



Mr. Pete Campbell
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Subject:
ART First Annual Monitoring Report
Former TBE Machine Shop Property
Mile 22.5 Kenai Spur Highway
Nikiski, Alaska

Dear Mr. Campbell:

This letter report has been prepared on behalf of General Electric Company (GE) to document the first 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, including quarterly system inspections, maintenance, and groundwater/vapor monitoring. Work was performed in accordance with the ADEC-approved *Work Plan, Accelerated Remediation Technologies Implementation* (Work Plan, URS Alaska, April 2013). Pursuant to 18 Alaska Administrative Code (AAC) 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
- IDW Management
- Data QA/QC Summary

System Operation

As presented in the *ART Post-System Startup Report* (ARCADIS, August 2014), the ART system was installed in May 2014 and system startup activities were conducted in June 2014. The system has been in continuous operation since June 18, 2014 with no significant issues noted and no down time, aside from routine maintenance periods. The most significant maintenance item has been addressing scaling/fouling of the ART well pumps, tubing, and spray blocks. Fouling appears to be related to iron accumulation on down-well equipment, and has been addressed through routine maintenance as follows:

Date:
September 10, 2015

Contact:
Matthew Pelton

Phone:
919-415-2308

Email:
matthew.pelton@arcadis-us.com

Our ref:
B0032155

Imagine the result

- When the fouling issue was first observed in late 2014, down-well equipment was removed from the wells and cleaned. In addition, in December 2014 the pump wet ends and drop tubing were replaced. Equipment was then reinstalled in the wells, and bypass lines were installed at the well head on both ART wells to allow connection to flow meters to monitor flow rates and pump performance.
- Inline cartridge filters were installed in March 2015 at each well head to filter and remove iron accumulation to extend the life cycle of the pumps. Cartridges are changed when significant iron accumulation is observed or when flow rates are observed to drop off.

Flow rates are now being monitored approximately every 2-4 weeks. When flow rates are observed to drop below approximately 10 gpm maintenance/cleaning is performed and includes removal of all equipment from each well, cleaning of pump parts and spray blocks with soap and water and manual scrubbing, and replacement of filters and drop tubing as needed. Table 1 presents the ART flow rate monitoring history since the maintenance and monitoring was initiated in late 2014.

Comprehensive Operation, Maintenance and Monitoring (OMM) is being conducted on a quarterly basis and includes 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 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 treatment 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, if system alarms are reported; and
- Groundwater and vapor monitoring, as described further below.

The ART system is operating within the manufacturers design specifications.

Quarterly Monitoring

Groundwater Sampling

Prior to startup, a baseline groundwater sampling event was conducted the week of June 9, 2014, and results were presented in the *ART Post-System Startup Report* (ARCADIS, August 2014). Quarterly groundwater sampling has since been conducted in September 2014, December 2014, and March 2015. Each quarterly event included static water level measurements at all 11 monitoring wells, 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), and gasoline-range organics (GRO); with field measures of water quality parameters and ferrous iron. An annual sampling event was conducted in May 2015 that included sampling of all 11 monitoring wells for the constituents listed above, as well as Heterotrophic Plate Count (HPC) at four samples (wells MW-1, MW-4, MW-5, and MW-7).

Static water level measurements were recorded from 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 GRO by AK Method 101, DRO by AK Method 102, and VOCs by USEPA SW-846 Method 8260B. 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 is provided in Table 3. Copies of the laboratory reports 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, GRO, and DRO. Decreasing groundwater concentrations of TCE/PCE have been observed in wells MW-2 and MW-5 since ART system startup, but have been relatively stable since March 2015. Concentrations of other COCs in MW-2 and MW-5, and concentrations of COCs in other wells, have remained relatively stable since baseline sampling.

Vapor Monitoring

A summary of vapor data through the first year of operation is provided in Table 4 (PID readings) and Table 5 (Summa sample results). Copies of the laboratory reports for sampling events from August 2014 through May 2015 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 have decreased over the first year of operation and are now at low steady state levels.

IDW Management

Groundwater from well purging was treated onsite by pumping through a carbon drum. Treated groundwater was discharged to ground per prior ADEC approval. Surface water that had infiltrated the ART well vaults was discharged to ground per prior ADEC approval.

Data Quality Assurance/Quality Control Summary

As required by ADEC (Technical Memorandum 06-002, dated August 20, 2009), ARCADIS completed a laboratory data review checklist for each 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 quality assurance (QA) summary describes parameters related to the quality and usability of the data presented in this report.

Sample Handling

Samples collected as part of this scope 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 COC 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. 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 by Method 9215B, samples for HPC could not be analyzed within 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 this project 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. A trip blank was inadvertently not included in the cooler containing the March 2015 groundwater samples. There was a detection in the laboratory method blank associated with the GRO analysis for samples collected during the September 2014 groundwater sampling event. All non-detected results and detections that were less than five times the concentration detected in the laboratory method blank were qualified as estimated. There were no additional 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 data meet precision objectives for laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) relative percent differences (RPDs).

Accuracy

Accuracy is evaluated using percent recoveries for laboratory control samples such as LCS, LCSD, matrix spikes (MS), and matrix spike duplicates (MSD). The LCS and/or LCSD percent recoveries were outside the laboratory upper control limit for at least one analyte for each groundwater sampling event. However, when the associated sample result is a non-detection, qualification is not necessary. The MS and/or MSD percent recoveries were outside the laboratory upper control limit for multiple analytes evaluated during the March 2015 groundwater sampling event and required qualification. The ADEC QA/QC checklists (Attachment 2) contain details regarding this review. The data meets accuracy objectives as indicated by the laboratory quality control 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. Based on the review, no samples were rejected as unusable due to quality control failures.

Summary

Construction of the ART system was completed between May 15, 2014 and June 17, 2014. Baseline groundwater sampling was conducted on June 9, 2014, and quarterly OMM has been conducted over the last year. The system has operated continuously since shakedown activities concluded on June 20, 2014 with no significant issues. However, observed steady-state conditions of groundwater and vapor sample concentrations suggests that operation of the ART system may no longer be having any significant impact on the groundwater conditions at the Site.

The next quarterly groundwater monitoring event is scheduled for September 2015, after which GE proposes to shut off the ART system through the winter months to monitor for changes in groundwater conditions in the absence of system operation, in an effort to evaluate if ART operation is having any significant effect on groundwater quality at the Site. Quarterly groundwater sampling events will continue to be conducted following system shutdown to evaluate changes in groundwater quality while the ART system is turned off. Following completion of the second year of monitoring GE will evaluate data and provide recommendations for further action related to groundwater at the Site.

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

Attachments:

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

Figure 1 Site Plan

Attachment 1 Laboratory Reports
Attachment 2 Laboratory Data Review Checklists

Copies:

Bob Witsell (GE)

Rebecca Andresen (ARCADIS)



Tables

TABLE 1
ART FLOW RATE MEASUREMENTS AND MAINTENANCE INFORMATION
FIRST 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	

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

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

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
 FIRST ANNUAL MONITORING REPORT
 FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID: Date Collected:	Groundwater Cleanup Level	Units	MW-1 06/10/14	MW-1 09/09/14	MW-1 12/05/14	MW-1 03/02/15	MW-1 05/27/15	MW-2 06/10/14	MW-2 09/09/14	MW-2 12/05/14	MW-2 03/02/15	MW-2 05/27/15	MW-3 06/10/14	MW-3 05/27/15
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	3.6	36 *	230	310	3 U	2 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	1.5	1.6	2	3 U	3 U	2.6	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	7.1	6.5	6.1	4.9	4.7	3.2	3.9
1,1-Dichloroethene	7	ug/L	1 U [1 U]	1 U [1 U]	1 U* [1 U*]	2 U [2 U]	2 U^	1 U	1 U	1 U*	2 U	2 U^	1 U	2 U^
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	9.3	39 *	96	84	14	1 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	1.3	2.8 *	5.6	5.8	2.2	1 U	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	5.3 [5.6]	17 [17]	22 [18]	27 [25]	56	84	110	150	170	78	2	3
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	1 U	7 *	20	24	3 U	1 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	1 U	1 U*	1 U	2	2 U	1 U	2 U
2-Phenylbutane	370	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	1.1	1 U*	1 U	4.7	3 U	1 U	3 U
Cymene	--	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	3 U	1 U	1 U*	2.4	3.1	3 U	1 U	3 U
Ethylbenzene	700	ug/L	1 U [1 U]	1 U* [1 U]	1 U [1 U]	3 U [3 U]	26	10	92 *	350	420	18	1 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	2.8	5.9 *	9.9	9.3	4.9	1 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*	3 U	3 *	6.6	6	2 U*	3 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	2 U	3.7 *	2 U	3 U	3 U	2 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	1 U	2.1 *	7	6.7	3 U	1 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	1 U	1 U*	1.1	3 U	3 U	1 U	3 U
Tetrachloroethene (PCE)	5	ug/L	34 [31]	38 * [41]	58 [57]	59 [51]	71	6.6	5.7 *	15	3 U	3 U	2.4	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	1 U	1 U*	11	9.3	2 U	1 U	2 U
Trichloroethene (TCE)	5	ug/L	18 [18]	19 [21]	20 [19]	21 [21]	26	12	8.4	14	3 U	3 U	1.2	3 U
Xylenes (o)	10,000	ug/L	1 U [1 U]	1 U* [1 U]	1 U* [1 U*]	2 U [2 U]	19	90	150 *	380	370	31	1 U	2 U
Detected Miscellaneous														
Ferrous Iron	--	mg/L	2.8	0.1	0.4	0.6	3.6	3.2	1.8	2.8	2	5.8	0.6	0.2
Heterotrophic Plate Count	--	CFU/mL	210 Hcn	NA	NA	NA	3,100 Hcn	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	0.3	0.56	NA	NA	0.18	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	1.3	0.8 Y	NA	NA	0.58 Y	0.39 U	0.37 Y
Detected Field Parameters														
Dissolved oxygen	--	mg/L	0.65	1.09	1.13	0.91	0.96	3.31	0.63	0.99	0.58	1.69	1.09	0.52
ORP	--	mV	247.9	143.7	161.7	173.9	113.9	30.3	4.4	73.8	74.3	87.2	184.9	150.9
pH	--	SU	3.77	5.63	5.78	5.66	5.9	6.43	6.25	6.31	6.19	6.13	5.33	5.37
Specific conductivity	--	mS/cm	0.205	0.231	0.172	0.177	0.229	0.549	0.449	0.391	0.373	0.381	0.098	0.111
Temperature	--	°C	5.94	8.07	4.53	4.55	5.97	5.88	8.81	4.58	4.65	6.27	5.85	5.84
Turbidity	--	NTU	4.39	45.1	1.3	4.8	2.9	6.43	6.5	26.2	4.2	4.8	4.87	15.9

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

ug/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
 FIRST ANNUAL MONITORING REPORT
 FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID: Date Collected:	Groundwater Cleanup Level	Units	MW-4 06/10/14	MW-4 09/09/14	MW-4 12/05/14	MW-4 03/02/15	MW-4 05/27/15	MW-5 06/10/14	MW-5 09/09/14	MW-5 12/05/14	MW-5 03/02/15	MW-5 05/27/15	MW-6 06/10/14	MW-6 05/27/15	MW-7 06/11/14	MW-7 09/10/14	MW-7 12/05/14	MW-7 03/02/15	MW-7 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]	250	320	390	250 F1	330 H	2 U	3 U	2 U	2 U	2 U	3 U	3 U
1,1,1-Trichloroethane	200	ug/L	2.9	5.7	3.4	3.2	3.9 [4]	1.7	1 U	1 U*	3 U	3 U	1 U	3 U	2.4	1 U	1 U*	3 U	3 U
1,1-Dichloroethane	7,300	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	1 U	1 U	1 U	2 U	2 U	1 U	2 U	1 U	1 U	1 U	2 U	2 U
1,1-Dichloroethene	7	ug/L	1 U	1 U	1 U*	2 U	2 U^ [2 U^]	1.8	1 U	1 U*	2 U	2 U^	1 U	2 U^	1 U	1 U	1 U*	2 U	2 U^
1,2,4-Trimethylbenzene	1,800	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	6.7	28	35	32 F1	55	1 U	3 U	1 U	1 U	1 U	3 U	3 U
1,2-Dichlorobenzene	600	ug/L	1 U	1 U*	1 U	2 U	2 U [2 U]	2.7	2.3	2.3	2 U	3.4	1 U	2 U	1 U	1 U	1 U	2 U	2 U
1,2-Dichloroethene (cis) (DCE)	70	ug/L	1 U	1 U	1 U	1 U	1 U [1 U]	370	88	140	520 F1	520 H	1 U	1 U	1 U	3.6	2.7	1.5	1
1,3,5-Trimethylbenzene	1,800	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	15	17	23	22 F1	29	1 U	3 U	1 U	1 U	1 U	3 U	3 U
1,4-Dichlorobenzene	75	ug/L	1 U	1 U*	1 U	2 U	2 U [2 U]	10	1 U	1 U	5 F1	6.6	1 U	2 U	1 U	1 U	1 U	2 U	2 U
2-Phenylbutane	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	1 U	1 U	1 U	3 U	3 U	1 U	3 U	1 U	1 U	1 U	3 U	3 U
Cymene	--	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	1 U	1.5	1.7	3 U	3.3	1 U	3 U	1 U	1 U	1 U	3 U	3 U
Ethylbenzene	700	ug/L	1 U	1 U	1 U	3 U	3 U [3 U]	200	230	280	180 F1	310 H	1 U	3 U	1 U	1 U	1 U	3 U	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	1 U	1.3	1.5	2 U	2 U	1 U	2 U	1 U	1 U	1 U	2 U	2 U
Naphthalene	730	ug/L	3 U	3 U*	3 U	2 U	2 U* [2 U*]	3.1	4.2	3.4	2 U	5.8 H	3 U	2 U*	3 U	3 U	3 U	2 U	2 U*
n-Butylbenzene	370	ug/L	2 U	2 U*	2 U	3 U	3 U [3 U]	2	10	2 U	3 U	3 U	2 U	3 U	2 U	2 U	2 U	3 U	3 U
n-Propylbenzene	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	1 U	1.5	1.8	3 U	3 U	1 U	3 U	1 U	1 U	1 U	3 U	3 U
tert-Butylbenzene	370	ug/L	1 U	1 U*	1 U	3 U	3 U [3 U]	1.2	1 U	1.1	3 U	3 U	1 U	3 U	1 U	1 U	1 U	3 U	3 U
Tetrachloroethene (PCE)	5	ug/L	11	14	14	13	16 [16]	98	59	50	3	3 U	1 U	3 U	24	17	21	18	25
Toluene	1,000	ug/L	1 U	1 U	1 U	2 U	2 U [2 U]	4.2	5.6	1.5	2 U	7	1 U	2 U	1 U	1 U	1 U	2 U	2 U
Trichloroethene (TCE)	5	ug/L	3.2	4.9	3.4	3.3	4.5 [4.3]	20	23	16	3 UF1	3 U	1 U	3 U	1.7	2.8	2.1	3 U	3 U
Xylenes (o)	10,000	ug/L	1 U	1 U	1 U*	2 U	2 U [2 U]	160	120	120	99 F1	290 H	1 U	2 U	1 U	1 U	1 U*	2 U	2 U
Detected Miscellaneous																			
Ferrous Iron	--	mg/L	0.6	0	0	0	0.2	2.2	4.2	2.4	2.2	4	0.2	0.6	0.4	1.2	0	0.2	0.2
Heterotrophic Plate Count	--	CFU/mL	110 Hcn	NA	NA	NA	130 H	790 Hcn	NA	NA	NA	130 Hcn	NA	NA	18 Hcn	NA	NA	NA	7.5 Hcn
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]	1.7	1.8 B	1.4	1.3	2.9	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	0.05 U
Detected Diesel Range Organics																			
DRO (nC10- α nC25)	1.5	mg/L	0.38 U	0.23 Y	NA	NA	0.33 Y [0.37 Y]	1.6	1.2 Y	1.1 Y	0.69 Y	1.2 Y	0.38 U	0.21 Y	0.39 U	0.15 Y	NA	NA	0.2 U
Detected Field Parameters																			
Dissolved oxygen	--	mg/L	2.54	1.42	3.52	2.83	1.39	0.51	0.54	1.61	0.62	0.67	1.75	3.31	3.67	7.16	3.69	3.59	1.82
ORP	--	mV	214	155.5	198.5	119.2	203	-95.2	-1.3	19.5	58.7	32.7	217.9	163	212.1	82.9	184.7	119.2	102.4
pH	--	SU	5.55	5.51	4.18	5.48	5.25	5.52	5.97	6.04	5.98	6.01	5.28	5.28	4.8	5.97	5.93	5.92	5.5
Specific conductivity	--	mS/cm	0.085	0.119	0.082	0.067	0.104	0.18	0.157	0.122	0.132	0.115	0.126	0.115	0.124	0.099	0.084	0.078	0.12
Temperature	--	°C	5.89	7.54	4.17	4.33	6.17	6.37	10.02	8.25	8.51	10.73	5.47	6.27	5.69	9.24	5.87	8.13	1.1
Turbidity	--	NTU	30.9	28.5	104.7	47.1	32.2	31.9	43.1	4.7	3.1	0.9	177	149.3	36	23	26.7	13.6	0

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
FIRST ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK

Location ID: Date Collected:	Groundwater Cleanup Level	Units	MW-8 06/11/14	MW-8 05/27/15	MW-9 06/11/14	MW-9 05/27/15	MW-10 06/11/14	MW-10 05/27/15	MW-11 06/11/14	MW-11 05/27/15
Detected Volatile Organics										
m-Xylene & p-Xylene	10,000	ug/L	2 U	3 U [3 U]	2 U	3 U	2 U	3 U	2 U	3 U
1,1,1-Trichloroethane	200	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
1,1-Dichloroethane	7,300	ug/L	1 U	2 U [2 U]	1 U	2 U	1 U	2 U	1 U	2 U
1,1-Dichloroethene	7	ug/L	1 U	2 U^ [2 U^]	1 U	2 U^	1 U	2 U^	1 U	2 U^
1,2,4-Trimethylbenzene	1,800	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
1,2-Dichlorobenzene	600	ug/L	1 U	2 U [2 U]	1 U	2 U	1 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	1 U	1 U
1,3,5-Trimethylbenzene	1,800	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
1,4-Dichlorobenzene	75	ug/L	1 U	2 U [2 U]	1 U	2 U	1 U	2 U	1 U	2 U
2-Phenylbutane	370	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Cymene	--	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Ethylbenzene	700	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Isopropylbenzene (Cumene)	3,700	ug/L	1 U	2 U [2 U]	1 U	2 U	1 U	2 U	1 U	2 U
Naphthalene	730	ug/L	3 U	2 U* [2 U*]	3 U	2 U*	3 U	2 U*	3 U	2 U*
n-Butylbenzene	370	ug/L	2 U	3 U [3 U]	2 U	3 U	2 U	3 U	2 U	3 U
n-Propylbenzene	370	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
tert-Butylbenzene	370	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Tetrachloroethene (PCE)	5	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Toluene	1,000	ug/L	1 U	2 U [2 U]	1 U	2 U	1 U	2 U	1 U	2 U
Trichloroethene (TCE)	5	ug/L	1 U	3 U [3 U]	1 U	3 U	1 U	3 U	1 U	3 U
Xylenes (o)	10,000	ug/L	1 U	2 U [2 U]	1 U	2 U	1 U	2 U	1 U	2 U
Detected Miscellaneous										
Ferrous Iron	--	mg/L	0.4	0.2	0.4	0	0.4	0.2	0.4	0.1
Heterotrophic Plate Count	--	CFU/mL	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	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	0.38 U	0.2 U [0.2 U]	0.39 U	0.21 U	0.4 U	0.21 U	0.38 U	0.2 U
Detected Field Parameters										
Dissolved oxygen	--	mg/L	6.55	6.91	4.27	4.23	4.35	3.92	1.39	4.31
ORP	--	mV	212.1	110.4	290	138.7	236.1	149.7	272.1	155.9
pH	--	SU	5.44	5.62	3.22	5.46	4.79	5.34	4.59	5.35
Specific conductivity	--	mS/cm	0.062	0.067	0.108	0.093	0.107	0.071	0.162	0.113
Temperature	--	°C	6.29	5.2	4.84	4.48	5.05	4.42	4.81	4.48
Turbidity	--	NTU	22.2	49	4.21	0	60.1	39.2	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.

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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
FIRST 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

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

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

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
FIRST ANNUAL MONITORING REPORT
FORMER TBE MACHINE SHOP, NIKISKI, AK**

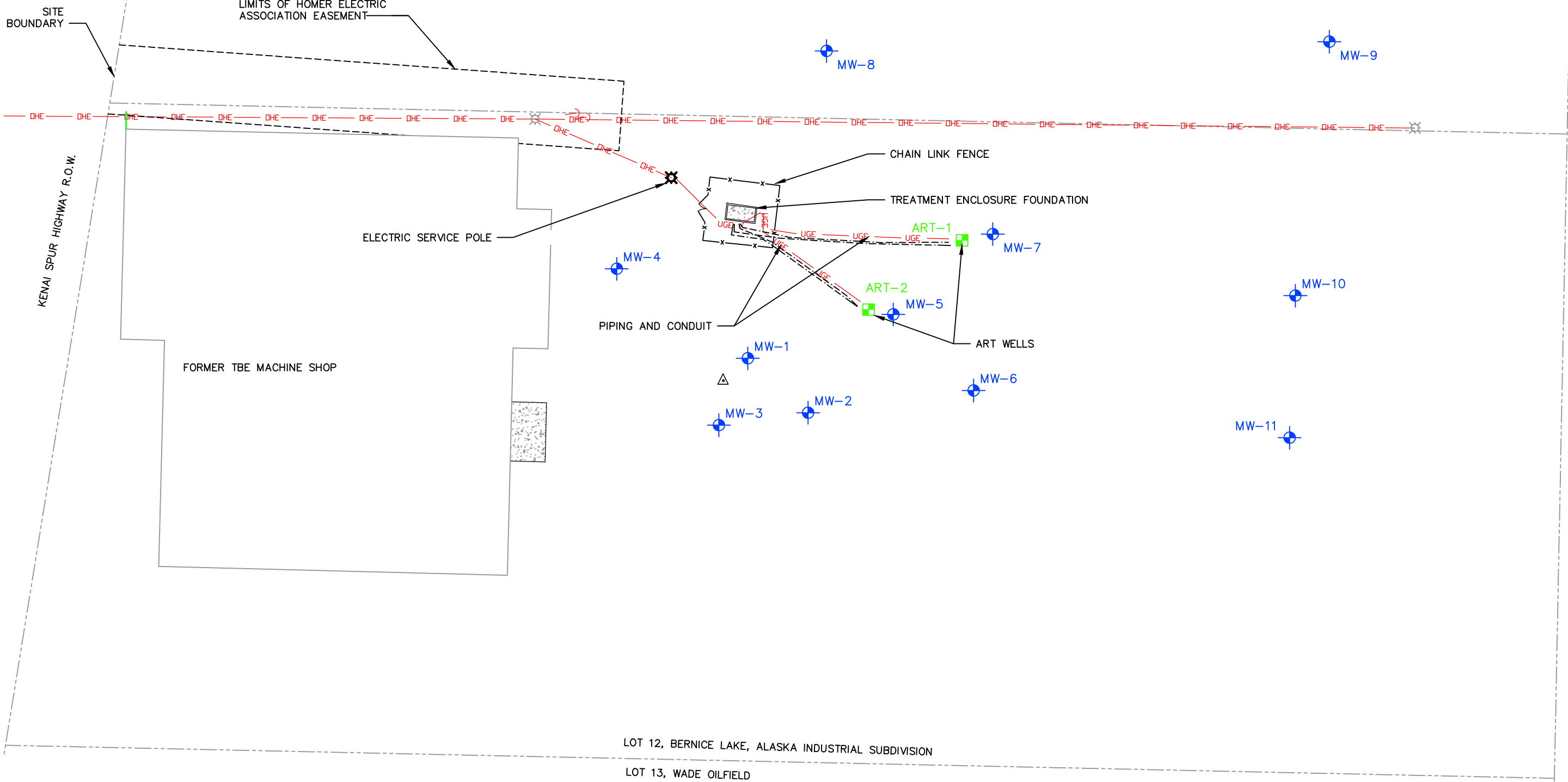
Location ID: Date Collected: Days of Operation Since Startup:	Units	Effluent-A 08/13/14 55	Effluent-A 09/08/14 81	Effluent-A 12/03/14 168	Effluent-A 03/03/15 258	Effluent-A 05/26/15 342
Detected Volatile Organic Compounds in System Effl						
Gasoline Range Organics (C6-C12)	ppb v/v	330	< 100	< 100	< 100	< 100
1,1,1-Trichloroethane	ppb v/v	< 0.30	< 0.30	< 0.30	0.30	< 0.30
Ethylbenzene	ppb v/v	13	0.51	1.3	0.82	0.77
Tetrachloroethene (PCE)	ppb v/v	3.4	< 0.40	1.3	3.1	< 0.40
Trichloroethene (TCE)	ppb v/v	2.6	< 0.40	1.2	0.98	0.54

Notes:







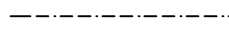
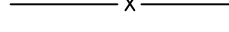
ppb v/v - parts per billion on a volumetric basis
 /1 - the sample collected on July 3, 2014 was lost due to :
 NA - Not Analyzed

Figure

LOT 11, BERNICE LAKE, ALASKA INDUSTRIAL SUBDIVISION

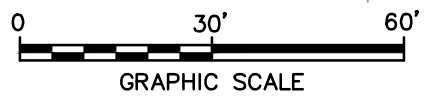



LEGEND:

-  EXISTING GROUNDWATER MONITORING WELL
-  TREATMENT WELL
-  EXISTING POWER POLE
-  SERVICE POWER POLE
-  OVERHEAD ELECTRIC
-  UNDERGROUND ELECTRIC
-  SVE AND AIR SPARGE PIPING
-  CHAIN LINK 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	
	FIGURE 1

CITY: SYRACUSE, NY DIV/GRP: EBC-INDV DB/ID: L POSENAUER PM: M PELTON LVR: (Op) ON= "OFF" = REF
 V:\ENVCAD\SYRACUSE\ACT\01\00000002\DWG\SITE\31255801.dwg LAYOUT: 1 SAVED: 9/2/2015 2:16 PM
 ACADVER: 13.1S (LMS TECH) PAGESETUP: PLOTSTYLETABLE: PLOTSTYLETABLE: PLOTTED: 9/2/2015 2:19 PM BY: POSENAUER, LISA
 XREFS: IMAGES: 31255801 31255800



Attachment 1

Laboratory Reports

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: 320-9034-1

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:
9/5/2014 11:59:04 AM
David Alltucker, Project Management Assistant II
(916)374-4383
david.alltucker@testamericainc.com

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

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Definitions/Glossary

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

TestAmerica Job ID: 320-9034-1

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: 320-9034-1

Job ID: 320-9034-1

Laboratory: TestAmerica Sacramento

Narrative

Receipt

The sample was received on 8/14/2014 9:15 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) TO-15: Surrogate recovery of 1,2-Dichloroethane-d4 for the following standard(s) was outside control limits. (CCV 320-51396/6). 1,2-Dichloroethane-d4 is not used as a monitoring compound for the this method; therefore, re-extraction and/or re-analysis was not performed.

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.

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Detection Summary

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

TestAmerica Job ID: 320-9034-1

Client Sample ID: EFFLUENT-A-081314

Lab Sample ID: 320-9034-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	13		0.40		ppb v/v	1		TO-15	Total/NA
Gasoline Range Organics (C6-C12)	330		100		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	3.4		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	2.6		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

Client Sample Results

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

TestAmerica Job ID: 320-9034-1

Client Sample ID: EFFLUENT-A-081314

Lab Sample ID: 320-9034-1

Date Collected: 08/13/14 09:35

Matrix: Air

Date Received: 08/14/14 09:15

Sample Container: Summa Canister 1L

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			09/03/14 21:55	1
Ethylbenzene	13		0.40		ppb v/v			09/03/14 21:55	1
Gasoline Range Organics (C6-C12)	330		100		ppb v/v			09/03/14 21:55	1
Tetrachloroethene	3.4		0.40		ppb v/v			09/03/14 21:55	1
Trichloroethene	2.6		0.40		ppb v/v			09/03/14 21:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130					09/03/14 21:55	1
4-Bromofluorobenzene (Surr)	101		70 - 130					09/03/14 21:55	1
Toluene-d8 (Surr)	97		70 - 130					09/03/14 21:55	1

Surrogate Summary

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

TestAmerica Job ID: 320-9034-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	BFB	TOL
		(70-130)	(70-130)	(70-130)
320-9034-1	EFFLUENT-A-081314	93	101	97
LCS 320-51396/4	Lab Control Sample	104	108	107
LCS 320-51396/7	Lab Control Sample	129	107	105
MB 320-51396/9	Method Blank	93	91	89

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

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

TestAmerica Job ID: 320-9034-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-51396/9

Matrix: Air

Analysis Batch: 51396

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			09/03/14 19:24	1
Ethylbenzene	ND		0.40		ppb v/v			09/03/14 19:24	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			09/03/14 19:24	1
Tetrachloroethene	ND		0.40		ppb v/v			09/03/14 19:24	1
Trichloroethene	ND		0.40		ppb v/v			09/03/14 19:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130		09/03/14 19:24	1
4-Bromofluorobenzene (Surr)	91		70 - 130		09/03/14 19:24	1
Toluene-d8 (Surr)	89		70 - 130		09/03/14 19:24	1

Lab Sample ID: LCS 320-51396/4

Matrix: Air

Analysis Batch: 51396

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	16.0		ppb v/v		80	65 - 124
Ethylbenzene	20.0	16.0		ppb v/v		80	76 - 136
Tetrachloroethene	20.0	15.0		ppb v/v		75	56 - 138
Trichloroethene	20.0	15.4		ppb v/v		77	64 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	108		70 - 130
Toluene-d8 (Surr)	107		70 - 130

Lab Sample ID: LCS 320-51396/7

Matrix: Air

Analysis Batch: 51396

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	4460		ppb v/v		89	70 - 130
TPH (as Gasoline)	5000	4240		ppb v/v		85	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	129		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	105		70 - 130

QC Association Summary

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

TestAmerica Job ID: 320-9034-1

Air - GC/MS VOA

Analysis Batch: 51396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-9034-1	EFFLUENT-A-081314	Total/NA	Air	TO-15	
LCS 320-51396/4	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-51396/7	Lab Control Sample	Total/NA	Air	TO-15	
MB 320-51396/9	Method Blank	Total/NA	Air	TO-15	

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Lab Chronicle

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

TestAmerica Job ID: 320-9034-1

Client Sample ID: EFFLUENT-A-081314

Lab Sample ID: 320-9034-1

Date Collected: 08/13/14 09:35

Matrix: Air

Date Received: 08/14/14 09:15

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	637 mL	250 mL	51396	09/03/14 21:55	TAD	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Certification Summary

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

TestAmerica Job ID: 320-9034-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-13 *
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-14
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
Oregon	NELAP	10	CA200005	01-29-15
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-14
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-113	07-25-15
California	NELAP	9	01115CA	01-31-14 *
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

* Certification renewal pending - certification considered valid.

Method Summary

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

TestAmerica Job ID: 320-9034-1

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: 320-9034-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-9034-1	EFFLUENT-A-081314	Air	08/13/14 09:35	08/14/14 09:15

- 1
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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 Laboratories, Inc.

Client Contact Information		Project Manager: <u>MATT PELTON</u>		Samples Collected By: <u>JOHN COLLIER</u>		COC No. _____ of _____ COCs										
Company Name: <u>ARCARDIS</u>		Phone: _____		Other (Please specify in notes section)		For Lab Use Only:										
Address: <u>47093 MICHELLE AV</u>		Email: _____		Landfill Gas		Walk-in Client:										
City/State/Zip: <u>SOCALOMA AK 95669</u>		Site Contact: _____		Soil Gas		Lab Sampling:										
Phone: <u>907 262 9331</u>		TA Contact: _____		Ambient Air		Job / SDG No.: _____										
FAX: <u>907 262 8831</u>		Analysis Turnaround Time _____		Indoor Air		(See below for Add'l items)										
Project Name: <u>GE AKA15K1</u>		Standard (Specific): _____		Sample Type		Sample Specific Notes:										
Site/Location: <u>NIKISHI</u>		Rush (Specify): _____		Other (Please specify in notes section)												
P O # _____				TO-3												
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 Specific Notes:
<u>EFFLUENT-A-25/3/14</u>	<u>08/13/14</u>	<u>00:25</u>	<u>00:35</u>	<u>-30</u>	<u>-5</u>		<u>AF2043</u>	<u>X</u>							<u>X</u>	
Special Instructions/QC Requirements & Comments:																
Samples Shipped by: <u>JOHN COLLIER</u>		Date / Time: <u>8/13/14 1045</u>		Samples Received by: <u>Stewart Edwards</u>		Date / Time: <u>8/14/14 9:15</u>										
Samples Relinquished by:		Date / Time:		Received by:		Date / Time:										
Relinquished by:		Date / Time:		Opened by:		Condition:										
Lab Use Only:		Shipper Name:														



JOB # **320-9034**
Sample # **1**

Client/Project:		VFR ID:	
Canister Serial #:	34001084	Duration:	<input type="checkbox"/> Hrs <input type="checkbox"/> 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
<input type="checkbox"/> Helium Pre-dilution - Final Pressure (INCHES Hg)				
INITIAL PRESSURE (PSIA)		9.91	08/27/14	AO
FINAL PRESSURE (PSIA)		25.32	08/27/14	AO
Pressurization Gas: <input type="checkbox"/> N2 <input type="checkbox"/> He		SCREENED <input type="checkbox"/>	SCRN DIL. VS 250mLs:	
Initial Canister Dilution Factor =	2.55			

CANISTER REPRESSURIZATION					
Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.55		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors										
Canister DF =	2.55	X	Load DF =	0.3924647	X	Bag DF =	1	=	FINAL DF	1.002745273
			LVf (mLs)	250		BVf (mLs)				
			LVi (mLs)	637		BVi (mLs)				
Canister DF =	2.55	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)				
			LVi (mLs)			BVi (mLs)				
Canister DF =	2.55	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)				
			LVi (mLs)			BVi (mLs)				



Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-9034-1

Login Number: 9034

List Source: TestAmerica Sacramento

List Number: 1

Creator: Hytrek, Cheryl

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.	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.	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	

Certification Type TOIS SCAN
 Date Cleaned/Batch ID 7/22/14 320-8569
 Date of QC 08/02/14
 Data File Number M57680214



CANISTER ID NUMBERS

<u>34000648</u>	<u>34001093</u>	
1084	0620	
0762	1017 *	
1878	1203	
1894		
0866		
0943		
1225		

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.

[Signature]
1st level Reviewed By:

8/04/14
Date:

[Signature]
2nd level Reviewed By:

8/1/2014
Date:

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-8569-1
 SDG No.: _____
 Client Sample ID: 34001017 Lab Sample ID: 320-8569-11
 Matrix: Air Lab File ID: MS7080214.d
 Analysis Method: TO-15 Date Collected: 07/22/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 21:48
 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.: 48863 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	2.2	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.: 320-8569-1
 SDG No.: _____
 Client Sample ID: 34001017 Lab Sample ID: 320-8569-11
 Matrix: Air Lab File ID: MS7080214.d
 Analysis Method: TO-15 Date Collected: 07/22/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 21:48
 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.: 48863 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.: 320-8569-1
 SDG No.: _____
 Client Sample ID: 34001017 Lab Sample ID: 320-8569-11
 Matrix: Air Lab File ID: MS7080214.d
 Analysis Method: TO-15 Date Collected: 07/22/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 21:48
 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.: 48863 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)	79		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	113		70-130
2037-26-5	Toluene-d8 (Surr)	102		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080214.d
 Lims ID: 320-8569-A-11 Lab Sample ID: 320-8569-11
 Client ID: 34001017
 Sample Type: Client
 Inject. Date: 02-Aug-2014 21:48:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 320-8569-11
 Misc. Info.: 500mL; 34001017
 Operator ID: AO Instrument ID: ATMS7
 Method: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\TO15_ATMS7N.m
 Limit Group: MSA - TO15 - ICAL
 Last Update: 04-Aug-2014 08:31:21 Calib Date: 02-Aug-2014 03:35:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\SACCHROM\ChromData\ATMS7\20140801-14506.b\MS7080112.d
 Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
 Process Host: XAWRK006

First Level Reviewer: ortizam

Date: 04-Aug-2014 08:35:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.916	11.928	-0.012	99	28544	4.00	
* 2 1,4-Difluorobenzene	114	14.033	14.045	-0.012	100	106870	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.749	20.755	-0.006	100	98087	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	13.096	13.102	-0.006	99	43438	4.52	
\$ 5 Toluene-d8 (Surr)	100	17.391	17.397	-0.006	96	66373	4.07	
\$ 6 4-Bromofluorobenzene (Surr	95	23.341	23.347	-0.006	88	57926	3.16	
11 Propene	41	3.873	3.879	-0.006	94	983	0.0813	
31 Acrolein	56	7.055	7.018	0.037	91	789	0.1791	
32 Acetone	43	7.201	7.170	0.031	99	47221	2.24	
36 2-Methyl-2-propanol	59	7.779	7.773	0.006	84	736	0.0269	
48 2-Butanone (MEK)	72	10.936	10.894	0.042	96	726	0.1611	
107 1,2,4-Trimethylbenzene	120	24.910	24.910	0.000	88	514	0.0244	
121 Naphthalene	128	30.404	30.391	0.013	88	1183	0.0257	

Reagents:

VASUISIM_00104 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080214.d

Injection Date: 02-Aug-2014 21:48:30

Instrument ID: ATMS7

Operator ID: AO

Lims ID: 320-8569-A-11

Lab Sample ID: 320-8569-11

Worklist Smp#: 14

Client ID: 34001017

Purge Vol: 5.000 mL

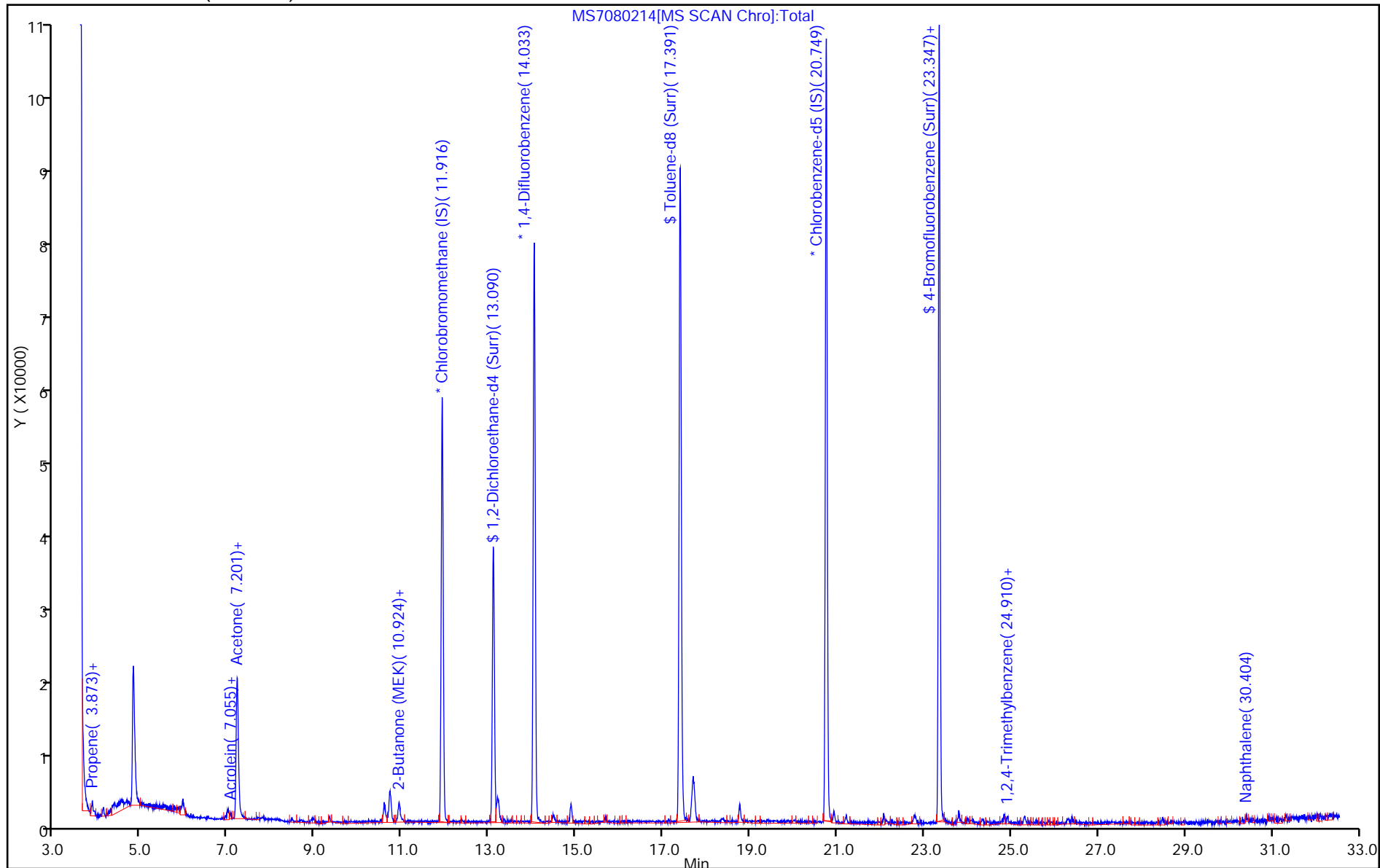
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080214.d

Injection Date: 02-Aug-2014 21:48:30

Instrument ID: ATMS7

Lims ID: 320-8569-A-11

Lab Sample ID: 320-8569-11

Client ID: 34001017

Operator ID: AO

ALS Bottle#: 14 Worklist Smp#: 14

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

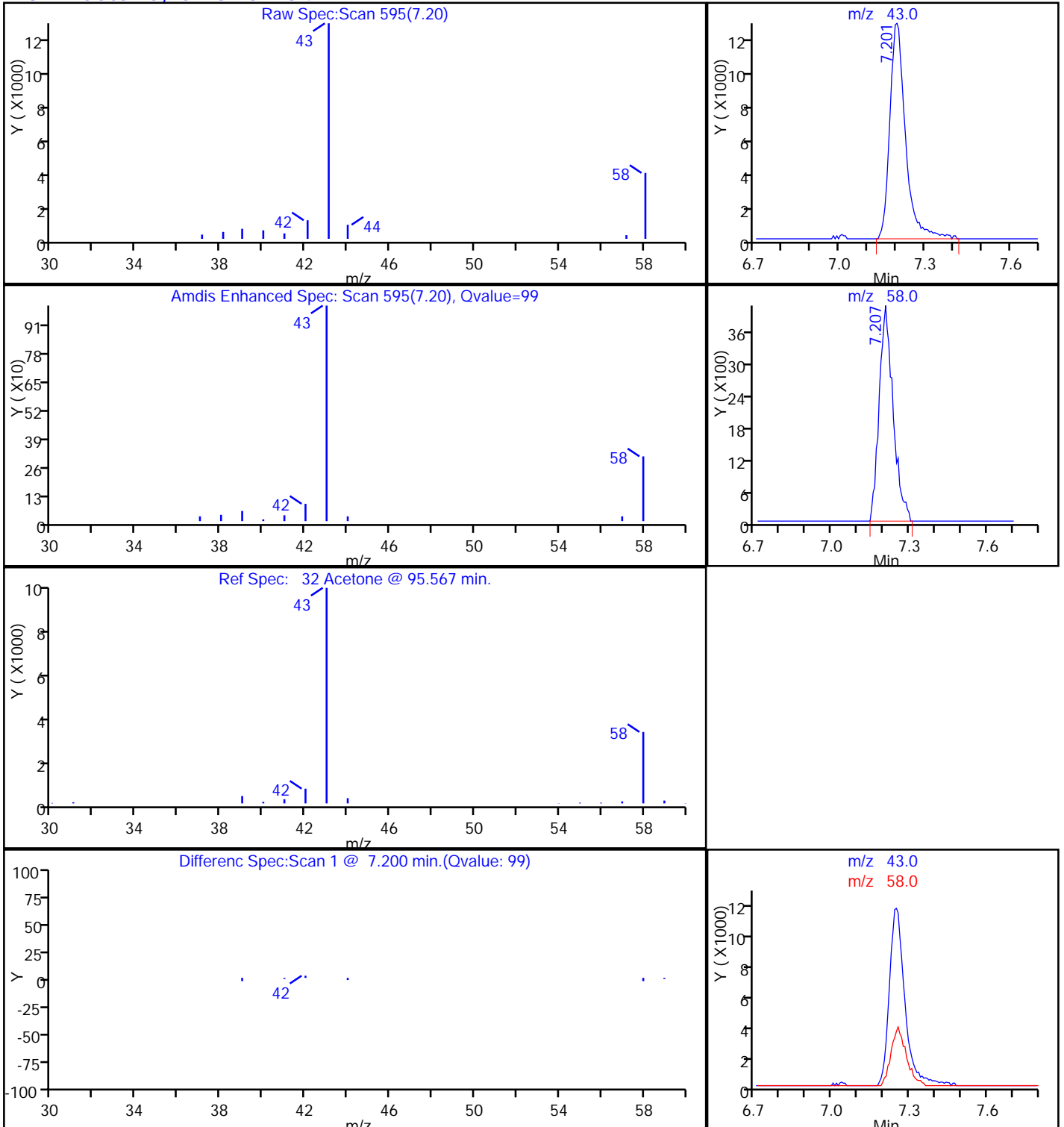
Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

32 Acetone, CAS: 67-64-1



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: 320-9349-1

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:
9/23/2014 1:22:13 PM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

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Definitions/Glossary

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

TestAmerica Job ID: 320-9349-1

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: 320-9349-1

Job ID: 320-9349-1

Laboratory: TestAmerica Sacramento

Narrative

**Job Narrative
320-9349-1**

Comments

No additional comments.

Receipt

The sample was received on 9/10/2014 9:05 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Except:

The canister ID for the following samples did not match the information listed on the Chain-of-Custody (COC): . The canister ID lists 34001935, while the COC lists ??83D.

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.

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Detection Summary

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

TestAmerica Job ID: 320-9349-1

Client Sample ID: EFFLUENT-A-090814

Lab Sample ID: 320-9349-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.51		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

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Client Sample Results

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

TestAmerica Job ID: 320-9349-1

Client Sample ID: EFFLUENT-A-090814

Lab Sample ID: 320-9349-1

Date Collected: 09/08/14 10:15

Matrix: Air

Date Received: 09/10/14 09:05

Sample Container: Summa Canister 1L

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			09/20/14 02:06	1
Ethylbenzene	0.51		0.40		ppb v/v			09/20/14 02:06	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			09/20/14 02:06	1
Tetrachloroethene	ND		0.40		ppb v/v			09/20/14 02:06	1
Trichloroethene	ND		0.40		ppb v/v			09/20/14 02:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					09/20/14 02:06	1
4-Bromofluorobenzene (Surr)	93		70 - 130					09/20/14 02:06	1
Toluene-d8 (Surr)	103		70 - 130					09/20/14 02:06	1

Surrogate Summary

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

TestAmerica Job ID: 320-9349-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	TOL (70-130)
320-9349-1	EFFLUENT-A-090814	94	93	103
LCS 320-52832/4	Lab Control Sample	94	106	110
LCS 320-52832/8	Lab Control Sample	129	102	109
MB 320-52832/10	Method Blank	96	95	102

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

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

TestAmerica Job ID: 320-9349-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-52832/10

Matrix: Air

Analysis Batch: 52832

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			09/19/14 18:49	1
Ethylbenzene	ND		0.40		ppb v/v			09/19/14 18:49	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			09/19/14 18:49	1
Tetrachloroethene	ND		0.40		ppb v/v			09/19/14 18:49	1
Trichloroethene	ND		0.40		ppb v/v			09/19/14 18:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130		09/19/14 18:49	1
4-Bromofluorobenzene (Surr)	95		70 - 130		09/19/14 18:49	1
Toluene-d8 (Surr)	102		70 - 130		09/19/14 18:49	1

Lab Sample ID: LCS 320-52832/4

Matrix: Air

Analysis Batch: 52832

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	18.0		ppb v/v		90	65 - 124
Ethylbenzene	20.0	21.2		ppb v/v		106	76 - 136
Tetrachloroethene	20.0	18.0		ppb v/v		90	56 - 138
Trichloroethene	20.0	19.6		ppb v/v		98	64 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	106		70 - 130
Toluene-d8 (Surr)	110		70 - 130

Lab Sample ID: LCS 320-52832/8

Matrix: Air

Analysis Batch: 52832

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	4680		ppb v/v		94	70 - 130
TPH (as Gasoline)	5000	4700		ppb v/v		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	129		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Toluene-d8 (Surr)	109		70 - 130

QC Association Summary

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

TestAmerica Job ID: 320-9349-1

Air - GC/MS VOA

Analysis Batch: 52832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-9349-1	EFFLUENT-A-090814	Total/NA	Air	TO-15	
LCS 320-52832/4	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-52832/8	Lab Control Sample	Total/NA	Air	TO-15	
MB 320-52832/10	Method Blank	Total/NA	Air	TO-15	

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Lab Chronicle

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

TestAmerica Job ID: 320-9349-1

Client Sample ID: EFFLUENT-A-090814

Lab Sample ID: 320-9349-1

Date Collected: 09/08/14 10:15

Matrix: Air

Date Received: 09/10/14 09:05

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	100 mL	50 mL	52832	09/20/14 02:06	TAD	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Certification Summary

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

TestAmerica Job ID: 320-9349-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-13 *
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-14
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-15
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	12-31-14
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-113	07-25-15
California	NELAP	9	01115CA	01-31-14 *
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

* Certification renewal pending - certification considered valid.

Method Summary

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

TestAmerica Job ID: 320-9349-1

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: 320-9349-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-9349-1	EFFLUENT-A-090814	Air	09/08/14 10:15	09/10/14 09:05

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TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605
phone 916.374.4378 fax 916.372.1059

Client Contact Information

Company Name: **ARCADIS**
Address: **47693 MICHELLE AV**
City/State/Zip: **SOLDOTNA AK 99609**
Phone: **907 262-9391**
FAX: **907 262-5937**
Project Name: **G. E. NIKISKI**
Site/Location: **MIKISKI**
P O #

Project Manager: **MATT PELTON**

Phone:
Email:
Site Contact:
TA Contact:
Analysis Turnaround Time
Standard (Specific):
Rush (Specific):

Samples Collected By: **JOHN COLUER**

Canister Vacuum In Field, 'Hg (Start)'
Canister Vacuum In Field, 'Hg (Stop)'
Time Start
Time Stop

Other (Please specify in notes section)

MA-APH
EPA 3C
EPA 25C / 25.3
ASTM D-1946 / 1945 / 3588
EPA 15/16
TO-3
Sample Type
Indoor Air
Ambient Air
Soil Gas
Landfill Gas
Other (Please specify in notes section)



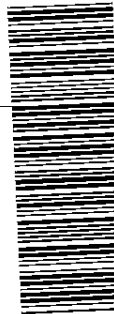
TestAmerica Laboratories, Inc.

COC No. of COCs
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.:
(See below for Add'l Items)

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 / Sid / Low / SIM)	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)	
EFFLUENT-A-090814	090814	1015	1015	-29	-4		7933DX	X						X							TO of canister lot 213 digits unknown

Temperature (Fahrenheit)	
Start	Stop
Interior	
Ambient	

Temperature (Fahrenheit)	
Start	Stop
Interior	
Ambient	



320-9349 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by: JOHN COLUER	Date / Time: 09082014 1630	Samples Received by: John Pelton	Date / Time: 9/10/14 905
Samples Relinquished by:	Date / Time:	Received by:	
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

* Canister ID on COC is wrong 09/10/14



JOB # **320-9349**
Sample # **1**

Client/Project:	VFR ID:		
Canister Serial #: 34001935	Duration:	<input type="checkbox"/> Hrs	<input type="checkbox"/> 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	
<input type="checkbox"/> Helium Pre-dilution - Final Pressure (INCHES Hg)				
INITIAL PRESSURE (PSIA)	12.59	09/16/14	EP	
FINAL PRESSURE (PSIA)	25.29	09/16/14	EP	
Pressurization Gas: <input type="checkbox"/> N2 <input type="checkbox"/> He	SCREENED <input type="checkbox"/>	SCRN DIL. VS 250mLs:		
Initial Canister Dilution Factor =	2.01			

CANISTER REPRESSURIZATION					
Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.01		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors										
		Date	Instr.	File #						
Canister DF =	2.01	X	Load DF =	0.5	X	Bag DF =	1	=	FINAL DF	1.004368546
			LVf (mLs)	50		BVf (mLs)				
			LVi (mLs)	100		BVi (mLs)				
Canister DF =	2.01	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)				
			LVi (mLs)			BVi (mLs)				
Canister DF =	2.01	X	Load DF =	#DIV/0!	X	Bag DF =	1	=	FINAL DF	#DIV/0!
			LVf (mLs)			BVf (mLs)				
			LVi (mLs)			BVi (mLs)				



Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-9349-1

Login Number: 9349

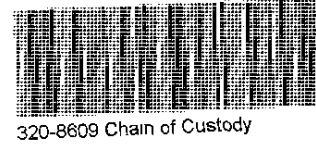
List Source: TestAmerica Sacramento

List Number: 1

Creator: Nelson, Kym D

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.	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.	False	The incorrect Canister Asset ID is referenced on the COC
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	

Certification Type T015 SCAN
 Date Cleaned/Batch ID 7/25/14 320-8609
 Date of QC 8/2/14
 Data File Number MS7080207



CANISTER ID NUMBERS

<u>34001644</u>	<u>34001014</u>
1069	0974
1119	1497
0738	
1634	
1632*	
1935	
1953	

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.

[Signature]
1st level Reviewed By:

8/04/14
Date:

MKWH
2nd level Reviewed By:

8/4/2014
Date:

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-8609-1
 SDG No.: _____
 Client Sample ID: 34001632 Lab Sample ID: 320-8609-6
 Matrix: Air Lab File ID: MS7080207.d
 Analysis Method: TO-15 Date Collected: 07/25/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 15:08
 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.: 48863 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	0.85	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.: 320-8609-1
 SDG No.: _____
 Client Sample ID: 34001632 Lab Sample ID: 320-8609-6
 Matrix: Air Lab File ID: MS7080207.d
 Analysis Method: TO-15 Date Collected: 07/25/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 15:08
 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.: 48863 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.: 320-8609-1
 SDG No.: _____
 Client Sample ID: 34001632 Lab Sample ID: 320-8609-6
 Matrix: Air Lab File ID: MS7080207.d
 Analysis Method: TO-15 Date Collected: 07/25/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 08/02/2014 15:08
 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.: 48863 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)	83		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-130
2037-26-5	Toluene-d8 (Surr)	103		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080207.d
 Lims ID: 320-8609-A-6 Lab Sample ID: 320-8609-6
 Client ID: 34001632
 Sample Type: Client
 Inject. Date: 02-Aug-2014 15:08:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 320-8609-06
 Misc. Info.: 500mL; 34001632
 Operator ID: AO Instrument ID: ATMS7
 Method: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\TO15_ATMS7N.m
 Limit Group: MSA - TO15 - ICAL
 Last Update: 04-Aug-2014 08:26:20 Calib Date: 02-Aug-2014 03:35:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\SACCHROM\ChromData\ATMS7\20140801-14506.b\MS7080112.d
 Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
 Process Host: XAWRK006

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.928	11.928	0.000	100	29205	4.00	
* 2 1,4-Difluorobenzene	114	14.039	14.045	-0.006	100	109855	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.755	20.755	0.000	100	97265	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	13.096	13.102	-0.006	99	44082	4.46	
\$ 5 Toluene-d8 (Surr)	100	17.391	17.397	-0.006	96	68841	4.11	
\$ 6 4-Bromofluorobenzene (Surr	95	23.347	23.347	0.000	89	60034	3.31	
32 Acetone	43	7.238	7.170	0.068	97	18425	0.8544	
73 n-Octane	43	17.415	17.452	-0.037	40	1229	0.0308	

Reagents:

VASUISIM_00104 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080207.d

Injection Date: 02-Aug-2014 15:08:30

Instrument ID: ATMS7

Operator ID: AO

Lims ID: 320-8609-A-6

Lab Sample ID: 320-8609-6

Worklist Smp#: 7

Client ID: 34001632

Purge Vol: 5.000 mL

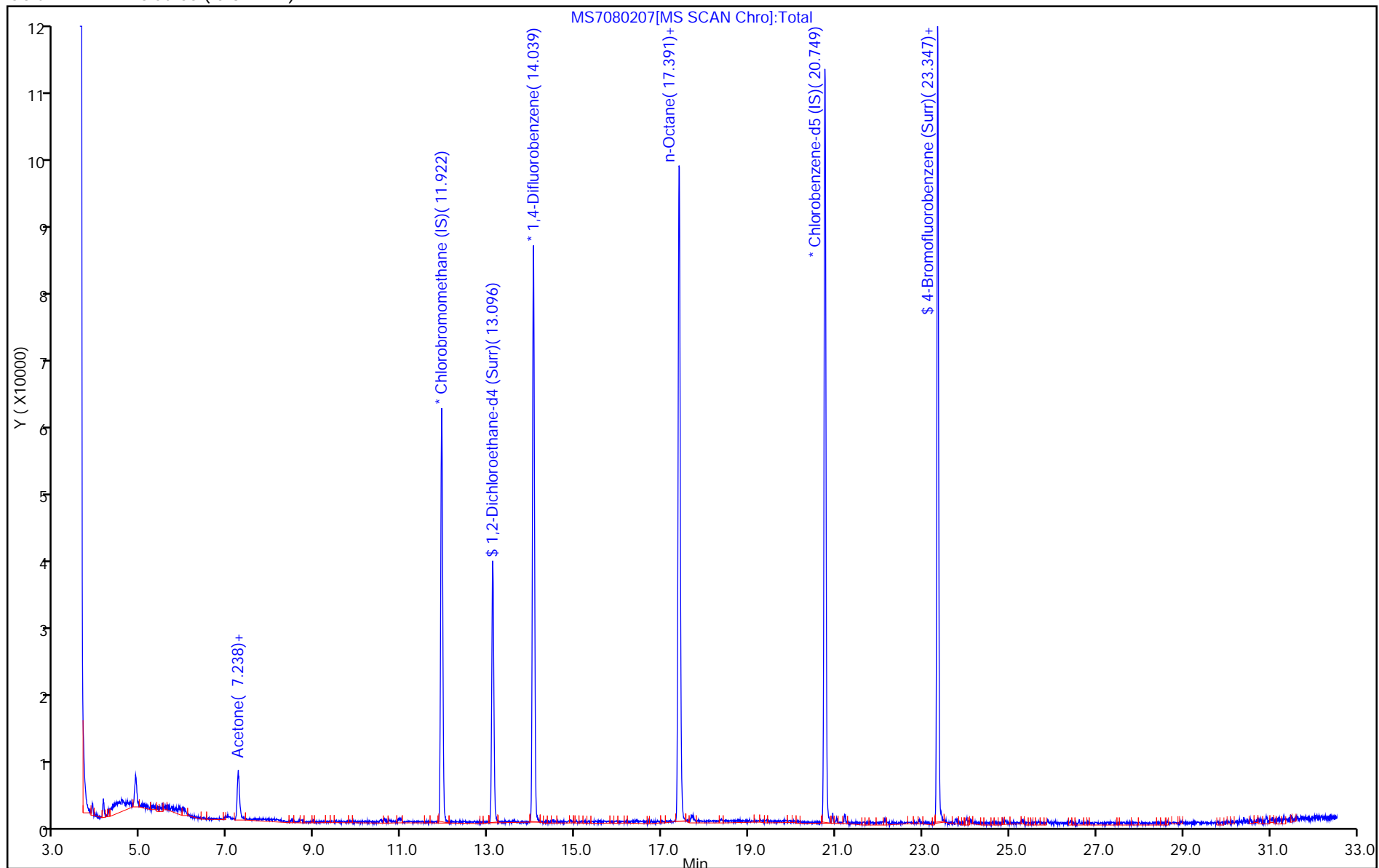
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS7\20140802-14516.b\MS7080207.d

Injection Date: 02-Aug-2014 15:08:30

Instrument ID: ATMS7

Lims ID: 320-8609-A-6

Lab Sample ID: 320-8609-6

Client ID: 34001632

Operator ID: AO

ALS Bottle#: 7

Worklist Smp#: 7

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

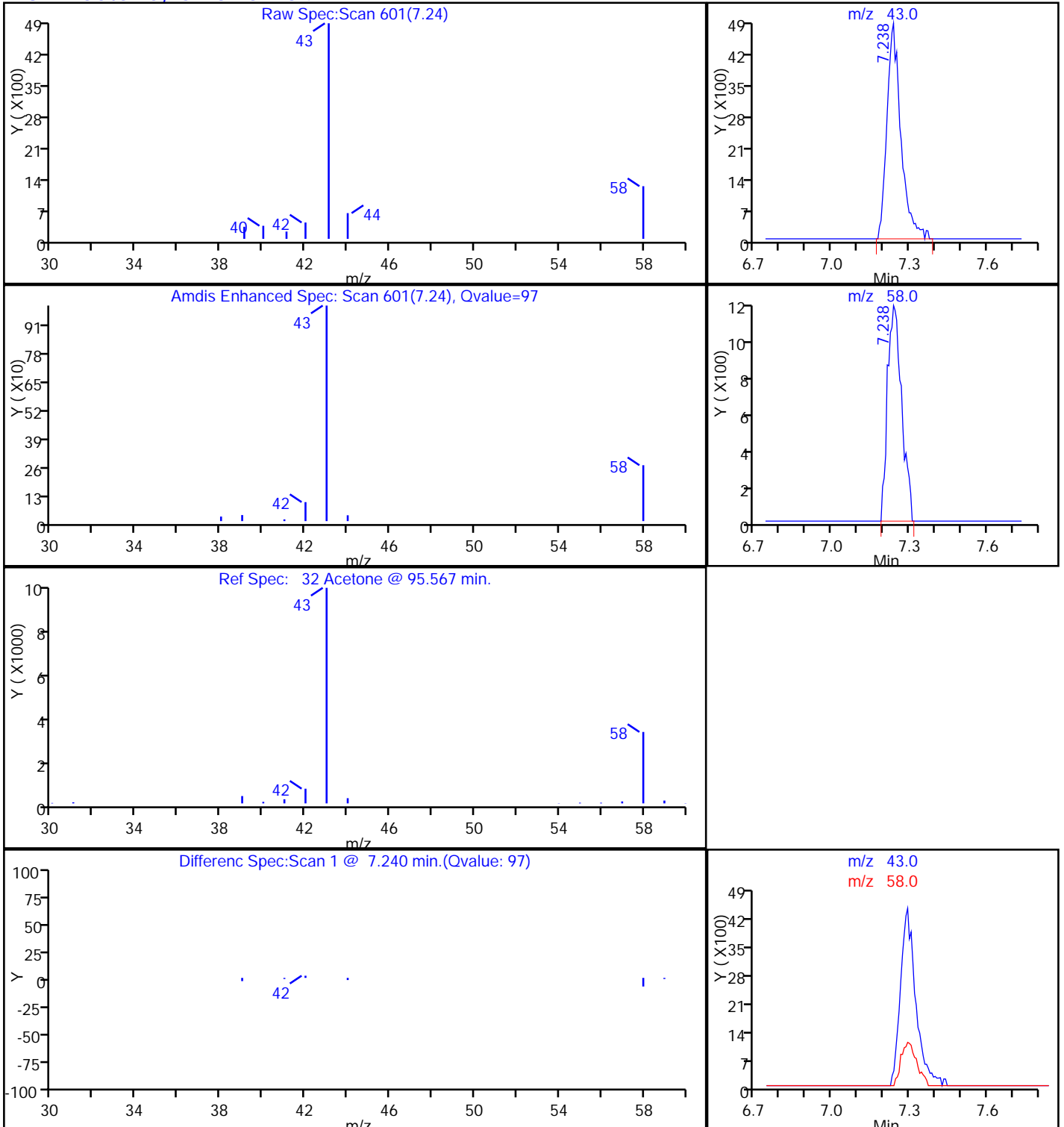
Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

32 Acetone, CAS: 67-64-1



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

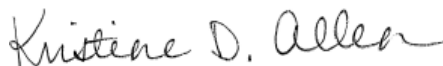
TestAmerica Job ID: 580-45374-1

Client Project/Site: Kenai Groundwater

For:

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

Attn: Mr. Matthew Pelton



Authorized for release by:
9/29/2014 2:50:40 PM

Kristine Allen, Manager of Project Management
(253)248-4970

kristine.allen@testamericainc.com

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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.

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Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Job ID: 580-45374-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-45374-1

Comments

No additional comments.

Receipt

The samples were received on 9/13/2014 11:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 169995 recovered outside control limits for the following analytes: Benzene. This analyte was biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following sample(s): MW-1 (580-45374-1), MW-2 (580-45374-2), MW-4 (580-45374-3). The samples show evidence of matrix interference, as antifoam was utilized within these samples which tends to cause internal standard failures. The samples from this batch which did not include antifoam had appropriate internal standard responses which further verifies matrix interference.

Method(s) 8260B: The laboratory control sample (LCS) for batch 170180 recovered outside control limits for the following analytes: Ethylbenzene. 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 sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-5 (580-45374-4). Elevated reporting limits (RLs) are provided.

Method(s) AK101: The method blank for analytical batch 169836 contained C6-C10 above the reporting limit (RL). None of the samples associated with this method blank contained the target compound or contained more than 10X the amount in the method blank; therefore, re-extraction and/or re-analysis of samples were not performed and 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: In analysis batch 170490, for the following sample(s) from preparation batch 1740468: MW-1 (580-45374-1), MW-4 (580-45374-3), MW-7 (580-45374-5), the results in the DRO (nC10->nC25) range(s) are due primarily to weathered/degraded diesel fuel. The affected analyte range(s) have been Y qualified and reported.

Method(s) AK102 & 103: In analysis batch 170490, for the following sample(s) from preparation batch 170468: MW-2 (580-45374-2), MW-5 (580-45374-4), the results in the DRO (nC10->nC25) range(s) are due primarily to a weathered gasoline product and heavily weathered/degraded diesel fuel. The affected analyte range(s) have been Y qualified and reported.

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.

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits
*	LCS or LCSD exceeds the control limits

GC VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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 Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-1

Lab Sample ID: 580-45374-1

Date Collected: 09/09/14 09:45

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 19:59	1
Chloromethane	ND		5.0		ug/L			09/17/14 19:59	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 19:59	1
Bromomethane	ND		5.0		ug/L			09/17/14 19:59	1
Chloroethane	ND		5.0		ug/L			09/17/14 19:59	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 19:59	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 19:59	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 19:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 19:59	1
1,1-Dichloroethane	6.2		1.0		ug/L			09/17/14 19:59	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 19:59	1
cis-1,2-Dichloroethene	17		1.0		ug/L			09/17/14 19:59	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 19:59	1
Chloroform	ND		1.0		ug/L			09/17/14 19:59	1
1,1,1-Trichloroethane	5.2		1.0		ug/L			09/17/14 19:59	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 19:59	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 19:59	1
Benzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 19:59	1
Trichloroethene	19		1.0		ug/L			09/17/14 19:59	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 19:59	1
Dibromomethane	ND		1.0		ug/L			09/17/14 19:59	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 19:59	1
cis-1,3-Dichloropropene	ND	*	1.0		ug/L			09/17/14 19:59	1
Toluene	ND	*	1.0		ug/L			09/17/14 19:59	1
trans-1,3-Dichloropropene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,1,2-Trichloroethane	ND	*	1.0		ug/L			09/17/14 19:59	1
Tetrachloroethene	38	*	1.0		ug/L			09/17/14 19:59	1
1,3-Dichloropropane	ND	*	1.0		ug/L			09/17/14 19:59	1
Chlorodibromomethane	ND	*	1.0		ug/L			09/17/14 19:59	1
Ethylene Dibromide	ND	*	1.0		ug/L			09/17/14 19:59	1
Chlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
Ethylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,1,1,2-Tetrachloroethane	ND	*	1.0		ug/L			09/17/14 19:59	1
1,1,2,2-Tetrachloroethane	ND	*	1.0		ug/L			09/17/14 19:59	1
m-Xylene & p-Xylene	ND	*	2.0		ug/L			09/17/14 19:59	1
o-Xylene	ND	*	1.0		ug/L			09/17/14 19:59	1
Styrene	ND	*	5.0		ug/L			09/17/14 19:59	1
Bromoform	ND	*	1.0		ug/L			09/17/14 19:59	1
Isopropylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
Bromobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
N-Propylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,2,3-Trichloropropane	ND	*	2.0		ug/L			09/17/14 19:59	1
2-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,3,5-Trimethylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
4-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 19:59	1
tert-Butylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,2,4-Trimethylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
sec-Butylbenzene	ND	*	1.0		ug/L			09/17/14 19:59	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-1

Lab Sample ID: 580-45374-1

Date Collected: 09/09/14 09:45

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
4-Isopropyltoluene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,4-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
n-Butylbenzene	ND	*	2.0		ug/L			09/17/14 19:59	1
1,2-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,2-Dibromo-3-Chloropropane	ND	*	2.0		ug/L			09/17/14 19:59	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
1,2,3-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 19:59	1
Hexachlorobutadiene	ND	*	1.0		ug/L			09/17/14 19:59	1
Naphthalene	ND	*	3.0		ug/L			09/17/14 19:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105	*	85 - 120		09/17/14 19:59	1
4-Bromofluorobenzene (Surr)	96	*	75 - 120		09/17/14 19:59	1
Dibromofluoromethane (Surr)	101		85 - 115		09/17/14 19:59	1
Trifluorotoluene (Surr)	93		70 - 136		09/17/14 19:59	1
1,2-Dichloroethane-d4 (Surr)	118		70 - 120		09/17/14 19:59	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			09/16/14 06:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	119		50 - 150		09/16/14 06:10	1
4-Bromofluorobenzene (Surr)	91		50 - 150		09/16/14 06:10	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)	0.66	Y	0.099		mg/L		09/22/14 19:06	09/23/14 15:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150	09/22/14 19:06	09/23/14 15:21	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-2
Date Collected: 09/09/14 11:10
Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 20:26	1
Chloromethane	ND		5.0		ug/L			09/17/14 20:26	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 20:26	1
Bromomethane	ND		5.0		ug/L			09/17/14 20:26	1
Chloroethane	ND		5.0		ug/L			09/17/14 20:26	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 20:26	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 20:26	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 20:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 20:26	1
1,1-Dichloroethane	6.5		1.0		ug/L			09/17/14 20:26	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 20:26	1
cis-1,2-Dichloroethene	110		1.0		ug/L			09/17/14 20:26	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 20:26	1
Chloroform	ND		1.0		ug/L			09/17/14 20:26	1
1,1,1-Trichloroethane	1.6		1.0		ug/L			09/17/14 20:26	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 20:26	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 20:26	1
Benzene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 20:26	1
Trichloroethene	8.4		1.0		ug/L			09/17/14 20:26	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 20:26	1
Dibromomethane	ND		1.0		ug/L			09/17/14 20:26	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 20:26	1
cis-1,3-Dichloropropene	ND	*	1.0		ug/L			09/17/14 20:26	1
Toluene	ND	*	1.0		ug/L			09/17/14 20:26	1
trans-1,3-Dichloropropene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,1,2-Trichloroethane	ND	*	1.0		ug/L			09/17/14 20:26	1
Tetrachloroethene	5.7	*	1.0		ug/L			09/17/14 20:26	1
1,3-Dichloropropane	ND	*	1.0		ug/L			09/17/14 20:26	1
Chlorodibromomethane	ND	*	1.0		ug/L			09/17/14 20:26	1
Ethylene Dibromide	ND	*	1.0		ug/L			09/17/14 20:26	1
Chlorobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
Ethylbenzene	92	*	1.0		ug/L			09/17/14 20:26	1
1,1,1,2-Tetrachloroethane	ND	*	1.0		ug/L			09/17/14 20:26	1
1,1,2,2-Tetrachloroethane	ND	*	1.0		ug/L			09/17/14 20:26	1
m-Xylene & p-Xylene	36	*	2.0		ug/L			09/17/14 20:26	1
o-Xylene	150	*	1.0		ug/L			09/17/14 20:26	1
Styrene	ND	*	5.0		ug/L			09/17/14 20:26	1
Bromoform	ND	*	1.0		ug/L			09/17/14 20:26	1
Isopropylbenzene	5.9	*	1.0		ug/L			09/17/14 20:26	1
Bromobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
N-Propylbenzene	2.1	*	1.0		ug/L			09/17/14 20:26	1
1,2,3-Trichloropropane	ND	*	2.0		ug/L			09/17/14 20:26	1
2-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,3,5-Trimethylbenzene	7.0	*	1.0		ug/L			09/17/14 20:26	1
4-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 20:26	1
tert-Butylbenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,2,4-Trimethylbenzene	39	*	1.0		ug/L			09/17/14 20:26	1
sec-Butylbenzene	ND	*	1.0		ug/L			09/17/14 20:26	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-2

Lab Sample ID: 580-45374-2

Date Collected: 09/09/14 11:10

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
4-Isopropyltoluene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,4-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
n-Butylbenzene	3.7	*	2.0		ug/L			09/17/14 20:26	1
1,2-Dichlorobenzene	2.8	*	1.0		ug/L			09/17/14 20:26	1
1,2-Dibromo-3-Chloropropane	ND	*	2.0		ug/L			09/17/14 20:26	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
1,2,3-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:26	1
Hexachlorobutadiene	ND	*	1.0		ug/L			09/17/14 20:26	1
Naphthalene	3.0	*	3.0		ug/L			09/17/14 20:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 20:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106	*	85 - 120		09/17/14 20:26	1
4-Bromofluorobenzene (Surr)	99	*	75 - 120		09/17/14 20:26	1
Dibromofluoromethane (Surr)	100		85 - 115		09/17/14 20:26	1
Trifluorotoluene (Surr)	95		70 - 136		09/17/14 20:26	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 120		09/17/14 20:26	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	0.56		0.050		mg/L			09/16/14 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150		09/16/14 22:04	1
4-Bromofluorobenzene (Surr)	116		50 - 150		09/16/14 22:04	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)	0.80	Y	0.097		mg/L		09/22/14 19:06	09/23/14 15:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	59		50 - 150	09/22/14 19:06	09/23/14 15:39	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-4

Lab Sample ID: 580-45374-3

Date Collected: 09/09/14 08:20

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 20:54	1
Chloromethane	ND		5.0		ug/L			09/17/14 20:54	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 20:54	1
Bromomethane	ND		5.0		ug/L			09/17/14 20:54	1
Chloroethane	ND		5.0		ug/L			09/17/14 20:54	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 20:54	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 20:54	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 20:54	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 20:54	1
1,1-Dichloroethane	ND		1.0		ug/L			09/17/14 20:54	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 20:54	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 20:54	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 20:54	1
Chloroform	ND		1.0		ug/L			09/17/14 20:54	1
1,1,1-Trichloroethane	5.7		1.0		ug/L			09/17/14 20:54	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 20:54	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 20:54	1
Benzene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 20:54	1
Trichloroethene	4.9		1.0		ug/L			09/17/14 20:54	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 20:54	1
Dibromomethane	ND		1.0		ug/L			09/17/14 20:54	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 20:54	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 20:54	1
Toluene	ND		1.0		ug/L			09/17/14 20:54	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 20:54	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 20:54	1
Tetrachloroethene	14		1.0		ug/L			09/17/14 20:54	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 20:54	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 20:54	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 20:54	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 20:54	1
Ethylbenzene	ND		1.0		ug/L			09/17/14 20:54	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 20:54	1
1,1,2,2-Tetrachloroethane	ND	*	1.0		ug/L			09/17/14 20:54	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/17/14 20:54	1
o-Xylene	ND		1.0		ug/L			09/17/14 20:54	1
Styrene	ND		5.0		ug/L			09/17/14 20:54	1
Bromoform	ND		1.0		ug/L			09/17/14 20:54	1
Isopropylbenzene	ND		1.0		ug/L			09/17/14 20:54	1
Bromobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
N-Propylbenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,2,3-Trichloropropane	ND	*	2.0		ug/L			09/17/14 20:54	1
2-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,3,5-Trimethylbenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
4-Chlorotoluene	ND	*	1.0		ug/L			09/17/14 20:54	1
tert-Butylbenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,2,4-Trimethylbenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
sec-Butylbenzene	ND	*	1.0		ug/L			09/17/14 20:54	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-4

Lab Sample ID: 580-45374-3

Date Collected: 09/09/14 08:20

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
4-Isopropyltoluene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,4-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
n-Butylbenzene	ND	*	2.0		ug/L			09/17/14 20:54	1
1,2-Dichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,2-Dibromo-3-Chloropropane	ND	*	2.0		ug/L			09/17/14 20:54	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
1,2,3-Trichlorobenzene	ND	*	1.0		ug/L			09/17/14 20:54	1
Hexachlorobutadiene	ND	*	1.0		ug/L			09/17/14 20:54	1
Naphthalene	ND	*	3.0		ug/L			09/17/14 20:54	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 20:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		85 - 120		09/17/14 20:54	1
4-Bromofluorobenzene (Surr)	98		75 - 120		09/17/14 20:54	1
Dibromofluoromethane (Surr)	100		85 - 115		09/17/14 20:54	1
Trifluorotoluene (Surr)	97		70 - 136		09/17/14 20:54	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 120		09/17/14 20:54	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			09/16/14 07:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	116		50 - 150		09/16/14 07:12	1
4-Bromofluorobenzene (Surr)	90		50 - 150		09/16/14 07:12	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)	0.23	Y	0.097		mg/L		09/22/14 19:06	09/23/14 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150	09/22/14 19:06	09/23/14 15:57	1

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-5
Date Collected: 09/09/14 12:20
Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 21:24	1
Chloromethane	ND		5.0		ug/L			09/17/14 21:24	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 21:24	1
Bromomethane	ND		5.0		ug/L			09/17/14 21:24	1
Chloroethane	ND		5.0		ug/L			09/17/14 21:24	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 21:24	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 21:24	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 21:24	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 21:24	1
1,1-Dichloroethane	ND		1.0		ug/L			09/17/14 21:24	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 21:24	1
cis-1,2-Dichloroethene	88		1.0		ug/L			09/17/14 21:24	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 21:24	1
Chloroform	ND		1.0		ug/L			09/17/14 21:24	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/17/14 21:24	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 21:24	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 21:24	1
Benzene	ND	*	1.0		ug/L			09/17/14 21:24	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 21:24	1
Trichloroethene	23		1.0		ug/L			09/17/14 21:24	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 21:24	1
Dibromomethane	ND		1.0		ug/L			09/17/14 21:24	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 21:24	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 21:24	1
Toluene	5.6		1.0		ug/L			09/17/14 21:24	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 21:24	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 21:24	1
Tetrachloroethene	59		1.0		ug/L			09/17/14 21:24	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 21:24	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 21:24	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 21:24	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 21:24	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 21:24	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 21:24	1
o-Xylene	120		1.0		ug/L			09/17/14 21:24	1
Styrene	ND		5.0		ug/L			09/17/14 21:24	1
Bromoform	ND		1.0		ug/L			09/17/14 21:24	1
Isopropylbenzene	1.3		1.0		ug/L			09/17/14 21:24	1
Bromobenzene	ND		1.0		ug/L			09/17/14 21:24	1
N-Propylbenzene	1.5		1.0		ug/L			09/17/14 21:24	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/17/14 21:24	1
2-Chlorotoluene	ND		1.0		ug/L			09/17/14 21:24	1
1,3,5-Trimethylbenzene	17		1.0		ug/L			09/17/14 21:24	1
4-Chlorotoluene	ND		1.0		ug/L			09/17/14 21:24	1
tert-Butylbenzene	ND		1.0		ug/L			09/17/14 21:24	1
1,2,4-Trimethylbenzene	28		1.0		ug/L			09/17/14 21:24	1
sec-Butylbenzene	ND		1.0		ug/L			09/17/14 21:24	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/17/14 21:24	1
4-Isopropyltoluene	1.5		1.0		ug/L			09/17/14 21:24	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-5

Lab Sample ID: 580-45374-4

Date Collected: 09/09/14 12:20

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0		ug/L			09/17/14 21:24	1
n-Butylbenzene	10		2.0		ug/L			09/17/14 21:24	1
1,2-Dichlorobenzene	2.3		1.0		ug/L			09/17/14 21:24	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/17/14 21:24	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/17/14 21:24	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/17/14 21:24	1
Hexachlorobutadiene	ND		1.0		ug/L			09/17/14 21:24	1
Naphthalene	4.2		3.0		ug/L			09/17/14 21:24	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		85 - 120					09/17/14 21:24	1
4-Bromofluorobenzene (Surr)	100		75 - 120					09/17/14 21:24	1
Dibromofluoromethane (Surr)	98		85 - 115					09/17/14 21:24	1
Trifluorotoluene (Surr)	99		70 - 136					09/17/14 21:24	1
1,2-Dichloroethane-d4 (Surr)	114		70 - 120					09/17/14 21:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	230		10		ug/L			09/23/14 12:36	10
m-Xylene & p-Xylene	320		20		ug/L			09/23/14 12:36	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120					09/23/14 12:36	10
4-Bromofluorobenzene (Surr)	102		75 - 120					09/23/14 12:36	10
Dibromofluoromethane (Surr)	98		85 - 115					09/23/14 12:36	10
Trifluorotoluene (Surr)	102		70 - 136					09/23/14 12:36	10
1,2-Dichloroethane-d4 (Surr)	96		70 - 120					09/23/14 12:36	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	1.8	B	0.050		mg/L			09/16/14 07:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	116		50 - 150					09/16/14 07:43	1
4-Bromofluorobenzene (Surr)	131		50 - 150					09/16/14 07:43	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)	1.2	Y	0.097		mg/L		09/22/14 19:06	09/23/14 16:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	55		50 - 150				09/22/14 19:06	09/23/14 16:15	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-7
Date Collected: 09/10/14 14:40
Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 21:51	1
Chloromethane	ND		5.0		ug/L			09/17/14 21:51	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 21:51	1
Bromomethane	ND		5.0		ug/L			09/17/14 21:51	1
Chloroethane	ND		5.0		ug/L			09/17/14 21:51	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 21:51	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 21:51	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 21:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 21:51	1
1,1-Dichloroethane	ND		1.0		ug/L			09/17/14 21:51	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 21:51	1
cis-1,2-Dichloroethene	3.6		1.0		ug/L			09/17/14 21:51	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 21:51	1
Chloroform	ND		1.0		ug/L			09/17/14 21:51	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/17/14 21:51	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 21:51	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 21:51	1
Benzene	ND	*	1.0		ug/L			09/17/14 21:51	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 21:51	1
Trichloroethene	2.8		1.0		ug/L			09/17/14 21:51	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 21:51	1
Dibromomethane	ND		1.0		ug/L			09/17/14 21:51	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 21:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 21:51	1
Toluene	ND		1.0		ug/L			09/17/14 21:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 21:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 21:51	1
Tetrachloroethene	17		1.0		ug/L			09/17/14 21:51	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 21:51	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 21:51	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 21:51	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
Ethylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 21:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 21:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/17/14 21:51	1
o-Xylene	ND		1.0		ug/L			09/17/14 21:51	1
Styrene	ND		5.0		ug/L			09/17/14 21:51	1
Bromoform	ND		1.0		ug/L			09/17/14 21:51	1
Isopropylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
Bromobenzene	ND		1.0		ug/L			09/17/14 21:51	1
N-Propylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/17/14 21:51	1
2-Chlorotoluene	ND		1.0		ug/L			09/17/14 21:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
4-Chlorotoluene	ND		1.0		ug/L			09/17/14 21:51	1
tert-Butylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/17/14 21:51	1
sec-Butylbenzene	ND		1.0		ug/L			09/17/14 21:51	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-7

Lab Sample ID: 580-45374-5

Date Collected: 09/10/14 14:40

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
4-Isopropyltoluene	ND		1.0		ug/L			09/17/14 21:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
n-Butylbenzene	ND		2.0		ug/L			09/17/14 21:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/17/14 21:51	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/17/14 21:51	1
Hexachlorobutadiene	ND		1.0		ug/L			09/17/14 21:51	1
Naphthalene	ND		3.0		ug/L			09/17/14 21:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		85 - 120		09/17/14 21:51	1
4-Bromofluorobenzene (Surr)	101		75 - 120		09/17/14 21:51	1
Dibromofluoromethane (Surr)	95		85 - 115		09/17/14 21:51	1
Trifluorotoluene (Surr)	103		70 - 136		09/17/14 21:51	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 120		09/17/14 21:51	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			09/16/14 08:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	115		50 - 150		09/16/14 08:45	1
4-Bromofluorobenzene (Surr)	90		50 - 150		09/16/14 08:45	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)	0.15	Y	0.097		mg/L		09/22/14 19:06	09/23/14 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	09/22/14 19:06	09/23/14 16:33	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: BD-1

Lab Sample ID: 580-45374-6

Date Collected: 09/09/14 00:00

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 22:18	1
Chloromethane	ND		5.0		ug/L			09/17/14 22:18	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 22:18	1
Bromomethane	ND		5.0		ug/L			09/17/14 22:18	1
Chloroethane	ND		5.0		ug/L			09/17/14 22:18	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 22:18	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 22:18	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 22:18	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 22:18	1
1,1-Dichloroethane	6.3		1.0		ug/L			09/17/14 22:18	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 22:18	1
cis-1,2-Dichloroethene	17		1.0		ug/L			09/17/14 22:18	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 22:18	1
Chloroform	ND		1.0		ug/L			09/17/14 22:18	1
1,1,1-Trichloroethane	5.4		1.0		ug/L			09/17/14 22:18	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 22:18	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 22:18	1
Benzene	ND	*	1.0		ug/L			09/17/14 22:18	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 22:18	1
Trichloroethene	21		1.0		ug/L			09/17/14 22:18	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 22:18	1
Dibromomethane	ND		1.0		ug/L			09/17/14 22:18	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 22:18	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 22:18	1
Toluene	ND		1.0		ug/L			09/17/14 22:18	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 22:18	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 22:18	1
Tetrachloroethene	41		1.0		ug/L			09/17/14 22:18	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 22:18	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 22:18	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 22:18	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
Ethylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 22:18	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 22:18	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/17/14 22:18	1
o-Xylene	ND		1.0		ug/L			09/17/14 22:18	1
Styrene	ND		5.0		ug/L			09/17/14 22:18	1
Bromoform	ND		1.0		ug/L			09/17/14 22:18	1
Isopropylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
Bromobenzene	ND		1.0		ug/L			09/17/14 22:18	1
N-Propylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/17/14 22:18	1
2-Chlorotoluene	ND		1.0		ug/L			09/17/14 22:18	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
4-Chlorotoluene	ND		1.0		ug/L			09/17/14 22:18	1
tert-Butylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/17/14 22:18	1
sec-Butylbenzene	ND		1.0		ug/L			09/17/14 22:18	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: BD-1

Lab Sample ID: 580-45374-6

Date Collected: 09/09/14 00:00

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
4-Isopropyltoluene	ND		1.0		ug/L			09/17/14 22:18	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
n-Butylbenzene	ND		2.0		ug/L			09/17/14 22:18	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/17/14 22:18	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/17/14 22:18	1
Hexachlorobutadiene	ND		1.0		ug/L			09/17/14 22:18	1
Naphthalene	ND		3.0		ug/L			09/17/14 22:18	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 22:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		85 - 120		09/17/14 22:18	1
4-Bromofluorobenzene (Surr)	100		75 - 120		09/17/14 22:18	1
Dibromofluoromethane (Surr)	98		85 - 115		09/17/14 22:18	1
Trifluorotoluene (Surr)	102		70 - 136		09/17/14 22:18	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 120		09/17/14 22:18	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			09/16/14 09:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	111		50 - 150		09/16/14 09:16	1
4-Bromofluorobenzene (Surr)	85		50 - 150		09/16/14 09:16	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)	0.78	Y	0.097		mg/L		09/22/14 19:06	09/23/14 16:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150		09/22/14 19:06	09/23/14 16:51

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-45374-7

Date Collected: 09/09/14 00:00

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			09/17/14 15:54	1
Chloromethane	ND		5.0		ug/L			09/17/14 15:54	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 15:54	1
Bromomethane	ND		5.0		ug/L			09/17/14 15:54	1
Chloroethane	ND		5.0		ug/L			09/17/14 15:54	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 15:54	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 15:54	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 15:54	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 15:54	1
1,1-Dichloroethane	ND		1.0		ug/L			09/17/14 15:54	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 15:54	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 15:54	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 15:54	1
Chloroform	ND		1.0		ug/L			09/17/14 15:54	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/17/14 15:54	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 15:54	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 15:54	1
Benzene	ND	*	1.0		ug/L			09/17/14 15:54	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 15:54	1
Trichloroethene	ND		1.0		ug/L			09/17/14 15:54	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 15:54	1
Dibromomethane	ND		1.0		ug/L			09/17/14 15:54	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 15:54	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 15:54	1
Toluene	ND		1.0		ug/L			09/17/14 15:54	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 15:54	1
1,1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 15:54	1
Tetrachloroethene	ND		1.0		ug/L			09/17/14 15:54	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 15:54	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 15:54	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 15:54	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
Ethylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 15:54	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 15:54	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/17/14 15:54	1
o-Xylene	ND		1.0		ug/L			09/17/14 15:54	1
Styrene	ND		5.0		ug/L			09/17/14 15:54	1
Bromoform	ND		1.0		ug/L			09/17/14 15:54	1
Isopropylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
Bromobenzene	ND		1.0		ug/L			09/17/14 15:54	1
N-Propylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/17/14 15:54	1
2-Chlorotoluene	ND		1.0		ug/L			09/17/14 15:54	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
4-Chlorotoluene	ND		1.0		ug/L			09/17/14 15:54	1
tert-Butylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/17/14 15:54	1
sec-Butylbenzene	ND		1.0		ug/L			09/17/14 15:54	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-45374-7

Date Collected: 09/09/14 00:00

Matrix: Water

Date Received: 09/13/14 11:15

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
4-Isopropyltoluene	ND		1.0		ug/L			09/17/14 15:54	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
n-Butylbenzene	ND		2.0		ug/L			09/17/14 15:54	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/17/14 15:54	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/17/14 15:54	1
Hexachlorobutadiene	ND		1.0		ug/L			09/17/14 15:54	1
Naphthalene	ND		3.0		ug/L			09/17/14 15:54	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 15:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		09/17/14 15:54	1
4-Bromofluorobenzene (Surr)	101		75 - 120		09/17/14 15:54	1
Dibromofluoromethane (Surr)	99		85 - 115		09/17/14 15:54	1
Trifluorotoluene (Surr)	101		70 - 136		09/17/14 15:54	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 120		09/17/14 15:54	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			09/16/14 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	112		50 - 150		09/16/14 17:41	1
4-Bromofluorobenzene (Surr)	98		50 - 150		09/16/14 17:41	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: MB 580-169995/4

Matrix: Water

Analysis Batch: 169995

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			09/17/14 12:54	1
Chloromethane	ND		5.0		ug/L			09/17/14 12:54	1
Vinyl chloride	ND		1.0		ug/L			09/17/14 12:54	1
Bromomethane	ND		5.0		ug/L			09/17/14 12:54	1
Chloroethane	ND		5.0		ug/L			09/17/14 12:54	1
Trichlorofluoromethane	ND		1.0		ug/L			09/17/14 12:54	1
1,1-Dichloroethene	ND		1.0		ug/L			09/17/14 12:54	1
Methylene Chloride	ND		3.0		ug/L			09/17/14 12:54	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 12:54	1
1,1-Dichloroethane	ND		1.0		ug/L			09/17/14 12:54	1
2,2-Dichloropropane	ND		1.0		ug/L			09/17/14 12:54	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			09/17/14 12:54	1
Chlorobromomethane	ND		1.0		ug/L			09/17/14 12:54	1
Chloroform	ND		1.0		ug/L			09/17/14 12:54	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/17/14 12:54	1
Carbon tetrachloride	ND		1.0		ug/L			09/17/14 12:54	1
1,1-Dichloropropene	ND		1.0		ug/L			09/17/14 12:54	1
Benzene	ND		1.0		ug/L			09/17/14 12:54	1
1,2-Dichloroethane	ND		1.0		ug/L			09/17/14 12:54	1
Trichloroethene	ND		1.0		ug/L			09/17/14 12:54	1
1,2-Dichloropropane	ND		1.0		ug/L			09/17/14 12:54	1
Dibromomethane	ND		1.0		ug/L			09/17/14 12:54	1
Dichlorobromomethane	ND		1.0		ug/L			09/17/14 12:54	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 12:54	1
Toluene	ND		1.0		ug/L			09/17/14 12:54	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/17/14 12:54	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/17/14 12:54	1
Tetrachloroethene	ND		1.0		ug/L			09/17/14 12:54	1
1,3-Dichloropropane	ND		1.0		ug/L			09/17/14 12:54	1
Chlorodibromomethane	ND		1.0		ug/L			09/17/14 12:54	1
Ethylene Dibromide	ND		1.0		ug/L			09/17/14 12:54	1
Chlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
Ethylbenzene	ND		1.0		ug/L			09/17/14 12:54	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 12:54	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/17/14 12:54	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/17/14 12:54	1
o-Xylene	ND		1.0		ug/L			09/17/14 12:54	1
Styrene	ND		5.0		ug/L			09/17/14 12:54	1
Bromoform	ND		1.0		ug/L			09/17/14 12:54	1
Isopropylbenzene	ND		1.0		ug/L			09/17/14 12:54	1
Bromobenzene	ND		1.0		ug/L			09/17/14 12:54	1
N-Propylbenzene	ND		1.0		ug/L			09/17/14 12:54	1
1,2,3-Trichloropropane	ND		2.0		ug/L			09/17/14 12:54	1
2-Chlorotoluene	ND		1.0		ug/L			09/17/14 12:54	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			09/17/14 12:54	1
4-Chlorotoluene	ND		1.0		ug/L			09/17/14 12:54	1
tert-Butylbenzene	ND		1.0		ug/L			09/17/14 12:54	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			09/17/14 12:54	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: MB 580-169995/4

Matrix: Water

Analysis Batch: 169995

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			09/17/14 12:54	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
4-Isopropyltoluene	ND		1.0		ug/L			09/17/14 12:54	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
n-Butylbenzene	ND		2.0		ug/L			09/17/14 12:54	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			09/17/14 12:54	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			09/17/14 12:54	1
Hexachlorobutadiene	ND		1.0		ug/L			09/17/14 12:54	1
Naphthalene	ND		3.0		ug/L			09/17/14 12:54	1
Methyl tert-butyl ether	ND		1.0		ug/L			09/17/14 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		85 - 120		09/17/14 12:54	1
4-Bromofluorobenzene (Surr)	100		75 - 120		09/17/14 12:54	1
Dibromofluoromethane (Surr)	94		85 - 115		09/17/14 12:54	1
Trifluorotoluene (Surr)	104		70 - 136		09/17/14 12:54	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 120		09/17/14 12:54	1

Lab Sample ID: LCS 580-169995/5

Matrix: Water

Analysis Batch: 169995

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	15.9		ug/L		80	30 - 155
Chloromethane	20.0	18.0		ug/L		90	40 - 125
Vinyl chloride	20.0	17.6		ug/L		88	50 - 145
Bromomethane	20.0	20.0		ug/L		100	30 - 145
Chloroethane	20.0	18.9		ug/L		94	60 - 135
Trichlorofluoromethane	20.0	18.3		ug/L		92	60 - 145
1,1-Dichloroethene	20.0	22.5		ug/L		112	70 - 130
Methylene Chloride	20.0	23.0		ug/L		115	55 - 140
trans-1,2-Dichloroethene	20.0	23.6		ug/L		118	60 - 140
1,1-Dichloroethane	20.0	23.4		ug/L		117	70 - 135
2,2-Dichloropropane	20.0	23.2		ug/L		116	70 - 135
cis-1,2-Dichloroethene	20.0	23.7		ug/L		118	70 - 125
Chlorobromomethane	20.0	23.1		ug/L		116	65 - 130
Chloroform	20.0	23.4		ug/L		117	65 - 135
1,1,1-Trichloroethane	20.0	22.9		ug/L		114	65 - 130
Carbon tetrachloride	20.0	21.0		ug/L		105	65 - 140
1,1-Dichloropropene	20.0	23.2		ug/L		116	75 - 130
Benzene	20.0	24.2 *		ug/L		121	80 - 120
1,2-Dichloroethane	20.0	21.3		ug/L		107	70 - 130
Trichloroethene	20.0	23.8		ug/L		119	70 - 125
1,2-Dichloropropane	20.0	23.3		ug/L		116	75 - 125
Dibromomethane	20.0	21.9		ug/L		109	75 - 125
Dichlorobromomethane	20.0	23.6		ug/L		118	75 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: LCS 580-169995/5

Matrix: Water

Analysis Batch: 169995

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	24.0		ug/L		120	70 - 130
Toluene	20.0	23.8		ug/L		119	75 - 120
trans-1,3-Dichloropropene	20.0	22.3		ug/L		112	55 - 140
1,1,2-Trichloroethane	20.0	20.8		ug/L		104	75 - 125
Tetrachloroethene	20.0	22.0		ug/L		110	45 - 150
1,3-Dichloropropane	20.0	21.1		ug/L		106	75 - 125
Chlorodibromomethane	20.0	21.8		ug/L		109	60 - 135
Ethylene Dibromide	20.0	21.3		ug/L		106	80 - 120
Chlorobenzene	20.0	22.5		ug/L		112	80 - 120
Ethylbenzene	20.0	24.2		ug/L		121	75 - 125
1,1,1,2-Tetrachloroethane	20.0	22.3		ug/L		111	80 - 130
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/L		99	65 - 130
m-Xylene & p-Xylene	20.0	23.8		ug/L		119	75 - 130
o-Xylene	20.0	23.3		ug/L		117	80 - 120
Styrene	20.0	21.8		ug/L		109	65 - 135
Bromoform	20.0	20.8		ug/L		104	70 - 130
Isopropylbenzene	20.0	23.7		ug/L		119	75 - 125
Bromobenzene	20.0	22.4		ug/L		112	75 - 125
N-Propylbenzene	20.0	23.7		ug/L		118	70 - 130
1,2,3-Trichloropropane	20.0	19.9		ug/L		99	75 - 125
2-Chlorotoluene	20.0	23.3		ug/L		117	75 - 125
1,3,5-Trimethylbenzene	20.0	24.2		ug/L		121	75 - 130
4-Chlorotoluene	20.0	23.0		ug/L		115	75 - 130
tert-Butylbenzene	20.0	23.7		ug/L		119	70 - 130
1,2,4-Trimethylbenzene	20.0	23.9		ug/L		120	75 - 130
sec-Butylbenzene	20.0	22.7		ug/L		114	70 - 125
1,3-Dichlorobenzene	20.0	22.5		ug/L		113	75 - 125
4-Isopropyltoluene	20.0	22.4		ug/L		112	75 - 130
1,4-Dichlorobenzene	20.0	22.0		ug/L		110	75 - 125
n-Butylbenzene	20.0	22.9		ug/L		114	70 - 135
1,2-Dichlorobenzene	20.0	22.2		ug/L		111	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.6		ug/L		98	50 - 130
1,2,4-Trichlorobenzene	20.0	21.9		ug/L		109	65 - 135
1,2,3-Trichlorobenzene	20.0	22.2		ug/L		111	55 - 140
Hexachlorobutadiene	20.0	21.3		ug/L		107	50 - 140
Naphthalene	20.0	21.5		ug/L		108	55 - 140
Methyl tert-butyl ether	20.0	20.9		ug/L		105	65 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	103		85 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115
Trifluorotoluene (Surr)	101		70 - 136
1,2-Dichloroethane-d4 (Surr)	93		70 - 120

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: LCSD 580-169995/6

Matrix: Water

Analysis Batch: 169995

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	15.0		ug/L		75	30 - 155	6	30
Chloromethane	20.0	17.3		ug/L		87	40 - 125	4	30
Vinyl chloride	20.0	16.6		ug/L		83	50 - 145	6	30
Bromomethane	20.0	19.1		ug/L		95	30 - 145	4	30
Chloroethane	20.0	19.4		ug/L		97	60 - 135	2	30
Trichlorofluoromethane	20.0	17.6		ug/L		88	60 - 145	4	30
1,1-Dichloroethene	20.0	22.6		ug/L		113	70 - 130	1	30
Methylene Chloride	20.0	23.4		ug/L		117	55 - 140	2	30
trans-1,2-Dichloroethene	20.0	23.6		ug/L		118	60 - 140	0	30
1,1-Dichloroethane	20.0	23.2		ug/L		116	70 - 135	1	30
2,2-Dichloropropane	20.0	22.6		ug/L		113	70 - 135	2	30
cis-1,2-Dichloroethene	20.0	23.7		ug/L		119	70 - 125	0	30
Chlorobromomethane	20.0	24.1		ug/L		120	65 - 130	4	30
Chloroform	20.0	23.2		ug/L		116	65 - 135	1	30
1,1,1-Trichloroethane	20.0	22.4		ug/L		112	65 - 130	2	30
Carbon tetrachloride	20.0	20.6		ug/L		103	65 - 140	2	30
1,1-Dichloropropene	20.0	22.6		ug/L		113	75 - 130	3	30
Benzene	20.0	23.9		ug/L		120	80 - 120	1	30
1,2-Dichloroethane	20.0	21.7		ug/L		109	70 - 130	2	30
Trichloroethene	20.0	23.3		ug/L		116	70 - 125	2	30
1,2-Dichloropropane	20.0	23.2		ug/L		116	75 - 125	0	30
Dibromomethane	20.0	22.4		ug/L		112	75 - 125	3	30
Dichlorobromomethane	20.0	22.7		ug/L		114	75 - 120	4	30
cis-1,3-Dichloropropene	20.0	24.3		ug/L		122	70 - 130	1	30
Toluene	20.0	23.7		ug/L		119	75 - 120	0	30
trans-1,3-Dichloropropene	20.0	23.0		ug/L		115	55 - 140	3	30
1,1,2-Trichloroethane	20.0	21.6		ug/L		108	75 - 125	4	30
Tetrachloroethene	20.0	23.8		ug/L		119	45 - 150	8	30
1,3-Dichloropropane	20.0	21.5		ug/L		108	75 - 125	2	30
Chlorodibromomethane	20.0	22.7		ug/L		114	60 - 135	4	30
Ethylene Dibromide	20.0	22.3		ug/L		112	80 - 120	5	30
Chlorobenzene	20.0	22.5		ug/L		113	80 - 120	0	30
Ethylbenzene	20.0	23.9		ug/L		119	75 - 125	2	30
1,1,1,2-Tetrachloroethane	20.0	23.1		ug/L		115	80 - 130	4	30
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/L		104	65 - 130	4	30
m-Xylene & p-Xylene	20.0	23.7		ug/L		118	75 - 130	1	30
o-Xylene	20.0	23.4		ug/L		117	80 - 120	0	30
Styrene	20.0	22.9		ug/L		115	65 - 135	5	30
Bromoform	20.0	21.8		ug/L		109	70 - 130	4	30
Isopropylbenzene	20.0	23.5		ug/L		117	75 - 125	1	30
Bromobenzene	20.0	22.3		ug/L		112	75 - 125	0	30
N-Propylbenzene	20.0	22.9		ug/L		115	70 - 130	3	30
1,2,3-Trichloropropane	20.0	21.1		ug/L		106	75 - 125	6	30
2-Chlorotoluene	20.0	23.0		ug/L		115	75 - 125	1	30
1,3,5-Trimethylbenzene	20.0	23.7		ug/L		119	75 - 130	2	30
4-Chlorotoluene	20.0	22.8		ug/L		114	75 - 130	1	30
tert-Butylbenzene	20.0	22.9		ug/L		115	70 - 130	3	30
1,2,4-Trimethylbenzene	20.0	23.5		ug/L		118	75 - 130	2	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: LCSD 580-169995/6

Matrix: Water

Analysis Batch: 169995

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	22.0		ug/L		110	70 - 125	3	30
1,3-Dichlorobenzene	20.0	22.2		ug/L		111	75 - 125	1	30
4-Isopropyltoluene	20.0	21.7		ug/L		109	75 - 130	3	30
1,4-Dichlorobenzene	20.0	22.0		ug/L		110	75 - 125	0	30
n-Butylbenzene	20.0	22.3		ug/L		111	70 - 135	3	30
1,2-Dichlorobenzene	20.0	22.3		ug/L		111	70 - 120	1	30
1,2-Dibromo-3-Chloropropane	20.0	20.8		ug/L		104	50 - 130	6	30
1,2,4-Trichlorobenzene	20.0	22.1		ug/L		111	65 - 135	1	30
1,2,3-Trichlorobenzene	20.0	22.6		ug/L		113	55 - 140	2	30
Hexachlorobutadiene	20.0	20.6		ug/L		103	50 - 140	3	30
Naphthalene	20.0	23.0		ug/L		115	55 - 140	7	30
Methyl tert-butyl ether	20.0	21.9		ug/L		109	65 - 125	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	104		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115
Trifluorotoluene (Surr)	102		70 - 136
1,2-Dichloroethane-d4 (Surr)	93		70 - 120

Lab Sample ID: MB 580-170506/4

Matrix: Water

Analysis Batch: 170506

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0		ug/L			09/23/14 10:50	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/23/14 10:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		09/23/14 10:50	1
4-Bromofluorobenzene (Surr)	100		75 - 120		09/23/14 10:50	1
Dibromofluoromethane (Surr)	100		85 - 115		09/23/14 10:50	1
Trifluorotoluene (Surr)	102		70 - 136		09/23/14 10:50	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		09/23/14 10:50	1

Lab Sample ID: LCS 580-170506/5

Matrix: Water

Analysis Batch: 170506

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	20.0	24.0		ug/L		120	75 - 125
m-Xylene & p-Xylene	20.0	23.6		ug/L		118	75 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		85 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	102		85 - 115

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: LCS 580-170506/5

Matrix: Water

Analysis Batch: 170506

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	100		70 - 136
1,2-Dichloroethane-d4 (Surr)	100		70 - 120

Lab Sample ID: LCSD 580-170506/6

Matrix: Water

Analysis Batch: 170506

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	20.0	23.9		ug/L		120	75 - 125	0	30
m-Xylene & p-Xylene	20.0	23.5		ug/L		118	75 - 130	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	101		85 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	103		70 - 136
1,2-Dichloroethane-d4 (Surr)	97		70 - 120

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

Lab Sample ID: MB 580-169836/5

Matrix: Water

Analysis Batch: 169836

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	0.157		0.050		mg/L			09/16/14 03:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	116		50 - 150		09/16/14 03:05	1
4-Bromofluorobenzene (Surr)	85		50 - 150		09/16/14 03:05	1

Lab Sample ID: LCS 580-169836/6

Matrix: Water

Analysis Batch: 169836

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	1.00	0.979		mg/L		98	60 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	107		50 - 150
4-Bromofluorobenzene (Surr)	94		50 - 150

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: LCSD 580-169836/7

Matrix: Water

Analysis Batch: 169836

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	1.00	0.946		mg/L		95	60 - 120	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	102		50 - 150
4-Bromofluorobenzene (Surr)	88		50 - 150

Lab Sample ID: MB 580-169926/5

Matrix: Water

Analysis Batch: 169926

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			09/16/14 15:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	109		50 - 150		09/16/14 15:20	1
4-Bromofluorobenzene (Surr)	98		50 - 150		09/16/14 15:20	1

Lab Sample ID: LCS 580-169926/6

Matrix: Water

Analysis Batch: 169926

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	1.00	0.933		mg/L		93	60 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	99		50 - 150
4-Bromofluorobenzene (Surr)	103		50 - 150

Lab Sample ID: LCSD 580-169926/7

Matrix: Water

Analysis Batch: 169926

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	1.00	0.940		mg/L		94	60 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	100		50 - 150
4-Bromofluorobenzene (Surr)	104		50 - 150

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

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

Lab Sample ID: MB 580-170468/1-A
Matrix: Water
Analysis Batch: 170490

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		09/22/14 19:06	09/23/14 10:50	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150				09/22/14 19:06	09/23/14 10:50	1

Lab Sample ID: LCS 580-170468/2-A
Matrix: Water
Analysis Batch: 170490

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
DRO (nC10-<nC25)	4.00	3.29		mg/L		82	75 - 125
Surrogate	%Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl	85		50 - 150				

Lab Sample ID: LCSD 580-170468/3-A
Matrix: Water
Analysis Batch: 170490

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 170468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (nC10-<nC25)	4.00	3.37		mg/L		84	75 - 125	2	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
<i>o</i> -Terphenyl	86		50 - 150						

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-1

Lab Sample ID: 580-45374-1

Date Collected: 09/09/14 09:45

Matrix: Water

Date Received: 09/13/14 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 19:59	A1C	TAL SEA
Total/NA	Analysis	AK101		1	169836	09/16/14 06:10	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 15:21	JJP	TAL SEA

Client Sample ID: MW-2

Lab Sample ID: 580-45374-2

Date Collected: 09/09/14 11:10

Matrix: Water

Date Received: 09/13/14 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 20:26	A1C	TAL SEA
Total/NA	Analysis	AK101		1	169926	09/16/14 22:04	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 15:39	JJP	TAL SEA

Client Sample ID: MW-4

Lab Sample ID: 580-45374-3

Date Collected: 09/09/14 08:20

Matrix: Water

Date Received: 09/13/14 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 20:54	A1C	TAL SEA
Total/NA	Analysis	AK101		1	169836	09/16/14 07:12	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 15:57	JJP	TAL SEA

Client Sample ID: MW-5

Lab Sample ID: 580-45374-4

Date Collected: 09/09/14 12:20

Matrix: Water

Date Received: 09/13/14 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 21:24	A1C	TAL SEA
Total/NA	Analysis	8260B	DL	10	170506	09/23/14 12:36	SOC	TAL SEA
Total/NA	Analysis	AK101		1	169836	09/16/14 07:43	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 16:15	JJP	TAL SEA

Client Sample ID: MW-7

Lab Sample ID: 580-45374-5

Date Collected: 09/10/14 14:40

Matrix: Water

Date Received: 09/13/14 11:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 21:51	A1C	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Client Sample ID: MW-7

Date Collected: 09/10/14 14:40

Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	AK101		1	169836	09/16/14 08:45	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 16:33	JJP	TAL SEA

Client Sample ID: BD-1

Date Collected: 09/09/14 00:00

Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 22:18	A1C	TAL SEA
Total/NA	Analysis	AK101		1	169836	09/16/14 09:16	IWH	TAL SEA
Total/NA	Prep	3510C			170468	09/22/14 19:06	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	170490	09/23/14 16:51	JJP	TAL SEA

Client Sample ID: Trip Blank

Date Collected: 09/09/14 00:00

Date Received: 09/13/14 11:15

Lab Sample ID: 580-45374-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	169995	09/17/14 15:54	A1C	TAL SEA
Total/NA	Analysis	AK101		1	169926	09/16/14 17:41	IWH	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: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-113	07-25-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-14
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Kenai Groundwater

TestAmerica Job ID: 580-45374-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-45374-1	MW-1	Water	09/09/14 09:45	09/13/14 11:15
580-45374-2	MW-2	Water	09/09/14 11:10	09/13/14 11:15
580-45374-3	MW-4	Water	09/09/14 08:20	09/13/14 11:15
580-45374-4	MW-5	Water	09/09/14 12:20	09/13/14 11:15
580-45374-5	MW-7	Water	09/10/14 14:40	09/13/14 11:15
580-45374-6	BD-1	Water	09/09/14 00:00	09/13/14 11:15
580-45374-7	Trip Blank	Water	09/09/14 00:00	09/13/14 11:15



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East, Tacoma, WA 98424-1317
 11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

253-922-2310 FAX 922-5047
 509-924-9200 FAX 924-9290
 503-906-9700 FAX 906-9210
 907-563-9200 FAX 563-9210

1014

CHAIN OF CUSTODY REPORT

Work Order #:

TURNAROUND REQUEST

In Business Days *

Organic & Inorganic Analyses

10 7 5 4 3 2 1 <1

STD. Petroleum Hydrocarbon Analyses

5 4 3 2 1 <1

STD.

OTHER Specify: *Standard*

* Turnaround Request less than standard may incur Rush Charges.

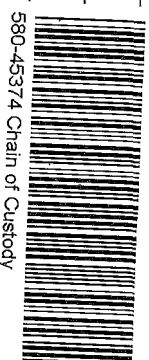
CLIENT: **ARCADIS U.S. Inc.**
 REPORT TO: *Matthew Pelton*
 ADDRESS: *4915 Prosperitas Drive Suite F*
Durham, NC 27713
 PHONE: *919-415-2308* FAX:
 PROJECT NAME: *Kenai Groundwater*

INVOICE TO: **ARCADIS U.S. Inc.**
630 Plaza Drive Suite 200
Hilllands Ranch, CO 80129
 PO. NUMBER: *80031255.1403*

PROJECT NUMBER: *80031255.1403*
58007486
 SAMPLED BY: *David Bessa Jr*

REQUESTED ANALYSES
 HCl HCl
 82603 AK101
 AK102*
 AK103*

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	RESERVATIVE	DATE	RECEIVED BY	DATE	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA W/O ID
1 MW-1	9/09/14 / 0945	✓	09/12/2014	<i>Andrew P. Ry</i>	08:50	W	8		
2 MW-2	9/09/14 / 1110	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	8		
3 MW-4	9/09/14 / 0820	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	8		
4 MW-5	9/09/14 / 1220	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	8		
5 MW-7	9/09/14 / 1440	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	8		
6 ID-1	9/09/14 / —	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	8		
7 Top Blank	8/25/14 / 00:00	✓	09/12/2014	<i>Andrew P. Ry</i>	8:50	W	6		
8									
9									
10									



580-45374 Chain of Custody

580-45374 Chain of Custody
 Cooler/Dryer cor. 116 unc 19
 Cooler Dsdg Machine@Lab
 Wet/Packs Packing Machine
 WCS. goldstreak

RELEASED BY: *Andrew P. Ry* FIRM: **ARCADIS** DATE: 09/12/2014 TIME: 08:50
 PRINT NAME: *Andrew P. Ry* FIRM: **ARCADIS** DATE: 09/12/2014 TIME: 08:50
 RECEIVED BY: *Andrew P. Ry* FIRM: **ARCADIS** DATE: 09/12/2014 TIME: 08:50
 PRINT NAME: *Andrew P. Ry* FIRM: **ARCADIS** DATE: 09/12/2014 TIME: 08:50
 ADDITIONAL REMARKS: ** Non Halogenetic Organics by FID*

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-45374-1

Login Number: 45374

List Source: TestAmerica Seattle

List Number: 1

Creator: Ames, Melissa R

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.	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	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

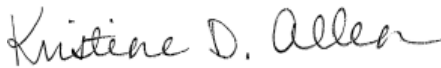
ANALYTICAL REPORT

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

TestAmerica Job ID: 580-46604-1
Client Project/Site: GE Kenai

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

Attn: Mr. Matthew Pelton



Authorized for release by:
12/22/2014 4:07:43 PM

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

LINKS

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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.

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Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Job ID: 580-46604-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-46604-1

Comments

No additional comments.

Receipt

The samples were received on 12/9/2014 9:50 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5° C.

GC/MS VOA

Method(s) 8260B: AB: 177865

8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 177865 recovered outside control limits for multiple analytes. These analytes were biased high in the LCS and were not detected in the associated samples (LCS 580-177865/6), (LCSD 580-177865/7), BD-1 (580-46604-6), MW-1 (580-46604-3), MW-2 (580-46604-2), MW-4 (580-46604-1), MW-5 (580-46604-5), MW-7 (580-46604-4), TB-1 (580-46604-7); therefore the data have been reported. The samples MW-1 (580-46604-3), MW-2 (580-46604-2), MW-4 (580-46604-1) and MW-5 (580-46604-5) contained detections of 1,1,1-Trichloroethane and or o-Xylene and will be reanalyzed after a passing LCS.

Method(s) 8260B: The associated samples BD-1 (580-46604-6), MW-1 (580-46604-3), MW-2 (580-46604-2), MW-4 (580-46604-1) were reanalyzed for the target compound 1,1,1-Trichloroethane due to QC deficiencies in the original analysis. All QC criteria was met for the compound in analytical batch 178033 therefore the reanalysis is reported as the primary result.

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: In analysis batch 177813, for the following sample from preparation batch 177832: 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: MW-5 (580-46604-5).

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

Air - GC/MS VOA

Method(s) TO-15: Surrogate recovery of 1,2-Dichloroethane-d4 for the following standard(s) was outside control limits. (CCV 320-60986/25). 1,2-Dichloroethane-d4 is not used as a monitoring compound for the this method; therefore, re-extraction and/or re-analysis was not performed.

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.

VOA Prep

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

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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 Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-4
Date Collected: 12/05/14 10:30
Date Received: 12/09/14 08:04

Lab Sample ID: 580-46604-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 21:55	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 21:55	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 21:55	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 21:55	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 21:55	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 21:55	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 21:55	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 21:55	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 21:55	1
1,1-Dichloroethane	ND		1.0		ug/L			12/10/14 21:55	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 21:55	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 21:55	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 21:55	1
Chloroform	ND		1.0		ug/L			12/10/14 21:55	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 21:55	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 21:55	1
Benzene	ND		1.0		ug/L			12/10/14 21:55	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 21:55	1
Trichloroethene	3.4		1.0		ug/L			12/10/14 21:55	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 21:55	1
Dibromomethane	ND		1.0		ug/L			12/10/14 21:55	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 21:55	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 21:55	1
Toluene	ND		1.0		ug/L			12/10/14 21:55	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 21:55	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 21:55	1
Tetrachloroethene	14		1.0		ug/L			12/10/14 21:55	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 21:55	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 21:55	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 21:55	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1
Ethylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 21:55	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 21:55	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/10/14 21:55	1
o-Xylene	ND	*	1.0		ug/L			12/10/14 21:55	1
Styrene	ND		5.0		ug/L			12/10/14 21:55	1
Bromoform	ND		1.0		ug/L			12/10/14 21:55	1
Isopropylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
Bromobenzene	ND		1.0		ug/L			12/10/14 21:55	1
N-Propylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 21:55	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 21:55	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 21:55	1
tert-Butylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-4

Lab Sample ID: 580-46604-1

Date Collected: 12/05/14 10:30

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			12/10/14 21:55	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 21:55	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 21:55	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 21:55	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 21:55	1
Naphthalene	ND		3.0		ug/L			12/10/14 21:55	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 21:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		12/10/14 21:55	1
4-Bromofluorobenzene (Surr)	101		75 - 120		12/10/14 21:55	1
Dibromofluoromethane (Surr)	105		85 - 115		12/10/14 21:55	1
Trifluorotoluene (Surr)	94		70 - 136		12/10/14 21:55	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 120		12/10/14 21:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	3.4		1.0		ug/L			12/12/14 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		12/12/14 15:37	1
4-Bromofluorobenzene (Surr)	95		75 - 120		12/12/14 15:37	1
Dibromofluoromethane (Surr)	96		85 - 115		12/12/14 15:37	1
Trifluorotoluene (Surr)	97		70 - 136		12/12/14 15:37	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 120		12/12/14 15:37	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-2
Date Collected: 12/05/14 11:30
Date Received: 12/09/14 08:04

Lab Sample ID: 580-46604-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 22:23	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 22:23	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 22:23	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 22:23	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 22:23	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 22:23	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 22:23	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 22:23	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 22:23	1
1,1-Dichloroethane	6.1		1.0		ug/L			12/10/14 22:23	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 22:23	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 22:23	1
Chloroform	ND		1.0		ug/L			12/10/14 22:23	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 22:23	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 22:23	1
Benzene	ND		1.0		ug/L			12/10/14 22:23	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 22:23	1
Trichloroethene	14		1.0		ug/L			12/10/14 22:23	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 22:23	1
Dibromomethane	ND		1.0		ug/L			12/10/14 22:23	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 22:23	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 22:23	1
Toluene	11		1.0		ug/L			12/10/14 22:23	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 22:23	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 22:23	1
Tetrachloroethene	15		1.0		ug/L			12/10/14 22:23	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 22:23	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 22:23	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 22:23	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 22:23	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 22:23	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 22:23	1
Styrene	ND		5.0		ug/L			12/10/14 22:23	1
Bromoform	ND		1.0		ug/L			12/10/14 22:23	1
Isopropylbenzene	9.9		1.0		ug/L			12/10/14 22:23	1
Bromobenzene	ND		1.0		ug/L			12/10/14 22:23	1
N-Propylbenzene	7.0		1.0		ug/L			12/10/14 22:23	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 22:23	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 22:23	1
1,3,5-Trimethylbenzene	20		1.0		ug/L			12/10/14 22:23	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 22:23	1
tert-Butylbenzene	1.1		1.0		ug/L			12/10/14 22:23	1
1,2,4-Trimethylbenzene	96		1.0		ug/L			12/10/14 22:23	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 22:23	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 22:23	1
4-Isopropyltoluene	2.4		1.0		ug/L			12/10/14 22:23	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 22:23	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 22:23	1
1,2-Dichlorobenzene	5.6		1.0		ug/L			12/10/14 22:23	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-2

Lab Sample ID: 580-46604-2

Date Collected: 12/05/14 11:30

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 22:23	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 22:23	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 22:23	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 22:23	1
Naphthalene	6.6		3.0		ug/L			12/10/14 22:23	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 22:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		85 - 120		12/10/14 22:23	1
4-Bromofluorobenzene (Surr)	106		75 - 120		12/10/14 22:23	1
Dibromofluoromethane (Surr)	105		85 - 115		12/10/14 22:23	1
Trifluorotoluene (Surr)	98		70 - 136		12/10/14 22:23	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		12/10/14 22:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	150		20		ug/L			12/12/14 13:51	20
Ethylbenzene	350		20		ug/L			12/12/14 13:51	20
m-Xylene & p-Xylene	230		40		ug/L			12/12/14 13:51	20
o-Xylene	380		20		ug/L			12/12/14 13:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		85 - 120		12/12/14 13:51	20
4-Bromofluorobenzene (Surr)	99		75 - 120		12/12/14 13:51	20
Dibromofluoromethane (Surr)	95		85 - 115		12/12/14 13:51	20
Trifluorotoluene (Surr)	94		70 - 136		12/12/14 13:51	20
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		12/12/14 13:51	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0		1.0		ug/L			12/12/14 16:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		85 - 120		12/12/14 16:56	1
4-Bromofluorobenzene (Surr)	103		75 - 120		12/12/14 16:56	1
Dibromofluoromethane (Surr)	91		85 - 115		12/12/14 16:56	1
Trifluorotoluene (Surr)	92		70 - 136		12/12/14 16:56	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 120		12/12/14 16:56	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-1

Lab Sample ID: 580-46604-3

Date Collected: 12/05/14 12:35

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 22:51	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 22:51	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 22:51	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 22:51	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 22:51	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 22:51	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 22:51	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 22:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 22:51	1
1,1-Dichloroethane	5.0		1.0		ug/L			12/10/14 22:51	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 22:51	1
cis-1,2-Dichloroethene	22		1.0		ug/L			12/10/14 22:51	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 22:51	1
Chloroform	ND		1.0		ug/L			12/10/14 22:51	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 22:51	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 22:51	1
Benzene	ND		1.0		ug/L			12/10/14 22:51	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 22:51	1
Trichloroethene	20		1.0		ug/L			12/10/14 22:51	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 22:51	1
Dibromomethane	ND		1.0		ug/L			12/10/14 22:51	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 22:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 22:51	1
Toluene	ND		1.0		ug/L			12/10/14 22:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 22:51	1
1,1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 22:51	1
Tetrachloroethene	58		1.0		ug/L			12/10/14 22:51	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 22:51	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 22:51	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 22:51	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1
Ethylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 22:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 22:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/10/14 22:51	1
o-Xylene	ND	*	1.0		ug/L			12/10/14 22:51	1
Styrene	ND		5.0		ug/L			12/10/14 22:51	1
Bromoform	ND		1.0		ug/L			12/10/14 22:51	1
Isopropylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
Bromobenzene	ND		1.0		ug/L			12/10/14 22:51	1
N-Propylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 22:51	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 22:51	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 22:51	1
tert-Butylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-1

Lab Sample ID: 580-46604-3

Date Collected: 12/05/14 12:35

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			12/10/14 22:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 22:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 22:51	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 22:51	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 22:51	1
Naphthalene	ND		3.0		ug/L			12/10/14 22:51	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 22:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		85 - 120		12/10/14 22:51	1
4-Bromofluorobenzene (Surr)	104		75 - 120		12/10/14 22:51	1
Dibromofluoromethane (Surr)	113		85 - 115		12/10/14 22:51	1
Trifluorotoluene (Surr)	97		70 - 136		12/10/14 22:51	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 120		12/10/14 22:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.1		1.0		ug/L			12/12/14 16:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		12/12/14 16:03	1
4-Bromofluorobenzene (Surr)	99		75 - 120		12/12/14 16:03	1
Dibromofluoromethane (Surr)	90		85 - 115		12/12/14 16:03	1
Trifluorotoluene (Surr)	88		70 - 136		12/12/14 16:03	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 120		12/12/14 16:03	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-7
Date Collected: 12/05/14 13:40
Date Received: 12/09/14 08:04

Lab Sample ID: 580-46604-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 23:19	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 23:19	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 23:19	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 23:19	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 23:19	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 23:19	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 23:19	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 23:19	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 23:19	1
1,1-Dichloroethane	ND		1.0		ug/L			12/10/14 23:19	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 23:19	1
cis-1,2-Dichloroethene	2.7		1.0		ug/L			12/10/14 23:19	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 23:19	1
Chloroform	ND		1.0		ug/L			12/10/14 23:19	1
1,1,1-Trichloroethane	ND	*	1.0		ug/L			12/10/14 23:19	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 23:19	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 23:19	1
Benzene	ND		1.0		ug/L			12/10/14 23:19	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 23:19	1
Trichloroethene	2.1		1.0		ug/L			12/10/14 23:19	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 23:19	1
Dibromomethane	ND		1.0		ug/L			12/10/14 23:19	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 23:19	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 23:19	1
Toluene	ND		1.0		ug/L			12/10/14 23:19	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 23:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 23:19	1
Tetrachloroethene	21		1.0		ug/L			12/10/14 23:19	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 23:19	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 23:19	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 23:19	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
Ethylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 23:19	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 23:19	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/10/14 23:19	1
o-Xylene	ND	*	1.0		ug/L			12/10/14 23:19	1
Styrene	ND		5.0		ug/L			12/10/14 23:19	1
Bromoform	ND		1.0		ug/L			12/10/14 23:19	1
Isopropylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
Bromobenzene	ND		1.0		ug/L			12/10/14 23:19	1
N-Propylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 23:19	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 23:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 23:19	1
tert-Butylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/10/14 23:19	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 23:19	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-7

Lab Sample ID: 580-46604-4

Date Collected: 12/05/14 13:40

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
4-Isopropyltoluene	ND		1.0		ug/L			12/10/14 23:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 23:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 23:19	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 23:19	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 23:19	1
Naphthalene	ND		3.0		ug/L			12/10/14 23:19	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120					12/10/14 23:19	1
4-Bromofluorobenzene (Surr)	106		75 - 120					12/10/14 23:19	1
Dibromofluoromethane (Surr)	110		85 - 115					12/10/14 23:19	1
Trifluorotoluene (Surr)	96		70 - 136					12/10/14 23:19	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 120					12/10/14 23:19	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-5
Date Collected: 12/05/14 14:25
Date Received: 12/09/14 08:04

Lab Sample ID: 580-46604-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 23:46	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 23:46	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 23:46	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 23:46	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 23:46	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 23:46	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 23:46	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 23:46	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 23:46	1
1,1-Dichloroethane	ND		1.0		ug/L			12/10/14 23:46	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 23:46	1
cis-1,2-Dichloroethene	140		1.0		ug/L			12/10/14 23:46	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 23:46	1
Chloroform	ND		1.0		ug/L			12/10/14 23:46	1
1,1,1-Trichloroethane	ND	*	1.0		ug/L			12/10/14 23:46	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 23:46	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 23:46	1
Benzene	ND		1.0		ug/L			12/10/14 23:46	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 23:46	1
Trichloroethene	16		1.0		ug/L			12/10/14 23:46	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 23:46	1
Dibromomethane	ND		1.0		ug/L			12/10/14 23:46	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 23:46	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 23:46	1
Toluene	1.5		1.0		ug/L			12/10/14 23:46	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 23:46	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 23:46	1
Tetrachloroethene	50		1.0		ug/L			12/10/14 23:46	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 23:46	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 23:46	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 23:46	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 23:46	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 23:46	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 23:46	1
Styrene	ND		5.0		ug/L			12/10/14 23:46	1
Bromoform	ND		1.0		ug/L			12/10/14 23:46	1
Isopropylbenzene	1.5		1.0		ug/L			12/10/14 23:46	1
Bromobenzene	ND		1.0		ug/L			12/10/14 23:46	1
N-Propylbenzene	1.8		1.0		ug/L			12/10/14 23:46	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 23:46	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 23:46	1
1,3,5-Trimethylbenzene	23		1.0		ug/L			12/10/14 23:46	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 23:46	1
tert-Butylbenzene	1.1		1.0		ug/L			12/10/14 23:46	1
1,2,4-Trimethylbenzene	35		1.0		ug/L			12/10/14 23:46	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 23:46	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 23:46	1
4-Isopropyltoluene	1.7		1.0		ug/L			12/10/14 23:46	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 23:46	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-5

Lab Sample ID: 580-46604-5

Date Collected: 12/05/14 14:25

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		2.0		ug/L			12/10/14 23:46	1
1,2-Dichlorobenzene	2.3		1.0		ug/L			12/10/14 23:46	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 23:46	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 23:46	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 23:46	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 23:46	1
Naphthalene	3.4		3.0		ug/L			12/10/14 23:46	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		85 - 120		12/10/14 23:46	1
4-Bromofluorobenzene (Surr)	99		75 - 120		12/10/14 23:46	1
Dibromofluoromethane (Surr)	106		85 - 115		12/10/14 23:46	1
Trifluorotoluene (Surr)	92		70 - 136		12/10/14 23:46	1
1,2-Dichloroethane-d4 (Surr)	104		70 - 120		12/10/14 23:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	280		10		ug/L			12/12/14 14:17	10
m-Xylene & p-Xylene	390		20		ug/L			12/12/14 14:17	10
o-Xylene	120		10		ug/L			12/12/14 14:17	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120		12/12/14 14:17	10
4-Bromofluorobenzene (Surr)	99		75 - 120		12/12/14 14:17	10
Dibromofluoromethane (Surr)	98		85 - 115		12/12/14 14:17	10
Trifluorotoluene (Surr)	96		70 - 136		12/12/14 14:17	10
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		12/12/14 14:17	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	1.4		0.050		mg/L			12/10/14 13:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	95		50 - 150		12/10/14 13:11	1
4-Bromofluorobenzene (Surr)	127		50 - 150		12/10/14 13:11	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	0.097		mg/L		12/10/14 11:08	12/10/14 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	74		50 - 150		12/10/14 11:08	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: BD-1

Lab Sample ID: 580-46604-6

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/11/14 00:14	1
Chloromethane	ND	*	5.0		ug/L			12/11/14 00:14	1
Vinyl chloride	ND		1.0		ug/L			12/11/14 00:14	1
Bromomethane	ND	*	5.0		ug/L			12/11/14 00:14	1
Chloroethane	ND	*	5.0		ug/L			12/11/14 00:14	1
Trichlorofluoromethane	ND		1.0		ug/L			12/11/14 00:14	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/11/14 00:14	1
Methylene Chloride	ND		3.0		ug/L			12/11/14 00:14	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/11/14 00:14	1
1,1-Dichloroethane	4.3		1.0		ug/L			12/11/14 00:14	1
2,2-Dichloropropane	ND		1.0		ug/L			12/11/14 00:14	1
cis-1,2-Dichloroethene	18		1.0		ug/L			12/11/14 00:14	1
Chlorobromomethane	ND		1.0		ug/L			12/11/14 00:14	1
Chloroform	ND		1.0		ug/L			12/11/14 00:14	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/11/14 00:14	1
1,1-Dichloropropene	ND		1.0		ug/L			12/11/14 00:14	1
Benzene	ND		1.0		ug/L			12/11/14 00:14	1
1,2-Dichloroethane	ND		1.0		ug/L			12/11/14 00:14	1
Trichloroethene	19		1.0		ug/L			12/11/14 00:14	1
1,2-Dichloropropane	ND		1.0		ug/L			12/11/14 00:14	1
Dibromomethane	ND		1.0		ug/L			12/11/14 00:14	1
Dichlorobromomethane	ND		1.0		ug/L			12/11/14 00:14	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/11/14 00:14	1
Toluene	ND		1.0		ug/L			12/11/14 00:14	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/11/14 00:14	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/11/14 00:14	1
Tetrachloroethene	57		1.0		ug/L			12/11/14 00:14	1
1,3-Dichloropropane	ND		1.0		ug/L			12/11/14 00:14	1
Chlorodibromomethane	ND		1.0		ug/L			12/11/14 00:14	1
Ethylene Dibromide	ND		1.0		ug/L			12/11/14 00:14	1
Chlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1
Ethylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/11/14 00:14	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/11/14 00:14	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/11/14 00:14	1
o-Xylene	ND	*	1.0		ug/L			12/11/14 00:14	1
Styrene	ND		5.0		ug/L			12/11/14 00:14	1
Bromoform	ND		1.0		ug/L			12/11/14 00:14	1
Isopropylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
Bromobenzene	ND		1.0		ug/L			12/11/14 00:14	1
N-Propylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/11/14 00:14	1
2-Chlorotoluene	ND		1.0		ug/L			12/11/14 00:14	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
4-Chlorotoluene	ND		1.0		ug/L			12/11/14 00:14	1
tert-Butylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
sec-Butylbenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: BD-1

Lab Sample ID: 580-46604-6

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	ND		1.0		ug/L			12/11/14 00:14	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1
n-Butylbenzene	ND		2.0		ug/L			12/11/14 00:14	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/11/14 00:14	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/11/14 00:14	1
Hexachlorobutadiene	ND		1.0		ug/L			12/11/14 00:14	1
Naphthalene	ND		3.0		ug/L			12/11/14 00:14	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/11/14 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		85 - 120		12/11/14 00:14	1
4-Bromofluorobenzene (Surr)	104		75 - 120		12/11/14 00:14	1
Dibromofluoromethane (Surr)	108		85 - 115		12/11/14 00:14	1
Trifluorotoluene (Surr)	95		70 - 136		12/11/14 00:14	1
1,2-Dichloroethane-d4 (Surr)	105		70 - 120		12/11/14 00:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.5		1.0		ug/L			12/12/14 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		12/12/14 16:30	1
4-Bromofluorobenzene (Surr)	96		75 - 120		12/12/14 16:30	1
Dibromofluoromethane (Surr)	93		85 - 115		12/12/14 16:30	1
Trifluorotoluene (Surr)	90		70 - 136		12/12/14 16:30	1
1,2-Dichloroethane-d4 (Surr)	88		70 - 120		12/12/14 16:30	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: TB-1

Lab Sample ID: 580-46604-7

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0		ug/L			12/10/14 16:20	1
Chloromethane	ND	*	5.0		ug/L			12/10/14 16:20	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 16:20	1
Bromomethane	ND	*	5.0		ug/L			12/10/14 16:20	1
Chloroethane	ND	*	5.0		ug/L			12/10/14 16:20	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 16:20	1
1,1-Dichloroethene	ND	*	1.0		ug/L			12/10/14 16:20	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 16:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 16:20	1
1,1-Dichloroethane	ND		1.0		ug/L			12/10/14 16:20	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 16:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 16:20	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 16:20	1
Chloroform	ND		1.0		ug/L			12/10/14 16:20	1
1,1,1-Trichloroethane	ND	*	1.0		ug/L			12/10/14 16:20	1
Carbon tetrachloride	ND	*	1.0		ug/L			12/10/14 16:20	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 16:20	1
Benzene	ND		1.0		ug/L			12/10/14 16:20	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 16:20	1
Trichloroethene	ND		1.0		ug/L			12/10/14 16:20	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 16:20	1
Dibromomethane	ND		1.0		ug/L			12/10/14 16:20	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 16:20	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 16:20	1
Toluene	ND		1.0		ug/L			12/10/14 16:20	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 16:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 16:20	1
Tetrachloroethene	ND		1.0		ug/L			12/10/14 16:20	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 16:20	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 16:20	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 16:20	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
Ethylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 16:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 16:20	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/10/14 16:20	1
o-Xylene	ND	*	1.0		ug/L			12/10/14 16:20	1
Styrene	ND		5.0		ug/L			12/10/14 16:20	1
Bromoform	ND		1.0		ug/L			12/10/14 16:20	1
Isopropylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
Bromobenzene	ND		1.0		ug/L			12/10/14 16:20	1
N-Propylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 16:20	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 16:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 16:20	1
tert-Butylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/10/14 16:20	1
sec-Butylbenzene	ND		1.0		ug/L			12/10/14 16:20	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: TB-1

Lab Sample ID: 580-46604-7

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
4-Isopropyltoluene	ND		1.0		ug/L			12/10/14 16:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 16:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 16:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 16:20	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 16:20	1
Naphthalene	ND		3.0		ug/L			12/10/14 16:20	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 16:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		85 - 120					12/10/14 16:20	1
4-Bromofluorobenzene (Surr)	100		75 - 120					12/10/14 16:20	1
Dibromofluoromethane (Surr)	101		85 - 115					12/10/14 16:20	1
Trifluorotoluene (Surr)	97		70 - 136					12/10/14 16:20	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 120					12/10/14 16:20	1

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: Effluent-A-120314

Lab Sample ID: 580-46604-8

Date Collected: 12/03/14 14:40

Matrix: Air

Date Received: 12/09/14 08:04

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			12/19/14 01:38	1
Ethylbenzene	1.3		0.40		ppb v/v			12/19/14 01:38	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			12/19/14 01:38	1
Tetrachloroethene	1.3		0.40		ppb v/v			12/19/14 01:38	1
Trichloroethene	1.2		0.40		ppb v/v			12/19/14 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	113		70 - 130					12/19/14 01:38	1
4-Bromofluorobenzene (Surr)	100		70 - 130					12/19/14 01:38	1
Toluene-d8 (Surr)	98		70 - 130					12/19/14 01:38	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: MB 580-177865/5

Matrix: Water

Analysis Batch: 177865

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			12/10/14 14:35	1
Chloromethane	ND		5.0		ug/L			12/10/14 14:35	1
Vinyl chloride	ND		1.0		ug/L			12/10/14 14:35	1
Bromomethane	ND		5.0		ug/L			12/10/14 14:35	1
Chloroethane	ND		5.0		ug/L			12/10/14 14:35	1
Trichlorofluoromethane	ND		1.0		ug/L			12/10/14 14:35	1
1,1-Dichloroethene	ND		1.0		ug/L			12/10/14 14:35	1
Methylene Chloride	ND		3.0		ug/L			12/10/14 14:35	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 14:35	1
1,1-Dichloroethane	ND		1.0		ug/L			12/10/14 14:35	1
2,2-Dichloropropane	ND		1.0		ug/L			12/10/14 14:35	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			12/10/14 14:35	1
Chlorobromomethane	ND		1.0		ug/L			12/10/14 14:35	1
Chloroform	ND		1.0		ug/L			12/10/14 14:35	1
1,1,1-Trichloroethane	ND		1.0		ug/L			12/10/14 14:35	1
Carbon tetrachloride	ND		1.0		ug/L			12/10/14 14:35	1
1,1-Dichloropropene	ND		1.0		ug/L			12/10/14 14:35	1
Benzene	ND		1.0		ug/L			12/10/14 14:35	1
1,2-Dichloroethane	ND		1.0		ug/L			12/10/14 14:35	1
Trichloroethene	ND		1.0		ug/L			12/10/14 14:35	1
1,2-Dichloropropane	ND		1.0		ug/L			12/10/14 14:35	1
Dibromomethane	ND		1.0		ug/L			12/10/14 14:35	1
Dichlorobromomethane	ND		1.0		ug/L			12/10/14 14:35	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 14:35	1
Toluene	ND		1.0		ug/L			12/10/14 14:35	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			12/10/14 14:35	1
1,1,2-Trichloroethane	ND		1.0		ug/L			12/10/14 14:35	1
Tetrachloroethene	ND		1.0		ug/L			12/10/14 14:35	1
1,3-Dichloropropane	ND		1.0		ug/L			12/10/14 14:35	1
Chlorodibromomethane	ND		1.0		ug/L			12/10/14 14:35	1
Ethylene Dibromide	ND		1.0		ug/L			12/10/14 14:35	1
Chlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
Ethylbenzene	ND		1.0		ug/L			12/10/14 14:35	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 14:35	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			12/10/14 14:35	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/10/14 14:35	1
o-Xylene	ND		1.0		ug/L			12/10/14 14:35	1
Styrene	ND		5.0		ug/L			12/10/14 14:35	1
Bromoform	ND		1.0		ug/L			12/10/14 14:35	1
Isopropylbenzene	ND		1.0		ug/L			12/10/14 14:35	1
Bromobenzene	ND		1.0		ug/L			12/10/14 14:35	1
N-Propylbenzene	ND		1.0		ug/L			12/10/14 14:35	1
1,2,3-Trichloropropane	ND		2.0		ug/L			12/10/14 14:35	1
2-Chlorotoluene	ND		1.0		ug/L			12/10/14 14:35	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			12/10/14 14:35	1
4-Chlorotoluene	ND		1.0		ug/L			12/10/14 14:35	1
tert-Butylbenzene	ND		1.0		ug/L			12/10/14 14:35	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			12/10/14 14:35	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: MB 580-177865/5

Matrix: Water

Analysis Batch: 177865

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			12/10/14 14:35	1
1,3-Dichlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
4-Isopropyltoluene	ND		1.0		ug/L			12/10/14 14:35	1
1,4-Dichlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
n-Butylbenzene	ND		2.0		ug/L			12/10/14 14:35	1
1,2-Dichlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			12/10/14 14:35	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/10/14 14:35	1
Hexachlorobutadiene	ND		1.0		ug/L			12/10/14 14:35	1
Naphthalene	ND		3.0		ug/L			12/10/14 14:35	1
Methyl tert-butyl ether	ND		1.0		ug/L			12/10/14 14:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		12/10/14 14:35	1
4-Bromofluorobenzene (Surr)	104		75 - 120		12/10/14 14:35	1
Dibromofluoromethane (Surr)	104		85 - 115		12/10/14 14:35	1
Trifluorotoluene (Surr)	97		70 - 136		12/10/14 14:35	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 120		12/10/14 14:35	1

Lab Sample ID: LCS 580-177865/6

Matrix: Water

Analysis Batch: 177865

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	23.4		ug/L		117	30 - 155
Chloromethane	20.0	23.7		ug/L		118	40 - 125
Vinyl chloride	20.0	25.2		ug/L		126	50 - 145
Bromomethane	20.0	27.3		ug/L		136	30 - 145
Chloroethane	20.0	27.3	*	ug/L		136	60 - 135
Trichlorofluoromethane	20.0	25.4		ug/L		127	60 - 145
1,1-Dichloroethene	20.0	25.1		ug/L		126	70 - 130
Methylene Chloride	20.0	23.0		ug/L		115	55 - 140
trans-1,2-Dichloroethene	20.0	25.2		ug/L		126	60 - 140
1,1-Dichloroethane	20.0	24.4		ug/L		122	70 - 135
2,2-Dichloropropane	20.0	24.2		ug/L		121	70 - 135
cis-1,2-Dichloroethene	20.0	22.4		ug/L		112	70 - 125
Chlorobromomethane	20.0	22.2		ug/L		111	65 - 130
Chloroform	20.0	20.7		ug/L		103	65 - 135
1,1,1-Trichloroethane	20.0	26.8	*	ug/L		134	65 - 130
Carbon tetrachloride	20.0	25.6		ug/L		128	65 - 140
1,1-Dichloropropene	20.0	21.1		ug/L		105	75 - 130
Benzene	20.0	22.5		ug/L		113	80 - 120
1,2-Dichloroethane	20.0	18.7		ug/L		93	70 - 130
Trichloroethene	20.0	20.7		ug/L		104	70 - 125
1,2-Dichloropropane	20.0	21.2		ug/L		106	75 - 125
Dibromomethane	20.0	19.4		ug/L		97	75 - 125
Dichlorobromomethane	20.0	19.5		ug/L		98	75 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: LCS 580-177865/6

Matrix: Water

Analysis Batch: 177865

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	20.3		ug/L		102	70 - 130
Toluene	20.0	23.3		ug/L		116	75 - 120
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	55 - 140
1,1,2-Trichloroethane	20.0	18.7		ug/L		93	75 - 125
Tetrachloroethene	20.0	29.1		ug/L		146	45 - 150
1,3-Dichloropropane	20.0	18.2		ug/L		91	75 - 125
Chlorodibromomethane	20.0	19.6		ug/L		98	60 - 135
Ethylene Dibromide	20.0	18.5		ug/L		93	80 - 120
Chlorobenzene	20.0	22.9		ug/L		115	80 - 120
Ethylbenzene	20.0	24.7		ug/L		124	75 - 125
1,1,1,2-Tetrachloroethane	20.0	22.6		ug/L		113	80 - 130
1,1,2,2-Tetrachloroethane	20.0	22.5		ug/L		113	65 - 130
m-Xylene & p-Xylene	20.0	22.9		ug/L		115	75 - 130
o-Xylene	20.0	25.2	*	ug/L		126	80 - 120
Styrene	20.0	20.4		ug/L		102	65 - 135
Bromoform	20.0	19.0		ug/L		95	70 - 130
Isopropylbenzene	20.0	22.5		ug/L		112	75 - 125
Bromobenzene	20.0	19.6		ug/L		98	75 - 125
N-Propylbenzene	20.0	21.1		ug/L		106	70 - 130
1,2,3-Trichloropropane	20.0	22.0		ug/L		110	75 - 125
2-Chlorotoluene	20.0	20.7		ug/L		104	75 - 125
1,3,5-Trimethylbenzene	20.0	21.3		ug/L		107	75 - 130
4-Chlorotoluene	20.0	20.1		ug/L		101	75 - 130
tert-Butylbenzene	20.0	21.9		ug/L		109	70 - 130
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		103	75 - 130
sec-Butylbenzene	20.0	22.0		ug/L		110	70 - 125
1,3-Dichlorobenzene	20.0	19.7		ug/L		99	75 - 125
4-Isopropyltoluene	20.0	21.6		ug/L		108	75 - 130
1,4-Dichlorobenzene	20.0	20.3		ug/L		102	75 - 125
n-Butylbenzene	20.0	21.8		ug/L		109	70 - 135
1,2-Dichlorobenzene	20.0	20.3		ug/L		101	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.7		ug/L		98	50 - 130
1,2,4-Trichlorobenzene	20.0	21.3		ug/L		107	65 - 135
1,2,3-Trichlorobenzene	20.0	21.1		ug/L		106	55 - 140
Hexachlorobutadiene	20.0	21.7		ug/L		109	50 - 140
Naphthalene	20.0	19.2		ug/L		96	55 - 140
Methyl tert-butyl ether	20.0	22.0		ug/L		110	65 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	106		85 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	102		70 - 136
1,2-Dichloroethane-d4 (Surr)	97		70 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: LCSD 580-177865/7

Matrix: Water

Analysis Batch: 177865

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	26.3		ug/L		131	30 - 155	12	30
Chloromethane	20.0	25.8	*	ug/L		129	40 - 125	9	30
Vinyl chloride	20.0	27.6		ug/L		138	50 - 145	9	30
Bromomethane	20.0	30.0	*	ug/L		150	30 - 145	9	30
Chloroethane	20.0	25.1		ug/L		126	60 - 135	8	30
Trichlorofluoromethane	20.0	28.0		ug/L		140	60 - 145	10	30
1,1-Dichloroethene	20.0	27.7	*	ug/L		139	70 - 130	10	30
Methylene Chloride	20.0	25.7		ug/L		129	55 - 140	11	30
trans-1,2-Dichloroethene	20.0	27.6		ug/L		138	60 - 140	9	30
1,1-Dichloroethane	20.0	26.7		ug/L		133	70 - 135	9	30
2,2-Dichloropropane	20.0	26.7		ug/L		133	70 - 135	9	30
cis-1,2-Dichloroethene	20.0	24.4		ug/L		122	70 - 125	8	30
Chlorobromomethane	20.0	24.2		ug/L		121	65 - 130	9	30
Chloroform	20.0	22.2		ug/L		111	65 - 135	7	30
1,1,1-Trichloroethane	20.0	29.6	*	ug/L		148	65 - 130	10	30
Carbon tetrachloride	20.0	28.4	*	ug/L		142	65 - 140	10	30
1,1-Dichloropropene	20.0	22.4		ug/L		112	75 - 130	6	30
Benzene	20.0	23.3		ug/L		116	80 - 120	3	30
1,2-Dichloroethane	20.0	19.1		ug/L		96	70 - 130	2	30
Trichloroethene	20.0	20.6		ug/L		103	70 - 125	1	30
1,2-Dichloropropane	20.0	20.7		ug/L		103	75 - 125	3	30
Dibromomethane	20.0	19.0		ug/L		95	75 - 125	2	30
Dichlorobromomethane	20.0	19.2		ug/L		96	75 - 120	1	30
cis-1,3-Dichloropropene	20.0	18.5		ug/L		92	70 - 130	10	30
Toluene	20.0	22.0		ug/L		110	75 - 120	5	30
trans-1,3-Dichloropropene	20.0	17.9		ug/L		89	55 - 140	7	30
1,1,2-Trichloroethane	20.0	17.8		ug/L		89	75 - 125	4	30
Tetrachloroethene	20.0	29.5		ug/L		148	45 - 150	1	30
1,3-Dichloropropane	20.0	17.6		ug/L		88	75 - 125	3	30
Chlorodibromomethane	20.0	19.1		ug/L		95	60 - 135	3	30
Ethylene Dibromide	20.0	18.2		ug/L		91	80 - 120	2	30
Chlorobenzene	20.0	23.0		ug/L		115	80 - 120	0	30
Ethylbenzene	20.0	25.1		ug/L		125	75 - 125	1	30
1,1,1,2-Tetrachloroethane	20.0	23.9		ug/L		119	80 - 130	5	30
1,1,2,2-Tetrachloroethane	20.0	22.2		ug/L		111	65 - 130	2	30
m-Xylene & p-Xylene	20.0	23.2		ug/L		116	75 - 130	1	30
o-Xylene	20.0	26.0	*	ug/L		130	80 - 120	3	30
Styrene	20.0	21.0		ug/L		105	65 - 135	3	30
Bromoform	20.0	19.7		ug/L		99	70 - 130	4	30
Isopropylbenzene	20.0	23.2		ug/L		116	75 - 125	3	30
Bromobenzene	20.0	19.8		ug/L		99	75 - 125	1	30
N-Propylbenzene	20.0	21.1		ug/L		105	70 - 130	0	30
1,2,3-Trichloropropane	20.0	21.7		ug/L		108	75 - 125	1	30
2-Chlorotoluene	20.0	20.9		ug/L		104	75 - 125	1	30
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		104	75 - 130	2	30
4-Chlorotoluene	20.0	20.4		ug/L		102	75 - 130	1	30
tert-Butylbenzene	20.0	20.3		ug/L		102	70 - 130	7	30
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		103	75 - 130	0	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: LCSD 580-177865/7

Matrix: Water

Analysis Batch: 177865

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	21.4		ug/L		107	70 - 125	3	30
1,3-Dichlorobenzene	20.0	19.7		ug/L		99	75 - 125	0	30
4-Isopropyltoluene	20.0	20.9		ug/L		105	75 - 130	3	30
1,4-Dichlorobenzene	20.0	20.1		ug/L		101	75 - 125	1	30
n-Butylbenzene	20.0	21.5		ug/L		107	70 - 135	1	30
1,2-Dichlorobenzene	20.0	20.4		ug/L		102	70 - 120	1	30
1,2-Dibromo-3-Chloropropane	20.0	20.0		ug/L		100	50 - 130	2	30
1,2,4-Trichlorobenzene	20.0	20.5		ug/L		103	65 - 135	4	30
1,2,3-Trichlorobenzene	20.0	20.8		ug/L		104	55 - 140	2	30
Hexachlorobutadiene	20.0	20.4		ug/L		102	50 - 140	6	30
Naphthalene	20.0	20.0		ug/L		100	55 - 140	4	30
Methyl tert-butyl ether	20.0	25.0		ug/L		125	65 - 125	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	101		85 - 120
4-Bromofluorobenzene (Surr)	106		75 - 120
Dibromofluoromethane (Surr)	109		85 - 115
Trifluorotoluene (Surr)	103		70 - 136
1,2-Dichloroethane-d4 (Surr)	101		70 - 120

Lab Sample ID: MB 580-178033/3

Matrix: Water

Analysis Batch: 178033

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			12/12/14 11:36	1
1,1,1-Trichloroethane	ND		1.0		ug/L			12/12/14 11:36	1
Ethylbenzene	ND		1.0		ug/L			12/12/14 11:36	1
m-Xylene & p-Xylene	ND		2.0		ug/L			12/12/14 11:36	1
o-Xylene	ND		1.0		ug/L			12/12/14 11:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120		12/12/14 11:36	1
4-Bromofluorobenzene (Surr)	93		75 - 120		12/12/14 11:36	1
Dibromofluoromethane (Surr)	100		85 - 115		12/12/14 11:36	1
Trifluorotoluene (Surr)	100		70 - 136		12/12/14 11:36	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		12/12/14 11:36	1

Lab Sample ID: LCS 580-178033/4

Matrix: Water

Analysis Batch: 178033

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	20.0	21.8		ug/L		109	70 - 125
1,1,1-Trichloroethane	20.0	21.7		ug/L		108	65 - 130
Ethylbenzene	20.0	20.2		ug/L		101	75 - 125
m-Xylene & p-Xylene	20.0	20.0		ug/L		100	75 - 130
o-Xylene	20.0	19.6		ug/L		98	80 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: LCS 580-178033/4

Matrix: Water

Analysis Batch: 178033

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	100		85 - 120
4-Bromofluorobenzene (Surr)	98		75 - 120
Dibromofluoromethane (Surr)	95		85 - 115
Trifluorotoluene (Surr)	95		70 - 136
1,2-Dichloroethane-d4 (Surr)	93		70 - 120

Lab Sample ID: LCSD 580-178033/5

Matrix: Water

Analysis Batch: 178033

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	20.0	22.5		ug/L		112	70 - 125	3	30
1,1,1-Trichloroethane	20.0	23.0		ug/L		115	65 - 130	6	30
Ethylbenzene	20.0	20.6		ug/L		103	75 - 125	2	30
m-Xylene & p-Xylene	20.0	20.3		ug/L		101	75 - 130	1	30
o-Xylene	20.0	20.1		ug/L		101	80 - 120	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		85 - 120
4-Bromofluorobenzene (Surr)	97		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115
Trifluorotoluene (Surr)	101		70 - 136
1,2-Dichloroethane-d4 (Surr)	94		70 - 120

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

Lab Sample ID: MB 580-177758/4

Matrix: Water

Analysis Batch: 177758

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			12/10/14 00:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150		12/10/14 00:41	1
4-Bromofluorobenzene (Surr)	93		50 - 150		12/10/14 00:41	1

Lab Sample ID: LCS 580-177758/5

Matrix: Water

Analysis Batch: 177758

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	1.00	0.885		mg/L		89	60 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

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

Lab Sample ID: LCS 580-177758/5

Matrix: Water

Analysis Batch: 177758

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Trifluorotoluene (Surr)	102		50 - 150
4-Bromofluorobenzene (Surr)	97		50 - 150

Lab Sample ID: LCSD 580-177758/6

Matrix: Water

Analysis Batch: 177758

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

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Trifluorotoluene (Surr)	101		50 - 150
4-Bromofluorobenzene (Surr)	97		50 - 150

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

Lab Sample ID: MB 580-177832/1-A

Matrix: Water

Analysis Batch: 177813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 177832

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
DRO (nC10-<nC25)	ND		0.10		mg/L		12/10/14 11:08	12/10/14 14:18	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
o-Terphenyl	84		50 - 150	12/10/14 11:08	12/10/14 14:18	1

Lab Sample ID: LCS 580-177832/2-A

Matrix: Water

Analysis Batch: 177813

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 177832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

Surrogate	LCS		Limits
	%Recovery	Qualifier	
o-Terphenyl	88		50 - 150

Lab Sample ID: LCSD 580-177832/3-A

Matrix: Water

Analysis Batch: 177813

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 177832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit

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

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-60986/7

Matrix: Air

Analysis Batch: 60986

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			12/18/14 17:10	1
Ethylbenzene	ND		0.40		ppb v/v			12/18/14 17:10	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			12/18/14 17:10	1
Tetrachloroethene	ND		0.40		ppb v/v			12/18/14 17:10	1
Trichloroethene	ND		0.40		ppb v/v			12/18/14 17:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130		12/18/14 17:10	1
4-Bromofluorobenzene (Surr)	91		70 - 130		12/18/14 17:10	1
Toluene-d8 (Surr)	100		70 - 130		12/18/14 17:10	1

Lab Sample ID: LCS 320-60986/4

Matrix: Air

Analysis Batch: 60986

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	17.2		ppb v/v		86	65 - 124
Ethylbenzene	20.0	18.1		ppb v/v		90	76 - 136
Tetrachloroethene	20.0	17.7		ppb v/v		89	56 - 138
Trichloroethene	20.0	16.4		ppb v/v		82	64 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: MW-4

Lab Sample ID: 580-46604-1

Date Collected: 12/05/14 10:30

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	178033	12/12/14 15:37	JMB	TAL SEA
Total/NA	Analysis	8260B		1	177865	12/10/14 21:55	JMB	TAL SEA

Client Sample ID: MW-2

Lab Sample ID: 580-46604-2

Date Collected: 12/05/14 11:30

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	20	178033	12/12/14 13:51	JMB	TAL SEA
Total/NA	Analysis	8260B	RA	1	178033	12/12/14 16:56	JMB	TAL SEA
Total/NA	Analysis	8260B		1	177865	12/10/14 22:23	JMB	TAL SEA

Client Sample ID: MW-1

Lab Sample ID: 580-46604-3

Date Collected: 12/05/14 12:35

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	178033	12/12/14 16:03	JMB	TAL SEA
Total/NA	Analysis	8260B		1	177865	12/10/14 22:51	JMB	TAL SEA

Client Sample ID: MW-7

Lab Sample ID: 580-46604-4

Date Collected: 12/05/14 13:40

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177865	12/10/14 23:19	JMB	TAL SEA

Client Sample ID: MW-5

Lab Sample ID: 580-46604-5

Date Collected: 12/05/14 14:25

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10	178033	12/12/14 14:17	JMB	TAL SEA
Total/NA	Analysis	8260B		1	177865	12/10/14 23:46	JMB	TAL SEA
Total/NA	Analysis	AK101		1	177758	12/10/14 13:11	AS	TAL SEA
Total/NA	Prep	3510C			177832	12/10/14 11:08	WJR	TAL SEA
Total/NA	Analysis	AK102 & 103		1	177813	12/10/14 15:13	JJP	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Client Sample ID: BD-1

Lab Sample ID: 580-46604-6

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	178033	12/12/14 16:30	JMB	TAL SEA
Total/NA	Analysis	8260B		1	177865	12/11/14 00:14	JMB	TAL SEA

Client Sample ID: TB-1

Lab Sample ID: 580-46604-7

Date Collected: 12/05/14 00:00

Matrix: Water

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	177865	12/10/14 16:20	JMB	TAL SEA

Client Sample ID: Effluent-A-120314

Lab Sample ID: 580-46604-8

Date Collected: 12/03/14 14:40

Matrix: Air

Date Received: 12/09/14 08:04

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	60986	12/19/14 01:38	TAD	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 Kenai

TestAmerica Job ID: 580-46604-1

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-022	03-04-15
California	State Program	9	2901	01-31-15
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-15

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-15
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-15
Illinois	NELAP	5	200060	03-17-15
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-15
Nebraska	State Program	7	NE-OS-22-13	01-29-15
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-14
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-14
Wyoming	State Program	8	8TMS-Q	01-29-15

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: GE Kenai

TestAmerica Job ID: 580-46604-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-46604-1	MW-4	Water	12/05/14 10:30	12/09/14 08:04
580-46604-2	MW-2	Water	12/05/14 11:30	12/09/14 08:04
580-46604-3	MW-1	Water	12/05/14 12:35	12/09/14 08:04
580-46604-4	MW-7	Water	12/05/14 13:40	12/09/14 08:04
580-46604-5	MW-5	Water	12/05/14 14:25	12/09/14 08:04
580-46604-6	BD-1	Water	12/05/14 00:00	12/09/14 08:04
580-46604-7	TB-1	Water	12/05/14 00:00	12/09/14 08:04
580-46604-8	Effluent-A-120314	Air	12/03/14 14:40	12/09/14 08:04



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sampler ID _____
 Temperature on Receipt _____
 Drinking Water? Yes No

Chain of Custody Record

TAL-4124-280 (05/08)

Client ARCADIS		Project Manager Matt Pelton		Chain of Custody Number 155737	
Address 801 Corporate Center Dr. Suite 300		Telephone Number (Area Code)/Fax Number 919.715.4904		Date 12-05-14	
City/State/Zip Code Raleigh NC 27607		Site Contact 919.715		Lab Number 4904	
Project Name and Location (State) GT-Lensis 42200 Lensis Spec Hwy Niskisk, AK		Carrier/Waybill Number		Page 1 of 1	
Contract/Purchase Order/Quote No. B0031255-1404		Matrix		Analysis (Attach list if more space is needed)	
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Containers & Preservatives	Special Instructions/ Conditions of Receipt	
MW-4	12-05-14	10:30	Unpres., H2SO4, HNO3, HCl, NaOH, ZnAcI, NaOH	Cooler (TB Dig/IR cor. June 0.8)	
MW-2	12-05-14	11:30	✓	Cooler Dsd @ Blue @ Lab	
MW-1	12-05-14	12:35	✓	Wet/Packs Packing BUBBLE	
MW-7	12-05-14	13:40	✓	MCS FEDEX PO.	
MW-5	12-05-14	14:25	✓		
BD-1	12-05-14		✓		
TB-1	12-05-14		✓		



Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Other

Sample Disposal
 Return To Client Archive For _____ Months

Turn Around Time Required
 24 Hours 48 Hours 7 Days 14 Days 21 Days

1. Relinquished By _____ Date **12-08-14** Time **08:30**

2. Relinquished By _____ Date **12/9/14** Time **10:04**

3. Relinquished By _____ Date _____ Time _____

QC Requirements (Specify) **T:5-6°C**

1. Received By _____ Date **12/8/14** Time **8:30**

2. Received By **Ben Cooper** Date **12/9/14** Time **21:50**

3. Received By _____ Date _____ Time _____

Comments



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.

46604

Client Contact Information				Project Manager: Matt Patton				Samples Collected By: David Beaudin				COC No: 1 of 1 COCs	
Company Name: ARCADIS		Phone: 916.415.2308		Address: 801 Corporate Center Drive		Email: 916.857.5448 Fax		For Lab Use Only: Walk-in Client		Other (Please specify in notes section)		Landfill Gas	Soil Gas
City/State/Zip: Roseville, CA 95607		Site Contact: Matthew Patton @ matt@arcadis-us.com		Phone: 916.415.2308		TA Contact:		Sample Type:		Indoor Air		Ambient Air	Other (Please specify in notes section)
Project Name: GE Kenesi		Analysis Turnaround Time		Time Start		Time Stop		Canister Vacuum in Field, "Hg (Start)		Canister Vacuum in Field, "Hg (Stop)		Flow Controller ID	
Site/Location: 4320 Kenesi Spc Head, Nikiski, MI		Standard (Specific):		Sample Date(s)		12.03.14 14:00 14:40		-29		-6		340203	
P.O. # 8002855-1444		Rush (Specify):		Sample Identification		Effluent-A-12.03.14						Sample Specific Notes: GRO, TCE, PCE, Ethylbenzene, 1,1,1-TCA	
Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	Temperature (Fahrenheit)						
							Interior	Ambient					
							Start	Stop					
							Interior	Ambient					
							Start	Stop					
							Interior	Ambient					

Form No. CA-C-WJ-003, Rev. 1, dated 05/10/2013



Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-46604-1

Login Number: 46604

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom X

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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.	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 <math><6\text{mm}</math> (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: 580-46604-1

Login Number: 46604

List Number: 2

Creator: Yang, Nhia X

List Source: TestAmerica Sacramento

List Creation: 12/11/14 10:33 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.	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.	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.	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	



JOB # 580-46604
Sample # 8

Client/Project:		VFR ID:		
Canister Serial #:	34001293	Duration:	<input type="checkbox"/> Hrs <input type="checkbox"/> Min	
Cleaning Job:		Flow:	mL/min	
Client ID:		Initials:		
Site Location:				

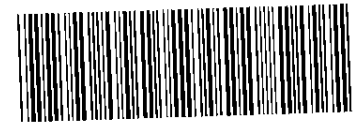
FIELD				
READING	TIME	PRESS.	DATE	INITIALS
INITIAL FIELD VACUUM				
FINAL FIELD READING				

LABORATORY				
READING	PRESS.	DATE	INITIALS	
INITIAL VACUUM CHECK (INCHES Hg)	29.8		JMT	
<input type="checkbox"/> Helium Pre-dilution - Final Pressure (INCHES Hg)				
INITIAL PRESSURE (PSIA)	11.02	12/12/14	AO	
FINAL PRESSURE (PSIA)	25.29	12/12/14	AO	
Pressurization Gas: <input type="checkbox"/> N2 <input type="checkbox"/> He	SCREENED <input type="checkbox"/>	SCRN DIL. VS 250mLs:		
Initial Canister Dilution Factor =	2.29			

CANISTER REPRESSURIZATION					
Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.29		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors								
	Date	Instr.	File #					
Canister DF = 2.29	X	Load DF = 0.4370629	X	Bag DF = 1	=	FINAL DF	1.003023746	
		LVf (mLs) 250		BVf (mLs)				
		LVi (mLs) 572		BVi (mLs)				
Canister DF = 2.29	X	Load DF = #DIV/0!	X	Bag DF = 1	=	FINAL DF	#DIV/0!	
		LVf (mLs)		BVf (mLs)				
		LVi (mLs)		BVi (mLs)				
Canister DF = 2.29	X	Load DF = #DIV/0!	X	Bag DF = 1	=	FINAL DF	#DIV/0!	
		LVf (mLs)		BVf (mLs)				
		LVi (mLs)		BVi (mLs)				

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Canister QC Certification

Certification Type: T0-15 SCAN

Date Cleaned/Batch ID 11/6/14 320-10309

Date of QC 11/24/14

Data File Number 14112413

CANISTER ID NUMBERS

<u>39000096</u>	<u>34001583</u>	_____
0218	0885	_____
1293	↓ 0489	_____
0774	7531	_____
1205	_____	_____
0607	_____	_____
1193	_____	_____
↓ 1500	_____	_____

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.

[Signature]
 1st level Reviewed By:

11/25/14
 Date:

[Signature]
 2nd level Reviewed By:

11/25/14
 Date:



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-10309-1
 SDG No.: 6L SCAN Batch
 Client Sample ID: 34001293 Lab Sample ID: 320-10309-3
 Matrix: Air Lab File ID: 14112413.D
 Analysis Method: TO-15 Date Collected: 11/06/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 11/25/2014 00:56
 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.: 58934 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	2.5	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.: 320-10309-1
 SDG No.: 6L SCAN Batch
 Client Sample ID: 34001293 Lab Sample ID: 320-10309-3
 Matrix: Air Lab File ID: 14112413.D
 Analysis Method: TO-15 Date Collected: 11/06/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 11/25/2014 00:56
 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.: 58934 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.: 320-10309-1
 SDG No.: 6L SCAN Batch
 Client Sample ID: 34001293 Lab Sample ID: 320-10309-3
 Matrix: Air Lab File ID: 14112413.D
 Analysis Method: TO-15 Date Collected: 11/06/2014 00:00
 Sample wt/vol: 250 (mL) Date Analyzed: 11/25/2014 00:56
 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.: 58934 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.25	J B	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)	103		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	118		70-130
2037-26-5	Toluene-d8 (Surr)	96		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS2\20141124-17613.b\14112413.D
 Lims ID: 320-10309-A-3 Lab Sample ID: 320-10309-3
 Client ID: 34001293
 Sample Type: Client
 Inject. Date: 25-Nov-2014 00:56:30 ALS Bottle#: 10 Worklist Smp#: 13
 Purge Vol: 250.000 mL Dil. Factor: 1.0000
 Sample Info: 320-10309-A-3
 Misc. Info.: 500mL CAN 34001293
 Operator ID: SRS Instrument ID: ATMS2
 Method: \\SACCHROM\ChromData\ATMS2\20141124-17613.b\TO15_ATMS2N.m
 Limit Group: MSA - TO15 - ICAL
 Last Update: 25-Nov-2014 09:35:33 Calib Date: 20-Nov-2014 10:30:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\SACCHROM\ChromData\ATMS2\20141119-17465.b\14111929.D
 Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
 Process Host: XAWRK028

First Level Reviewer: ortizam Date: 25-Nov-2014 09:35:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	10.394	10.394	0.000	89	26337	4.00	
* 2 1,4-Difluorobenzene	114	11.733	11.739	-0.006	98	108601	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.058	16.058	0.000	96	90362	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	11.155	11.161	-0.006	95	69138	4.71	
\$ 5 Toluene-d8 (Surr)	100	13.917	13.917	0.000	94	68548	3.84	
\$ 6 4-Bromofluorobenzene (Surr	174	17.810	17.810	0.000	81	55076	4.12	
14 Propene	41	4.153	4.147	0.006	21	470	0.0471	
31 Acetone	43	7.018	6.994	0.024	100	39916	2.46	
76 Trichloroethene	130	12.256	12.262	-0.006	87	3074	0.2521	
85 Toluene	91	14.032	14.032	0.000	23	1383	0.0463	

Reagents:

VASUISIM_00135 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\SACCHROM\ChromData\ATMS2\20141124-17613.b\14112413.D

Injection Date: 25-Nov-2014 00:56:30

Instrument ID: ATMS2

Operator ID: SRS

Lims ID: 320-10309-A-3

Lab Sample ID: 320-10309-3

Worklist Smp#: 13

Client ID: 34001293

Purge Vol: 250.000 mL

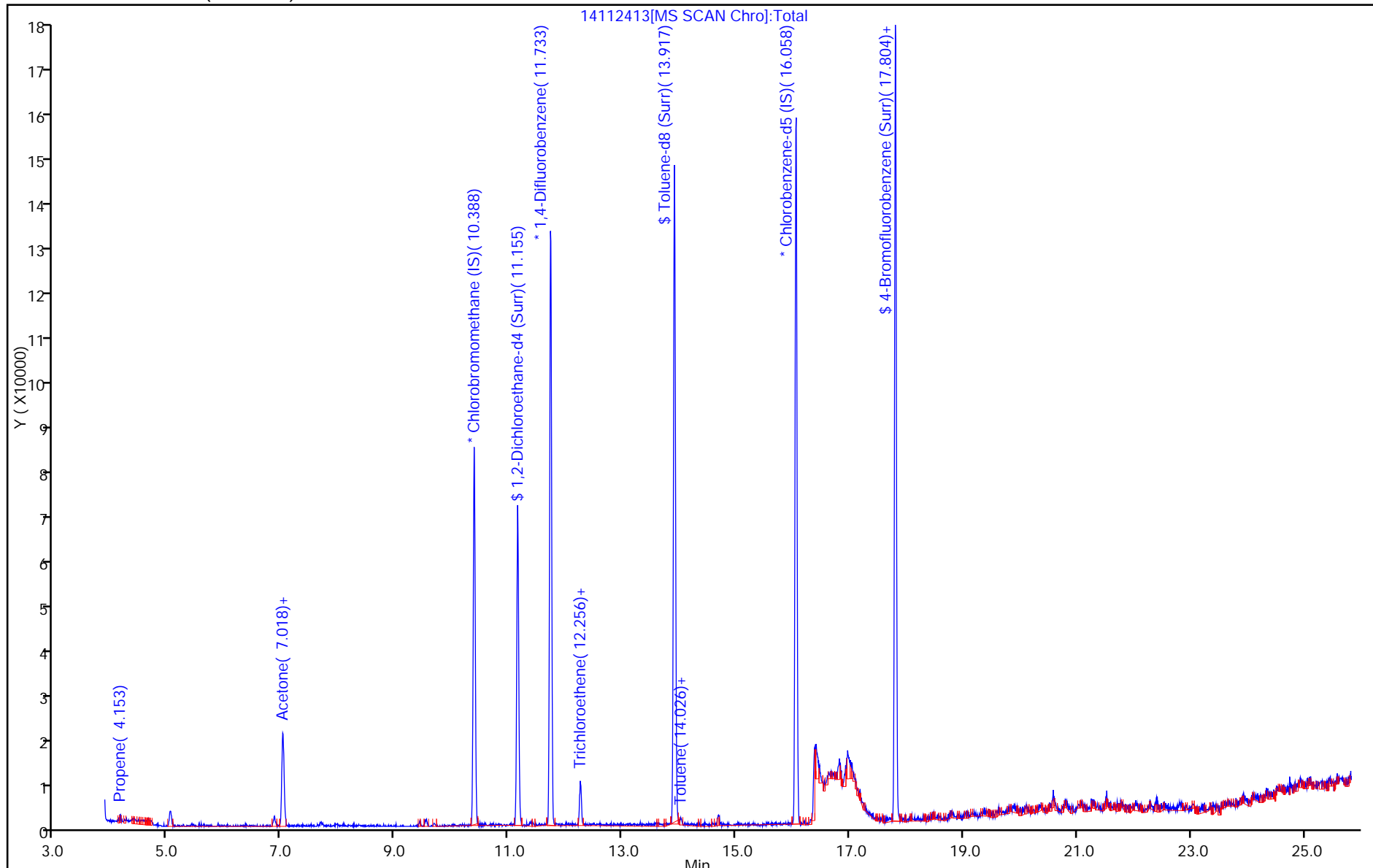
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: TO15_ATMS2N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS2\20141124-17613.b\14112413.D

Injection Date: 25-Nov-2014 00:56:30

Instrument ID: ATMS2

Lims ID: 320-10309-A-3

Lab Sample ID: 320-10309-3

Client ID: 34001293

Operator ID: SRS

ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 250.000 mL

Dil. Factor: 1.0000

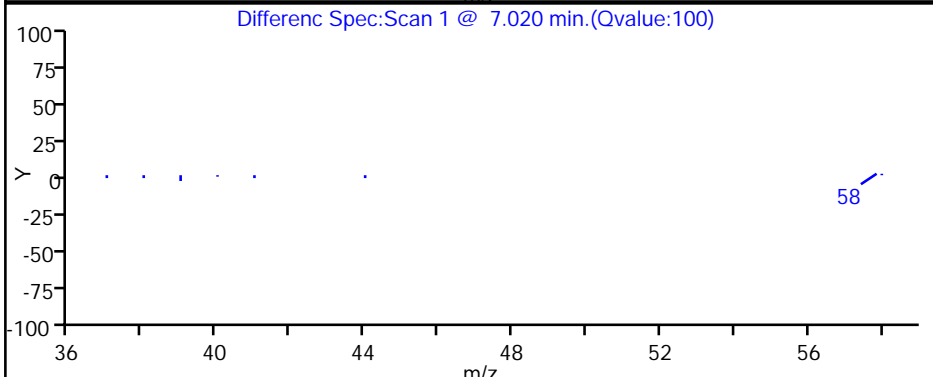
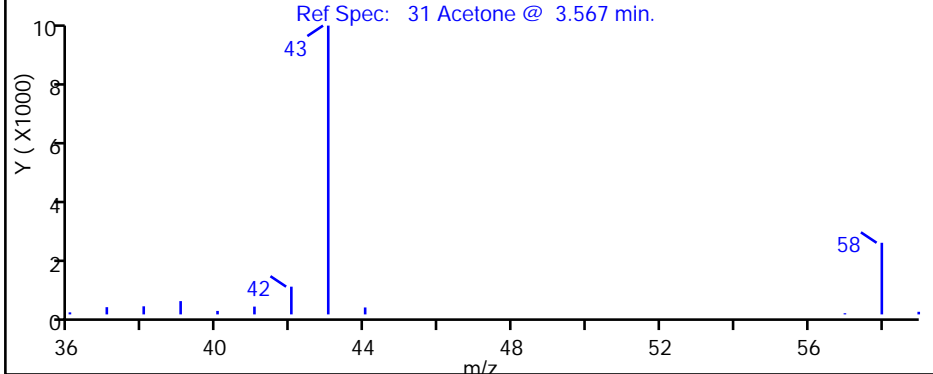
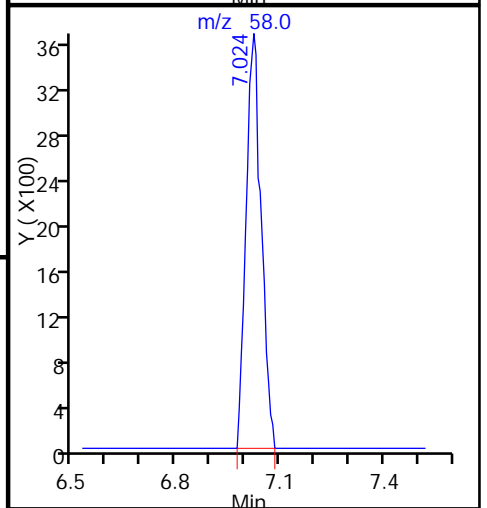
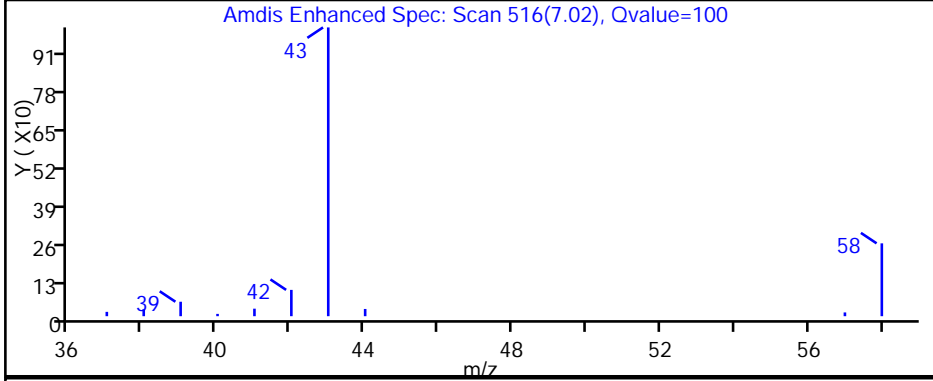
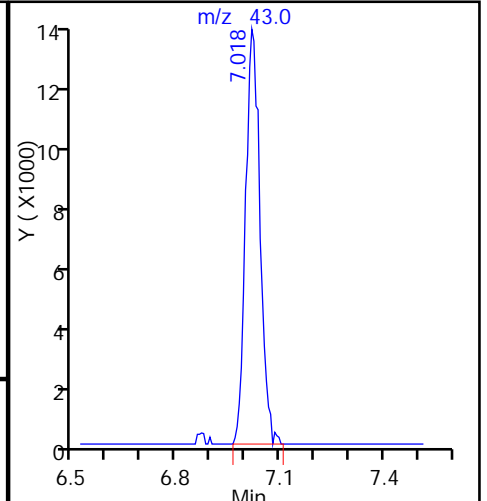
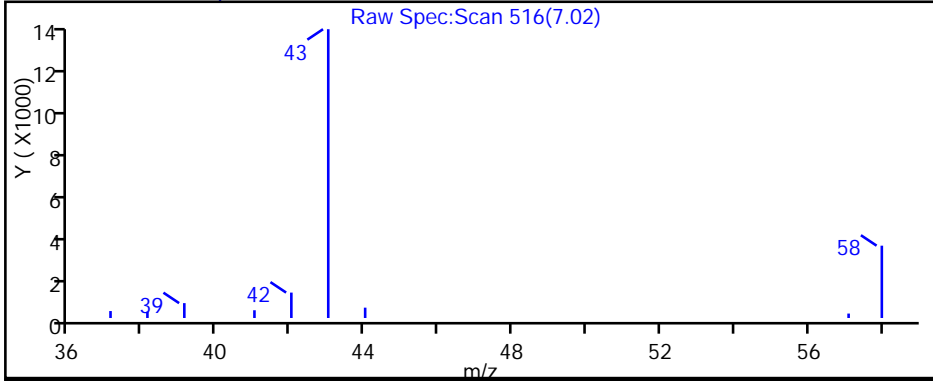
Method: TO15_ATMS2N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

31 Acetone, CAS: 67-64-1



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TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS2\20141124-17613.b\14112413.D

Injection Date: 25-Nov-2014 00:56:30

Instrument ID: ATMS2

Lims ID: 320-10309-A-3

Lab Sample ID: 320-10309-3

Client ID: 34001293

Operator ID: SRS

ALS Bottle#: 10 Worklist Smp#: 13

Purge Vol: 250.000 mL

Dil. Factor: 1.0000

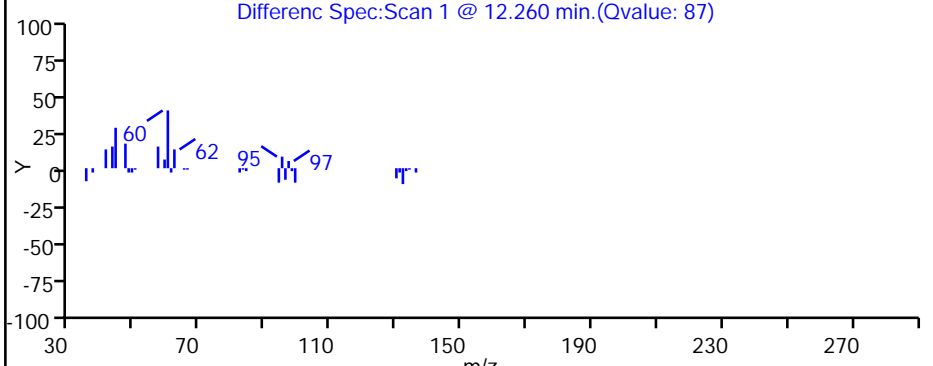
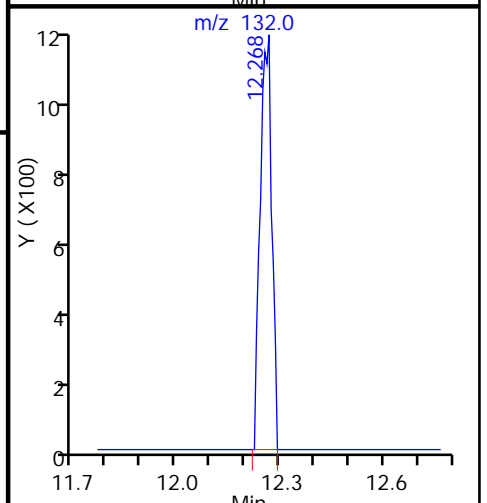
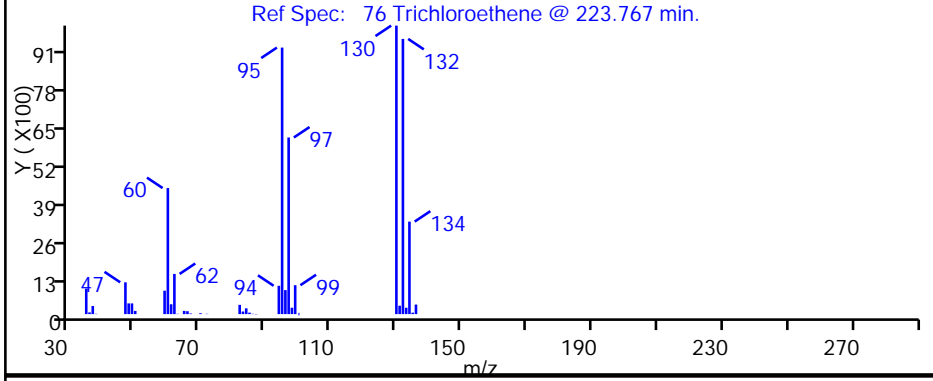
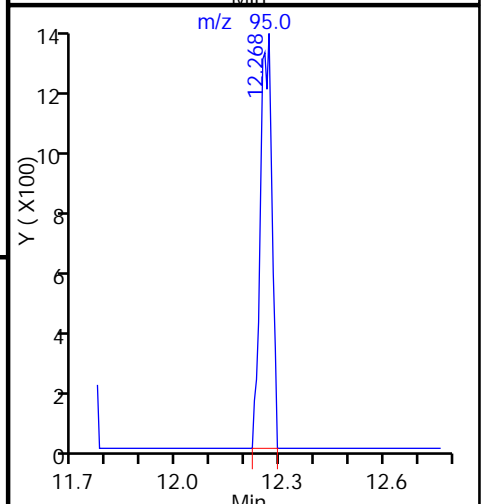
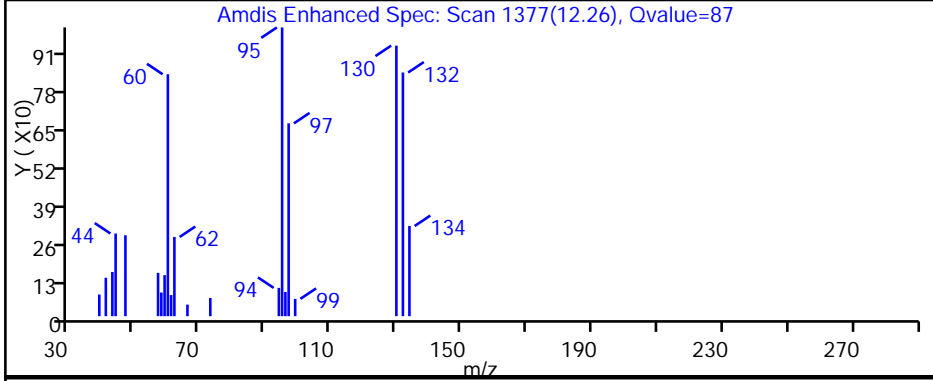
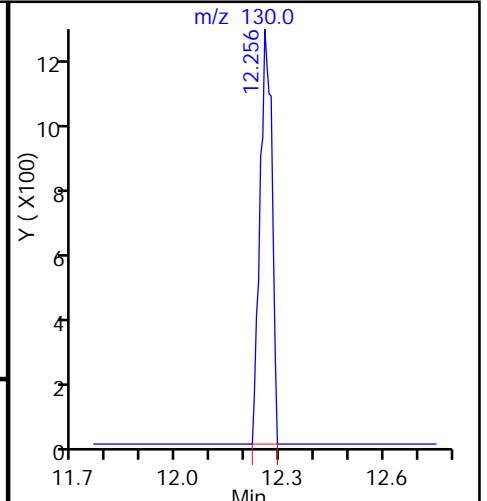
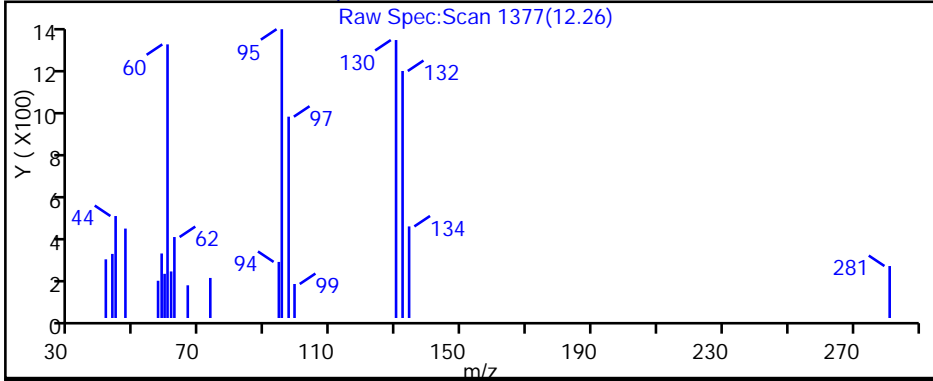
Method: TO15_ATMS2N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

76 Trichloroethene, CAS: 79-01-6



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

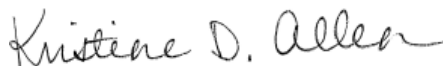
ANALYTICAL REPORT

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

TestAmerica Job ID: 580-47775-1
Client Project/Site: GE - Kenai, AK

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

Attn: Mr. Matthew Pelton



Authorized for release by:
3/20/2015 5:25:18 PM

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

LINKS

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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.

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Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Job ID: 580-47775-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-47775-1

Comments

No additional comments.

Receipt

The samples were received on 3/6/2015 3:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

Except:

A trip blank is listed on the Chain of Custody (COC); however, no volume was received: Trip Blank (580-47775-7).

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): MW-5 (580-47775-5). The container labels list a sample collection time of 1836, while the COC lists 1846. The sample was logged in per the COC.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) for batch 184035 recovered outside control limits for the following analytes: Dichlorobromomethane, Ethylene Dibromide, Methyl tert-butyl ether. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The laboratory control sample duplicate (LCSD) for batch 184035 recovered outside control limits for the following analytes: Dibromomethane, Dichlorobromomethane, Benzene, Ethylene Dibromide, 1,2-Dichloropropane, Methyl tert-butyl ether. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: MW-5 (580-47775-5). 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: In analysis batch 184136, the following sample from preparation batch 184067 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was a mixture of earlier and later TPH products than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-5 (580-47775-5).

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.

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
F1	MS and/or MSD Recovery exceeds the control limits

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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 Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-1

Lab Sample ID: 580-47775-1

Date Collected: 03/02/15 16:10

Matrix: Water

Date Received: 03/06/15 15:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			03/10/15 17:29	1
Chloromethane	ND		5.0		ug/L			03/10/15 17:29	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 17:29	1
Bromomethane	ND		5.0		ug/L			03/10/15 17:29	1
Chloroethane	ND		5.0		ug/L			03/10/15 17:29	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 17:29	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 17:29	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 17:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 17:29	1
1,1-Dichloroethane	4.6		2.0		ug/L			03/10/15 17:29	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 17:29	1
cis-1,2-Dichloroethene	27		1.0		ug/L			03/10/15 17:29	1
Chlorobromomethane	ND		2.0		ug/L			03/10/15 17:29	1
Chloroform	ND		1.0		ug/L			03/10/15 17:29	1
1,1,1-Trichloroethane	4.5		3.0		ug/L			03/10/15 17:29	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 17:29	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 17:29	1
Benzene	ND	*	2.0		ug/L			03/10/15 17:29	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 17:29	1
Trichloroethene	21		3.0		ug/L			03/10/15 17:29	1
1,2-Dichloropropane	ND	*	1.0		ug/L			03/10/15 17:29	1
Dibromomethane	ND	*	1.0		ug/L			03/10/15 17:29	1
Dichlorobromomethane	ND	*	2.0		ug/L			03/10/15 17:29	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 17:29	1
Toluene	ND		2.0		ug/L			03/10/15 17:29	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 17:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 17:29	1
Tetrachloroethene	59		3.0		ug/L			03/10/15 17:29	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 17:29	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 17:29	1
Ethylene Dibromide	ND	*	1.0		ug/L			03/10/15 17:29	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 17:29	1
Ethylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 17:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 17:29	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/10/15 17:29	1
o-Xylene	ND		2.0		ug/L			03/10/15 17:29	1
Styrene	ND		5.0		ug/L			03/10/15 17:29	1
Bromoform	ND		1.0		ug/L			03/10/15 17:29	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 17:29	1
Bromobenzene	ND		2.0		ug/L			03/10/15 17:29	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 17:29	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 17:29	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 17:29	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
sec-Butylbenzene	ND		3.0		ug/L			03/10/15 17:29	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-1

Lab Sample ID: 580-47775-1

Date Collected: 03/02/15 16:10

Matrix: Water

Date Received: 03/06/15 15:50

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			03/10/15 17:29	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 17:29	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/10/15 17:29	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 17:29	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 17:29	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 17:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 17:29	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 17:29	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 17:29	1
Naphthalene	ND		2.0		ug/L			03/10/15 17:29	1
Methyl tert-butyl ether	ND	*	1.0		ug/L			03/10/15 17:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		85 - 120					03/10/15 17:29	1
4-Bromofluorobenzene (Surr)	95		75 - 120					03/10/15 17:29	1
Dibromofluoromethane (Surr)	103		85 - 115					03/10/15 17:29	1
Trifluorotoluene (Surr)	102		70 - 136					03/10/15 17:29	1
1,2-Dichloroethane-d4 (Surr)	94		70 - 120					03/10/15 17:29	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: BD-1

Lab Sample ID: 580-47775-2

Date Collected: 03/02/15 00:01

Matrix: Water

Date Received: 03/06/15 15:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			03/10/15 17:56	1
Chloromethane	ND		5.0		ug/L			03/10/15 17:56	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 17:56	1
Bromomethane	ND		5.0		ug/L			03/10/15 17:56	1
Chloroethane	ND		5.0		ug/L			03/10/15 17:56	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 17:56	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 17:56	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 17:56	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 17:56	1
1,1-Dichloroethane	4.4		2.0		ug/L			03/10/15 17:56	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 17:56	1
cis-1,2-Dichloroethene	25		1.0		ug/L			03/10/15 17:56	1
Chlorobromomethane	ND		2.0		ug/L			03/10/15 17:56	1
Chloroform	ND		1.0		ug/L			03/10/15 17:56	1
1,1,1-Trichloroethane	4.2		3.0		ug/L			03/10/15 17:56	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 17:56	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 17:56	1
Benzene	ND	*	2.0		ug/L			03/10/15 17:56	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 17:56	1
Trichloroethene	21		3.0		ug/L			03/10/15 17:56	1
1,2-Dichloropropane	ND	*	1.0		ug/L			03/10/15 17:56	1
Dibromomethane	ND	*	1.0		ug/L			03/10/15 17:56	1
Dichlorobromomethane	ND	*	2.0		ug/L			03/10/15 17:56	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 17:56	1
Toluene	ND		2.0		ug/L			03/10/15 17:56	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 17:56	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 17:56	1
Tetrachloroethene	51		3.0		ug/L			03/10/15 17:56	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 17:56	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 17:56	1
Ethylene Dibromide	ND	*	1.0		ug/L			03/10/15 17:56	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 17:56	1
Ethylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 17:56	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 17:56	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/10/15 17:56	1
o-Xylene	ND		2.0		ug/L			03/10/15 17:56	1
Styrene	ND		5.0		ug/L			03/10/15 17:56	1
Bromoform	ND		1.0		ug/L			03/10/15 17:56	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 17:56	1
Bromobenzene	ND		2.0		ug/L			03/10/15 17:56	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 17:56	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 17:56	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 17:56	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
sec-Butylbenzene	ND		3.0		ug/L			03/10/15 17:56	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: BD-1

Lab Sample ID: 580-47775-2

Date Collected: 03/02/15 00:01

Matrix: Water

Date Received: 03/06/15 15:50

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			03/10/15 17:56	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 17:56	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/10/15 17:56	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 17:56	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 17:56	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 17:56	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 17:56	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 17:56	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 17:56	1
Naphthalene	ND		2.0		ug/L			03/10/15 17:56	1
Methyl tert-butyl ether	ND	*	1.0		ug/L			03/10/15 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		85 - 120					03/10/15 17:56	1
4-Bromofluorobenzene (Surr)	98		75 - 120					03/10/15 17:56	1
Dibromofluoromethane (Surr)	99		85 - 115					03/10/15 17:56	1
Trifluorotoluene (Surr)	96		70 - 136					03/10/15 17:56	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120					03/10/15 17:56	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-2
Date Collected: 03/02/15 17:00
Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-3
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			03/10/15 20:36	1
Chloromethane	ND		5.0		ug/L			03/10/15 20:36	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 20:36	1
Bromomethane	ND		5.0		ug/L			03/10/15 20:36	1
Chloroethane	ND		5.0		ug/L			03/10/15 20:36	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 20:36	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 20:36	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 20:36	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 20:36	1
1,1-Dichloroethane	4.9		2.0		ug/L			03/10/15 20:36	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 20:36	1
cis-1,2-Dichloroethene	170		100		ug/L			03/12/15 14:03	100
Chlorobromomethane	ND		2.0		ug/L			03/10/15 20:36	1
Chloroform	ND		1.0		ug/L			03/10/15 20:36	1
1,1,1-Trichloroethane	ND		3.0		ug/L			03/10/15 20:36	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 20:36	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 20:36	1
Benzene	ND	*	2.0		ug/L			03/10/15 20:36	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 20:36	1
Trichloroethene	ND		3.0		ug/L			03/10/15 20:36	1
1,2-Dichloropropane	ND	*	1.0		ug/L			03/10/15 20:36	1
Dibromomethane	ND	*	1.0		ug/L			03/10/15 20:36	1
Dichlorobromomethane	ND	*	2.0		ug/L			03/10/15 20:36	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 20:36	1
Toluene	9.3		2.0		ug/L			03/10/15 20:36	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 20:36	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 20:36	1
Tetrachloroethene	ND		3.0		ug/L			03/10/15 20:36	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 20:36	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 20:36	1
Ethylene Dibromide	ND	*	1.0		ug/L			03/10/15 20:36	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 20:36	1
Ethylbenzene	420		300		ug/L			03/12/15 14:03	100
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 20:36	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 20:36	1
m-Xylene & p-Xylene	310		300		ug/L			03/12/15 14:03	100
o-Xylene	370		200		ug/L			03/12/15 14:03	100
Styrene	ND		5.0		ug/L			03/10/15 20:36	1
Bromoform	ND		1.0		ug/L			03/10/15 20:36	1
Isopropylbenzene	9.3		2.0		ug/L			03/10/15 20:36	1
Bromobenzene	ND		2.0		ug/L			03/10/15 20:36	1
N-Propylbenzene	6.7		3.0		ug/L			03/10/15 20:36	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 20:36	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 20:36	1
1,3,5-Trimethylbenzene	24		3.0		ug/L			03/10/15 20:36	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 20:36	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 20:36	1
1,2,4-Trimethylbenzene	84		3.0		ug/L			03/10/15 20:36	1
sec-Butylbenzene	4.7		3.0		ug/L			03/10/15 20:36	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-2

Lab Sample ID: 580-47775-3

Date Collected: 03/02/15 17:00

Matrix: Water

Date Received: 03/06/15 15:50

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			03/10/15 20:36	1
4-Isopropyltoluene	3.1		3.0		ug/L			03/10/15 20:36	1
1,4-Dichlorobenzene	2.0		2.0		ug/L			03/10/15 20:36	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 20:36	1
1,2-Dichlorobenzene	5.8		2.0		ug/L			03/10/15 20:36	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 20:36	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 20:36	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 20:36	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 20:36	1
Naphthalene	6.0		2.0		ug/L			03/10/15 20:36	1
Methyl tert-butyl ether	ND *		1.0		ug/L			03/10/15 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		03/10/15 20:36	1
Toluene-d8 (Surr)	101		85 - 120		03/12/15 14:03	100
4-Bromofluorobenzene (Surr)	98		75 - 120		03/10/15 20:36	1
4-Bromofluorobenzene (Surr)	97		75 - 120		03/12/15 14:03	100
Dibromofluoromethane (Surr)	100		85 - 115		03/10/15 20:36	1
Dibromofluoromethane (Surr)	100		85 - 115		03/12/15 14:03	100
Trifluorotoluene (Surr)	98		70 - 136		03/10/15 20:36	1
Trifluorotoluene (Surr)	102		70 - 136		03/12/15 14:03	100
1,2-Dichloroethane-d4 (Surr)	96		70 - 120		03/10/15 20:36	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 120		03/12/15 14:03	100

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-4
Date Collected: 03/02/15 17:47
Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-4
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			03/10/15 18:23	1
Chloromethane	ND		5.0		ug/L			03/10/15 18:23	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 18:23	1
Bromomethane	ND		5.0		ug/L			03/10/15 18:23	1
Chloroethane	ND		5.0		ug/L			03/10/15 18:23	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 18:23	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 18:23	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 18:23	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 18:23	1
1,1-Dichloroethane	ND		2.0		ug/L			03/10/15 18:23	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 18:23	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 18:23	1
Chlorobromomethane	ND		2.0		ug/L			03/10/15 18:23	1
Chloroform	ND		1.0		ug/L			03/10/15 18:23	1
1,1,1-Trichloroethane	3.2		3.0		ug/L			03/10/15 18:23	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 18:23	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 18:23	1
Benzene	ND	*	2.0		ug/L			03/10/15 18:23	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 18:23	1
Trichloroethene	3.3		3.0		ug/L			03/10/15 18:23	1
1,2-Dichloropropane	ND	*	1.0		ug/L			03/10/15 18:23	1
Dibromomethane	ND	*	1.0		ug/L			03/10/15 18:23	1
Dichlorobromomethane	ND	*	2.0		ug/L			03/10/15 18:23	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 18:23	1
Toluene	ND		2.0		ug/L			03/10/15 18:23	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 18:23	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 18:23	1
Tetrachloroethene	13		3.0		ug/L			03/10/15 18:23	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 18:23	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 18:23	1
Ethylene Dibromide	ND	*	1.0		ug/L			03/10/15 18:23	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 18:23	1
Ethylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 18:23	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 18:23	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/10/15 18:23	1
o-Xylene	ND		2.0		ug/L			03/10/15 18:23	1
Styrene	ND		5.0		ug/L			03/10/15 18:23	1
Bromoform	ND		1.0		ug/L			03/10/15 18:23	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 18:23	1
Bromobenzene	ND		2.0		ug/L			03/10/15 18:23	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 18:23	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 18:23	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 18:23	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
sec-Butylbenzene	ND		3.0		ug/L			03/10/15 18:23	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-4

Lab Sample ID: 580-47775-4

Date Collected: 03/02/15 17:47

Matrix: Water

Date Received: 03/06/15 15:50

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			03/10/15 18:23	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 18:23	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/10/15 18:23	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 18:23	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 18:23	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 18:23	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 18:23	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 18:23	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 18:23	1
Naphthalene	ND		2.0		ug/L			03/10/15 18:23	1
Methyl tert-butyl ether	ND	*	1.0		ug/L			03/10/15 18:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120					03/10/15 18:23	1
4-Bromofluorobenzene (Surr)	92		75 - 120					03/10/15 18:23	1
Dibromofluoromethane (Surr)	105		85 - 115					03/10/15 18:23	1
Trifluorotoluene (Surr)	101		70 - 136					03/10/15 18:23	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120					03/10/15 18:23	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-5
Date Collected: 03/02/15 18:46
Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-5
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			03/10/15 19:16	1
Chloromethane	ND		5.0		ug/L			03/10/15 19:16	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 19:16	1
Bromomethane	ND		5.0		ug/L			03/10/15 19:16	1
Chloroethane	ND		5.0		ug/L			03/10/15 19:16	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 19:16	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 19:16	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 19:16	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 19:16	1
1,1-Dichloroethane	ND		2.0		ug/L			03/10/15 19:16	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 19:16	1
Chlorobromomethane	ND	F1	2.0		ug/L			03/10/15 19:16	1
Chloroform	ND		1.0		ug/L			03/10/15 19:16	1
1,1,1-Trichloroethane	ND		3.0		ug/L			03/10/15 19:16	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 19:16	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 19:16	1
Benzene	ND	* F1	2.0		ug/L			03/10/15 19:16	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 19:16	1
Trichloroethene	ND	F1	3.0		ug/L			03/10/15 19:16	1
1,2-Dichloropropane	ND	* F1	1.0		ug/L			03/10/15 19:16	1
Dibromomethane	ND	* F1	1.0		ug/L			03/10/15 19:16	1
Dichlorobromomethane	ND	* F1	2.0		ug/L			03/10/15 19:16	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 19:16	1
Toluene	ND		2.0		ug/L			03/10/15 19:16	1
trans-1,3-Dichloropropene	ND	F1	1.0		ug/L			03/10/15 19:16	1
1,1,2-Trichloroethane	ND	F1	1.0		ug/L			03/10/15 19:16	1
Tetrachloroethene	3.0		3.0		ug/L			03/10/15 19:16	1
1,3-Dichloropropane	ND	F1	1.0		ug/L			03/10/15 19:16	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 19:16	1
Ethylene Dibromide	ND	* F1	1.0		ug/L			03/10/15 19:16	1
Chlorobenzene	ND	F1	2.0		ug/L			03/10/15 19:16	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 19:16	1
1,1,2,2-Tetrachloroethane	ND	F1	1.0		ug/L			03/10/15 19:16	1
Styrene	ND		5.0		ug/L			03/10/15 19:16	1
Bromoform	ND		1.0		ug/L			03/10/15 19:16	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 19:16	1
Bromobenzene	ND		2.0		ug/L			03/10/15 19:16	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 19:16	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 19:16	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 19:16	1
1,3,5-Trimethylbenzene	22	F1	3.0		ug/L			03/10/15 19:16	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 19:16	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 19:16	1
1,2,4-Trimethylbenzene	32	F1	3.0		ug/L			03/10/15 19:16	1
sec-Butylbenzene	ND		3.0		ug/L			03/10/15 19:16	1
1,3-Dichlorobenzene	ND		2.0		ug/L			03/10/15 19:16	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 19:16	1
1,4-Dichlorobenzene	5.0	F1	2.0		ug/L			03/10/15 19:16	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 19:16	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-5

Lab Sample ID: 580-47775-5

Date Collected: 03/02/15 18:46

Matrix: Water

Date Received: 03/06/15 15:50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 19:16	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 19:16	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 19:16	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 19:16	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 19:16	1
Naphthalene	ND		2.0		ug/L			03/10/15 19:16	1
Methyl tert-butyl ether	ND	* F1	1.0		ug/L			03/10/15 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		85 - 120		03/10/15 19:16	1
4-Bromofluorobenzene (Surr)	96		75 - 120		03/10/15 19:16	1
Dibromofluoromethane (Surr)	104		85 - 115		03/10/15 19:16	1
Trifluorotoluene (Surr)	100		70 - 136		03/10/15 19:16	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 120		03/10/15 19:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	520	F1	10		ug/L			03/12/15 18:57	10
Ethylbenzene	180	F1	30		ug/L			03/12/15 18:57	10
m-Xylene & p-Xylene	250	F1	30		ug/L			03/12/15 18:57	10
o-Xylene	99	F1	20		ug/L			03/12/15 18:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120		03/12/15 18:57	10
4-Bromofluorobenzene (Surr)	95		75 - 120		03/12/15 18:57	10
Dibromofluoromethane (Surr)	105		85 - 115		03/12/15 18:57	10
Trifluorotoluene (Surr)	103		70 - 136		03/12/15 18:57	10
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		03/12/15 18:57	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	1.3		0.050		mg/L			03/10/15 15:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	107		50 - 150		03/10/15 15:52	1
4-Bromofluorobenzene (Surr)	129		50 - 150		03/10/15 15:52	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)	0.69	Y	0.097		mg/L		03/10/15 14:14	03/11/15 22:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		50 - 150		03/10/15 14:14	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-7
Date Collected: 03/02/15 19:24
Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-6
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			03/10/15 18:49	1
Chloromethane	ND		5.0		ug/L			03/10/15 18:49	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 18:49	1
Bromomethane	ND		5.0		ug/L			03/10/15 18:49	1
Chloroethane	ND		5.0		ug/L			03/10/15 18:49	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 18:49	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 18:49	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 18:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 18:49	1
1,1-Dichloroethane	ND		2.0		ug/L			03/10/15 18:49	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 18:49	1
cis-1,2-Dichloroethene	1.5		1.0		ug/L			03/10/15 18:49	1
Chlorobromomethane	ND		2.0		ug/L			03/10/15 18:49	1
Chloroform	ND		1.0		ug/L			03/10/15 18:49	1
1,1,1-Trichloroethane	ND		3.0		ug/L			03/10/15 18:49	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 18:49	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 18:49	1
Benzene	ND	*	2.0		ug/L			03/10/15 18:49	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 18:49	1
Trichloroethene	ND		3.0		ug/L			03/10/15 18:49	1
1,2-Dichloropropane	ND	*	1.0		ug/L			03/10/15 18:49	1
Dibromomethane	ND	*	1.0		ug/L			03/10/15 18:49	1
Dichlorobromomethane	ND	*	2.0		ug/L			03/10/15 18:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 18:49	1
Toluene	ND		2.0		ug/L			03/10/15 18:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 18:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 18:49	1
Tetrachloroethene	18		3.0		ug/L			03/10/15 18:49	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 18:49	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 18:49	1
Ethylene Dibromide	ND	*	1.0		ug/L			03/10/15 18:49	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 18:49	1
Ethylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 18:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 18:49	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/10/15 18:49	1
o-Xylene	ND		2.0		ug/L			03/10/15 18:49	1
Styrene	ND		5.0		ug/L			03/10/15 18:49	1
Bromoform	ND		1.0		ug/L			03/10/15 18:49	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 18:49	1
Bromobenzene	ND		2.0		ug/L			03/10/15 18:49	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 18:49	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 18:49	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 18:49	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
sec-Butylbenzene	ND		3.0		ug/L			03/10/15 18:49	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-7

Lab Sample ID: 580-47775-6

Date Collected: 03/02/15 19:24

Matrix: Water

Date Received: 03/06/15 15:50

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			03/10/15 18:49	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 18:49	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/10/15 18:49	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 18:49	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 18:49	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 18:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 18:49	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 18:49	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 18:49	1
Naphthalene	ND		2.0		ug/L			03/10/15 18:49	1
Methyl tert-butyl ether	ND	*	1.0		ug/L			03/10/15 18:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		85 - 120					03/10/15 18:49	1
4-Bromofluorobenzene (Surr)	95		75 - 120					03/10/15 18:49	1
Dibromofluoromethane (Surr)	104		85 - 115					03/10/15 18:49	1
Trifluorotoluene (Surr)	92		70 - 136					03/10/15 18:49	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120					03/10/15 18:49	1

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: MB 580-184035/3

Matrix: Water

Analysis Batch: 184035

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			03/10/15 10:49	1
Chloromethane	ND		5.0		ug/L			03/10/15 10:49	1
Vinyl chloride	ND		1.0		ug/L			03/10/15 10:49	1
Bromomethane	ND		5.0		ug/L			03/10/15 10:49	1
Chloroethane	ND		5.0		ug/L			03/10/15 10:49	1
Trichlorofluoromethane	ND		3.0		ug/L			03/10/15 10:49	1
1,1-Dichloroethene	ND		2.0		ug/L			03/10/15 10:49	1
Methylene Chloride	ND		5.0		ug/L			03/10/15 10:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 10:49	1
1,1-Dichloroethane	ND		2.0		ug/L			03/10/15 10:49	1
2,2-Dichloropropane	ND		3.0		ug/L			03/10/15 10:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/10/15 10:49	1
Chlorobromomethane	ND		2.0		ug/L			03/10/15 10:49	1
Chloroform	ND		1.0		ug/L			03/10/15 10:49	1
1,1,1-Trichloroethane	ND		3.0		ug/L			03/10/15 10:49	1
Carbon tetrachloride	ND		3.0		ug/L			03/10/15 10:49	1
1,1-Dichloropropene	ND		3.0		ug/L			03/10/15 10:49	1
Benzene	ND		2.0		ug/L			03/10/15 10:49	1
1,2-Dichloroethane	ND		1.0		ug/L			03/10/15 10:49	1
Trichloroethene	ND		3.0		ug/L			03/10/15 10:49	1
1,2-Dichloropropane	ND		1.0		ug/L			03/10/15 10:49	1
Dibromomethane	ND		1.0		ug/L			03/10/15 10:49	1
Dichlorobromomethane	ND		2.0		ug/L			03/10/15 10:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 10:49	1
Toluene	ND		2.0		ug/L			03/10/15 10:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/10/15 10:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/10/15 10:49	1
Tetrachloroethene	ND		3.0		ug/L			03/10/15 10:49	1
1,3-Dichloropropane	ND		1.0		ug/L			03/10/15 10:49	1
Chlorodibromomethane	ND		1.0		ug/L			03/10/15 10:49	1
Ethylene Dibromide	ND		1.0		ug/L			03/10/15 10:49	1
Chlorobenzene	ND		2.0		ug/L			03/10/15 10:49	1
Ethylbenzene	ND		3.0		ug/L			03/10/15 10:49	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/10/15 10:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/10/15 10:49	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/10/15 10:49	1
o-Xylene	ND		2.0		ug/L			03/10/15 10:49	1
Styrene	ND		5.0		ug/L			03/10/15 10:49	1
Bromoform	ND		1.0		ug/L			03/10/15 10:49	1
Isopropylbenzene	ND		2.0		ug/L			03/10/15 10:49	1
Bromobenzene	ND		2.0		ug/L			03/10/15 10:49	1
N-Propylbenzene	ND		3.0		ug/L			03/10/15 10:49	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/10/15 10:49	1
2-Chlorotoluene	ND		3.0		ug/L			03/10/15 10:49	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/10/15 10:49	1
4-Chlorotoluene	ND		2.0		ug/L			03/10/15 10:49	1
tert-Butylbenzene	ND		3.0		ug/L			03/10/15 10:49	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/10/15 10:49	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: MB 580-184035/3

Matrix: Water

Analysis Batch: 184035

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			03/10/15 10:49	1
1,3-Dichlorobenzene	ND		2.0		ug/L			03/10/15 10:49	1
4-Isopropyltoluene	ND		3.0		ug/L			03/10/15 10:49	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/10/15 10:49	1
n-Butylbenzene	ND		3.0		ug/L			03/10/15 10:49	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/10/15 10:49	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/10/15 10:49	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/10/15 10:49	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/10/15 10:49	1
Hexachlorobutadiene	ND		2.0		ug/L			03/10/15 10:49	1
Naphthalene	ND		2.0		ug/L			03/10/15 10:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/10/15 10:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		03/10/15 10:49	1
4-Bromofluorobenzene (Surr)	94		75 - 120		03/10/15 10:49	1
Dibromofluoromethane (Surr)	105		85 - 115		03/10/15 10:49	1
Trifluorotoluene (Surr)	104		70 - 136		03/10/15 10:49	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 120		03/10/15 10:49	1

Lab Sample ID: LCS 580-184035/4

Matrix: Water

Analysis Batch: 184035

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	25.4		ug/L		127	30 - 155
Chloromethane	20.0	25.0		ug/L		125	40 - 125
Vinyl chloride	20.0	23.0		ug/L		115	50 - 145
Bromomethane	20.0	24.1		ug/L		121	30 - 145
Chloroethane	20.0	23.2		ug/L		116	60 - 135
Trichlorofluoromethane	20.0	22.5		ug/L		113	60 - 145
1,1-Dichloroethene	20.0	22.3		ug/L		112	70 - 130
Methylene Chloride	20.0	23.6		ug/L		118	55 - 140
trans-1,2-Dichloroethene	20.0	22.3		ug/L		112	60 - 140
1,1-Dichloroethane	20.0	23.5		ug/L		117	70 - 135
2,2-Dichloropropane	20.0	23.7		ug/L		118	70 - 135
cis-1,2-Dichloroethene	20.0	23.2		ug/L		116	70 - 125
Chlorobromomethane	20.0	24.7		ug/L		123	65 - 130
Chloroform	20.0	23.3		ug/L		116	65 - 135
1,1,1-Trichloroethane	20.0	22.7		ug/L		114	65 - 130
Carbon tetrachloride	20.0	22.8		ug/L		114	65 - 140
1,1-Dichloropropene	20.0	23.4		ug/L		117	75 - 130
Benzene	20.0	23.4		ug/L		117	80 - 120
1,2-Dichloroethane	20.0	24.0		ug/L		120	70 - 130
Trichloroethene	20.0	23.1		ug/L		116	70 - 125
1,2-Dichloropropane	20.0	23.4		ug/L		117	75 - 125
Dibromomethane	20.0	24.5		ug/L		123	75 - 125
Dichlorobromomethane	20.0	24.3	*	ug/L		121	75 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCS 580-184035/4

Matrix: Water

Analysis Batch: 184035

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	23.0		ug/L		115	70 - 130
Toluene	20.0	22.5		ug/L		112	75 - 120
trans-1,3-Dichloropropene	20.0	25.4		ug/L		127	55 - 140
1,1,2-Trichloroethane	20.0	23.5		ug/L		117	75 - 125
Tetrachloroethene	20.0	21.8		ug/L		109	45 - 150
1,3-Dichloropropane	20.0	23.4		ug/L		117	75 - 125
Chlorodibromomethane	20.0	24.6		ug/L		123	60 - 135
Ethylene Dibromide	20.0	24.4	*	ug/L		122	80 - 120
Chlorobenzene	20.0	22.4		ug/L		112	80 - 120
Ethylbenzene	20.0	22.5		ug/L		113	75 - 125
1,1,1,2-Tetrachloroethane	20.0	24.6		ug/L		123	80 - 130
1,1,2,2-Tetrachloroethane	20.0	25.3		ug/L		126	65 - 130
m-Xylene & p-Xylene	20.0	22.8		ug/L		114	75 - 130
o-Xylene	20.0	22.7		ug/L		113	80 - 120
Styrene	20.0	23.5		ug/L		118	65 - 135
Bromoform	20.0	22.5		ug/L		112	70 - 130
Isopropylbenzene	20.0	23.5		ug/L		117	75 - 125
Bromobenzene	20.0	22.6		ug/L		113	75 - 125
N-Propylbenzene	20.0	22.8		ug/L		114	70 - 130
1,2,3-Trichloropropane	20.0	24.0		ug/L		120	75 - 125
2-Chlorotoluene	20.0	22.9		ug/L		114	75 - 125
1,3,5-Trimethylbenzene	20.0	25.2		ug/L		126	75 - 130
4-Chlorotoluene	20.0	22.1		ug/L		110	75 - 130
tert-Butylbenzene	20.0	23.7		ug/L		118	70 - 130
1,2,4-Trimethylbenzene	20.0	24.8		ug/L		124	75 - 130
sec-Butylbenzene	20.0	23.6		ug/L		118	70 - 125
1,3-Dichlorobenzene	20.0	21.9		ug/L		110	75 - 125
4-Isopropyltoluene	20.0	24.5		ug/L		122	75 - 130
1,4-Dichlorobenzene	20.0	22.8		ug/L		114	75 - 125
n-Butylbenzene	20.0	23.4		ug/L		117	70 - 135
1,2-Dichlorobenzene	20.0	22.3		ug/L		111	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	24.9		ug/L		124	50 - 130
1,2,4-Trichlorobenzene	20.0	23.8		ug/L		119	65 - 135
1,2,3-Trichlorobenzene	20.0	26.2		ug/L		131	55 - 140
Hexachlorobutadiene	20.0	22.3		ug/L		111	50 - 140
Naphthalene	20.0	24.8		ug/L		124	55 - 140
Methyl tert-butyl ether	20.0	25.2	*	ug/L		126	65 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	99		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	102		85 - 115
Trifluorotoluene (Surr)	98		70 - 136
1,2-Dichloroethane-d4 (Surr)	104		70 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCSD 580-184035/5

Matrix: Water

Analysis Batch: 184035

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	23.8		ug/L		119	30 - 155	6	30
Chloromethane	20.0	23.9		ug/L		120	40 - 125	4	30
Vinyl chloride	20.0	22.1		ug/L		111	50 - 145	4	30
Bromomethane	20.0	23.4		ug/L		117	30 - 145	3	30
Chloroethane	20.0	22.7		ug/L		114	60 - 135	2	30
Trichlorofluoromethane	20.0	21.9		ug/L		110	60 - 145	3	30
1,1-Dichloroethene	20.0	22.3		ug/L		111	70 - 130	0	30
Methylene Chloride	20.0	23.8		ug/L		119	55 - 140	1	30
trans-1,2-Dichloroethene	20.0	22.6		ug/L		113	60 - 140	1	30
1,1-Dichloroethane	20.0	24.0		ug/L		120	70 - 135	2	30
2,2-Dichloropropane	20.0	23.5		ug/L		118	70 - 135	1	30
cis-1,2-Dichloroethene	20.0	23.6		ug/L		118	70 - 125	2	30
Chlorobromomethane	20.0	25.1		ug/L		126	65 - 130	2	30
Chloroform	20.0	23.7		ug/L		118	65 - 135	2	30
1,1,1-Trichloroethane	20.0	22.7		ug/L		114	65 - 130	0	30
Carbon tetrachloride	20.0	22.6		ug/L		113	65 - 140	1	30
1,1-Dichloropropene	20.0	24.3		ug/L		122	75 - 130	4	30
Benzene	20.0	24.5 *		ug/L		122	80 - 120	5	30
1,2-Dichloroethane	20.0	24.9		ug/L		125	70 - 130	4	30
Trichloroethene	20.0	24.6		ug/L		123	70 - 125	6	30
1,2-Dichloropropane	20.0	25.3 *		ug/L		126	75 - 125	8	30
Dibromomethane	20.0	25.5 *		ug/L		127	75 - 125	4	30
Dichlorobromomethane	20.0	25.8 *		ug/L		129	75 - 120	6	30
cis-1,3-Dichloropropene	20.0	25.0		ug/L		125	70 - 130	8	30
Toluene	20.0	23.3		ug/L		117	75 - 120	4	30
trans-1,3-Dichloropropene	20.0	27.4		ug/L		137	55 - 140	8	30
1,1,2-Trichloroethane	20.0	25.1		ug/L		125	75 - 125	7	30
Tetrachloroethene	20.0	23.0		ug/L		115	45 - 150	5	30
1,3-Dichloropropane	20.0	25.0		ug/L		125	75 - 125	6	30
Chlorodibromomethane	20.0	26.0		ug/L		130	60 - 135	5	30
Ethylene Dibromide	20.0	25.3 *		ug/L		127	80 - 120	4	30
Chlorobenzene	20.0	23.8		ug/L		119	80 - 120	6	30
Ethylbenzene	20.0	23.5		ug/L		118	75 - 125	4	30
1,1,1,2-Tetrachloroethane	20.0	25.1		ug/L		125	80 - 130	2	30
1,1,2,2-Tetrachloroethane	20.0	25.4		ug/L		127	65 - 130	1	30
m-Xylene & p-Xylene	20.0	23.8		ug/L		119	75 - 130	4	30
o-Xylene	20.0	23.9		ug/L		120	80 - 120	5	30
Styrene	20.0	25.3		ug/L		126	65 - 135	7	30
Bromoform	20.0	23.7		ug/L		119	70 - 130	5	30
Isopropylbenzene	20.0	24.3		ug/L		122	75 - 125	4	30
Bromobenzene	20.0	24.0		ug/L		120	75 - 125	6	30
N-Propylbenzene	20.0	23.7		ug/L		118	70 - 130	4	30
1,2,3-Trichloropropane	20.0	24.2		ug/L		121	75 - 125	1	30
2-Chlorotoluene	20.0	23.5		ug/L		118	75 - 125	3	30
1,3,5-Trimethylbenzene	20.0	25.7		ug/L		128	75 - 130	2	30
4-Chlorotoluene	20.0	23.5		ug/L		118	75 - 130	6	30
tert-Butylbenzene	20.0	24.8		ug/L		124	70 - 130	5	30
1,2,4-Trimethylbenzene	20.0	25.5		ug/L		128	75 - 130	3	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCSD 580-184035/5

Matrix: Water

Analysis Batch: 184035

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	24.0		ug/L		120	70 - 125	2	30
1,3-Dichlorobenzene	20.0	23.1		ug/L		116	75 - 125	5	30
4-Isopropyltoluene	20.0	25.0		ug/L		125	75 - 130	2	30
1,4-Dichlorobenzene	20.0	23.9		ug/L		119	75 - 125	5	30
n-Butylbenzene	20.0	24.0		ug/L		120	70 - 135	2	30
1,2-Dichlorobenzene	20.0	23.3		ug/L		117	70 - 120	5	30
1,2-Dibromo-3-Chloropropane	20.0	24.7		ug/L		124	50 - 130	1	30
1,2,4-Trichlorobenzene	20.0	24.2		ug/L		121	65 - 135	2	30
1,2,3-Trichlorobenzene	20.0	26.0		ug/L		130	55 - 140	1	30
Hexachlorobutadiene	20.0	22.0		ug/L		110	50 - 140	1	30
Naphthalene	20.0	24.4		ug/L		122	55 - 140	1	30
Methyl tert-butyl ether	20.0	25.9	*	ug/L		129	65 - 125	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Toluene-d8 (Surr)	99		85 - 120
4-Bromofluorobenzene (Surr)	100		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	98		70 - 136
1,2-Dichloroethane-d4 (Surr)	101		70 - 120

Lab Sample ID: 580-47775-5 MS

Matrix: Water

Analysis Batch: 184035

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	ND		20.0	22.2		ug/L		111	30 - 155
Chloromethane	ND		20.0	23.0		ug/L		115	40 - 125
Vinyl chloride	ND		20.0	21.2		ug/L		106	50 - 145
Bromomethane	ND		20.0	21.8		ug/L		109	30 - 145
Chloroethane	ND		20.0	22.7		ug/L		114	60 - 135
Trichlorofluoromethane	ND		20.0	20.3		ug/L		101	60 - 145
1,1-Dichloroethene	ND		20.0	23.7		ug/L		113	70 - 130
Methylene Chloride	ND		20.0	24.3		ug/L		121	55 - 140
trans-1,2-Dichloroethene	ND		20.0	22.3		ug/L		112	60 - 140
1,1-Dichloroethane	ND		20.0	24.1		ug/L		120	70 - 135
2,2-Dichloropropane	ND		20.0	19.1		ug/L		95	70 - 135
Chlorobromomethane	ND	F1	20.0	27.1	F1	ug/L		135	65 - 130
Chloroform	ND		20.0	23.5		ug/L		118	65 - 135
1,1,1-Trichloroethane	ND		20.0	22.0		ug/L		110	65 - 130
Carbon tetrachloride	ND		20.0	21.2		ug/L		106	65 - 140
1,1-Dichloropropene	ND		20.0	24.0		ug/L		120	75 - 130
Benzene	ND	* F1	20.0	25.3	F1	ug/L		127	80 - 120
1,2-Dichloroethane	ND		20.0	25.4		ug/L		127	70 - 130
Trichloroethene	ND	F1	20.0	27.5	F1	ug/L		130	70 - 125
1,2-Dichloropropane	ND	* F1	20.0	26.9	F1	ug/L		135	75 - 125
Dibromomethane	ND	* F1	20.0	27.3	F1	ug/L		137	75 - 125
Dichlorobromomethane	ND	* F1	20.0	27.0	F1	ug/L		135	75 - 120
cis-1,3-Dichloropropene	ND		20.0	25.6		ug/L		128	70 - 130

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: 580-47775-5 MS

Matrix: Water

Analysis Batch: 184035

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Toluene	ND		20.0	25.1		ug/L		116	75 - 120
trans-1,3-Dichloropropene	ND	F1	20.0	29.4	F1	ug/L		147	55 - 140
1,1,2-Trichloroethane	ND	F1	20.0	26.1	F1	ug/L		131	75 - 125
Tetrachloroethene	3.0		20.0	25.4		ug/L		112	45 - 150
1,3-Dichloropropane	ND	F1	20.0	26.9	F1	ug/L		134	75 - 125
Chlorodibromomethane	ND		20.0	26.8		ug/L		134	60 - 135
Ethylene Dibromide	ND	* F1	20.0	27.7	F1	ug/L		139	80 - 120
Chlorobenzene	ND	F1	20.0	24.9	F1	ug/L		125	80 - 120
1,1,1,2-Tetrachloroethane	ND		20.0	24.1		ug/L		121	80 - 130
1,1,2,2-Tetrachloroethane	ND	F1	20.0	25.9		ug/L		129	65 - 130
Styrene	ND		20.0	26.6		ug/L		133	65 - 135
Bromoform	ND		20.0	23.3		ug/L		117	70 - 130
Isopropylbenzene	ND		20.0	24.8		ug/L		124	75 - 125
Bromobenzene	ND		20.0	24.3		ug/L		122	75 - 125
N-Propylbenzene	ND		20.0	24.2		ug/L		112	70 - 130
1,2,3-Trichloropropane	ND		20.0	23.7		ug/L		118	75 - 125
2-Chlorotoluene	ND		20.0	22.4		ug/L		112	75 - 125
1,3,5-Trimethylbenzene	22	F1	20.0	49.0	F1	ug/L		136	75 - 130
4-Chlorotoluene	ND		20.0	23.0		ug/L		115	75 - 130
tert-Butylbenzene	ND		20.0	25.7		ug/L		123	70 - 130
1,2,4-Trimethylbenzene	32	F1	20.0	59.5	F1	ug/L		138	75 - 130
sec-Butylbenzene	ND		20.0	24.4		ug/L		122	70 - 125
1,3-Dichlorobenzene	ND		20.0	24.2		ug/L		121	75 - 125
4-Isopropyltoluene	ND		20.0	27.1		ug/L		125	75 - 130
1,4-Dichlorobenzene	5.0	F1	20.0	30.3	F1	ug/L		127	75 - 125
n-Butylbenzene	ND		20.0	25.8		ug/L		129	70 - 135
1,2-Dichlorobenzene	ND		20.0	25.3		ug/L		119	70 - 120
1,2-Dibromo-3-Chloropropane	ND		20.0	25.3		ug/L		127	50 - 130
1,2,4-Trichlorobenzene	ND		20.0	24.9		ug/L		125	65 - 135
1,2,3-Trichlorobenzene	ND		20.0	27.0		ug/L		135	55 - 140
Hexachlorobutadiene	ND		20.0	25.2		ug/L		126	50 - 140
Naphthalene	ND		20.0	28.3		ug/L		132	55 - 140
Methyl tert-butyl ether	ND	* F1	20.0	26.3	F1	ug/L		132	65 - 125

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	94		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	95		70 - 136
1,2-Dichloroethane-d4 (Surr)	101		70 - 120

Lab Sample ID: 580-47775-5 MSD

Matrix: Water

Analysis Batch: 184035

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Dichlorodifluoromethane	ND		20.0	21.3		ug/L		106	30 - 155	4	30
Chloromethane	ND		20.0	22.3		ug/L		112	40 - 125	3	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: 580-47775-5 MSD

Matrix: Water

Analysis Batch: 184035

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Vinyl chloride	ND		20.0	20.7		ug/L		103	50 - 145	3	30
Bromomethane	ND		20.0	21.4		ug/L		107	30 - 145	2	30
Chloroethane	ND		20.0	22.5		ug/L		112	60 - 135	1	30
Trichlorofluoromethane	ND		20.0	19.6		ug/L		98	60 - 145	4	30
1,1-Dichloroethene	ND		20.0	22.8		ug/L		108	70 - 130	4	30
Methylene Chloride	ND		20.0	23.5		ug/L		117	55 - 140	3	30
trans-1,2-Dichloroethene	ND		20.0	22.5		ug/L		112	60 - 140	1	30
1,1-Dichloroethane	ND		20.0	23.9		ug/L		119	70 - 135	1	30
2,2-Dichloropropane	ND		20.0	19.9		ug/L		100	70 - 135	4	30
Chlorobromomethane	ND	F1	20.0	26.0		ug/L		130	65 - 130	4	30
Chloroform	ND		20.0	23.3		ug/L		116	65 - 135	1	30
1,1,1-Trichloroethane	ND		20.0	21.1		ug/L		105	65 - 130	4	30
Carbon tetrachloride	ND		20.0	20.2		ug/L		101	65 - 140	5	30
1,1-Dichloropropene	ND		20.0	23.1		ug/L		115	75 - 130	4	30
Benzene	ND	* F1	20.0	24.3	F1	ug/L		121	80 - 120	4	30
1,2-Dichloroethane	ND		20.0	24.1		ug/L		121	70 - 130	5	30
Trichloroethene	ND	F1	20.0	25.7		ug/L		121	70 - 125	7	30
1,2-Dichloropropane	ND	* F1	20.0	25.4	F1	ug/L		127	75 - 125	6	30
Dibromomethane	ND	* F1	20.0	25.5	F1	ug/L		127	75 - 125	7	30
Dichlorobromomethane	ND	* F1	20.0	25.0	F1	ug/L		125	75 - 120	8	30
cis-1,3-Dichloropropene	ND		20.0	24.1		ug/L		121	70 - 130	6	30
Toluene	ND		20.0	24.8		ug/L		114	75 - 120	1	30
trans-1,3-Dichloropropene	ND	F1	20.0	25.6		ug/L		128	55 - 140	14	30
1,1,2-Trichloroethane	ND	F1	20.0	25.0		ug/L		125	75 - 125	4	30
Tetrachloroethene	3.0		20.0	24.6		ug/L		108	45 - 150	3	30
1,3-Dichloropropane	ND	F1	20.0	24.4		ug/L		122	75 - 125	10	30
Chlorodibromomethane	ND		20.0	25.3		ug/L		127	60 - 135	6	30
Ethylene Dibromide	ND	* F1	20.0	24.3	F1	ug/L		122	80 - 120	13	30
Chlorobenzene	ND	F1	20.0	23.4		ug/L		117	80 - 120	6	30
1,1,1,2-Tetrachloroethane	ND		20.0	24.9		ug/L		124	80 - 130	3	30
1,1,1,2,2-Tetrachloroethane	ND	F1	20.0	26.3	F1	ug/L		132	65 - 130	2	30
Styrene	ND		20.0	24.9		ug/L		124	65 - 135	7	30
Bromoform	ND		20.0	22.3		ug/L		111	70 - 130	5	30
Isopropylbenzene	ND		20.0	25.0		ug/L		125	75 - 125	1	30
Bromobenzene	ND		20.0	22.6		ug/L		113	75 - 125	7	30
N-Propylbenzene	ND		20.0	23.8		ug/L		111	70 - 130	1	30
1,2,3-Trichloropropane	ND		20.0	24.0		ug/L		120	75 - 125	1	30
2-Chlorotoluene	ND		20.0	22.7		ug/L		114	75 - 125	1	30
1,3,5-Trimethylbenzene	22	F1	20.0	48.4	F1	ug/L		133	75 - 130	1	30
4-Chlorotoluene	ND		20.0	21.6		ug/L		108	75 - 130	6	30
tert-Butylbenzene	ND		20.0	26.3		ug/L		126	70 - 130	2	30
1,2,4-Trimethylbenzene	32	F1	20.0	57.9		ug/L		130	75 - 130	3	30
sec-Butylbenzene	ND		20.0	24.3		ug/L		121	70 - 125	0	30
1,3-Dichlorobenzene	ND		20.0	22.3		ug/L		111	75 - 125	8	30
4-Isopropyltoluene	ND		20.0	26.6		ug/L		123	75 - 130	2	30
1,4-Dichlorobenzene	5.0	F1	20.0	27.6		ug/L		113	75 - 125	10	30
n-Butylbenzene	ND		20.0	24.9		ug/L		124	70 - 135	4	30
1,2-Dichlorobenzene	ND		20.0	24.8		ug/L		116	70 - 120	2	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: 580-47775-5 MSD

Client Sample ID: MW-5

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 184035

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
1,2-Dibromo-3-Chloropropane	ND		20.0	25.6		ug/L		128	50 - 130	1	30
1,2,4-Trichlorobenzene	ND		20.0	24.5		ug/L		123	65 - 135	2	30
1,2,3-Trichlorobenzene	ND		20.0	27.4		ug/L		137	55 - 140	1	30
Hexachlorobutadiene	ND		20.0	23.2		ug/L		116	50 - 140	8	30
Naphthalene	ND		20.0	28.9		ug/L		135	55 - 140	2	30
Methyl tert-butyl ether	ND	* F1	20.0	26.1	F1	ug/L		130	65 - 125	1	30
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
Toluene-d8 (Surr)	98		85 - 120								
4-Bromofluorobenzene (Surr)	99		75 - 120								
Dibromofluoromethane (Surr)	102		85 - 115								
Trifluorotoluene (Surr)	95		70 - 136								
1,2-Dichloroethane-d4 (Surr)	101		70 - 120								

Lab Sample ID: MB 580-184175/3

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 184175

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		2.0		ug/L			03/12/15 11:53	1
Chloromethane	ND		5.0		ug/L			03/12/15 11:53	1
Vinyl chloride	ND		1.0		ug/L			03/12/15 11:53	1
Bromomethane	ND		5.0		ug/L			03/12/15 11:53	1
Chloroethane	ND		5.0		ug/L			03/12/15 11:53	1
Trichlorofluoromethane	ND		3.0		ug/L			03/12/15 11:53	1
1,1-Dichloroethene	ND		2.0		ug/L			03/12/15 11:53	1
Methylene Chloride	ND		5.0		ug/L			03/12/15 11:53	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			03/12/15 11:53	1
1,1-Dichloroethane	ND		2.0		ug/L			03/12/15 11:53	1
2,2-Dichloropropane	ND		3.0		ug/L			03/12/15 11:53	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			03/12/15 11:53	1
Chlorobromomethane	ND		2.0		ug/L			03/12/15 11:53	1
Chloroform	ND		1.0		ug/L			03/12/15 11:53	1
1,1,1-Trichloroethane	ND		3.0		ug/L			03/12/15 11:53	1
Carbon tetrachloride	ND		3.0		ug/L			03/12/15 11:53	1
1,1-Dichloropropene	ND		3.0		ug/L			03/12/15 11:53	1
Benzene	ND		2.0		ug/L			03/12/15 11:53	1
1,2-Dichloroethane	ND		1.0		ug/L			03/12/15 11:53	1
Trichloroethene	ND		3.0		ug/L			03/12/15 11:53	1
1,2-Dichloropropane	ND		1.0		ug/L			03/12/15 11:53	1
Dibromomethane	ND		1.0		ug/L			03/12/15 11:53	1
Dichlorobromomethane	ND		2.0		ug/L			03/12/15 11:53	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			03/12/15 11:53	1
Toluene	ND		2.0		ug/L			03/12/15 11:53	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			03/12/15 11:53	1
1,1,2-Trichloroethane	ND		1.0		ug/L			03/12/15 11:53	1
Tetrachloroethene	ND		3.0		ug/L			03/12/15 11:53	1
1,3-Dichloropropane	ND		1.0		ug/L			03/12/15 11:53	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: MB 580-184175/3

Matrix: Water

Analysis Batch: 184175

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorodibromomethane	ND		1.0		ug/L			03/12/15 11:53	1
Ethylene Dibromide	ND		1.0		ug/L			03/12/15 11:53	1
Chlorobenzene	ND		2.0		ug/L			03/12/15 11:53	1
Ethylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			03/12/15 11:53	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			03/12/15 11:53	1
m-Xylene & p-Xylene	ND		3.0		ug/L			03/12/15 11:53	1
o-Xylene	ND		2.0		ug/L			03/12/15 11:53	1
Styrene	ND		5.0		ug/L			03/12/15 11:53	1
Bromoform	ND		1.0		ug/L			03/12/15 11:53	1
Isopropylbenzene	ND		2.0		ug/L			03/12/15 11:53	1
Bromobenzene	ND		2.0		ug/L			03/12/15 11:53	1
N-Propylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
1,2,3-Trichloropropane	ND		2.0		ug/L			03/12/15 11:53	1
2-Chlorotoluene	ND		3.0		ug/L			03/12/15 11:53	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
4-Chlorotoluene	ND		2.0		ug/L			03/12/15 11:53	1
tert-Butylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
sec-Butylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
1,3-Dichlorobenzene	ND		2.0		ug/L			03/12/15 11:53	1
4-Isopropyltoluene	ND		3.0		ug/L			03/12/15 11:53	1
1,4-Dichlorobenzene	ND		2.0		ug/L			03/12/15 11:53	1
n-Butylbenzene	ND		3.0		ug/L			03/12/15 11:53	1
1,2-Dichlorobenzene	ND		2.0		ug/L			03/12/15 11:53	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			03/12/15 11:53	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			03/12/15 11:53	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			03/12/15 11:53	1
Hexachlorobutadiene	ND		2.0		ug/L			03/12/15 11:53	1
Naphthalene	ND		2.0		ug/L			03/12/15 11:53	1
Methyl tert-butyl ether	ND		1.0		ug/L			03/12/15 11:53	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	94		85 - 120		03/12/15 11:53	1
4-Bromofluorobenzene (Surr)	101		75 - 120		03/12/15 11:53	1
Dibromofluoromethane (Surr)	94		85 - 115		03/12/15 11:53	1
Trifluorotoluene (Surr)	104		70 - 136		03/12/15 11:53	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 120		03/12/15 11:53	1

Lab Sample ID: LCS 580-184175/4

Matrix: Water

Analysis Batch: 184175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Dichlorodifluoromethane	20.0	25.2		ug/L		126	30 - 155
Chloromethane	20.0	23.4		ug/L		117	40 - 125
Vinyl chloride	20.0	21.7		ug/L		108	50 - 145
Bromomethane	20.0	21.7		ug/L		108	30 - 145

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCS 580-184175/4

Matrix: Water

Analysis Batch: 184175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	20.0	21.5		ug/L		107	60 - 135
Trichlorofluoromethane	20.0	20.7		ug/L		104	60 - 145
1,1-Dichloroethene	20.0	19.5		ug/L		97	70 - 130
Methylene Chloride	20.0	20.9		ug/L		104	55 - 140
trans-1,2-Dichloroethene	20.0	20.5		ug/L		103	60 - 140
1,1-Dichloroethane	20.0	21.1		ug/L		106	70 - 135
2,2-Dichloropropane	20.0	20.5		ug/L		103	70 - 135
cis-1,2-Dichloroethene	20.0	20.8		ug/L		104	70 - 125
Chlorobromomethane	20.0	22.1		ug/L		111	65 - 130
Chloroform	20.0	20.5		ug/L		103	65 - 135
1,1,1-Trichloroethane	20.0	20.3		ug/L		102	65 - 130
Carbon tetrachloride	20.0	20.1		ug/L		100	65 - 140
1,1-Dichloropropene	20.0	21.1		ug/L		105	75 - 130
Benzene	20.0	21.3		ug/L		106	80 - 120
1,2-Dichloroethane	20.0	21.4		ug/L		107	70 - 130
Trichloroethene	20.0	21.5		ug/L		108	70 - 125
1,2-Dichloropropane	20.0	21.3		ug/L		107	75 - 125
Dibromomethane	20.0	21.8		ug/L		109	75 - 125
Dichlorobromomethane	20.0	21.3		ug/L		106	75 - 120
cis-1,3-Dichloropropene	20.0	20.5		ug/L		103	70 - 130
Toluene	20.0	20.4		ug/L		102	75 - 120
trans-1,3-Dichloropropene	20.0	22.5		ug/L		112	55 - 140
1,1,2-Trichloroethane	20.0	21.5		ug/L		108	75 - 125
Tetrachloroethene	20.0	20.2		ug/L		101	45 - 150
1,3-Dichloropropane	20.0	21.0		ug/L		105	75 - 125
Chlorodibromomethane	20.0	22.8		ug/L		114	60 - 135
Ethylene Dibromide	20.0	21.3		ug/L		106	80 - 120
Chlorobenzene	20.0	20.7		ug/L		104	80 - 120
Ethylbenzene	20.0	20.9		ug/L		104	75 - 125
1,1,1,2-Tetrachloroethane	20.0	22.7		ug/L		114	80 - 130
1,1,2,2-Tetrachloroethane	20.0	23.3		ug/L		117	65 - 130
m-Xylene & p-Xylene	20.0	21.0		ug/L		105	75 - 130
o-Xylene	20.0	21.3		ug/L		106	80 - 120
Styrene	20.0	22.3		ug/L		111	65 - 135
Bromoform	20.0	21.0		ug/L		105	70 - 130
Isopropylbenzene	20.0	21.5		ug/L		107	75 - 125
Bromobenzene	20.0	21.1		ug/L		106	75 - 125
N-Propylbenzene	20.0	21.0		ug/L		105	70 - 130
1,2,3-Trichloropropane	20.0	22.0		ug/L		110	75 - 125
2-Chlorotoluene	20.0	20.4		ug/L		102	75 - 125
1,3,5-Trimethylbenzene	20.0	22.9		ug/L		115	75 - 130
4-Chlorotoluene	20.0	20.7		ug/L		104	75 - 130
tert-Butylbenzene	20.0	21.6		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	20.0	22.7		ug/L		113	75 - 130
sec-Butylbenzene	20.0	21.0		ug/L		105	70 - 125
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	75 - 125
4-Isopropyltoluene	20.0	22.2		ug/L		111	75 - 130
1,4-Dichlorobenzene	20.0	21.6		ug/L		108	75 - 125

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCS 580-184175/4

Matrix: Water

Analysis Batch: 184175

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Butylbenzene	20.0	21.9		ug/L		110	70 - 135
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	22.9		ug/L		115	50 - 130
1,2,4-Trichlorobenzene	20.0	22.2		ug/L		111	65 - 135
1,2,3-Trichlorobenzene	20.0	24.3		ug/L		122	55 - 140
Hexachlorobutadiene	20.0	19.8		ug/L		99	50 - 140
Naphthalene	20.0	22.6		ug/L		113	55 - 140
Methyl tert-butyl ether	20.0	22.3		ug/L		112	65 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		85 - 120
4-Bromofluorobenzene (Surr)	98		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	102		70 - 136
1,2-Dichloroethane-d4 (Surr)	100		70 - 120

Lab Sample ID: LCSD 580-184175/5

Matrix: Water

Analysis Batch: 184175

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	23.7		ug/L		119	30 - 155	6	30
Chloromethane	20.0	23.0		ug/L		115	40 - 125	2	30
Vinyl chloride	20.0	21.0		ug/L		105	50 - 145	3	30
Bromomethane	20.0	21.6		ug/L		108	30 - 145	0	30
Chloroethane	20.0	21.1		ug/L		106	60 - 135	2	30
Trichlorofluoromethane	20.0	20.5		ug/L		102	60 - 145	1	30
1,1-Dichloroethene	20.0	19.1		ug/L		96	70 - 130	2	30
Methylene Chloride	20.0	20.3		ug/L		102	55 - 140	3	30
trans-1,2-Dichloroethene	20.0	19.7		ug/L		98	60 - 140	4	30
1,1-Dichloroethane	20.0	20.2		ug/L		101	70 - 135	4	30
2,2-Dichloropropane	20.0	18.4		ug/L		92	70 - 135	11	30
cis-1,2-Dichloroethene	20.0	20.0		ug/L		100	70 - 125	4	30
Chlorobromomethane	20.0	21.7		ug/L		108	65 - 130	2	30
Chloroform	20.0	19.8		ug/L		99	65 - 135	4	30
1,1,1-Trichloroethane	20.0	19.2		ug/L		96	65 - 130	6	30
Carbon tetrachloride	20.0	19.2		ug/L		96	65 - 140	5	30
1,1-Dichloropropene	20.0	20.0		ug/L		100	75 - 130	5	30
Benzene	20.0	20.3		ug/L		102	80 - 120	5	30
1,2-Dichloroethane	20.0	20.7		ug/L		103	70 - 130	3	30
Trichloroethene	20.0	20.3		ug/L		102	70 - 125	6	30
1,2-Dichloropropane	20.0	21.2		ug/L		106	75 - 125	1	30
Dibromomethane	20.0	21.7		ug/L		108	75 - 125	0	30
Dichlorobromomethane	20.0	21.2		ug/L		106	75 - 120	1	30
cis-1,3-Dichloropropene	20.0	20.1		ug/L		101	70 - 130	2	30
Toluene	20.0	18.9		ug/L		95	75 - 120	8	30
trans-1,3-Dichloropropene	20.0	22.9		ug/L		114	55 - 140	2	30
1,1,2-Trichloroethane	20.0	20.4		ug/L		102	75 - 125	6	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCSD 580-184175/5

Matrix: Water

Analysis Batch: 184175

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	18.8		ug/L		94	45 - 150	7	30	
1,3-Dichloropropane	20.0	20.6		ug/L		103	75 - 125	2	30	
Chlorodibromomethane	20.0	21.4		ug/L		107	60 - 135	6	30	
Ethylene Dibromide	20.0	21.8		ug/L		109	80 - 120	2	30	
Chlorobenzene	20.0	19.9		ug/L		99	80 - 120	4	30	
Ethylbenzene	20.0	19.1		ug/L		96	75 - 125	9	30	
1,1,1,2-Tetrachloroethane	20.0	20.1		ug/L		100	80 - 130	12	30	
1,1,1,2,2-Tetrachloroethane	20.0	21.1		ug/L		106	65 - 130	10	30	
m-Xylene & p-Xylene	20.0	19.2		ug/L		96	75 - 130	9	30	
o-Xylene	20.0	19.6		ug/L		98	80 - 120	8	30	
Styrene	20.0	20.9		ug/L		105	65 - 135	6	30	
Bromoform	20.0	19.0		ug/L		95	70 - 130	10	30	
Isopropylbenzene	20.0	19.5		ug/L		97	75 - 125	10	30	
Bromobenzene	20.0	19.8		ug/L		99	75 - 125	6	30	
N-Propylbenzene	20.0	18.9		ug/L		95	70 - 130	11	30	
1,2,3-Trichloropropane	20.0	19.3		ug/L		96	75 - 125	13	30	
2-Chlorotoluene	20.0	18.5		ug/L		93	75 - 125	10	30	
1,3,5-Trimethylbenzene	20.0	20.8		ug/L		104	75 - 130	10	30	
4-Chlorotoluene	20.0	19.4		ug/L		97	75 - 130	7	30	
tert-Butylbenzene	20.0	19.6		ug/L		98	70 - 130	10	30	
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		103	75 - 130	9	30	
sec-Butylbenzene	20.0	19.6		ug/L		98	70 - 125	7	30	
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	75 - 125	6	30	
4-Isopropyltoluene	20.0	20.7		ug/L		104	75 - 130	7	30	
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	75 - 125	6	30	
n-Butylbenzene	20.0	20.3		ug/L		101	70 - 135	8	30	
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	70 - 120	9	30	
1,2-Dibromo-3-Chloropropane	20.0	20.3		ug/L		101	50 - 130	12	30	
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	65 - 135	5	30	
1,2,3-Trichlorobenzene	20.0	23.5		ug/L		117	55 - 140	4	30	
Hexachlorobutadiene	20.0	20.6		ug/L		103	50 - 140	4	30	
Naphthalene	20.0	21.0		ug/L		105	55 - 140	8	30	
Methyl tert-butyl ether	20.0	21.5		ug/L		107	65 - 125	4	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	96		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	97		70 - 136
1,2-Dichloroethane-d4 (Surr)	99		70 - 120

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: 580-47775-5 MS

Matrix: Water

Analysis Batch: 184175

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
cis-1,2-Dichloroethene - DL	520	F1	200	906	F1	ug/L		194	70 - 125
Ethylbenzene - DL	180	F1	200	485	F1	ug/L		151	75 - 125
m-Xylene & p-Xylene - DL	250	F1	200	567	F1	ug/L		156	75 - 130
o-Xylene - DL	99	F1	200	384	F1	ug/L		142	80 - 120

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr) - DL	92		85 - 120
4-Bromofluorobenzene (Surr) - DL	99		75 - 120
Dibromofluoromethane (Surr) - DL	105		85 - 115
Trifluorotoluene (Surr) - DL	95		70 - 136
1,2-Dichloroethane-d4 (Surr) - DL	111		70 - 120

Lab Sample ID: 580-47775-5 MSD

Matrix: Water

Analysis Batch: 184175

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier		Result	Qualifier						
cis-1,2-Dichloroethene - DL	520	F1	200	919	F1	ug/L		201	70 - 125	1	30
Ethylbenzene - DL	180	F1	200	508	F1	ug/L		162	75 - 125	5	30
m-Xylene & p-Xylene - DL	250	F1	200	587	F1	ug/L		166	75 - 130	3	30
o-Xylene - DL	99	F1	200	415	F1	ug/L		158	80 - 120	8	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr) - DL	100		85 - 120
4-Bromofluorobenzene (Surr) - DL	95		75 - 120
Dibromofluoromethane (Surr) - DL	110		85 - 115
Trifluorotoluene (Surr) - DL	101		70 - 136
1,2-Dichloroethane-d4 (Surr) - DL	107		70 - 120

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

Lab Sample ID: MB 580-184062/4

Matrix: Water

Analysis Batch: 184062

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Gasoline Range Organics (GRO) -C6-C10	ND		0.050		mg/L			03/10/15 12:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Trifluorotoluene (Surr)	111		50 - 150		03/10/15 12:35	1
4-Bromofluorobenzene (Surr)	95		50 - 150		03/10/15 12:35	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCS 580-184062/5

Matrix: Water

Analysis Batch: 184062

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	1.00	0.879		mg/L		88	60 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Trifluorotoluene (Surr)	98		50 - 150
4-Bromofluorobenzene (Surr)	99		50 - 150

Lab Sample ID: LCSD 580-184062/6

Matrix: Water

Analysis Batch: 184062

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	1.00	0.881		mg/L		88	60 - 120	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Trifluorotoluene (Surr)	97		50 - 150
4-Bromofluorobenzene (Surr)	99		50 - 150

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

Lab Sample ID: MB 580-184067/1-A

Matrix: Water

Analysis Batch: 184136

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 184067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		03/10/15 14:14	03/11/15 11:35	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		50 - 150	03/10/15 14:14	03/11/15 11:35	1

Lab Sample ID: LCS 580-184067/2-A

Matrix: Water

Analysis Batch: 184136

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 184067

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DRO (nC10-<nC25)	4.00	3.42		mg/L		86	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	81		50 - 150

Lab Sample ID: LCSD 580-184067/3-A

Matrix: Water

Analysis Batch: 184136

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 184067

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)	4.00	3.46		mg/L		86	75 - 125	1	20

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

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

Lab Sample ID: LCSD 580-184067/3-A
Matrix: Water
Analysis Batch: 184136

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184067

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
<i>o</i> -Terphenyl	79		50 - 150

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Client Sample ID: MW-1

Date Collected: 03/02/15 16:10

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 17:29	TL1	TAL SEA

Client Sample ID: BD-1

Date Collected: 03/02/15 00:01

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 17:56	TL1	TAL SEA

Client Sample ID: MW-2

Date Collected: 03/02/15 17:00

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 20:36	TL1	TAL SEA
Total/NA	Analysis	8260B		100	184175	03/12/15 14:03	TL1	TAL SEA

Client Sample ID: MW-4

Date Collected: 03/02/15 17:47

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 18:23	TL1	TAL SEA

Client Sample ID: MW-5

Date Collected: 03/02/15 18:46

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 19:16	TL1	TAL SEA
Total/NA	Analysis	8260B	DL	10	184175	03/12/15 18:57	TL1	TAL SEA
Total/NA	Analysis	AK101		1	184062	03/10/15 15:52	TL1	TAL SEA
Total/NA	Prep	3510C			184067	03/10/15 14:14	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	184136	03/11/15 22:38	EKK	TAL SEA

Client Sample ID: MW-7

Date Collected: 03/02/15 19:24

Date Received: 03/06/15 15:50

Lab Sample ID: 580-47775-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	184035	03/10/15 18:49	TL1	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Laboratory References:

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

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Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-15 *
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16

* Certification renewal pending - certification considered valid.

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: GE - Kenai, AK

TestAmerica Job ID: 580-47775-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-47775-1	MW-1	Water	03/02/15 16:10	03/06/15 15:50
580-47775-2	BD-1	Water	03/02/15 00:01	03/06/15 15:50
580-47775-3	MW-2	Water	03/02/15 17:00	03/06/15 15:50
580-47775-4	MW-4	Water	03/02/15 17:47	03/06/15 15:50
580-47775-5	MW-5	Water	03/02/15 18:46	03/06/15 15:50
580-47775-6	MW-7	Water	03/02/15 19:24	03/06/15 15:50

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- 10
- 11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

580-47775 Chain of Custody



11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

3/20/2015

CHAIN OF CUSTODY REPORT

Work Order #: 47775

TURNAROUND REQUEST

In Business Days *

Organic & Inorganic Analyses
 7 5 4 3 2 1 <1
 Petroleum Hydrocarbon Analyses
 7 5 4 3 2 1 <1

OTHER Specify:

* Turnaround Request less than standard may incur Rush Charges.

CLIENT: ARCADIS 45. Ave. Inc.		INVOICE TO:	
REPORT TO: 801 Corporate Center Dr. Suite 300		PRESERVATIVE:	
ADDRESS: Raleigh, NE 68607		REQUESTED ANALYSES:	
PHONE:		P.O. NUMBER:	
PROJECT NAME: GE - Kenai, AK		HCL HCL HCL	
PROJECT NUMBER: 30031255.1404		VOCs 8260B	
SAMPLED BY: David Beaudoin		GRO AK101	
CLIENT SAMPLE IDENTIFICATION		DRO AK102	
SAMPLING DATE/TIME		MATRIX (W, S, O)	
1 MW-1 03/02/15 / 1616		# OF CONT.	
2 BD-1 03/02/15 /		LOCATION/ COMMENTS	
3 MW-2 03/02/15 / 1700		TA WO ID	
4 MW-4 03/02/15 / 1747			
5 MW-5 03/02/15 / 1846			
6 MW-7 03/02/15 / 1924			
7 Trip Blank			
8			
9			
10			

Cooler/Dry Ice cor y.1 unc y.6
 Cooler Disc held Pack/ Lab 1550
 Wet Packs Packing 3 in 5/12
 w/c/s

RELEASED BY: [Signature]	DATE: 03/09/15	RECEIVED BY: [Signature]	DATE: 3/11/15
PRINT NAME: David Beaudoin	TIME: 1638	PRINT NAME: Klarett	TIME: 1638
FIRM: ARCADIS		FIRM: TA	
RELEASED BY: [Signature]	DATE: 2/5/15	RECEIVED BY: [Signature]	DATE: 3/6/15
PRINT NAME: Klarett	TIME: 0830	PRINT NAME: Fumisso Lung, Jr.	TIME: 1550
FIRM: TA		FIRM: TA-SEA	
TEMPERATURE: 45	PAGE: 1	TEMPERATURE: 45	PAGE: 1

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-47775-1

Login Number: 47775

List Source: TestAmerica Seattle

List Number: 1

Creator: Abello, Andrea N

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	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.	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	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

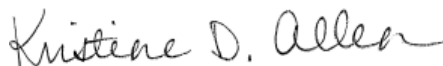
TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-11990-1

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:
3/26/2015 5:55:32 PM

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

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

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Definitions/Glossary

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

TestAmerica Job ID: 320-11990-1

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)

Case Narrative

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

TestAmerica Job ID: 320-11990-1

Job ID: 320-11990-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-11990-1

Comments

No additional comments.

Receipt

The sample was received on 3/10/2015 10:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Except:

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed as it was not relinquished.

Air - GC/MS VOA

Method(s) TO-15: Surrogate recovery of 1,2-Dichloroethane-d4 for the following standard(s) was outside control limits. (CCV 320-69089/49), (LCS 320-69089/54). 1,2-Dichloroethane-d4 is not used as a monitoring compound for the this method; therefore, re-extraction and/or re-analysis was not performed.

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: 320-11990-1

Client Sample ID: EFFLUENT-030315

Lab Sample ID: 320-11990-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.30		0.30		ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.82		0.40		ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	3.1		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.98		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

Client Sample Results

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

TestAmerica Job ID: 320-11990-1

Client Sample ID: EFFLUENT-030315

Lab Sample ID: 320-11990-1

Date Collected: 03/03/15 16:24

Matrix: Air

Date Received: 03/10/15 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.30		0.30		ppb v/v			03/24/15 20:14	1
Ethylbenzene	0.82		0.40		ppb v/v			03/24/15 20:14	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			03/24/15 20:14	1
Tetrachloroethene	3.1		0.40		ppb v/v			03/24/15 20:14	1
Trichloroethene	0.98		0.40		ppb v/v			03/24/15 20:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 130					03/24/15 20:14	1
4-Bromofluorobenzene (Surr)	99		70 - 130					03/24/15 20:14	1
Toluene-d8 (Surr)	101		70 - 130					03/24/15 20:14	1

Surrogate Summary

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

TestAmerica Job ID: 320-11990-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE	BFB	TOL
		(70-130)	(70-130)	(70-130)
320-11990-1	EFFLUENT-030315	100	99	101
LCS 320-69089/29	Lab Control Sample	99	107	104
LCS 320-69089/54	Lab Control Sample	145 X	107	106
LCSD 320-69089/30	Lab Control Sample Dup	98	107	105
MB 320-69089/5	Method Blank	94	90	103

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

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

TestAmerica Job ID: 320-11990-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-69089/5
Matrix: Air
Analysis Batch: 69089

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			03/24/15 05:36	1
Ethylbenzene	ND		0.40		ppb v/v			03/24/15 05:36	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			03/24/15 05:36	1
Tetrachloroethene	ND		0.40		ppb v/v			03/24/15 05:36	1
Trichloroethene	ND		0.40		ppb v/v			03/24/15 05:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130		03/24/15 05:36	1
4-Bromofluorobenzene (Surr)	90		70 - 130		03/24/15 05:36	1
Toluene-d8 (Surr)	103		70 - 130		03/24/15 05:36	1

Lab Sample ID: LCS 320-69089/29
Matrix: Air
Analysis Batch: 69089

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	17.1		ppb v/v		85	65 - 124
Ethylbenzene	20.0	17.6		ppb v/v		88	76 - 136
Tetrachloroethene	20.0	17.2		ppb v/v		86	56 - 138
Trichloroethene	20.0	17.6		ppb v/v		88	64 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCS 320-69089/54
Matrix: Air
Analysis Batch: 69089

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	4630		ppb v/v		93	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	145	X	70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: LCSD 320-69089/30
Matrix: Air
Analysis Batch: 69089

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	17.3		ppb v/v		86	65 - 124	1	25
Ethylbenzene	20.0	17.6		ppb v/v		88	76 - 136	0	25
Tetrachloroethene	20.0	17.2		ppb v/v		86	56 - 138	0	25

TestAmerica Sacramento

QC Sample Results

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

TestAmerica Job ID: 320-11990-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCSD 320-69089/30

Matrix: Air

Analysis Batch: 69089

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
Trichloroethene	20.0	17.7		ppb v/v		89	64 - 127	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	107		70 - 130
Toluene-d8 (Surr)	105		70 - 130



QC Association Summary

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

TestAmerica Job ID: 320-11990-1

Air - GC/MS VOA

Analysis Batch: 69089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-11990-1	EFFLUENT-030315	Total/NA	Air	TO-15	
LCS 320-69089/29	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-69089/54	Lab Control Sample	Total/NA	Air	TO-15	
LCSD 320-69089/30	Lab Control Sample Dup	Total/NA	Air	TO-15	
MB 320-69089/5	Method Blank	Total/NA	Air	TO-15	

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Lab Chronicle

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

TestAmerica Job ID: 320-11990-1

Client Sample ID: EFFLUENT-030315

Lab Sample ID: 320-11990-1

Date Collected: 03/03/15 16:24

Matrix: Air

Date Received: 03/10/15 10:30

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	507 mL	250 mL	69089	03/24/15 20:14	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Certification Summary

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

TestAmerica Job ID: 320-11990-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-16
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-16
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-16
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-16
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-15
Wyoming	State Program	8	8TMS-Q	01-29-16

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16

Method Summary

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

TestAmerica Job ID: 320-11990-1

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

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Sample Summary

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

TestAmerica Job ID: 320-11990-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-11990-1	EFFLUENT-030315	Air	03/03/15 16:24	03/10/15 10:30

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JOB # **320-11990**
Sample # **1**

Client/Project:		VFR ID:	
Canister Serial #:	34001211	Duration:	<input type="checkbox"/> Hrs <input type="checkbox"/> 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	
<input type="checkbox"/> Helium Pre-dilution - Final Pressure (INCHES Hg)				
INITIAL PRESSURE (PSIA)	12.45	03/11/15	EP	
FINAL PRESSURE (PSIA)	25.27	03/11/15	EP	
Pressurization Gas: <input type="checkbox"/> N2 <input type="checkbox"/> He	SCREENED <input type="checkbox"/>	SCRN DIL. VS 250mLs:		
Initial Canister Dilution Factor =	2.03			

CANISTER REPRESSURIZATION					
Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.03		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors						
	Date	Instr.	File #			
Canister DF = 2.03	X	Load DF = 6.25	X	Bag DF = 1	=	FINAL DF 12.68574297
		LVf (mLs) 250		BVf (mLs)		
		LVi (mLs) 40		Bvi (mLs)		
Canister DF = 2.03	X	Load DF = 0.4930966	X	Bag DF = 1	=	FINAL DF 1.000847572
		LVf (mLs) 250		BVf (mLs)		
		LVi (mLs) 507		Bvi (mLs)		
Canister DF = 2.03	X	Load DF = #DIV/0!	X	Bag DF = 1	=	FINAL DF #DIV/0!
		LVf (mLs)		BVf (mLs)		
		LVi (mLs)		Bvi (mLs)		



Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-11990-1

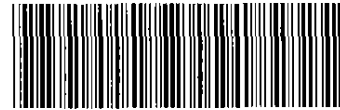
Login Number: 11990

List Source: TestAmerica Sacramento

List Number: 1

Creator: Sadler, Jeremy

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.	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.	False	COC not relinquished.
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	



Canister QC Certification

Certification Type: TO-15 SCAN

Date Cleaned/Batch ID 12/2/14 320-10677

Date of QC 12/07/14

Data File Number MS71207 22

60099

CANISTER ID NUMBERS

<u>34001054*</u>	<u>34000976</u>	
<u>0762</u>	<u>↓ 1228</u>	
<u>0619</u>	<u>8516</u>	
<u>0965</u>	<u>8506</u>	
<u>1649</u>		
<u>0645</u>		
<u>0316</u>		
<u>1121</u>		

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.

[Signature]
 1st level Reviewed By:

12/8/14
 Date:

[Signature]
 2nd level Reviewed By:

12/8/14
 Date:

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-10677-1
 SDG No.: 1L SCAN Batch
 Client Sample ID: 34001054 Lab Sample ID: 320-10677-1
 Matrix: Air Lab File ID: MS7120722.d
 Analysis Method: TO-15 Date Collected: 12/02/2014 00:00
 Sample wt/vol: 500(mL) Date Analyzed: 12/08/2014 05:34
 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.: 60049 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	1.9	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)	0.20	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	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.: 320-10677-1
 SDG No.: 1L SCAN Batch
 Client Sample ID: 34001054 Lab Sample ID: 320-10677-1
 Matrix: Air Lab File ID: MS7120722.d
 Analysis Method: TO-15 Date Collected: 12/02/2014 00:00
 Sample wt/vol: 500(mL) Date Analyzed: 12/08/2014 05:34
 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.: 60049 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.: 320-10677-1
 SDG No.: 1L SCAN Batch
 Client Sample ID: 34001054 Lab Sample ID: 320-10677-1
 Matrix: Air Lab File ID: MS7120722.d
 Analysis Method: TO-15 Date Collected: 12/02/2014 00:00
 Sample wt/vol: 500(mL) Date Analyzed: 12/08/2014 05:34
 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.: 60049 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)	85		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		70-130
2037-26-5	Toluene-d8 (Surr)	99		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS7\20141207-17895.b\MS7120722.d
 Lims ID: 320-10677-A-1 Lab Sample ID: 320-10677-1
 Client ID: 34001054
 Sample Type: Client
 Inject. Date: 08-Dec-2014 05:34:30 ALS Bottle#: 14 Worklist Smp#: 19
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 320-10677-A-1
 Misc. Info.: 500mL
 Operator ID: GG Instrument ID: ATMS7
 Method: \\SACCHROM\ChromData\ATMS7\20141207-17895.b\TO15_ATMS7N.m
 Limit Group: MSA - TO15 - ICAL
 Last Update: 08-Dec-2014 09:24:51 Calib Date: 21-Nov-2014 08:28:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\SACCHROM\ChromData\ATMS7\20141120-17507.b\MS7112027.d
 Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
 Process Host: XAWRK035

First Level Reviewer: ortizam

Date: 08-Dec-2014 09:24:51

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	11.793	11.793	0.000	98	64083	4.00	
* 2 1,4-Difluorobenzene	114	13.910	13.904	0.006	96	254212	4.00	
* 3 Chlorobenzene-d5 (IS)	117	20.626	20.620	0.006	89	220224	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	12.967	12.961	0.006	98	93650	3.72	
\$ 5 Toluene-d8 (Surr)	100	17.262	17.250	0.012	99	158034	3.94	
\$ 6 4-Bromofluorobenzene (Surr	95	23.224	23.218	0.006	89	144725	3.40	
32 Acetone	43	7.084	7.048	0.036	98	81051	1.93	
48 2-Butanone (MEK)	72	10.819	10.758	0.061	94	2228	0.1967	

Reagents:

VASUISIM_00137 Amount Added: 50.00 Units: mL Run Reagent

Data File: \\SACCHROM\ChromData\ATMS7\20141207-17895.b\MS7120722.d

Injection Date: 08-Dec-2014 05:34:30

Instrument ID: ATMS7

Operator ID: GG

Lims ID: 320-10677-A-1

Lab Sample ID: 320-10677-1

Worklist Smp#: 19

Client ID: 34001054

Purge Vol: 5.000 mL

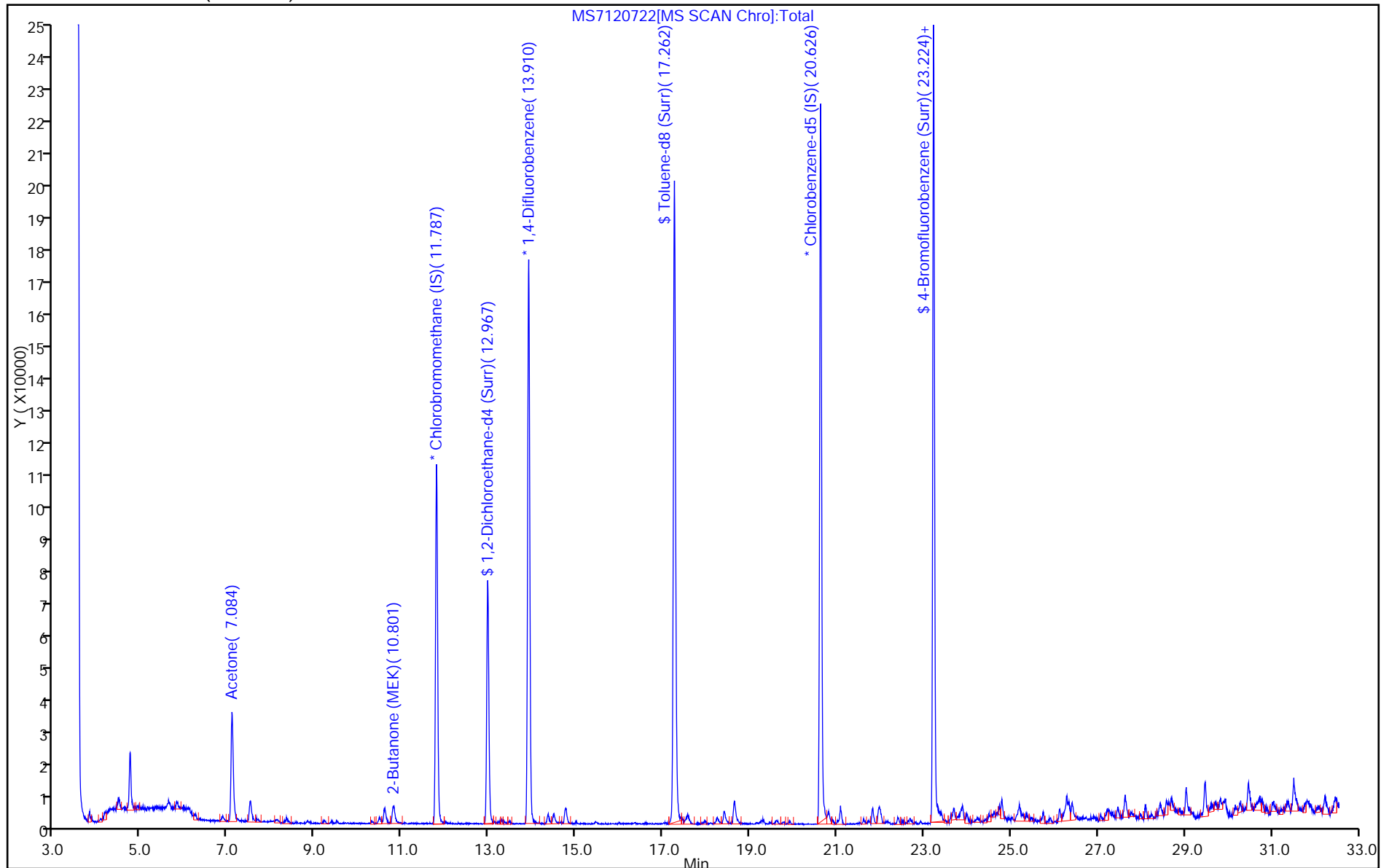
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS7\20141207-17895.b\MS7120722.d

Injection Date: 08-Dec-2014 05:34:30

Instrument ID: ATMS7

Lims ID: 320-10677-A-1

Lab Sample ID: 320-10677-1

Client ID: 34001054

Operator ID: GG

ALS Bottle#: 14

Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

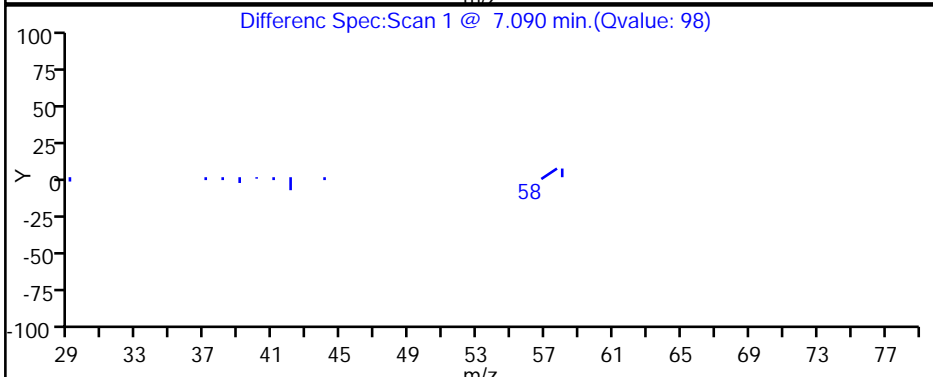
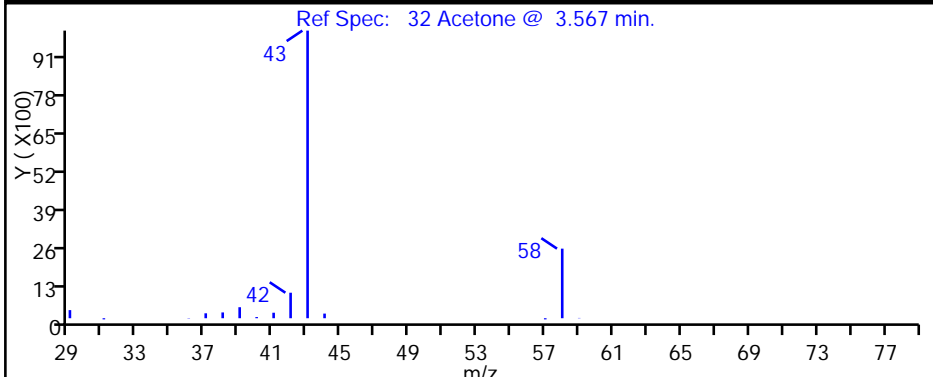
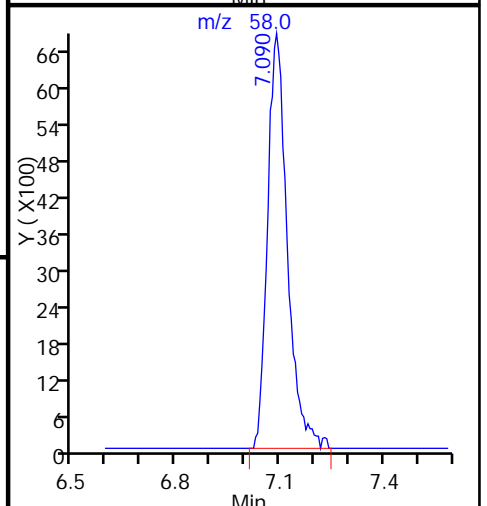
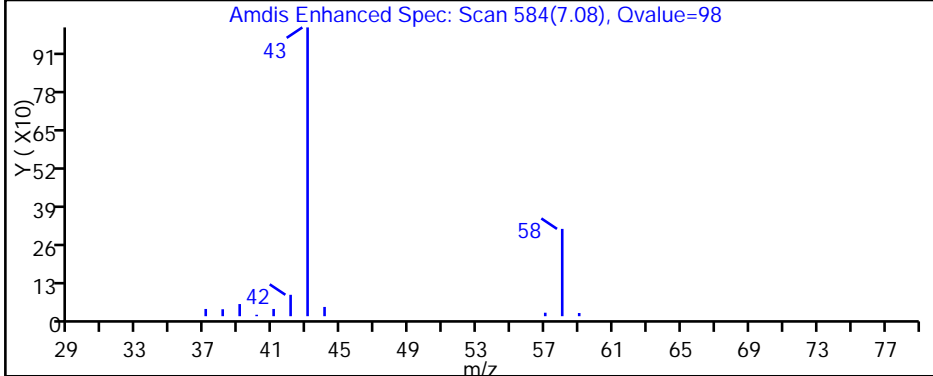
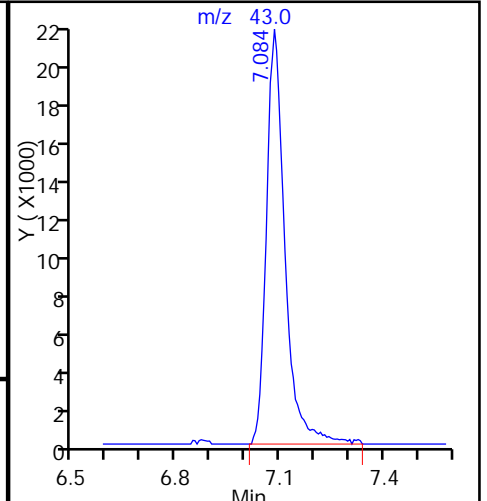
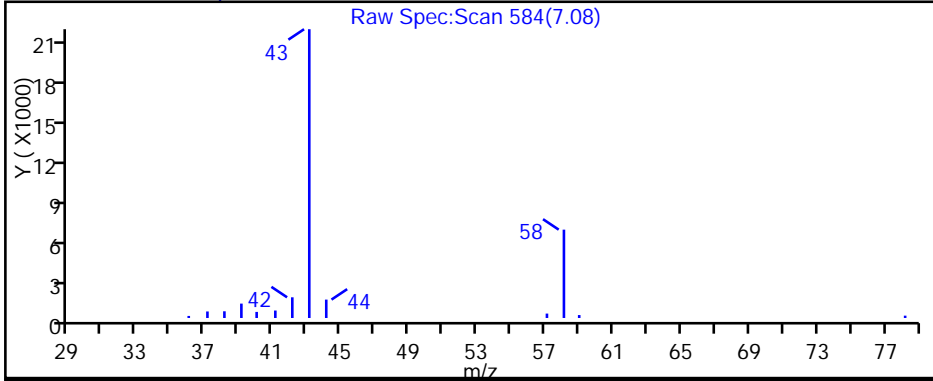
Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

32 Acetone, CAS: 67-64-1



TestAmerica Sacramento

Data File: \\SACCHROM\ChromData\ATMS7\20141207-17895.b\MS7120722.d

Injection Date: 08-Dec-2014 05:34:30

Instrument ID: ATMS7

Lims ID: 320-10677-A-1

Lab Sample ID: 320-10677-1

Client ID: 34001054

Operator ID: GG

ALS Bottle#: 14 Worklist Smp#: 19

Purge Vol: 5.000 mL

Dil. Factor: 1.0000

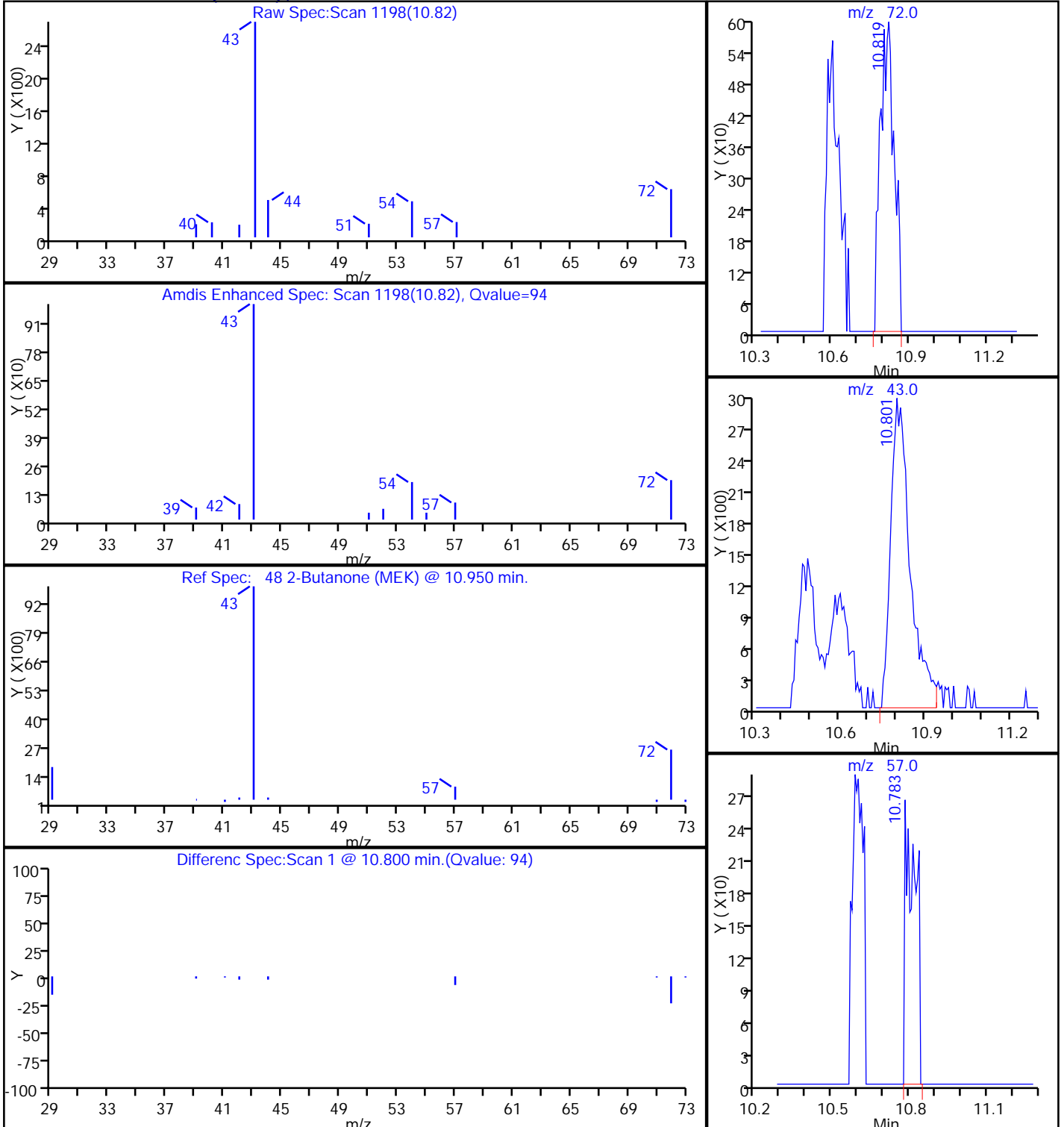
Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)

Detector: MS SCAN

48 2-Butanone (MEK), CAS: 78-93-3



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

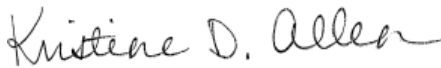
TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-13251-1

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:
6/10/2015 4:15:58 PM

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

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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.

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Definitions/Glossary

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

TestAmerica Job ID: 320-13251-1

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)

Case Narrative

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

TestAmerica Job ID: 320-13251-1

Job ID: 320-13251-1

Laboratory: TestAmerica Sacramento

Narrative

Job Narrative
320-13251-1

Comments

No additional comments.

Receipt

The sample was received on 6/1/2015 9:00 AM; the sample arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) TO-15: Surrogate 1,2-Dichloroethane-d4 (Surr) recovery for the following sample was outside control limits: (LCS 320-76250/40). 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.

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Detection Summary

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

TestAmerica Job ID: 320-13251-1

Client Sample ID: Effluent-A-052615

Lab Sample ID: 320-13251-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.77		0.40		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.54		0.40		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Sacramento

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Client Sample Results

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

TestAmerica Job ID: 320-13251-1

Client Sample ID: Effluent-A-052615

Lab Sample ID: 320-13251-1

Date Collected: 05/26/15 11:30

Matrix: Air

Date Received: 06/01/15 09:00

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			06/10/15 05:03	1
Ethylbenzene	0.77		0.40		ppb v/v			06/10/15 05:03	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			06/10/15 05:03	1
Tetrachloroethene	ND		0.40		ppb v/v			06/10/15 05:03	1
Trichloroethene	0.54		0.40		ppb v/v			06/10/15 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/10/15 05:03	1
4-Bromofluorobenzene (Surr)	96		70 - 130		06/10/15 05:03	1
Toluene-d8 (Surr)	101		70 - 130		06/10/15 05:03	1

Surrogate Summary

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

TestAmerica Job ID: 320-13251-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	12DCE (70-130)	BFB (70-130)	TOL (70-130)
320-13251-1	Effluent-A-052615	95	96	101
LCS 320-76250/3	Lab Control Sample	96	102	101
LCS 320-76250/40	Lab Control Sample	144 X	101	101
MB 320-76250/29	Method Blank	95	92	99

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

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

TestAmerica Job ID: 320-13251-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 320-76250/29

Matrix: Air

Analysis Batch: 76250

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			06/10/15 02:45	1
Ethylbenzene	ND		0.40		ppb v/v			06/10/15 02:45	1
Gasoline Range Organics (C6-C12)	ND		100		ppb v/v			06/10/15 02:45	1
Tetrachloroethene	ND		0.40		ppb v/v			06/10/15 02:45	1
Trichloroethene	ND		0.40		ppb v/v			06/10/15 02:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130		06/10/15 02:45	1
4-Bromofluorobenzene (Surr)	92		70 - 130		06/10/15 02:45	1
Toluene-d8 (Surr)	99		70 - 130		06/10/15 02:45	1

Lab Sample ID: LCS 320-76250/3

Matrix: Air

Analysis Batch: 76250

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	17.1		ppb v/v		86	65 - 124
Ethylbenzene	20.0	19.8		ppb v/v		99	76 - 136
Tetrachloroethene	20.0	18.3		ppb v/v		91	56 - 138
Trichloroethene	20.0	17.8		ppb v/v		89	64 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCS 320-76250/40

Matrix: Air

Analysis Batch: 76250

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	4480		ppb v/v		90	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	144	X	70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	101		70 - 130

QC Association Summary

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

TestAmerica Job ID: 320-13251-1

Air - GC/MS VOA

Analysis Batch: 76250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-13251-1	Effluent-A-052615	Total/NA	Air	TO-15	
LCS 320-76250/3	Lab Control Sample	Total/NA	Air	TO-15	
LCS 320-76250/40	Lab Control Sample	Total/NA	Air	TO-15	
MB 320-76250/29	Method Blank	Total/NA	Air	TO-15	

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Lab Chronicle

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

TestAmerica Job ID: 320-13251-1

Client Sample ID: Effluent-A-052615

Lab Sample ID: 320-13251-1

Date Collected: 05/26/15 11:30

Matrix: Air

Date Received: 06/01/15 09:00

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	500 mL	250 mL	76250	06/10/15 05:03	SRS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Certification Summary

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

TestAmerica Job ID: 320-13251-1

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15 *
Florida	NELAP	4	E87570	06-30-15 *
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-16
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-16
Michigan	State Program	5	9947	01-31-16
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15 *
New York	NELAP	2	11666	04-01-16
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-16
Texas	NELAP	6	T104704399-08-TX	05-31-16
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-16
Washington	State Program	10	C581	05-04-16
West Virginia (DW)	State Program	3	9930C	12-31-15
Wyoming	State Program	8	8TMS-Q	01-29-16

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16

* Certification renewal pending - certification considered valid.

Method Summary

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

TestAmerica Job ID: 320-13251-1

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

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Sample Summary

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

TestAmerica Job ID: 320-13251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-13251-1	Effluent-A-052615	Air	05/26/15 11:30	06/01/15 09:00

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JOB # **320-13251**
Sample # **1**

Client/Project:		VFR ID:	
Canister Serial #:	34001294	Duration:	<input type="checkbox"/> Hrs <input type="checkbox"/> 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)			JMT	
<input type="checkbox"/> Helium Pre-dilution - Final Pressure (INCHES Hg)				
INITIAL PRESSURE (PSIA)	11.71	06/03/15	KY	
FINAL PRESSURE (PSIA)	23.42	06/03/15	KY	
Pressurization Gas: <input type="checkbox"/> N2 <input type="checkbox"/> He	SCREENED <input type="checkbox"/>	SCRN DIL. VS 250mLs:		
Initial Canister Dilution Factor =	2.00			

CANISTER REPRESSURIZATION					
Date	Pi (PSIA)	Pf (PSIA)	Initial DF	Initials	NEW DF
			2.00		#DIV/0!
			#DIV/0!		#DIV/0!
			#DIV/0!		#DIV/0!

Analytical Dilution Factors						
	Date	Instr.	File #			
Canister DF = 2.00 X	6/9/2015	ATMS2		Load DF = 0.5 X	Bag DF = 1 =	FINAL DF 1
				LVf (mLs) 250	BVf (mLs)	
				LVi (mLs) 500	Bvi (mLs)	
Canister DF = 2.00 X				Load DF = #DIV/0! X	Bag DF = 1 =	FINAL DF #DIV/0!
				LVf (mLs)	BVf (mLs)	
				LVi (mLs)	Bvi (mLs)	
Canister DF = 2.00 X				Load DF = #DIV/0! X	Bag DF = 1 =	FINAL DF #DIV/0!
				LVf (mLs)	BVf (mLs)	
				LVi (mLs)	Bvi (mLs)	



Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 320-13251-1

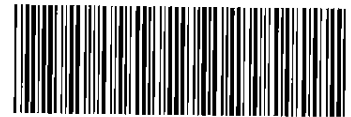
Login Number: 13251

List Source: TestAmerica Sacramento

List Number: 1

Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Canister QC Certification

Certification Type: TO-15 SCAN

Date Cleaned/Batch ID 5/4/15 320-12844

Date of QC 5/7/15

Data File Number M27050719

CANISTER ID NUMBERS

<u>34002017</u>	<u>34000436</u>	_____
<u>0341</u>	<u>8050</u>	_____
<u>0198</u>	<u>8246</u>	_____
<u>0248</u>	<u>7971</u>	_____
<u>0147</u>	_____	_____
<u>1294</u>	_____	_____
<u>0349*</u>	_____	_____
<u>0221</u>	_____	_____

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.

[Signature]
 1st level Reviewed By:

5/8/15
 Date:

[Signature]
 2nd level Reviewed By:

5/11/15
 Date:



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Sacramento</u>	Job No.: <u>320-12844-1</u>
SDG No.: <u>6L SCAN Batch</u>	
Client Sample ID: <u>34000349</u>	Lab Sample ID: <u>320-12844-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>MS7050719.d</u>
Analysis Method: <u>TO-15</u>	Date Collected: <u>05/04/2015 00:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>05/08/2015 02:17</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-Volatiles</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>73284</u>	Units: <u>ppb v/v</u>

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	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: <u>TestAmerica Sacramento</u>	Job No.: <u>320-12844-1</u>
SDG No.: <u>6L SCAN Batch</u>	
Client Sample ID: <u>34000349</u>	Lab Sample ID: <u>320-12844-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>MS7050719.d</u>
Analysis Method: <u>TO-15</u>	Date Collected: <u>05/04/2015 00:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>05/08/2015 02:17</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-Volatiles</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>73284</u>	Units: <u>ppb v/v</u>

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.: 320-12844-1
 SDG No.: 6L SCAN Batch
 Client Sample ID: 34000349 Lab Sample ID: 320-12844-7
 Matrix: Air Lab File ID: MS7050719.d
 Analysis Method: TO-15 Date Collected: 05/04/2015 00:00
 Sample wt/vol: 500 (mL) Date Analyzed: 05/08/2015 02:17
 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.: 73284 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)	92		70-130
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		70-130
2037-26-5	Toluene-d8 (Surr)	101		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\SACCHROM\ChromData\ATMS7\20150507-21616.b\MS7050719.d
 Lims ID: 320-12844-A-7 Lab Sample ID: 320-12844-7
 Client ID: 34000349
 Sample Type: Client
 Inject. Date: 08-May-2015 02:17:30 ALS Bottle#: 16 Worklist Smp#: 18
 Purge Vol: 5.000 mL Dil. Factor: 1.0000
 Sample Info: 320-12844-A-7
 Misc. Info.: 500 mL CAN CERT
 Operator ID: LHS Instrument ID: ATMS7
 Method: \\SACCHROM\ChromData\ATMS7\20150507-21616.b\TO15_ATMS7N.m
 Limit Group: MSA - TO15 - ICAL
 Last Update: 08-May-2015 11:56:15 Calib Date: 11-Apr-2015 17:25:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\SACCHROM\ChromData\ATMS7\20150410-20958.b\MS7041028.d
 Column 1 : RTX Volatiles (0.32 mm) Det: MS SCAN
 Process Host: XAWRK030

First Level Reviewer: ortizam

Date: 08-May-2015 13:08:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	130	12.390	12.415	-0.025	92	23646	4.00	
* 2 1,4-Difluorobenzene	114	14.544	14.562	-0.018	96	106472	4.00	
* 3 Chlorobenzene-d5 (IS)	117	21.230	21.248	-0.018	91	108966	4.00	
\$ 4 1,2-Dichloroethane-d4 (Sur	65	13.595	13.613	-0.018	95	38946	3.83	
\$ 5 Toluene-d8 (Surr)	100	17.957	17.975	-0.018	97	73251	4.05	
\$ 6 4-Bromofluorobenzene (Surr	95	23.773	23.791	-0.018	89	68995	3.68	
32 Acetone	43	7.475	7.450	0.025	90	1705	0.0843	
73 n-Octane	43	17.969	18.005	-0.036	46	1120	0.0260	

Reagents:

VACORPLC40_00138

Amount Added: 625.00

Units: mL

VASUISIM_00169

Amount Added: 50.00

Units: mL

Run Reagent

Data File: \\SACCHROM\ChromData\ATMS7\20150507-21616.b\MS7050719.d

Injection Date: 08-May-2015 02:17:30

Instrument ID: ATMS7

Operator ID: LHS

Lims ID: 320-12844-A-7

Lab Sample ID: 320-12844-7

Worklist Smp#: 18

Client ID: 34000349

Purge Vol: 5.000 mL

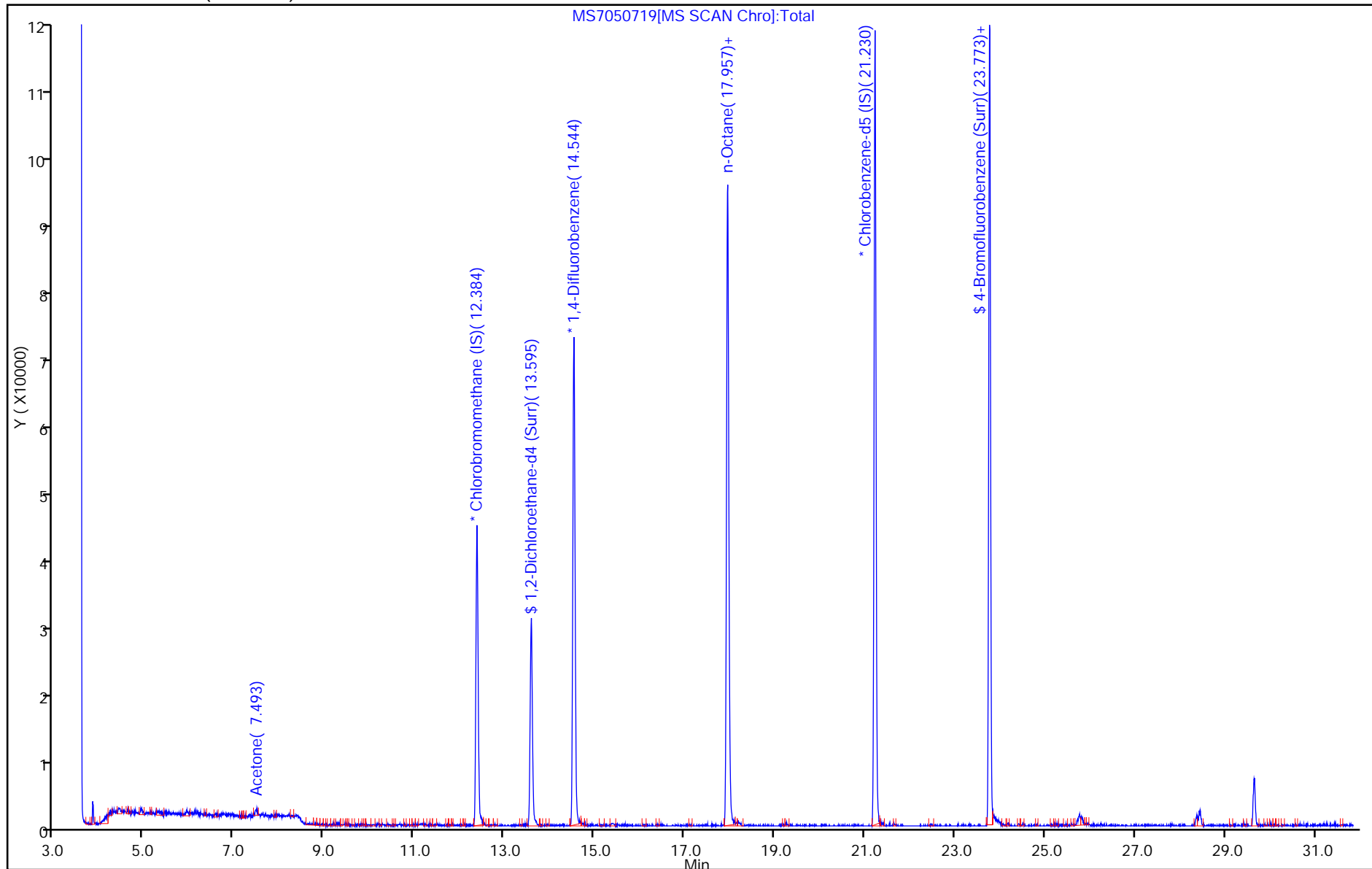
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: TO15_ATMS7N

Limit Group: MSA - TO15 - ICAL

Column: RTX Volatiles (0.32 mm)



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

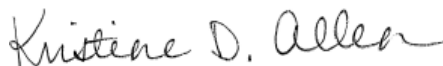
TestAmerica Job ID: 580-50264-1

Client Project/Site: GE-TBE Machine Shop (Former)

For:

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

Attn: Mr. Matthew Pelton



Authorized for release by:
6/15/2015 4:39:42 PM

Kristine Allen, Manager of Project Management
(253)248-4970

kristine.allen@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.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.

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Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Job ID: 580-50264-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative 580-50264-1

Comments

No additional comments.

Receipt

The samples were received on 5/29/2015 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.1° C and 6.0° C.

GC/MS VOA

Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 191410 recovered above the upper control limit for 1,1-Dichloroethene. The sample associated with this CCV was non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 580-191410/2).

Method(s) 8260B: The laboratory control sample (LCS) for batch 191410 recovered outside control limits for the following analytes: Naphthalene. 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 laboratory control sample duplicate (LCSD) for batch 191410 recovered outside control limits for the following analytes: Naphthalene and 1,2,4-Trichlorobenzene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The following samples were re-analyzed outside of analytical holding time: MW-4 (580-50264-1), MW-1 (580-50264-2), MW-3 (580-50264-3), MW-2 (580-50264-4), MW-6 (580-50264-5), MW-5 (580-50264-6), MW-7 (580-50264-7), MW-8 (580-50264-8), MW-9 (580-50264-9), MW-10 (580-50264-10), MW-11 (580-50264-11), BD-1 (580-50264-12) and BD-2 (580-50264-13), Trip Blank (580-50264-14).

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-5 (580-50264-6). 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: In analytical batch 580-191028, the following samples from preparation batch 580-190945 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-4 (580-50264-1), MW-1 (580-50264-2), MW-3 (580-50264-3), MW-2 (580-50264-4), MW-6 (580-50264-5) and BD-1 (580-50264-12).

Method(s) AK102 & 103: In analytical batch 580-191028, the following samples from preparation batch 580-190945 contained a hydrocarbon pattern in the diesel range; however, the elution pattern was a complex mixture of both earlier and later hydrocarbon envelopes than the typical diesel fuel pattern used by the laboratory for quantitative purposes: MW-5 (580-50264-6).

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 and tested outside of holding time: MW-4 (580-50264-1), MW-1 (580-50264-2), MW-5 (580-50264-6) and MW-7 (580-50264-7).

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.

Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
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.

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.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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 Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-4
Date Collected: 05/27/15 08:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-1
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			06/06/15 19:30	1
Chloromethane	ND		5.0		ug/L			06/06/15 19:30	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 19:30	1
Bromomethane	ND		5.0		ug/L			06/06/15 19:30	1
Chloroethane	ND		5.0		ug/L			06/06/15 19:30	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 19:30	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 19:30	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 19:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 19:30	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 19:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 19:30	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 19:30	1
Chloroform	ND		1.0		ug/L			06/06/15 19:30	1
1,1,1-Trichloroethane	3.9		3.0		ug/L			06/06/15 19:30	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 19:30	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 19:30	1
Benzene	ND		2.0		ug/L			06/06/15 19:30	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 19:30	1
Trichloroethene	4.5		3.0		ug/L			06/06/15 19:30	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 19:30	1
Dibromomethane	ND		1.0		ug/L			06/06/15 19:30	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 19:30	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:30	1
Toluene	ND		2.0		ug/L			06/06/15 19:30	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 19:30	1
Tetrachloroethene	16		3.0		ug/L			06/06/15 19:30	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 19:30	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 19:30	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 19:30	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 19:30	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 19:30	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 19:30	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 19:30	1
o-Xylene	ND		2.0		ug/L			06/06/15 19:30	1
Styrene	ND		5.0		ug/L			06/06/15 19:30	1
Bromoform	ND		1.0		ug/L			06/06/15 19:30	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 19:30	1
Bromobenzene	ND		2.0		ug/L			06/06/15 19:30	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 19:30	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 19:30	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 19:30	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:30	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-4
Date Collected: 05/27/15 08:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-1
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			06/06/15 19:30	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:30	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 19:30	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 19:30	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 19:30	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 19:30	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 19:30	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		85 - 120		06/06/15 19:30	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 19:30	1
Dibromofluoromethane (Surr)	98		85 - 115		06/06/15 19:30	1
Trifluorotoluene (Surr)	101		70 - 136		06/06/15 19:30	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 120		06/06/15 19:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 11:45	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 11:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120		06/12/15 11:45	1
4-Bromofluorobenzene (Surr)	94		75 - 120		06/12/15 11:45	1
Dibromofluoromethane (Surr)	106		85 - 115		06/12/15 11:45	1
Trifluorotoluene (Surr)	98		70 - 136		06/12/15 11:45	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/12/15 11:45	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			05/31/15 14:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	100		50 - 150		05/31/15 14:04	1
4-Bromofluorobenzene (Surr)	97		50 - 150		05/31/15 14:04	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)	0.33	Y	0.20		mg/L		06/02/15 12:08	06/03/15 11:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		50 - 150		06/02/15 12:08	06/03/15 11:50

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	130	H	1.0		CFU/mL			05/30/15 15:10	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-1
Date Collected: 05/27/15 09:55
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-2
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			06/06/15 19:56	1
Chloromethane	ND		5.0		ug/L			06/06/15 19:56	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 19:56	1
Bromomethane	ND		5.0		ug/L			06/06/15 19:56	1
Chloroethane	ND		5.0		ug/L			06/06/15 19:56	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 19:56	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 19:56	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 19:56	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 19:56	1
1,1-Dichloroethane	8.1		2.0		ug/L			06/06/15 19:56	1
cis-1,2-Dichloroethene	56		1.0		ug/L			06/06/15 19:56	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 19:56	1
Chloroform	ND		1.0		ug/L			06/06/15 19:56	1
1,1,1-Trichloroethane	3.8		3.0		ug/L			06/06/15 19:56	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 19:56	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 19:56	1
Benzene	ND		2.0		ug/L			06/06/15 19:56	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 19:56	1
Trichloroethene	26		3.0		ug/L			06/06/15 19:56	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 19:56	1
Dibromomethane	ND		1.0		ug/L			06/06/15 19:56	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 19:56	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:56	1
Toluene	ND		2.0		ug/L			06/06/15 19:56	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:56	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 19:56	1
Tetrachloroethene	71		3.0		ug/L			06/06/15 19:56	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 19:56	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 19:56	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 19:56	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 19:56	1
Ethylbenzene	26		3.0		ug/L			06/06/15 19:56	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 19:56	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 19:56	1
m-Xylene & p-Xylene	12		3.0		ug/L			06/06/15 19:56	1
o-Xylene	19		2.0		ug/L			06/06/15 19:56	1
Styrene	ND		5.0		ug/L			06/06/15 19:56	1
Bromoform	ND		1.0		ug/L			06/06/15 19:56	1
Isopropylbenzene	4.3		2.0		ug/L			06/06/15 19:56	1
Bromobenzene	ND		2.0		ug/L			06/06/15 19:56	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 19:56	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 19:56	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 19:56	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 19:56	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 19:56	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 19:56	1
1,2,4-Trimethylbenzene	9.2		3.0		ug/L			06/06/15 19:56	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 19:56	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:56	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-1

Lab Sample ID: 580-50264-2

Date Collected: 05/27/15 09:55

Matrix: Water

Date Received: 05/29/15 10:00

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			06/06/15 19:56	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:56	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 19:56	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:56	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 19:56	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 19:56	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 19:56	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 19:56	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 19:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120		06/06/15 19:56	1
4-Bromofluorobenzene (Surr)	102		75 - 120		06/06/15 19:56	1
Dibromofluoromethane (Surr)	98		85 - 115		06/06/15 19:56	1
Trifluorotoluene (Surr)	99		70 - 136		06/06/15 19:56	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 120		06/06/15 19:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/11/15 16:52	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/11/15 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		85 - 120		06/11/15 16:52	1
4-Bromofluorobenzene (Surr)	95		75 - 120		06/11/15 16:52	1
Dibromofluoromethane (Surr)	102		85 - 115		06/11/15 16:52	1
Trifluorotoluene (Surr)	96		70 - 136		06/11/15 16:52	1
1,2-Dichloroethane-d4 (Surr)	86		70 - 120		06/11/15 16:52	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	0.18		0.050		mg/L			05/31/15 14:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		50 - 150		05/31/15 14:37	1
4-Bromofluorobenzene (Surr)	110		50 - 150		05/31/15 14:37	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)	0.94	Y	0.20		mg/L		06/02/15 12:08	06/03/15 12:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	60		50 - 150		06/02/15 12:08	06/03/15 12:07

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	3100	H	10		CFU/mL			05/30/15 15:10	10

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-3
Date Collected: 05/27/15 11:05
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-3
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			06/06/15 14:41	1
Chloromethane	ND		5.0		ug/L			06/06/15 14:41	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 14:41	1
Bromomethane	ND		5.0		ug/L			06/06/15 14:41	1
Chloroethane	ND		5.0		ug/L			06/06/15 14:41	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 14:41	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 14:41	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 14:41	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 14:41	1
1,1-Dichloroethane	3.9		2.0		ug/L			06/06/15 14:41	1
cis-1,2-Dichloroethene	3.0		1.0		ug/L			06/06/15 14:41	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 14:41	1
Chloroform	ND		1.0		ug/L			06/06/15 14:41	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 14:41	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 14:41	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 14:41	1
Benzene	ND		2.0		ug/L			06/06/15 14:41	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 14:41	1
Trichloroethene	ND		3.0		ug/L			06/06/15 14:41	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 14:41	1
Dibromomethane	ND		1.0		ug/L			06/06/15 14:41	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 14:41	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 14:41	1
Toluene	ND		2.0		ug/L			06/06/15 14:41	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 14:41	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 14:41	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 14:41	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 14:41	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 14:41	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 14:41	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 14:41	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 14:41	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 14:41	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 14:41	1
o-Xylene	ND		2.0		ug/L			06/06/15 14:41	1
Styrene	ND		5.0		ug/L			06/06/15 14:41	1
Bromoform	ND		1.0		ug/L			06/06/15 14:41	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 14:41	1
Bromobenzene	ND		2.0		ug/L			06/06/15 14:41	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 14:41	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 14:41	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 14:41	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 14:41	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-3
Date Collected: 05/27/15 11:05
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-3
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			06/06/15 14:41	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 14:41	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 14:41	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 14:41	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 14:41	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 14:41	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 14:41	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 14:41	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		85 - 120		06/06/15 14:41	1
4-Bromofluorobenzene (Surr)	99		75 - 120		06/06/15 14:41	1
Dibromofluoromethane (Surr)	99		85 - 115		06/06/15 14:41	1
Trifluorotoluene (Surr)	101		70 - 136		06/06/15 14:41	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 120		06/06/15 14:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 01:35	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120		06/12/15 01:35	1
4-Bromofluorobenzene (Surr)	96		75 - 120		06/12/15 01:35	1
Dibromofluoromethane (Surr)	107		85 - 115		06/12/15 01:35	1
Trifluorotoluene (Surr)	80		70 - 136		06/12/15 01:35	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/12/15 01:35	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			05/31/15 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	105		50 - 150		05/31/15 15:10	1
4-Bromofluorobenzene (Surr)	96		50 - 150		05/31/15 15:10	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)	0.37	Y	0.20		mg/L		06/02/15 12:08	06/03/15 12:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		50 - 150		06/02/15 12:08	1

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-2
Date Collected: 05/27/15 12:30
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-4
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			06/06/15 15:07	1
Chloromethane	ND		5.0		ug/L			06/06/15 15:07	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 15:07	1
Bromomethane	ND		5.0		ug/L			06/06/15 15:07	1
Chloroethane	ND		5.0		ug/L			06/06/15 15:07	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 15:07	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 15:07	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 15:07	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 15:07	1
1,1-Dichloroethane	4.7		2.0		ug/L			06/06/15 15:07	1
cis-1,2-Dichloroethene	78		1.0		ug/L			06/06/15 15:07	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 15:07	1
Chloroform	ND		1.0		ug/L			06/06/15 15:07	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 15:07	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 15:07	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 15:07	1
Benzene	ND		2.0		ug/L			06/06/15 15:07	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 15:07	1
Trichloroethene	ND		3.0		ug/L			06/06/15 15:07	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 15:07	1
Dibromomethane	ND		1.0		ug/L			06/06/15 15:07	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 15:07	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:07	1
Toluene	ND		2.0		ug/L			06/06/15 15:07	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:07	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 15:07	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 15:07	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 15:07	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 15:07	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 15:07	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 15:07	1
Ethylbenzene	18		3.0		ug/L			06/06/15 15:07	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 15:07	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 15:07	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 15:07	1
o-Xylene	31		2.0		ug/L			06/06/15 15:07	1
Styrene	ND		5.0		ug/L			06/06/15 15:07	1
Bromoform	ND		1.0		ug/L			06/06/15 15:07	1
Isopropylbenzene	4.9		2.0		ug/L			06/06/15 15:07	1
Bromobenzene	ND		2.0		ug/L			06/06/15 15:07	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 15:07	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 15:07	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 15:07	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 15:07	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 15:07	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 15:07	1
1,2,4-Trimethylbenzene	14		3.0		ug/L			06/06/15 15:07	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 15:07	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:07	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-2
Date Collected: 05/27/15 12:30
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-4
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			06/06/15 15:07	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:07	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 15:07	1
1,2-Dichlorobenzene	2.2		2.0		ug/L			06/06/15 15:07	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 15:07	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 15:07	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 15:07	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 15:07	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 15:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120					06/06/15 15:07	1
4-Bromofluorobenzene (Surr)	102		75 - 120					06/06/15 15:07	1
Dibromofluoromethane (Surr)	96		85 - 115					06/06/15 15:07	1
Trifluorotoluene (Surr)	101		70 - 136					06/06/15 15:07	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120					06/06/15 15:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 02:02	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 02:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120					06/12/15 02:02	1
4-Bromofluorobenzene (Surr)	102		75 - 120					06/12/15 02:02	1
Dibromofluoromethane (Surr)	98		85 - 115					06/12/15 02:02	1
Trifluorotoluene (Surr)	89		70 - 136					06/12/15 02:02	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 120					06/12/15 02:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)	0.18		0.050		mg/L			05/31/15 15:43	1
-C6-C10									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	103		50 - 150					05/31/15 15:43	1
4-Bromofluorobenzene (Surr)	113		50 - 150					05/31/15 15:43	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)	0.58	Y	0.19		mg/L		06/02/15 12:08	06/03/15 12:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	62		50 - 150				06/02/15 12:08	06/03/15 12:39	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-6
Date Collected: 05/27/15 13:45
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-5
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			06/06/15 15:33	1
Chloromethane	ND		5.0		ug/L			06/06/15 15:33	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 15:33	1
Bromomethane	ND		5.0		ug/L			06/06/15 15:33	1
Chloroethane	ND		5.0		ug/L			06/06/15 15:33	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 15:33	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 15:33	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 15:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 15:33	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 15:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 15:33	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 15:33	1
Chloroform	ND		1.0		ug/L			06/06/15 15:33	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 15:33	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 15:33	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 15:33	1
Benzene	ND		2.0		ug/L			06/06/15 15:33	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 15:33	1
Trichloroethene	ND		3.0		ug/L			06/06/15 15:33	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 15:33	1
Dibromomethane	ND		1.0		ug/L			06/06/15 15:33	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 15:33	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:33	1
Toluene	ND		2.0		ug/L			06/06/15 15:33	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 15:33	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 15:33	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 15:33	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 15:33	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 15:33	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 15:33	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 15:33	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 15:33	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 15:33	1
o-Xylene	ND		2.0		ug/L			06/06/15 15:33	1
Styrene	ND		5.0		ug/L			06/06/15 15:33	1
Bromoform	ND		1.0		ug/L			06/06/15 15:33	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 15:33	1
Bromobenzene	ND		2.0		ug/L			06/06/15 15:33	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 15:33	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 15:33	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 15:33	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:33	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-6
Date Collected: 05/27/15 13:45
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-5
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			06/06/15 15:33	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:33	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 15:33	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:33	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 15:33	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 15:33	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 15:33	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 15:33	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120		06/06/15 15:33	1
4-Bromofluorobenzene (Surr)	101		75 - 120		06/06/15 15:33	1
Dibromofluoromethane (Surr)	99		85 - 115		06/06/15 15:33	1
Trifluorotoluene (Surr)	100		70 - 136		06/06/15 15:33	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 120		06/06/15 15:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 02:27	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 02:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		85 - 120		06/12/15 02:27	1
4-Bromofluorobenzene (Surr)	96		75 - 120		06/12/15 02:27	1
Dibromofluoromethane (Surr)	108		85 - 115		06/12/15 02:27	1
Trifluorotoluene (Surr)	88		70 - 136		06/12/15 02:27	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/12/15 02:27	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			05/31/15 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		50 - 150		05/31/15 16:15	1
4-Bromofluorobenzene (Surr)	97		50 - 150		05/31/15 16:15	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)	0.21	Y	0.21		mg/L		06/02/15 12:08	06/03/15 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		50 - 150		06/02/15 12:08	06/03/15 12:55

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-5
Date Collected: 05/27/15 14:15
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-6
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			06/06/15 15:59	1
Chloromethane	ND		5.0		ug/L			06/06/15 15:59	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 15:59	1
Bromomethane	ND		5.0		ug/L			06/06/15 15:59	1
Chloroethane	ND		5.0		ug/L			06/06/15 15:59	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 15:59	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 15:59	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 15:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 15:59	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 15:59	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 15:59	1
Chloroform	ND		1.0		ug/L			06/06/15 15:59	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 15:59	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 15:59	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 15:59	1
Benzene	ND		2.0		ug/L			06/06/15 15:59	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 15:59	1
Trichloroethene	ND		3.0		ug/L			06/06/15 15:59	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 15:59	1
Dibromomethane	ND		1.0		ug/L			06/06/15 15:59	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 15:59	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:59	1
Toluene	7.0		2.0		ug/L			06/06/15 15:59	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 15:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 15:59	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 15:59	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 15:59	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 15:59	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 15:59	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 15:59	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 15:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 15:59	1
Styrene	ND		5.0		ug/L			06/06/15 15:59	1
Bromoform	ND		1.0		ug/L			06/06/15 15:59	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 15:59	1
Bromobenzene	ND		2.0		ug/L			06/06/15 15:59	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 15:59	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 15:59	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 15:59	1
1,3,5-Trimethylbenzene	29		3.0		ug/L			06/06/15 15:59	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 15:59	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 15:59	1
1,2,4-Trimethylbenzene	55		3.0		ug/L			06/06/15 15:59	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 15:59	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 15:59	1
4-Isopropyltoluene	3.3		3.0		ug/L			06/06/15 15:59	1
1,4-Dichlorobenzene	6.6		2.0		ug/L			06/06/15 15:59	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 15:59	1
1,2-Dichlorobenzene	3.4		2.0		ug/L			06/06/15 15:59	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-5
Date Collected: 05/27/15 14:15
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 15:59	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 15:59	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 15:59	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 15:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		06/06/15 15:59	1
4-Bromofluorobenzene (Surr)	101		75 - 120		06/06/15 15:59	1
Dibromofluoromethane (Surr)	100		85 - 115		06/06/15 15:59	1
Trifluorotoluene (Surr)	101		70 - 136		06/06/15 15:59	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 120		06/06/15 15:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	520	H	100		ug/L			06/12/15 11:19	100
m-Xylene & p-Xylene	330	H	300		ug/L			06/12/15 11:19	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		85 - 120		06/12/15 11:19	100
4-Bromofluorobenzene (Surr)	94		75 - 120		06/12/15 11:19	100
Dibromofluoromethane (Surr)	103		85 - 115		06/12/15 11:19	100
Trifluorotoluene (Surr)	99		70 - 136		06/12/15 11:19	100
1,2-Dichloroethane-d4 (Surr)	94		70 - 120		06/12/15 11:19	100

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	310	H	150		ug/L			06/12/15 22:41	50
o-Xylene	290	H	100		ug/L			06/12/15 22:41	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		85 - 120		06/12/15 22:41	50
4-Bromofluorobenzene (Surr)	91		75 - 120		06/12/15 22:41	50
Dibromofluoromethane (Surr)	110		85 - 115		06/12/15 22:41	50
Trifluorotoluene (Surr)	94		70 - 136		06/12/15 22:41	50
1,2-Dichloroethane-d4 (Surr)	102		70 - 120		06/12/15 22:41	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 02:53	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 02:53	1
Naphthalene	5.8	H	2.0		ug/L			06/12/15 02:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		85 - 120		06/12/15 02:53	1
4-Bromofluorobenzene (Surr)	105		75 - 120		06/12/15 02:53	1
Dibromofluoromethane (Surr)	106		85 - 115		06/12/15 02:53	1
Trifluorotoluene (Surr)	79		70 - 136		06/12/15 02:53	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		06/12/15 02:53	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-5

Lab Sample ID: 580-50264-6

Date Collected: 05/27/15 14:15

Matrix: Water

Date Received: 05/29/15 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C6-C10	2.9		0.050		mg/L			05/31/15 16:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		50 - 150					05/31/15 16:48	1
4-Bromofluorobenzene (Surr)	133		50 - 150					05/31/15 16:48	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	0.20		mg/L		06/02/15 12:08	06/03/15 13:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		50 - 150				06/02/15 12:08	06/03/15 13:11	1

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	130	H	1.0		CFU/mL			05/30/15 15:10	1

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-7
Date Collected: 05/27/15 15:15
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-7
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			06/06/15 16:26	1
Chloromethane	ND		5.0		ug/L			06/06/15 16:26	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 16:26	1
Bromomethane	ND		5.0		ug/L			06/06/15 16:26	1
Chloroethane	ND		5.0		ug/L			06/06/15 16:26	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 16:26	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 16:26	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 16:26	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 16:26	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 16:26	1
cis-1,2-Dichloroethene	1.0		1.0		ug/L			06/06/15 16:26	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 16:26	1
Chloroform	ND		1.0		ug/L			06/06/15 16:26	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 16:26	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 16:26	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 16:26	1
Benzene	ND		2.0		ug/L			06/06/15 16:26	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 16:26	1
Trichloroethene	ND		3.0		ug/L			06/06/15 16:26	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 16:26	1
Dibromomethane	ND		1.0		ug/L			06/06/15 16:26	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 16:26	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 16:26	1
Toluene	ND		2.0		ug/L			06/06/15 16:26	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 16:26	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 16:26	1
Tetrachloroethene	25		3.0		ug/L			06/06/15 16:26	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 16:26	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 16:26	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 16:26	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 16:26	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 16:26	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 16:26	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 16:26	1
o-Xylene	ND		2.0		ug/L			06/06/15 16:26	1
Styrene	ND		5.0		ug/L			06/06/15 16:26	1
Bromoform	ND		1.0		ug/L			06/06/15 16:26	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 16:26	1
Bromobenzene	ND		2.0		ug/L			06/06/15 16:26	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 16:26	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 16:26	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 16:26	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:26	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-7
Date Collected: 05/27/15 15:15
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-7
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			06/06/15 16:26	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:26	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 16:26	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:26	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 16:26	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 16:26	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 16:26	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 16:26	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		06/06/15 16:26	1
4-Bromofluorobenzene (Surr)	99		75 - 120		06/06/15 16:26	1
Dibromofluoromethane (Surr)	96		85 - 115		06/06/15 16:26	1
Trifluorotoluene (Surr)	100		70 - 136		06/06/15 16:26	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/06/15 16:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 03:20	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 03:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		85 - 120		06/12/15 03:20	1
4-Bromofluorobenzene (Surr)	96		75 - 120		06/12/15 03:20	1
Dibromofluoromethane (Surr)	108		85 - 115		06/12/15 03:20	1
Trifluorotoluene (Surr)	78		70 - 136		06/12/15 03:20	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 120		06/12/15 03:20	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			05/31/15 17:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		50 - 150		05/31/15 17:21	1
4-Bromofluorobenzene (Surr)	97		50 - 150		05/31/15 17:21	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)	ND		0.20		mg/L		06/02/15 12:08	06/03/15 13:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		50 - 150	06/02/15 12:08	06/03/15 13:28	1

Method: SM 9215B - Heterotrophic Plate Count

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Heterotrophic Plate Count	7.5	H	1.0		CFU/mL			05/30/15 15:10	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-8
Date Collected: 05/27/15 16:35
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-8
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			06/06/15 16:52	1
Chloromethane	ND		5.0		ug/L			06/06/15 16:52	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 16:52	1
Bromomethane	ND		5.0		ug/L			06/06/15 16:52	1
Chloroethane	ND		5.0		ug/L			06/06/15 16:52	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 16:52	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 16:52	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 16:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 16:52	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 16:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 16:52	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 16:52	1
Chloroform	ND		1.0		ug/L			06/06/15 16:52	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 16:52	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 16:52	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 16:52	1
Benzene	ND		2.0		ug/L			06/06/15 16:52	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 16:52	1
Trichloroethene	ND		3.0		ug/L			06/06/15 16:52	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 16:52	1
Dibromomethane	ND		1.0		ug/L			06/06/15 16:52	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 16:52	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 16:52	1
Toluene	ND		2.0		ug/L			06/06/15 16:52	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 16:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 16:52	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 16:52	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 16:52	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 16:52	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 16:52	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 16:52	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 16:52	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 16:52	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 16:52	1
o-Xylene	ND		2.0		ug/L			06/06/15 16:52	1
Styrene	ND		5.0		ug/L			06/06/15 16:52	1
Bromoform	ND		1.0		ug/L			06/06/15 16:52	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 16:52	1
Bromobenzene	ND		2.0		ug/L			06/06/15 16:52	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 16:52	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 16:52	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 16:52	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:52	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-8
Date Collected: 05/27/15 16:35
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-8
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			06/06/15 16:52	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:52	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 16:52	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 16:52	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 16:52	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 16:52	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 16:52	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 16:52	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 16:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		85 - 120		06/06/15 16:52	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 16:52	1
Dibromofluoromethane (Surr)	99		85 - 115		06/06/15 16:52	1
Trifluorotoluene (Surr)	100		70 - 136		06/06/15 16:52	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/06/15 16:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 03:46	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 03:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		85 - 120		06/12/15 03:46	1
4-Bromofluorobenzene (Surr)	95		75 - 120		06/12/15 03:46	1
Dibromofluoromethane (Surr)	111		85 - 115		06/12/15 03:46	1
Trifluorotoluene (Surr)	79		70 - 136		06/12/15 03:46	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 120		06/12/15 03:46	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			06/01/15 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150		06/01/15 20:20	1
4-Bromofluorobenzene (Surr)	96		50 - 150		06/01/15 20:20	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)	ND		0.20		mg/L		06/02/15 12:08	06/03/15 13:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	72		50 - 150	06/02/15 12:08	06/03/15 13:44	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-9
Date Collected: 05/27/15 17:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-9
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			06/06/15 17:18	1
Chloromethane	ND		5.0		ug/L			06/06/15 17:18	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 17:18	1
Bromomethane	ND		5.0		ug/L			06/06/15 17:18	1
Chloroethane	ND		5.0		ug/L			06/06/15 17:18	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 17:18	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 17:18	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 17:18	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 17:18	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 17:18	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 17:18	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 17:18	1
Chloroform	ND		1.0		ug/L			06/06/15 17:18	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 17:18	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 17:18	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 17:18	1
Benzene	ND		2.0		ug/L			06/06/15 17:18	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 17:18	1
Trichloroethene	ND		3.0		ug/L			06/06/15 17:18	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 17:18	1
Dibromomethane	ND		1.0		ug/L			06/06/15 17:18	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 17:18	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 17:18	1
Toluene	ND		2.0		ug/L			06/06/15 17:18	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 17:18	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 17:18	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 17:18	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 17:18	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 17:18	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 17:18	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 17:18	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 17:18	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 17:18	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 17:18	1
o-Xylene	ND		2.0		ug/L			06/06/15 17:18	1
Styrene	ND		5.0		ug/L			06/06/15 17:18	1
Bromoform	ND		1.0		ug/L			06/06/15 17:18	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 17:18	1
Bromobenzene	ND		2.0		ug/L			06/06/15 17:18	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 17:18	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 17:18	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 17:18	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:18	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-9
Date Collected: 05/27/15 17:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-9
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			06/06/15 17:18	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:18	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 17:18	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:18	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 17:18	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 17:18	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 17:18	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 17:18	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		85 - 120		06/06/15 17:18	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 17:18	1
Dibromofluoromethane (Surr)	98		85 - 115		06/06/15 17:18	1
Trifluorotoluene (Surr)	97		70 - 136		06/06/15 17:18	1
1,2-Dichloroethane-d4 (Surr)	97		70 - 120		06/06/15 17:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 04:12	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 04:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		06/12/15 04:12	1
4-Bromofluorobenzene (Surr)	95		75 - 120		06/12/15 04:12	1
Dibromofluoromethane (Surr)	111		85 - 115		06/12/15 04:12	1
Trifluorotoluene (Surr)	78		70 - 136		06/12/15 04:12	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		06/12/15 04:12	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			06/01/15 20:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		50 - 150		06/01/15 20:53	1
4-Bromofluorobenzene (Surr)	97		50 - 150		06/01/15 20:53	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		0.21		mg/L		06/02/15 12:08	06/03/15 14:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	72		50 - 150	06/02/15 12:08	06/03/15 14:00	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-10

Date Collected: 05/27/15 18:55

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-10

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			06/06/15 17:45	1
Chloromethane	ND		5.0		ug/L			06/06/15 17:45	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 17:45	1
Bromomethane	ND		5.0		ug/L			06/06/15 17:45	1
Chloroethane	ND		5.0		ug/L			06/06/15 17:45	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 17:45	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 17:45	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 17:45	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 17:45	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 17:45	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 17:45	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 17:45	1
Chloroform	ND		1.0		ug/L			06/06/15 17:45	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 17:45	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 17:45	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 17:45	1
Benzene	ND		2.0		ug/L			06/06/15 17:45	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 17:45	1
Trichloroethene	ND		3.0		ug/L			06/06/15 17:45	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 17:45	1
Dibromomethane	ND		1.0		ug/L			06/06/15 17:45	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 17:45	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 17:45	1
Toluene	ND		2.0		ug/L			06/06/15 17:45	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 17:45	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 17:45	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 17:45	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 17:45	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 17:45	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 17:45	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 17:45	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 17:45	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 17:45	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 17:45	1
o-Xylene	ND		2.0		ug/L			06/06/15 17:45	1
Styrene	ND		5.0		ug/L			06/06/15 17:45	1
Bromoform	ND		1.0		ug/L			06/06/15 17:45	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 17:45	1
Bromobenzene	ND		2.0		ug/L			06/06/15 17:45	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 17:45	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 17:45	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 17:45	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:45	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-10

Lab Sample ID: 580-50264-10

Date Collected: 05/27/15 18:55

Matrix: Water

Date Received: 05/29/15 10:00

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			06/06/15 17:45	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:45	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 17:45	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 17:45	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 17:45	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 17:45	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 17:45	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 17:45	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 17:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	96		85 - 120		06/06/15 17:45	1
4-Bromofluorobenzene (Surr)	98		75 - 120		06/06/15 17:45	1
Dibromofluoromethane (Surr)	97		85 - 115		06/06/15 17:45	1
Trifluorotoluene (Surr)	99		70 - 136		06/06/15 17:45	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 120		06/06/15 17:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 04:37	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 04:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		06/12/15 04:37	1
4-Bromofluorobenzene (Surr)	96		75 - 120		06/12/15 04:37	1
Dibromofluoromethane (Surr)	111		85 - 115		06/12/15 04:37	1
Trifluorotoluene (Surr)	80		70 - 136		06/12/15 04:37	1
1,2-Dichloroethane-d4 (Surr)	102		70 - 120		06/12/15 04:37	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			06/01/15 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	101		50 - 150		06/01/15 21:26	1
4-Bromofluorobenzene (Surr)	96		50 - 150		06/01/15 21:26	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		0.21		mg/L		06/02/15 12:08	06/03/15 14:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		50 - 150	06/02/15 12:08	06/03/15 14:16	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-11

Date Collected: 05/27/15 19:25

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-11

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			06/06/15 18:11	1
Chloromethane	ND		5.0		ug/L			06/06/15 18:11	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 18:11	1
Bromomethane	ND		5.0		ug/L			06/06/15 18:11	1
Chloroethane	ND		5.0		ug/L			06/06/15 18:11	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 18:11	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 18:11	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 18:11	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 18:11	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 18:11	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 18:11	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 18:11	1
Chloroform	ND		1.0		ug/L			06/06/15 18:11	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 18:11	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 18:11	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 18:11	1
Benzene	ND		2.0		ug/L			06/06/15 18:11	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 18:11	1
Trichloroethene	ND		3.0		ug/L			06/06/15 18:11	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 18:11	1
Dibromomethane	ND		1.0		ug/L			06/06/15 18:11	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 18:11	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 18:11	1
Toluene	ND		2.0		ug/L			06/06/15 18:11	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 18:11	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 18:11	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 18:11	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 18:11	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 18:11	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 18:11	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 18:11	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 18:11	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 18:11	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 18:11	1
o-Xylene	ND		2.0		ug/L			06/06/15 18:11	1
Styrene	ND		5.0		ug/L			06/06/15 18:11	1
Bromoform	ND		1.0		ug/L			06/06/15 18:11	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 18:11	1
Bromobenzene	ND		2.0		ug/L			06/06/15 18:11	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 18:11	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 18:11	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 18:11	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:11	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-11

Lab Sample ID: 580-50264-11

Date Collected: 05/27/15 19:25

Matrix: Water

Date Received: 05/29/15 10:00

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			06/06/15 18:11	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:11	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 18:11	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:11	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 18:11	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 18:11	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 18:11	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 18:11	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 18:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120		06/06/15 18:11	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 18:11	1
Dibromofluoromethane (Surr)	101		85 - 115		06/06/15 18:11	1
Trifluorotoluene (Surr)	98		70 - 136		06/06/15 18:11	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		06/06/15 18:11	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 05:03	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		06/12/15 05:03	1
4-Bromofluorobenzene (Surr)	97		75 - 120		06/12/15 05:03	1
Dibromofluoromethane (Surr)	112		85 - 115		06/12/15 05:03	1
Trifluorotoluene (Surr)	79		70 - 136		06/12/15 05:03	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 120		06/12/15 05:03	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			06/01/15 21:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		50 - 150		06/01/15 21:58	1
4-Bromofluorobenzene (Surr)	97		50 - 150		06/01/15 21:58	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		0.20		mg/L		06/02/15 12:08	06/03/15 14:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	77		50 - 150	06/02/15 12:08	06/03/15 14:49	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: BD-1

Date Collected: 05/27/15 00:00

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-12

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			06/06/15 18:37	1
Chloromethane	ND		5.0		ug/L			06/06/15 18:37	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 18:37	1
Bromomethane	ND		5.0		ug/L			06/06/15 18:37	1
Chloroethane	ND		5.0		ug/L			06/06/15 18:37	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 18:37	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 18:37	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 18:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 18:37	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 18:37	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 18:37	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 18:37	1
Chloroform	ND		1.0		ug/L			06/06/15 18:37	1
1,1,1-Trichloroethane	4.0		3.0		ug/L			06/06/15 18:37	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 18:37	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 18:37	1
Benzene	ND		2.0		ug/L			06/06/15 18:37	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 18:37	1
Trichloroethene	4.3		3.0		ug/L			06/06/15 18:37	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 18:37	1
Dibromomethane	ND		1.0		ug/L			06/06/15 18:37	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 18:37	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 18:37	1
Toluene	ND		2.0		ug/L			06/06/15 18:37	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 18:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 18:37	1
Tetrachloroethene	16		3.0		ug/L			06/06/15 18:37	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 18:37	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 18:37	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 18:37	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 18:37	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 18:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 18:37	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 18:37	1
o-Xylene	ND		2.0		ug/L			06/06/15 18:37	1
Styrene	ND		5.0		ug/L			06/06/15 18:37	1
Bromoform	ND		1.0		ug/L			06/06/15 18:37	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 18:37	1
Bromobenzene	ND		2.0		ug/L			06/06/15 18:37	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 18:37	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 18:37	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 18:37	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:37	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: BD-1

Lab Sample ID: 580-50264-12

Date Collected: 05/27/15 00:00

Matrix: Water

Date Received: 05/29/15 10:00

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			06/06/15 18:37	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:37	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 18:37	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 18:37	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 18:37	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 18:37	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 18:37	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 18:37	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 18:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		85 - 120		06/06/15 18:37	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 18:37	1
Dibromofluoromethane (Surr)	99		85 - 115		06/06/15 18:37	1
Trifluorotoluene (Surr)	99		70 - 136		06/06/15 18:37	1
1,2-Dichloroethane-d4 (Surr)	95		70 - 120		06/06/15 18:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 05:29	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 05:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		85 - 120		06/12/15 05:29	1
4-Bromofluorobenzene (Surr)	96		75 - 120		06/12/15 05:29	1
Dibromofluoromethane (Surr)	112		85 - 115		06/12/15 05:29	1
Trifluorotoluene (Surr)	81		70 - 136		06/12/15 05:29	1
1,2-Dichloroethane-d4 (Surr)	103		70 - 120		06/12/15 05:29	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			06/01/15 22:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	106		50 - 150		06/01/15 22:31	1
4-Bromofluorobenzene (Surr)	97		50 - 150		06/01/15 22:31	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)	0.37	Y	0.20		mg/L		06/02/15 12:08	06/03/15 15:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	77		50 - 150	06/02/15 12:08	06/03/15 15:05	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: BD-2
Date Collected: 05/27/15 00:00
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-13
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			06/06/15 19:04	1
Chloromethane	ND		5.0		ug/L			06/06/15 19:04	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 19:04	1
Bromomethane	ND		5.0		ug/L			06/06/15 19:04	1
Chloroethane	ND		5.0		ug/L			06/06/15 19:04	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 19:04	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 19:04	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 19:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 19:04	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 19:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 19:04	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 19:04	1
Chloroform	ND		1.0		ug/L			06/06/15 19:04	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 19:04	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 19:04	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 19:04	1
Benzene	ND		2.0		ug/L			06/06/15 19:04	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 19:04	1
Trichloroethene	ND		3.0		ug/L			06/06/15 19:04	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 19:04	1
Dibromomethane	ND		1.0		ug/L			06/06/15 19:04	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 19:04	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:04	1
Toluene	ND		2.0		ug/L			06/06/15 19:04	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 19:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 19:04	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 19:04	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 19:04	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 19:04	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 19:04	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 19:04	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 19:04	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 19:04	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 19:04	1
o-Xylene	ND		2.0		ug/L			06/06/15 19:04	1
Styrene	ND		5.0		ug/L			06/06/15 19:04	1
Bromoform	ND		1.0		ug/L			06/06/15 19:04	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 19:04	1
Bromobenzene	ND		2.0		ug/L			06/06/15 19:04	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 19:04	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 19:04	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 19:04	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:04	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: BD-2
Date Collected: 05/27/15 00:00
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-13
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			06/06/15 19:04	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:04	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 19:04	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 19:04	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 19:04	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 19:04	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 19:04	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 19:04	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 19:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		85 - 120					06/06/15 19:04	1
4-Bromofluorobenzene (Surr)	101		75 - 120					06/06/15 19:04	1
Dibromofluoromethane (Surr)	100		85 - 115					06/06/15 19:04	1
Trifluorotoluene (Surr)	97		70 - 136					06/06/15 19:04	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120					06/06/15 19:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/12/15 05:56	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/12/15 05:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		85 - 120					06/12/15 05:56	1
4-Bromofluorobenzene (Surr)	95		75 - 120					06/12/15 05:56	1
Dibromofluoromethane (Surr)	112		85 - 115					06/12/15 05:56	1
Trifluorotoluene (Surr)	76		70 - 136					06/12/15 05:56	1
1,2-Dichloroethane-d4 (Surr)	107		70 - 120					06/12/15 05:56	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	ND		0.050		mg/L			06/01/15 23:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	102		50 - 150					06/01/15 23:03	1
4-Bromofluorobenzene (Surr)	96		50 - 150					06/01/15 23:03	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		0.20		mg/L		06/02/15 12:08	06/03/15 15:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	73		50 - 150				06/02/15 12:08	06/03/15 15:21	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-50264-14

Date Collected: 05/26/15 00:01

Matrix: Water

Date Received: 05/29/15 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0		ug/L			06/06/15 13:49	1
Chloromethane	ND		5.0		ug/L			06/06/15 13:49	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 13:49	1
Bromomethane	ND		5.0		ug/L			06/06/15 13:49	1
Chloroethane	ND		5.0		ug/L			06/06/15 13:49	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 13:49	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 13:49	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 13:49	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 13:49	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 13:49	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 13:49	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 13:49	1
Chloroform	ND		1.0		ug/L			06/06/15 13:49	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 13:49	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 13:49	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 13:49	1
Benzene	ND		2.0		ug/L			06/06/15 13:49	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 13:49	1
Trichloroethene	ND		3.0		ug/L			06/06/15 13:49	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 13:49	1
Dibromomethane	ND		1.0		ug/L			06/06/15 13:49	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 13:49	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 13:49	1
Toluene	ND		2.0		ug/L			06/06/15 13:49	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 13:49	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 13:49	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 13:49	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 13:49	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 13:49	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 13:49	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 13:49	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 13:49	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 13:49	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 13:49	1
o-Xylene	ND		2.0		ug/L			06/06/15 13:49	1
Styrene	ND		5.0		ug/L			06/06/15 13:49	1
Bromoform	ND		1.0		ug/L			06/06/15 13:49	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 13:49	1
Bromobenzene	ND		2.0		ug/L			06/06/15 13:49	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 13:49	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 13:49	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 13:49	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 13:49	1

TestAmerica Seattle

Client Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: Trip Blank

Lab Sample ID: 580-50264-14

Date Collected: 05/26/15 00:01

Matrix: Water

Date Received: 05/29/15 10:00

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			06/06/15 13:49	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 13:49	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 13:49	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 13:49	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 13:49	1
1,2,4-Trichlorobenzene	ND	*	1.0		ug/L			06/06/15 13:49	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 13:49	1
Naphthalene	ND	*	2.0		ug/L			06/06/15 13:49	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 13:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		85 - 120		06/06/15 13:49	1
4-Bromofluorobenzene (Surr)	100		75 - 120		06/06/15 13:49	1
Dibromofluoromethane (Surr)	98		85 - 115		06/06/15 13:49	1
Trifluorotoluene (Surr)	102		70 - 136		06/06/15 13:49	1
1,2-Dichloroethane-d4 (Surr)	96		70 - 120		06/06/15 13:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND	H	3.0		ug/L			06/11/15 14:14	1
1,2,3-Trichlorobenzene	ND	H	2.0		ug/L			06/11/15 14:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		06/11/15 14:14	1
4-Bromofluorobenzene (Surr)	97		75 - 120		06/11/15 14:14	1
Dibromofluoromethane (Surr)	102		85 - 115		06/11/15 14:14	1
Trifluorotoluene (Surr)	95		70 - 136		06/11/15 14:14	1
1,2-Dichloroethane-d4 (Surr)	91		70 - 120		06/11/15 14:14	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			06/01/15 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	90		50 - 150		06/01/15 19:48	1
4-Bromofluorobenzene (Surr)	96		50 - 150		06/01/15 19:48	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: MB 580-191410/4

Matrix: Water

Analysis Batch: 191410

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			06/06/15 12:30	1
Chloromethane	ND		5.0		ug/L			06/06/15 12:30	1
Vinyl chloride	ND		1.0		ug/L			06/06/15 12:30	1
Bromomethane	ND		5.0		ug/L			06/06/15 12:30	1
Chloroethane	ND		5.0		ug/L			06/06/15 12:30	1
Trichlorofluoromethane	ND		3.0		ug/L			06/06/15 12:30	1
1,1-Dichloroethene	ND	^	2.0		ug/L			06/06/15 12:30	1
Methylene Chloride	ND		5.0		ug/L			06/06/15 12:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 12:30	1
1,1-Dichloroethane	ND		2.0		ug/L			06/06/15 12:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/06/15 12:30	1
Chlorobromomethane	ND		2.0		ug/L			06/06/15 12:30	1
Chloroform	ND		1.0		ug/L			06/06/15 12:30	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/06/15 12:30	1
Carbon tetrachloride	ND		3.0		ug/L			06/06/15 12:30	1
1,1-Dichloropropene	ND		3.0		ug/L			06/06/15 12:30	1
Benzene	ND		2.0		ug/L			06/06/15 12:30	1
1,2-Dichloroethane	ND		1.0		ug/L			06/06/15 12:30	1
Trichloroethene	ND		3.0		ug/L			06/06/15 12:30	1
1,2-Dichloropropane	ND		1.0		ug/L			06/06/15 12:30	1
Dibromomethane	ND		1.0		ug/L			06/06/15 12:30	1
Dichlorobromomethane	ND		2.0		ug/L			06/06/15 12:30	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 12:30	1
Toluene	ND		2.0		ug/L			06/06/15 12:30	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/06/15 12:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/06/15 12:30	1
Tetrachloroethene	ND		3.0		ug/L			06/06/15 12:30	1
1,3-Dichloropropane	ND		1.0		ug/L			06/06/15 12:30	1
Chlorodibromomethane	ND		1.0		ug/L			06/06/15 12:30	1
Ethylene Dibromide	ND		1.0		ug/L			06/06/15 12:30	1
Chlorobenzene	ND		2.0		ug/L			06/06/15 12:30	1
Ethylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/06/15 12:30	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/06/15 12:30	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/06/15 12:30	1
o-Xylene	ND		2.0		ug/L			06/06/15 12:30	1
Styrene	ND		5.0		ug/L			06/06/15 12:30	1
Bromoform	ND		1.0		ug/L			06/06/15 12:30	1
Isopropylbenzene	ND		2.0		ug/L			06/06/15 12:30	1
Bromobenzene	ND		2.0		ug/L			06/06/15 12:30	1
N-Propylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/06/15 12:30	1
2-Chlorotoluene	ND		3.0		ug/L			06/06/15 12:30	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
4-Chlorotoluene	ND		2.0		ug/L			06/06/15 12:30	1
tert-Butylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
sec-Butylbenzene	ND		3.0		ug/L			06/06/15 12:30	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: MB 580-191410/4
Matrix: Water
Analysis Batch: 191410

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		2.0		ug/L			06/06/15 12:30	1
4-Isopropyltoluene	ND		3.0		ug/L			06/06/15 12:30	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/06/15 12:30	1
n-Butylbenzene	ND		3.0		ug/L			06/06/15 12:30	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/06/15 12:30	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/06/15 12:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/06/15 12:30	1
Hexachlorobutadiene	ND		2.0		ug/L			06/06/15 12:30	1
Naphthalene	ND		2.0		ug/L			06/06/15 12:30	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/06/15 12:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		85 - 120		06/06/15 12:30	1
4-Bromofluorobenzene (Surr)	103		75 - 120		06/06/15 12:30	1
Dibromofluoromethane (Surr)	96		85 - 115		06/06/15 12:30	1
Trifluorotoluene (Surr)	100		70 - 136		06/06/15 12:30	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 120		06/06/15 12:30	1

Lab Sample ID: LCS 580-191410/5
Matrix: Water
Analysis Batch: 191410

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	24.9	17.7		ug/L		71	30 - 155
Chloromethane	25.1	17.8		ug/L		71	40 - 125
Vinyl chloride	25.0	18.0		ug/L		72	50 - 145
Bromomethane	25.0	20.3		ug/L		81	30 - 145
Chloroethane	25.0	19.4		ug/L		78	60 - 135
Trichlorofluoromethane	25.0	23.1		ug/L		92	60 - 145
1,1-Dichloroethene	20.0	21.6	^	ug/L		108	70 - 130
Methylene Chloride	20.0	21.0		ug/L		105	55 - 140
trans-1,2-Dichloroethene	20.0	20.9		ug/L		104	60 - 140
1,1-Dichloroethane	20.0	21.1		ug/L		105	70 - 135
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	70 - 125
Chlorobromomethane	20.0	20.8		ug/L		104	65 - 130
Chloroform	20.0	20.7		ug/L		104	65 - 135
1,1,1-Trichloroethane	20.0	20.9		ug/L		105	65 - 130
Carbon tetrachloride	20.0	21.8		ug/L		109	65 - 140
1,1-Dichloropropene	20.0	22.1		ug/L		110	75 - 130
Benzene	20.0	21.2		ug/L		106	80 - 120
1,2-Dichloroethane	20.0	20.1		ug/L		100	70 - 130
Trichloroethene	20.0	21.6		ug/L		108	70 - 125
1,2-Dichloropropane	20.0	20.2		ug/L		101	75 - 125
Dibromomethane	20.0	22.2		ug/L		111	75 - 125
Dichlorobromomethane	20.0	20.2		ug/L		101	75 - 120
cis-1,3-Dichloropropene	20.0	22.0		ug/L		110	70 - 130
Toluene	20.0	22.6		ug/L		113	75 - 120
trans-1,3-Dichloropropene	20.0	23.0		ug/L		115	55 - 140

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCS 580-191410/5
Matrix: Water
Analysis Batch: 191410

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	20.8		ug/L		104	75 - 125
Tetrachloroethene	20.0	23.8		ug/L		119	45 - 150
1,3-Dichloropropane	20.0	20.7		ug/L		104	75 - 125
Chlorodibromomethane	20.0	21.4		ug/L		107	60 - 135
Ethylene Dibromide	20.0	22.2		ug/L		111	80 - 120
Chlorobenzene	20.0	21.2		ug/L		106	80 - 120
Ethylbenzene	20.0	21.6		ug/L		108	75 - 125
1,1,1,2-Tetrachloroethane	20.0	22.2		ug/L		111	80 - 130
1,1,2,2-Tetrachloroethane	20.0	21.8		ug/L		109	65 - 130
m-Xylene & p-Xylene	20.0	22.6		ug/L		113	75 - 130
o-Xylene	20.0	20.4		ug/L		102	80 - 120
Styrene	20.0	21.5		ug/L		107	65 - 135
Bromoform	20.0	22.0		ug/L		110	70 - 130
Isopropylbenzene	20.0	22.1		ug/L		110	75 - 125
Bromobenzene	20.0	23.4		ug/L		117	75 - 125
N-Propylbenzene	20.0	23.3		ug/L		117	70 - 130
1,2,3-Trichloropropane	20.0	22.3		ug/L		112	75 - 125
2-Chlorotoluene	20.0	22.9		ug/L		115	75 - 125
1,3,5-Trimethylbenzene	20.0	24.7		ug/L		124	75 - 130
4-Chlorotoluene	20.0	23.1		ug/L		116	75 - 130
tert-Butylbenzene	20.0	24.9		ug/L		125	70 - 130
1,2,4-Trimethylbenzene	20.0	22.3		ug/L		112	75 - 130
sec-Butylbenzene	20.0	23.1		ug/L		115	70 - 125
1,3-Dichlorobenzene	20.0	21.9		ug/L		109	75 - 125
4-Isopropyltoluene	20.0	21.6		ug/L		108	75 - 130
1,4-Dichlorobenzene	20.0	21.5		ug/L		108	75 - 125
n-Butylbenzene	20.0	20.8		ug/L		104	70 - 135
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	25.0		ug/L		125	50 - 130
1,2,4-Trichlorobenzene	20.0	27.0		ug/L		135	65 - 135
Hexachlorobutadiene	20.0	26.2		ug/L		131	50 - 140
Naphthalene	20.0	29.5 *		ug/L		148	55 - 140
Methyl tert-butyl ether	20.0	20.8		ug/L		104	65 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	99		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115
Trifluorotoluene (Surr)	100		70 - 136
1,2-Dichloroethane-d4 (Surr)	95		70 - 120

Lab Sample ID: LCSD 580-191410/6
Matrix: Water
Analysis Batch: 191410

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	24.9	20.2		ug/L		81	30 - 155	13	30
Chloromethane	25.1	20.2		ug/L		81	40 - 125	13	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-191410/6

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 191410

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	25.0	20.5		ug/L		82	50 - 145	13	30
Bromomethane	25.0	23.4		ug/L		94	30 - 145	14	30
Chloroethane	25.0	21.7		ug/L		87	60 - 135	11	30
Trichlorofluoromethane	25.0	25.8		ug/L		103	60 - 145	11	30
1,1-Dichloroethene	20.0	23.1	^	ug/L		116	70 - 130	7	30
Methylene Chloride	20.0	22.2		ug/L		111	55 - 140	6	30
trans-1,2-Dichloroethene	20.0	22.1		ug/L		110	60 - 140	6	30
1,1-Dichloroethane	20.0	21.8		ug/L		109	70 - 135	3	30
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	70 - 125	4	30
Chlorobromomethane	20.0	21.8		ug/L		109	65 - 130	5	30
Chloroform	20.0	21.5		ug/L		108	65 - 135	4	30
1,1,1-Trichloroethane	20.0	22.8		ug/L		114	65 - 130	8	30
Carbon tetrachloride	20.0	23.6		ug/L		118	65 - 140	8	30
1,1-Dichloropropene	20.0	23.1		ug/L		116	75 - 130	5	30
Benzene	20.0	21.9		ug/L		110	80 - 120	3	30
1,2-Dichloroethane	20.0	20.0		ug/L		100	70 - 130	0	30
Trichloroethene	20.0	21.8		ug/L		109	70 - 125	1	30
1,2-Dichloropropane	20.0	20.7		ug/L		104	75 - 125	2	30
Dibromomethane	20.0	21.9		ug/L		110	75 - 125	1	30
Dichlorobromomethane	20.0	20.6		ug/L		103	75 - 120	2	30
cis-1,3-Dichloropropene	20.0	21.5		ug/L		108	70 - 130	2	30
Toluene	20.0	22.7		ug/L		114	75 - 120	1	30
trans-1,3-Dichloropropene	20.0	22.0		ug/L		110	55 - 140	4	30
1,1,2-Trichloroethane	20.0	20.1		ug/L		100	75 - 125	4	30
Tetrachloroethene	20.0	24.3		ug/L		122	45 - 150	2	30
1,3-Dichloropropane	20.0	19.7		ug/L		99	75 - 125	5	30
Chlorodibromomethane	20.0	21.3		ug/L		107	60 - 135	1	30
Ethylene Dibromide	20.0	21.3		ug/L		106	80 - 120	4	30
Chlorobenzene	20.0	21.4		ug/L		107	80 - 120	1	30
Ethylbenzene	20.0	22.0		ug/L		110	75 - 125	2	30
1,1,1,2-Tetrachloroethane	20.0	23.7		ug/L		118	80 - 130	7	30
1,1,2,2-Tetrachloroethane	20.0	21.4		ug/L		107	65 - 130	2	30
m-Xylene & p-Xylene	20.0	22.9		ug/L		114	75 - 130	1	30
o-Xylene	20.0	21.5		ug/L		108	80 - 120	5	30
Styrene	20.0	21.5		ug/L		107	65 - 135	0	30
Bromoform	20.0	22.5		ug/L		112	70 - 130	2	30
Isopropylbenzene	20.0	23.6		ug/L		118	75 - 125	6	30
Bromobenzene	20.0	23.0		ug/L		115	75 - 125	2	30
N-Propylbenzene	20.0	23.2		ug/L		116	70 - 130	0	30
1,2,3-Trichloropropane	20.0	21.1		ug/L		106	75 - 125	5	30
2-Chlorotoluene	20.0	23.3		ug/L		117	75 - 125	2	30
1,3,5-Trimethylbenzene	20.0	24.8		ug/L		124	75 - 130	0	30
4-Chlorotoluene	20.0	22.5		ug/L		113	75 - 130	3	30
tert-Butylbenzene	20.0	24.8		ug/L		124	70 - 130	1	30
1,2,4-Trimethylbenzene	20.0	22.8		ug/L		114	75 - 130	2	30
sec-Butylbenzene	20.0	23.4		ug/L		117	70 - 125	2	30
1,3-Dichlorobenzene	20.0	22.1		ug/L		111	75 - 125	1	30
4-Isopropyltoluene	20.0	22.0		ug/L		110	75 - 130	2	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-191410/6
Matrix: Water
Analysis Batch: 191410

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	20.0	21.6		ug/L		108	75 - 125	0	30
n-Butylbenzene	20.0	21.6		ug/L		108	70 - 135	4	30
1,2-Dichlorobenzene	20.0	20.1		ug/L		101	70 - 120	2	30
1,2-Dibromo-3-Chloropropane	20.0	24.0		ug/L		120	50 - 130	4	30
1,2,4-Trichlorobenzene	20.0	27.3	*	ug/L		136	65 - 135	1	30
Hexachlorobutadiene	20.0	26.4		ug/L		132	50 - 140	1	30
Naphthalene	20.0	29.6	*	ug/L		148	55 - 140	0	30
Methyl tert-butyl ether	20.0	21.4		ug/L		107	65 - 125	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Toluene-d8 (Surr)	98		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	102		70 - 136
1,2-Dichloroethane-d4 (Surr)	93		70 - 120

Lab Sample ID: MB 580-191856/4
Matrix: Water
Analysis Batch: 191856

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		3.0		ug/L			06/11/15 12:29	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/11/15 12:29	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		85 - 120		06/11/15 12:29	1
4-Bromofluorobenzene (Surr)	93		75 - 120		06/11/15 12:29	1
Dibromofluoromethane (Surr)	98		85 - 115		06/11/15 12:29	1
Trifluorotoluene (Surr)	105		70 - 136		06/11/15 12:29	1
1,2-Dichloroethane-d4 (Surr)	84		70 - 120		06/11/15 12:29	1

Lab Sample ID: LCS 580-191856/5
Matrix: Water
Analysis Batch: 191856

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,2-Dichloropropane	20.0	20.3		ug/L		101	70 - 135
1,2,3-Trichlorobenzene	20.0	21.1		ug/L		105	55 - 140

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
Toluene-d8 (Surr)	106		85 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	100		85 - 115
Trifluorotoluene (Surr)	98		70 - 136
1,2-Dichloroethane-d4 (Surr)	85		70 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-191856/6
Matrix: Water
Analysis Batch: 191856

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
2,2-Dichloropropane	20.0	26.0		ug/L		130	70 - 135	25	30
1,2,3-Trichlorobenzene	20.0	22.9		ug/L		115	55 - 140	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	107		85 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	101		85 - 115
Trifluorotoluene (Surr)	102		70 - 136
1,2-Dichloroethane-d4 (Surr)	86		70 - 120

Lab Sample ID: MB 580-191915/4
Matrix: Water
Analysis Batch: 191915

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0		ug/L			06/12/15 00:18	1
Trichlorofluoromethane	ND		3.0		ug/L			06/12/15 00:18	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/12/15 00:18	1
2,2-Dichloropropane	ND		3.0		ug/L			06/12/15 00:18	1
Trichloroethene	ND		3.0		ug/L			06/12/15 00:18	1
Toluene	ND		2.0		ug/L			06/12/15 00:18	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/12/15 00:18	1
Tetrachloroethene	ND		3.0		ug/L			06/12/15 00:18	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/12/15 00:18	1
Styrene	ND		5.0		ug/L			06/12/15 00:18	1
tert-Butylbenzene	ND		3.0		ug/L			06/12/15 00:18	1
sec-Butylbenzene	ND		3.0		ug/L			06/12/15 00:18	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/12/15 00:18	1
Naphthalene	ND		2.0		ug/L			06/12/15 00:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		06/12/15 00:18	1
4-Bromofluorobenzene (Surr)	95		75 - 120		06/12/15 00:18	1
Dibromofluoromethane (Surr)	101		85 - 115		06/12/15 00:18	1
Trifluorotoluene (Surr)	86		70 - 136		06/12/15 00:18	1
1,2-Dichloroethane-d4 (Surr)	92		70 - 120		06/12/15 00:18	1

Lab Sample ID: LCS 580-191915/5
Matrix: Water
Analysis Batch: 191915

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	25.0	19.4		ug/L		78	50 - 145
Trichlorofluoromethane	25.0	18.6		ug/L		74	60 - 145
trans-1,2-Dichloroethene	20.0	19.8		ug/L		99	60 - 140
2,2-Dichloropropane	20.0	17.7		ug/L		89	70 - 135
Trichloroethene	20.0	17.7		ug/L		89	70 - 125

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCS 580-191915/5
Matrix: Water
Analysis Batch: 191915

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	20.0	19.0		ug/L		95	75 - 120
trans-1,3-Dichloropropene	20.0	20.3		ug/L		101	55 - 140
Tetrachloroethene	20.0	22.9		ug/L		114	45 - 150
m-Xylene & p-Xylene	20.0	19.3		ug/L		96	75 - 130
Styrene	20.0	19.3		ug/L		97	65 - 135
tert-Butylbenzene	20.0	18.4		ug/L		92	70 - 130
sec-Butylbenzene	20.0	18.3		ug/L		92	70 - 125
1,2,3-Trichlorobenzene	20.0	21.4		ug/L		107	55 - 140
Naphthalene	20.0	22.5		ug/L		113	55 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	104		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	106		85 - 115
Trifluorotoluene (Surr)	85		70 - 136
1,2-Dichloroethane-d4 (Surr)	93		70 - 120

Lab Sample ID: LCSD 580-191915/6
Matrix: Water
Analysis Batch: 191915

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
Vinyl chloride	25.0	20.1		ug/L		80	50 - 145	3	30
Trichlorofluoromethane	25.0	19.3		ug/L		77	60 - 145	4	30
trans-1,2-Dichloroethene	20.0	20.9		ug/L		104	60 - 140	5	30
2,2-Dichloropropane	20.0	18.3		ug/L		91	70 - 135	3	30
Trichloroethene	20.0	18.9		ug/L		94	70 - 125	6	30
Toluene	20.0	20.3		ug/L		102	75 - 120	6	30
trans-1,3-Dichloropropene	20.0	20.9		ug/L		104	55 - 140	3	30
Tetrachloroethene	20.0	21.9		ug/L		110	45 - 150	4	30
m-Xylene & p-Xylene	20.0	20.6		ug/L		103	75 - 130	6	30
Styrene	20.0	20.4		ug/L		102	65 - 135	5	30
tert-Butylbenzene	20.0	19.9		ug/L		100	70 - 130	8	30
sec-Butylbenzene	20.0	20.3		ug/L		101	70 - 125	10	30
1,2,3-Trichlorobenzene	20.0	22.1		ug/L		110	55 - 140	3	30
Naphthalene	20.0	23.1		ug/L		116	55 - 140	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	104		85 - 120
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Trifluorotoluene (Surr)	86		70 - 136
1,2-Dichloroethane-d4 (Surr)	91		70 - 120

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: MB 580-191987/4

Matrix: Water

Analysis Batch: 191987

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			06/12/15 14:09	1
Chloromethane	ND		5.0		ug/L			06/12/15 14:09	1
Vinyl chloride	ND		1.0		ug/L			06/12/15 14:09	1
Bromomethane	ND		5.0		ug/L			06/12/15 14:09	1
Chloroethane	ND		5.0		ug/L			06/12/15 14:09	1
Trichlorofluoromethane	ND		3.0		ug/L			06/12/15 14:09	1
1,1-Dichloroethene	ND		2.0		ug/L			06/12/15 14:09	1
Methylene Chloride	ND		5.0		ug/L			06/12/15 14:09	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/12/15 14:09	1
1,1-Dichloroethane	ND		2.0		ug/L			06/12/15 14:09	1
2,2-Dichloropropane	ND		3.0		ug/L			06/12/15 14:09	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/12/15 14:09	1
Chlorobromomethane	ND		2.0		ug/L			06/12/15 14:09	1
Chloroform	ND		1.0		ug/L			06/12/15 14:09	1
1,1,1-Trichloroethane	ND		3.0		ug/L			06/12/15 14:09	1
Carbon tetrachloride	ND		3.0		ug/L			06/12/15 14:09	1
1,1-Dichloropropene	ND		3.0		ug/L			06/12/15 14:09	1
Benzene	ND		2.0		ug/L			06/12/15 14:09	1
1,2-Dichloroethane	ND		1.0		ug/L			06/12/15 14:09	1
Trichloroethene	ND		3.0		ug/L			06/12/15 14:09	1
1,2-Dichloropropane	ND		1.0		ug/L			06/12/15 14:09	1
Dibromomethane	ND		1.0		ug/L			06/12/15 14:09	1
Dichlorobromomethane	ND		2.0		ug/L			06/12/15 14:09	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/12/15 14:09	1
Toluene	ND		2.0		ug/L			06/12/15 14:09	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/12/15 14:09	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/12/15 14:09	1
Tetrachloroethene	ND		3.0		ug/L			06/12/15 14:09	1
1,3-Dichloropropane	ND		1.0		ug/L			06/12/15 14:09	1
Chlorodibromomethane	ND		1.0		ug/L			06/12/15 14:09	1
Ethylene Dibromide	ND		1.0		ug/L			06/12/15 14:09	1
Chlorobenzene	ND		2.0		ug/L			06/12/15 14:09	1
Ethylbenzene	ND		3.0		ug/L			06/12/15 14:09	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/12/15 14:09	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/12/15 14:09	1
m-Xylene & p-Xylene	ND		3.0		ug/L			06/12/15 14:09	1
o-Xylene	ND		2.0		ug/L			06/12/15 14:09	1
Styrene	ND		5.0		ug/L			06/12/15 14:09	1
Bromoform	ND		1.0		ug/L			06/12/15 14:09	1
Isopropylbenzene	ND		2.0		ug/L			06/12/15 14:09	1
Bromobenzene	ND		2.0		ug/L			06/12/15 14:09	1
N-Propylbenzene	ND		3.0		ug/L			06/12/15 14:09	1
1,2,3-Trichloropropane	ND		2.0		ug/L			06/12/15 14:09	1
2-Chlorotoluene	ND		3.0		ug/L			06/12/15 14:09	1
1,3,5-Trimethylbenzene	ND		3.0		ug/L			06/12/15 14:09	1
4-Chlorotoluene	ND		2.0		ug/L			06/12/15 14:09	1
tert-Butylbenzene	ND		3.0		ug/L			06/12/15 14:09	1
1,2,4-Trimethylbenzene	ND		3.0		ug/L			06/12/15 14:09	1

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: MB 580-191987/4
Matrix: Water
Analysis Batch: 191987

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			06/12/15 14:09	1
1,3-Dichlorobenzene	ND		2.0		ug/L			06/12/15 14:09	1
4-Isopropyltoluene	ND		3.0		ug/L			06/12/15 14:09	1
1,4-Dichlorobenzene	ND		2.0		ug/L			06/12/15 14:09	1
n-Butylbenzene	ND		3.0		ug/L			06/12/15 14:09	1
1,2-Dichlorobenzene	ND		2.0		ug/L			06/12/15 14:09	1
1,2-Dibromo-3-Chloropropane	ND		2.0		ug/L			06/12/15 14:09	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/12/15 14:09	1
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/12/15 14:09	1
Hexachlorobutadiene	ND		2.0		ug/L			06/12/15 14:09	1
Naphthalene	ND		2.0		ug/L			06/12/15 14:09	1
Methyl tert-butyl ether	ND		1.0		ug/L			06/12/15 14:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		85 - 120		06/12/15 14:09	1
4-Bromofluorobenzene (Surr)	95		75 - 120		06/12/15 14:09	1
Dibromofluoromethane (Surr)	104		85 - 115		06/12/15 14:09	1
Trifluorotoluene (Surr)	93		70 - 136		06/12/15 14:09	1
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		06/12/15 14:09	1

Lab Sample ID: LCS 580-191987/5
Matrix: Water
Analysis Batch: 191987

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	24.9	18.6		ug/L		74	30 - 155
Chloromethane	25.1	22.8		ug/L		91	40 - 125
Vinyl chloride	25.0	20.1		ug/L		80	50 - 145
Bromomethane	25.0	25.1		ug/L		101	30 - 145
Chloroethane	25.0	24.9		ug/L		100	60 - 135
Trichlorofluoromethane	25.0	24.2		ug/L		97	60 - 145
1,1-Dichloroethene	20.0	19.1		ug/L		96	70 - 130
Methylene Chloride	20.0	21.0		ug/L		105	55 - 140
trans-1,2-Dichloroethene	20.0	22.0		ug/L		110	60 - 140
1,1-Dichloroethane	20.0	21.9		ug/L		110	70 - 135
2,2-Dichloropropane	20.0	22.3		ug/L		112	70 - 135
cis-1,2-Dichloroethene	20.0	21.9		ug/L		109	70 - 125
Chlorobromomethane	20.0	22.6		ug/L		113	65 - 130
Chloroform	20.0	21.0		ug/L		105	65 - 135
1,1,1-Trichloroethane	20.0	19.9		ug/L		99	65 - 130
Carbon tetrachloride	20.0	20.1		ug/L		100	65 - 140
1,1-Dichloropropene	20.0	22.4		ug/L		112	75 - 130
Benzene	20.0	21.4		ug/L		107	80 - 120
1,2-Dichloroethane	20.0	20.6		ug/L		103	70 - 130
Trichloroethene	20.0	20.7		ug/L		103	70 - 125
1,2-Dichloropropane	20.0	22.4		ug/L		112	75 - 125
Dibromomethane	20.0	22.1		ug/L		111	75 - 125
Dichlorobromomethane	20.0	21.1		ug/L		105	75 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCS 580-191987/5

Matrix: Water

Analysis Batch: 191987

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	23.5		ug/L		117	70 - 130
Toluene	20.0	20.7		ug/L		104	75 - 120
trans-1,3-Dichloropropene	20.0	23.0		ug/L		115	55 - 140
1,1,2-Trichloroethane	20.0	21.7		ug/L		108	75 - 125
Tetrachloroethene	20.0	20.8		ug/L		104	45 - 150
1,3-Dichloropropane	20.0	21.5		ug/L		107	75 - 125
Chlorodibromomethane	20.0	22.2		ug/L		111	60 - 135
Ethylene Dibromide	20.0	21.7		ug/L		109	80 - 120
Chlorobenzene	20.0	20.4		ug/L		102	80 - 120
Ethylbenzene	20.0	21.3		ug/L		106	75 - 125
1,1,1,2-Tetrachloroethane	20.0	22.9		ug/L		115	80 - 130
1,1,2,2-Tetrachloroethane	20.0	24.2		ug/L		121	65 - 130
m-Xylene & p-Xylene	20.0	21.6		ug/L		108	75 - 130
o-Xylene	20.0	23.1		ug/L		116	80 - 120
Styrene	20.0	20.8		ug/L		104	65 - 135
Bromoform	20.0	19.0		ug/L		95	70 - 130
Isopropylbenzene	20.0	23.4		ug/L		117	75 - 125
Bromobenzene	20.0	20.0		ug/L		100	75 - 125
N-Propylbenzene	20.0	20.6		ug/L		103	70 - 130
1,2,3-Trichloropropane	20.0	20.8		ug/L		104	75 - 125
2-Chlorotoluene	20.0	20.9		ug/L		104	75 - 125
1,3,5-Trimethylbenzene	20.0	21.5		ug/L		108	75 - 130
4-Chlorotoluene	20.0	20.3		ug/L		102	75 - 130
tert-Butylbenzene	20.0	21.4		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	20.0	21.6		ug/L		108	75 - 130
sec-Butylbenzene	20.0	21.8		ug/L		109	70 - 125
1,3-Dichlorobenzene	20.0	20.7		ug/L		103	75 - 125
4-Isopropyltoluene	20.0	19.8		ug/L		99	75 - 130
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	75 - 125
n-Butylbenzene	20.0	22.5		ug/L		113	70 - 135
1,2-Dichlorobenzene	20.0	22.2		ug/L		111	70 - 120
1,2-Dibromo-3-Chloropropane	20.0	22.4		ug/L		112	50 - 130
1,2,4-Trichlorobenzene	20.0	24.5		ug/L		123	65 - 135
1,2,3-Trichlorobenzene	20.0	23.5		ug/L		117	55 - 140
Hexachlorobutadiene	20.0	21.3		ug/L		107	50 - 140
Naphthalene	20.0	22.9		ug/L		115	55 - 140
Methyl tert-butyl ether	20.0	24.6		ug/L		123	65 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		85 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	106		85 - 115
Trifluorotoluene (Surr)	94		70 - 136
1,2-Dichloroethane-d4 (Surr)	99		70 - 120

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-191987/6

Matrix: Water

Analysis Batch: 191987

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	24.9	16.6		ug/L		67	30 - 155	11	30
Chloromethane	25.1	21.7		ug/L		87	40 - 125	5	30
Vinyl chloride	25.0	18.7		ug/L		75	50 - 145	7	30
Bromomethane	25.0	24.3		ug/L		97	30 - 145	3	30
Chloroethane	25.0	23.6		ug/L		95	60 - 135	5	30
Trichlorofluoromethane	25.0	22.0		ug/L		88	60 - 145	10	30
1,1-Dichloroethene	20.0	16.9		ug/L		84	70 - 130	13	30
Methylene Chloride	20.0	20.2		ug/L		101	55 - 140	4	30
trans-1,2-Dichloroethene	20.0	20.2		ug/L		101	60 - 140	9	30
1,1-Dichloroethane	20.0	20.3		ug/L		101	70 - 135	8	30
2,2-Dichloropropane	20.0	21.0		ug/L		105	70 - 135	6	30
cis-1,2-Dichloroethene	20.0	20.5		ug/L		103	70 - 125	6	30
Chlorobromomethane	20.0	21.6		ug/L		108	65 - 130	5	30
Chloroform	20.0	19.0		ug/L		95	65 - 135	10	30
1,1,1-Trichloroethane	20.0	17.8		ug/L		89	65 - 130	11	30
Carbon tetrachloride	20.0	17.9		ug/L		90	65 - 140	11	30
1,1-Dichloropropene	20.0	19.8		ug/L		99	75 - 130	13	30
Benzene	20.0	19.4		ug/L		97	80 - 120	10	30
1,2-Dichloroethane	20.0	18.7		ug/L		94	70 - 130	9	30
Trichloroethene	20.0	18.2		ug/L		91	70 - 125	13	30
1,2-Dichloropropane	20.0	20.6		ug/L		103	75 - 125	8	30
Dibromomethane	20.0	20.6		ug/L		103	75 - 125	7	30
Dichlorobromomethane	20.0	19.0		ug/L		95	75 - 120	10	30
cis-1,3-Dichloropropene	20.0	22.0		ug/L		110	70 - 130	7	30
Toluene	20.0	19.3		ug/L		96	75 - 120	7	30
trans-1,3-Dichloropropene	20.0	20.9		ug/L		105	55 - 140	10	30
1,1,2-Trichloroethane	20.0	21.3		ug/L		107	75 - 125	2	30
Tetrachloroethene	20.0	18.9		ug/L		94	45 - 150	10	30
1,3-Dichloropropane	20.0	20.1		ug/L		100	75 - 125	7	30
Chlorodibromomethane	20.0	21.0		ug/L		105	60 - 135	6	30
Ethylene Dibromide	20.0	20.6		ug/L		103	80 - 120	5	30
Chlorobenzene	20.0	19.2		ug/L		96	80 - 120	6	30
Ethylbenzene	20.0	19.9		ug/L		99	75 - 125	7	30
1,1,1,2-Tetrachloroethane	20.0	22.6		ug/L		113	80 - 130	2	30
1,1,2,2-Tetrachloroethane	20.0	24.0		ug/L		120	65 - 130	1	30
m-Xylene & p-Xylene	20.0	20.2		ug/L		101	75 - 130	7	30
o-Xylene	20.0	22.4		ug/L		112	80 - 120	3	30
Styrene	20.0	19.6		ug/L		98	65 - 135	6	30
Bromoform	20.0	18.3		ug/L		92	70 - 130	4	30
Isopropylbenzene	20.0	21.8		ug/L		109	75 - 125	7	30
Bromobenzene	20.0	19.0		ug/L		95	75 - 125	5	30
N-Propylbenzene	20.0	19.3		ug/L		96	70 - 130	7	30
1,2,3-Trichloropropane	20.0	20.7		ug/L		104	75 - 125	0	30
2-Chlorotoluene	20.0	19.8		ug/L		99	75 - 125	5	30
1,3,5-Trimethylbenzene	20.0	20.1		ug/L		100	75 - 130	7	30
4-Chlorotoluene	20.0	18.9		ug/L		94	75 - 130	7	30
tert-Butylbenzene	20.0	19.6		ug/L		98	70 - 130	9	30
1,2,4-Trimethylbenzene	20.0	20.5		ug/L		102	75 - 130	5	30

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-191987/6
Matrix: Water
Analysis Batch: 191987

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	20.0		ug/L		100	70 - 125	9	30
1,3-Dichlorobenzene	20.0	19.6		ug/L		98	75 - 125	5	30
4-Isopropyltoluene	20.0	18.4		ug/L		92	75 - 130	7	30
1,4-Dichlorobenzene	20.0	19.4		ug/L		97	75 - 125	5	30
n-Butylbenzene	20.0	20.9		ug/L		104	70 - 135	8	30
1,2-Dichlorobenzene	20.0	21.7		ug/L		109	70 - 120	2	30
1,2-Dibromo-3-Chloropropane	20.0	22.3		ug/L		112	50 - 130	0	30
1,2,4-Trichlorobenzene	20.0	24.1		ug/L		121	65 - 135	2	30
1,2,3-Trichlorobenzene	20.0	23.6		ug/L		118	55 - 140	0	30
Hexachlorobutadiene	20.0	19.9		ug/L		99	50 - 140	7	30
Naphthalene	20.0	23.5		ug/L		117	55 - 140	2	30
Methyl tert-butyl ether	20.0	24.2		ug/L		121	65 - 125	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Toluene-d8 (Surr)	104		85 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	104		85 - 115
Trifluorotoluene (Surr)	95		70 - 136
1,2-Dichloroethane-d4 (Surr)	92		70 - 120

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

Lab Sample ID: MB 580-190781/4
Matrix: Water
Analysis Batch: 190781

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			05/31/15 12:09	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	104		50 - 150		05/31/15 12:09	1
4-Bromofluorobenzene (Surr)	97		50 - 150		05/31/15 12:09	1

Lab Sample ID: LCS 580-190781/5
Matrix: Water
Analysis Batch: 190781

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	1.00	0.945		mg/L		95	60 - 120

Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits
Trifluorotoluene (Surr)	104		50 - 150
4-Bromofluorobenzene (Surr)	101		50 - 150

TestAmerica Seattle

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: LCSD 580-190781/6
Matrix: Water
Analysis Batch: 190781

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	1.00	0.963		mg/L		96	60 - 120	2	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
Trifluorotoluene (Surr)	108		50 - 150						
4-Bromofluorobenzene (Surr)	102		50 - 150						

Lab Sample ID: MB 580-190865/4
Matrix: Water
Analysis Batch: 190865

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			06/01/15 18:09	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Trifluorotoluene (Surr)	108		50 - 150					06/01/15 18:09	1
4-Bromofluorobenzene (Surr)	97		50 - 150					06/01/15 18:09	1

Lab Sample ID: LCS 580-190865/5
Matrix: Water
Analysis Batch: 190865

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	1.14		mg/L		98	60 - 120		
Surrogate	%Recovery	LCS Qualifier	Limits						
Trifluorotoluene (Surr)	112		50 - 150						
4-Bromofluorobenzene (Surr)	103		50 - 150						

Lab Sample ID: LCSD 580-190865/6
Matrix: Water
Analysis Batch: 190865

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	1.12		mg/L		96	60 - 120	2	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
Trifluorotoluene (Surr)	108		50 - 150						
4-Bromofluorobenzene (Surr)	103		50 - 150						

QC Sample Results

Client: ARCADIS U.S. Inc
 Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

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

Lab Sample ID: MB 580-190945/1-A
Matrix: Water
Analysis Batch: 191028

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 190945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.20		mg/L		06/02/15 12:08	06/03/15 09:25	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	69		50 - 150				06/02/15 12:08	06/03/15 09:25	1

Lab Sample ID: LCS 580-190945/2-A
Matrix: Water
Analysis Batch: 191028

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 190945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits		
DRO (nC10-<nC25)	4.00	3.31		mg/L		83	75 - 125		
Surrogate	%Recovery	LCS Qualifier	Limits				%Rec.		
<i>o</i> -Terphenyl	86		50 - 150						

Lab Sample ID: LCSD 580-190945/3-A
Matrix: Water
Analysis Batch: 191028

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 190945

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
DRO (nC10-<nC25)	4.00	3.25		mg/L		81	75 - 125	2	20
Surrogate	%Recovery	LCSD Qualifier	Limits				%Rec.	RPD	Limit
<i>o</i> -Terphenyl	80		50 - 150						

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-4
Date Collected: 05/27/15 08:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA2	1	191915	06/12/15 11:45	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 19:30	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 14:04	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 11:50	EKK	TAL SEA
Total/NA	Analysis	SM 9215B		1	259194	05/30/15 15:10 06/01/15 14:15	AMH	TAL IRV

Client Sample ID: MW-1
Date Collected: 05/27/15 09:55
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191856	06/11/15 16:52	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 19:56	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 14:37	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 12:07	EKK	TAL SEA
Total/NA	Analysis	SM 9215B		10	259194	05/30/15 15:10 06/01/15 14:15	AMH	TAL IRV

Client Sample ID: MW-3
Date Collected: 05/27/15 11:05
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 01:35	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 14:41	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 15:10	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 12:23	EKK	TAL SEA

Client Sample ID: MW-2
Date Collected: 05/27/15 12:30
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 02:02	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 15:07	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 15:43	CJ	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-2

Date Collected: 05/27/15 12:30

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 12:39	EKK	TAL SEA

Client Sample ID: MW-6

Date Collected: 05/27/15 13:45

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 02:27	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 15:33	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 16:15	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 12:55	EKK	TAL SEA

Client Sample ID: MW-5

Date Collected: 05/27/15 14:15

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 02:53	CJ	TAL SEA
Total/NA	Analysis	8260B	DL	100	191915	06/12/15 11:19	CJ	TAL SEA
Total/NA	Analysis	8260B	DL2	50	191987	06/12/15 22:41	D1R	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 15:59	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 16:48	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 13:11	EKK	TAL SEA
Total/NA	Analysis	SM 9215B		1	259194		AMH	TAL IRV
					(Start)	05/30/15 15:10		
					(End)	06/01/15 14:15		

Client Sample ID: MW-7

Date Collected: 05/27/15 15:15

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 03:20	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 16:26	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190781	05/31/15 17:21	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 13:28	EKK	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-7
Date Collected: 05/27/15 15:15
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9215B		1	259194	05/30/15 15:10 (Start) 06/01/15 14:15 (End)	AMH	TAL IRV

Client Sample ID: MW-8
Date Collected: 05/27/15 16:35
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 03:46	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 16:52	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 20:20	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 13:44	EKK	TAL SEA

Client Sample ID: MW-9
Date Collected: 05/27/15 17:50
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 04:12	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 17:18	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 20:53	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 14:00	EKK	TAL SEA

Client Sample ID: MW-10
Date Collected: 05/27/15 18:55
Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 04:37	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 17:45	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 21:26	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 14:16	EKK	TAL SEA

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Client Sample ID: MW-11

Date Collected: 05/27/15 19:25

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 05:03	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 18:11	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 21:58	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 14:49	EKK	TAL SEA

Client Sample ID: BD-1

Date Collected: 05/27/15 00:00

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 05:29	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 18:37	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 22:31	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 15:05	EKK	TAL SEA

Client Sample ID: BD-2

Date Collected: 05/27/15 00:00

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191915	06/12/15 05:56	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 19:04	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 23:03	CJ	TAL SEA
Total/NA	Prep	3510C			190945	06/02/15 12:08	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	191028	06/03/15 15:21	EKK	TAL SEA

Client Sample ID: Trip Blank

Date Collected: 05/26/15 00:01

Date Received: 05/29/15 10:00

Lab Sample ID: 580-50264-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	191856	06/11/15 14:14	CJ	TAL SEA
Total/NA	Analysis	8260B		1	191410	06/06/15 13:49	D1R	TAL SEA
Total/NA	Analysis	AK101		1	190865	06/01/15 19:48	CJ	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: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Laboratory: TestAmerica Seattle

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 (UST)	State Program	10	UST-022	03-02-16
California	State Program	9	2901	01-31-17
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-15
US Fish & Wildlife	Federal		LE192332-0	02-28-16
USDA	Federal		P330-11-00222	04-08-17
Washington	State Program	10	C553	02-17-16

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	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-16
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	06-06-15

* Certification renewal pending - certification considered valid.

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: GE-TBE Machine Shop (Former)

TestAmerica Job ID: 580-50264-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-50264-1	MW-4	Water	05/27/15 08:50	05/29/15 10:00
580-50264-2	MW-1	Water	05/27/15 09:55	05/29/15 10:00
580-50264-3	MW-3	Water	05/27/15 11:05	05/29/15 10:00
580-50264-4	MW-2	Water	05/27/15 12:30	05/29/15 10:00
580-50264-5	MW-6	Water	05/27/15 13:45	05/29/15 10:00
580-50264-6	MW-5	Water	05/27/15 14:15	05/29/15 10:00
580-50264-7	MW-7	Water	05/27/15 15:15	05/29/15 10:00
580-50264-8	MW-8	Water	05/27/15 16:35	05/29/15 10:00
580-50264-9	MW-9	Water	05/27/15 17:50	05/29/15 10:00
580-50264-10	MW-10	Water	05/27/15 18:55	05/29/15 10:00
580-50264-11	MW-11	Water	05/27/15 19:25	05/29/15 10:00
580-50264-12	BD-1	Water	05/27/15 00:00	05/29/15 10:00
580-50264-13	BD-2	Water	05/27/15 00:00	05/29/15 10:00
580-50264-14	Trip Blank	Water	05/26/15 00:01	05/29/15 10:00

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

580-50264 Chain of Custody



11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119

509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

1 of 2

CHAIN OF CUSTODY REPORT

Work Order #: *51104*

TURNAROUND REQUEST

In Business Days *

Organic & Inorganic Analyses **HC**
 Petroleum Hydrocarbon Analyses **HC**

7 5 4 3 2 1 <1
 4 3 2 1 <1

* Turnaround Request less than standard may incur Rush Charges.

OTHER Specify:

HC1 HC1 HC1 HC1 HC1
 PRESERVATIVE

REQUESTED ANALYSES

Matrix (W, S, O) # OF CONT. LOCATION/ COMMENTS TA WO ID

CLIENT:	REPORT TO:	ADDRESS:	PHONE:	PROJECT NAME:	PROJECT NUMBER:	SAMPLED BY:	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DATE:	TIME:	RECEIVED BY:	PRINT NAME:	DATE:	TIME:	TA	WO ID
ARCADIS	Matt DeHon	801 Corporate Center Dr, Suite 300 Raleigh, NC 27607	919.415.2308 FAX: 919.854.5448	GE-TBE Mulin Shop (Former)	8031255-1404-0005	David L. Scarborough	MW-4	5/22/15 / 0850	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	1	
							MW-1	5/22/15 / 0955	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	2	
							MW-3	5/22/15 / 1105	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	3	
							MW-2	5/22/15 / 1230	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	4	
							MW-6	5/22/15 / 1345	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	5	
							MW-5	5/22/15 / 1415	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	4	
							MW-7	5/22/15 / 1515	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	7	
							MW-8	5/22/15 / 1635	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	8	
							MW-9	5/22/15 / 1750	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	9	
							MW-10	5/22/15 / 1855	5/22/15	1442	Andrew Rick	TA-AK	5/28/15	1538	10	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11922 E. First Ave., Spokane WA 99206-5302
 9405 SW Nimbus Ave., Beaverton, OR 97008-7145
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119
 509-924-9200 FAX 924-9290
 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: **92104**

TURNAROUND REQUEST

In Business Days *

<input checked="" type="checkbox"/> STD.	<input type="checkbox"/> 7	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> <1
<input checked="" type="checkbox"/> STD.	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> <1		

OTHER Specify: _____

CLIENT: **ARCADIS**
 REPORT TO: **Matt Pelroy**
 ADDRESS: **801 Corporate Center Dr., Ste 300**
Raleigh, NC 27602
 PHONE: **919.415.2308** FAX: **919.854.5748**
 PROJECT NAME: **GE - Former TBE Manufacturing**
 PROJECT NUMBER: **B0031255.1404.0005**

INVOICE TO: **ARCADIS US, Inc.**
630 Plaza Dr Suite 100
Asheville, NC 28819
 PO NUMBER: **B0031255.1404.0005**
 PRESERVATIVE

MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
W	8		11
W	8		12
W	8		13
W			14

SAMPLED BY: David Braxton	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES		
			VOCs B260	GR0 AK101	DR0 AK102
1	MM-11	5/23/15/1945	✓	✓	✓
2	BD-1	5/23/15/	✓	✓	✓
3	BD-2	5/23/15/	✓	✓	✓
4	1trip Blank	/	✓	✓	✓
5					
6					
7					
8					
9					
10					

COOLER/DB Diger cor 4.0 unc 5.1
 Cooler Disc **WOPR/lo @ Lab**
 Wet/Packs Packing **Bubble**
4cs

COOLER/DB Diger cor 1.1 unc 0.8
 Cooler Disc **Blw/shk @ Lab**
 Wet/Packs Packing **Bubble**
w/c s lc

RELEASED BY: [Signature]	DATE: 5/23/15	RECEIVED BY: [Signature]	DATE: 5/23/15
PRINT NAME: David Braxton	TIME: _____	PRINT NAME: Andrew Pilek	TIME: 11:38
FIRM: ARCADIS		FIRM: TA-AK	
RELEASED BY: [Signature]	DATE: 5/28/15	RECEIVED BY: [Signature]	DATE: 5/24/15
PRINT NAME: Andrew Pilek	TIME: 14:42	PRINT NAME: Francisco Wang, Jr.	TIME: 10:00
FIRM: TA-AK		FIRM: TASEH	
TEMP: 3.9	PAGE 2 OF 2		

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
phone 916.374.4378 fax 916.372.1059

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.

Canister Samples Chain of Custody Record

50264

Client Contact Information		Project Manager: <i>Met Pelha</i>		Samples Collected By: <i>David Beavrin</i>		COC No: <i>4</i> of <i>1</i> COCs																																																																																																																	
Company Name: <i>ARCADIS</i>		Phone: <i>919.415.2308</i>		Address: <i>801 Corporate Center Dr Ste 300</i>		City/State/Zip: <i>Raleigh, NC 27607</i>																																																																																																																	
Phone: <i>919.415.2308</i>		Site Contact:		Email: <i>Hydro.Riba@arcadis-us.com</i>		For Lab Use Only: Walk-in Client: <input type="checkbox"/>																																																																																																																	
FAX: <i>919.857.5448</i>		TA Contact:		Project Name: <i>Tring TBE Mchng Shop</i>		Lab Sampling: <input type="checkbox"/>																																																																																																																	
Site/Location: <i>GE/NEK/Mark</i>		Analysis Turnaround Time		P.O.#: <i>80031255.1404.0005</i>		Job / SDG No.: <input type="checkbox"/>																																																																																																																	
Standard (Specify):		Rush (Specify):		Sample Specific Notes:		(See below for Add'l Items)																																																																																																																	
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																																																																																																																
<i>EPA Vent-A-052615</i>	<i>5/28/15</i>	<i>11:30</i>	<i>11:30</i>	<i>-28</i>	<i>-4</i>	<i>370020</i>	<i>370020</i>																																																																																																																
<table border="1"> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">TO-16 (Med / Std / Low / SIM)</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">MA-APH</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">EPA 3C</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">EPA 26C / 26.3</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">ASTM D-1946 / 1946 / 3688</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">EPA 15/16</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">TO-3</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">Other (Please specify in notes section)</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">Sample Type</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">Indoor Air</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">Ambient Air</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">Soil Gas</td> </tr> <tr> <td colspan="4">Temperature (Fahrenheit)</td> <td colspan="4">Landfill Gas</td> </tr> <tr> <td>Start</td> <td>Interior</td> <td>Ambient</td> <td>Stop</td> <td colspan="4">Other (Please specify in notes section)</td> </tr> </table>								Temperature (Fahrenheit)				TO-16 (Med / Std / Low / SIM)				Start	Interior	Ambient	Stop	MA-APH				Temperature (Fahrenheit)				EPA 3C				Start	Interior	Ambient	Stop	EPA 26C / 26.3				Temperature (Fahrenheit)				ASTM D-1946 / 1946 / 3688				Start	Interior	Ambient	Stop	EPA 15/16				Temperature (Fahrenheit)				TO-3				Start	Interior	Ambient	Stop	Other (Please specify in notes section)				Temperature (Fahrenheit)				Sample Type				Start	Interior	Ambient	Stop	Indoor Air				Temperature (Fahrenheit)				Ambient Air				Start	Interior	Ambient	Stop	Soil Gas				Temperature (Fahrenheit)				Landfill Gas				Start	Interior	Ambient	Stop	Other (Please specify in notes section)			
Temperature (Fahrenheit)				TO-16 (Med / Std / Low / SIM)																																																																																																																			
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Temperature (Fahrenheit)				TO-3																																																																																																																			
Start	Interior	Ambient	Stop	Other (Please specify in notes section)																																																																																																																			
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Temperature (Fahrenheit)				Landfill Gas																																																																																																																			
Start	Interior	Ambient	Stop	Other (Please specify in notes section)																																																																																																																			
<p>Special Instructions/QC Requirements & Comments:</p> <p>Cooler/TB Dye/IR cor 1.1 °C Cooler Dsc Lc Sh/wh/NO Lab 1000 Wet/Pack's Packing Rabbie Vias 1E</p>																																																																																																																							
Samples Shipped by:		Date / Time: <i>5/28/15</i>		Samples Received by:		Date / Time: <i>5/28/15</i>																																																																																																																	
Signature: <i>[Signature]</i>		Date / Time: <i>5/28/15</i>		Signature: <i>[Signature]</i>		Date / Time: <i>5/28/15</i>																																																																																																																	
Refrigerated by:		Date / Time: <i>5/28/15</i>		Received by:		Date / Time: <i>5/24/15</i>																																																																																																																	
Signature: <i>[Signature]</i>		Date / Time: <i>5/28/15</i>		Signature: <i>[Signature]</i>		Date / Time: <i>5/24/15</i>																																																																																																																	
Lab Use Only:		Shipper Name:		Condition:		Condition:																																																																																																																	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 580-50264-1

Login Number: 50264

List Source: TestAmerica Seattle

List Number: 1

Creator: Abello, Andrea N

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.	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: 580-50264-1

Login Number: 50264

List Number: 2

Creator: Kim, Guerry

List Source: TestAmerica Irvine

List Creation: 05/30/15 11:25 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.	False	
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	Check done at department level as required.



Attachment 2

Laboratory Data Review
Checklists

Laboratory Data Review Checklist

Completed by:

Title: Date:

CS Report Name: Report Date:

Consultant Firm:

Laboratory Name: Laboratory Report Number:

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 (applies to 1 sample).

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 ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No NA (Please explain) Comments:

For water samples: Temperature = 0.5°C
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:

HCl for VOCs, GRO, and DRO
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:

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:

8260B: LCS/LCSD outside control limits for multiple analytes (see section 6b. LCS/LCSD).
AK102 & 103: Sample MW-5 contained a hydrocarbon pattern in the diesel range.
TO-15: Surrogate recovery of 1,2-Dichloroethane-d4 for the following standard(s) was outside control limits (CCV)

c. Were all corrective actions documented?

Yes No NA (Please explain) Comments:

8260B: For associated detected results - re-analyzed after a passing LCS. For associated non-detected results - re-analysis not required due to high bias.

TO-15: 1,2-Dichloroethane 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 times: 8260B & AK101 = 14 days from collection to analysis; AK102 & 103: 14 days collection to extraction, 40 days extraction to analysis; TO-15 = 30 days

Collected - Water: 12/5/2014; Air: 12/3/2014

Analyzed - Water: 12/10/2014 (8260B: re-analysis: 12/12/14); Air: 12/19/2014

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:

No LCSD analysis performed for TO-15.

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:

8260B: Chloroethane: 136/126% (limits = 60-135%); Chloromethane: 118/129% (limits = 40-125%); Bromomethane: 136/150% (limits = 30-145%); 1,1-Dichloroethene: 126/139% (limits = 70-130%); 1,1,1-Trichloroethane: 134/148% (limits = 65-130%); Carbon tetrachloride: 128/142% (limits = 65-140%); o-Xylene: 126/130% (limits = 80-120%). All failed recoveries passed LCS/LCSD re-analysis

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:

All RPDs w/in limits

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

No samples are affected because all associated sample results were non-detect. Surrogate recovery failures all biased high.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain) Comments:

Indicated by "*"

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:

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:

Applies to water samples only

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 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:

BD-1 is field duplicated of MW-1

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:

Yes, all RPDs less than 30%

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 as all RPDs are within limits.

f. Decontamination or Equipment Blank (if applicable)

Yes No NA (Please explain) Comments:

Decontamination/Equipment blank not collected.

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:

Reset Form

Laboratory Data Review Checklist

Completed by:

Title: Date:

CS Report Name: Report Date:

Consultant Firm:

Laboratory Name: Laboratory Report Number:

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 ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes

No

NA (Please explain)

Comments:

1.6°C

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 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: For MW-1, MW-2, and MW-4, internal standard responses outside of acceptance limits due to antifoam. Samples from the same batch without antifoam did not have internal standard issues.
AK102/103: For MW-1, MW-2, and MW-5- Results in the DRO range are primarily due to weathered/degraded diesel fuel.
All others are discussed below.

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: 9/9/14
Prepped: (All) - 9/22/14 (AK102)
Analyzed: 9/16 (AK101), 9/17 (8260B), 9/23 (AK102)

c. All soils reported on a dry weight basis?

- Yes No NA (Please explain)

Comments:

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 for re-analysis due to elevated results.

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:

AK101: MB = 0.157 mg/L (Analysis batch = 169836); MB for analysis batch 169926 was ND

iii. If above PQL, what samples are affected?

Comments:

MW-1, MW-4, MW-5, MW-7, Trip Blank

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain)

Comments:

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:

Benzene: LCS = 121% (limits = 80 - 120%)

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 samples affected

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 or usability is not affected as all results are ND

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-1

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \frac{\text{Absolute Value of: } (R_1 - R_2)}{(R_1 + R_2)/2} \times 100$$

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:

No decon or equipment blank collected.

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:

N/A

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No NA (Please explain) Comments:

Reset Form

Laboratory Data Review Checklist

Completed by:

Title: Date:

CS Report Name: Report Date:

Consultant Firm:

Laboratory Name: Laboratory Report Number:

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 ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No NA (Please explain) Comments:

For water samples: Temperature = 1.1°C, 6.0°C
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:

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 documented.

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:

For 8260B - (1) CCV associated with batch 191410 recovered above upper control limit for 1,1-dichloroethene. For AK102/103 - (A) Elution pattern was later than the typical diesel fuel pattern for MW-4, MW-1, MW-3, MW-2, MW-6, and BD-1. (B) Elution pattern was a complex mixture of both earlier and later hydrocarbon envelopes for MW-5. All others discussed in sections below. All others discussed in sections below.

c. Were all corrective actions documented?

Yes No NA (Please explain) Comments:

(1) The sample associated with this CCV was non-detect; therefore, the data have been reported.

d. What is the effect on data quality/usability according to the case narrative?

Comments:

The data quality/usability is 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:

Holding times: 8260B & AK101 = 14 days from collection to analysis; AK102 & 103: 14 days collection to extraction, 40 days extraction to analysis; 9215B = 8 hours from collection to start of plate
Collected - 5/27/15 (Received at lab 5/29/15)
Prepped (AK102) - 6/2/2015
Analyzed - 8260B: 6/6/15 (Re-analysis: 6/11 - 6/12/15 OUTSIDE HOLD TIME); AK101: 5/31-6/1/15;
AK102: 6/3/2015; 9215B: start - 5/30/15 (OUTSIDE HOLD TIME), end - 6/1/15

c. All soils reported on a dry weight basis?

Yes No NA (Please explain)

Comments:

No soil samples on 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:

For 8260B: Samples re-analyzed at time t, where $HT < t < 2xHT$.
For 9215B: Sample plates started $> 2xHT$.
Data 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; no detections

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain)

Comments:

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:

An LCS/LCSD is not evaluated for Method 9215B (Heterotrophic Plate Count)

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:

8260B: For Analysis batch 191410 - LCS/LCSD %R for naphthalene = 148/148% (limits = 55-140%); LCSD %R for 1,2,4-trichlorobenzene = 136% (limits = 65-135%)

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:

MW-4, MW-1, MW-3, MW-2, MW-6, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, BD-1, BD-2, Trip Blank (for initial analysis [batch 191410] only).

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain) Comments:

Indicated by "*"

vii. Data quality or usability affected? (Please explain) Comments:

Data quality or usability is not affected because all associated results are non-detects.

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 a duplicate of MW-4
BD-2 is a duplicate of MW-8

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 or usability not affected because all RPDs are within limits

f. Decontamination or Equipment Blank (if applicable)

Yes No NA (Please explain) Comments:

Decontamination or equipment blank not collected.

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:

Reset Form