

# BGES, INC.

# ENVIRONMENTAL CONSULTANTS

### FORMER CUSTOM TRUCK (CURRENTLY SIX ROBBLEE'S) 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA

### **GROUNDWATER MONITORING REPORT (JUNE 2016)**

### FEBRUARY 2017

Submitted to:

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		ACKONTINS
AAC	-	Alaska Administrative Code
ADEC	-	Alaska Department of Environmental Conservation
AK	-	Alaska Method
BGES	-	Braunstein Geological and Environmental Services
BTEX	-	Benzene, Toluene, Ethylbenzene, and Total Xylenes
С	-	Celsius
CSM	-	Conceptual Site Model
DRO	-	Diesel Range Organics
EPA	-	Environmental Protection Agency
GeoTek	-	GeoTek Alaska, Inc.
GRO	-	Gasoline Range Organics
HCL	-	Hydrochloric Acid
J	-	Estimated Value
LCSD	-	Laboratory Control Spike Duplicate
LOQ	-	Limit of Quantitation
ml/min	-	Milliliters Per Minute
MRL	-	Method Reporting Limit
PAHs	-	Polynuclear Aromatic Hydrocarbons
QC	-	Quality Control
QEP	-	Qualified Environmental Professional
RPD	-	Relative Percent Difference
RRO	-	Residual Range Organics
SGS	-	SGS North America, Inc.
Six Robblee's	-	Six Robblee's, Inc.
UST	-	Underground Storage Tank
VOCs	-	Volatile Organic Compounds

### ACRONYMS

### **1.0 INTRODUCTION**

BGES, Inc. (BGES) was retained by Andy Robblee of Six Robblee's, Inc. (Six Robblee's) to conduct groundwater sampling at the Six Robblee's property located at 4748 Old Seward Highway, Anchorage, Alaska; hereafter referred to as the subject property (Figure 1). The purpose of this groundwater monitoring event was to assess the groundwater quality at this site. The fieldwork for this round of sampling (the tenth round of groundwater sampling performed by BGES) was performed on June 27 and 28, 2016 in accordance with the work plan prepared by BGES (dated June 14, 2016). The Alaska Department of Environmental Conservation (ADEC) changed the site status from "cleanup-complete with institutional controls" to "Active" in correspondence dated August 14, 2013. The ADEC Hazard Identification Number is 23658 and the ADEC File Number is 2100.26.252 for the subject property.

### 2.0 BACKGROUND

The property is located in the central portion of Anchorage, Alaska (Figure 1). The property had previously operated for many years as an automotive dealership that had on-site underground storage tanks (USTs) for fuel needs. Fuel is no longer dispensed at the site, and the tanks were removed in 1994. A one-story building that is operated as an automotive shop and accessory retail store is located on the property. The area west of the building is used for bulk storage of truck tops and auto accessories.

Numerous previous assessments have been performed by various environmental consulting firms at the site, including a 2004 Site Closure Report performed by Chemtrack. On June 14, 2004 the ADEC issued a "No Further Remedial Action Planned" status for this site. In addition, a "Record of Decision" was also issued for the site on the same date. In these documents, it was stated that quarterly groundwater monitoring in accordance with an approved work plan must be instituted.

BGES was contracted in 2005 to review the previous work plan and to resume groundwater sampling activities in accordance with the No Further Remedial Action Planned and Institutional Control Record of Decision documentation. The results of the previous groundwater sampling event, completed in June and July of 2015, were presented in the November 2015 Groundwater Monitoring Report.

### **3.0 PREVIOUS SITE WORK**

Two 5,000-gallon UST's, reportedly containing gasoline, were removed from the ground in 1994. Hydrocarbon contamination was observed in soils near the USTs and associated piping. In addition to removing the USTs, the excavation reportedly was continued to remove additional contaminated soil. Approximately 280 cubic yards of soil were reportedly removed from the site and treated at an off-site facility. Elevated concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in remaining soils.

Groundwater sampling was first performed by BGES in June of 2005. Monitoring Wells that were sampled during this sampling event included; MW-1, MW-2, MW-5, MW-8, MW-11, MW-12, B6/VE, and the Tap Well (facility well). The results indicated contaminant concentrations exceeding the following ADEC cleanup criteria: gasoline range organics (GRO) in Monitoring Wells MW-1, MW-2, MW-8, and B6/VE; diesel range organics (DRO) in MW-1, MW-2, and B6/VE; benzene in MW-1, MW-2, MW-5, MW-8, MW-12, and B6/VE; toluene in MW-1, MW-2, and B6/VE; ethylbenzene in MW-1, MW-2, and B6/VE; and, total xylenes in MW-2. The water sample collected from the Tap Well (facility well) did not exhibit any analyte concentrations above the laboratory's method reporting limit (MRL) and the ADEC cleanup criteria.

Groundwater sampling was performed again by BGES in August of 2005. Monitoring wells that were sampled during this sampling event included MW-1, MW-2, MW-3, MW-5, B6/VE, MW-8, MW-9, MW-10, MW-11, MW-12, and MW-15. The results indicated contaminant concentrations exceeding the following ADEC cleanup criteria: GRO in MW-1, MW-2, MW-5, MW-8, MW-15, and B6/VE; DRO in MW-1, MW-2, MW-5, MW-5, MW-11, MW-15, and B6/VE; residual range organics (RRO) in MW-1, MW-2, MW-5, B6/VE, MW-9, MW-11, MW-12, and MW-15; benzene in MW-1, MW-2, MW-5, B6/VE, MW-9, MW-11, MW-12, and MW-15; benzene in MW-1, MW-2, MW-5, B6/VE; ethylbenzene in MW-1, MW-2, MW-15, and B6/VE; and, total xylenes in MW-15.

Groundwater sampling was performed by BGES in March of 2006. Monitoring Wells that were sampled during this sampling event included MW-1, MW-2, B6/VE, MW-11, and MW-12. Water samples were analyzed for GRO, DRO, RRO, and BTEX. The results from the March 2006 sampling event indicated that GRO, DRO, RRO, and BTEX concentrations exceeded the ADEC cleanup criteria in Monitoring Wells MW-1, MW-2, and B6/VE (except for total xylenes in B6/VE). Benzene concentrations exceeded the ADEC cleanup criterion in Monitoring Wells MW-11 and MW-12. Additionally, the RRO concentration in Water Sample MW12 exceeded the ADEC cleanup criterion.

Groundwater sampling was performed by BGES in September of 2006. Wells that were sampled during this sampling event included MW-1, MW-2, B6/VE, MW-5, MW-8, MW-11, MW-12, and the facility well. Water samples were analyzed for GRO, DRO, RRO, and BTEX. The results from the September

2006 sampling event indicated that GRO, DRO, and RRO concentrations exceeded the ADEC cleanup criteria in Monitoring Wells MW-1, MW-2, and B6/VE. Benzene concentrations exceeded the ADEC cleanup criterion in each of the wells sampled, including the facility well. Concentrations of toluene and ethylbenzene exceeded the ADEC cleanup criteria in MW-1 and MW-2. Additionally, the toluene concentration in Water Sample B6/VE exceeded the ADEC cleanup criterion.

Groundwater sampling was performed by BGES in October of 2007. During that round of groundwater sampling, Monitoring Wells MW-1, MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-11, MW-12, MW-15, and B6/VE were sampled and analyzed for GRO, DRO, RRO, and BTEX. Additionally, Monitoring Wells MW-2 and MW-102 (duplicate of MW-2) were analyzed for polynuclear aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs). The results from the October 2007 sampling event indicated that GRO, DRO, RRO, benzene, toluene and ethylbenzene concentrations exceeded the ADEC cleanup criteria in MW-1, MW-2, and B6/VE (except for the RRO concentration in B6/VE). Benzene concentrations exceeded the ADEC cleanup criterion in every well sampled, except for Monitoring Wells MW-3, MW-9, and MW-10. Monitoring Well MW-8 exhibited a GRO concentration that exceeded the ADEC cleanup criterion in addition to the benzene exceedance described above. Monitoring Well MW-15 contained GRO, DRO, benzene, toluene, and ethylbenzene concentrations above the applicable ADEC cleanup criteria. None of the samples analyzed contained xylenes concentrations that exceeded the ADEC cleanup criterion. Two off-site, downgradient wells (MW-11 and MW-12) were tested and exhibited levels of contaminants that exceeded ADEC cleanup criteria.

Groundwater sampling was performed by BGES in August and September of 2012. Wells that were sampled during that sampling event included MW-1, MW-2, MW-3, MW-5, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14, MW-15, and B6/VE, and were analyzed for GRO, BTEX, DRO, and RRO. In addition, a water sample was collected from the facility well and labeled "Facility Well", and was analyzed for VOCs. The results from the August and September 2012 sampling events indicated that the water samples collected from Monitoring Wells MW-1 and MW-17 (duplicate of MW-1) exhibited concentrations of GRO, benzene, toluene, ethylbenzene, DRO, and RRO, which exceeded their respective ADEC cleanup criteria. The water samples collected from Monitoring Wells MW-8 and MW-15 exhibited concentrations of benzene, which exceeded the ADEC cleanup criteria. In addition, Water Sample B6/VE exhibited concentrations of GRO, benzene, toluene, DRO, and RRO, and RRO, which exceeded their respective ADEC cleanup criteria. Water Samples MW-8 and MW-15 exhibited concentrations of benzene, toluene, DRO, and RRO, which exceeded their respective ADEC cleanup criteria. Water Samples MW-8 and MW-15 exhibited concentrations of benzene, toluene, DRO, and RRO, which exceeded their respective ADEC cleanup criteria. Water Samples MW-8 and MW-15 exhibited concentrations of benzene, which exceeded the ADEC cleanup criterion. In addition, Water Sample B6/VE exhibited concentrations of GRO, benzene, toluene, DRO, and RRO, which exceeded ADEC cleanup criteria.

Prior to the 2013 monitoring round, a building survey and some preliminary soil gas sampling, in addition to groundwater sampling, was performed by BGES in May and June of 2013. Sub-slab soil gas samples collected from beneath the concrete slab in the southeastern portion of the building did not exhibit any analyte concentrations above the ADEC target levels for shallow soil gas. The groundwater samples collected from Monitoring Wells MW-2, MW-14, MW-13, and MW-20 exhibited concentrations of GRO, BTEX, DRO, and RRO that exceeded the respective ADEC cleanup criteria for these contaminants. In addition, Groundwater Samples MW-13 and MW-20 (duplicate of MW-13) exhibited concentrations of 1,2,4-trimethylbenzene and n-propylbenzene that exceeded the respective ADEC cleanup criteria for these contaminants. The groundwater samples collected from Monitoring Wells MW-1 and B6/VE exhibited concentrations of GRO, benzene, toluene, ethylbenzene, DRO, and RRO that exceeded the respective ADEC cleanup criteria for these contaminants. Groundwater Sample MW-15 exhibited concentrations of GRO, benzene, DRO, and RRO that exceeded the respective ADEC cleanup criteria for these contaminants. Groundwater Sample MW-15 exhibited concentrations of GRO, benzene, DRO, and RRO that exceeded the respective ADEC cleanup criteria for these contaminants. Groundwater Sample MW-15 exhibited concentrations of GRO, benzene, DRO, and RRO that exceeded the respective ADEC cleanup criteria for these contaminants.

Groundwater sampling was performed by BGES in April of 2014. Wells that were sampled included MW-1, MW-2, MW-5, MW-11, MW-12, MW-13, MW-14, MW-15, and B6/VE, and were analyzed for GRO, BTEX, DRO, and RRO. Many of the monitoring wells were in a damaged condition at the time of sampling, and one of the wells (MW-9) was submerged in water and was therefore not sampled during this event. In addition, a water sample was collected from the facility well and labeled "Facility Well", and was analyzed for VOCs. The results from the April 2014 sampling event indicated that each of the wells sampled, with the exception of Monitoring Well MW-11, exhibited concentrations of one or more analytes that exceeded the applicable ADEC cleanup criteria. The samples collected from Monitoring Wells MW-13, MW-14, and MW-16 (duplicate of MW-14) exhibited concentrations of GRO, BTEX, DRO, and RRO; all of which exceeded the respective ADEC cleanup criteria. The samples collected from Monitoring Wells MW-2 and B6/VE exhibited concentrations of GRO, benzene, toluene, ethylbenzene, DRO, and RRO that exceeded their respective ADEC cleanup criteria. The sample collected from Monitoring Well MW-1 exhibited concentrations of GRO, benzene, toluene, ethylbenzene, and DRO that exceeded the respective ADEC cleanup criteria for these analytes. The sample from Monitoring Well MW-5 exhibited a concentration of benzene that exceeded its ADEC cleanup criterion. The sample from Monitoring Well MW-12 exhibited a concentration of RRO that exceeded its ADEC cleanup criterion. The sample from Monitoring Well MW-15 exhibited concentrations of GRO, benzene, DRO, and RRO that exceeded their respective ADEC cleanup criteria.

On November 6, 2014, BGES met at the subject property with GeoTek Alaska, Inc. (GeoTek) of Anchorage, Alaska to repair the damaged monitoring wells. The flush-mounted covers were replaced for Monitoring Well MW-8, MW-9, MW-11, and B6/VE. The well caps were replaced on Monitoring Wells MW-2, MW-3, MW-5, B6/VE, MW-8, MW-10, MW-12, MW-13, MW-14, and MW-15.

In a letter dated December 16, 2014; Joshua Barsis, ADEC Project Manager, agreed to reduce groundwater monitoring activities at the subject property from quarterly to annually.

Groundwater sampling was performed by BGES in June and July, of 2015. Groundwater samples were collected from Monitoring Wells MW-5, MW-8, MW-9, MW-12, and MW-14, and were analyzed for GRO, DRO, RRO, and BTEX. An additional sample was collected from a facility well and was analyzed for VOCs. Each of the wells sampled, with the exception of Monitoring Well MW-9 and the facility well, exhibited concentrations of one or more analytes that exceeded the applicable ADEC cleanup criteria. The samples collected from Monitoring MW-14 and MW-6R (duplicate of MW-14) exhibited concentrations of GRO, BTEX, DRO, and RRO; all of which exceeded the respective ADEC cleanup criteria for these analytes. The samples collected from Monitoring Wells MW-5 and MW-8 exhibited concentrations of benzene that exceeded the ADEC cleanup criterion for this analyte. The sample from Monitoring Well MW-12 exhibited a concentration of RRO that exceeded the ADEC cleanup criterion for this analyte. In addition, BGES decommissioned the sub-slab soil gas sampling point on July 21, 2015.

Annual groundwater monitoring activities that were performed in June of 2016 are the subject of this report, and details and the results of these activities are presented below.

### 4.0 JUNE 2016 SAMPLING

BGES collected groundwater samples from Monitoring Wells MW-3, MW-5, MW-8, MW-9, MW-12, and MW-14 on June 27 and 28, 2016 (Figure 2) in accordance with our work plan (published June 14, 2016), which was approved by the ADEC on June 15, 2016.

Prior to sample collection, the depths to water and the total depths of each well were measured using an electronic water level indicator that was decontaminated prior to its use in each well by washing it in an Alconox (laboratory-grade detergent) solution, followed by a potable water rinse. The depth to water, the total depth of the wells, and the water quality parameters are presented in Table 1.

Prior to the collection of groundwater samples, the casing volume for each well was calculated. The

wells were purged utilizing a positive displacement bladder pump; a minimum of three casing volumes were removed from each well. During the purging activities, the stabilization parameters (pH, conductivity, oxidation-reduction potential, and temperature) were monitored, utilizing a YSI Professional Pro Multi-Parameter water quality meter. Upon completion of the purging activities, the groundwater samples were collected utilizing a low-flow sampling technique and an approximate flow rate of 150 milliliters per minute (ml/min). Portions of the samples scheduled for volatiles analyses were collected first by filling laboratory-supplied containers that were preserved with hydrochloric acid (HCL). Care was taken during filling of the containers to ensure that no headspace was left within the containers and that none of the preservative was spilled. One duplicate water sample was collected from Monitoring Well MW-14 (labeled MW15) and was submitted "blindly" to the laboratory for analyses.

The sample containers were labeled, placed in a chilled cooler, and transported to SGS North America, Inc. (SGS), an ADEC-approved laboratory for analysis, under chain of custody protocol. As a quality control measure, a trip blank sample accompanied the water samples scheduled for volatile analyses during the entire sampling and handling process.

BGES surveyed the top of casings' and ground elevations for each of the existing monitoring wells during 2015 sampling activities. Utilizing the surveyed monitoring well elevations and the measured depths to water, the groundwater elevations in each of the monitoring wells were calculated. Then, the calculated groundwater elevations for the subject property were utilized to create a groundwater elevation contour map which suggests that the general groundwater flow direction at the site was to the south-southeast (Figure 3). The calculated hydraulic gradient was 0.0069 foot per linear foot. The depth to water, the total depth of the wells, the water quality parameters, and the calculated water elevations are presented in Table 1.

Investigation-derived waste generated (purge water) was containerized in four 5-gallon buckets. The investigation-derived wastes are currently stored outside in the southwest corner of the facility yard. The 5-gallon buckets were clearly labeled with the contact information and a description of the contents (potentially-contaminated water). Copies of field notes taken during groundwater monitoring activities are included in Appendix A.

### 5.0 EVALUATION OF LABORATORY DATA

Laboratory analysis of the water samples were performed by SGS, an ADEC-approved laboratory. The analytical results for water samples are listed in Table 2 and a copy of the laboratory data package is

included in Appendix B. The analytical results for water samples were compared to the ADEC Method 2 Cleanup Criteria listed in Alaska Administrative Code (AAC) 75.345—Table C for groundwater as revised on November 6, 2016.

The water samples for MW-3, MW-5, MW-8, MW-9, MW-12, and MW-14 were analyzed at SGS by the following methods: GRO by Alaska Method (AK) 101; DRO by AK 102; RRO by AK 103; and BTEX by Environmental Protection Agency (EPA) Method 8021B. The water sample for the facility well was analyzed for VOCs by EPA method 524.2.

The water samples collected from the subject property were numbered, for example, MW3-0628, where the prefix MW3 indicates the monitoring well from which the water sample was collected; and 0628 indicates the month and day the sample was collected. For brevity in the text and in the associated figures, these samples are referred to as MW-5 with the date omitted. MW15-0628 is a duplicate sample collected from MW-14 and is labeled in the same format as described above. FW-0628 is the sample collected from the facility well and is labeled in the same format as described above.

The samples collected from Monitoring Well MW-14 and MW-15 (duplicate of MW-14) exhibited concentrations of GRO, BTEX, DRO, and RRO; all of which exceeded the respective ADEC cleanup criteria for these analytes. The samples collected from Monitoring Wells MW-3, MW-5, and MW-8 exhibited concentrations of benzene that exceeded the ADEC cleanup criterion for this analyte. The sample from Monitoring Well MW-12 exhibited a concentration of RRO that exceeded the ADEC cleanup criterion for this analyte.

The remaining analytes within the water samples were either detected at concentrations that were below the applicable ADEC cleanup criteria, or were non-detectable above the laboratory limits of quantitation (LOQs). All of the LOQs for the non-detectable analytes were below the applicable ADEC cleanup criteria.

Analytical results for the groundwater samples are presented in Tables 2 and 3, the laboratory analytical data are included in Appendix B, and the sampling locations are shown on Figure 2.

### 6.0 LABORATORY DATA QUALITY REVIEW

Data quality was reviewed in accordance with ADEC guidance and standard industry practices. An ADEC laboratory data review checklist was completed for the laboratory work order number, and this checklist is included in Appendix C. The checklist provides an overview of the quality of the laboratory

data. The following is a discussion of our evaluation of sample conditions and laboratory procedures for the water samples collected during the June 2016 sampling activities.

### SGS Work Order 1163507

The sample containers were labeled, placed in an ice-filled cooler, and hand-delivered by BGES personnel to SGS under chain of custody protocol. The trip blanks accompanied the volatile samples (GRO, BTEX, and VOCs) throughout the entirety of the sampling process and transportation to the laboratory. The samples contained the proper preservatives for the requested analyses, and no unusual sample conditions were noted by the laboratory at the time of their receipt. The case narrative for Work Order Number 1163507 (samples collected during June 2016 sampling activities) noted that there were a few quality control (QC) failures identified by SGS.

The temperature of the sample cooler that contained the water samples was measured at the laboratory at the time of receipt to be 1.1 degrees Celsius (C), which is within the ADEC prescribed optimal range of  $0^{\circ}$  to  $6^{\circ}$  C.

The recovery of surrogate 1,4-difluorobenzene associated with the analysis of BTEX within Sample MW8-0627 exceeded the laboratory acceptance limit. This indicates a potential for the reported concentrations of BTEX within this sample to be biased high. For this reason, detectable concentrations of these results are qualified with a "J" in Table 2, and should be considered estimates. However, because benzene was detected at a concentration more than one order of magnitude above the ADEC cleanup criterion, and because the reported concentrations of other detectable analytes within this sample were below the ADEC cleanup criteria, it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

The recoveries of 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, and naphthalene within the laboratory control spike duplicate (LCSD) associated with Sample FW-0628, and its associated trip blank, exceeded the laboratory QC acceptance range. This indicates a potential for the reported concentration of these analytes to be biased high in the project sample. However, because none of these analytes were detected above their LOQs, and because the LOQs are below their respective ADEC cleanup criteria; it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

No other issues associated with the data quality were identified with respect to the analyses of the project samples in this work order.

Sample MW-15 was a duplicate of Sample MW-14, and was collected and analyzed in order to facilitate evaluation of field sampling precision. Relative percent differences (RPDs) between the reported concentrations of several analytes for the original and duplicate samples were calculated, and these RPDs ranged between 1 percent and 11 percent, which are all below the recommended acceptance limit of 30 percent. This suggests that good field sampling precision was achieved during the collection of the groundwater samples.

### 7.0 CONCEPTUAL SITE MODEL

A graphical human health conceptual site model (CSM) was developed for this site and was included in our 2007 Groundwater Sampling Report (dated December 2007). It is our opinion that the CSM is still valid for this site, and as such has not been modified based on the results of this sampling event.

### 8.0 CONCLUSIONS

A groundwater monitoring event at this site was conducted on June 27 and 28, 2016. Groundwater samples were collected from Monitoring Wells MW-3, MW-5, MW-8, MW-9, MW-12, and MW-14, and were analyzed for GRO, DRO, RRO, and BTEX. An additional sample was collected from a facility well and was analyzed for VOCs. Each of the wells sampled, with the exception of Monitoring Well MW-9 and the facility well, exhibited concentrations of one or more analytes that exceeded the applicable ADEC cleanup criteria. The samples collected from Monitoring Wells MW-14 and MW-15 (duplicate of MW-14) exhibited concentrations of GRO, BTEX, DRO, and RRO; all of which exceeded the respective ADEC cleanup criteria for these analytes. The samples collected from Monitoring Wells MW-3, MW-5, and MW-8 exhibited concentrations of benzene that exceeded the ADEC cleanup criterion for this analyte. The sample from Monitoring Well MW-12 exhibited a concentration of RRO that exceeded the ADEC cleanup criterion for this analyte.

Historical trends demonstrate that some wells show flat trends, some wells show increases, and some show decreases. Historical laboratory analytic results are provided in Table 3, and graphical representations of contaminant concentrations within the wells as measured over time are provided in Appendix D. It is recommended that all purge water be disposed of at an appropriate disposal facility such as NRC Alaska.

### 9.0 EXCLUSIONS AND CONSIDERATIONS

This report presents facts, observations, and inferences based on conditions observed during the period of our project activities, and only those conditions that were evaluated as part of our scope of work. Our conclusions are based solely on our observations made and work conducted and only apply to the immediate vicinities of the locations where samples were collected. In addition, changes to site conditions may have occurred since the completion of our project activities. These changes may be from the actions of man or nature. Changes in regulations may also impact the interpretation of site conditions. BGES will not disclose our findings to any parties other than our client as listed above, except as directed by our client, or as required by law.

Groundwater sampling for this monitoring event was conducted, and this report was prepared by William Schmaltz; Environmental Scientist with BGES and a Qualified Environmental Professional (QEP) as defined by the ADEC. Mr. Schmaltz has conducted groundwater monitoring, site characterization, and remediation activities at numerous sites in the Anchorage area and throughout Alaska. This report was reviewed by Robert Braunstein, Principal Geologist of BGES, who is a QEP as defined by the ADEC, and has more than 35 years of geological and environmental consulting experience, and has conducted and managed thousands of site characterization and remediation efforts throughout Alaska and the lower 48 states.

Prepared By:

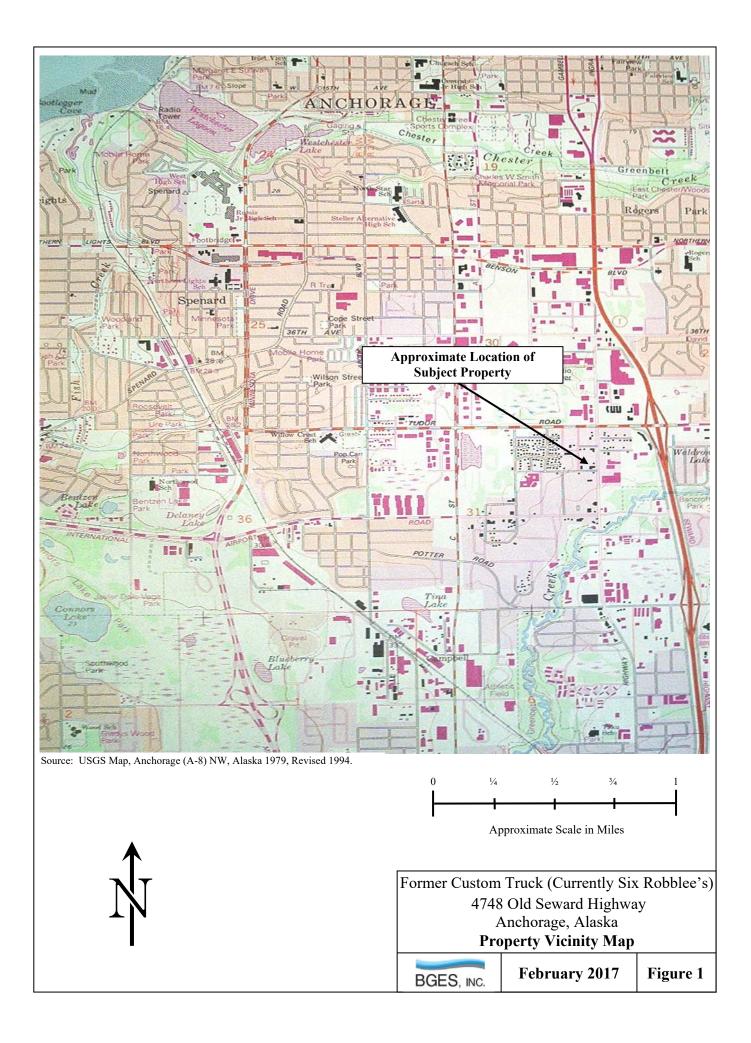
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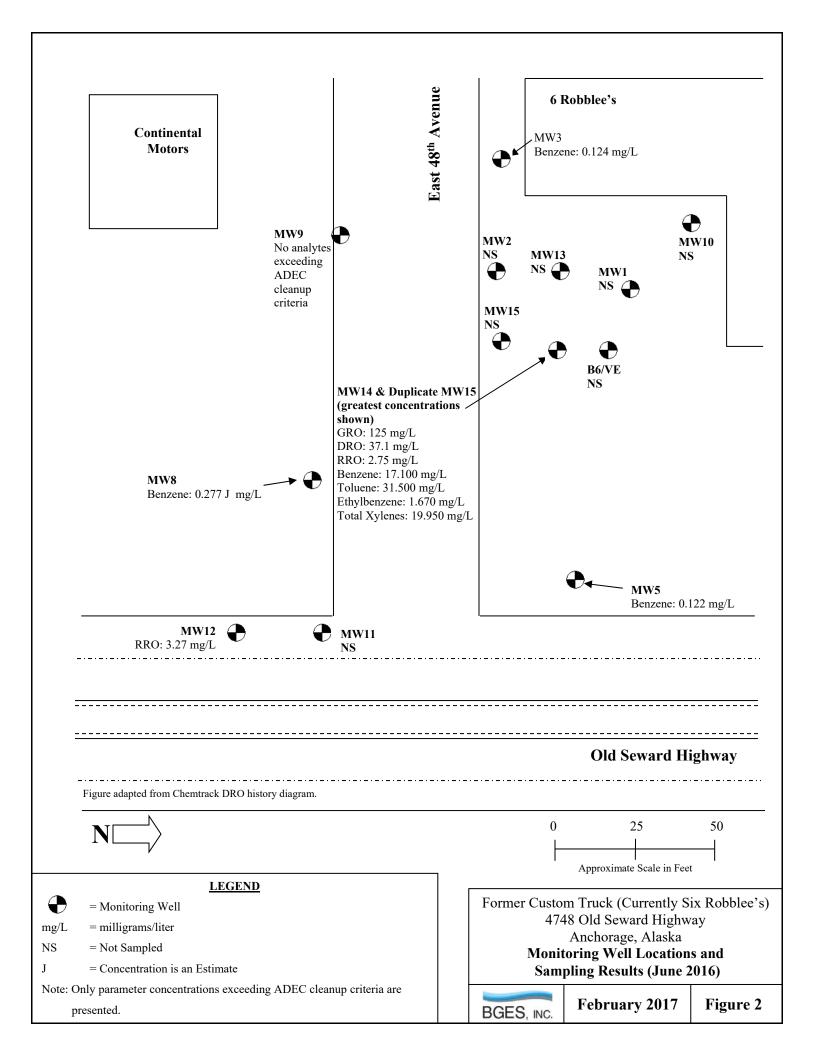
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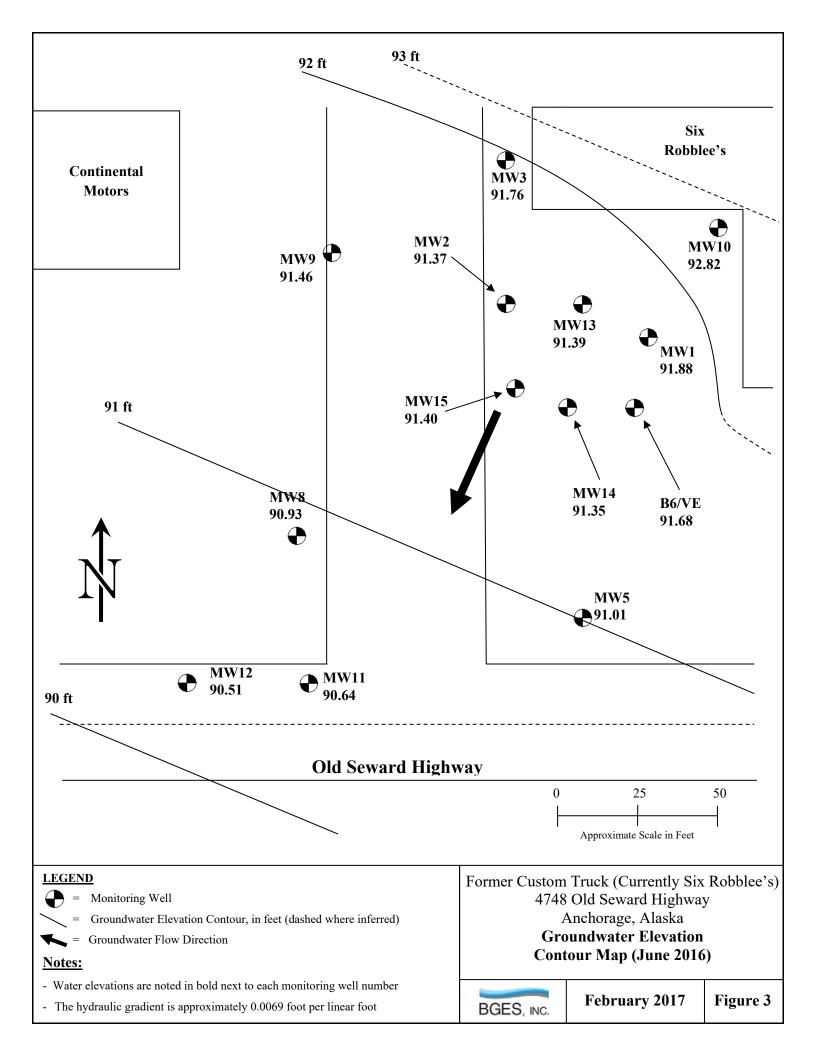
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### TABLE 1 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA MONITORING WELL SAMPLING DATA (JUNE 2016)

Well Number	MW1	MW2	MW3	MW5	MW8	MW9	MW10	MW11	MW12	MW13	MW14	MW15	B6/VE
Date Sampled	-	-	6/28/2016	6/27/2016	6/27/2016	6/28/2016	-	-	6/27/2016	-	6/27/2016	-	-
Date of Depth and Elevation Measurement	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016
Time of Depth to Water Measurement	06:22	06:02	05:50	07:21	07:54	07:45	07:33	08:35	09:01	06:15	06:43	06:51	06:30
Time Sample Collected	-	-	13:42	16:55	14:28	12:03	-	-	11:05	-	18:55	-	-
Top of Casing Elevation (feet)	100.59	97.79	97.65	99.13	97.22	97.50	101.32	96.62	96.03	99.21	99.33	97.78	99.75
Depth to Water (feet below top of casing)	8.71	6.42	5.89	8.12	6.29	6.04	8.50	5.98	5.52	7.82	7.98	6.38	8.07
Water Elevation (feet)	91.88	91.37	91.76	91.01	90.93	91.46	92.82	90.64	90.51	91.39	91.35	91.40	91.68
Total Depth of Well (feet below top of casing)	21.93	13.49	8.61	12.85	13.88	13.33	14.92	13.95	8.28	11.63	12.99	10.40	14.04
Well Casing Diameter (Inches)	2	2	2	2	2	2	2	2	2	2	2	2	4
Standing Water Well Volume (gallons)	2.16	1.15	0.44	0.77	1.24	1.19	1.05	1.30	0.45	0.62	0.82	0.66	3.90
Purge Volume-Actual (gallons)	-	-	1.5	2.5	4	3.6	-	-	1.5	-	2.5	-	-
Temperature (degrees Celsius)	-	-	19.6/17.8/17.5	21.9/16.2/13.1/12.2	12.3/12.6/13.1/ 12.1/11.6	17.7/17.1/17.0/ 17.3/17.9/18.8	-	-	15.1/15.2/14.8	-	16.2/13.2/11.1/12.3	-	-
pH (standard units)	-	-	6.72/6.51/6.61	6.53/6.13/6.57/6.53	6.21/6.36/6.55/ 6.55/6.56	6.33/6.45/6.51/ 6.59/6.66/6.71	-	-	6.56/6.79/6.80	-	5.99/6.41/6.13/6.01	-	-
Conductivity (microsiemans per centimeter)	-	-	2.3/704.2/621.2	2.8/981/572/1113	2.2/654/521/632/502	8.7/231.2/260.3/ 310.3/360.6/366.4	-	-	116.5/57.0/57.0	-	199.4/252.2/291.2/342. 2	-	-
Oxidation Reduction Potential (millivolts)	-	-	195.7/220.1/310.3	-26.7/-12.3/-70.2/-50.9	23.4/-7.8/-29.2/ -2.6/-35.7	137.3/58.6/15.3/ -53.6/-110.1/-136.4	-	-	135.5/104.7/80.9	-	90.2/48.5/-1.1/-31.2	-	-
Notes:				Rust-colored purge water.	0 1 0	Slow Recharge.			Dirty, black-colored		A duplicate sample was		
Values separated by / indicate readings					water rust-colored				purge water		collected from MW-15		
for successive well volumes					and then clear.						and was labeled. Dirty,		
Sampler: W. Schmaltz											rust-colored purge		
Field parameters measured with a YSI											water.		
Professional Plus Multi-Meter													
Weather conditions on June 27 and 28, 2016 were													
clear skies with temperatures ranging from approximately 60 to 70 degrees Fahrenheit.													

### TABLE 2 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA ANALYTICAL RESULTS - GROUNDWATER (JUNE 2016)

Water Sample No.	Parameter	Results (mg/L)	LOQ (mg/L)	ADEC Cleanup Criterion (mg/L) <sup>1</sup>	Analytical Method
MW3-0628	GRO	0.551	0.100	2.200	AK 101
	DRO	0.612	0.577	1.500	AK 102
	RRO	ND	0.481	1.100	AK 103
	Benzene	0.124	0.000500	0.0046	SW8021B
	Toluene	0.154	0.00100	1.100	SW8021B
	Ethylbenzene	0.00239	0.00100	0.015	SW8021B
	Total Xylenes	0.0500	0.00300	0.190	SW8021B
MW5-0627	GRO	0.311	0.100	2.200	AK 101
	DRO	ND	0.577	1.500	AK 102
	RRO	0.524	0.481	1.100	AK 103
	Benzene	0.122	0.000500	0.0046	SW8021B
	Toluene	0.00123	0.00100	1.100	SW8021B
	Ethylbenzene	ND	0.001000	0.015	SW8021B
	Total Xylenes	0.00972	0.00300	0.190	SW8021B
MW8-0627	GRO	0.699	0.100	2.200	AK 101
	DRO	ND	0.566	1.500	AK 102
	RRO	ND	0.472	1.100	AK 103
	Benzene	0.277 J	0.005000	0.0046	SW8021B
	Toluene	0.00132 J	0.00100	1.100	SW8021B
	Ethylbenzene	ND	0.00100	0.015	SW8021B
	Total Xylenes	ND	0.00300	0.190	SW8021B
MW9-0628	GRO	ND	0.100	2.200	AK 101
	DRO	ND	0.570	1.500	AK 102
	RRO	0.577	0.475	1.100	AK 103
	Benzene	ND	0.000500	0.0046	SW8021B
	Toluene	ND	0.00100	1.100	SW8021B
	Ethylbenzene	ND	0.00100	0.015	SW8021B
	Total Xylenes	ND	0.00300	0.190	SW8021B
MW12-0627	GRO	ND	0.100	2.200	AK 101
	DRO	1.31	0.568	1.500	AK 102
	RRO	3.27	0.473	1.100	AK 103
	Benzene	0.000660	0.000500	0.0046	SW8021B
	Toluene	ND	0.00100	1.100	SW8021B
	Ethylbenzene	ND	0.00100	0.015	SW8021B
	Total Xylenes	ND	0.00300	0.190	SW8021B

### TABLE 2 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA ANALYTICAL RESULTS - GROUNDWATER (JUNE 2016)

	D (	Results	LOQ	ADEC Cleanup	
Water Sample No.	Parameter	(mg/L)	(mg/L)	Criterion (mg/L) <sup>1</sup>	Analytical Method
MW14-0627	GRO	121	20.0	2.200	AK 101
	DRO	37.1	0.556	1.500	AK 102
	RRO	2.75	0.463	1.100	AK 103
	Benzene	16.700	0.100	0.0046	SW8021B
	Toluene	30.900	0.200	1.100	SW8021B
	Ethylbenzene	1.650	0.200	0.015	SW8021B
	Total Xylenes	19.76	0.600	0.190	SW8021B
MW15-0627					
Duplicate of MW14-0627					
RPD = 3%	GRO	125	20.0	2.200	AK 101
RPD = 11%	DRO	33.1	0.556	1.500	AK 102
RPD = 9%	RRO	2.52	0.463	1.100	AK 103
RPD = 2%	Benzene	17.100	0.100	0.0046	SW8021B
RPD = 2%	Toluene	31.500	0.200	1.100	SW8021B
RPD = 1%	Ethylbenzene	1.670	0.200	0.015	SW8021B
RPD = 1%	Total Xylenes	19.950	0.600	0.190	SW8021B
FW-0628	Benzene	ND	0.000500	0.0046	EPA 524.2
	Toluene	ND	0.000500	1.100	EPA 524.2
	Ethylbenzene	ND	0.000500	0.015	EPA 524.2
	Total Xylenes	ND	0.000500	0.190	EPA 524.2
	All Other VOCs	ND	varies	varies	EPA 524.2
<sup>1</sup> Water cleanup criteria obtained from	ADEC 18 AAC 75.341, Table C,	Groundwater Cle	anup Levels (Nove	mber 6, 2016).	
ADEC = Alaska Department of Envir	onmental Conservation; AAC = Al	aska Administrat	ive Code; LOQ = L	imit of Quantitation	
mg/L = milligrams per Liter; $ND = A$	nalyte not detected; RPD = Relativ	ve Percent Differe	ence; GRO = Gasoli	ne Range Organics	
DRO = Diesel Range Organics; RRO	= Residual Range Organics; VOCs	s = Volatile Organ	nic Compounds; J =	estimated concentration	l
BOLD	= concentration exceeds app	licable ADEC c	leanup criterion.		

### TABLE 3 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA

												2810	CHURAGE,											ADEC Method Two
	Date Collected:	Jan-95	Jul-95	Mar-96	Dec-96	Nov-99	Aug-00	Nov-00	Jun-02	Nov-02	Jul-03	Jan-04	Jun-05	Aug-05	Mar-06	Sept-06	Oct-07	Sep-12	Jun-13	Apr-14	Jul-15	Jul-16	Analytical	Groundwater Cleanup
Well No.	Parameter	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Method	Level (mg/L) <sup>1</sup>
MW-01	GRO	97.6	NS	NS	66.9	NS	14.5	NS	48	NS	NS	NS	30.600	53.300	54.400	28.100	50.400	32.4	40.6	29.80	NS	NS	AK101	2.2
	DRO	NS	NS	NS	2.45	NS	NS	NS	17	NS	NS	NS	21.3	37.200	19.3	20.1	28.2	22	29.1	8.38	NS	NS	AK102	1.5
	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5.05	2.08	1.87	1.46	1.45	1.32	0.78	NS	NS	AK103	1.1
	Benzene	14.6	NS	NS	11	NS	1.49	NS	4.7	NS	NS	NS	3.140	5.540	7.010	0.109	3.210	2.42	2.720	2.42	NS	NS	SW8021b	0.0046
	Toluene	27.6	NS	NS	16.8	NS	1.68	NS	8.4	NS	NS	NS	6.770	12.300	17.100	8.940	8.930	4.53	6.640	5.31	NS	NS	SW8021b	1.1
	Ethylbenzene	2.79	NS	NS	2.23	NS	0.41	NS	1.1	NS	NS	NS	0.945	1.490	2.420	1.080	1.100	1.16	1.110	1.08	NS	NS	SW8021b	0.015
	Total Xylenes	14.8	NS	NS	11.63	NS	2.15	NS	6.1	NS	NS	NS	5.540	9.380	14.120	7.400	7.800	7.91	8.000	6.15	NS	NS	SW8021b	0.19
			-	-		-		-				-					-				-			
MW-02	GRO	156	108	NS	152	NS	58.5	162	89.5	NS	88.400	NS	111.000	107.000	121.000	41.000	37.20	74.1	94.7	64.40	NS	NS	AK101	2.2
	DRO	NS	NS	NS	9.81	NS	NS	NS	16.3	NS	58	NS	56.0	74.300	70.2	70.1	27.30	58.6	105	70.10	NS	NS	AK102	1.5
	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<5.00	5.63	9.89	1.53	5.5	5.96	6.14	NS	NS	AK103	1.1
	Benzene	32.8	20.7	NS	25.8	NS	5.23	28.5	10.4	NS	10.2	NS	19.800	19.700	19.000	12.300	2.49	7.36	11.300	8.46	NS	NS	SW8021b	0.0046
	Toluene	44	NS	NS	36.7	NS	7.48	28.7	10.6	NS	10.2	NS	26.500	23.100	31.800	20.200	6.68	19.8	22.600	17.50	NS	NS	SW8021b	1.1
	Ethylbenzene	3.4	NS	NS	4.4	NS	1.4	2.5	1.3	NS	10.2	NS	2.190	2.230	2.810	1.670	0.82	1.56	1.760	1.34	NS	NS	SW8021b	0.015
	Total Xylenes         17.5         NS         NS         21.9         NS         9.47         13.45         7.5         NS         10.2         NS         10.550         10.860         14.190         9.500         4.950         10.23         10.120         8.97         NS         NS         SW8021b         0.19           Naphthalene         NS         0.0017																							
	Naphthalene NS																							
	2-Methylnaphthalene NS																							
	1-Methylnaphthalene																							
	Acenaphthylene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000032	NS	NS	NS	NS	NS	8270C	0.260
	Acenaphthene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000026	NS	NS	NS	NS	NS	8270C	0.53
	Fluorene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000069	NS	NS	NS	NS	NS	8270C	0.29
	Phenanthrene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000051	NS	NS	NS	NS	NS	8270C	0.17
	Anthracene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.0000097	NS	NS	NS	NS	NS	8270C	0.043
	Fluoranthene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000016	NS	NS	NS	NS	NS	8270C	0.26
	Pyrene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000020	NS	NS	NS	NS	NS	8270C	0.120
	Benz[a]anthracene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.000019	NS	NS	NS	NS	NS	8270C	0.00012
	All other analytes	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS	NS	8270C	varies
MW-03	GRO	Nd	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.090	NS	NS	<0.0500	ND	NS	NS	NS	0.551	AK101	2.2
	DRO	NS	NS	NS	NS	NS	NS	NS	0.41	NS	NS	NS	NS	0.333	NS	NS	<0.407	ND	NS	NS	NS	0.612	AK102	1.5
	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.764	NS	NS	<0.407	0.556	NS	NS	NS	<0.481	AK103	1.1
	Benzene	ND	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.0005	NS	NS	<0.0005	ND	NS	NS	NS	0.124	SW8021b	0.0046
	Toluene	ND	NS	NS	NS	NS	ND	NS	0.0008	NS	NS	NS	NS	<0.002	NS	NS	<0.0005	ND	NS	NS	NS	0.154	SW8021b	1.1
	Ethylbenzene	ND	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS	<0.002	NS	NS	<0.0005	ND	NS	NS	NS	0.00239	SW8021b	0.015
	Total Xylenes	ND	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.002	NS	NS	<1.50	ND	NS	NS	NS	0.0500	SW8021b	0.19
MW-05	GRO	0.244	0.287	0.462	0.303	0.7	ND	0.148	NS	NS	NS	NS	0.938	2.200	NS	0.456	0.121	ND	NS	0.207	ND	0.311	AK101	2.2
10100-03	DRO	0.244 NS	0.267 NS	0.402 NS	0.303	NS	ND	0.146 NS	NS	NS	NS	NS	0.938	1.24	NS	0.430	<0.121	ND	NS	0.207	ND	.0.577	AK101 AK102	1.5
	RRO	NS	NS	NS	0.39 NS	NS	NS	NS	NS	NS	NS	NS	0.003 NS	1.24	NS	0.700	<0.407 <0.407	0.974	NS	0.995	ND	,0.577 0.524	AK102 AK103	1.5
	Benzene	0.13	0.18	0.243	0.157	0.272	0.011	0.079	NS	NS	NS	NS	0.467	1.170	NS	0.000	0.0119	0.00113	NS	0.0839	0.0126	0.324	SW8021b	0.0046
	Toluene	ND	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	ND	<0.020	NS	0.00450	0.000861	ND	NS	0.0839 ND	0.00207	0.00123	SW8021b SW8021b	1.1
	Ethylbenzene	ND	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	0.00236	<0.020	NS	0.00450 ND	<0.0005	ND	NS	ND	0.00207 ND	<0.00123	SW8021b SW8021b	0.015
	Total Xylenes	ND	NS	ND	ND	ND	ND	ND	NS	NS	NS	NS	0.00236	<0.020	NS	0.02128	<0.0003 0.00204	ND	NS	0.0121	0.00416	<0.00100 0.00972	SW8021b SW8021b	0.19
GRO = Grant	soline Range Organics			ge Organic		B = Not Sa		ND = Not De		110	110	110	0.00000	-0.020	140	0.02120	0.00204		NO	0.0121	0.00410	0.00312	0000210	0.17
	0 0	Cs = Volati		• •		- 1101 38	mpied I																	
BOLD	= Value exceeds applica		0	•		<sup>1</sup> Groundw	vater cleani	up criteria ar	e based on	18AAC 75	345 Table C	(November	6, 2016).											
2010			oloanup Cl			0.00.101							-,,											

### TABLE 3 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA

Date Colscust.         Junt 3         Mar 4         Mar 4         Mar 4         Space 1         Mar 4         Space 1         Junt 3         Apr 4         Junt 3         Junt 3 <th colspan="14">ANCHORAGE, ALASKA ADEC Method Two Date Collected: Jan-95 Jul-95 Mar-96 Dec-96 Nov-99 Aug-00 Nov-00 Jun-02 Nov-02 Jul-03 Jan-04 Jun-05 Aug-05 Mar-06 Sept-06 Oct-07 Sep-12 Jun-13 Apr-14 Jul-15 Jul-16 Analytical Groundwater Cleanup</th> <th>, ALASKA</th> <th></th> <th></th> <th></th>	ANCHORAGE, ALASKA ADEC Method Two Date Collected: Jan-95 Jul-95 Mar-96 Dec-96 Nov-99 Aug-00 Nov-00 Jun-02 Nov-02 Jul-03 Jan-04 Jun-05 Aug-05 Mar-06 Sept-06 Oct-07 Sep-12 Jun-13 Apr-14 Jul-15 Jul-16 Analytical Groundwater Cleanup														, ALASKA										
BAYL         OFIC         12.97         13.1         14.6         14.2         14.5         14.0 <t< th=""><th></th><th>Date Collected:</th><th>: Jan-95</th><th>Jul-95</th><th>Mar-96</th><th>Dec-96</th><th>Nov-99</th><th>Aug-00</th><th>Nov-00</th><th>Jun-02</th><th>Nov-02</th><th>Jul-03</th><th>Jan-04</th><th>Jun-05</th><th>Aug-05</th><th>Mar-06</th><th>Sept-06</th><th>Oct-07</th><th>Sep-12</th><th>Jun-13</th><th>Apr-14</th><th>Jul-15</th><th>Jul-16</th><th>Analytical</th><th></th></t<>		Date Collected:	: Jan-95	Jul-95	Mar-96	Dec-96	Nov-99	Aug-00	Nov-00	Jun-02	Nov-02	Jul-03	Jan-04	Jun-05	Aug-05	Mar-06	Sept-06	Oct-07	Sep-12	Jun-13	Apr-14	Jul-15	Jul-16	Analytical	
BAYL         OFIC         12.97         13.1         14.6         14.2         14.5         14.0 <t< th=""><th>Well No.</th><th>Parameter</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>(ma/L)</th><th>Method</th><th>Level (ma/L)<sup>1</sup></th></t<>	Well No.	Parameter	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	(ma/L)	Method	Level (ma/L) <sup>1</sup>
DRC         NS							,													1					,
PRO         PRO         PRO         NS																						-			
Bartone         Sate         3.1         3.4         2.2         3.1         3.4         2.2         3.1         3.4         2.2         3.4         3.																						-			
Torking         Fright-Bing         No.         NS																						→			
Employment         EX         NS																						-			
Total Xyleme         531         NS         22         2.8         3.8         1.8         NS		Ethylbenzene		NS		NS	NS	NS	NS		NS			1.440	1.090	1.070	0.555	1.100	0.122	0.721	0.734	NS	NS	SW8021b	
DRO         NS		Total Xylenes	3.51	NS	2.2	2.3	2.9	3.36	2.9				NS	7.220	8.810	5.240			1.139	3.660	3.473	NS	NS		0.19
DRO         NS	MW-08	GRO	3.45	3.92	9.89	NS	1.8	1.2	5.3	9.5	NS	0.8	NS	2.070	4.220	NS	0.577	4.280	0.79	NS	NS	ND	0.699	AK101	2.2
Bonzone         List         2.49         4.91         NS         Bods         5.5         C.260         NS         D.0.357         NS         NS         D.0.455         C.0.025         ND         NS         D.0.456         C.0.025         ND         NS         NS         D.0.456         C.0.025         ND         NS         NS         NS         NS         NS         D.0.456         C.0.025         ND         NS         N		DRO	NS			NS		NS			2.06			0.558	< 0.306		ND	< 0.394	ND	NS	NS	ND	<0.566	AK102	1.5
Tolume         0.0022         NS         NS         NS         0.0061         2.007         NS         NS         NS         NO         0.00103         SW021b         1.1           Ethylbergane         0.007         NS         0.027         NS         0.0462         0.023         ND         NS         NS         ND         NS         ND         NS         NS         ND         NS         ND         NS         NS         0.0462         0.0267         ND         NS         NS         0.0461         2.2         ND         NS         NS         ND         NS		RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<0.510	NS	ND	<0.394	0.506	NS	NS	ND	<0.472	AK103	1.1
Envyleurozene Total Xylenes         0.004         NS         0.014         NS         0.014         NS         0.014         NS         0.014         NS         ND         NS         ND         Status         0.015           MW-00         GRO         ND         NS         ND         NS         0.014         Status         ND         NS         0.014         Status         ND         NS         0.015         ND         NS         0.015         ND         NS         ND		Benzene	1.51	2.49	4.91	NS	0.69	0.5	2.31	3.6	NS	0.33	NS	1.090	2.180	NS	0.165	1.450	0.355	NS	NS	0.00695	0.277 J	SW8021b	0.0046
Total Vienes         0.007         NS         D23         ND         ND         ND         NS         0.0147         0.0285         NS         0.0575         ND         NS         <		Toluene	0.0027	NS	NS	NS	NS	NS	NS	0.016	NS	0.0008	NS	0.00285	<0.020	NS	0.0452	<0.025	ND	NS	NS	ND	0.00132 J	SW8021b	1.1
MM-69         GRD         ND         NS         NS <th< td=""><td></td><td>Ethylbenzene</td><td>0.004</td><td>NS</td><td>0.1</td><td>ND</td><td>ND</td><td>ND</td><td>ND</td><td>0.021</td><td>NS</td><td>ND</td><td>NS</td><td>ND</td><td>&lt;0.020</td><td>NS</td><td>0.00415</td><td>&lt;0.025</td><td>ND</td><td>NS</td><td>NS</td><td>ND</td><td>&lt;0.00100</td><td>SW8021b</td><td>0.015</td></th<>		Ethylbenzene	0.004	NS	0.1	ND	ND	ND	ND	0.021	NS	ND	NS	ND	<0.020	NS	0.00415	<0.025	ND	NS	NS	ND	<0.00100	SW8021b	0.015
DRO         NS         NL         ND         N		Total Xylenes	0.007	NS	0.23	ND	ND	ND	ND	0.34	NS	ND	NS	0.0147	0.0256	NS	0.0539	<0.075	ND	NS	NS	ND	<0.00300	SW8021b	0.19
RRO         NS	MW-09	GRO	ND	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.090	NS	NS	<0.050	ND	NS	NS	ND	<0.100	AK101	2.2
Berizene Total Xylenes         ND         NS         NS         ND         NS         ND         NS         ND         NS         NS         NS         NS         NS         NS         NS         ND         NS         ND         0.0006         ND         NS         ND         0.0005         ND         NS         ND         0.0005         ND         NS         ND         0.0010         SVM821b         0.11           Envjbenzene         ND         NS		DRO	NS	NS	NS	NS	NS	NS	NS	0.44	NS	NS	NS	NS	0.798	NS	NS	<0.407	ND	NS	NS	ND	<0.570	AK102	1.5
Toluene Entylemerzene Total Xylenes         ND         NS         NS         ND         NS         ND         NS         ND         NS         ND         NS		RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.23	NS	NS	<0.407	ND	NS	NS	0.651	0.577	AK103	1.1
Etryberzene         ND         NS         NS         NS         ND         NS		Benzene	ND		NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.0005	NS	NS	<0.0005	ND	NS	NS	ND	<0.000500	SW8021b	0.0046
Total Xylenes         ND         NS         NS         ND         NS         ND         NS         ND         NS         ND         NS         ND		Toluene	ND		NS	NS			NS	ND	NS		NS	NS		NS	NS	<0.0005		NS	NS	ND			1.1
MW-10       GRO       NS       NS       NS       ND       ND       ND       ND       NS		Ethylbenzene	ND		NS	NS	NS	ND	NS	ND	NS	NS	NS	NS		NS	NS	<0.0005	ND	NS	NS	ND		SW8021b	0.015
DRO         NS		Total Xylenes	ND	NS	NS	NS	NS	ND	NS	ND	NS	NS	NS	NS	<0.002	NS	NS	<0.0015	ND	NS	NS	ND	<0.00300	SW8021b	0.19
RRO         NS         N	MW-10	GRO	NS	NS	NS	ND	NS	ND	ND		NS	NS	NS	NS	<0.090	NS	NS	<0.050	ND	NS	NS	NS	NS	AK101	2.2
Benzene         NS         <																									1.5
Toluene         NS         NS <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																									
Ethylbenzene Total Xylenes         NS         NS         NS         ND         ND         ND         ND         NS         NS <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																									
Total Xylenes         NS																									
WW-11       GRO       NS       NS       NS       NS       NS       NS       NS       ND       NS       ND       ND        0.000       0.233       ND       <0.050       ND       NS       ND       NS       AK101       2.2         DRO       NS       ND       NS       ND       NS       ND       NS       ND       NS       NS <th< td=""><td></td><td>,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>		,																							
DRO         NS		Total Xylenes	NS	NS	NS	ND	NS	ND	ND	ND	NS	NS	NS	NS	<0.002	NS	NS	<0.0005	ND	NS	NS	NS	NS	SW8021b	0.19
RRO         NS	MW-11												-												
Benzene         NS         NS         NS         NS         NS         NS         NS         ND         NS         0.004         ND         0.00899         0.00586         0.02280         0.0142         0.00576         ND         NS         NS         NS         SW8021b         0.0046           Toluene         NS         NS         NS         NS         NS         NS         NS         NS         ND         ND         VD         <0.002													-		-		_								
Toluene         NS         NS <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																									
Ethylbenzene Total Xylenes       NS																									
Total Xylenes         NS         NS         NS         NS         NS         NS         NS         ND         NS         ND         ND         ND         ND         <0.002         0.03412         ND         <0.015         ND         NS         NS         NS         SW8021b         0.19           MW-12         GRO         NS																									
MW-12       GRO       NS		,																							
DRO       NS       NS <t< td=""><td></td><td>Total Xylenes</td><td>NS</td><td>NS</td><td>NS</td><td>NS</td><td>NS</td><td>NS</td><td>NS</td><td>ND</td><td>NS</td><td>ND</td><td>ND</td><td>ND</td><td>&lt;0.002</td><td>0.03412</td><td>ND</td><td>&lt;0.0015</td><td>ND</td><td>NS</td><td>ND</td><td>NS</td><td>NS</td><td>SW8021b</td><td>0.19</td></t<>		Total Xylenes	NS	NS	NS	NS	NS	NS	NS	ND	NS	ND	ND	ND	<0.002	0.03412	ND	<0.0015	ND	NS	ND	NS	NS	SW8021b	0.19
RRO       NS       NS <t< td=""><td>MW-12</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	MW-12																								
Benzene         NS         NS <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													-												
Toluene         NS         NS         NS         NS         NS         NS         NS         ND         NS         ND         ND         ND         ND          0.002         0.0322         0.0176           NS         ND         ND          ND         ND         ND         ND          ND          ND         ND         ND          ND         ND         ND          ND          ND         ND         ND          ND         ND         ND         ND         ND          ND         ND         ND         ND          ND         ND         ND         ND          ND         ND         ND         ND          ND         ND         ND          ND          ND         ND         ND          ND         ND         ND         ND          ND         ND         ND         ND         ND          ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND         ND <td></td>																									
Ethylbenzene         NS													-												
Total Xylenes       NS       NS       NS       NS       NS       NS       NS       NS       ND       ND       ND       ND       ND       ND       0.19         RO = Gasoline Range Organics       DRO = Diesel Range Organics       NS = Not Sampled       ND = Not Detected       0.19       0.19         mg/L = miligrams per Liter       VOCs = Volatile Organic Compounds       VOCs = Volatile Organic Compounds       0.19       0.19																									
RO = Gasoline Range Organics DRO = Diesel Range Organics NS = Not Sampled ND = Not Detected mg/L = miligrams per Liter VOCs = Volatile Organic Compounds																									
mg/L = miligrams per Liter VOCs = Volatile Organic Compounds		,									NS	ND	ND	ND	<0.002	0.02015	0.01967	<0.0015	NS	NS	ND	ND	<0.00300	SW8021b	0.19
		0 0			• •		S = Not Sai	mpled I	ND = Not De	tected															
	<u> </u>	•		•	•		<sup>1</sup> Groundw	ater clean	up criteria ar	e based on 1	8AAC 75.3	345 Table C	(November	6, 2016).											

TABLE 3 4748 OLD SEWARD HIGHWAY ANCHORAGE, ALASKA

												AIII	IIOKAGE	, ALASKA										ADEC Method Two
	Date Collected:	Jan-95	Jul-95	Mar-96	Dec-96	Nov-99	Aug-00	Nov-00	Jun-02	Nov-02	Jul-03	Jan-04	Jun-05	Aug-05	Mar-06	Sept-06	Oct-07	Sep-12	Jun-13	Apr-14	Jul-15	Jul-16	Analytical	Groundwater Cleanup
Well No.	Parameter	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Method	Level (mg/L) <sup>1</sup>
MW-13	GRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	217	236	159	NS	NS	AK101	2.2
-	DRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20.1	31.1	22.3	NS	NS	AK102	1.5
	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.75	1.90	2.72	NS	NS	AK103	1.1
	Benzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	19.6	18.500	10.600	NS	NS	SW8021b	0.0046
	Toluene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	63.9	58.300	42.200	NS	NS	SW8021b	1.1
	Ethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.29	4.900	5.600	NS	NS	SW8021b	0.015
	Total Xylenes	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	26.7	26.900	28.510	NS	NS	SW8021b	0.19
	1,2,4-Trimethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.140	NS	NS	NS	SW8260B	0.015
	n-Propylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.399	NS	NS	NS	SW8260B	0.660
MW-14	GRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	118	140	113	94.8	125	AK101	2.2
DRO NS																								
RRO         NS         NS																								
	Benzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	19.6	17.300	19.100	13.500	17.100	SW8021b	0.0046
	Toluene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	26.1	25.800	26.200	19.100	31.500	SW8021b	1.1
	Ethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.51	2.240	2.070	1.710	1.670	SW8021b	0.015
	Total Xylenes	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	14.78	15.320	15.240	13.470	19.950	SW8021b	0.19
MW-15	GRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	86.100	NS	NS	56.500	1.33	2.25	7.98	NS	NS	AK101	2.2
	DRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	14.6	NS	NS	4.96	1.03	2.01	1.83	NS	NS	AK102	1.5
	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	1.19	NS	NS	0.439	1.010	1.19	2.25	NS	NS	AK103	1.1
Benzene NS																								
	Toluene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	19.800	NS	NS	8.630	0.0514	0.213	0.492	NS	NS	SW8021b	1.1
	Ethylbenzene	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.030	NS	NS	1.270	0.0229	0.0567	0.1130	NS	NS	SW8021b	0.015
	Total Xylenes	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10.010	NS	NS	6.810	0.1119	0.2171	0.3670	NS	NS	SW8021b	0.19
Tap Well	GRO	NS	NS	ND	NS	ND	ND	NS	ND	NS	NS	NS	ND	NS	NS	0.305	NS	NS	NS	NS	NS	NS	AK101	2.2
(facility	DRO	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	ND	NS	NS	ND	NS	NS	NS	NS	NS	NS	AK102	1.5
well)	RRO	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	ND	NS	NS	NS	NS	NS	NS	AK103	1.1
	Benzene	NS	NS	ND	NS	ND	ND	NS	ND	NS	NS	NS	ND	NS	NS	0.0108	NS	ND	NS	NS	ND	<0.000500	EPA 524.2	0.0046
	Toluene	NS	NS	ND	NS	ND	ND	NS	ND	NS	NS	NS	ND	NS	NS	0.0495	NS	ND	NS	NS	ND	<0.000500	EPA 524.2	1.1
	Ethylbenzene	NS	NS	ND	NS	ND	ND	NS	ND	NS	NS	NS	ND	NS	NS	0.00947	NS	ND	NS	NS	ND	<0.000500	EPA 524.2	0.015
	Total Xylenes	NS	NS	ND	NS	ND	ND	NS	ND	NS	NS	NS	ND	NS	NS	0.0613	NS	ND	NS	NS	ND	<0.000500	EPA 524.2	0.19
	VOCs	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	ND	NS	NS	NS	NS	ND	NS	NS	ND	ND	EPA 524.2	varies
	soline Range Organics		Diesel Ran	0 0		RO = Resid	ual Range (	Organics NS	s = Not San	npled NI	D = Not Dete	ected												
ů			tile Organio		ds	1.0			- h			(Nieurenels	0.0040)											
BOLD	= Value exceeds applicat	DIE ADEC	cleanup cr	iterion.		Groundw	ater cleanu	ip criteria ar	e based on	18AAC /5.3	45 Table C	(November	0, 2016).											

BGES, INC.

### APPENDIX A FIELD NOTES

8	11.05 Collected sample from MW12. BGES off OSH		11:20 Norther Dame besar	cleaning up equipment		BGES ret up on MUB		11: 40 Nortern Dame off s. te.	OSH row Oper.		14:28 Collected semple From	MU8. BGES & MUS		16:55 Colleched semple from MWS	nove to MUIY	-	18:55 Collected Scorple From Mult.	Cleening Up.	19:15 RGES oft site			
Slot Clea	on site, Brgan opening mus	DTW TOW Time	8.71 21.93 6:22	6.42 13:49 6:02	5.89 8.61 5:50	8.12 12.85 7:21	. 29 13.88 7:54	04 13.33 7.45	.50 14.92 7:33	5.98 13.95 8:35	5.52 8.28 9:01	1.82 11.63 6:15	1.98 12.99 6:43	6.38 10.40 6:51	B6/VE 8.07 14.04 6:30		Dame on sit. Began			4.		
386/27/16	5:30 BGES .	1 1701	MWI		MW3 5	3 SUM	MW 6	MW9 6	8 01 mm/	MW 11 5	SIMM	1013 7	1 HIMW	MUIS	B6/VE		7:00 Norther	set up.	A:IN AI.A	Noriuca		

41 7-Stared all purse & deeon water 48 Cuercast 14:18 Colleted water sumple for sit. Set up an 13:42 Collect scaph from Meri. Besan cleanup. 12:03 Collect Scrpt from Murg. Move to MU3 14:40 BGES off Site SIM 7:15 BGES 00 40 6/28//6

BGES, INC.

## APPENDIX B LABORATORY ANALYTICAL DATA



### Laboratory Report of Analysis

To: BGES Inc. 1042 E. 6th Ave., Anchorage, AK 99501 (907)644-2900

Report Number: **1163507** 

Client Project: Custom Truck

Dear Jayne Martin,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Victoria at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely, SGS North America Inc.

Alaeka Division

Victoria Pennick 2016.07.20 17:17:56 -08'00'

Victoria Pennick Project Manager Victoria.Pennick@sgs.com Date

Print Date: 07/20/2016 8:45:05AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com



### **Case Narrative**

SGS Client: **BGES Inc.** SGS Project: **1163507** Project Name/Site: **Custom Truck** Project Contact: **Jayne Martin** 

Refer to sample receipt form for information on sample condition.

### MW8-0627 (1163507003) PS

8021B - Surrogate recovery for 1,4-difluorobenzene (137%) does not meet QC criteria due to matrix interference.

### LCSD for HBN 1738459 [VXX/2908 (1334810) LCSD

524.2 - LCSD recoveries for several analytes do not meet QC criteria. These analytes were not detected above the LOQ in the associated samples.

\*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

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200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com

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### Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <<u>http://www.sgs.com/en/Terms-and-Conditions.aspx></u>. Attention is drawn to the limitation of liability, indenmification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
В	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
D	The analyte concentration is the result of a dilution.
DF	Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
F	Indicates value that is greater than or equal to the DL
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
JL	The analyte was positively identified, but the quantitation is a low estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
M	A matrix effect was present.
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
Q	QC parameter out of acceptance range.
R	Rejected
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.
Sample summaries which i All DRO/RRO analyses are	nclude a result for "Total Solids" have already been adjusted for moisture content.

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Note:



	ę	Sample Summary	,	
Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW3-0628	1163507001	06/28/2016	06/28/2016	Water (Surface, Eff., Ground)
MW5-0627	1163507002	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
MW8-0627	1163507003	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
MW9-0628	1163507004	06/28/2016	06/28/2016	Water (Surface, Eff., Ground)
MW12-0627	1163507005	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
MW14-0627	1163507006	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
MW15-0627	1163507007	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
FW-0628	1163507008	06/28/2016	06/28/2016	Water (Surface, Eff., Ground)
Trip Blank	1163507009	06/27/2016	06/28/2016	Water (Surface, Eff., Ground)
Trip Blank	1163507010	06/28/2016	06/28/2016	Water (Surface, Eff., Ground)

<u>Method</u> AK101 SW8021B AK102 AK103 EPA 524.2 Method Description AK101/8021 Combo. AK101/8021 Combo. DRO/RRO Low Volume Water DRO/RRO Low Volume Water Volatile Organics by 524.2 (DW)

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Client Sample ID: MW3-0628			
Lab Sample ID: 1163507001	Parameter	Result	<u>Units</u>
Semivolatile Organic Fuels	Diesel Range Organics	0.612	mg/L
Volatile Fuels	Benzene	124	ug/L
	Ethylbenzene	2.39	ug/L
	Gasoline Range Organics	0.551	mg/L
	o-Xylene	20.9	ug/L
	P & M -Xylene	29.1	ug/L
	Toluene	154	ug/L
Client Sample ID: MW5-0627			
Lab Sample ID: 1163507002	Parameter	Result	Units
Semivolatile Organic Fuels	Residual Range Organics	0.524	mg/L
Volatile Euels	Benzene	122	ug/L
	Gasoline Range Organics	0.311	mg/L
	P & M -Xylene	9.72	ug/L
	Toluene	1.23	ug/L
Client Comple ID: MM/9 0007			-
Client Sample ID: MW8-0627	-		
Lab Sample ID: 1163507003	Parameter	<u>Result</u> 277	<u>Units</u>
Volatile Fuels	Benzene		ug/L
	Gasoline Range Organics	0.699	mg/L
	Toluene	1.32	ug/L
Client Sample ID: MW9-0628			
Lab Sample ID: 1163507004	Parameter	Result	Units
Semivolatile Organic Fuels	Residual Range Organics	0.577	mg/L
Client Sample ID: MW12-0627			
Lab Sample ID: 1163507005	Deremeter	Decult	Linita
	<u>Parameter</u> Diesel Range Organics	<u>Result</u> 1.31	<u>Units</u> mg/L
Semivolatile Organic Fuels	Residual Range Organics	3.27	mg/L
Volatile Fuels	Benzene	0.660	-
Volatile Fuels	DEIIZEIIE	0.000	ug/L
Client Sample ID: MW14-0627			

**Detectable Results Summary** 

Client Sample ID: MW14-062 Lab Sample ID: 1163507006 Semivolatile Organic Fuels

**Volatile Fuels** 

Ethylbenzene Gasoline Range Organics o-Xylene P & M -Xylene Toluene

Parameter

Benzene

**Diesel Range Organics** 

**Residual Range Organics** 

Print Date: 07/20/2016 8:45:08AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com Result

37.1

2.75

16700

1650

5860

13900

30900

121

Units

mg/L

mg/L ug/L

ug/L

mg/L

ug/L

ug/L

ug/L



### **Detectable Results Summary**

5950

14000

31500

ug/L

ug/L

ug/L

### Client Sample ID: MW15-0627 Lab Sample ID: 1163507007 Units Parameter Result Semivolatile Organic Fuels **Diesel Range Organics** 33.1 mg/L **Residual Range Organics** mg/L 2.52 17100 ug/L **Volatile Fuels** Benzene Ethylbenzene 1670 ug/L Gasoline Range Organics 125 mg/L

o-Xylene

Toluene

P & M -Xylene

Print Date: 07/20/2016 8:45:08AM

SGS North America Inc.

200 West Potter Drive, Anchorage, AK 99518 t 907.562.2343 f 907.561.5301 www.us.sgs.com

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Results of MW3-0628 Client Sample ID: MW3-0628 Collection Date: 06/28/16 13:42 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507001 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL <u>Units</u> <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 0.612 0.577 0.173 mg/L 1 07/06/16 02:20 Surrogates 5a Androstane (surr) 88 50-150 % 1 07/06/16 02:20 **Batch Information** Analytical Batch: XFC12497 Prep Batch: XXX35705 Analytical Method: AK102 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 02:20 Prep Initial Wt./Vol.: 260 mL Container ID: 1163507001-D Prep Extract Vol: 1 mL Allowable Result Qual LOQ/CL DF Parameter DL Units Limits Date Analyzed Residual Range Organics 0.144 0.481 U 0.481 mg/L 1 07/06/16 02:20 Surrogates n-Triacontane-d62 (surr) 88.2 50-150 07/06/16 02:20 % 1 **Batch Information** Analytical Batch: XFC12497 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 02:20 Prep Initial Wt./Vol.: 260 mL Container ID: 1163507001-D Prep Extract Vol: 1 mL

Results of <b>MW3-0628</b> Client Sample ID: <b>MW3-0628</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507001 Lab Project ID: 1163507		Collection Date: 06/28/16 13:42 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Volatile Fuels							
			_			Allowable	
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.551	0.100	0.0310	mg/L	1		07/08/16 16:03
urrogates							
4-Bromofluorobenzene (surr)	100	50-150		%	1		07/08/16 16:0
Batch Information							
Analytical Batch: VFC13123 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/08/16 16:03 Container ID: 1163507001-A	Prep Batch: VXX29105 Prep Method: SW5030B Prep Date/Time: 07/08/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL						
Deveneder	Desult Quel	100/01	DI	Linite	DE	Allowable	Data Analyza
Parameter Benzene	<u>Result Qual</u> 124	<u>LOQ/CL</u> 0.500	<u>DL</u> 0.150	<u>Units</u> ug/L	<u>DF</u> 1	<u>Limits</u>	Date Analyze 07/08/16 16:0
Ethylbenzene	2.39	1.00	0.310	ug/L	1		07/08/16 16:0
o-Xylene	20.9	1.00	0.310	ug/L	1		07/08/16 16:0
P & M -Xylene	29.1	2.00	0.620	ug/L	1		07/08/16 16:0
Toluene	154	1.00	0.310	ug/L	1		07/08/16 16:0
urrogates							
1,4-Difluorobenzene (surr)	88.1	77-115		%	1		07/08/16 16:0
Batch Information							
Analytical Batch: VFC13123 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/08/16 16:03	Prep Batch: VXX29105 Prep Method: SW5030B Prep Date/Time: 07/08/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL						

C	CC
D	50

Results of MW5-0627 Client Sample ID: MW5-0627 Collection Date: 06/27/16 16:55 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507002 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 0.577 U 0.577 0.173 mg/L 1 07/06/16 02:31 Surrogates 5a Androstane (surr) 85.4 50-150 % 1 07/06/16 02:31 **Batch Information** Analytical Batch: XFC12497 Prep Batch: XXX35705 Analytical Method: AK102 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 02:31 Prep Initial Wt./Vol.: 260 mL Container ID: 1163507002-D Prep Extract Vol: 1 mL Allowable Result Qual LOQ/CL DF Parameter DL Units Limits Date Analyzed Residual Range Organics 0.144 0.524 0.481 mg/L 1 07/06/16 02:31 Surrogates n-Triacontane-d62 (surr) 87.6 50-150 07/06/16 02:31 % 1 **Batch Information** Analytical Batch: XFC12497 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 02:31 Prep Initial Wt./Vol.: 260 mL Container ID: 1163507002-D Prep Extract Vol: 1 mL

Client Sample ID: <b>MW5-0627</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507002 Lab Project ID: 1163507	Collection Date: 06/27/16 16:55 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Volatile Fuels							
<u>Parameter</u> Gasoline Range Organics	<u>Result Qual</u> 0.311	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	<u>Date Analyzec</u> 07/06/16 13:00
urrogates							
4-Bromofluorobenzene (surr)	101	50-150		%	1		07/06/16 13:0
Batch Information							
Analytical Batch: VFC13120 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/06/16 13:06 Container ID: 1163507002-A		Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL					
Parameter	<u>Result Qual</u>	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyze
Benzene	122	0.500	0.150	ug/L	1		07/06/16 13:0
Ethylbenzene	1.00 U	1.00	0.310	ug/L	1		07/06/16 13:0
	1.00 U 9.72	1.00 2.00	0.310 0.620	ug/L	1		07/06/16 13:0
P & M -Xylene Toluene	9.72 1.23	2.00	0.820	ug/L ug/L	1 1		07/06/16 13:0
urrogates				0			
1,4-Difluorobenzene (surr)	107	77-115		%	1		07/06/16 13:0
Batch Information							
Analytical Batch: VFC13120 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/06/16 13:06 Container ID: 1163507002-A		Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL					

C	CC
D	50

Client Sample ID: <b>MW8-0627</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507003 Lab Project ID: 1163507		Collection Date: 06/27/16 14:28 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Semivolatile Organic Fuels	6		_				
<u>Parameter</u> Diesel Range Organics	<u>Result Qual</u> 0.566 U	<u>LOQ/CL</u> 0.566	<u>DL</u> 0.170	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	Date Analyzed 07/06/16 02:41
Surrogates 5a Androstane (surr)	83.2	50-150		%	1		07/06/16 02:41
Analytical Batch: XFC12497 Analytical Method: AK102 Analyst: S.G Analytical Date/Time: 07/06/16 02:41 Container ID: 1163507003-D		F F F	Prep Batch: Prep Method Prep Date/Tii Prep Initial W Prep Extract	: SW3520C me: 07/05/1 /t./Vol.: 265	6 08:30		
<u>Parameter</u> Residual Range Organics	<u>Result</u> Qual 0.472 U	<u>LOQ/CL</u> 0.472	<u>DL</u> 0.142	<u>Units</u> mg/L	<u>DF</u> 1	<u>Allowable</u> <u>Limits</u>	Date Analyzed 07/06/16 02:41
Surrogates							
n-Triacontane-d62 (surr)	84.9	50-150		%	1		07/06/16 02:41
Batch Information							
Analytical Batch: XFC12497 Analytical Method: AK103 Analyst: S.G Analytical Date/Time: 07/06/16 02:41 Container ID: 1163507003-D		F F F	Prep Batch: Prep Method Prep Date/Tip Prep Initial W Prep Extract	: SW3520C me: 07/05/1 /t./Vol.: 265	6 08:30		

Results of MW8-0627								
Client Sample ID: <b>MW8-0627</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507003 Lab Project ID: 1163507		Collection Date: 06/27/16 14:28 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Volatile Fuels			<u> </u>					
						Allowable		
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	<u>Limits</u>	Date Analyze	
Gasoline Range Organics	0.699	0.100	0.0310	mg/L	1		07/06/16 13:2	
urrogates								
4-Bromofluorobenzene (surr)	103	50-150		%	1		07/06/16 13:	
Batch Information								
Analytical Batch: VFC13120 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/06/16 13:25 Container ID: 1163507003-A		Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL						
						Allowable		
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	DF	<u>Limits</u>	Date Analyze	
Benzene	277 1.00 U	5.00 1.00	1.50 0.310	ug/L	10 1		07/07/16 23: 07/06/16 13:	
Ethylbenzene p-Xylene	1.00 U	1.00	0.310	ug/L ug/L	1		07/06/16 13:	
P & M -Xylene	2.00 U	2.00	0.620	ug/L	1		07/06/16 13:	
Foluene	1.32	1.00	0.310	ug/L	1		07/06/16 13:	
urrogates								
1,4-Difluorobenzene (surr)	137 *	77-115		%	1		07/06/16 13:	
Batch Information								
Analytical Batch: VFC13120 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/06/16 13:25 Container ID: 1163507003-A		Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL						
Analytical Batch: VFC13121 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/07/16 23:11 Container ID: 1163507003-A			Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: SW5030B me: 07/07/1 /t./Vol.: 5 m	6 06:00			

Print Date: 07/20/2016 8:45:09AM

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Results of MW9-0628 Client Sample ID: MW9-0628 Collection Date: 06/28/16 12:03 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507004 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 0.570 U 0.570 0.171 mg/L 1 07/06/16 13:13 Surrogates 5a Androstane (surr) 86.6 50-150 % 1 07/06/16 13:13 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK102 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:13 Prep Initial Wt./Vol.: 263 mL Container ID: 1163507004-D Prep Extract Vol: 1 mL Allowable LOQ/CL DF Parameter Result Qual DL Units Limits Date Analyzed Residual Range Organics 0.143 0.577 0.475 mg/L 1 07/06/16 13:13 Surrogates n-Triacontane-d62 (surr) 86 50-150 07/06/16 13:13 % 1 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:13 Prep Initial Wt./Vol.: 263 mL Container ID: 1163507004-D Prep Extract Vol: 1 mL

Client Sample ID: <b>MW9-0628</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507004 Lab Project ID: 1163507		Collection Date: 06/28/16 12:03 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:						
Results by Volatile Fuels			]					
						Allowable		
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	Limits	Date Analyze	
Gasoline Range Organics	0.100 U	0.100	0.0310	mg/L	1		07/08/16 16:2	
u <b>rrogates</b> 4-Bromofluorobenzene (surr)	100	50-150		%	1		07/08/16 16:2	
	100	00 100		70	I		01100/10 10.2	
Batch Information								
Analytical Batch: VFC13123 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/08/16 16:21 Container ID: 1163507004-A		I	Prep Batch: Prep Method Prep Date/Tin Prep Initial W Prep Extract	: SW5030E me: 07/08/′ /t./Vol.: 5 m	6 06:00			
						Allowable		
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	Allowable Limits	Date Analyze	
Benzene	0.500 U	0.500	0.150	ug/L	1		07/08/16 16:	
Ethylbenzene	1.00 U	1.00	0.310	ug/L	1		07/08/16 16:	
o-Xylene	1.00 U	1.00	0.310	ug/L	1		07/08/16 16:	
P & M -Xylene	2.00 U	2.00	0.620	ug/L	1		07/08/16 16:	
Toluene	1.00 U	1.00	0.310	ug/L	1		07/08/16 16:	
urrogates	00 5	77 445		0/	4		07/00/40 40:	
1,4-Difluorobenzene (surr)	83.5	77-115		%	I		07/08/16 16:	
Batch Information								
Analytical Batch: VFC13123 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/08/16 16:21		i I	Prep Batch: Prep Method Prep Date/Tii Prep Initial W Prep Extract	: SW5030E me: 07/08/ <sup>,</sup> /t./Vol.: 5 m	6 06:00			



Results of MW12-0627 Client Sample ID: MW12-0627 Collection Date: 06/27/16 11:05 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507005 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL <u>Units</u> <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 1.31 0.568 0.170 mg/L 1 07/06/16 13:23 Surrogates 5a Androstane (surr) 97.3 50-150 % 1 07/06/16 13:23 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK102 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:23 Prep Initial Wt./Vol.: 264 mL Container ID: 1163507005-D Prep Extract Vol: 1 mL Allowable Result Qual LOQ/CL DF Parameter DL Units Limits Date Analyzed 0.142 **Residual Range Organics** 3.27 0.473 mg/L 1 07/06/16 13:23 Surrogates 99.4 50-150 07/06/16 13:23 n-Triacontane-d62 (surr) % 1 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:23 Prep Initial Wt./Vol.: 264 mL Container ID: 1163507005-D Prep Extract Vol: 1 mL

Results of MW12-0627 Client Sample ID: MW12-0627 Client Project ID: Custom Truck Lab Sample ID: 1163507005		R	ollection Da eceived Da latrix: Wate	te: 06/28/	16 14:39	ound)	
Lab Project ID: 1163507			olids (%): ocation:				
Results by Volatile Fuels			]				
Parameter Gasoline Range Organics	<u>Result Qual</u> 0.100 U	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L	<u>DF</u> 1	Allowable Limits	<u>Date Analyzed</u> 07/06/16 13:44
Surrogates							
4-Bromofluorobenzene (surr)	94.1	50-150		%	1		07/06/16 13:44
Batch Information							
Analytical Batch: VFC13120 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/06/16 13:44 Container ID: 1163507005-A		F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: SW5030B me: 07/06/1 /t./Vol.: 5 m	6 06:00		
<u>Parameter</u> Benzene	<u>Result Qual</u> 0.660	<u>LOQ/CL</u> 0.500	<u>DL</u> 0.150	<u>Units</u> ug/L	<u>DF</u> 1	Allowable Limits	Date Analyzed
Ethylbenzene	1.00 U	1.00	0.310	ug/L	1		07/06/16 13:44
o-Xylene	1.00 U	1.00	0.310	ug/L	1		07/06/16 13:4
P & M -Xylene	2.00 U	2.00	0.620	ug/L	1		07/06/16 13:4
Toluene	1.00 U	1.00	0.310	ug/L	1		07/06/16 13:4
Surrogates 1,4-Difluorobenzene (surr)	91.5	77-115		%	1		07/06/16 13:4
Batch Information							
Analytical Batch: VFC13120 Analytical Method: SW8021B Analyst: ST Analytical Date/Time: 07/06/16 13:44 Container ID: 1163507005-A		F	Prep Batch: Prep Method: Prep Date/Tir Prep Initial W Prep Extract	: SW5030B me: 07/06/1 /t./Vol.: 5 m	6 06:00		



Results of MW14-0627 Client Sample ID: MW14-0627 Collection Date: 06/27/16 18:55 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507006 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 37.1 0.556 0.167 mg/L 1 07/06/16 13:34 Surrogates 5a Androstane (surr) 86.3 50-150 % 1 07/06/16 13:34 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK102 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:34 Prep Initial Wt./Vol.: 270 mL Container ID: 1163507006-D Prep Extract Vol: 1 mL Allowable Result Qual LOQ/CL DF Parameter DL Units Limits Date Analyzed 0.139 **Residual Range Organics** 2.75 0.463 mg/L 1 07/06/16 13:34 Surrogates 07/06/16 13:34 50-150 n-Triacontane-d62 (surr) 84.7 % 1 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:34 Prep Initial Wt./Vol.: 270 mL Container ID: 1163507006-D Prep Extract Vol: 1 mL

Results of MW14-0627							
Client Sample ID: <b>MW14-0627</b> Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507006 Lab Project ID: 1163507		Collection Date: 06/27/16 18:55 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:					
Results by Volatile Fuels			)——				
Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	121	20.0	<u>6.20</u>	mg/L	200	Linits	07/07/16 21:5
Surrogates							
4-Bromofluorobenzene (surr)	104	50-150		%	200		07/07/16 21:5
Batch Information							
Analytical Batch: VFC13121		F	Pren Batch:	VXX29096			
Analytical Method: AK101				d: SW5030E	3		
Analyst: ST				ime: 07/07/			
Analytical Date/Time: 07/07/16 21:57 Container ID: 1163507006-A				Nt./Vol.: 5 m t Vol: 5 mL	L		
Container ID. 1103307000-A		Γ		UVOI. JIIL			
Parameter	Result Qual	LOQ/CL	DL	Units	DF	<u>Allowable</u> Limits	Date Analyze
Benzene	16700	100	<u>30.0</u>	ug/L	200	Linito	07/07/16 21:5
Ethylbenzene	1650	200	62.0	ug/L	200		07/07/16 21:5
o-Xylene	5860	200	62.0	ug/L	200		07/07/16 21:5
P & M -Xylene	13900	400	124	ug/L	200		07/07/16 21:5
Toluene	30900	200	62.0	ug/L	200		07/07/16 21:5
Surrogates							
1,4-Difluorobenzene (surr)	86.3	77-115		%	200		07/07/16 21:5
Batch Information							
Analytical Batch: VFC13121				VXX29096			
Analytical Method: SW8021B Analyst: ST				d: SW5030E ime: 07/07/1			
Analytical Date/Time: 07/07/16 21:57							
		Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL					



Results of MW15-0627 Collection Date: 06/27/16 19:02 Client Sample ID: MW15-0627 Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Lab Sample ID: 1163507007 Matrix: Water (Surface, Eff., Ground) Lab Project ID: 1163507 Solids (%): Location: Results by Semivolatile Organic Fuels Allowable Parameter Result Qual LOQ/CL DL <u>Units</u> <u>DF</u> Date Analyzed Limits **Diesel Range Organics** 33.1 0.556 0.167 mg/L 1 07/06/16 13:44 Surrogates 5a Androstane (surr) 83.9 50-150 % 1 07/06/16 13:44 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Prep Method: SW3520C Analytical Method: AK102 Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:44 Prep Initial Wt./Vol.: 270 mL Container ID: 1163507007-D Prep Extract Vol: 1 mL Allowable Result Qual LOQ/CL DF Parameter DL Units Limits Date Analyzed 0.139 **Residual Range Organics** 2.52 0.463 mg/L 1 07/06/16 13:44 Surrogates 07/06/16 13:44 85.2 50-150 n-Triacontane-d62 (surr) % 1 **Batch Information** Analytical Batch: XFC12510 Prep Batch: XXX35705 Analytical Method: AK103 Prep Method: SW3520C Analyst: S.G Prep Date/Time: 07/05/16 08:30 Analytical Date/Time: 07/06/16 13:44 Prep Initial Wt./Vol.: 270 mL Container ID: 1163507007-D Prep Extract Vol: 1 mL

Results of MW15-0627 Client Sample ID: MW15-0627		C	ollection D	ate: 06/27/	′16 19·02		
Client Project ID: <b>Custom Truck</b> Lab Sample ID: 1163507007 Lab Project ID: 1163507		R N S					
Results by Volatile Fuels			<u> </u>				
						Allowable	
Parameter Gasoline Range Organics	<u>Result Qual</u> 125	<u>LOQ/CL</u> 20.0	<u>DL</u> 6.20	<u>Units</u> mg/L	<u>DF</u> 200	Limits	Date Analyzed 07/07/16 22:15
Surrogates							
4-Bromofluorobenzene (surr)	105	50-150		%	200		07/07/16 22:15
Batch Information							
Analytical Batch: VFC13121 Analytical Method: AK101 Analyst: ST Analytical Date/Time: 07/07/16 22:15 Container ID: 1163507007-A			Prep Methoo Prep Date/T	VXX29096 d: SW5030E ime: 07/07/ Wt./Vol.: 5 m t Vol: 5 mL	16 06:00		
Parameter	Regult Qual			Linito	DE	Allowable	Data Apalyzad
Benzene	<u>Result Qual</u> 17100	<u>LOQ/CL</u> 100	<u>DL</u> 30.0	<u>Units</u> ug/L	<u>DF</u> 200	<u>Limits</u>	Date Analyzed 07/07/16 22:15
Ethylbenzene	1670	200	62.0	ug/L	200		07/07/16 22:15
o-Xylene	5950	200	62.0	ug/L	200		07/07/16 22:15
P & M -Xylene	14000	400	124	ug/L	200		07/07/16 22:15
Toluene	31500	200	62.0	ug/L	200		07/07/16 22:15
Surrogates 1,4-Difluorobenzene (surr)	82.9	77-115		%	200		07/07/16 22:15
	02.9	77-115		70	200		07/07/10 22.15
Batch Information Analytical Batch: VFC13121			Dron Batch:	VXX20006			
Analytical Date/Time: 07/07/16 22:15	Prep Batch: VXX29096 Prep Method: SW5030B Prep Date/Time: 07/07/16 06:00 Prep Initial Wt./Vol.: 5 mL						
Container ID: 1163507007-A			Prep Extract	t Vol: 5 mL			



Results of FW-0628

Client Sample ID: **FW-0628** Client Project ID: **Custom Truck** Lab Sample ID: 1163507008 Lab Project ID: 1163507

### Collection Date: 06/28/16 14:18 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

### Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	<u>Allowable</u> Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500 U	0.500	<u></u> 0.150	ug/L	1		07/01/16 15:33
1,1,1-Trichloroethane	0.500 U	0.500	0.150	ug/L	1	(<200)	07/01/16 15:33
1,1,2,2-Tetrachloroethane	0.500 U	0.500	0.150	ug/L	1	<b>、</b>	07/01/16 15:33
1,1,2-Trichloroethane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
1,1-Dichloroethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,1-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<7)	07/01/16 15:33
1,1-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,2,3-Trichlorobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,2,3-Trichloropropane	0.500 U	0.500	0.180	ug/L	1		07/01/16 15:33
1,2,4-Trichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<70)	07/01/16 15:33
1,2,4-Trimethylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,2-Dibromo-3-chloropropane	2.00 U	2.00	0.620	ug/L	1		07/01/16 15:33
1,2-Dibromoethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,2-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<600)	07/01/16 15:33
1,2-Dichloroethane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
1,2-Dichloropropane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
1,3,5-Trimethylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,3-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,3-Dichloropropane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
1,4-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<75)	07/01/16 15:33
2,2-Dichloropropane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
2-Chlorotoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
4-Chlorotoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
4-Isopropyltoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Benzene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
Bromobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Bromochloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Bromodichloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Bromoform	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Bromomethane	2.00 U	2.00	0.620	ug/L	1		07/01/16 15:33
Carbon tetrachloride	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
Chlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 15:33
Chloroethane	1.00 U	1.00	0.310	ug/L	1		07/01/16 15:33
Chloroform	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Chloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
cis-1,2-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<70)	07/01/16 15:33
cis-1,3-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33

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Results of FW-0628

Client Sample ID: **FW-0628** Client Project ID: **Custom Truck** Lab Sample ID: 1163507008 Lab Project ID: 1163507 Collection Date: 06/28/16 14:18 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

### Results by Volatile GC/MS

Deremeter	Deput Quel			Linita		Allowable	Data Analyzad
Parameter Dibromochloromothono	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Dibromochloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Dibromomethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Dichlorodifluoromethane	0.500 U	0.500	0.150	ug/L	1	(	07/01/16 15:33
Ethylbenzene	0.500 U	0.500	0.150	ug/L	1	(<700)	07/01/16 15:33
Hexachlorobutadiene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Isopropylbenzene (Cumene)	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Methylene chloride	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
Methyl-t-butyl ether	1.00 U	1.00	0.310	ug/L	1		07/01/16 15:33
Naphthalene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
n-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
n-Propylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
o-Xylene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
P & M -Xylene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
sec-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Styrene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 15:33
tert-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Tetrachloroethene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
Toluene	0.500 U	0.500	0.150	ug/L	1	(<1000)	07/01/16 15:33
Total Trihalomethanes	2.00 U	2.00	0.600	ug/L	1	(<80)	07/01/16 15:33
trans-1,2-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 15:33
trans-1,3-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Trichloroethene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 15:33
Trichlorofluoromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 15:33
Vinyl chloride	0.400 U	0.400	0.120	ug/L	1	(<2)	07/01/16 15:33
Xylenes (total)	0.500 U	0.500	0.150	ug/L	1	(<10000)	07/01/16 15:33
Surrogates							
1,2-Dichloroethane-D4 (surr)	102	70-130		%	1		07/01/16 15:33
4-Bromofluorobenzene (surr)	90.2	70-130		%	1		07/01/16 15:33
Toluene-d8 (surr)	102	70-130		%	1		07/01/16 15:33

### Batch Information

Analytical Batch: VMS15936 Analytical Method: EPA 524.2 Analyst: NRB Analytical Date/Time: 07/01/16 15:33 Container ID: 1163507008-A Prep Batch: VXX29080 Prep Method: SW5030B Prep Date/Time: 07/01/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL

Print Date: 07/20/2016 8:45:09AM

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Results of Trip Blank Collection Date: 06/27/16 11:05 Client Sample ID: Trip Blank Received Date: 06/28/16 14:39 Client Project ID: Custom Truck Matrix: Water (Surface, Eff., Ground) Lab Sample ID: 1163507009 Lab Project ID: 1163507 Solids (%): Location: Results by Volatile Fuels Allowable Parameter Result Qual LOQ/CL DL Units <u>DF</u> Date Analyzed Limits Gasoline Range Organics 0.100 U 0.100 0.0310 mg/L 1 07/06/16 11:12 Surrogates 4-Bromofluorobenzene (surr) 97.4 50-150 % 1 07/06/16 11:12 **Batch Information** Analytical Batch: VFC13120 Prep Batch: VXX29082 Analytical Method: AK101 Prep Method: SW5030B Analyst: ST Prep Date/Time: 07/06/16 06:00 Analytical Date/Time: 07/06/16 11:12 Prep Initial Wt./Vol.: 5 mL Container ID: 1163507009-A Prep Extract Vol: 5 mL Allowable Parameter Result Qual LOQ/CL Units DF DL Limits Date Analyzed Benzene 0.500 U 0.500 0.150 ug/L 1 07/06/16 11:12 1.00 U Ethylbenzene 1.00 0.310 ug/L 1 07/06/16 11:12 o-Xylene 1.00 U 1.00 0.310 ug/L 1 07/06/16 11:12 P & M -Xylene 2.00 U 2.00 0.620 ug/L 1 07/06/16 11:12 Toluene 1.00 U 1.00 0.310 ug/L 1 07/06/16 11:12 Surrogates 1,4-Difluorobenzene (surr) 88.1 77-115 % 1 07/06/16 11:12 **Batch Information** Analytical Batch: VFC13120 Prep Batch: VXX29082 Analytical Method: SW8021B Prep Method: SW5030B Analyst: ST Prep Date/Time: 07/06/16 06:00 Analytical Date/Time: 07/06/16 11:12 Prep Initial Wt./Vol.: 5 mL Container ID: 1163507009-A Prep Extract Vol: 5 mL



Results of Trip Blank

Client Sample ID: **Trip Blank** Client Project ID: **Custom Truck** Lab Sample ID: 1163507010 Lab Project ID: 1163507 Collection Date: 06/28/16 14:18 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

### Results by Volatile GC/MS

Parameter	Result Qual	LOQ/CL	DL	<u>Units</u>	DF	<u>Allowable</u> Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.500 U	0.500	0.150	ug/L	1	Linits	07/01/16 11:59
1,1,1-Trichloroethane	0.500 U	0.500	0.150	ug/L	1	(<200)	07/01/16 11:59
1,1,2,2-Tetrachloroethane	0.500 U	0.500	0.150	ug/L	1	()	07/01/16 11:59
1,1,2-Trichloroethane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
1,1-Dichloroethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,1-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<7)	07/01/16 11:59
1,1-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,2,3-Trichlorobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,2,3-Trichloropropane	0.500 U	0.500	0.180	ug/L	1		07/01/16 11:59
1,2,4-Trichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<70)	07/01/16 11:59
1,2,4-Trimethylbenzene	0.500 U	0.500	0.150	ug/L	1	. ,	07/01/16 11:59
1,2-Dibromo-3-chloropropane	2.00 U	2.00	0.620	ug/L	1		07/01/16 11:59
1,2-Dibromoethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,2-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<600)	07/01/16 11:59
1,2-Dichloroethane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
1,2-Dichloropropane	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
1,3,5-Trimethylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,3-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,3-Dichloropropane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
1,4-Dichlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<75)	07/01/16 11:59
2,2-Dichloropropane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
2-Chlorotoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
4-Chlorotoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
4-Isopropyltoluene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Benzene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
Bromobenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Bromochloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Bromodichloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Bromoform	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Bromomethane	2.00 U	2.00	0.620	ug/L	1		07/01/16 11:59
Carbon tetrachloride	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
Chlorobenzene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 11:59
Chloroethane	1.00 U	1.00	0.310	ug/L	1		07/01/16 11:59
Chloroform	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Chloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
cis-1,2-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<70)	07/01/16 11:59
cis-1,3-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59

Print Date: 07/20/2016 8:45:09AM

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Results of Trip Blank

Client Sample ID: **Trip Blank** Client Project ID: **Custom Truck** Lab Sample ID: 1163507010 Lab Project ID: 1163507 Collection Date: 06/28/16 14:18 Received Date: 06/28/16 14:39 Matrix: Water (Surface, Eff., Ground) Solids (%): Location:

### Results by Volatile GC/MS

						Allowable	
Parameter	Result Qual	LOQ/CL	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Limits</u>	Date Analyzed
Dibromochloromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Dibromomethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Dichlorodifluoromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Ethylbenzene	0.500 U	0.500	0.150	ug/L	1	(<700)	07/01/16 11:59
Hexachlorobutadiene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Isopropylbenzene (Cumene)	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Methylene chloride	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
Methyl-t-butyl ether	1.00 U	1.00	0.310	ug/L	1		07/01/16 11:59
Naphthalene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
n-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
n-Propylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
o-Xylene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
P & M -Xylene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
sec-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Styrene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 11:59
tert-Butylbenzene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Tetrachloroethene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
Toluene	0.500 U	0.500	0.150	ug/L	1	(<1000)	07/01/16 11:59
Total Trihalomethanes	2.00 U	2.00	0.600	ug/L	1	(<80)	07/01/16 11:59
trans-1,2-Dichloroethene	0.500 U	0.500	0.150	ug/L	1	(<100)	07/01/16 11:59
trans-1,3-Dichloropropene	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Trichloroethene	0.500 U	0.500	0.150	ug/L	1	(<5)	07/01/16 11:59
Trichlorofluoromethane	0.500 U	0.500	0.150	ug/L	1		07/01/16 11:59
Vinyl chloride	0.400 U	0.400	0.120	ug/L	1	(<2)	07/01/16 11:59
Xylenes (total)	0.500 U	0.500	0.150	ug/L	1	(<10000)	07/01/16 11:59
Surrogates							
1,2-Dichloroethane-D4 (surr)	102	70-130		%	1		07/01/16 11:59
4-Bromofluorobenzene (surr)	101	70-130		%	1		07/01/16 11:59
Toluene-d8 (surr)	103	70-130		%	1		07/01/16 11:59

### Batch Information

Analytical Batch: VMS15936 Analytical Method: EPA 524.2 Analyst: NRB Analytical Date/Time: 07/01/16 11:59 Container ID: 1163507010-A Prep Batch: VXX29080 Prep Method: SW5030B Prep Date/Time: 07/01/16 06:00 Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL

Print Date: 07/20/2016 8:45:09AM

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### Method Blank

Blank ID: MB for HBN 1738459 [VXX/29080] Blank Lab ID: 1334806

QC for Samples: 1163507008, 1163507010

### Results by EPA 524.2

-				
Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.250U	0.500	0.150	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.250U	0.500	0.150	ug/L
1,1-Dichloroethane	0.250U	0.500	0.150	ug/L
1,1-Dichloroethene	0.250U	0.500	0.150	ug/L
1,1-Dichloropropene	0.250U	0.500	0.150	ug/L
1,2,3-Trichlorobenzene	0.250U	0.500	0.150	ug/L
1,2,3-Trichloropropane	0.250U	0.500	0.180	ug/L
1,2,4-Trichlorobenzene	0.250U	0.500	0.150	ug/L
1,2,4-Trimethylbenzene	0.250U	0.500	0.150	ug/L
1,2-Dibromo-3-chloropropane	1.00U	2.00	0.620	ug/L
1,2-Dibromoethane	0.250U	0.500	0.150	ug/L
1,2-Dichlorobenzene	0.250U	0.500	0.150	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.250U	0.500	0.150	ug/L
1,3,5-Trimethylbenzene	0.250U	0.500	0.150	ug/L
1,3-Dichlorobenzene	0.250U	0.500	0.150	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.250U	0.500	0.150	ug/L
2-Chlorotoluene	0.250U	0.500	0.150	ug/L
4-Chlorotoluene	0.250U	0.500	0.150	ug/L
4-Isopropyltoluene	0.250U	0.500	0.150	ug/L
Benzene	0.250U	0.500	0.150	ug/L
Bromobenzene	0.250U	0.500	0.150	ug/L
Bromochloromethane	0.250U	0.500	0.150	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.250U	0.500	0.150	ug/L
Bromomethane	1.00U	2.00	0.620	ug/L
Carbon tetrachloride	0.250U	0.500	0.150	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.250U	0.500	0.150	ug/L
Chloromethane	0.250U	0.500	0.150	ug/L
cis-1,2-Dichloroethene	0.250U	0.500	0.150	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L

Print Date: 07/20/2016 8:45:11AM

SGS North America Inc.

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Matrix: Drinking Water

### Method Blank

Blank ID: MB for HBN 1738459 [VXX/29080] Blank Lab ID: 1334806 Matrix: Drinking Water

QC for Samples: 1163507008, 1163507010

### Results by EPA 524.2

Parameter	Results	LOQ/CL	<u>DL</u>	<u>Units</u>
Dibromomethane	0.250U	0.500	0.150	ug/L
Dichlorodifluoromethane	0.250U	0.500	0.150	ug/L
Ethylbenzene	0.250U	0.500	0.150	ug/L
Hexachlorobutadiene	0.250U	0.500	0.150	ug/L
Isopropylbenzene (Cumene)	0.250U	0.500	0.150	ug/L
Methylene chloride	0.250U	0.500	0.150	ug/L
Methyl-t-butyl ether	0.500U	1.00	0.310	ug/L
Naphthalene	0.250U	0.500	0.150	ug/L
n-Butylbenzene	0.250U	0.500	0.150	ug/L
n-Propylbenzene	0.250U	0.500	0.150	ug/L
o-Xylene	0.250U	0.500	0.150	ug/L
P & M -Xylene	0.250U	0.500	0.150	ug/L
sec-Butylbenzene	0.250U	0.500	0.150	ug/L
Styrene	0.250U	0.500	0.150	ug/L
tert-Butylbenzene	0.250U	0.500	0.150	ug/L
Tetrachloroethene	0.250U	0.500	0.150	ug/L
Toluene	0.250U	0.500	0.150	ug/L
trans-1,2-Dichloroethene	0.250U	0.500	0.150	ug/L
trans-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Trichloroethene	0.250U	0.500	0.150	ug/L
Trichlorofluoromethane	0.250U	0.500	0.150	ug/L
Vinyl chloride	0.200U	0.400	0.120	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	101	70-130		%
4-Bromofluorobenzene (surr)	101	70-130		%
Toluene-d8 (surr)	103	70-130		%

### **Batch Information**

Analytical Batch: VMS15936 Analytical Method: EPA 524.2 Instrument: VPA 780/5975 GC/MS Analyst: NRB Analytical Date/Time: 7/1/2016 7:53:00AM Prep Batch: VXX29080 Prep Method: SW5030B Prep Date/Time: 7/1/2016 6:00:00AM Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL

Print Date: 07/20/2016 8:45:11AM

SGS North America Inc.



Blank Spike ID: LCS for HBN 1163507 [VXX29080] Blank Spike Lab ID: 1334807 Date Analyzed: 07/01/2016 08:22 Spike Duplicate ID: LCSD for HBN 1163507 [VXX29080] Spike Duplicate Lab ID: 1334810 Matrix: Drinking Water

QC for Samples: 1163507008, 1163507010

### Results by EPA 524.2

		Blank Spike	e (ug/L)	:	Spike Dupli	cate (ug/L)			
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
1,1,1,2-Tetrachloroethane	30	34.7	116	30	34.6	115	(70-130)	0.03	(< 30)
1,1,1-Trichloroethane	30	32.5	108	30	32.5	108	(70-130)	0.00	(< 30)
1,1,2,2-Tetrachloroethane	30	34.2	114	30	34.7	116	(70-130)	1.50	(< 30)
1,1,2-Trichloroethane	30	34.0	113	30	34.5	115	(70-130)	1.30	(< 30)
1,1-Dichloroethane	30	32.0	107	30	31.9	106	(70-130)	0.31	(< 30)
1,1-Dichloroethene	30	29.8	99	30	29.5	98	(70-130)	1.20	(< 30)
1,1-Dichloropropene	30	33.5	112	30	34.0	113	(70-130)	1.60	(< 30)
1,2,3-Trichlorobenzene	30	35.3	118	30	42.5	142	* (70-130)	18.30	(< 30)
1,2,3-Trichloropropane	30	33.9	113	30	34.8	116	(70-130)	2.50	(< 30)
1,2,4-Trichlorobenzene	30	36.6	122	30	41.1	137	* (70-130)	11.50	(< 30)
1,2,4-Trimethylbenzene	30	37.3	124	30	37.3	124	(70-130)	0.16	(< 30)
1,2-Dibromo-3-chloropropane	30	34.4	115	30	37.5	125	(70-130)	8.60	(< 30)
1,2-Dibromoethane	30	34.9	116	30	35.5	118	(70-130)	1.90	(< 30)
1,2-Dichlorobenzene	30	32.8	109	30	33.5	112	(70-130)	2.00	(< 30)
1,2-Dichloroethane	30	29.3	98	30	29.2	98	(70-130)	0.03	(< 30)
1,2-Dichloropropane	30	33.5	112	30	33.9	113	(70-130)	1.20	(< 30)
1,3,5-Trimethylbenzene	30	36.8	123	30	37.4	125	(70-130)	1.60	(< 30)
1,3-Dichlorobenzene	30	33.2	111	30	34.0	113	(70-130)	2.50	(< 30)
1,3-Dichloropropane	30	35.5	118	30	35.9	120	(70-130)	1.10	(< 30)
1,4-Dichlorobenzene	30	34.9	116	30	34.9	116	(70-130)	0.06	(< 30)
2,2-Dichloropropane	30	31.8	106	30	31.9	106	(70-130)	0.31	(< 30)
2-Chlorotoluene	30	35.8	119	30	36.1	120	(70-130)	0.83	(< 30)
4-Chlorotoluene	30	35.5	118	30	35.9	120	(70-130)	1.30	(< 30)
4-Isopropyltoluene	30	37.1	124	30	37.5	125	(70-130)	1.10	(< 30)
Benzene	30	33.3	111	30	34.1	114	(70-130)	2.20	(< 30)
Bromobenzene	30	33.9	113	30	33.7	112	(70-130)	0.62	(< 30)
Bromochloromethane	30	30.6	102	30	30.1	100	(70-130)	1.70	(< 30)
Bromodichloromethane	30	32.5	108	30	32.4	108	(70-130)	0.31	(< 30)
Bromoform	30	34.5	115	30	34.4	115	(70-130)	0.41	(< 30)
Bromomethane	30	23.3	78	30	23.7	79	(70-130)	1.70	(< 30)
Carbon tetrachloride	30	33.1	110	30	32.9	110	(70-130)	0.42	(< 30)
Chlorobenzene	30	33.8	113	30	34.1	114	(70-130)	1.10	(< 30)
Chloroethane	30	29.0	97	30	27.7	92	(70-130)	4.70	(< 30)
Chloroform	30	29.9	100	30	29.8	99	(70-130)	0.47	(< 30)

Print Date: 07/20/2016 8:45:13AM

SGS North America Inc.



Blank Spike ID: LCS for HBN 1163507 [VXX29080] Blank Spike Lab ID: 1334807 Date Analyzed: 07/01/2016 08:22 Spike Duplicate ID: LCSD for HBN 1163507 [VXX29080] Spike Duplicate Lab ID: 1334810 Matrix: Drinking Water

QC for Samples: 1163507008, 1163507010

### Results by EPA 524.2

		Blank Spike	e (ug/L)		Spike Dupli	cate (ug/L)			
Parameter	Spike	Result	<u>Rec (%)</u>	Spike	Result	Rec (%)	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Chloromethane	30	21.9	73	30	27.1	90	(70-130)	21.20	(< 30)
cis-1,2-Dichloroethene	30	31.0	103	30	30.9	103	(70-130)	0.19	(< 30)
cis-1,3-Dichloropropene	30	33.4	111	30	33.9	113	(70-130)	1.50	(< 30)
Dibromochloromethane	30	34.9	116	30	35.4	118	(70-130)	1.60	(< 30)
Dibromomethane	30	30.4	101	30	30.3	101	(70-130)	0.26	(< 30)
Dichlorodifluoromethane	30	35.8	119	30	35.2	117	(70-130)	1.60	(< 30)
Ethylbenzene	30	35.9	120	30	36.0	120	(70-130)	0.28	(< 30)
Hexachlorobutadiene	30	35.3	118	30	37.3	124	(70-130)	5.50	(< 30)
Isopropylbenzene (Cumene)	30	35.7	119	30	35.7	119	(70-130)	0.14	(< 30)
Methylene chloride	30	32.5	108	30	31.7	106	(70-130)	2.60	(< 30)
Methyl-t-butyl ether	45	45.3	101	45	46.4	103	(70-130)	2.30	(< 30)
Naphthalene	30	32.8	109	30	40.3	134	* (70-130)	20.60	(< 30)
n-Butylbenzene	30	37.4	125	30	37.4	125	(70-130)	0.00	(< 30)
n-Propylbenzene	30	36.6	122	30	36.9	123	(70-130)	0.76	(< 30)
o-Xylene	30	36.6	122	30	36.7	122	(70-130)	0.30	(< 30)
P & M -Xylene	60	73.2	122	60	74.3	124	(70-130)	1.50	(< 30)
sec-Butylbenzene	30	35.8	119	30	36.3	121	(70-130)	1.50	(< 30)
Styrene	30	35.7	119	30	35.6	119	(70-130)	0.08	(< 30)
tert-Butylbenzene	30	37.0	123	30	37.4	125	(70-130)	1.00	(< 30)
Tetrachloroethene	30	33.9	113	30	34.7	116	(70-130)	2.30	(< 30)
Toluene	30	33.5	112	30	33.9	113	(70-130)	1.00	(< 30)
trans-1,2-Dichloroethene	30	32.1	107	30	32.3	108	(70-130)	0.47	(< 30)
trans-1,3-Dichloropropene	30	38.2	127	30	38.8	129	(70-130)	1.70	(< 30)
Trichloroethene	30	32.9	110	30	33.3	111	(70-130)	1.20	(< 30)
Trichlorofluoromethane	30	31.4	105	30	31.6	105	(70-130)	0.86	(< 30)
Vinyl chloride	30	30.5	102	30	30.6	102	(70-130)	0.59	(< 30)
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	97	97	30	95.2	95	(70-130)	1.90	
4-Bromofluorobenzene (surr)	30	101	101	30	99.3	99	(70-130)	1.90	
Toluene-d8 (surr)	30	104	104	30	104	104	(70-130)	0.10	

Print Date: 07/20/2016 8:45:13AM

SGS North America Inc.

ank Spike ID: LCS for ank Spike Lab ID: 13		[VXX2908	0]	Spike Duplicate ID: LCSD for HBN 1163507 [VXX29080]							
ate Analyzed: 07/01/				Spike Duplicate Lab ID: 1334810 Matrix: Drinking Water							
C for Samples: 116	63507008, 11635	07010									
Results by EPA 524.2											
arameter	<u>Spike</u>	Blank Spil	ke (%) <u>Rec (%)</u>	<u>Spike</u>	Spike Dup Result	licate (%) <u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD C		
atch Information	<u>opike</u>	Result	<u>IXEC (70)</u>	Opike	Result	<u>Itec (70)</u>		<u>IXI D (70)</u>			
Analytical Batch: VMS1 Analytical Method: EPA Instrument: VPA 780/59 Analyst: NRB	524.2			Pre Pre Spi	ke Init Wt./\		Extract \	√ol: 5 mL ′ol: 5 mL			

Print Date: 07/20/2016 8:45:13AM

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Method Blank Blank ID: MB for HBN 1738 Blank Lab ID: 1334837 QC for Samples: 1163507002, 1163507003, 11		Matrix: Water (Surface, Eff., Ground)							
Results by AK101									
Parameter Gasoline Range Organics	<u>Results</u> 0.0500U	<u>LOQ/CL</u> 0.100	<u>DL</u> 0.0310	<u>Units</u> mg/L					
Surrogates									
4-Bromofluorobenzene (surr)	98.7	50-150		%					
Batch Information									
Analytical Batch: VFC1312	20		tch: VXX29082						
Analytical Method: AK101			thod: SW5030B te/Time: 7/6/201						
Instrument: Agilent 7890 P Analyst: ST	IDIFID		ial Wt./Vol.: 5 m						
Analytical Date/Time: 7/6/2	2016 9:37:00AM		tract Vol: 5 mL						



Blank Spike ID: LCS for HBN 1163507 [VXX29082] Blank Spike Lab ID: 1334840 Date Analyzed: 07/06/2016 10:34 Spike Duplicate ID: LCSD for HBN 1163507 [VXX29082] Spike Duplicate Lab ID: 1334841 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163507002, 1163507003, 1163507005, 1163507009

E	Blank Spike	e (mg/L)	S	pike Duplic	cate (mg/L)			
<u>Spike</u>	Result	<u>Rec (%)</u>	Spike	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
1.00	0.968	97	1.00	0.891	89	(60-120)	8.20	(< 20 )
0.0500	107	107	0.0500	100	100	(50-150)	6.70	
			1					
ID							Vol: 5 ml	
						0		
	<u>Spike</u> 1.00	Spike         Result           1.00         0.968           0.0500         107	1.00     0.968     97       0.0500     107     107	Spike         Result         Rec (%)         Spike           1.00         0.968         97         1.00           0.0500         107         107         0.0500           Prep         Prep         Prep           Prep         Spike         Prep           Spike         97         1.00	Spike         Result         Rec (%)         Spike         Result           1.00         0.968         97         1.00         0.891           0.0500         107         107         0.0500         100           Prep Batch: V           Prep Method:         Prep Date/Tim           Spike Init Wt./N         Spike Init Wt./N	Spike         Result         Rec (%)         Spike         Result         Rec (%)           1.00         0.968         97         1.00         0.891         89           0.0500         107         107         0.0500         100         100           Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/201 Spike Init Wt./Vol.: 1.00 mg	Spike         Result         Rec (%)         Spike         Result         Rec (%)         CL           1.00         0.968         97         1.00         0.891         89         (60-120)           0.0500         107         107         0.0500         100         100         (50-150)           Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/2016 06:00 Spike Init Wt./Vol.: 1.00 mg/L	Spike         Result         Rec (%)         Spike         Result         Rec (%)         CL         RPD (%)           1.00         0.968         97         1.00         0.891         89         (60-120)         8.20           0.0500         107         107         0.0500         100         100         (50-150)         6.70           Prep Batch: VXX29082 Prep Method: SW5030B

### Method Blank

SG

Blank ID: MB for HBN 1738468 [VXX/29082] Blank Lab ID: 1334837 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163507002, 1163507003, 1163507005, 1163507009

Results by SW8021B				
Parameter	<u>Results</u>	LOQ/CL	<u>DL</u>	<u>Units</u>
Benzene	0.250U	0.500	0.150	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
Toluene	0.500U	1.00	0.310	ug/L
Surrogates				
1,4-Difluorobenzene (surr)	86.9	77-115		%
Batch Information				

Analytical Batch: VFC13120 Analytical Method: SW8021B Instrument: Agilent 7890 PID/FID Analyst: ST Analytical Date/Time: 7/6/2016 9:37:00AM Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 7/6/2016 6:00:00AM Prep Initial Wt./Vol.: 5 mL Prep Extract Vol: 5 mL



Blank Spike ID: LCS for HBN 1163507 [VXX29082] Blank Spike Lab ID: 1334838 Date Analyzed: 07/06/2016 10:15 Spike Duplicate ID: LCSD for HBN 1163507 [VXX29082] Spike Duplicate Lab ID: 1334839 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163507002, 1163507003, 1163507005, 1163507009

Results by SW8021B			<i>.</i>						
		Blank Spike	e (ug/L)	g/L) Spike Duplicate (ug/L)					
Parameter	<u>Spike</u>	Result	Rec (%)	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>CL</u>	<u>RPD (%)</u>	RPD CL
Benzene	100	104	104	100	112	112	(80-120)	6.60	(< 20)
Ethylbenzene	100	101	101	100	104	104	(75-125)	3.50	(< 20)
o-Xylene	100	103	103	100	107	107	(80-120)	3.30	(< 20)
P & M -Xylene	200	204	102	200	212	106	(75-130)	4.10	(< 20)
Toluene	100	101	101	100	106	106	(75-120)	5.10	(< 20)
urrogates									
1,4-Difluorobenzene (surr)	50	95	95	50	106	106	(77-115)	11.10	

Analytical Batch: VFC13120 Analytical Method: SW8021B Instrument: Agilent 7890 PID/FID Analyst: ST Prep Batch: VXX29082 Prep Method: SW5030B Prep Date/Time: 07/06/2016 06:00 Spike Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL Dupe Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL

CS for map els5: 1] 3407003, 11] 340700] , 11]	3407007				
Rs5ult5 Qy <b>AK101</b>					
P <u>arap stsr</u> Ga5olins Rangs Organic5	<u>Rs5ult5</u> 0.0400U	<u>bOC25b</u> 0.100	<u>Db</u> 0.0310	<u>Unit5</u> p g <b>2</b> 0	
<b>urrogates</b> S-Brop ofluoroQsnzsns (5urr)	100	40-140		%	
atch Information					
Analytical Batch: XFS13197 Analytical Msthod: AK101 In5trup snt: Agilsnt 78[ 0A F Analy5t: mT Analytical Dats2Tip s: 727290	PIDÆID	Prse Ms Prse Da Prse Init	tch: X/ / 9[0[] thod: mW4030B ts2Tip s: 7272901 ial Wt.2Xol.: 4 p tract Xol: 4 p b	] :00:00AM	

Print Dats: 072902901] 8:64:90AM

Blank Spike ID: LCS for HBN 1163507 [VXX290968 Blank Spike La] ID: 13351b6 Da4e t nalAyez: 07d07d2016 21:01 Spike D/ pliua4e ID: LCSD for HBN 1163507 [VXX290968 Spike D/ pliua4e La] ID: 13351b7 s a4iM x a4er W/ rfaue(, fft . ro/ nzG

g C for SaP pleR 1163507003( 1163507006( 1163507007

_ceR′l4R]A <b>AK101</b>									
	I	Blank Spike	eWP%dLG	S	pike D/ pliu	ua4eWP%dLG			
<u>) araP e4er</u>	<u>Spike</u>	<u>c eR/ I4</u>	<u>ceuWh</u> G	<u>Spike</u>	<u>c eR/ I4</u>	<u>ceuWh</u> G	<u>CL</u>	<u>c)DWm</u> G	<u>c) D CL</u>
. aRoline c an%e Qr%aniuR	1Ð0	0⊞<7	b5	1Ð0	0⊞26	b3	W60C120G	2150	W 20 G
Surrogates									
<@BroP ofl/ oro] enyene WW rrG	0Ð500	107	107	0Ð500	107	107	W50C150G	0⊟3	
Batch Information									
t nalA4ual Ba4uh: VFC13121				) rep	Ba4uh: V	XX2909W			
t nalA4ual s e4hoz: AK101				) rep	s e4hoz:	S5 6030B			
InR4/ Pen4 Agilent 7890A PI	D/FID			) rep	Da4edTiP	e: 07/07/201	W 0W00		
t nalAR4: ST				Spik	e Ini4x 460	/olE 1⊞0 P%	∕dL ,M4rau4∖	/ol: 5 P L	
				D/ p	e Ini4x 4EV	olE 1⊞0 P%	⟨dL , M4rau4V	ol: 5 P L	

) rin4Da4e: 0702002016 b:<5:21t s

### Method Blank

Blank ID: MB for HBN 173846[ W/ / 29[ 0[ ] L Blank baQID: 1334183 Matrix: Watsr (murfacs, Eff., Ground)

CS for map els5: 11] 3407003, 11] 340700] , 11] 3407007

### Rs5ult5 Qy SW8021B

Parap stsr	Rs5ult5	bOC25b	<u>Db</u>	Unit5
Bsnzsns	0.940U	0.400	0.140	ug2b
EthylQsnzsns	0.400U	1.00	0.310	ug2b
o-/ ylsns	0.400U	1.00	0.310	ug2b
P & M -/ ylsns	1.00U	9.00	0.] 90	ug2b
Tolusns	0.400U	1.00	0.310	ug2b
Surrogates				
1,6-DifluoroQsnzsns (5urr)	86.9	77-114		%

### **Batch Information**

Analytical Batch: XFS13191 Analytical Msthod: mW8091B In5trup snt: Agilsnt 78[0A PID2FID Analy5t: mT Analytical Dats2Tip s: 7272901] [:38:00PM Prse Batch: X/ / 9[ 0[ ] Prse Msthod: mW4030B Prse Dats2Tip s: 7272901] ]:00:00AM Prse Initial Wt.2xol.: 4 p b Prse Extract Xol: 4 p b

Print Dats: 072902901] 8:64:99AM



Blank Spike ID: LCS for HBN 1163507 [VXX290968 Blank Spike La] ID: 13351b4 Date Analyzed: 07/07/2016 20:42 Spike Duplicate ID: LCSD for HBN 1163507 [VXX290968 Spike Duplicate La] ID: 13351b5 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163507003, 1163507006, 1163507007

Results ] y SW8021B									
		Blank Spike (ug/L)			Spike Duplicate (ug/L)				
Parameter	<u>Spike</u>	Result	<u>Rec (%)</u>	<u>Spike</u>	Result	<u>Rec (%)</u>	CL	<u>RPD (%)</u>	RPD CL
Benzene	100	96.4	96	100	103	103	(b0-120)	6.50	(< 20)
Ethyl] enzene	100	93.7	94	100	94.0	94	(75-125)	0.27	(< 20)
o-Xylene	100	96.5	97	100	95.2	95	(b0-120)	1.40	(< 20)
P & M -Xylene	200	193	96	200	192	96	(75-130)	0.42	(< 20)
Toluene	100	94.4	94	100	95.9	96	(75-120)	1.60	(< 20)
Surrogates									
1,4-Difluoro] enzene (surr)	50	b4	b4	50	b6.3	b6	(77-115)	2.70	

### **Batch Information**

Analytical Batch: VFC13121 Analytical Method: SW8021B Instrument: Agilent 7890A PID/FID Analyst: ST Prep Batch: VXX29095 Prep Method: SW6030B Prep Date/Time: 07/07/2015 05:00 Spike Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL Dupe Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL

Method Blank	
Blank ID: MB for HBN 1738414 ( VVX 2190] Blank Lab ID: 1330004 QC for Samples:	Matrix: Water (Surface5Eff.5Ground)
11430979915114309799,	
Results by AK101	
ParameterResultsGasoline Range Organics9.9099U	<u>LOQXL</u> <u>DL</u> <u>Units</u> 9.199 9.9319 mgX
Surrogates	
, -Bromofluorobenzene (surr) 19/	09-109 %
Batch Information	
Analytical Batch: [FC131/3 Analytical Method: AK191 Instrument: Agilent 7829A PID¥ID Analyst: ST Analytical Date¥Time: 7%X914 2:31:99AM	Prep Batch: [VV/2190 Prep Method: SW0939B Prep DateXTime: 7X8X914 4:99:99AM Prep Initial Wt.Xt ol.: 0 mL Prep Extract [ ol: 0 mL

Print Date: 97X 9X 914 8:, 0:/, AM



Blank	Spike	Sumn	nary
-------	-------	------	------

Blank Spike ID: LCS for HBN 1163507 [VXX291058 Blank Spike La] ID: 1335559 Dabe 4 nalt Aey: 07z0dz2016 10:27 Spike D/ pliuabe ID: LCSD for HBN 1163507 [VXX291058 Spike D/ pliuabe La] ID: 1335560 s abriM x aber W/ rfaue(, fft . ro/ nyG

g C for SaP pleR 1163507001( 116350700Q

⊂ eR⁄lbR]tAK101			_						
	E	Blank Spike	WP %aLG	S	pike D/ pliu	ıabe WP %aLG			
<u>) araPeber</u>	<u>Spike</u>	<u>c eR( lb</u>	<u>ceuWh</u> G	<u>Spike</u>	<u>c eR/ Ib</u>	<u>ceuWm</u> G	<u>CL</u>	<u>c)DWm</u> G	<u>c) D CL</u>
. aRoline c an%e Or%aniuR	1⊞0	0Ēd1	dd	1⊞0	0瓩10	d1	W60-120 G	dE50	₩ 20 G
Surrogates									
QBroPofl/ oro] enAene ₩ rrG	0臣500	107	107	0⊞500	107	107	W50-150 G	0日7	
Batch Information									
4 nalt bual Babuh: VFC13123				, 1	Babuh: V				
4 nalt bual s ethoy: AK101	) rep s ebhoy: S5 W030B								
InRor/Penb Agilent 7890A PIE 4 nalt Ro ST	J/FID	) rep DabezTiPe: <b>07/08/2016 06:00</b> Spike Inibx bzVoIE 11脸0 P 勉L ,MbraubVoI: 5 P L							
THURIN VI							√aL ,MoraubVo		

) rinbDabe: 07z20z2016 d:Q5:254s

### Method Blank

SG

Blank ID: MB for HBN 1738414 **(**VVX 2190] Blank Lab ID: 1330004 Matrix: Water (Surface5Eff.5Ground)

QC for Samples: 11430979915114309799,

### Results by SW8021B

· ·				
Parameter	Results	LOQXL	<u>DL</u>	<u>Units</u>
Benzene	9./ 09U	9.099	9.109	ugЖ
Ethylbenzene	9.099U	1.99	9.319	ugXL
o-Vylene	9.099U	1.99	9.319	ugX∟
P & M -Vylene	1.99U	/ .99	9.4/9	ugX⊥
Toluene	9.099U	1.99	9.319	ugX⊥
Surrogates				
15 -Difluorobenzene (surr)	8, .,	77-110		%

### **Batch Information**

Analytical Batch: [FC131/3 Analytical Method: SW89/1B Instrument: Agilent 7829A PIDXID Analyst: ST Analytical DateXTime: 7X8X 914 2:31:99AM Prep Batch: [ VV/ 2190 Prep Method: SW0939B Prep DateXTime: 7X8X 914 4:99:99AM Prep Initial Wt.X ol.: 0 mL Prep Extract [ ol: 0 mL

Print Date: 97X 9X 914 8:, 0:/ 4AM



Blank Spike ID: LCS for HBN 1163507 [VXX291058 Blank Spike La] ID: 1335557 Date 4 nalt Aey: 07z0dz2016 10:0d Spike D/ pliuabe ID: LCSD for HBN 1163507 [VXX291058 Spike D/ pliuabe La] ID: 133555d s abriM x aber W/ rfaue(, fft . ro/ nyG

g C for SaP pleR 1163507001(116350700Q

### ceR/lbR]tSW8021B Blank Spike W% LG Spike D/ pliuabe W%LG ) araP eber <u>Spike</u> <u>c eR/ Ib</u> <u>ceuWh</u>G <u>Spike</u> <u>c e</u>R∕ lb <u>ceuWh</u>G <u>CL</u> <u>c)DWm</u>G <u>c) D CL</u> BenAene 100 9QĐ 9Q 100 d6Ed d7 Wd0-120 G dED0 ₩ 20 G , bht I] en Aene 100 dd 🔁 d9 100 92Ð 93 QEd0 ₩ 20 G ₩75-125 G o-Xt lene 100 91EQ 91 100 97Ð 97 Wd0-120 G 5190 ₩ 20 G ) & s -Xt lene 1d2 91 200 97 ₩75-130 G ₩ 20 G 200 19Q 6臣20 Tol/ ene d955 90 100 9255 W75-120 G 3B0 ₩ 20 G 100 93 Surrogates 1(Q-Difl/ oro] enAene WR rrG 50 d3⊟ d3 50 d3Ð d3 W7-115 G OE **Batch Information** 4 nalt bual Babuh: VFC13123 ) rep Babuh: VXX29105

4 nait bual Baoun: VFC13123 4 nait bual s ethoy: SW8021B InRor/ P enb Agilent 7890A PID/FID 4 nait Ro ST

- ) rep s ebhoy: SW5030B
- ) rep DabezTiPe: 07/08/2016 06:00
- Spike Inibx b/22/oIE 100 / % aL , MoraubVol: 5 PL D/ pe Inibx b/22/oIE 100 / % aL , MoraubVol: 5 PL

) rinbDabe: 07z20z2016 d:Q5:274s

Method Blank								
Blank ID: MB for HBN 1738 Blank Lab ID: 1334218		Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1163507001, 1163507002, 11	63507003, 1163507004, 1	163507005, 1163	507006,	1163507007				
Results by AK102								
Parameter Diesel Range Organics	<u>Results</u> 0.300U	<u>LOC</u> 0.60		<u>DL</u> 0.180	<u>Units</u> mg/L			
Surrogates								
5a Androstane (surr)	86	60-1	20		%			
Batch Information								
Analytical Batch: XFC124 Analytical Method: AK102 Instrument: Agilent 7890B Analyst: S.G Analytical Date/Time: 7/6/	R		Prep Me Prep Dat Prep Initi	ch: XXX35709 thod: SW3520 re/Time: 7/5/20 al Wt./Vol.: 25 ract Vol: 1 mL	0C 016 8:30:58AM 50 mL			



Blank Spike ID: LCS for HBN 1163507 [VVV35705X Blank Spike La2 ID: 133981] Dabe 4 nalt Aey: 07z06z8016 00:35 Spike Ddpli/abe ID: LCSD for HBN 1163507 [VVV35705X Spike Ddpli/abe La2 ID: 1339880 Rabris: Maber xSdrfa/ eW(ff,WE rodny.

%C for Sa) plec: 1163507001WI 163507008WI 163507003WI 163507009WI 163507005WI 163507006WI 163507007

u ecdlbc 2t AK102									
		Blank Spike	ex)mzL.		Spike Ddpli/	'abex)mzL.			
<u>Gara) eber</u>	<u>Spike</u>	<u>u ecdlb</u>	<u>ue/xP.</u>	<u>Spike</u>	<u>u ecdlb</u>	<u>ue/xP.</u>	CL	<u>u GD xP .</u>	<u>u GD CL</u>
Diecel u anme g rmani/ c	80	81,1	105	80	88,7	113	x75Q85.	7,90	x080.
Surrogates									
5a 4 nyrocbane xcdrr.	0,9	108	108	0,9	111	111	x60Q80.	- ,90	
Batch Information									
4 nalt b/ al Bab/ <: XFC12497				Gre	p Bab/<: <b>X</b>	XX35705			
4 nalt bi∕al Reb≲oy: <b>AK102</b>				Gre	p Reb≤oy:	SW3520C			
Incbrd) enb Agilent 7890B R				Gre	p Dabezhi) (	e: 07/05/20	16 08:30		
4 nalt cb S.G				Spi	ke InibMbzī	ol,: 80) ma	Ł (sbra/bTo	ol: 1) L	
				Ddj	be InibMbzT	ol,: 80) mz	L (sbra/bTo	l: 1) L	

GrinbDabe: 07z80z8016 -: 95: 304 R

Method Blank		<u> </u>							
Blank ID: MB for HBN 1738260 Blank Lab ID: 1334218	[XXX/35705]	Matrix	Matrix: Water (Surface, Eff., Ground)						
QC for Samples: 1163507001, 1163507002, 11635	07003, 1163507004, 11	63507005, 1163507006	, 1163507007						
Results by AK103		·							
Parameter Residual Range Organics	<u>Results</u> 0.250U	LOQ/CL 0.500	<u>DL</u> 0.150	<u>Units</u> mg/L					
Surrogates nA riacontaneAd62 (surr)	8h	60 <i>A</i> 120		%					
Batch Information									
Fnalytical Batc9: XKC124h7 Fnalytical Met9od: FT103 Instrument: Fgilent 78h0B R Fnalyst: S.G Fnalytical Date/- ime: 7/6/2016	6 12:25:00FM	Prep Me Prep Da Prep Init	tc9: XXX35705 t9od: SW3520 te/- ime: 7/5/20 ial Wt./Vol.: 25 ract Vol: 1 mL	C 16 8:30:58FM 0 mL					

Print Date: 07/20/2016 8:45:31FM

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Blank Spike ID: LCS for HBN 1163507 [VVV35705X Blank Spike La2 ID: 133981] Dabe 4 nalt Aey: 07z06z8016 00:35 Spike Ddpli/abe ID: LCSD for HBN 1163507 [VVV35705X Spike Ddpli/abe La2 ID: 1339880 Rabris: Maber xSdrfa/ eW(ff,WE rodny.

%C for Sa) plec: 1163507001WI 163507008WI 163507003WI 163507009WI 163507005WI 163507006WI 163507007

u ecdlbc 2t AK102									
		Blank Spike	⊧x) mzL.	5	Spike Ddpli/	abex)mzL.			
<u>Gara) eber</u>	<u>Spike</u>	<u>u ecdlb</u>	<u>ue/xP.</u>	<u>Spike</u>	<u>u ecdlb</u>	<u>ue/xP.</u>	CL	<u>u GD xP.</u>	<u>u GD CL</u>
u eciydal u anme g rmani/ c	80	81,7	10]	80	83,6	11Q	x60C180.	Q30	× 80.
Surrogates									
n&ria/onbaneQ/68 xcdrr.	0,9	QQ,3	QQ	0,9	] 7,Q	] Q	x60C180.	10,10	
Batch Information									
4 nalt b/ al Bab/h: XFC14978					pBab/h: X				
4 nalt b/al Rebhoy: AK102					pRebhoy:				
Incbrd) enb Agilent 8R70B.					,	e: 08/05/401			
4 nalt cb SG		Spike InibMb,zTol,: 80) mzL (sbra/bTol: 1) L Ddpe InibMb,zTol,: 80) mzL (sbra/bTol: 1) L							

GrinbDabe: 07z80z8016 Q95:384 R

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C		2	
		A LUMBER	

SGS North America Inc. CHAIN OF CUSTODY RECC



Locations Nationwide Alaska Maryland New Jersey New York North Carolina Indiana West Virgina Kentucky www.us.sqs.com

www.us.sgs.com		Page L of L							REMARKS/											Data Deliverable Requirements:	me/ 2	ions:			Chain of Custody Seal: (Circle)	BROKEN ABSENT	(See attached Sample Receipt Form)	hand delivered
WWW.US	led out. alvsis.																			h	Leve	r Special Instruct	10 den		Chain o	INTACT		1000
	5 must be filled out. onset of analvsis.	Preservative																		DOD Project? Yes No		ound Time and/o	Stenderd		-  #[	or Ambient [ ]	(See attached Sample Receipt Form)	/terms-and-conditi
	- he	Pre		ז <sup>כר</sup>	8		2.	42. 01	5								7		7	Section 4 D	Cooler ID-	Requested Turnaround Time and/or Special Instructions:	Ste.	5	Temp Blank °C:	or A	(See attached Sa	http://www.sqs.com/terms-and-conditions
	Instructions: Sections 1 Omissions may delay t			> <sub>56</sub> 7 <sub>24</sub>	4	3 5 77 X	011 208 208	201 102 101	YK	7	5	5	7	7	>	7		7										되
	Or	Section 3	#	0		T Type	A Gear		S 2013	s S	SG	s S	s S	SG	د د	S S	0 M	1	1		(	N				For Laboratory By:	£	) ~
		0062				-0-		MATRIX/ MATRIX	CODE	Water	_	Water	Water		Water	-	-1	Water		Received By:	)	Received By:		Received By:		Received For La	(a)	(907) 561-5301 c: (910) 350-155
		62-449				gesine.c	0162	TIME	HH:MM	13:42	16:55	14:28		11:05	18:55	19:02	14:18	١	1	Time	H:39	Time		Time		Time 14.39	) -	562-2343 Fax: 350-1903 Fax
		PHONE NO: 6	PROJECT/ PWSID/	PERMIT#:	E-MAIL:	jayne@bgesinc.com	QUOTE #: 0	DATE	wm/dd/yy	6/28/16	6/27/16	6/27/16	6/28/16 12:03	6/27/16	8/12/18	6/29/16	6/28/16	1	1	Date	6-28-26	Date		Date		Date ( <i>ර</i> .ථ. හ. 1/	0	18 Tel: (907) ( 8405 Tel: (910)
	ES, Inc.	Mertin		Truck PER			QU P.C	SAMPLE IDENTIFICATION		- 062		•	9-0628			15-0627	9	e Black	P Black		Sus	(						] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301 ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557
	CLIENT: BGES,	CONTACT: Jayne	5 PROJECT	De NAME: Custo~	" REPORTS TO:	Jerre	INVOICE TO:	RESERVED SAN	1		C) A-F MWS	3 A-E	CO A-E /	Sec 2) A F M	() A-E MW	DA-F MUIS	SAL FW-	IL Trip	(10) A-C/2:	Relinquished By: (1)	late.	Refinduished By: (2)		Keinquished By: (3)		Relinquished By: (4)		[ ] 200 W. Potter D [ ] 5500 Business

F083-Kit\_Request\_and\_COC\_Templates-Blank Revised 2013-03-24



		1	1635	07		1 1 6	3 5 0 7	
Review Criteria	Y/	N (yes/	no)	Exc	eptions No	ted belo	ow	
				Y exemption perr	nitted if samp	ler hand c	arries/delivers.	
Were Custody Seals intact? Note # 8	k location				Absent			
COC accompanied	samples?	Y						
**exemption perm	itted if ch	nilled &	collected <8	hrs ago or chlling no	ot required (i.e	e., waste, o	oil)	
		Y	Cooler ID:	1	@		°C Therm ID:	11
		Y	Cooler ID:		@		°C Therm ID:	
Temperature blank compliant* (i.e., 0-6 °C a	after CF)?		Cooler ID:		@		°C Therm ID:	
		Y	Cooler ID:		@		°C Therm ID:	
*16×600		Y	Cooler ID:		@		°C Therm ID:	
$*If > 6^{\circ}C$ , were samples collected <8 hou	urs ago?	Ŷ						
If <0°C, were sample containers	ice free?	Y						
If samples received <u>without</u> a temperature blank, the "cooler temperat be documented in lieu of the temperature blank & " <b>COOLER TEMP</b> " wi noted to the right. In cases where neither a temp blank nor cooler tem obtained, note "ambient" or "chilled".	ll be							
Note: Identify containers received at non-compliant temperature . Us FS-0029 if more space is needed.	e form							
		1	Note: Refer	to form F-083 "Sam	ple Guide" for	hold time	es.	
Were samples received within h								
Do samples <b>match COC</b> ** (i.e.,sample IDs,dates/times co	ollected)?	Y						
**Note: If times differ <1hr, record details & login								
Were analyses requested unam	biguous?	Y						
				***Exemption	permitted for	metals (e.	g,200.8/6020A).	
Were proper containers (type/mass/volume/preservative*	**)used?	Y						
IF APPLICABLE								
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with	samples?	Y						
Were all VOA vials free of headspace (i.e., bubbles	≤ 6mm)?	N	Sample 2C, 8	3B-C, and trip blanks	s 9B and C all h	nad bubble	es >6mm	
Were all soil VOAs field extracted with Me	OH+BFB?	Y						
Note to Client: Any "no" answer above indicate	s non-cor	nplianc	e with stand	ard procedures and	may impact d	ata qualit	у.	
Addit	tional n	otes (i	f applicab	le):				



## Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	Container Condition	<u>Container Id</u>	Preservative	<u>Container</u> Condition
1163507001-A	HCL to pH < $2$	ОК	1163507010-В	HCL to $pH < 2$	ОК
1163507001-B	HCL to $pH < 2$	ОК	1163507010-C	HCL to $pH < 2$	ОК
1163507001-C	HCL to $pH < 2$	ОК			
1163507001-D	HCL to $pH < 2$	ОК			
1163507001-E	HCL to $pH < 2$	ОК			
1163507002-A	HCL to $pH < 2$	ОК			
1163507002-B	HCL to pH < 2	ОК			
1163507002-C	HCL to pH < $2$	<del>ok</del> -BU			
1163507002-D	HCL to pH < 2	ОК			
1163507002-E	HCL to $pH < 2$	ОК			
1163507003-A	HCL to pH < 2	ОК			
1163507003-B	HCL to $pH < 2$	ОК			
1163507003-C	HCL to pH < 2	ОК			
1163507003-D	HCL to $pH < 2$	ОК			
1163507003-E	HCL to pH < 2	ОК			
1163507004-A	HCL to pH < 2	ОК			
1163507004-B	HCL to $pH < 2$	ОК			
1163507004-C	HCL to pH < 2	ОК			
1163507004-D	HCL to pH < 2	ОК			
1163507004-E	HCL to pH < 2	ОК			
1163507005-A	HCL to pH < 2	ОК			
1163507005-B	HCL to pH < 2	ОК			
1163507005-C	HCL to $pH < 2$	ОК			
1163507005-D	HCL to pH < 2	ОК			
1163507005-E	HCL to pH < 2	ОК			
1163507006-A	HCL to pH < 2	ОК			
1163507006-B	HCL to pH < 2	ОК			
1163507006-C	HCL to pH < 2	ОК			
1163507006-D	HCL to pH < 2	ОК			
1163507006-E	HCL to pH < 2	ОК			
1163507007-A	HCL to $pH < 2$	ОК			
1163507007-B	HCL to $pH < 2$	ОК			
1163507007-C	HCL to pH < 2	ОК			
1163507007-D	HCL to $pH < 2$	ОК			
1163507007-E	HCL to $pH < 2$	ОК			
1163507008-A	HCL to pH < 2	ОК			
1163507008-B	HCL to pH < 2	- <del>OK-</del> BU			
1163507008-C	HCL to pH < 2	-OKBU			
1163507009-A	HCL to pH < 2	OK			
1163507009-B	HCL to $pH < 2$	- <del>OK</del> -BU			
1163507009-C	HCL to pH < 2	- <del>OK</del> -BU vlp			
1163507010-A	HCL to $pH < 2$	OK			
					10 (50

Container Id

Preservative

Container Condition Container Id

**Preservative** 

Container Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM- The container was received damaged.

FR- The container was received frozen and not usable for Bacteria or BOD analyses.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

BGES, INC.

### **APPENDIX C**

# LABORATORY ANALYTICAL DATA QUALITY CONTROL CHECKLIST

## **Laboratory Data Review Checklist**

Completed by:	William Schmaltz	
Title:	Environmental Scientist	Date: February 7, 2017
CS Report Name	<b>Groundwater Monitoring Report (June 2017)</b>	Report Date: February 2017
Consultant Firm:	BGES, Inc.	
Laboratory Name	e: SGS, North America Inc. Labor	atory Report Number: 1163507
ADEC File Num	ber: <b>2100.26.252</b> ADEC Re	ecKey Number: N/A
	n ADEC CS approved laboratory receive and <u>pays</u> Yes No NA (Please explain.)	erform all of the submitted sample analyses? Comments:
labora	samples were transferred to another "network" atory, was the laboratory performing the analyse Yes No NA (Please explain.)	•
Sample	es were not transferred to a network laborate	pry.
	<u>stody (COC)</u> information completed, signed, and dated (inclu Yes No NA (Please explain.)	uding released/received by)? Comments:
	ect analyses requested? Yes) No NA (Please explain.)	Comments:
a. Samp	ample Receipt Documentation le/cooler temperature documented and within ra Yes) No NA (Please explain.)	ange at receipt $(4^\circ \pm 2^\circ C)$ ? Comments:

The temperature of the sample cooler that contained the water samples was measures at the laboratory at the time of receipt to be 1.1 degrees Celsius; which is within the prescribed optimal range of 0-6 degrees Celsius.

	Yes	No	NA (Please explain.)	Comments:
с.	Sample con	dition o No	documented – broken, leaking (N NA (Please explain.)	Methanol), zero headspace (VOC vials)? Comments:
N			re noted by the laboratory	
d.		oreserva	1	nted? For example, incorrect sample le of acceptable range, insufficient or missin
	Yes	No	(NA)(Please explain.)	Comments:
e.	Data quality	<sup>7</sup> or use	bility affected? (Please explain.)	) Comments:
N	/ <b>A</b>			
e N	I/A <u>Jarrative</u> Present and	unders	tandable?	
e N	Jarrative	unders No	standable? NA (Please explain.)	Comments:
e N	Varrative Present and			Comments:
<u>e N</u> a.	Varrative Present and Yes	No		

Sample MW8-0627 exceeded the laboratory acceptance limit. This indicates a potential for the reported concentrations of BTEX within this sample to be biased high. For this reason, detectable concentrations of these results are qualified with a "J" in Table 2, and should be considered estimates. However, because benzene was detected at a concentration more than one order of magnitude above the ADEC cleanup criterion, and because the reported concentrations of other detectable analytes within this sample were below the ADEC cleanup criteria, it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

The recoveries of 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, and naphthalene within the laboratory control spike duplicate associated with Sample FW-0628 and its associated trip blank exceeded the laboratory QC acceptance range. This indicates a potential for the reported concentration of these analytes to be biased high in the project sample. However, because none of these analytes were detected above their LOQ, and because the LOQs are below their respective ADEC cleanup criteria; it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

4.

	c.	Were all cor	rective No	e actions documented? NA (Please explain.)	Comments:	
	S	See 4b, above	<b>.</b>			
	d.	What is the	effect	on data quality/usability ac	cording to the case narrative? Comments:	
	S	See 4b, above	<b>.</b>			
5.	-	$\sim$		erformed/reported as reque		
		(Yes)	No	NA (Please explain.)	Comments:	
	b.	All applicab	le holo No	ling times met? NA (Please explain.)	Comments:	
	 c.	All soils rep	orted o	on <u>a</u> dry weight basis?		
		Yes	No	NA (Please explain.)	Comments:	
	T	vo son sampi	les wei	e analyzed for this labora	nory work order.	
	d.	Are the report project?	orted Ported Por	QLs less than the Cleanup I NA (Please explain.)	Level or the minimum required detection level the Comments:	for the
	e.	Data quality	or usa	bility affected?	Comments:	
	Γ	N/A				
6.	-	imples Method Blan i. One Yes		d blank reported per matrix NA (Please explain.)	, analysis and 20 samples? Comments:	
		ii. All r Yes	nethod No	blank results less than PQ NA (Please explain.)	L? Comments:	

		Comments:
N/A		
	iv. Do the affected sample(s) have data flags and Yes No (NA)(Please explain.)	if so, are the data flags clearly defined? Comments:
	v. Data quality or usability affected? (Please exp	plain.) Comments:
o. La	boratory Control Sample/Duplicate (LCS/LCSD)	
	i. Organics – One LCS/LCSD reported per matr required per AK methods, LCS required per S Yes No NA (Please explain.)	
	<ul> <li>ii. Metals/Inorganics – one LCS and one sample samples?</li> <li>Yes No (NA)(Please explain.)</li> </ul>	duplicate reported per matrix, analysis and 20 Comments:
None order	e of the water samples were analyzed for me r.	etals/inorganic for this laboratory work
	<ul> <li>iii. Accuracy – All percent recoveries (%R) report And project specified DQOs, if applicable. (A AK102 75%-125%, AK103 60%-120%; all of Yes No NA (Please explain.)</li> </ul>	K Petroleum methods: AK101 60%-120%,
See 4	4b, above.	
	<ul> <li>iv. Precision – All relative percent differences (R laboratory limits? And project specified DQO LCS/LCSD, MS/MSD, and or sample/sample other analyses see the laboratory QC pages)</li> <li>Yes No NA (Please explain.)</li> </ul>	s, if applicable. RPD reported from

v. If %R or RPD is outside of acceptable limits, what samples are affected? Comments:

N/A

### vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined? Yes No (NA)(Please explain.) Comments:

vii. Data quality or usability affected? (Use comment box to explain.) Comments:

### N/A

c. Surrogates – Organics Only

i.	Are	surroga	te recoveries reported for	organic analyses - field, QC and laboratory samp	les?
Ć	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.)

#### See 4b, above.

- 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:

#### See 4b, above.

iv. Data quality or usability affected? (Use the comment box to explain.)

Yes (	No)	NA	(Please	expl	lain.)	)
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Comments:

See 4b, above.

- d. Trip blank Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): <u>Water and</u> <u>Soil</u>
  - 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:

#### All samples for volatile analysis were transported in the same cooler.

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 e	explain.) Comments:
N/A	
e. Field Duplicate i. One field duplicate submitted per matrix, an Yes No NA (Please explain.)	nalysis and 10 project samples? Comments:
ii. Submitted blind to lab? Yes No NA (Please explain.)	Comments:
<ul><li>iii. Precision – All relative percent differences (Recommended: 30% water, 50% soil)</li></ul>	(RPD) less than specified DQOs?
RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)}$	x 100
Where $R_1$ = Sample Concentration $R_2$ = Field Duplicate Concentrat (Yes) No NA (Please explain.)	·
Sample MW-15 was a duplicate of Sample MW-14 to facilitate evaluation of field sampling precision. reported concentrations of several analytes for the calculated, and these RPDs ranged between 1 perc recommended acceptance limit of 30 percent. This	Relative percent differences between the e original and duplicate samples were cent and 11 percent, which are all below the

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Yes Ng NA (Please explain.)

Comments:

precision was achieved during the collection of the groundwater samples.

A decontami	nation o	or equipment blank was not	collected as part of this project.
i. All	results l	less than PQL?	
Yes	No	NA (Please explain.)	Comments:
		• • • • • •	
A decontami	nation	or equipment blank was not	collected as part of this project.
11. II a	bove PC	L, what samples are affected	?
11. II a	bove PC	L, what samples are affected	Comments:
11. 11 a	bove PC	2L, what samples are affected	
		2L, what samples are affected	
N/A		y or usability affected? (Please	Comments:
N/A			Comments:
N/A			Comments: e explain.)
N/A iii. Dat			Comments: e explain.)
N/A iii. Dat N/A r Data Flags/0	a qualit	y or usability affected? (Please rs (ACOE, AFCEE, Lab Spec	Comments: e explain.) Comments:
N/A iii. Dat N/A	a quality	y or usability affected? (Please rs (ACOE, AFCEE, Lab Spec	Comments: e explain.) Comments:

BGES, INC.

# APPENDIX D GRAPHS OF HISTORICAL WATER QUALITY DATA

