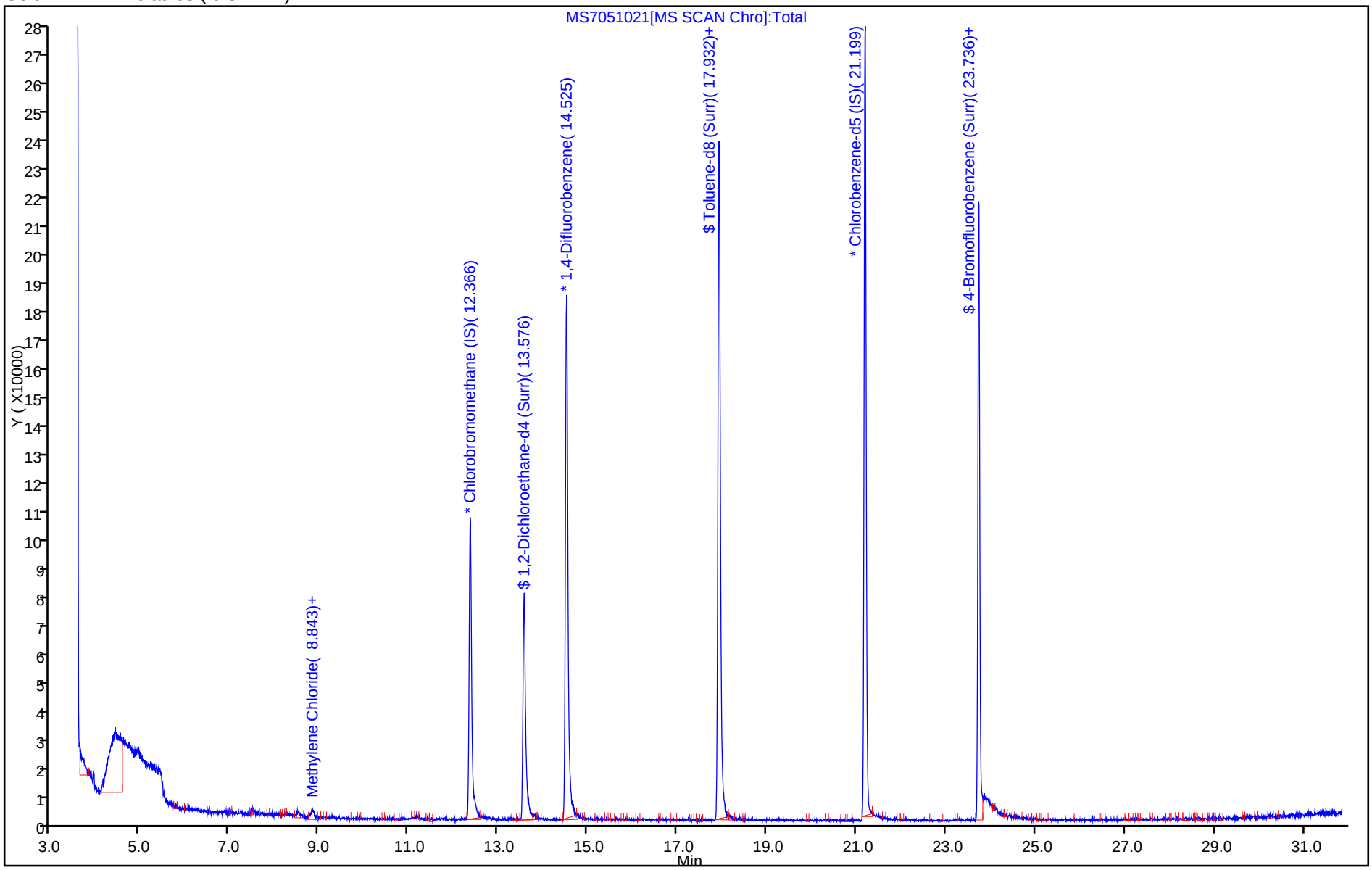
Report Date: 11-May-2016 08:03:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20160510-30605.b\MS7051021.D

Injection Date:	11-May-2016 07:15:30	Instrument ID:	ATMS7	Operator ID:	LHS
Lims ID:	320-18648-A-1	Lab Sample ID:	320-18648-1	Worklist Smp#:	21
Client ID:	34000094				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	TO15_ATMS7N	Limit Group:	MSA - TO15 - ICAL		

Column: RTX Volatiles (0.32 mm)



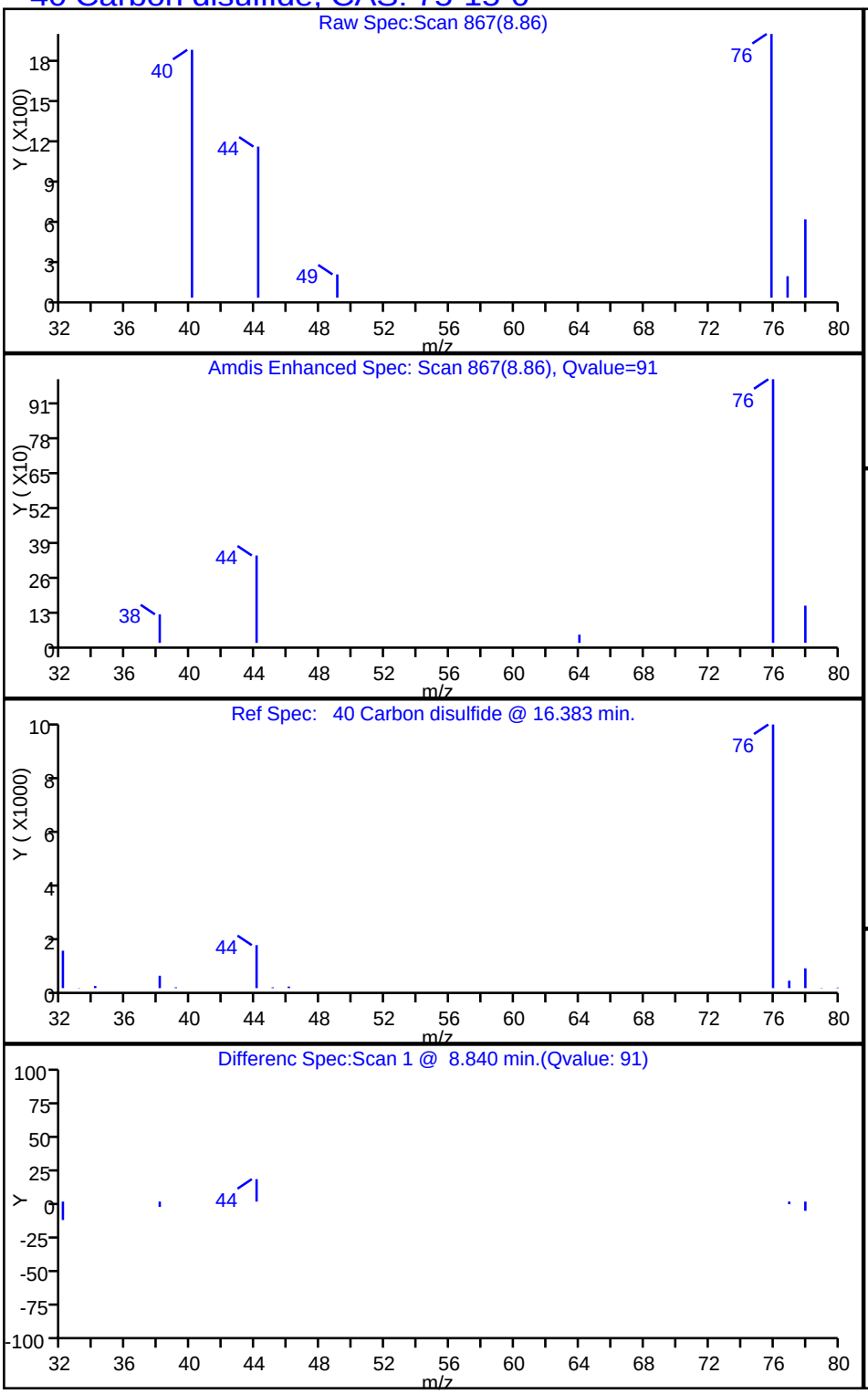
Report Date: 11-May-2016 08:03:41 Chrom Revision: 2.2 20-Apr-2016 13:59:46

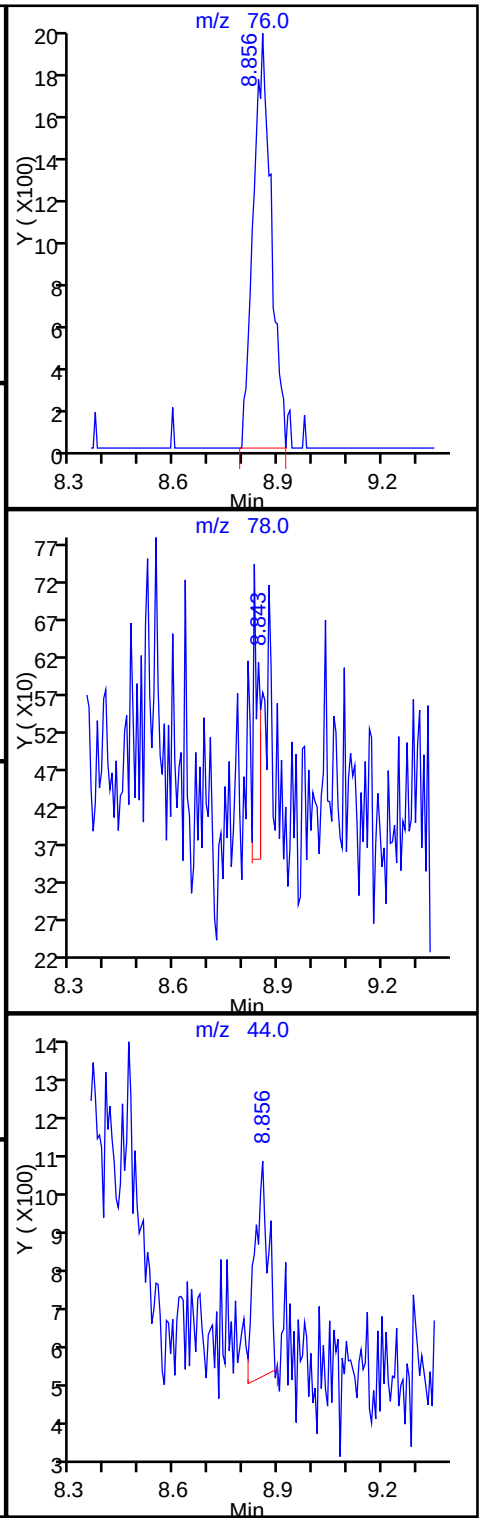
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\ATMS7\20160510-30605.b\MS7051021.D

Injection Date:	11-May-2016 07:15:30	Instrument ID:	ATMS7		
Lims ID:	320-18648-A-1	Lab Sample ID:	320-18648-1		
Client ID:	34000094				
Operator ID:	LHS	ALS Bottle#:	2	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	TO15_ATMS7N	Limit Group:	MSA - TO15 - ICAL		
Column:	RTX Volatiles (0.32 mm)	Detector	MS SCAN		

40 Carbon disulfide, CAS: 75-15-0





Attachment 2

Laboratory Data Review Checklists

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/14/2016
CS Report Name:	Former TBE Machine Shop Property Revision 1	Report Date:	10/6/2015
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica (Tacoma, WA)	Laboratory Report Number:	580-53330-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

-0.1˚C; below the provided range, but does not affect sample quality

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

"good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No sample receipt discrepancies noted.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

8260B: (1) The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-1 (550-53330-1), MW-5 (580-53330-4), and BD-1 (550-53330-6). Elevated reporting limits (RLs) are provided.
(2) Re-analysis of the following samples were performed outside of the analytical holding time due to analytes recovering above the calibration range: MW-1 (550-53330-1), MW-5 (580-53330-4), and BD-1 (550-53330-6).
AK102 & 103: The following samples from preparation batch 580-201337 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-5 (550-53330-4) and BD-1 (580-53330-6)

c. Were all corrective actions documented?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability not effected according to the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

8260B: 14 days from collection to analysis; AK101 = 28 days; AK102 = 14 days collection to extraction, 40 days extraction to analysis
Collection Date: 9/8 – 9/9/15
Prepped: (All) - 9/21/15 (AK102)
Analyzed: 9/17 (AK101), 9/19, re-analyzed 9/21 and 9/29 (8260B), 9/21 (AK102)
*Re-analysis outside of hold time as discussed in case narrative

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil data in this laboratory report

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

All PQLs below the Cleanup Level.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples

v. Data quality or usability affected? (Please explain) Comments:

Data quality or usability not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganics analysis.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

All %R and RPD within acceptable limits.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

All %R and RPD within acceptable limits.

vii. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability is not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No failed surrogate recoveries

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

Data quality or usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

◉ Yes ○ No ○ NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iii. All results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Submitted blind to lab?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

BD-1 is duplicate of MW-5

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ◉ No ○ NA (Please explain) Comments:

Not affected because all RPD within limits

f. Decontamination or Equipment Blank (if applicable)

◉ Yes ○ No ○ NA (Please explain) Comments:

Equipment blank sample ID = EB-1

i. All results less than PQL?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

◉ Yes ○ No ○ NA (Please explain) Comments:

H = Sample was prepped or analyzed beyond the specified hold time (Note: Samples re-analyzed outside of hold time due to concentrations outside of calibration range)
Y = The chromatographic response resembles a typical fuel pattern (see case narrative discussion)

Reset Form

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/15/2016
CS Report Name:	GE Nikiski, Alaska 49200 Kenai Spur Hwy, Revision 1	Report Date:	1/8/2016
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica (Tacoma, WA)	Laboratory Report Number:	580-55696-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

( ) Yes (•) No ( ) NA (Please explain) Comments:

Sample time is not provided for the Equipment Blanks (EB-1 and EB-2) or trip blank

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

0.0˚C; below the provided range, but does not affect sample quality

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

Good condition except: (1) Received broken or leaking: 40 mL voa vial with HCL for sample ID MW-7 (2) Headspace larger than 1/4" in one or more vials, one vial with accpt. headspace.

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): The sample times on the labels for sample MW-3 and MW-4 do not match the sample times on the COC. The samples were logged in per the COC.

The following sample(s) was received at the laboratory without a sample collection time documented on the chain of custody: EB-1, EB-2, and trip blanks. The samples were logged in with a default time of 0.01.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

8260B: (1) The LCS and / or LCSD recovered outside control limits for analytical batches 580-207714 (Benzene [LCS]), 580-207793 (Chloromethane [LCSD]), and 580-208079 (Benzene, Dibromomethane, and Trichloroethene [LCS]). The results were biased high and not detected in the associated samples; therefore the data is reported. (2) The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-5 (580-55696-4) and BD-1 (580-55696-6). Elevated reporting limits (RLs) are provided. (3) Re-analysis of the following sample was performed outside of the analytical holding time due to the instrument indicating a high bias for the analyte trichloroethene in the initial analysis; the sample that contained the affected compound: MW-4 (580-55696-3)

AK102 & 103: The following sample contained a hydrocarbon pattern in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes: BD-1 (580-55696-6)

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability not effected according to the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

8260B: 14 days from collection to analysis; AK101 = 28 days; AK102 = 14 days collection to extraction, 40 days extraction to analysis
Collection Date: 12/1 – 12/2/2015
Prepped: (All) - 12/9/2015 (AK102)
Analyzed: 12/9 (AK101), 12/14, re-analyzed 12/15 and 12/17 (8260B), 12/11 (AK102)
*Re-analysis outside of hold time as discussed in case narrative

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil data in this laboratory report.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

All PQLs below the Cleanup Level.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No affected samples

v. Data quality or usability affected? (Please explain) Comments:

Data quality or usability not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No metals or inorganics analysis.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

( ) Yes (•) No ( ) NA (Please explain) Comments:

Analytical Batch 207714: LCS - Benzene %R=121 (limits=80-120%)
Analytical Batch 207793: LCS - Benzene %R=129 (limits=80-120%); Trichloroethene %R=130 (limits=70-125%); Dibromomethane %R=127 (limits=70-125%). LCSD - Benzene %R=124 (limits=80-120%)
Analytical Batch 208079: LCSD - Chloromethane %R=128 (limits=40-125%)

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No samples are affected because results in associated samples are all non-detects.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Associated samples indicated with an "*" in the Qualifier column.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality or usability is not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No failed surrogate recoveries

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

Data quality or usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iii. All results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Submitted blind to lab?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

BD-1 is duplicate of MW-5; BD-2 is duplicate of MW-2

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$RPD\ (\%) = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

( ) Yes (•) No ( ) NA (Please explain) Comments:

Not affected because all RPD within limits

f. Decontamination or Equipment Blank (if applicable)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Equipment blank sample ID = EB-1

i. All results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

* = LCS or LCSD is outside acceptance limits
H = Sample was prepped or analyzed beyond the specified holding time.

Reset Form

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/16/2016
CS Report Name:	GE Nikiski, Alaska	Report Date:	4/4/2016
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica (Tacoma, WA)	Laboratory Report Number:	580-58156-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

1.4˚C; below the provided range, but does not affect sample quality

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Good condition

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

AK101: Reanalysis of the following samples was performed outside of the analytical holding time due to a poor injection on the in-hold run. The septa on the vial was malformed so the autosampler was not able to pull water from the first analysis vial: EB-1 (550-58156-8)
8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-2 (580-58156-2), MW-5 (580-58156-4), and BD-1 (580-58156-6). Elevated reporting limits (RLs) are provided.
AK102 & 103: Sample 580-58156-A-4-A contained a hydrocarbon patter in the diesel range; however, the elution pattern was earlier than the typical diesel fuel pattern used by the laboratory for quantitative purposes.

c. Were all corrective actions documented?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability not effected according to the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

8260B: 14 days from collection to analysis; AK101 = 28 days; AK102 = 14 days collection to extraction, 40 days extraction to analysis
Collection Date: 3/15/2016
Prepped: (All) - 3/23/2016 (AK102)
Analyzed: 3/25 and 3/29 (AK101), 3/24 and 3/25 (8260B), 3/24 (AK102)

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil data in this laboratory report.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

( ) Yes (•) No ( ) NA (Please explain) Comments:

All PQLs below the Cleanup Level, except the following:
MW-2: 1,1-Dichloroethene, Trichloroethene, and Tetrachloroethane PQL = 20 ug/L (Cleanup Levels = 7, 5, and 5 ug/L, respectively). Exceedances are due to elevated concentrations as mentioned in 4b, above.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples

v. Data quality or usability affected? (Please explain) Comments:

Data quality or usability not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganics analysis.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality or usability is not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No failed surrogate recoveries

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

Data quality or usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

◉ Yes ○ No ○ NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iii. All results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Submitted blind to lab?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

BD-1 is duplicate of MW-5; BD-2 is duplicate of MW-7. NOTE: BD-2 is listed on the COC but hold was requested on analysis.

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ◉ No ○ NA (Please explain) Comments:

Not affected because all RPD within limits

f. Decontamination or Equipment Blank (if applicable)

◉ Yes ○ No ○ NA (Please explain) Comments:

Equipment blank sample ID = EB-1

i. All results less than PQL?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

◉ Yes ○ No ○ NA (Please explain) Comments:

H = Sample was prepped or analyzed beyond the specified holding time.

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/17/2016
CS Report Name:	Former TBE Machine Shop Property	Report Date:	6/24/2016
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica (Tacoma, WA)	Laboratory Report Number:	580-60244-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

1.0˚C and 2.0˚C; one cooler below the provided range, but does not affect sample quality

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Good condition

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

See Attachment 1

c. Were all corrective actions documented?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

Data quality/usability not effected according to the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

( ) Yes (•) No ( ) NA (Please explain) Comments:

8260B: 14 days from collection to analysis; AK101 = 28 days; AK102 = 14 days collection to extraction, 40 days extraction to analysis; 9215B = 8 hours from collection to start of plate
Collection Date: 6/7 - 6/8/2016 (Received at lab 6/11/2016)
Prepped: (All) - 6/21/2016 (AK102)
Analyzed: 6/14 and 6/15 (AK101), 6/14, 6/15, & 6/16 (Re-analyzed 6/20) (8260B), 6/23 (AK102); 9215B: start - 6/14/2016 (OUTSIDE HOLD TIME), end - 6/16/2016

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil data in this laboratory report.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

For 9215B: Sample plates started > 2 times the holding time
Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples

v. Data quality or usability affected? (Please explain) Comments:

Data quality or usability not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganics analysis.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

Analytical Batch 219849: LCS - 1,1-Dichloroethene %R = 119 (limits = 70-117%);
Analytical Batch 219849: MS/MSD performed for MW-3-W-060816 - MS cis-1,2-DCE %R=112 (limits=70-111%R); 1,1-DCE %R=122 (limits=70-117%R); trans-1,2-DCE %R=117 (limits=72-113%); vinyl chloride %R=126 (limits=56-114%). All LCSD and MSD %R within limits

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

Analytical Batch 219849: 2-Chlorotoluene RPD=17 (limit=15); 4-Isopropyltoluene RPD=14 (limit=13). All MS/MSD RPDs within limit

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No samples are affected because results in associated samples are all non-detects.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality or usability is not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No failed surrogate recoveries

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

Data quality or usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

◉ Yes ○ No ○ NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

◉ Yes ○ No ○ NA (Please explain.) Comments:

iii. All results less than PQL?

◉ Yes ○ No ○ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

BD-1-W-060716 is duplicate of MW-1-W-060716; BD-2-W-060716 is duplicate of MW-5-W-060816.

iii. Precision - All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ◉ No ○ NA (Please explain) Comments:

Not affected because all RPD within limits

f. Decontamination or Equipment Blank (if applicable)

○ Yes ◉ No ○ NA (Please explain) Comments:

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

No equipment blank collected.

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

◉ Yes ○ No ○ NA (Please explain) Comments:

* = LCS or LCSD is outside of acceptance limits / RPD of the LCS and LCSD exceeds the control limts
F1 = MS and/or MSD Recovery is outside acceptance limits.
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H = Sample was prepped or analyzed beyond the specified holding time.

Reset Form

4. Case Narrative

b. Discrepancies, errors, or QC failures identified by the lab?

8260C: (1) The LCS for analytical batch 580-219849 recovered outside control limits for the following analytes: 1,1-Dichloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the date have been reported. (2) The %RPD of the LCS and LCSD for preparation batch analytical batch 580-219849 recovered outside control limits for the following analytes: 2-chlorotoluene and 4-isopropyltoluene. (3) The CCV associated with batch 580-219972 recovered outside acceptance criteria, low biased for Dichlorodifluoromethane. A RL standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. (4) The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-2-W-060816, MW-5-W-060816, and BD-2-W-060716. Elevated RLs are provided.

AK101: Analytical batches 219563 and 219899 was run with only the secondary source standard for the CCVs, LCS, and LCSD. A new primary gas standard was made and failed low.

AK102 & 103: The following samples contained a hydrocarbon pattern in the DRO (C10-C25) range; however, the elution pattern was later than the typical DRO (C10-C25) fuel pattern used by the laboratory for quantitative purposes: MW-3-W-060816, MW-4-W-060716, and MW-6-W-060816.

9215B: The following samples were received outside of holding time: MW-1-W-060716, MW-4-W-060716, MW-5-W-060816, and MW-7-W-060816

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/5/2016
CS Report Name:	Former TBE Machine Shop Property	Report Date:	9/21/2015
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	320-14871-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

TestAmerica located at 880 Riverside Parkway, West Sacramento, CA 95605 has full ADEC CS approval. However, ADEC CS doesn't have method TO-15 listed on the website.

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

( ) Yes (•) No ( ) NA (Please explain) Comments:

Per the case narrative: "The container for the following sample did not match the information listed on the Chain-of-Custody (COC): Effluent-A-090815. The canister ID lists 34000465 while the COC lists C8455.

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

( ) Yes ( ) No (•) NA (Please explain) Comments:

Air samples do not require a receipt temperature in this range.

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

○ Yes ○ No ◉ NA (Please explain) Comments:

Air samples do not require preservation

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

◉ Yes ○ No ○ NA (Please explain) Comments:

"good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

◉ Yes ○ No ○ NA (Please explain) Comments:

Per the case narrative: The sample tag for 1 of the 6 liter cans was not filled out. The COC gave instructions that both cans are the sample sample. Effluent-A-090815.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability are not affected.

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No ○ NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

◉ Yes ○ No ○ NA (Please explain) Comments:

"Surrogate 1,2-Dichloroethane-d4 (Surr) recovery for the following samples was outside control limits: (CCV 320-86580/8) and (LCS 320-86580/9). This analyte is not used as a monitoring analyte."

c. Were all corrective actions documented?

◉ Yes ○ No ○ NA (Please explain) Comments:

"1,2-Dichloroethane-d4 is not used as a monitoring compound for this method; therefore, re-extraction and/or re-analysis was not performed."

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect on the data quality/usability.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Holding time for air canisters = 30 days
Collected - 9/8/2015
Analyzed - 9/19/2015

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil samples in this SDG

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

( ) Yes ( ) No (•) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

N/A

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

One LCS reported per matrix, analysis, and 20 samples. No LCSD analysis performed.

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganic analysis was requested for the samples submitted.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

○ Yes ○ No ◉ NA (Please explain) Comments:

No LCSD performed. No MS/MSD performed.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

%R for surrogate 1,2-Dichloroethane-d4 outside range for LCS sample 320-86580/9 (GRO and TPH as gasoline): %R = 158, Limits = 70 - 130%

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

◉ Yes ○ No ○ NA (Please explain) Comments:

Yes, the failed surrogate recovery is indicated with an "X" in the LCS Qualifier column.

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability not affected. The two other surrogate recoveries for this LCS sample are within Limits (70-130%)

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Matrix = air

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Air canisters are not submitted in a cooler

iii. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain.) Comments:

No trip blank submitted

iv. If above PQL, what samples are affected?

Comments:

N/A, no trip blank submitted.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected (only one sample "EFFLUENT-A-090814" submitted to lab)

ii. Submitted blind to lab?

○ Yes ○ No ◉ NA (Please explain.) Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

○ Yes ○ No ◉ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ○ No ◉ NA (Please explain) Comments:

Data quality and usability not affected.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

◉ Yes ○ No ○ NA (Please explain) Comments:

The only Data Flag/Qualifier used in this report is: X = Surrogate is outside control limits.

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/5/2016
CS Report Name:	Former TBE Machine Shop Property	Report Date:	12/18/2015
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	320-16295-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

TestAmerica located at 880 Riverside Parkway, West Sacramento, CA 95605 has full ADEC CS approval. However, ADEC CS doesn't have method TO-15 listed on the website.

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Air samples do not require a receipt temperature in this range.

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

○ Yes ○ No ◉ NA (Please explain) Comments:

Air samples do not require preservation

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

◉ Yes ○ No ○ NA (Please explain) Comments:

"good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

○ Yes ○ No ◉ NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability are not affected.

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No ○ NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

○ Yes ◉ No ○ NA (Please explain) Comments:

No discrepancies reported.

c. Were all corrective actions documented?

○ Yes ○ No ◉ NA (Please explain) Comments:

Corrective actions were not required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect on the data quality/usability.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Holding time for air canisters = 30 days
Collected - 12/1/2015
Analyzed - 12/17/2015

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil samples in this SDG

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

( ) Yes ( ) No (•) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

N/A

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

One LCS reported per matrix, analysis, and 20 samples. No LCSD analysis performed.

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganic analysis was requested for the samples submitted.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

○ Yes ○ No ◉ NA (Please explain) Comments:

No LCSD performed. No MS/MSD performed.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples requiring data flags.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No failed surrogate recoveries.

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Matrix = air

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Air canisters are not submitted in a cooler

iii. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain.) Comments:

No trip blank submitted

iv. If above PQL, what samples are affected?

Comments:

N/A, no trip blank submitted.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected (only one sample "EFFLUENT-A-120115" submitted to lab)

ii. Submitted blind to lab?

○ Yes ○ No ◉ NA (Please explain.) Comments:

Field duplicate was not collected.

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ○ No ◉ NA (Please explain) Comments:

Data quality and usability not affected.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ◉ NA (Please explain) Comments:

Data Flags/Qualifiers were not required for this laboratory report.

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/5/2016
CS Report Name:	Former TBE Machine Shop Property	Report Date:	4/7/2016
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	320-17829-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

TestAmerica located at 880 Riverside Parkway, West Sacramento, CA 95605 has full ADEC CS approval. However, ADEC CS doesn't have method TO-15 listed on the website.

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Air samples do not require a receipt temperature in this range.

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

○ Yes ○ No ◉ NA (Please explain) Comments:

Air samples do not require preservation

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

◉ Yes ○ No ○ NA (Please explain) Comments:

"good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

○ Yes ○ No ◉ NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability are not affected.

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No ○ NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

○ Yes ◉ No ○ NA (Please explain) Comments:

No discrepancies reported.

c. Were all corrective actions documented?

○ Yes ○ No ◉ NA (Please explain) Comments:

Corrective actions were not required.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect on the data quality/usability.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Holding time for air canisters = 30 days
Collected - 3/15/2016
Analyzed - 4/4/2016

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil samples in this SDG

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

( ) Yes ( ) No (•) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

N/A

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganic analysis was requested for the samples submitted.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

RPD reported for LCS/LCSD samples. No MS/MSD analyzed.

v. If %R or RPD is outside of acceptable limits, what samples are affected? Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples requiring data flags.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No failed surrogate recoveries.

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability not affected.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Matrix = air

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Air canisters are not submitted in a cooler

iii. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain.) Comments:

No trip blank submitted

iv. If above PQL, what samples are affected?

Comments:

N/A, no trip blank submitted.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected (only one sample "EFFLUENT-A-031516" submitted to lab)

ii. Submitted blind to lab?

○ Yes ○ No ◉ NA (Please explain.) Comments:

Field duplicate was not collected.

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ○ No ◉ NA (Please explain) Comments:

Data quality and usability not affected.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ◉ NA (Please explain) Comments:

Data Flags/Qualifiers were not required for this laboratory report.

Reset Form

Laboratory Data Review Checklist

Completed by:	Kylie Kegerreis		
Title:	Staff Environmental Engineering Specialist	Date:	7/10/2016
CS Report Name:	Former TBE Machine Shop Property	Report Date:	6/27/2016
Consultant Firm:	ARCADIS U.S., Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	320-19515-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

TestAmerica located at 880 Riverside Parkway, West Sacramento, CA 95605 has full ADEC CS approval. However, ADEC CS doesn't have method TO-15 listed on the website.

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Samples were not transferred to another "network" laboratory or sub-contracted to an alternate laboratory

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

( ) Yes ( ) No (●) NA (Please explain) Comments:

Air samples do not require a receipt temperature in this range.

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

○ Yes ○ No ◉ NA (Please explain) Comments:

Air samples do not require preservation

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

◉ Yes ○ No ○ NA (Please explain) Comments:

"good condition"

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

○ Yes ○ No ◉ NA (Please explain) Comments:

No discrepancies reported.

e. Data quality or usability affected? (Please explain)

Comments:

Data quality and usability are not affected.

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No ○ NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

◉ Yes ○ No ○ NA (Please explain) Comments:

"Surrogate 1,2-Dichloroethane-d4 (Surr) recovery for the following samples was outside control limits: (CCV 320-115203/5) and (LCSD 320-115203/7). This analyte is not used as a monitoring analyte."

c. Were all corrective actions documented?

◉ Yes ○ No ○ NA (Please explain) Comments:

"1,2-Dichloroethane-d4 is not used as a monitoring compound for this method; therefore, re-extraction and/or re-analysis was not performed."

d. What is the effect on data quality/usability according to the case narrative?

Comments:

No effect on the data quality/usability.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Holding time for air canisters = 30 days
Collected - 6/6/2016
Analyzed - 6/25/2016

c. All soils reported on a dry weight basis?

( ) Yes ( ) No (•) NA (Please explain) Comments:

No soil samples in this SDG

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

( ) Yes ( ) No (•) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

Data quality or usability not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

N/A

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

N/A

v. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

No metals or inorganic analysis was requested for the samples submitted.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

RPD reported for LCS/LCSD samples. No MS/MSD analyzed.

v. If %R or RPD is outside of acceptable limits, what samples are affected? Comments:

N/A

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples requiring data flags.

vii. Data quality or usability affected? (Please explain) Comments:

Data quality and usability are not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

○ Yes ◉ No ○ NA (Please explain) Comments:

%R for surrogate 1,2-Dichloroethane-d4 outside range for LCS & LCSD samples 320-115203/6 & 320-115203/7, respectively (GRO and TPH as gasoline): LCS/LCSD %R = 162/161, Limits = 70 - 130%

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

◉ Yes ○ No ○ NA (Please explain) Comments:

Yes, the failed surrogate recovery is indicated with an "X" in the LCS/LCSD Qualifier columns.

iv. Data quality or usability affected? (Use the comment box to explain.). Comments:

Data quality and usability not affected. The two other surrogate recoveries for this LCS sample are within Limits (70-130%)

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Matrix = air

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

○ Yes ○ No ◉ NA (Please explain.) Comments:

Air canisters are not submitted in a cooler

iii. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain.) Comments:

No trip blank submitted

iv. If above PQL, what samples are affected?

Comments:

N/A, no trip blank submitted.

v. Data quality or usability affected? (Please explain.)

Comments:

Data quality and usability not affected.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected (only one sample "EFFLUENT-A-060616" submitted to lab)

ii. Submitted blind to lab?

○ Yes ○ No ◉ NA (Please explain.) Comments:

Field duplicate was not collected.

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

○ Yes ○ No ◉ NA (Please explain) Comments:

Field duplicate was not collected.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ○ No ◉ NA (Please explain) Comments:

Data quality and usability not affected.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

Decontamination/Equipment blank not collected for air samples.

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

Data quality or usability not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

◉ Yes ○ No ○ NA (Please explain) Comments:

The only Data Flag/Qualifier used in this report is: X = Surrogate is outside control limits.

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