BGES, INC.

BRAUNSTEIN GEOLOGICAL & ENVIRONMENTAL SERVICES

4540 WEST 50TH AVENUE
ANCHORAGE, ALASKA

2010 SITE CHARACTERIZATION REPORT

JULY 2011

Submitted to: **Diana Pfeiffer/Alaska Sales & Service**

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ACRONYMS

AAC	-	Alaska Administrative Code
ADEC	-	Alaska Department of Environmental Conservation
AFSC	-	Anchorage Fueling & Service Company
AK	-	Alaska Method
AS&S	-	Alaska Sales & Service
bg	-	Below Grade
BGES	-	Braunstein Geological and Environmental Services
BTEX	-	Benzene, Toluene, Ethylbenzene, and Total Xylenes
CSM	-	Conceptual Site Model
DRO	-	Diesel Range Organics
EDB	-	1,2-Dibromoethane
EDC	-	1,2-Dichloroethane
EPA	-	Environmental Protection Agency
GRO	-	Gasoline Range Organics
mg/Kg	-	Milligrams per Kilogram
mg/L	-	Milligrams per Liter
MRLs	-	Method Reporting Limits
MS	-	Matrix Spike
MSD	-	Matrix Spike Duplicate
PID	-	Photoionization Detector
ppm	-	Parts per Million
QC	-	Quality Control
RI	-	Release Investigation
RPD	-	Relative Percent Difference
RRO	-	Residual Range Organics
UST	-	Underground Storage Tank
VOCs	-	Volatile Organic Compounds

1.0 INTRODUCTION

BGES, Inc. (BGES) was retained by Diana Pfeiffer of Alaska Sales & Service (AS&S) to conduct additional release investigation (RI) activities at 4540 West 50th Avenue in Anchorage, Alaska, hereafter referred to as the subject property (Figure 1). A limited assessment was requested by Ms. Pfeiffer to further characterize the nature and extent of contamination that potentially originated from gasoline releases from a former underground storage tank (UST) previously utilized at the subject property to refuel rental cars.

Field activities were accomplished in August of 2010. The 2010 Additional RI Activities Workplan (dated June 23, 2010) describing the investigation activities for the subject property was submitted to the Alaska Department of Environmental Conservation (ADEC) on June 23, 2010; Bill Petrik provided approval of the workplan on August 4, 2010. Additionally, an Anchorage International Airport building permit/application was submitted by Diana Pfeiffer, President of Alaska Sales & Service, on August 4, 2010. Approval of the building application/permit was granted by airport personnel on August 17, 2010.

2.0 BACKGROUND

The subject property, operated as National Car Rental, is an active Contaminated Site as listed in the ADEC Contaminated Sites database (File Number 2100.26.133), and is currently owned by AS&S. Two USTs, a 500-gallon waste oil UST and a 3,000-gallon gasoline UST, were removed from the property in 1991. No evidence of release was noted in association with the waste oil UST at the time of decommissioning; however, evidence of contamination was discovered during the decommissioning of the 3,000-gallon gasoline UST. Evidence of perforation to the gasoline UST's check valve was noted, a crack was noted in one of the product line's elbows, and corrosion was present around the UST's bung fittings.

Contaminated soil was subsequently excavated from beneath the UST, to a depth of approximately 13.5 feet below grade (bg), the extent of the excavator used during soil removal. The total area of the excavation was approximately 400 square feet (20 feet long by 20 feet wide). The contaminated soils were transported offsite for disposal.

In January of 2000, five soil borings were advanced at the site, including one that was completed as a monitoring well within the former area of excavation. Soon after installation, free product was

observed within the well. The product was sampled and analyzed, and reportedly determined to be unleaded gasoline; however, the report prepared for this characterization effort states that the product was analyzed for "lead, diesel range organics (DRO), and flash point", and it is unclear how the above determination was made based on these analyses.

Soils containing concentrations of gasoline range organics (GRO) and benzene, toluene, ethylbenzene and xylenes (BTEX) that exceeded the applicable ADEC cleanup criteria were identified at various depths within each of the five borings advanced at the site in 2000.

Reports associated with investigations at the Anchorage Fueling and Service Company (AFSC) Tank Farm Site show that releases from the tank farm site have impacted the subject property. Three monitoring wells and several soil borings have been installed on the subject property in conjunction with investigation and remediation efforts associated with the tank farm site. Two of the three monitoring wells have since been decommissioned and the remediation and recovery of free phase fuel from the former tank site was curtailed in 2004 or 2005.

Based on the results obtained from previous site investigations, as described above, BGES recommended that the existing groundwater monitoring well (MW1) be evaluated for the presence of free product; additionally, it was also recommended that two additional soil borings completed as groundwater monitoring wells be advanced at the site to further characterize the extent of the soil and groundwater contamination at the subject property. The evaluation of Monitoring Well MW1 and the advancement of two soil borings completed as groundwater monitoring wells are the subject of this report.

3.0 FIELD ACTIVITIES

As described above in Section 2.0, BGES recommended the evaluation of an onsite groundwater monitoring well (MW1) for the presence of free product and the advancement of two soil borings completed as groundwater monitoring wells to evaluate the extent of soil and groundwater contamination at the site.

3.1 Modifications to the Workplan

The following minor modifications to the work plan occurred for various reasons, as described below:

- As described below in Section 3.2, water samples were not collected from Monitoring Well

MW1 due to the damaged well casing.

- As described below in Section 3.5, due to the presence of sheen observed during the purging of Monitoring Wells MW-3 and MW-4, the stabilization parameters (pH, conductivity, total dissolved solids, and temperature) were not collected.

3.2 Evaluation of Existing Groundwater Monitoring Well (MW1)

BGES was onsite on August 10, 2010 to evaluate Monitoring Well MW1 for the presence of free product and, if possible, to collect a water sample for laboratory analysis (Photograph 1 in Appendix A). During field activities, the upper 6 feet to 8 feet of the PVC casing was observed to be damaged. Utilizing an oil/water interface probe, the depth to water was measured at 53.64 feet bg and the product thickness was approximately 0.13 foot. Upon retrieval of the oil/water interface probe, an unknown substance emitting a strong fuel odor was observed adhered to the probe (Photograph 2 in Appendix A). A standard disposable polyethylene bailer was lowered into the well in an attempt to obtain a water sample; however, the monitoring well casing was damaged and the bailer could not be lowered past approximately 4.5 feet bg.

3.3 Soil Boring Advancement & Sampling

BGES observed and documented the advancement of two soil borings at the subject property on August 20, 2010 (Figure 2). The borings were advanced using a GeoProbe 6620DT direct-push drilling rig provided by GeoTek Alaska, Inc. (GeoTek) of Anchorage. Static and percussion forces were utilized to advance a 5-foot long sampling spoon into the subsurface soils (Photographs 3 and 4 in Appendix A).

The sampling spoon contained a fitted plastic sleeve used to capture the soils continuously from the surface to the maximum depth of each boring. Upon retrieval of the sampling spoon, a soil-screening sample was collected and placed into a sealable plastic bag using a clean, stainless steel spoon and labeled with a unique sample number and the time of collection. Soils in each plastic bag were screened with a photoionization detector (PID) that was calibrated prior to use with 100 parts per million (ppm) isobutylene calibration gas. The samples were allowed to warm in the heated shop for at least 10 minutes, and then the plastic bags were agitated for approximately 15 seconds within 1 hour of collection, at which point the probe of the PID was inserted into the bag and the greatest reading was recorded. A second portion of the sample was placed in laboratory-supplied containers for laboratory

analysis. Sample portions slated to be analyzed for volatile compounds were collected first and deposited directly into a methanol-preserved sample container. The samples were labeled, placed in ice-filled coolers, and delivered by BGES personnel under chain of custody protocol to Test America Environmental Laboratories, Inc. (Test America) of Anchorage, Alaska, an ADEC-approved laboratory. After the laboratory containers were filled, the remaining soil in the split-spoon sampler was described and recorded in a geologic log (Appendix B).

Prior to sampling activities, it was determined that five sampling depths (5 feet, 15 feet, 25 feet, 35 feet, and within the smear zone (zone of water table fluctuation) anticipated to be at approximately 50 to 55 feet bg) would be investigated during the advancement of the borings. During the advancement of the southern soil boring (SB1) no olfactory or visual evidence of contamination was identified until the smear zone was encountered at 53 to 57 feet bg; an indiscernible fuel odor was observed emanating from the retrieved soils. Additionally, a PID reading taken from the soils in ambient air was 133 ppm; the PID reading from the heated headspace field screening sample collected from the soils read 1000+ ppm. Soil samples were collected from each predetermined depth, including one soil sample (SB1-5-0820) which was collected from the visually impacted material at an approximate depth range of 53 feet to 55 feet bg.

During the advancement of the northern soil boring (SB2), an indiscernible fuel odor was initially observed upon retrieval of the soils obtained from approximately 23 to 27 feet bg. Additionally, obviously contaminated soils were identified at the subsequent depth ranges of 33 feet to 37 feet and 51 feet to 55 feet bg. PID readings in ambient air of soil samples obtained from these depths, ranged from 42 ppm to 218 ppm; heated headspace field screening samples collected from the above-listed depths ranged from 868 ppm to 1000+ ppm. Soil samples were collected from each predetermined depth, including one soil sample and a duplicate sample (SB2-5-0820 and SB-6-0820, respectively) which were collected from the visually impacted soils at approximately 51 to 55 feet bg.

In accordance with the client's request, four soil samples (SB1-5-0820, SB2-3-0820, SB2-4-0820, and SB2-5-820) were submitted to the Zymax Forensics laboratory to undergo fingerprint analysis to evaluate the potential presence of aviation fuel in the soils as a result of possible onsite migration of contamination from an historical release of contaminants during the Good Friday earthquake in 1964, as described above in Section 2.0. According to the Zymax Forensics laboratory, no evidence of aviation fuel was identified in the soils submitted to the laboratory, and the hydrocarbons present in the samples more than likely represent the higher boiling end (lighter components) of gasoline.

3.4 Monitoring Well Installation

Upon completion of the advancement of Soil Borings SB1 and SB2, groundwater monitoring wells were installed in each boring (Figure 3). The monitoring wells were constructed with approximately 49 feet of 2-inch diameter PVC casing and 10 feet of 2-inch diameter, 10-slot PVC well screen, which were positioned at a total depth of approximately 59 feet bg. The wells were then completed by backfilling the annular spaces with sand to approximately 2 feet above the screen and casing interfaces, followed by approximately 2-foot thick bentonite chip seals. Sand was added to the annular spaces above these seals to approximately 3 feet bg, at which point additional 2-foot thick bentonite chip seals were placed. Finally, cement was placed around flush-grade casings at the ground surface (Photographs 5 and 6 in Appendix A).

Investigation-derived wastes (drill cuttings) were separated by boring and containerized in five, 55-gallon drums; the investigation-derived wastes were stored onsite, pending laboratory analyses. Each 55-gallon drum was clearly labeled with the soil boring identification number, BGES' contact information, and a description of the contents.

3.5 Monitoring Well Surveying, Development and Sampling

Prior to the sampling of the monitoring wells, BGES returned to the site on August 25, 2010 to survey the top of casings and ground elevations for each of the monitoring wells and to develop each monitoring well; the wells were surveyed to the nearest vertical 0.01 foot, utilizing a fixed, permanent or semi-permanent reference point (Table 1); the reference point for the survey is the southeast corner of the building located at the subject property. Utilizing the groundwater elevations obtained during surveying activities (Table 1), the groundwater flow direction at the site was calculated to be generally northerly, at a gradient of approximately 0.003 foot per linear foot (Figure 4).

Upon completion of surveying activities, and in accordance with the ADEC Monitoring Well Guidance (dated February 2009), the newly-installed monitoring wells (MW-3 and MW-4) were developed using a disposable polyethylene bailer. The bailers were surged in the wells to remove silt and sediment; this process was continued until approximately 4 gallons of water were removed from each monitoring well.

BGES returned to the site on August 26, 2010 to collect groundwater samples from the previously installed monitoring wells. Prior to sampling, the depth to water and the total depth of the wells and

the depths to water were measured using an electronic water level indicator; which was decontaminated prior to each use by washing it in an Alconox (laboratory grade detergent) solution, followed by a distilled water rinse. The depths to groundwater in Monitoring Wells MW3 and MW4 were approximately 51.90 feet, and 51.26 feet, respectively (Table 1).

Prior to the collection of groundwater samples, the volume of water in each well was calculated based on the depth to water in the well, the total depth of each well, and the respective diameters of the well casings. Each well was then purged of a minimum of three well volumes. During the initial purging activities a sheen was identified in the containerized purged water; for this reason, the stabilization parameters (pH, conductivity, total dissolved solids, and temperature) were not collected. A positive-displacement bladder pump and dedicated tubing were used during the low-flow purging and sampling activities. The field data gathered during purging are listed in Table 1.

During sampling, the pumping rate was approximately 100 to 150 milliliters per minute (ml/min). After completion of the purging activities, groundwater was pumped directly into the laboratory-supplied sample containers, in which case the containers for volatile analyses were filled first. Care was exercised during the sampling process to minimize the potential that headspace was created within the sample containers, and that none of the preservative was spilled from the vials destined for volatiles laboratory analyses. The samples were stored and transported in a chilled cooler and delivered under chain of custody protocol to Test America in Anchorage.

Investigation-derived waste (purge water) was separated by boring and containerized in five, 4-gallon buckets; the investigation-derived wastes were stored onsite, pending laboratory analyses. Each 5-gallon bucket was clearly labeled with the soil boring identification number, BGES' contact information, and a description of the contents.

4.0 EVALUATION OF LABORATORY DATA

Soil and water samples were analyzed for GRO by Alaska (AK) Method 101; DRO by AK 102; residual range organics (RRO) by AK 103; and total lead by Environmental Protection Agency (EPA) Method 6020. In addition to the analyses described above, Soil Samples SB2-5-0820 and SB2-6-0820; and water samples MW3-0826 and MW5-0826 were also analyzed for the volatile organic compounds (VOCs) 1,2-dibromoethane (EDB) by EPA 8011; and naphthalene and 1,2-dichlorethane (EDC) by EPA 8260B.

Trip blanks accompanied all samples scheduled for volatile analyses at all times from sample collection until submission to the laboratory, and were analyzed for GRO and VOCs by the same methods described above, to determine if cross-contamination of the samples had occurred.

The soil samples collected from the subject property were numbered SB1-1-0820, where the prefix SB1 indicates the boring from which the soil sample was collected; -1 indicates the sample number within the soil boring; and -0820 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 SB1-1 with the date omitted.

The water samples collected from the subject property were numbered MW3-0826, where the prefix MW3 indicates the groundwater monitoring well from which the water sample was collected; and -0826 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 MW3 with the date omitted.

Soil sample results were compared to the ADEC Method 2 Cleanup Criteria listed in 18 AAC 75.341 – Tables B1 and B2 (migration to groundwater) for soils, as revised on October 9, 2008. The cleanup concentrations were obtained from these tables listed in the "migration to groundwater" column for soils; except for RRO which was obtained from the "under 40-inch zone" but from the more conservative ingestion value. Water sample results were compared to the ADEC Method 2 Cleanup Criteria listed in 18 AAC 75.341—Table C for groundwater.

Results of the laboratory analyses are discussed below. The analytical results for the soil and groundwater samples are listed in Tables 2 and 3, respectively. The complete laboratory data package is included in Appendix C.

4.1 Soil Samples

A total of 11 soil samples, including one duplicate sample, were collected from the two soil borings (SB1 and SB2) from the following approximate depths: 5 feet, 15 feet, 25 feet, 35 feet, and within the smear zone at approximately 50 to 55 feet bg. Soil Samples SB1-1 through SB1-5 exhibited a range of benzene concentrations from 0.153 milligrams per kilogram (mg/Kg) to 172 mg/Kg (concentrations increased with depth) all of which exceed the ADEC cleanup criterion of 0.025 mg/Kg. In addition, Soil Sample SB1-5 exhibited concentrations of GRO, toluene, ethylbenzene, and total xylenes at 4,430 mg/Kg, 613 mg/Kg, 130 mg/Kg, and 674 mg/Kg, respectively; all of which greatly exceed ADEC cleanup criteria. All other analytes were exhibited at concentrations below the laboratory's method

reporting limits (MRLs) and/or below ADEC cleanup criteria.

Soil Samples SB2-1, SB2-2, SB2-3, SB2-4, and SB2-5 exhibited a range of benzene concentrations from 0.475 mg/Kg to 12.8 mg/Kg; all of which exceed the ADEC cleanup criterion. Soil Samples SB2-3 through SB2-6 also exhibited ranges of concentrations exceeding ADEC cleanup criteria for GRO (435 mg/Kg to 966 mg/Kg), toluene (50.3 mg/Kg to 90 mg/Kg), ethylbenzene (8.52 mg/Kg to 26 mg/Kg), and total xylenes (70.3 mg/Kg to 199 mg/Kg). All other analytes were exhibited at concentrations below the laboratory's MRLs and/or below ADEC cleanup criteria.

Analytical results for soil samples are listed in Table 2, the laboratory results are included in Appendix C, and the sampling locations are shown on Figure 2.

4.2 Water Samples

Three water samples, including a duplicate sample, were collected from the two newly installed monitoring wells at the site. Water Sample MW3 and/or its Duplicate MW5 (the greatest concentrations are listed below), collected from the monitoring well installed in Soil Boring SB1, exhibited concentrations of GRO, benzene, toluene, ethylbenzene, total xylenes, EDC, and lead of 570 milligrams per liter (mg/L), 118 mg/L, 110 mg/L, 5.51 mg/L, 33.2 mg/L, 0.000153 mg/L, and 0.038 mg/L; all of which exceed ADEC cleanup criteria. Alternatively, water Samples MW3 and MW5 exhibited non-detectable concentrations of EDC and naphthalene below the laboratory's MRLs.

Water Sample MW4 exhibited concentrations of GRO, benzene, toluene, ethylbenzene, and total xylenes at 523 mg/L, 64.5 mg/L, 122 mg/L, 8.79 mg/L, and 45.4 mg/L; all of which exceed ADEC cleanup criteria. Water Sample MW4 exhibited a non-detectable concentration of lead below the laboratory's MRLs and below the ADEC cleanup criterion.

Analytical results for the groundwater samples are listed in Table 3, the laboratory results are included in Appendix C, and the sampling locations are shown on Figure 2.

5.0 LABORATORY DATA QUALITY REVIEW

Data quality was reviewed in accordance with ADEC guidance and standard industry practices. ADEC laboratory data review checklists completed for each of the laboratory work order numbers provide an overview of the quality of the laboratory data and are attached in Appendix D. The laboratory qualified some of the data. The following is a discussion of our evaluation of sample

conditions and laboratory procedures during the August 2010 RI activities.

5.1 Laboratory Samples

Sample analyses were provided by Test America of Anchorage, or Test America's "network" laboratories, all of which are approved to conduct the specified analyses by the ADEC. The samples were hand-delivered to Test America in Anchorage by BGES personnel under chain of custody protocol.

The temperature of the sample cooler submitted upon completion of the soil sampling activities (August 20, 2010) was measured at the laboratory at the time of receipt, to be 1.4° C, which is below the allowable temperature range of 4 degrees +/- 2 degrees C. However, because the recorded temperature was slightly below the acceptance range, there is a reduced potential for contaminant concentration loss within the samples due to natural attenuation. For this reason, it is our opinion that this quality control (QC) failure does not affect the acceptability of the data for their intended use.

The sample cooler submitted upon completion of the groundwater sampling activities (August 26, 2010) was within the allowable temperature range of 4 degrees +/- 2 degrees. The samples contained the proper preservatives for the requested analyses and no unusual sample conditions were noted by the laboratory. Trip blanks accompanied the volatile samples (GRO and VOCs) through the entirety of the sampling process and delivery to the laboratory. Case narratives were included with all of the laboratory data. Quality Control (QC) failures identified in the case narratives are separated by work order numbers and are described below.

Work Order ATH0063

The case narrative for Work Order Number ATH0063 (soil samples collected on August 20, 2010) noted that there were some QC failures identified by Test America.

The reported concentration of 1,2-dibromo-3-chloropropane for Field Sample SB2-5 was detected at a concentration less than the laboratory's MRL and greater than or equal to the laboratory's method detection limit (MDL); for this reason, the concentration of the analyte listed above should be considered an estimated value and is qualified with "J" in Table 1. It should be noted that there is no published ADEC cleanup criterion for 1,2-dibromo-3-chloropropane.

According to the laboratory, the laboratory control sample (LCS) exhibited a recovery percentage that

exceeded the laboratory's acceptance range for the surrogate 4-bromofluorobenzene (BFB) as measured by a flame ionization detector (FID), with respect to the GRO analysis; indicating a potential for the reported concentrations of GRO within Field Samples SB2-3 through SB2-6 to be biased high for GRO. For this reason, the GRO concentrations in the field samples are qualified with "J" in Table 2, indicating that the reported concentrations should be considered to be estimates. However, because Field Samples SB2-3 through SB2-6 exhibited concentrations of GRO which were well above the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

Detectable concentrations of benzene, toluene, and total xylenes were identified in the trip blank sample; indicating a potential for the reported concentrations of these analytes within field samples (SB1-1 through SB1-5 and SB2-1 through SB2-6) to be biased high. For this reason, the benzene, toluene, and total xylenes concentrations in the field samples identified above are qualified with "J" in Table 2 and should be considered estimates. However, because multiple field samples (SB1-5, SB2-4, SB2-4, SB2-5, and SB2-6) exhibited concentrations of BTEX which, in some cases, greatly exceed ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

The percent recoveries for BTEX in the matrix spike (MS) and matrix spike duplicate (MSD) samples (laboratory sample numbers 10H0091-MS1, 10H0091-MSD1, respectively) exceeded the laboratory's acceptance limits. The percent recoveries for BTEX were within their acceptance limit ranges for the LCS and laboratory control sample duplicate (LCSD). Because the MS and MSD samples were derived from field samples collected as part of another project, it is our opinion that there is an increased potential for the data QC failure to be due to matrix effects. For the above-stated reasons, it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

The laboratory reported that the DRO concentration in Sample SB2-4 was partly due to hydrocarbons outside of the DRO range, however, the reported concentration was below the ADEC cleanup criterion, therefore, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the percent recoveries for the surrogates a,a,a-trifluorotoluene (TFT), as measured by an FID, and a,a,a-TFT, as measured by a PID; exceeded their acceptance limit ranges in Field Samples SB1-5, SB2-3, SB2-4, and SB2-6 with respect to the GRO and BTEX analysis, indicating a potential for the field samples to be biased high for these analytes; for this reason the GRO and BTEX concentrations in the field samples listed above are qualified with "J" in Table 2, indicating that the reported concentrations should be considered estimates. However, because the recovery

percentages for the additional surrogates (4-BFB by FID and 4-BFB by PID) were within their acceptance limit ranges, and because all of these analytes were considerably above the ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the percent recoveries exceeded their acceptance limits for the surrogate toluene-d8 in Field Samples SB2-5and SB2-6 with respect to the EDC and naphthalene analyses, indicating a potential for the field samples to be biased high for these analytes; for this reason the EDC and naphthalene concentrations for Field Samples SB2-5 and SB2-6 are qualified with "J" in Table 2. However, because Field Samples SB2-5 and SB2-6 exhibited concentrations of EDC and naphthalene below ADEC cleanup criteria and because the percent recoveries of the additional surrogates (dibromofluoromethane and 4-bromofluorobenzene) were within their acceptance limit ranges, it is our opinion that the data are acceptable for their intended use.

With the exception of naphthalene, the relative percent differenced RPDs as calculated between the reported analyte concentrations within the original sample SB2-5 and the duplicate sample (SB2-6) were below the ADEC recommended acceptable limit of 50 percent (Table 2), indicating an acceptable level of precision with respect to the field sampling procedures.

Work Order ATH0076

The case narrative for Work Order Number ATH0076 (water samples collected on August 26, 2010) noted that there were some QC failures identified by Test America.

A detectable concentration of benzene was identified in the laboratory method blank sample, indicating a potential for the field samples (MW3 through MW5) to be biased high for this analyte; for this reason, the benzene concentrations in the field samples identified above are qualified with "J" in Table 3. However, because the field samples exhibited concentrations of benzene at concentrations five to six orders of magnitude above the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

The MRLs for EDC and naphthalene, and associated surrogate compounds, were raised in Field Samples MW3 and MW5 (a duplicate sample of MW3), due to high concentrations of non-target analytes; however, the MRLs for naphthalene in both of the field samples (MW3 and MW5) were below the ADEC cleanup criterion of 20 mg/L. With regards to the contaminant constituent EDC, it cannot be determined if actual concentrations of EDC within Field Samples MW3 and MW5 exceed

their respective ADEC cleanup criteria; however, because the field samples exhibited concentrations of GRO, benzene, toluene, ethylbenzene, and total xylenes which in some cases, greatly exceeded ADEC cleanup criteria, it is our opinion that the lack of information concerning EDC does not affect the interpretation of the data for their intended use.

According to the laboratory, the LCS and LCSD (laboratory sample numbers 10H0126-BS2 and 10H0126-BSD2, respectively) exhibited recovery percentages that exceeded the laboratory's acceptance limits for the surrogate a,a,a-TFT by FID, with respect to the GRO analysis, indicating a potential for the reported concentrations of GRO within the field samples (MW3 through MW5) to be biased high for GRO. For this reason, the GRO concentrations in the field samples are qualified with "J" in Table 2, indicating that the reported concentrations should be considered estimates. Samples which were run within the same analytical batch but were not impacted by the QC failure described above were assigned the qualifier "L" by the laboratory. Because Field Samples MW3 through MW5 exhibited concentrations of GRO two orders of magnitude greater than the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

The RPD for GRO in the laboratory-prepared duplicate sample (10I0032-DUP1) exceeded its acceptance limit (195 percent; acceptance limit 35 percent), with respect to the GRO analysis; indicating poor laboratory precision for this analyte. For this reason, the GRO concentrations in the field samples (MW3 through MW5) are qualified with "J" in Table 3. However, because the RPDs for GRO were within their acceptance limits in the LCSDs and the additional laboratory-prepared duplicate samples, it is our opinion that the data are acceptable for their intended use.

The percent recoveries for the surrogates 4-BFB(FID) and 4-BFB(PID) in the laboratory prepared duplicate sample, were below their acceptance limit ranges (40.1 percent and 41.4 percent; acceptance limit range 50 percent to 150 percent) with respect to the GRO/BTEX analysis; indicating a potential for the field samples to be biased low for these analytes. However, because all of the field samples (MW3 through MW5) exhibited concentrations of GRO and BTEX well above ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the MRL for lead was raised for Field Sample MW4; however, the MRL was below the ADEC cleanup criterion of 0.015 mg/L. For this reason, it is our opinion that the data are acceptable for their intended use.

The reporting limits for EDC in Field Samples MW3 and MW5 exceeded their applicable ADEC

cleanup criteria; as such it cannot be determined if actual concentrations of EDC within Field Samples MW3 and MW5 exceed the ADEC cleanup criterion for EDC. Because Field Samples MW3 and MW5 exhibited concentrations of GRO, benzene, toluene, ethylbenzene, total xylenes, and EDB that, in some cases, greatly exceeded ADEC cleanup criteria, it is our opinion that the lack of information concerning EDC does not affect the interpretation of the data for their intended use.

The RPDs calculated utilizing the duplicate sample (MW5) collected in association with Water Sample MW3 were below the ADEC recommended acceptable limit of 30 percent (Table 3), indicating an acceptable level of precision with respect to the field sampling procedures.

6.0 CONCEPTUAL SITE MODEL

Utilizing on-site observations and ADEC guidance documents, a conceptual site model (CSM) has been developed to depict contaminant exposure routes for human receptors identified or suspected for the subject property (Appendix E).

As discussed above in Section 2.0, GRO and BTEX contamination at the subject property potentially originated from historical releases from a former 3,000-gallon gasoline UST previously located at the subject property. Adversely-impacted soils and groundwater were identified in association with the former gasoline UST. Although some of the impacted soils were removed during the excavation and removal of the former gasoline UST, subsurface soils and groundwater still exhibit concentrations of contaminants which, in some cases, greatly exceed ADEC cleanup criteria.

Based on the presence of elevated concentrations of contaminants in the groundwater and subsurface soils at the site, the potential transport mechanisms for the migration of contamination include the continuing migration through subsurface soil to groundwater, and volatilization. The potential exposure pathways for human receptors include the following: incidental soil ingestion and dermal absorption of contaminants from soil (construction workers); ingestion of groundwater, dermal absorption of contaminants in groundwater, inhalation of volatile compounds from groundwater; and inhalation of outdoor air, indoor air, and fugitive dust. The potential receptors for the exposures listed above include future construction workers that may disturb surface and subsurface soils, and/or use groundwater. Complete and incomplete, current and future human pathways for exposures to these contaminants are described below.

As discussed above, adversely-impacted soils were identified at the site beneath the asphalt parking lot,

from 4 feet bg to 55 feet bg. In addition, the vertical and lateral extent of the contamination has not been defined at the site; therefore, human receptors potentially affected by the exposure pathways of incidental soil ingestion and dermal absorption of contaminants from soil include future construction workers during future excavation and/or construction activities.

Two groundwater monitoring wells were installed at the subject property during August field activities. Two groundwater samples, collected from the monitoring wells (MW3 and MW4), exhibited concentrations of contaminants which, in some cases, greatly exceed ADEC cleanup criteria (Table 3). No water supply wells were readily apparent in the vicinity of the subject property. For this reason, and due to the relatively great depth to groundwater at the site (51 feet bg), only current and future commercial and industrial workers, and future construction workers are listed as human receptors for the potential pathways of ingestion of groundwater and dermal absorption of contaminants in groundwater.

Based on analytical results from these RI activities, contaminants identified in the impacted soils at the site have the potential to volatilize. Because the identified contamination at the site was discovered beneath the asphalt encased parking area, there is a reduced potential for human receptors to be affected via the pathways associated with volatilization. Additionally, in 2006 AS&S conducted ambient indoor air sampling utilizing dosimeter badges for BTEX; the dosimeters exhibited concentrations of BTEX below detection limits. However, because the vertical and lateral extent of the contamination has not been defined at the site, inhalation of outdoor air, inhalation of indoor air, and/or fugitive dust are considered to be potential exposure pathways. Human receptors potentially affected via these pathways include future construction workers. A copy of the graphical representation of the conceptual site model is included in Appendix E.

7.0 CONCLUSIONS AND RECOMMENDATIONS

As described above in Section 3.2, BGES evaluated Monitoring Well MW1 for the presence of free product and attempted to collect a water sample for laboratory analysis. During field activities, the product thickness was measured at approximately 0.13 foot in Monitoring Well MW1. Because the monitoring well's casing was damaged, it is recommended that the well either be repaired, for possible use in future sampling events, and for potential free-product removal, or properly decommissioned and replaced in accordance with ADEC regulations.

As described above in Sections 3.3 and 3.4, two soil borings completed as groundwater monitoring

wells were advanced at the site to further characterize the extent of the soil and groundwater contamination at the subject property (Figure 2). Soil Samples collected from Soil Boring SB1 (SB1-1 through SB1-5) exhibited a range of benzene concentrations from 0.153 mg/Kg to 172 mg/Kg. Additionally, the soil sample (SB1-5) collected from 53 feet to 55 feet bg (smear zone) exhibited concentrations of GRO, toluene, ethylbenzene, and total xylenes which, in some cases, greatly exceed ADEC cleanup criteria (Table 2). The concentrations of contaminants generally increased with depth, culminating in the greatly elevated concentrations of contaminants exhibited by Soil Sample SB1-5. The increased contaminant concentrations near the water table in this well suggest that it is not located precisely in the source area of the release. Groundwater Samples (MW3 and MW5) collected from the monitoring well installed in Soil Boring SB1 exhibited elevated concentrations of GRO, benzene, toluene, ethylbenzene, total xylenes, 1,2-dibromoethane, and lead; which in some cases, greatly exceed ADEC cleanup criteria.

Soil Samples collected from Soil Boring SB2 (SB2-1 through SB2-6) exhibited a range of benzene concentrations from 0.475 mg/Kg to 12.8 mg/Kg; all of which exceed the ADEC cleanup criterion of 0.025 mg/Kg. Additionally, Soil Samples SB2-3, SB2-4, and SB2-5 exhibited concentrations of GRO, toluene, ethylbenzene, and total xylenes which, in some cases, greatly exceed ADEC cleanup criteria (Table 3). Concentrations of contaminants generally increased with depth until approximately 35 feet bg; dissimilar to Soil Boring SB1, the greatest concentrations of contaminants in Soil Boring SB2 were exhibited by the sample (SB2-4) collected from approximately 34 feet to 36 feet bg. Groundwater Sample (MW4) collected from the monitoring well installed in Soil Boring SB2 exhibited concentrations of GRO, benzene, toluene, ethylbenzene, and total xylenes; which in some cases, greatly exceed ADEC cleanup criteria.

Additionally, four soil samples (SB1-5-0820, SB2-3-0820, SB2-4-0820, and SB2-5-0820) were submitted to Zymax Forensics laboratory to undergo fingerprint analysis, as described above in Section 3.3. According to Zymax Forensics laboratory, no evidence of aviation fuel was identified in the soils submitted to the laboratory.

Based on the results of this assessment, continued monitoring of the contaminants identified in the groundwater at the site to further evaluate temporal trends of contaminant concentrations in the local aquifer is recommended. MW-1 should be repaired and free product should be periodically removed from this well to determine if it is present in a sufficient quantity to maintain a measurable level in the well. If the free product is removed and does not return to the well, then this well should also be

included in the groundwater monitoring program. Furthermore, groundwater elevations should be measured in all wells and the groundwater flow direction should be evaluated during each monitoring round.

8.0 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 soil and general vicinities of where groundwater 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.

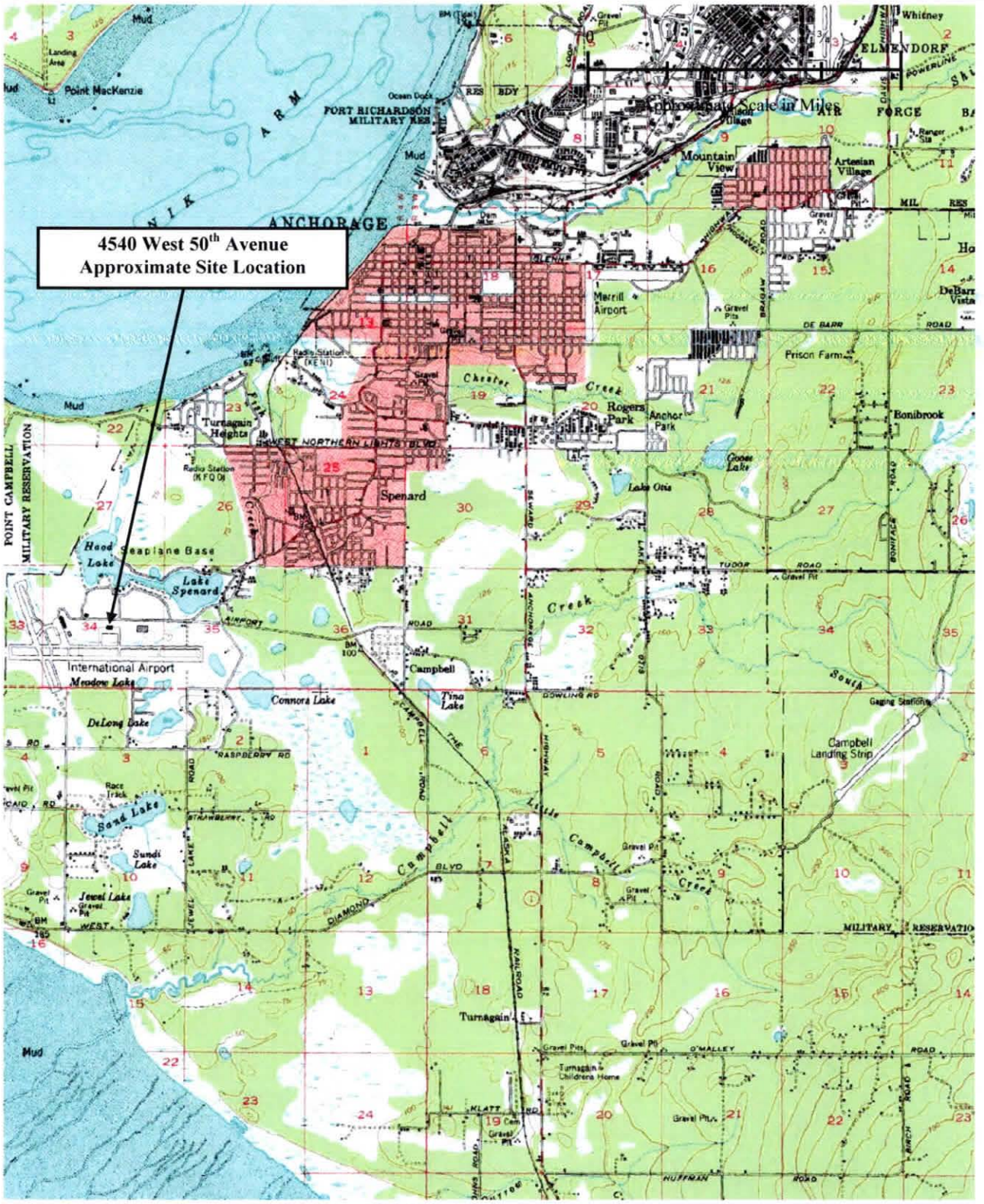
This report was prepared by Sean Peterson, Environmental Scientist II with BGES. Mr. Peterson has conducted numerous site characterization and remedial projects throughout Alaska. This report was reviewed by Robert Braunstein, C.P.G., Principal Geologist of BGES. Mr. Braunstein has more than 30 years of geological/environmental consulting experience and has conducted and managed thousands of environmental projects involving site characterization and remediation efforts, throughout Alaska and the lower 48 states.

Prepared By:

Sean Peterson
Environmental Scientist II

Reviewed By:

Robert N. Braunstein, C.P.G.
Principal Geologist



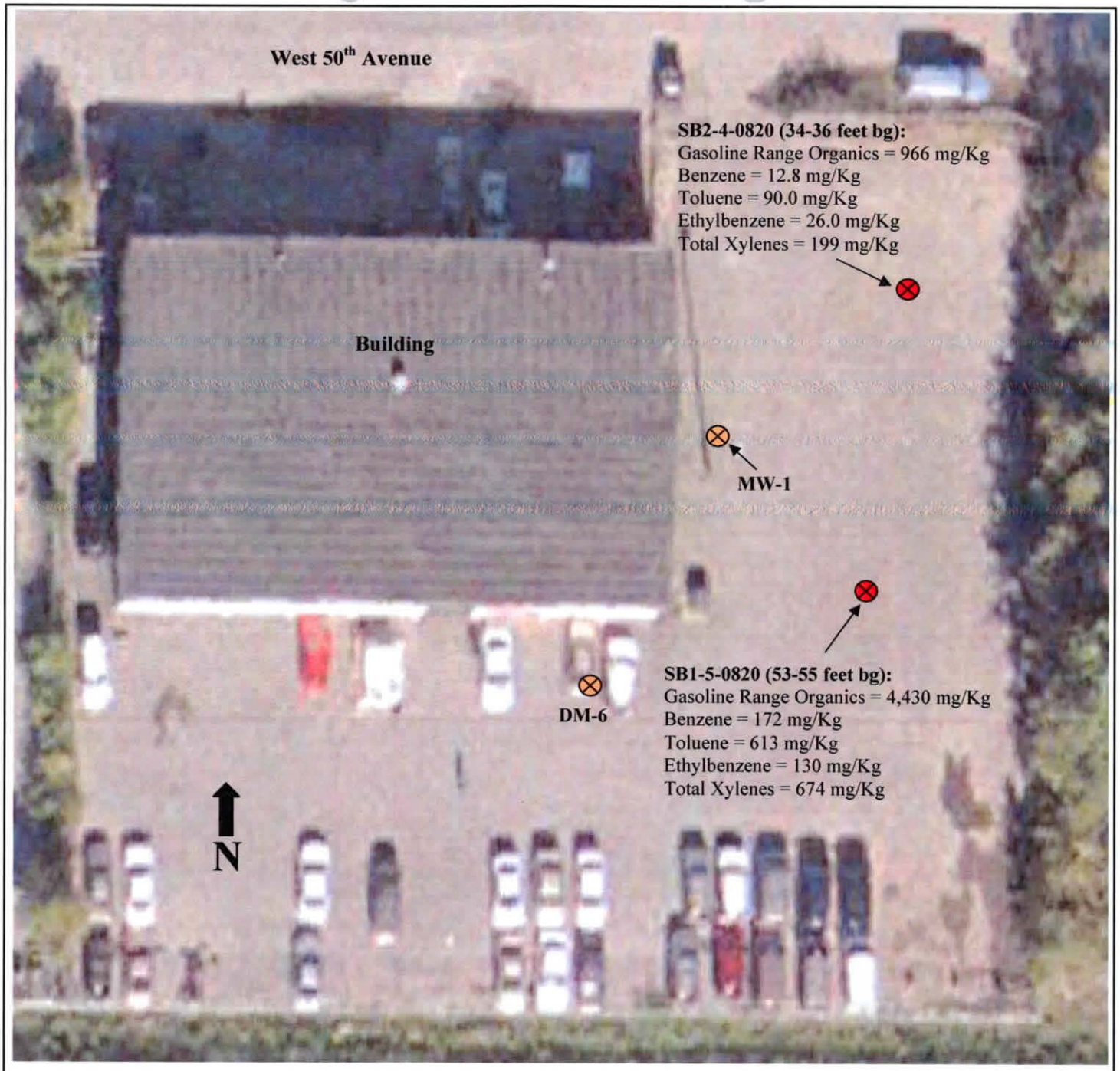
Adapted from USGS Anchorage C-8 Quadrangle Map, 1952, Revised 1963

N

BGES

4540 West 50th Avenue
Anchorage, Alaska
Site Vicinity Map

BGES, INC.	July 2011	Figure 1



LEGEND

⊗ = Previously Installed Monitoring Wells

⊗ = Soil Sample Exceeded ADEC Cleanup Criteria

mg/Kg = milligrams per kilogram

bg = below grade

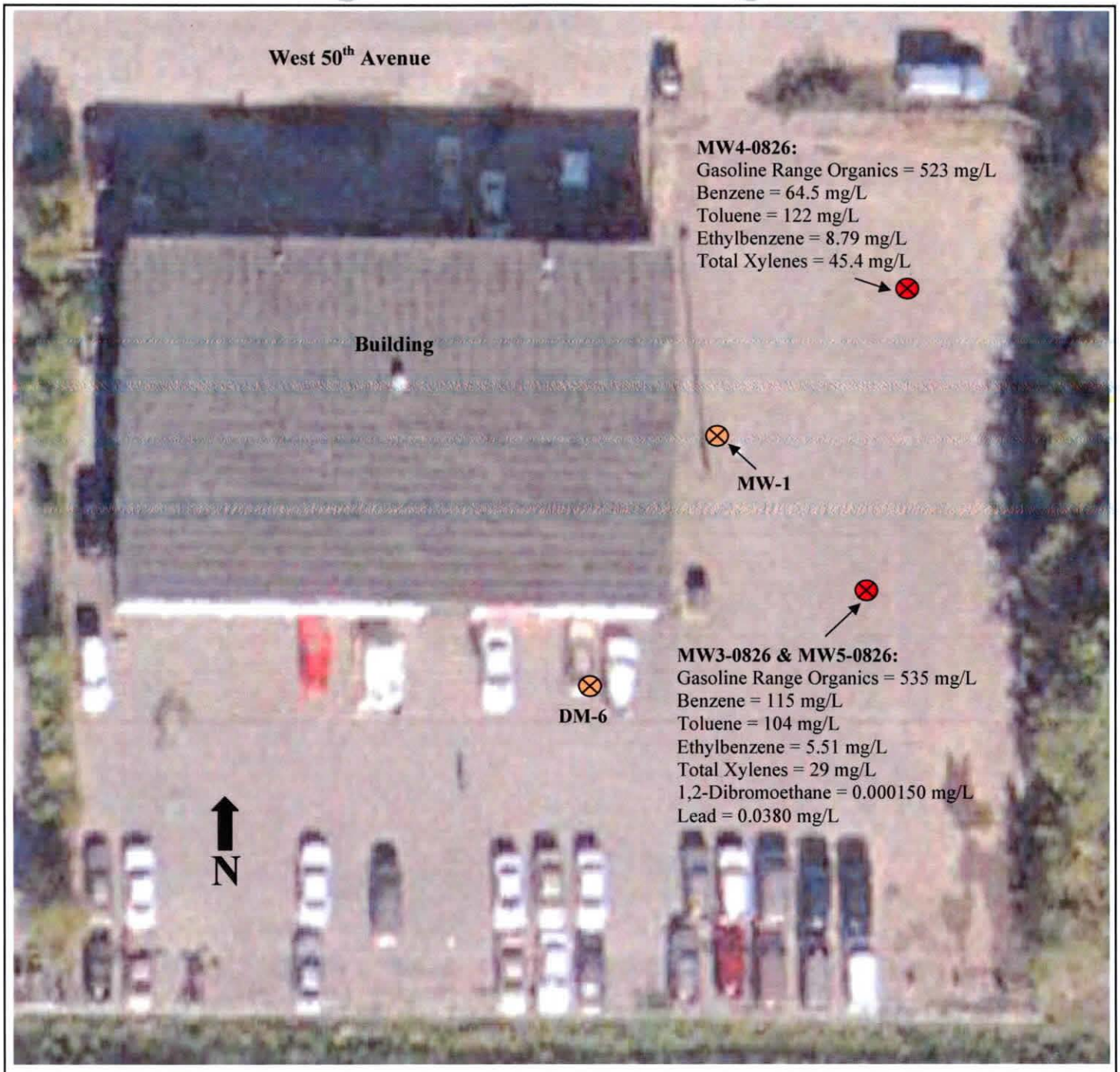
Note: The soils samples from each boring which exhibited the greatest exceedances of ADEC cleanup criteria are listed.

0 30 60 90

Approximate Scale in Feet

4540 West 50th Avenue
Anchorage, Alaska
Soil Boring Locations & Sample Results

BGES, INC.	July 2011	Figure 2



0 30 60 90

Approximate Scale in Feet

LEGEND

⊗ = Monitoring Well Not Sampled

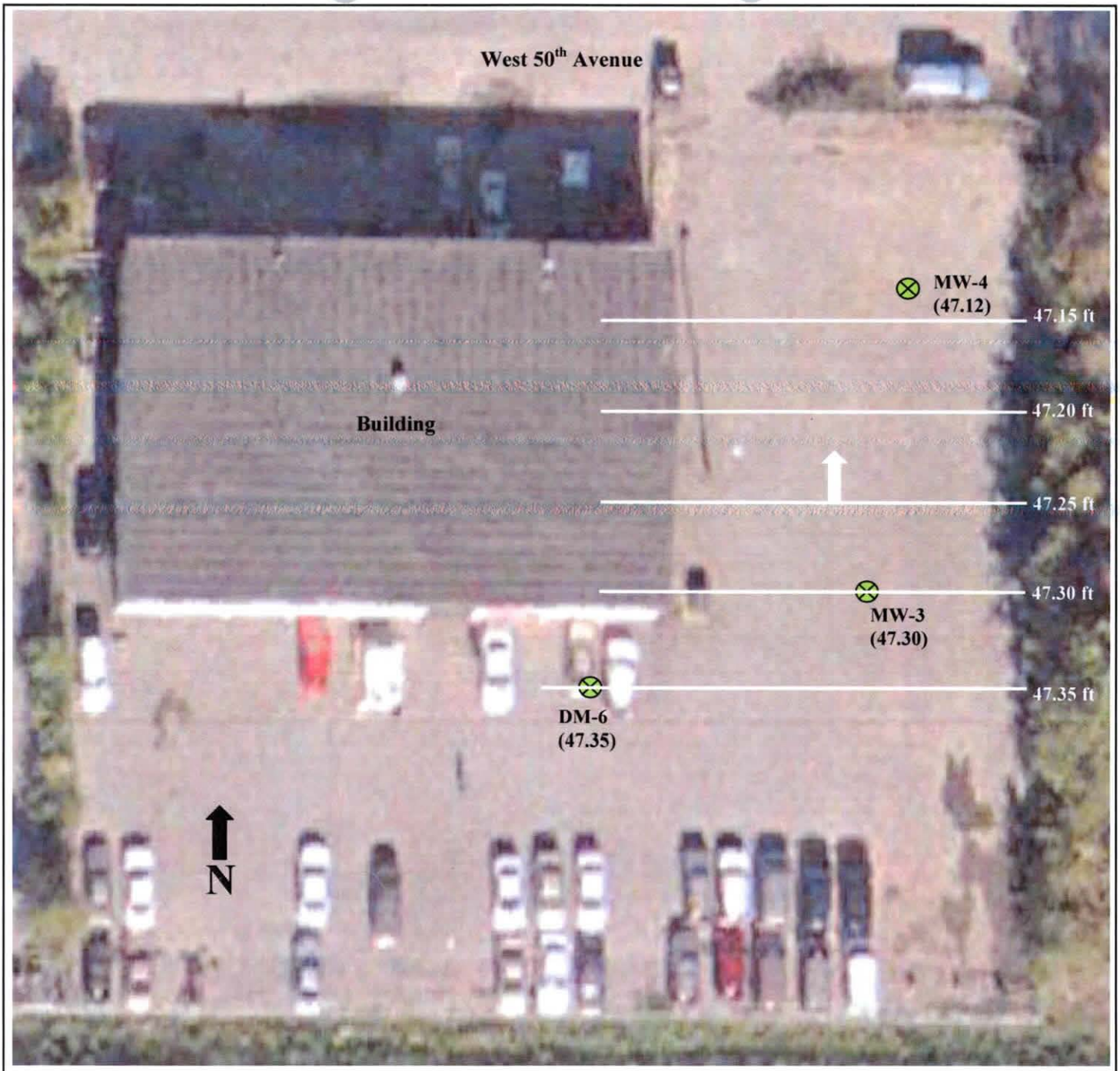
⊗ = Water Sample Exceeded ADEC Cleanup Criteria

mg/L = milligrams per liter

Notes: The greatest concentrations from a duplicate pair are listed. Monitoring Wells MW3 and MW4 were installed in Soil Borings SB1 and SB2, respectively.

4540 West 50th Avenue
Anchorage, Alaska
Groundwater Monitoring
Well Locations & Sample Results

BGES, INC.	July 2011	Figure 3



0 30 60 90

Approximate Scale in Feet

LEGEND

⊗ = Monitoring Well

/ = Groundwater Elevation Contour (dashed where inferred)

Notes:

- Water elevations are noted in bold next to each monitoring well number.
- The hydraulic gradient is approximately 0.003 foot per linear foot to the north.

4540 West 50th Avenue
Anchorage, Alaska
August 2010 Groundwater Elevation Map

BGES, INC.	July 2011	Figure 4

TABLE 1
4540 WEST 50TH AVENUE
ANCHORAGE, ALASKA
MONITORING WELL SAMPLING DATA

Well Number	MW-02	MW-03	MW-04
Date Sampled		08/26/10	08/26/10
Date of Depth and Elevation Measurement	08/26/10	08/26/10	08/26/10
Time of Depth to Water Measurement	13:56	10:57	11:25
Time Sample Collected		12:20	13:28
Top of Casing Elevation (feet)	99.32	99.20	98.38
Depth to Water (feet below top of casing)	51.97	51.90	51.26
Water Elevation (feet)	47.35	47.30	47.12
Total Depth of Well (feet below top of casing)	56.07	58.60	59.44
Ground Elevation	99.66	99.52	99.10
Depth to Water (feet below top of ground surface)	51.97	51.90	51.26
Well Casing Diameter (Inches)	2	2	2
Standing Water Well Volume (gallons)	0.67	1.09	1.33
Purge Volume-Actual (gallons)		4.5	4.0
Notes: Sampler: S.Peterson Weather conditions on August 26, 2010 were sunny with an ambient temperature of approximately 58 degrees Fahrenheit	Well was not sampled.	No stabilization parameters were collected due to a sheen being observed on the water.	No stabilization parameters were collected due to a sheen being observed on the water.

TABLE 2
4540 WEST 50TH AVENUE, ANCHORAGE, ALASKA
ANALYTICAL RESULTS - SOILS

	Gasoline Range Organics	3.09	2.23	-	300	AK101
	Diesel Range Organics	ND	21.5	-	250	AK102
SB1-1-0820	Residual Range Organics	ND	53.7	-	10,000	AK103
(PID = 0 ppm)	Benzene	**0.153 J**	0.00893	-	0.025	EPA 8260B
Depth = 4-6 feet bg	Toluene	0.236 J	0.0223	-	6.5	EPA 8260B
	Ethylbenzene	ND J	0.0223	-	6.9	EPA 8260B
	Xylenes (total)	ND J	0.0335	-	63	EPA 8260B
	Lead	3.41	0.522	-	800	EPA 6020
	Gasoline Range Organics	9.36	2.14	-	300	AK101
	Diesel Range Organics	ND	21.1	-	250	AK102
SB1-2-0820	Residual Range Organics	ND	52.8	-	10,000	AK103
(PID = 0 ppm)	Benzene	**0.402 J**	0.00858	-	0.025	EPA 8260B
Depth = 14-16 feet bg	Toluene	0.713 J	0.0214	-	6.5	EPA 8260B
	Ethylbenzene	0.0311 J	0.0214	-	6.9	EPA 8260B
	Xylenes (total)	0.124 J	0.0322	-	63	EPA 8260B
	Lead	4.34	0.522	-	800	EPA 6020
	Gasoline Range Organics	2.88	2.35	-	300	AK101
	Diesel Range Organics	ND	21.2	-	250	AK102
SB1-3-0820	Residual Range Organics	ND	53.1	-	10,000	AK103
(PID = 0 ppm)	Benzene	**0.113 J**	0.00938	-	0.025	EPA 8260B
Depth = 24-26 feet bg	Toluene	0.212 J	0.0235	-	6.5	EPA 8260B
	Ethylbenzene	ND J	0.0235	-	6.9	EPA 8260B
	Xylenes (total)	0.0617 J	0.0352	-	63	EPA 8260B
	Lead	4.93	0.527	-	800	EPA 6020
	Gasoline Range Organics	15.5	2.43	-	300	AK101
	Diesel Range Organics	ND	24.1	-	250	AK102
SB1-4-0820	Residual Range Organics	ND	60.3	-	10,000	AK103
(PID = 0 ppm)	Benzene	**0.797 J**	0.00974	-	0.025	EPA 8260B
Depth = 34-36 feet bg	Toluene	1.31 J	0.0243	-	6.5	EPA 8260B
	Ethylbenzene	0.0591 J	0.0243	-	6.9	EPA 8260B
	Xylenes (total)	0.242 J	0.0365	-	63	EPA 8260B
	Lead	4.93	0.527	-	800	EPA 6020
	Gasoline Range Organics	**4,430**	382	-	300	AK101
	Diesel Range Organics	ND	25.0	-	250	AK102
SB1-5-0820	Residual Range Organics	ND	62.4	-	10,000	AK103
(PID = 1000+ ppm)	Benzene	**172 J**	1.91	-	0.025	EPA 8260B
Depth = 53-55 feet bg	Toluene	**613 J**	3.82	-	6.5	EPA 8260B
	Ethylbenzene	**130 J**	3.82	-	6.9	EPA 8260B
	Xylenes (total)	**674 J**	5.73	-	63	EPA 8260B
	Lead	7.97	0.614	-	800	EPA 6020

TABLE 2
4540 WEST 50TH AVENUE, ANCHORAGE, ALASKA
ANALYTICAL RESULTS - SOILS

Soil Sample ID / Depth / PID	Parameter	Result	MDL	RL	Cleanup Level	Method
	Gasoline Range Organics	38.2	2.04	-	300	AK101
	Diesel Range Organics	ND	22.6	-	250	AK102
SB2-1-0820	Residual Range Organics	ND	56.5	-	10,000	AK103
(PID = 0 ppm)	Benzene	**2.42 J**	0.00816	-	0.025	EPA 8260B
Depth = 4-6 feet bg	Toluene	3.31 J	0.0204	-	6.5	EPA 8260B
	Ethylbenzene	0.152 J	0.0204	-	6.9	EPA 8260B
	Xylenes (total)	0.619 J	0.0306	-	63	EPA 8260B
	Lead	6.64	0.574	-	800	EPA 6020
	Gasoline Range Organics	11.5	1.7	-	300	AK101
	Diesel Range Organics	ND	21.3	-	250	AK102
SB2-2-0820	Residual Range Organics	ND	53.3	-	10,000	AK103
(PID = 0 ppm)	Benzene	**0.475 J**	0.00678	-	0.025	EPA 8260B
Depth = 14-16 feet bg	Toluene	0.723 J	0.0170	-	6.5	EPA 8260B
	Ethylbenzene	0.0582 J	0.0170	-	6.9	EPA 8260B
	Xylenes (total)	0.201 J	0.0254	-	63	EPA 8260B
	Lead	4.20	0.540	-	800	EPA 6020
	Gasoline Range Organics	**435 J**	43.5	-	300	AK101
	Diesel Range Organics	ND	24.6	-	250	AK102
SB2-3-0820	Residual Range Organics	ND	61.5	-	10,000	AK103
(PID = 1000+ ppm)	Benzene	**8.43 J**	0.218	-	0.025	EPA 8260B
Depth = 24-26 feet bg	Toluene	**50.3 J**	0.435	-	6.5	EPA 8260B
	Ethylbenzene	**8.52 J**	0.435	-	6.9	EPA 8260B
	Xylenes (total)	**82.2 J**	0.653	-	63	EPA 8260B
	Lead	8.70	0.631	-	800	EPA 6020
	Gasoline Range Organics	**966 J**	35.6	-	300	AK101
	Diesel Range Organics	64.4	23.9	-	250	AK102
SB2-4-0820	Residual Range Organics	ND	59.7	-	10,000	AK103
(PID = 1000+ ppm)	Benzene	**12.8 J**	0.178	-	0.025	EPA 8260B
Depth = 34-36 feet bg	Toluene	**90.0 J**	0.713	-	6.5	EPA 8260B
	Ethylbenzene	**26.0 J**	0.356	-	6.9	EPA 8260B
	Xylenes (total)	**199 J**	1.07	-	63	EPA 8260B
	Lead	5.83	0.557	-	800	EPA 6020

TABLE 2
4540 WEST 50TH AVENUE, ANCHORAGE, ALASKA
ANALYTICAL RESULTS - SOILS

Soil Sample No. / Depth	Analytes	Results	MRL	MDL	Soil Cleanup Criteria[1]	Method
	Gasoline Range Organics	**529 J**	38.0	-	300	AK101
	Diesel Range Organics	ND	23.9	-	250	AK102
SB2-5-0820	Residual Range Organics	ND	59.7	-	10,000	AK103
(PID = 868 ppm)	Benzene	**6.00 J**	0.190	-	0.025	EPA 8260B
Depth = 51-55 feet bg	Toluene	**71.00 J**	0.380	-	6.5	EPA 8260B
	Ethylbenzene	**17.9**	0.380	-	6.9	EPA 8260B
	Xylenes (total)	**96.8 J**	0.57	-	63	EPA 8260B
	1,2-Dichloroethane (EDC)	ND J	0.0118	-	0.016	EPA 8260B
	Naphthalene	0.356 J	0.157	-	20	EPA 8260B
	1,2-Dibromoethane (EDB)	ND	*0.00117*	0.0000993	0.00016	EPA 8011
	1,2-Dibromo-3-Chloropropane	0.000513 J	0.00117	0.000126	N/A	EPA 8011
	Lead	6.15	0.569	-	800	EPA 6020
SB2-6-0820						
(Duplicate of SB2-5-0820)						
RPD = 8.27%	Gasoline Range Organics	**487 J**	37.0	-	300	AK101
	Diesel Range Organics	ND	24.2	-	250	AK102
	Residual Range Organics	ND	60.4	-	10,000	AK103
RPD = 45.06%	Benzene	**9.49 J**	0.185	-	0.025	EPA 8260B
RPD = 8.52%	Toluene	**65.2 J**	0.370	-	6.5	EPA 8260B
RPD = 30.23%	Ethylbenzene	**13.2 J**	0.370	-	6.9	EPA 8260B
RPD = 31.72%	Xylenes (total)	**70.3 J**	0.555	-	63	EPA 8260B
	1,2-Dichloroethane (EDC)	ND J	0.0115	-	0.016	EPA 8260B
RPD = 71.94%	Naphthalene	0.756 J	0.154	-	20	EPA 8260B
	1,2-Dibromoethane (EDB)	ND	*0.00119*	0.000100	0.00016	EPA 8011
	1,2-Dibromo-3-Chloropropane	ND	0.00119	0.000127	N/A	EPA 8011
RPD = 22.83%	Lead	4.89	0.563	-	800	EPA 6020

[1] Soil cleanup criteria from ADEC 18AAC 75.341, Tables B1 and B2, Method 2, Under 40-Inch Zone, Migration to Groundwater, except for RRO, which is based on the more stringent Ingestion Pathway, which is based on the Direct Contact Pathway.

MRL = method reporting limit; mg/Kg = milligrams per kilogram; PID = photoionization detector

J = estimated value; ppm = parts per million; bg = below grade

Italic = The MRL exceeds the applicable ADEC cleanup criterion.

Bold results = Concentration exceeds the corresponding ADEC Method 2 cleanup criterion for under 40-inch zone, migration to groundwater.

TABLE 3
4540 WEST 50TH AVENUE, ANCHORAGE, ALASKA
ANALYTICAL RESULTS - WATER

Well/Sample No.	Parameter	Result	MRL	ADEC Water Cleanup Criteria[1]	Analytical Method
MW3-0826	Gasoline Range Organics	**535 J**	50.000	1.5	AK 102
	Benzene	**115 J**	0.500	0.005	EPA 8021B
	Toluene	**104**	0.500	1.0	EPA 8021B
	Ethylbenzne	**5.51**	0.0500	0.7	EPA 8021B
	Xylenes (total)	**29**	1.5	10	EPA 8021B
	1,2-Dibromoethane (EDB)	**0.00015**	0.0000100	0.00005	EPA 8011
	1,2-Dichloroethane (EDC)	ND	*0.0100*	0.00012	EPA 8260B
	Naphthalene	ND	0.0200	Varies	EPA 8260B
	Lead	**0.03800**	0.00500	0.015	EPA 6020
MW5-0826 (Duplicate of MW3-0826)					
RPD = 6.33%	Gasoline Range Organics	**570 J**	50.000	1.5	AK 102
RPD = 2.58%	Benzene	**118 J**	0.500	0.005	EPA 8021B
RPD = 5.60%	Toluene	**110**	0.500	1.0	EPA 8021B
RPD = 0.91%	Ethylbenzne	**5.46**	0.0500	0.7	EPA 8021B
RPD = 13.50%	Xylenes (total)	**33.2**	1.5	10	EPA 8021B
RPD = 1.98%	1,2-Dibromoethane (EDB)	**0.000153**	0.0000100	0.00005	EPA 8011
	1,2-Dichloroethane (EDC)	ND	*0.0100*	0.00012	EPA 8260B
	Naphthalene	ND	0.0200	Varies	EPA 8260B
RPD = 23.53%	Lead	**0.0300**	0.00500	0.015	EPA 6020
MW4-0826	Gasoline Range Organics	**523 J**	50.000	1.5	AK 102
	Benzene	**64.5 J**	0.500	0.005	EPA 8021B
	Toluene	**122**	0.500	1.0	EPA 8021B
	Ethylbenzne	**8.79**	0.0500	0.7	EPA 8021B
	Xylenes (total)	**45.4**	1.5	10	EPA 8021B
	Lead	ND	0.00500	0.015	EPA 8011

[1] = Groundwater cleanup criteria based on 18AAC 75.345 Table C.

MRL = method reporting limit; mg/L = milligrams per liter; VOCs = volatile organic compounds; RPD = relative percent difference

Italic = The MRL exceeds the applicable ADEC cleanup criterion.

Bold results = Concentration exceeds the corresponding ADEC Method 2 cleanup criterion for under 40-inch zone, migration to groundwater.

APPENDIX A
SITE PHOTOGRAPHS

Photo 1. Monitoring Well MW1 (facing west)

Photo 2. Substance Adhered to Oil/Water Interface Probe

Photo 3. Advancement of Soil Boring SB1 (facing south)

Photo 4. Advancement of Soil Boring SB2 (facing east)

Photo 5. Groundwater Monitoring Well MW-3

Photo 6. Groundwater Monitoring Well MW-4

4540 West 50th Avenue Anchorage, Alaska **Site Photographs**		
BGES, INC.	**July 2011**	**Figure A-1**

APPENDIX B
SOIL BORING LOGS/WELL COMPLETION LOGS/WATER SAMPLING LOG/ FIELD NOTES

BGES, INC.
SOIL BORING LOG

CLIENT: Alaska State of Service

BORING NUMBER: SB-1 **BORING LOCATION:** 4540 W. 50TH Ave.

Date: 8/19/10 Weather Conditions: CLEAR, 55° F

Time: 0928 Drilling Company/Rig Type: Cectec / 6620 DT

Observer: S Peterson Drilling/Sampling Method: DPT / Macro Core

Sample No.	DEPTH	PID (ppm) Spoon/Smpl.	DESCRIPTION	Blow Counts
4.6' ①	From: 3 to: 8 Time: 0933	0 / 0	3.5' Recovery 0-3.5 - Fine grained sand w/ silt	N/A
14-16' ②	From: 13 to: 18 Time: 0943	0 / 0	4.8 Recovery 0-4.8 Fine grained sand. (Brown)	N/A
24-26' ③	From: 23 to: 27 Time: 1001	0 / 0	4' recovery 0-4' Fine grained sand (Brown)	N/A
34-36' ④	From: 33 to: 37 Time: 1037	0 / 0	4.1 Rec 0-3.7 Fine grained sand 3.7-4.1 Fine grained sand w/ silt & some cobbles	N/A
53-55' ⑤	From: 53 to: 57 Time: 1014 8/23/2010	133 / 10000+	4' Rec 0-.6 Fine grained sand (damp) (strong fuel odor) .6-4' Fine grained sand w/ silt & some clay (wet)	N/A
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			

Notes:

BGES, INC.

BGES, INC.
SOIL BORING LOG

CLIENT: ACADIA SALES & SERVICE

BORING NUMBER: 2 **BORING LOCATION:** 4540 N. 30TH AVE

Date: 8/20/10 Weather Conditions: CLEAR ; 60° F

Time: ~~1030~~ 1040

Drilling Company/Rig Type: GEOTEK / 6620 DT

Observer: S. PETERSON Drilling/Sampling Method: DPT / MACRO CORE

Sample No.	DEPTH	PID (ppm) Spoon/Smpl.	DESCRIPTION	Blow Counts
S-1	From: 3 to: 7 Time: 1047	0 / 0	4' REC 0-4' FINE GRAINED SAND w/ SILT	N/A
14-16' (2)	From: 13 to: 17 Time: 1109	0 / 0	3.5' REC 0-3.5 - FINE GRAINED SAND (BROWN)	N/A
24-26 (2)	From: 23 to: 27 Time: 1139	122 / 1000+	4.0' REC 0-4' FINE GRAINED SAND w/ SILT (STRONG FUEL ODOR)	N/A
S-4 30	From: 33 to: 37 Time: 1210	28 / 1000+	4' REC (STRONG FUEL ODOR) 0-2' FINE GRAINED SAND w/ SILT 2-4 FINE GRAINED SAND w/ SOME SILT	N/A
S-5	From: 51 to: 55 Time: 1555	4.2 / 268	4' REC 0-4 FINE GRAINED SAND w/ SILT (BROWN) (STRONG FUEL ODOR) DAMP → WET	N/A
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			
	From: to: Time:			

Notes: COLLECTED DUPLICATE FROM 51-55' (SB2-6 → 0830)

BGES, INC.

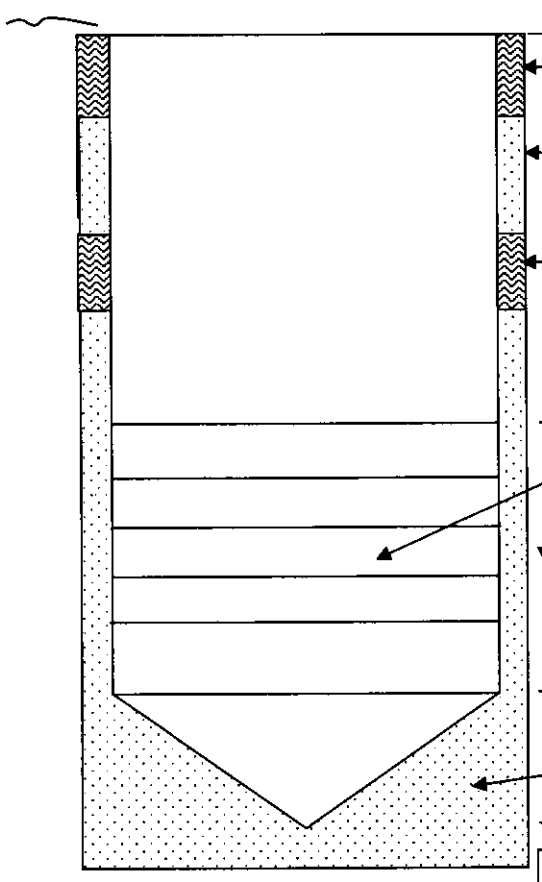
BGES, INC.
WELL COMPLETION LOG

WELL NUMBER: MW3

Date: 8/23/2010 Weather Conditions: Clear, Approximately 60 degrees Fahrenheit

Time: 12:20 Drilling Company/Rig Type: Geotek/6620 DT

Observer: Sean Peterson Drilling/Sampling Method: DPT/DT-45



Grade
Top of Casing
3 Feet
Bentonite Grout Seal
10/20 Silica Sand Pack
44 Feet
Bentonite Grout Seal
46 Feet
48 Feet
Top of Screen
10 Feet of 10 -Slot PVC Screen
Approx. 51 Feet Depth to Water at Time of Drilling (Feet Below Grade)
58 Feet
Bottom of Screen
10/20 Silica Sand Pack
Bottom of End Cap

Well Completion – Flush Grade ☒ Stickup ☐

TOC Elevation: 99.20' Total Well Depth (Ft. BTOC): 58.60'

Notes:

BGES, INC.

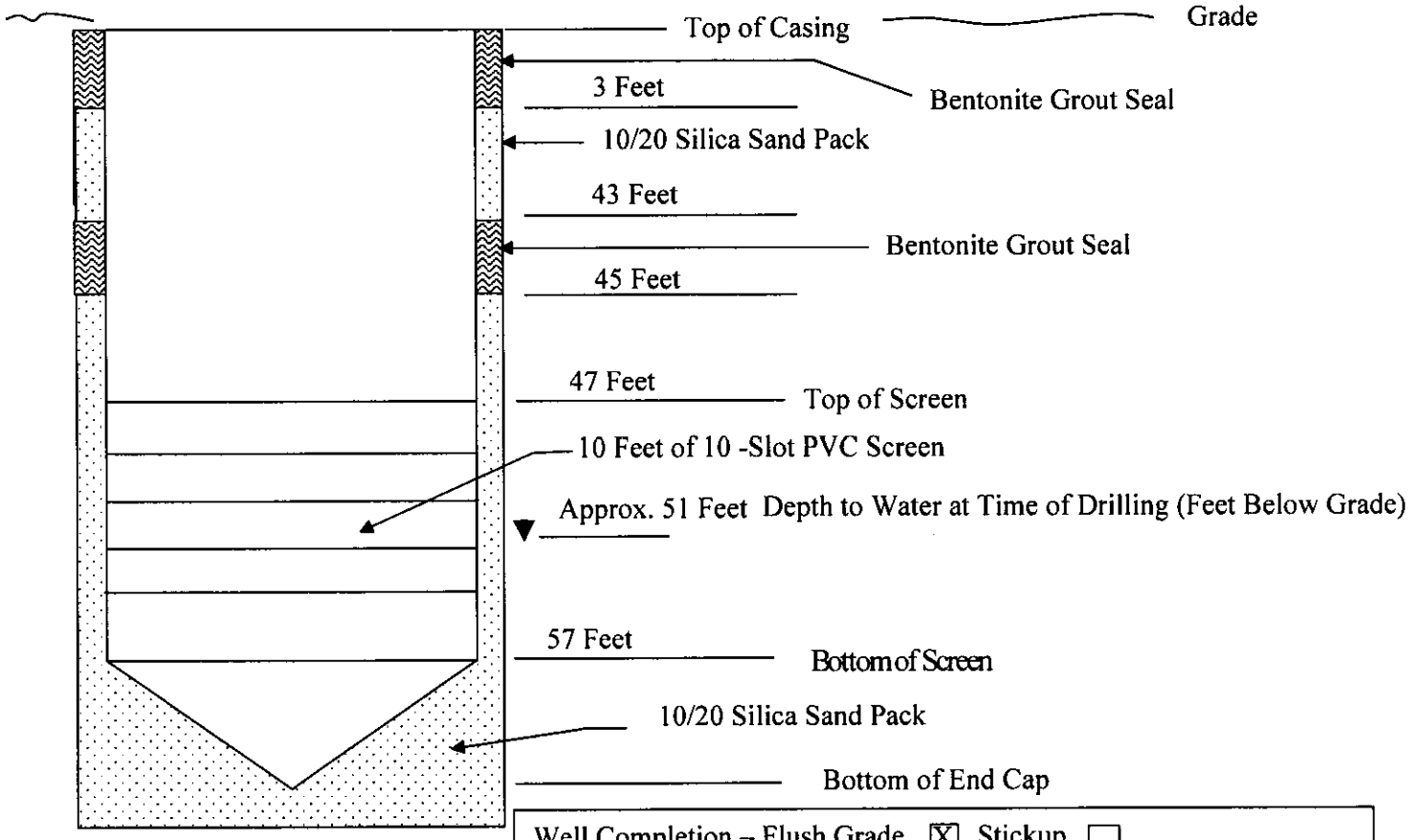
BGES, INC.
WELL COMPLETION LOG

WELL NUMBER: MW4

Date: 8/20/2010 Weather Conditions: Clear, Approximately 60 degrees Fahrenheit

Time: 16:20 Drilling Company/Rig Type: Geotek/6620 DT

Observer: Sean Peterson Drilling/Sampling Method: DPT/DT-45



Well Completion – Flush Grade [X] Stickup [ ]

TOC Elevation: 98.39' Total Well Depth (Ft. BTOC): 59.44'

Notes:

BGES, INC.
WATER MONITORING LOG

Well Number: MW-3

Time Arrived On Site: 1010
Date of Depth to Water Measurement: 8/26/10

Weather Conditions: SUNNY ~ 58° F
Time of Depth to Water Measurement: 1057

Top of Casing Elevation: _____
Depth to Water (feet below TOC): _____
Water Elevation: _____

Type of Sampling Equipment: QED SUBMERSIBLE BLADDER PUMP

Total Depth of Well (feet below TOC): 58.6
Depth to Water (feet below TOC): 51.9
Water Column (feet): ~~58.6~~ 6.7

Volume of well (gals) 1.092

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 1130
Time of Sampling: 1220
Volume purged 4.5 GALLONS

PURGE A MINIMUM OF THREE WELL VOLUMES

pH		VOLUME ONE	pH		VOLUME SIX
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME TWO	pH		VOLUME SEVEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME THREE	pH		VOLUME EIGHT
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FOUR	pH		VOLUME NINE
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FIVE	pH		VOLUME TEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		

A SHEEN WAS OBSERVED ON THE PURGED WATER SO NO STABILIZATION PARAMETERS WERE GATHERED.

BGES, INC.
WATER MONITORING LOG

Well Number: MW-2 (South side of Bldg)

Time Arrived On Site: 1010
Date of Depth to Water Measurement: 8/26/10

Weather Conditions: Sunny ~ 56°F
Time of Depth to Water Measurement: 1129

Top of Casing Elevation: _____
Depth to Water (feet below TOC): _____
Water Elevation: _____

Type of Sampling Equipment: N/A

Total Depth of Well (feet below TOC): 56.07
Depth to Water (feet below TOC): 51.97
Water Column (feet): 4.1

Volume of well (gals) 0.669

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: N/A
Time of Sampling: N/A
Volume purged N/A

PURGE A MINIMUM OF THREE WELL VOLUMES

pH		VOLUME ONE	pH		VOLUME SIX
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME TWO	pH		VOLUME SEVEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME THREE	pH		VOLUME EIGHT
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FOUR	pH		VOLUME NINE
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FIVE	pH		VOLUME TEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		

NO SAMPLES COLLECTED

BGES, INC.
WATER MONITORING LOG

Well Number: MW-4

Time Arrived On Site: 1010
Date of Depth to Water Measurement: 8/26/10

Weather Conditions: SUNNY ~ 57°F
Time of Depth to Water Measurement: 1125

Top of Casing Elevation: ____
Depth to Water (feet below TOC): 51.26
Water Elevation: ____

Type of Sampling Equipment: QED SUBMERSIBLE BLADDER PUMP

Total Depth of Well (feet below TOC): 59.44
Depth to Water (feet below TOC): 51.26
Water Column (feet): (SD) ~~59.~~ 8.18

Volume of well (gals) 1.33

=0.1632 X Water Column (For 2-inch well)
=0.6528 X Water Column (For 4-inch well)
=1.4688 X Water Column (For 6-inch well)

Time Purging Began: 1243
Time of Sampling: 1328
Volume purged 4 GALLONS

PURGE A MINIMUM OF THREE WELL VOLUMES

pH		VOLUME ONE	pH		VOLUME SIX
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME TWO	pH		VOLUME SEVEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME THREE	pH		VOLUME EIGHT
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FOUR	pH		VOLUME NINE
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		
pH		VOLUME FIVE	pH		VOLUME TEN
Conductivity			Conductivity		
Turbidity			Turbidity		
Temperature			Temperature		
TDS			TDS		

A SHEEN WAS OBSERVED ON THE PURGED WATER; NO STABILIZATION PARAMETERS WERE COLLECTED

8/10/10

NATIONAL CAR RENTAL - 50TH AVE.

56°F, CLOUDY & WINDY

J. MARTIN ON SITE AT 1100am

CHECK EXISTING MW FOR THE PRESENCE OF FREE PRODUCT IF ABLE TO GET DOWN WELL.

TOP MW STEEL CASING MISSING & TOP CAP INTACT EXCEPT FOR METAL CLIP

APPEARS TO HAVE BEEN MINOR FROST HEAVE BY SLIGHT MOUNDING & ASPHALT RADIALLY CRACKING AWAY FROM MW. SEE PHOTOS.

TOP 6.8' OF PVC PIPE CRACKED DOWN THE EAST SIDE

DEPTH TO PRODUCT 53.51'

DEPTH TO WATER 53.64'

PROBE HAD A MILKY ~~SLIME~~ GEL MATERIAL ON IT WITH A GASOLINE ODOR

UNABLE TO GET STANDARD 1.75" BAILER down well, but [illegible] in [illegible] STOPPED AT 4.5'

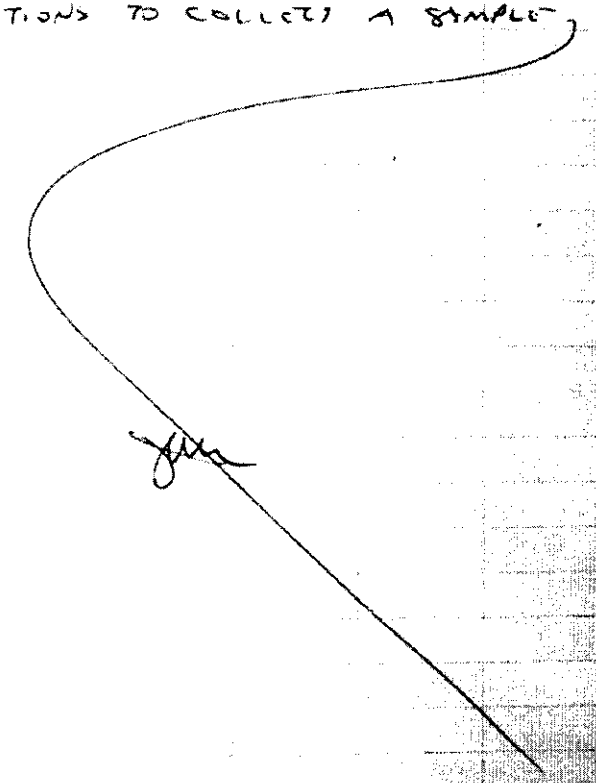
9/10/10

UNABLE TO GET BAILER THROUGH GEL TO COLLECT WATER SAMPLE

TRIED PUSHING OIL/WATER INTERFACE PROBE THROUGH. GOT ~3 FEET & STOPPED

DID NOT COLLECT A SAMPLE.

1207. JMARTIN OFFSITE TO EVALUATE OPTIONS TO COLLECT A SAMPLE



9/10/10 S. PETERSON 45YO CO. SEAM

BGES ONSITE AT 0844

GEOTEK ONSITE AT 0900.

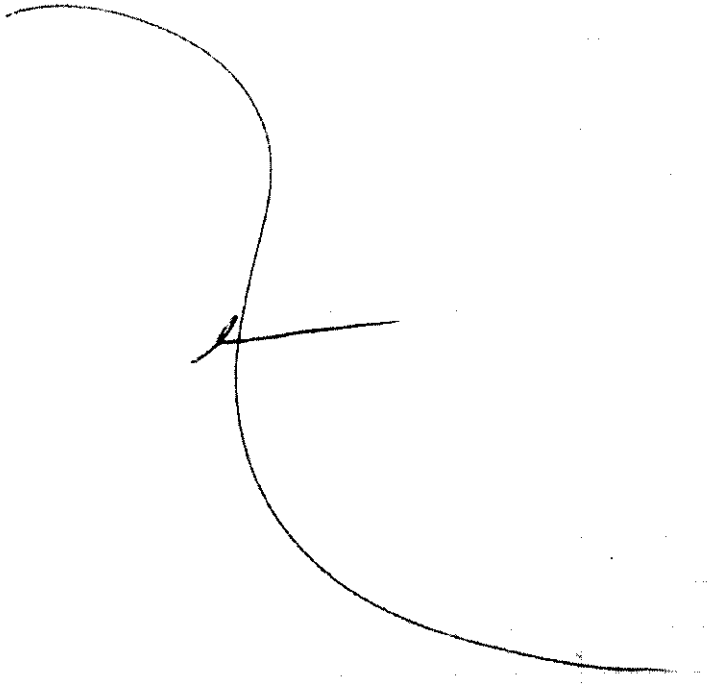
BEGAN ADVANCEMENT OF SOIL BORING SB-1 AT 0928. COLLECTED SOIL SAMPLES FROM ~ 4'-6'; 14'-16'; 24'-26'; & 34'-36'. NO OLFACTORY OR VISUAL EVIDENCE OF CONTAMINATION. SUSPENDED ADVANCEMENT OF SOIL BORING SB-1 DUE TO GEOTEK'S MECHANICAL NEEDS.

BEGAN ADVANCEMENT OF SOIL BORING SB-2 AT 1040. COLLECTED SOIL SAMPLES FROM ~ 4'-6'; 14'-16'; 24'-26'; 34'-36'; & 51'-55'. VISUALLY CONTAMINATED SOILS WERE IDENTIFIED AT 24' & EXTENDED TO THE TERMINATION DEPTH OF BORING (~55'). GROUNDWATER WAS IDENTIFIED AT ~ 51' BG. A DUPLICATE SOIL SAMPLE WAS COLLECTED FROM SOILS AT 51'-55' BG.

8/20/10 S. PETERSON 4540 W 50TH AVE

UPON COMPLETION OF SOIL BORING ACTIVITIES AT 1600. THE BORING WAS COMPLETED AS MONITORING WELL MW-4. (SEE WELL COMPLETION LOG).

GEOTEK OFFSITE AT 1700
BGES OFFSITE AT 1730



8/23/10 S. PETERSON 4540 W 50TH AVE

BGES ONSITE AT 0960
GEOTEK ONSITE AT 0930

COLLECTED FINAL SOIL SAMPLE FROM ORIGINAL SOIL BORING (SB-1) AT 1014. SOIL SAMPLE WAS COLLECTED FROM ~ 53'-55' BG. SOILS WERE VISUALLY CONTAMINATED AND A STRONG INDISCERNIBLE FUEL ODOR WAS EMANATING FROM THEM. GROUNDWATER WAS IDENTIFIED AT ~ 53' BG.

UPON COMPLETION OF SOIL BORING ACTIVITIES. MONITORING WELL MW-3 WAS INSTALLED IN THE BORING AT 1220. (SEE WELL COMPLETION LOG).

CUTTINGS FROM BOTH WELLS (MW-3 & MW-4) WERE STORED IN 5 55-GALLON DRUMS ONSITE. EACH DRUM WAS LABELED APPROPRIATELY.

BGES & GEOTEK OFFSITE AT 1710.

8/25/10 S. PETERSON 4910 W 50TH AVE

N

X

(SB-2 + MW-4)

(MW-1)

BLDG

REF. PT.

Z

Y

(SB-1 + MW-3)

(MW-2)

	X	Y	Z
SB-1	83'	43'	
SB-2	52'	75'	
MW-1	35'	43'	
MW-2	-	20'	95'

SURVEYED FROM WELL TO NEAREST VERTICAL 0.00'. USED SE CORNER OF BLDG AS REF. POINT.

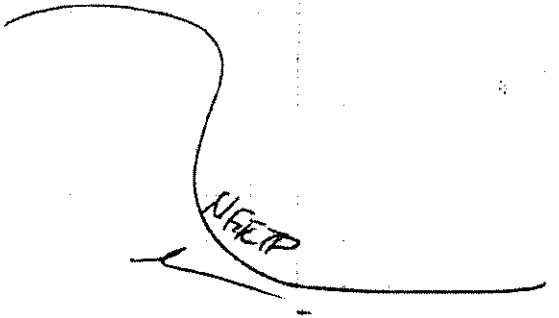
8/25/10 S. PETERSON 4910 W. 50TH AVE

BGE) ONSITE AT 1000.

PURGED BOTH MW-3 & MW-4 REMOVED APPROX. 4 GALLONS FROM EACH WELL. A SHEEN WAS EVIDENT ON THE PURGED WATER.

WATER WAS STORED IN TWO 4-GALLON BUCKETS ONSITE. EACH BUCKET WAS LABELED APPROPRIATELY.

BGE) OFFSITE AT 1300.



8/26/10 S. PETERSON 4540 W 52nd Ave

BGES ONSITE AT 1040.

COLLECTED DEPTH TO WATER MEASUREMENTS FROM MW-2, MW-3, & MW-4 (51.97', 51.7', & 51.26', RESPECTIVELY).

BEGAN PURGING OF MW-3 AT 1130. PURGED ~ 4.5 GALLONS FROM WELL. NO STABALIZATION PARAMETERS WERE COLLECTED DUE TO A SHEEN ON PURGED WATER. COLLECTED WATER SAMPLE MW-3 AT 1220 (ALSO COLLECTED DUPLICATE SAMPLE MW-5).

BEGAN PURGING OF MW-4 AT 1248. NO STABALIZATION PARAMETERS WERE COLLECTED DUE TO A SHEEN ON THE PURGED WATER PURGED ~ 4 GALLONS FROM WELL. COLLECTED WATER SAMPLE MW-4 AT 1328.

BGES OFFSITE AT 1415.

APPENDIX C
LABORATORY ANALYTICAL DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

December 15, 2010

Sean Peterson
BGES, INC.
1042 E 6th Ave
Anchorage, AK 99501

RE: 4540 W.50th Ave

Enclosed are the results of analyses for samples received by the laboratory on 08/23/10 11:09. The following list is a summary of the Work Orders contained in this report, generated on 12/15/10 09:19.

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

Work Order	Project	ProjectNumber
ATH0063	4540 W.50th Ave	10-059-01

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-1-0820	ATH0063-01	Soil	08/20/10 09:38	08/23/10 11:09
SB1-2-0820	ATH0063-02	Soil	08/20/10 09:43	08/23/10 11:09
SB1-3-0820	ATH0063-03	Soil	08/20/10 10:01	08/23/10 11:09
SB1-4-0820	ATH0063-04	Soil	08/20/10 10:39	08/23/10 11:09
SB2-1-0820	ATH0063-05	Soil	08/20/10 10:47	08/23/10 11:09
SB2-2-0820	ATH0063-06	Soil	08/20/10 11:09	08/23/10 11:09
SB2-3-0820	ATH0063-07	Soil	08/20/10 11:39	08/23/10 11:09
SB2-4-0820	ATH0063-08	Soil	08/20/10 12:10	08/23/10 11:09
SB2-5-0820	ATH0063-09	Soil	08/20/10 15:55	08/23/10 11:09
SB1-5-0823	ATH0063-10	Soil	08/23/10 10:14	08/23/10 11:09
Trip Blank	ATH0063-11	Soil	08/23/10 00:00	08/23/10 11:09
Trip Blank	ATH0063-12	Soil	08/23/10 00:00	08/23/10 11:09
SB2-6-0820	ATH0063-13	Soil	08/20/10 16:00	08/23/10 11:09

TestAmerica Anchorage

Johanna Dreher

Johanna L Dreher, Client Services Manager

TestAmerica
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CS Approval Number: UST-067

BGES, INC.	Project Name:	4540 W.50th Ave	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Analytical Case Narrative

TestAmerica - Anchorage, AK

ATH0063

Revised report issued 15 December 2010

MDL values included for EDB by EPA method 8011.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-07 (SB2-3-0820)		**Soil**				**Sampled: 08/20/10 11:39**					
Gasoline Range Organics	AK101/EPA 8021B	**435**	----	43.5	mg/kg dry	15x	10I0004	09/01/10 13:17	09/01/10 19:51	JJB	**RL7**
Benzene	"	**8.43**	----	0.218	"	"	"	"	"	JJB	**RL7**
Toluene	"	**50.3**	----	0.435	"	"	"	"	"	JJB	**RL7**
Ethylbenzene	"	**8.52**	----	0.435	"	"	"	"	"	JJB	**RL7**
Xylenes (total)	"	**82.2**	----	0.653	"	"	"	"	"	JJB	**RL7**
Surrogate(s): 4-BFB (FID)			*111%*		*50 - 150 %*	"			"		***L1***
a,a,a-TFT (FID)			*286%*		*50 - 150 %*	"			"		***Z5***
4-BFB (PID)			*110%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*166%*		*50 - 150 %*	"			"		***Z5***
ATH0063-08 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
Gasoline Range Organics	AK101/EPA 8021B	**966**	----	35.6	mg/kg dry	15x	10I0004	09/01/10 13:17	09/01/10 20:16	JJB	**RL7**
Benzene	"	**12.8**	----	0.178	"	"	"	"	"	JJB	**RL7**
Ethylbenzene	"	**26.0**	----	0.356	"	"	"	"	"	JJB	**RL7**
Surrogate(s): 4-BFB (FID)			*102%*		*50 - 150 %*	"			"		***L1***
a,a,a-TFT (FID)			*447%*		*50 - 150 %*	"			"		***Z5***
4-BFB (PID)			*101%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*180%*		*50 - 150 %*	"			"		***Z5***
ATH0063-08RE1 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
Toluene	AK101/EPA 8021B	**90.0**	----	0.713	mg/kg dry	30x	10I0009	09/03/10 09:30	09/03/10 10:13	JJB	**RL7**
Xylenes (total)	"	**199**	----	1.07	"	"	"	"	"	JJB	**RL7**
Surrogate(s): 4-BFB (FID)			*97.3%*		*50 - 150 %*	"			"		
a,a,a-TFT (FID)			*483%*		*50 - 150 %*	"			"		***Z5***
4-BFB (PID)			*97.7%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*221%*		*50 - 150 %*	"			"		***Z5***
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
Gasoline Range Organics	AK101/EPA 8021B	**529**	----	38.0	mg/kg dry	15x	10I0004	09/01/10 13:17	09/01/10 20:42	JJB	**RL7**
Benzene	"	**6.00**	----	0.190	"	"	"	"	"	JJB	**RL7**
Toluene	"	**71.0**	----	0.380	"	"	"	"	"	JJB	**RL7**
Ethylbenzene	"	**17.9**	----	0.380	"	"	"	"	"	JJB	**RL7**
Xylenes (total)	"	**96.8**	----	0.570	"	"	"	"	"	JJB	**RL7**
Surrogate(s): 4-BFB (FID)			*102%*		*50 - 150 %*	"			"		***L1***
a,a,a-TFT (FID)			*124%*		*50 - 150 %*	"			"		
4-BFB (PID)			*102%*		*50 - 150 %*	"			"		

TestAmerica Anchorage

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Johanna Dreher

Johanna L. Dreher, Client Services Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
a,a,a-TFT (PID)			*80.8%*		*50 - 150 %*	*15x*			*09/01/10 20:42*		
ATH0063-10RE1 (SB1-5-0823)		**Soil**				**Sampled: 08/23/10 10:14**					
Gasoline Range Organics	AK101/EPA 8021B	**4430**	----	382	mg/kg dry	150x	10I0009	09/03/10 09:30	09/03/10 11:53	JJB	**RL7**
Benzene	"	**172**	----	1.91	"	"	"	"	"	JJB	**RL7**
Toluene	"	**613**	----	3.82	"	"	"	"	"	JJB	**RL7**
Ethylbenzene	"	**130**	----	3.82	"	"	"	"	"	JJB	**RL7**
Xylenes (total)	"	**674**	----	5.73	"	"	"	"	"	JJB	**RL7**
Surrogate(s): *4-BFB (FID)*			*89.1%*		*50 - 150 %*	"			"		
a,a,a-TFT (FID)			*1090%*		*50 - 150 %*	"			"		*Z5*
4-BFB (PID)			*89.2%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*504%*		*50 - 150 %*	"			"		*Z5*
ATH0063-11 (Trip Blank)		**Soil**				**Sampled: 08/23/10 00:00**					
Gasoline Range Organics	AK101/EPA 8021B	ND	----	3.33	mg/kg dry	1x	10I0004	09/01/10 13:17	09/01/10 21:57	JJB	
Benzene	"	**0.0433**	----	0.0166	"	"	"	"	"	JJB	**R1**
Toluene	"	**0.207**	----	0.0333	"	"	"	"	"	JJB	
Ethylbenzene	"	ND	----	0.0333	"	"	"	"	"	JJB	
Xylenes (total)	"	**0.0778**	----	0.0500	"	"	"	"	"	JJB	**R1**
Surrogate(s): *4-BFB (FID)*			*104%*		*50 - 150 %*	"			"		*L*
a,a,a-TFT (FID)			*99.6%*		*50 - 150 %*	"			"		
4-BFB (PID)			*104%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*98.0%*		*50 - 150 %*	"			"		
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
Gasoline Range Organics	AK101/EPA 8021B	**487**	----	37.0	mg/kg dry	15x	10I0004	09/01/10 13:17	09/01/10 21:32	JJB	**RL7**
Benzene	"	**9.49**	----	0.185	"	"	"	"	"	JJB	**RL7**
Toluene	"	**65.2**	----	0.370	"	"	"	"	"	JJB	**RL7**
Ethylbenzene	"	**13.2**	----	0.370	"	"	"	"	"	JJB	**RL7**
Xylenes (total)	"	**70.3**	----	0.555	"	"	"	"	"	JJB	**RL7**
Surrogate(s): *4-BFB (FID)*			*110%*		*50 - 150 %*	"			"		*L1*
a,a,a-TFT (FID)			*369%*		*50 - 150 %*	"			"		*Z5*
4-BFB (PID)			*109%*		*50 - 150 %*	"			"		
a,a,a-TFT (PID)			*171%*		*50 - 150 %*	"			"		*Z5*

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Johanna L Dreher, Client Services Manager

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**				**Sampled: 08/20/10 09:38**					
Diesel Range Organics	AK 102	ND	----	21.5	mg/kg dry	1x	1010005	08/26/10 11:48	09/01/10 18:59	JN	
Surrogate(s): 1-Chlorooctadecane			*90.1%*		*50 - 150 %*	"			"		

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**					**Sampled: 08/20/10 09:38**				
Diesel Range Organics	AK102/103	ND	----	21.5	mg/kg dry	1x	10H0105	08/26/10 11:48	08/27/10 19:04	JN	
Residual Range Organics	"	ND	----	53.7	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*86.9%*		*50 - 150 %*	"			"		
Triacontane			*87.1%*		*50 - 150 %*	"			"		
ATH0063-02 (SB1-2-0820)		**Soil**					**Sampled: 08/20/10 09:43**				
Diesel Range Organics	AK102/103	ND	----	21.1	mg/kg dry	1x	10H0105	08/26/10 11:48	08/31/10 19:47	JN	
Residual Range Organics	"	ND	----	52.8	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*94.0%*		*50 - 150 %*	"			"		
Triacontane			*109%*		*50 - 150 %*	"			"		
ATH0063-03 (SB1-3-0820)		**Soil**					**Sampled: 08/20/10 10:01**				
Diesel Range Organics	AK102/103	ND	----	21.2	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 14:03	JN	
Residual Range Organics	"	ND	----	53.1	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*95.3%*		*50 - 150 %*	"			"		
Triacontane			*106%*		*50 - 150 %*	"			"		
ATH0063-04 (SB1-4-0820)		**Soil**					**Sampled: 08/20/10 10:39**				
Diesel Range Organics	AK102/103	ND	----	24.1	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 14:36	JN	
Residual Range Organics	"	ND	----	60.3	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*86.5%*		*50 - 150 %*	"			"		
Triacontane			*97.9%*		*50 - 150 %*	"			"		
ATH0063-05 (SB2-1-0820)		**Soil**					**Sampled: 08/20/10 10:47**				
Diesel Range Organics	AK102/103	ND	----	22.6	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 14:36	JN	
Residual Range Organics	"	ND	----	56.5	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*92.4%*		*50 - 150 %*	"			"		
Triacontane			*107%*		*50 - 150 %*	"			"		
ATH0063-06 (SB2-2-0820)		**Soil**					**Sampled: 08/20/10 11:09**				
Diesel Range Organics	AK102/103	ND	----	21.3	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 15:09	JN	
Residual Range Organics	"	ND	----	53.3	"	"	"	"	"	JN	

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-06 (SB2-2-0820)		**Soil**				**Sampled: 08/20/10 11:09**					
Surrogate(s): 1-Chlorooctadecane			*83.4%*		*50 - 150 %*	*1x*			*09/01/10 15:09*		
Triacontane			*93.3%*		*50 - 150 %*	"			"		
ATH0063-07 (SB2-3-0820)		**Soil**				**Sampled: 08/20/10 11:39**					
Diesel Range Organics	AK102/103	ND	----	24.6	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 15:09	JN	
Residual Range Organics	"	ND	----	61.5	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*94.9%*		*50 - 150 %*	"			"		
Triacontane			*107%*		*50 - 150 %*	"			"		
ATH0063-08 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
Diesel Range Organics	AK102/103	**64.4**	----	23.9	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 15:42	JN	**QP**
Residual Range Organics	"	ND	----	59.7	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*83.7%*		*50 - 150 %*	"			"		
Triacontane			*95.0%*		*50 - 150 %*	"			"		
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
Diesel Range Organics	AK102/103	ND	----	23.9	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 15:42	JN	
Residual Range Organics	"	ND	----	59.7	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*88.1%*		*50 - 150 %*	"			"		
Triacontane			*101%*		*50 - 150 %*	"			"		
ATH0063-10 (SB1-5-0823)		**Soil**				**Sampled: 08/23/10 10:14**					
Diesel Range Organics	AK102/103	ND	----	25.0	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 16:15	JN	
Residual Range Organics	"	ND	----	62.4	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*84.3%*		*50 - 150 %*	"			"		
Triacontane			*96.0%*		*50 - 150 %*	"			"		
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
Diesel Range Organics	AK102/103	ND	----	24.2	mg/kg dry	1x	10H0105	08/26/10 11:48	09/01/10 16:15	JN	
Residual Range Organics	"	ND	----	60.4	"	"	"	"	"	JN	
Surrogate(s): 1-Chlorooctadecane			*95.0%*		*50 - 150 %*	"			"		
Triacontane			*110%*		*50 - 150 %*	"			"		

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ANCHORAGE, AK 99502-1119
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CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Physical Parameters by APHA/ASTM/EPA Methods

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**				**Sampled: 08/20/10 09:38**					
Dry Weight	TA-SOP	92.6	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-02 (SB1-2-0820)		**Soil**				**Sampled: 08/20/10 09:43**					
Dry Weight	TA-SOP	93.9	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-03 (SB1-3-0820)		**Soil**				**Sampled: 08/20/10 10:01**					
Dry Weight	TA-SOP	91.0	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-04 (SB1-4-0820)		**Soil**				**Sampled: 08/20/10 10:39**					
Dry Weight	TA-SOP	81.6	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-05 (SB2-1-0820)		**Soil**				**Sampled: 08/20/10 10:47**					
Dry Weight	TA-SOP	87.1	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-06 (SB2-2-0820)		**Soil**				**Sampled: 08/20/10 11:09**					
Dry Weight	TA-SOP	91.8	----	1.00	%	1x	10H0095	08/24/10 17:28	08/25/10 07:50	JN	
ATH0063-07 (SB2-3-0820)		**Soil**				**Sampled: 08/20/10 11:39**					
Dry Weight	TA-SOP	80.6	----	1.00	%	1x	10H0122	08/30/10 12:08	08/31/10 08:15	JN	
ATH0063-08 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
Dry Weight	TA-SOP	83.4	----	1.00	%	1x	10H0122	08/30/10 12:08	08/31/10 08:15	JN	
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
Dry Weight	TA-SOP	82.1	----	1.00	%	1x	10H0094	08/24/10 16:23	08/25/10 07:50	JN	
ATH0063-10 (SB1-5-0823)		**Soil**				**Sampled: 08/23/10 10:14**					
Dry Weight	TA-SOP	79.1	----	1.00	%	1x	10H0094	08/24/10 16:23	08/25/10 07:50	JN	
ATH0063-11 (Trip Blank)		**Soil**				**Sampled: 08/23/10 00:00**					
Dry Weight	TA-SOP	100	----	1.00	%	1x	10H0094	08/24/10 16:23	08/25/10 07:50	JN	

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CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica Anchorage

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-12 (Trip Blank)		**Soil**				**Sampled: 08/23/10 00:00**					
Dry Weight	TA-SOP	**100**	----	1.00	%	1x	10H0094	08/24/10 16:23	08/25/10 07:50	JN	
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
Dry Weight	TA-SOP	**81.7**	----	1.00	%	1x	10H0094	08/24/10 16:23	08/25/10 07:50	JN	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) by AK101-MS and BTEX by EPA Method 8260B

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**				**Sampled: 08/20/10 09:38**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**3.09**	----	2.23	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 16:57	JB	
Benzene	"	**0.153**	----	0.00893	"	"	"	"	"	JB	
Toluene	"	**0.236**	----	0.0223	"	"	"	"	"	JB	
Ethylbenzene	"	ND	----	0.0223	"	"	"	"	"	JB	
Xylenes (total)	"	ND	----	0.0335	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*117%*		*75 - 125 %*	*0.03x*			"		
a,a,a-TFT			*102%*		*50 - 150 %*	*1x*			"		
Toluene-d8			*96.6%*		*75 - 125 %*	*0.03x*			"		
4-BFB			*104%*		*75 - 125 %*	"			"		
ATH0063-02 (SB1-2-0820)		**Soil**				**Sampled: 08/20/10 09:43**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**9.36**	----	2.14	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 17:31	JB	
Benzene	"	**0.402**	----	0.00858	"	"	"	"	"	JB	
Toluene	"	**0.713**	----	0.0214	"	"	"	"	"	JB	
Ethylbenzene	"	**0.0311**	----	0.0214	"	"	"	"	"	JB	
Xylenes (total)	"	**0.124**	----	0.0322	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*116%*		*75 - 125 %*	*0.03x*			"		
a,a,a-TFT			*112%*		*50 - 150 %*	*1x*			"		
Toluene-d8			*95.8%*		*75 - 125 %*	*0.03x*			"		
4-BFB			*102%*		*75 - 125 %*	"			"		
ATH0063-03 (SB1-3-0820)		**Soil**				**Sampled: 08/20/10 10:01**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**2.88**	----	2.35	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 18:04	JB	
Benzene	"	**0.113**	----	0.00938	"	"	"	"	"	JB	
Toluene	"	**0.212**	----	0.0235	"	"	"	"	"	JB	
Ethylbenzene	"	ND	----	0.0235	"	"	"	"	"	JB	
Xylenes (total)	"	**0.0617**	----	0.0352	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*116%*		*75 - 125 %*	*0.03x*			"		
a,a,a-TFT			*103%*		*50 - 150 %*	*1x*			"		
Toluene-d8			*95.0%*		*75 - 125 %*	*0.03x*			"		
4-BFB			*104%*		*75 - 125 %*	"			"		

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CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) by AK101-MS and BTEX by EPA Method 8260B

TestAmerica Anchorage

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-04 (SB1-4-0820)		**Soil**				**Sampled: 08/20/10 10:39**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**15.5**	----	2.43	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 18:38	JB	
Benzene	"	**0.797**	----	0.00974	"	"	"	"	"	JB	
Toluene	"	**1.31**	----	0.0243	"	"	"	"	"	JB	
Ethylbenzene	"	**0.0591**	----	0.0243	"	"	"	"	"	JB	
Xylenes (total)	"	**0.242**	----	0.0365	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*116%*		*75 - 125 %*	*0.03x*				"	
a,a,a-TFT			*98.2%*		*50 - 150 %*	*1x*				"	
Toluene-d8			*96.1%*		*75 - 125 %*	*0.03x*				"	
4-BFB			*106%*		*75 - 125 %*	"				"	
ATH0063-05 (SB2-1-0820)		**Soil**				**Sampled: 08/20/10 10:47**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**38.2**	----	2.04	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 19:12	JB	
Benzene	"	**2.42**	----	0.00816	"	"	"	"	"	JB	
Toluene	"	**3.31**	----	0.0204	"	"	"	"	"	JB	
Ethylbenzene	"	**0.152**	----	0.0204	"	"	"	"	"	JB	
Xylenes (total)	"	**0.619**	----	0.0306	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*114%*		*75 - 125 %*	*0.03x*				"	
a,a,a-TFT			*86.3%*		*50 - 150 %*	*1x*				"	
Toluene-d8			*94.5%*		*75 - 125 %*	*0.03x*				"	
4-BFB			*106%*		*75 - 125 %*	"				"	
ATH0063-06 (SB2-2-0820)		**Soil**				**Sampled: 08/20/10 11:09**					
Gasoline Range Organics	AK101-MS/EPA 8260B	**11.5**	----	1.70	mg/kg dry	1x	10H0091	08/24/10 10:15	08/24/10 19:46	JB	
Benzene	"	**0.475**	----	0.00678	"	"	"	"	"	JB	
Toluene	"	**0.723**	----	0.0170	"	"	"	"	"	JB	
Ethylbenzene	"	**0.0582**	----	0.0170	"	"	"	"	"	JB	
Xylenes (total)	"	**0.201**	----	0.0254	"	"	"	"	"	JB	
Surrogate(s): *Dibromofluoromethane*			*117%*		*75 - 125 %*	*0.03x*				"	
a,a,a-TFT			*105%*		*50 - 150 %*	*1x*				"	
Toluene-d8			*95.1%*		*75 - 125 %*	*0.03x*				"	
4-BFB			*104%*		*75 - 125 %*	"				"	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

EDB by EPA Method 8011

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
1,2-Dibromoethane	EPA 8011	ND	*0.0993*	1.17	ug/kg dry	1x	10H0151	08/30/10 11:10	08/30/10 19:18	mrs	
1,2-Dibromo-3-chloropropane	"	**0.513**	*0.126*	1.17	"	"	"	"	"	mrs	J
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
1,2-Dibromoethane	EPA 8011	ND	*0.100*	1.19	ug/kg dry	1x	10H0151	08/30/10 11:10	08/30/10 20:33	mrs	
1,2-Dibromo-3-chloropropane	"	ND	*0.127*	1.19	"	"	"	"	"	mrs	

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ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Volatile Organic Compounds by EPA Method 8260B

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
1,2-Dichloroethane (EDC)	EPA 8260B	ND	----	0.0118	mg/kg dry	1x	10H0156	08/31/10 09:23	08/31/10 13:19	CBW	
Naphthalene	"	**0.356**	----	0.157	"	"	"	"	"	CBW	
Surrogate(s): Dibromofluoromethane			*86.6%*		*42.7 - 151 %*	"			"		
Toluene-d8			*137%*		*50.8 - 132 %*	"			"		*ZX*
4-bromofluorobenzene			*119%*		*51 - 136 %*	"			"		
ATH0063-12 (Trip Blank)		**Soil**				**Sampled: 08/23/10 00:00**					
1,2-Dichloroethane (EDC)	EPA 8260B	ND	----	0.0150	mg/kg wet	1x	10H0156	08/31/10 09:23	08/31/10 13:47	CBW	
Naphthalene	"	ND	----	0.200	"	"	"	"	"	CBW	
Surrogate(s): Dibromofluoromethane			*85.6%*		*42.7 - 151 %*	"			"		
Toluene-d8			*101%*		*50.8 - 132 %*	"			"		
4-bromofluorobenzene			*113%*		*51 - 136 %*	"			"		
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
1,2-Dichloroethane (EDC)	EPA 8260B	ND	----	0.0115	mg/kg dry	1x	10H0156	08/31/10 09:23	08/31/10 14:16	CBW	
Naphthalene	"	**0.756**	----	0.154	"	"	"	"	"	CBW	
Surrogate(s): Dibromofluoromethane			*86.0%*		*42.7 - 151 %*	"			"		
Toluene-d8			*174%*		*50.8 - 132 %*	"			"		*ZX*
4-bromofluorobenzene			*134%*		*51 - 136 %*	"			"		

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CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Conventional Chemistry Parameters by APHA/EPA Methods

TestAmerica Spokane

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
% Solids	TA SOP	**80.3**	-----	0.0100	% by Weight	1x	10I0009	08/30/10 14:30	08/31/10 14:15	MS	
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
% Solids	TA SOP	**81.1**	-----	0.0100	% by Weight	1x	10I0009	08/30/10 14:30	08/31/10 14:15	MS	

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1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**				**Sampled: 08/20/10 09:38**					
Lead	EPA 6020	3.41	----	0.522	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 21:42	TNL	
ATH0063-02 (SB1-2-0820)		**Soil**				**Sampled: 08/20/10 09:43**					
Lead	EPA 6020	4.34	----	0.522	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 21:58	TNL	
ATH0063-03 (SB1-3-0820)		**Soil**				**Sampled: 08/20/10 10:01**					
Lead	EPA 6020	4.93	----	0.527	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:01	TNL	
ATH0063-04 (SB1-4-0820)		**Soil**				**Sampled: 08/20/10 10:39**					
Lead	EPA 6020	6.16	----	0.588	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:05	TNL	
ATH0063-05 (SB2-1-0820)		**Soil**				**Sampled: 08/20/10 10:47**					
Lead	EPA 6020	6.64	----	0.574	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:09	TNL	
ATH0063-06 (SB2-2-0820)		**Soil**				**Sampled: 08/20/10 11:09**					
Lead	EPA 6020	4.20	----	0.540	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:21	TNL	
ATH0063-07 (SB2-3-0820)		**Soil**				**Sampled: 08/20/10 11:39**					
Lead	EPA 6020	8.70	----	0.631	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:25	TNL	
ATH0063-08 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
Lead	EPA 6020	5.83	----	0.557	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:28	TNL	
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
Lead	EPA 6020	6.15	----	0.569	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:32	TNL	
ATH0063-10 (SB1-5-0823)		**Soil**				**Sampled: 08/23/10 10:14**					
Lead	EPA 6020	7.97	----	0.614	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:36	TNL	
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					

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1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Total Metals per EPA 6000/7000 Series Methods

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
Lead	EPA 6020	**4.89**	-----	0.563	mg/kg dry	1x	10H1001	08/31/10 10:16	08/31/10 22:40	TNL	

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Percent Dry Weight (Solids) per ASTM D2216-80

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Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-01 (SB1-1-0820)		**Soil**				**Sampled: 08/20/10 09:38**					
% Solids	ASTM D2216-80	93.9	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-02 (SB1-2-0820)		**Soil**				**Sampled: 08/20/10 09:43**					
% Solids	ASTM D2216-80	94.8	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-03 (SB1-3-0820)		**Soil**				**Sampled: 08/20/10 10:01**					
% Solids	ASTM D2216-80	92.1	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-04 (SB1-4-0820)		**Soil**				**Sampled: 08/20/10 10:39**					
% Solids	ASTM D2216-80	83.4	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-05 (SB2-1-0820)		**Soil**				**Sampled: 08/20/10 10:47**					
% Solids	ASTM D2216-80	83.0	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-06 (SB2-2-0820)		**Soil**				**Sampled: 08/20/10 11:09**					
% Solids	ASTM D2216-80	91.6	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-07 (SB2-3-0820)		**Soil**				**Sampled: 08/20/10 11:39**					
% Solids	ASTM D2216-80	79.2	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-08 (SB2-4-0820)		**Soil**				**Sampled: 08/20/10 12:10**					
% Solids	ASTM D2216-80	85.4	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-09 (SB2-5-0820)		**Soil**				**Sampled: 08/20/10 15:55**					
% Solids	ASTM D2216-80	84.5	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-10 (SB1-5-0823)		**Soil**				**Sampled: 08/23/10 10:14**					
% Solids	ASTM D2216-80	77.6	----	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					

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1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Percent Dry Weight (Solids) per ASTM D2216-80

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Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Batch	Prepared	Analyzed	Analyst	Notes
ATH0063-13 (SB2-6-0820)		**Soil**				**Sampled: 08/20/10 16:00**					
% Solids	ASTM D2216-80	**84.6**	---	0.0100	% by Weight	1x	10H0881	08/26/10 14:50	08/27/10 07:10	JJM	

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BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

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QC Batch: 10I0004 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10I0004-BLK1)							**Extracted: 09/01/10 13:17**							
Gasoline Range Organics	AK101/EPA 8021B	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	09/01/10 15:46	
Benzene	"	ND	---	0.0166	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 101%*			*Limits: 50-150%*	"							*09/01/10 15:46*	L
a,a,a-TFT (FID)		*101%*			*50-150%*	"							"	
4-BFB (PID)		*100%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*99.6%*			*50-150%*	"							"	
LCS (10I0004-BS1)							**Extracted: 09/01/10 13:17**							
Benzene	AK101/EPA 8021B	0.660	---	0.0166	mg/kg wet	1x	--	0.800	82.5%	(70-130)	--	--	09/01/10 14:06	
Toluene	"	0.643	---	0.0333	"	"	--	"	80.4%	"	--	--	"	
Ethylbenzene	"	0.699	---	0.0333	"	"	--	"	87.4%	"	--	--	"	
Xylenes (total)	"	2.14	---	0.0500	"	"	--	2.40	89.1%	"	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 101%*			*Limits: 60-120%*	"							*09/01/10 14:06*	
a,a,a-TFT (FID)		*99.8%*			*60-120%*	"							"	
4-BFB (PID)		*100%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*98.9%*			*60-120%*	"							"	
LCS (10I0004-BS2)							**Extracted: 09/01/10 13:17**							
Gasoline Range Organics	AK101/EPA 8021B	17.4	---	3.33	mg/kg wet	1x	--	22.0	79.0%	(60-120)	--	--	09/01/10 14:55	
Surrogate(s): 4-BFB (FID)		*Recovery: 107%*			*Limits: 60-120%*	"							*09/01/10 14:55*	
a,a,a-TFT (FID)		*110%*			*60-120%*	"							"	
4-BFB (PID)		*105%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*99.0%*			*60-120%*	"							"	
LCS Dup (10I0004-BSD1)							**Extracted: 09/01/10 13:17**							
Benzene	AK101/EPA 8021B	0.697	---	0.0166	mg/kg wet	1x	--	0.800	87.1%	(70-130)	5.51%	(20)	09/01/10 14:30	
Toluene	"	0.681	---	0.0333	"	"	--	"	85.1%	"	5.71%	"	"	
Ethylbenzene	"	0.741	---	0.0333	"	"	--	"	92.6%	"	5.85%	"	"	
Xylenes (total)	"	2.27	---	0.0500	"	"	--	2.40	94.6%	"	5.95%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 107%*			*Limits: 60-120%*	"							*09/01/10 14:30*	
a,a,a-TFT (FID)		*103%*			*60-120%*	"							"	
4-BFB (PID)		*107%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*102%*			*60-120%*	"							"	

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BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10I0004 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (10I0004-BSD2)							**Extracted: 09/01/10 13:17**							
Gasoline Range Organics	AK101/EPA 8021B	19.4	---	3.33	mg/kg wet	1x	--	22.0	88.2%	(60-120)	11.0%	(20)	09/01/10 15:21	
Surrogate(s): 4-BFB (FID)		*Recovery: 123%*			*Limits: 60-120%*	"							*09/01/10 15:21*	*LI*
a,a,a-TFT (FID)		*119%*			*60-120%*	"							"	
4-BFB (PID)		*120%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*107%*			*60-120%*	"							"	
Duplicate (10I0004-DUP1)					**QC Source: ATH0050-17**		**Extracted: 09/01/10 13:17**							
Gasoline Range Organics	AK101/EPA 8021B	ND	---	1.88	mg/kg dry	1x	ND	--	--	--	3.53%	(35)	09/01/10 17 23	
Benzene	"	0.0151	---	0.00942	"	"	0.0146	--	--	--	3.04%	(200)	"	
Toluene	"	0.0486	---	0.0188	"	"	0.0447	--	--	--	8.32%	"	"	
Ethylbenzene	"	ND	---	0.0188	"	"	ND	--	--	--	13.2%	"	"	
Xylenes (total)	"	ND	---	0.0283	"	"	ND	--	--	--	11.2%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 117%*			*Limits: 50-150%*	"							*09/01/10 17:23*	*L*
a,a,a-TFT (FID)		*118%*			*50-150%*	"							"	
4-BFB (PID)		*112%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*117%*			*50-150%*	"							"	
Matrix Spike (10I0004-MS1)					**QC Source: ATH0050-18**		**Extracted: 09/01/10 13:17**							
Benzene	AK101/EPA 8021B	0.354	---	0.00849	mg/kg dry	1x	0.00149	0.373	94.5%	(60-140)	--	--	09/01/10 18:12	
Toluene	"	0.343	---	0.0170	"	"	0.00530	"	90.6%	"	--	--	"	
Ethylbenzene	"	0.373	---	0.0170	"	"	ND	"	100%	"	--	--	"	
Xylenes (total)	"	1.13	---	0.0255	"	"	ND	1.12	101%	"	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 111%*			*Limits: 50-150%*	"							*09/01/10 18:12*	*L*
a,a,a-TFT (FID)		*110%*			*50-150%*	"							"	
4-BFB (PID)		*110%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*110%*			*50-150%*	"							"	
Matrix Spike Dup (10I0004-MSD1)					**QC Source: ATH0050-18**		**Extracted: 09/01/10 13:17**							
Benzene	AK101/EPA 8021B	0.327	---	0.00849	mg/kg dry	1x	0.00149	0.373	87.2%	(60-140)	7.95%	(30)	09/01/10 18:37	
Toluene	"	0.318	---	0.0170	"	"	0.00530	"	83.7%	"	7.76%	"	"	
Ethylbenzene	"	0.346	---	0.0170	"	"	ND	"	92.9%	"	7.46%	"	"	
Xylenes (total)	"	1.06	---	0.0255	"	"	ND	1.12	94.7%	"	6.56%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 112%*			*Limits: 50-150%*	"							*09/01/10 18:37*	*L*
a,a,a-TFT (FID)		*108%*			*50-150%*	"							"	
4-BFB (PID)		*112%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*108%*			*50-150%*	"							"	

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Johanna Dreher

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ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10I0009 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10I0009-BLK1)							**Extracted: 09/03/10 09:30**							
Gasoline Range Organics	AK101/EPA 8021B	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	09/03/10 13:12	
Benzene	"	ND	---	0.0166	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 98.9%*			*Limits: 50-150%*	"							*09/03/10 13:12*	
a,a,a-TFT (FID)		*110%*			*50-150%*	"							"	
4-BFB (PID)		*98.7%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*109%*			*50-150%*	"							"	
LCS (10I0009-BS1)							**Extracted: 09/03/10 09:30**							
Benzene	AK101/EPA 8021B	0.620	---	0.0166	mg/kg wet	1x	--	0.800	77.5%	(70-130)	--	--	09/03/10 11:03	
Toluene	"	0.638	---	0.0333	"	"	--	"	79.7%	"	--	--	"	
Ethylbenzene	"	0.632	---	0.0333	"	"	--	"	78.9%	"	--	--	"	
Xylenes (total)	"	2.00	---	0.0500	"	"	--	2.40	83.5%	"	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 78.1%*			*Limits: 60-120%*	"							*09/03/10 11:03*	
a,a,a-TFT (FID)		*81.4%*			*60-120%*	"							"	
4-BFB (PID)		*78.2%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*81.4%*			*60-120%*	"							"	
LCS (10I0009-BS2)							**Extracted: 09/03/10 09:30**							
Gasoline Range Organics	AK101/EPA 8021B	21.5	---	3.33	mg/kg wet	1x	--	22.0	97.7%	(60-120)	--	--	09/03/10 12:23	
Surrogate(s): 4-BFB (FID)		*Recovery: 99.5%*			*Limits: 60-120%*	"							*09/03/10 12:23*	
a,a,a-TFT (FID)		*110%*			*60-120%*	"							"	
4-BFB (PID)		*98.4%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*104%*			*60-120%*	"							"	
LCS Dup (10I0009-BSD1)							**Extracted: 09/03/10 09:30**							
Benzene	AK101/EPA 8021B	0.649	---	0.0166	mg/kg wet	1x	--	0.800	81.1%	(70-130)	4.57%	(20)	09/03/10 11:28	
Toluene	"	0.658	---	0.0333	"	"	--	"	82.2%	"	3.13%	"	"	
Ethylbenzene	"	0.652	---	0.0333	"	"	--	"	81.5%	"	3.17%	"	"	
Xylenes (total)	"	1.98	---	0.0500	"	"	--	2.40	82.6%	"	1.06%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 80.9%*			*Limits: 60-120%*	"							*09/03/10 11:28*	
a,a,a-TFT (FID)		*83.6%*			*60-120%*	"							"	
4-BFB (PID)		*81.8%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*83.5%*			*60-120%*	"							"	

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CS Approval Number: UST-067

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1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) and BTEX per AK101 - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10I0009 **Soil Preparation Method: AK101 Field Prep**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (10I0009-BSD2)							**Extracted: 09/03/10 09:30**							
Gasoline Range Organics	AK101/EPA 8021B	21.5	---	3.33	mg/kg wet	1x	--	22.0	97.8%	(60-120)	0.104%	(20)	09/03/10 12:47	
Surrogate(s): 4-BFB (FID)		*Recovery: 98.3%*			*Limits: 60-120%*	"							*09/03/10 12:47*	
a,a,a-TFT (FID)		*115%*			*60-120%*	"							"	
4-BFB (PID)		*97.3%*			*60-120%*	"							"	
a,a,a-TFT (PID)		*105%*			*60-120%*	"							"	
Duplicate (10I0009-DUP1)					**QC Source: ATH0072-23**		**Extracted: 09/03/10 09:30**							
Gasoline Range Organics	AK101/EPA 8021B	ND	---	3.42	mg/kg dry	1x	ND	--	--	--	4.00%	(35)	09/03/10 15:16	
Benzene	"	ND	---	0.0171	"	"	ND	--	--	--	NR	(200)	"	
Toluene	"	ND	---	0.0342	"	"	ND	--	--	--	NR	"	"	
Ethylbenzene	"	ND	---	0.0342	"	"	ND	--	--	--	NR	"	"	
Xylenes (total)	"	ND	---	0.0513	"	"	ND	--	--	--	NR	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 96.3%*			*Limits: 50-150%*	"							*09/03/10 15:16*	
a,a,a-TFT (FID)		*98.9%*			*50-150%*	"							"	
4-BFB (PID)		*96.2%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*98.7%*			*50-150%*	"							"	
Matrix Spike (10I0009-MS1)					**QC Source: ATH0072-22**		**Extracted: 09/03/10 09:30**							
Benzene	AK101/EPA 8021B	0.670	---	0.0164	mg/kg dry	1x	0.00122	0.580	115%	(60-140)	--	--	09/03/10 16:06	
Toluene	"	0.702	---	0.0328	"	"	0.00729	"	120%	"	--	--	"	
Ethylbenzene	"	0.700	---	0.0328	"	"	ND	"	121%	"	--	--	"	
Xylenes (total)	"	2.19	---	0.0493	"	"	ND	1.74	126%	"	--	--	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 101%*			*Limits: 50-150%*	"							*09/03/10 16:06*	
a,a,a-TFT (FID)		*109%*			*50-150%*	"							"	
4-BFB (PID)		*102%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*109%*			*50-150%*	"							"	
Matrix Spike Dup (10I0009-MSD1)					**QC Source: ATH0072-22**		**Extracted: 09/03/10 09:30**							
Benzene	AK101/EPA 8021B	0.661	---	0.0164	mg/kg dry	1x	0.00122	0.580	114%	(60-140)	1.37%	(30)	09/03/10 16:31	
Toluene	"	0.697	---	0.0328	"	"	0.00729	"	119%	"	0.770%	"	"	
Ethylbenzene	"	0.696	---	0.0328	"	"	ND	"	120%	"	0.480%	"	"	
Xylenes (total)	"	2.18	---	0.0493	"	"	ND	1.74	125%	"	0.164%	"	"	
Surrogate(s): 4-BFB (FID)		*Recovery: 101%*			*Limits: 50-150%*	"							*09/03/10 16:31*	
a,a,a-TFT (FID)		*109%*			*50-150%*	"							"	
4-BFB (PID)		*101%*			*50-150%*	"							"	
a,a,a-TFT (PID)		*108%*			*50-150%*	"							"	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10I0005 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10I0005-BLK1)								**Extracted: 08/26/10 08:30**						
Diesel Range Organics	AK 102	ND	---	20.0	mg/kg wet	1x	--	--	--	--	--	--	09/01/10 17:54	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 85.3%*			*Limits: 50-150%*	"							*09/01/10 17:54*	
Blank (10I0005-BLK2)								**Extracted: 08/26/10 11:48**						
Diesel Range Organics	AK 102	ND	---	20.0	mg/kg wet	1x	--	--	--	--	--	--	09/01/10 17:54	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 89.7%*			*Limits: 50-150%*	"							*09/01/10 17:54*	
LCS (10I0005-BS1)								**Extracted: 08/26/10 08:30**						
Diesel Range Organics	AK 102	105	---	20.0	mg/kg wet	1x	--	139	75.7%	(75-125)	--	--	09/01/10 17:21	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 88.9%*			*Limits: 60-120%*	"							*09/01/10 17:21*	
LCS (10I0005-BS2)								**Extracted: 08/26/10 11:48**						
Diesel Range Organics	AK 102	125	---	20.0	mg/kg wet	1x	--	139	90.3%	(75-125)	--	--	09/01/10 17:21	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 95.1%*			*Limits: 60-120%*	"							*09/01/10 17:21*	
LCS Dup (10I0005-BSD1)								**Extracted: 08/26/10 08:30**						
Diesel Range Organics	AK 102	106	---	20.0	mg/kg wet	1x	--	139	76.3%	(75-125)	0.803%	(20)	09/01/10 16:48	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 86.6%*			*Limits: 60-120%*	"							*09/01/10 16:48*	
LCS Dup (10I0005-BSD2)								**Extracted: 08/26/10 11:48**						
Diesel Range Organics	AK 102	127	---	20.0	mg/kg wet	1x	--	139	91.8%	(75-125)	1.65%	(20)	09/01/10 16:48	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 98.6%*			*Limits: 60-120%*	"							*09/01/10 16:48*	
Duplicate (10I0005-DUP1)					**QC Source: ATH0049-10**			**Extracted: 08/26/10 08:30**						
Diesel Range Organics	AK 102	ND	---	24.5	mg/kg dry	1x	ND	--	--	--	NR	(20)	09/01/10 18:26	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 83.6%*			*Limits: 50-150%*	"							*09/01/10 18:26*	
Duplicate (10I0005-DUP2)					**QC Source: ATH0063-01**			**Extracted: 08/26/10 11:48**						
Diesel Range Organics	AK 102	ND	---	21.6	mg/kg dry	1x	ND	--	--	--	NR	(20)	09/01/10 18:26	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 92.8%*			*Limits: 50-150%*	"							*09/01/10 18:26*	
Matrix Spike (10I0005-MS1)					**QC Source: ATH0049-10**			**Extracted: 08/26/10 08:30**						
Diesel Range Organics	AK 102	145	---	24.8	mg/kg dry	1x	ND	172	84.1%	(75-125)	--	--	09/01/10 20:05	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 92.1%*			*Limits: 50-150%*	"							*09/01/10 20:05*	
Matrix Spike (10I0005-MS2)					**QC Source: ATH0063-01**			**Extracted: 08/26/10 11:48**						
Diesel Range Organics	AK 102	152	---	21.5	mg/kg dry	1x	ND	149	102%	(75-125)	--	--	09/01/10 20:05	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 101%*			*Limits: 50-150%*	"							*09/01/10 20:05*	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) per AK102 with Silica Gel Cleanup - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10I0005 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (10I0005-MSD1)					**QC Source: ATH0049-10**				**Extracted: 08/26/10 08:30**					
Diesel Range Organics	AK 102	143	---	24.9	mg/kg dry	1x	ND	173	82.8%	(75-125)	1.47%	(25)	09/01/10 20:38	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 91.0%*			*Limits: 50-150%*	"							*09/01/10 20:38*	
Matrix Spike Dup (10I0005-MSD2)					**QC Source: ATH0063-01**				**Extracted: 08/26/10 11:48**					
Diesel Range Organics	AK 102	129	---	21.4	mg/kg dry	1x	ND	148	86.8%	(75-125)	16.6%	(25)	09/01/10 20:38	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 92.9%*			*Limits: 50-150%*	"							*09/01/10 20:38*	

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1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10H0105 **Soil Preparation Method: EPA 3545**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0105-BLK1)									Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	ND	---	20.0	mg/kg wet	1x	--	--	--	--	--	--	08/27/10 16:57	
Residual Range Organics	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 89.4%*			*Limits: 50-150%*	"							*08/27/10 16:57*	
Triacontane		*89.2%*			*50-150%*	"							"	
LCS (10H0105-BS1)									Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	136	---	20.0	mg/kg wet	1x	--	139	98.1%	(75-125)	--	--	08/27/10 17:28	
Residual Range Organics	"	128	---	50.0	"	"	--	129	99.5%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 95.6%*			*Limits: 60-120%*	"							*08/27/10 17:28*	
Triacontane		*87.8%*			*60-120%*	"							"	
LCS Dup (10H0105-BSD1)									Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	133	---	20.0	mg/kg wet	1x	--	139	96.0%	(75-125)	2.11%	(20)	08/27/10 18:00	
Residual Range Organics	"	126	---	50.0	"	"	--	129	97.9%	(60-120)	1.55%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 91.4%*			*Limits: 60-120%*	"							*08/27/10 18:00*	
Triacontane		*86.3%*			*60-120%*	"							"	
Duplicate (10H0105-DUP1)							QC Source: ATH0063-01		Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	ND	---	21.6	mg/kg dry	1x	ND	--	--	--	NR	(20)	08/27/10 18:32	
Residual Range Organics	"	ND	---	53.9	"	"	ND	--	--	--	--	(50)	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 85.2%*			*Limits: 50-150%*	"							*08/27/10 18:32*	
Triacontane		*85.3%*			*50-150%*	"							"	
Matrix Spike (10H0105-MS1)							QC Source: ATH0063-01		Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	151	---	21.5	mg/kg dry	1x	ND	149	101%	(75-125)	--	--	08/27/10 19:37	
Residual Range Organics	"	146	---	53.7	"	"	ND	138	106%	(60-120)	--	--	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 94.2%*			*Limits: 50-150%*	"							*08/27/10 19:37*	
Triacontane		*85.5%*			*50-150%*	"							"	
Matrix Spike Dup (10H0105-MSD1)							QC Source: ATH0063-01		Extracted: 08/26/10 11:48					
Diesel Range Organics	AK102/103	138	---	21.4	mg/kg dry	1x	ND	148	93.1%	(75-125)	9.08%	(25)	08/27/10 20:09	
Residual Range Organics	"	133	---	53.4	"	"	ND	138	96.8%	(60-120)	9.49%	"	"	
Surrogate(s): 1-Chlorooctadecane		*Recovery: 89.1%*			*Limits: 50-150%*	"							*08/27/10 20:09*	
Triacontane		*82.8%*			*50-150%*	"							"	

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Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10H0094 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0094-DUP1)					**QC Source: ATH0033-01**								**Extracted: 08/24/10 16:23**	
Dry Weight	TA-SOP	93.5	---	1.00	%	1x	92.9	--	--	--	0.639%	(25)	08/25/10 07:50	

QC Batch: 10H0095 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0095-DUP1)					**QC Source: ATH0043-01**								**Extracted: 08/24/10 17:28**	
Dry Weight	TA-SOP	96.5	---	1.00	%	1x	96.3	--	--	--	0.210%	(25)	08/25/10 07:50	

QC Batch: 10H0122 **Soil Preparation Method: *** DEFAULT PREP**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0122-DUP1)					**QC Source: ATH0063-07**								**Extracted: 08/30/10 12:08**	
Dry Weight	TA-SOP	80.5	---	1.00	%	1x	80.6	--	--	--	0.0175%	(25)	08/31/10 08:15	

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ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) by AK101-MS and BTEX by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10H0091 **Soil Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0091-BLK1)								Extracted: 08/24/10 10:15						
Gasoline Range Organics	AK101-MS/E PA 8260B	ND	---	3.33	mg/kg wet	1x	--	--	--	--	--	--	08/24/10 12:59	
Benzene	"	ND	---	0.0133	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.0333	"	"	--	--	--	--	--	--	"	
Xylenes (total)	"	ND	---	0.0500	"	"	--	--	--	--	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 115%*			*Limits: 75-125%*	*0.03x*							*08/24/10 12:59*	
a,a,a-TFT		*106%*			*50-150%*	*1x*							"	
Toluene-d8		*98.2%*			*75-125%*	*0.03x*							"	
4-BFB		*105%*			*75-125%*	"							"	
LCS (10H0091-BS1)								Extracted: 08/24/10 10:15						
Benzene	AK101-MS/E PA 8260B	0.866	---	0.0133	mg/kg wet	1x	--	0.800	108%	(70-130)	--	--	08/24/10 11:54	
Toluene	"	0.840	---	0.0333	"	"	--	"	105%	"	--	--	"	
Ethylbenzene	"	0.845	---	0.0333	"	"	--	"	106%	"	--	--	"	
Xylenes (total)	"	2.60	---	0.0500	"	"	--	2.40	108%	"	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 113%*			*Limits: 75-125%*	*0.03x*							*08/24/10 11:54*	
a,a,a-TFT		*102%*			*50-150%*	*1x*							"	
Toluene-d8		*95.4%*			*75-125%*	*0.03x*							"	
4-BFB		*103%*			*75-125%*	"							"	
LCS (10H0091-BS2)								Extracted: 08/24/10 10:15						
Gasoline Range Organics	AK101-MS/E PA 8260B	20.8	---	3.33	mg/kg wet	1x	--	20.0	104%	(60-120)	--	--	08/24/10 10:49	
Surrogate(s): Dibromofluoromethane		*Recovery: 114%*			*Limits: 75-125%*	*0.03x*							*08/24/10 10:49*	
a,a,a-TFT		*84.0%*			*50-150%*	*1x*							"	
Toluene-d8		*97.0%*			*75-125%*	*0.03x*							"	
4-BFB		*99.9%*			*75-125%*	"							"	
LCS Dup (10H0091-BSD1)								Extracted: 08/24/10 10:15						
Benzene	AK101-MS/E PA 8260B	0.946	---	0.0133	mg/kg wet	1x	--	0.800	118%	(70-130)	8.82%	(20)	08/24/10 12:26	
Toluene	"	0.943	---	0.0333	"	"	--	"	118%	"	11.5%	"	"	
Ethylbenzene	"	0.931	---	0.0333	"	"	--	"	116%	"	9.71%	"	"	
Xylenes (total)	"	2.89	---	0.0500	"	"	--	2.40	121%	"	10.8%	"	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 113%*			*Limits: 75-125%*	*0.03x*							*08/24/10 12:26*	
a,a,a-TFT		*111%*			*50-150%*	*1x*							"	
Toluene-d8		*98.1%*			*75-125%*	*0.03x*							"	
4-BFB		*105%*			*75-125%*	"							"	

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CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Gasoline Range Organics (C6-C10) by AK101-MS and BTEX by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Anchorage

QC Batch: 10H0091 **Soil Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (10H0091-BSD2)								**Extracted: 08/24/10 10:15**						
Gasoline Range Organics	AK101-MS/E PA 8260B	20.4	---	3.33	mg/kg wet	1x	--	20.0	102%	(60-120)	1.89%	(20)	08/24/10 11:21	
Surrogate(s): Dibromofluoromethane		*Recovery: 111%*			*Limits: 75-125%*	*0.03x*							*08/24/10 11:21*	
a,a,a-TFT		*77.9%*			*50-150%*	*1x*							"	
Toluene-d8		*97.3%*			*75-125%*	*0.03x*							"	
4-BFB		*101%*			*75-125%*	"							"	
Duplicate (10H0091-DUP1)					**QC Source: ATH0061-10**			**Extracted: 08/24/10 10:15**						
Gasoline Range Organics	AK101-MS/E PA 8260B	14.2	---	5.80	mg/kg dry	1x	13.5	--	--	--	5.41%	(35)	08/24/10 14:13	
Benzene	"	ND	---	0.0232	"	"	ND	--	--	--	NR	(25)	"	
Toluene	"	ND	---	0.0580	"	"	ND	--	--	--	6.06%	"	"	
Ethylbenzene	"	0.518	---	0.0580	"	"	0.504	--	--	--	2.72%	"	"	
Xylenes (total)	"	3.03	---	0.0869	"	"	2.99	--	--	--	1.50%	"	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 114%*			*Limits: 75-125%*	*0.03x*							*08/24/10 14:13*	
a,a,a-TFT		*82.8%*			*50-150%*	*1x*							"	
Toluene-d8		*97.4%*			*75-125%*	*0.03x*							"	
4-BFB		*103%*			*75-125%*	"							"	
Matrix Spike (10H0091-MS1)					**QC Source: ATH0061-10**			**Extracted: 08/24/10 10:15**						
Benzene	AK101-MS/E PA 8260B	1.08	---	0.0232	mg/kg dry	1x	ND	0.672	161%	(60-140)	--	--	08/24/10 14:45	M7
Toluene	"	1.07	---	0.0580	"	"	0.0197	"	157%	"	--	--	"	M7
Ethylbenzene	"	1.56	---	0.0580	"	"	0.504	"	157%	"	--	--	"	M7
Xylenes (total)	"	6.26	---	0.0869	"	"	2.99	2.02	162%	"	--	--	"	M7
Surrogate(s): Dibromofluoromethane		*Recovery: 115%*			*Limits: 75-125%*	*0.03x*							*08/24/10 14:45*	
a,a,a-TFT		*79.9%*			*50-150%*	*1x*							"	
Toluene-d8		*93.9%*			*75-125%*	*0.03x*							"	
4-BFB		*104%*			*75-125%*	"							"	
Matrix Spike Dup (10H0091-MSD1)					**QC Source: ATH0061-10**			**Extracted: 08/24/10 10:15**						
Benzene	AK101-MS/E PA 8260B	1.80	---	0.0232	mg/kg dry	1x	ND	0.672	267%	(60-140)	49.7%	(25)	08/24/10 15:18	M7, R2
Toluene	"	1.75	---	0.0580	"	"	0.0197	"	257%	"	47.8%	"	"	M7, R2
Ethylbenzene	"	2.26	---	0.0580	"	"	0.504	"	261%	"	36.6%	"	"	M7, R2
Xylenes (total)	"	8.40	---	0.0869	"	"	2.99	2.02	269%	"	29.3%	"	"	M7, R2
Surrogate(s): Dibromofluoromethane		*Recovery: 115%*			*Limits: 75-125%*	*0.03x*							*08/24/10 15:18*	
a,a,a-TFT		*80.3%*			*50-150%*	*1x*							"	
Toluene-d8		*95.2%*			*75-125%*	*0.03x*							"	
4-BFB		*104%*			*75-125%*	"							"	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

EDB by EPA Method 8011 - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 10H0151 **Soil Preparation Method: EPA 3550B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0151-BLK1)								Extracted: 08/30/10 11:10						
1,2-Dibromoethane	EPA 8011	ND	0.0845	1.00	ug/kg wet	1x	--	--	--	--	--	--	08/30/10 18:28	
1,2-Dibromo-3-chloropropane	"	ND	0.107	1.00	"	"	--	--	--	--	--	--	"	
LCS (10H0151-BS1)								Extracted: 08/30/10 11:10						
1,2-Dibromoethane	EPA 8011	5.14	0.0845	1.00	ug/kg wet	1x	--	5.00	103%	(60-140)	--	--	08/30/10 18:53	
1,2-Dibromo-3-chloropropane	"	4.78	0.107	1.00	"	"	--	"	95.6%	"	--	--	"	
LCS (10H0151-BS2)								Extracted: 08/30/10 11:10						
1,2-Dibromoethane	EPA 8011	5.00	0.0845	1.00	ug/kg wet	1x	--	5.00	100%	(60-140)	--	--	08/30/10 17:39	
1,2-Dibromo-3-chloropropane	"	5.08	0.107	1.00	"	"	--	"	102%	"	--	--	"	
Matrix Spike (10H0151-MS1)					QC Source: ATH0063-09			Extracted: 08/30/10 11:10						
1,2-Dibromoethane	EPA 8011	7.17	0.107	1.26	ug/kg dry	1x	ND	6.31	114%	(60-140)	--	--	08/30/10 19:43	
1,2-Dibromo-3-chloropropane	"	6.17	0.135	1.26	"	"	0.513	"	89.7%	"	--	--	"	
Matrix Spike Dup (10H0151-MSD1)					QC Source: ATH0063-09			Extracted: 08/30/10 11:10						
1,2-Dibromoethane	EPA 8011	7.09	0.107	1.27	ug/kg dry	1x	ND	6.36	112%	(60-140)	1.03%	(20)	08/30/10 20:08	
1,2-Dibromo-3-chloropropane	"	6.08	0.136	1.27	"	"	0.513	"	87.5%	"	1.54%	"	"	

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 10H0156 **Soil Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0156-BLK1)								**Extracted: 08/31/10 09:23**						
Dichlorodifluoromethane	EPA 8260B	ND	---	0.100	mg/kg wet	1x	--	--	--	--	--	--	08/31/10 11:52	
Chloromethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	---	0.00900	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	---	0.0300	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	---	0.0300	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	---	0.0910	"	"	--	--	--	--	--	--	"	
Acetone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	---	0.300	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	---	0.0300	"	"	--	--	--	--	--	--	"	
1,1,1-Trichloroethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
2-Butanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane (EDC)	"	ND	---	0.0150	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	---	0.0270	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	---	0.0170	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	---	0.0300	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	---	0.0170	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	---	0.0200	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
2-Hexanone	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	

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BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 10H0156 **Soil Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H0156-BLK1)								Extracted: 08/31/10 09:23						
1,1,1,2-Tetrachloroethane	EPA 8260B	ND	---	0.100	mg/kg wet	1x	--	--	--	--	--	--	08/31/10 11:52	
m,p-Xylene	"	ND	---	0.400	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	---	0.0170	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
tert-Butylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
sec-Butylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 90.4%*			*Limits: 42.7-151%*	"							*08/31/10 11:52*	
Toluene-d8		*89.0%*			*50.8-132%*	"							"	
4-bromofluorobenzene		*99.8%*			*51-136%*	"							"	

TestAmerica Anchorage

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Johanna Dreher

Johanna L Dreher, Client Services Manager

ANCHORAGE, AK 2000 W. INTERNATIONAL AIRPORT ROAD, SUITE A-10
ANCHORAGE, AK 99502-1119
ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name: **4540 W.50th Ave**	
1042 E 6th Ave	Project Number: 10-059-01	Report Created:
Anchorage, AK 99501	Project Manager: Sean Peterson	12/15/10 09:19

Volatile Organic Compounds by EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Spokane

QC Batch: 10H0156 **Soil Preparation Method: GC/MS Volatiles**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (10H0156-BS1)								**Extracted: 08/31/10 09:23**						
1,1-Dichloroethene	EPA 8260B	0.245	---	0.0300	mg/kg wet	1x	--	0.300	81.6%	(54.2-150)	--	--	08/31/10 12:21	
Benzene	"	0.252	---	0.0200	"	"	--	"	84.0%	(75.8-122)	--	--	"	
Trichloroethene	"	0.264	---	0.0270	"	"	--	"	88.0%	(78-122)	--	--	"	
Toluene	"	0.283	---	0.100	"	"	--	"	94.3%	(80-124)	--	--	"	
Chlorobenzene	"	0.278	---	0.100	"	"	--	"	92.6%	(80-120)	--	--	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 89.6%*			*Limits: 42.7-151%*	"							*08/31/10 12:21*	
Toluene-d8		*95.8%*			*50.8-132%*	"							"	
4-bromofluorobenzene		*102%*			*51-136%*	"							"	
LCS Dup (10H0156-BSD1)								**Extracted: 08/31/10 09:23**						
1,1-Dichloroethene	EPA 8260B	0.236	---	0.0300	mg/kg wet	1x	--	0.300	78.6%	(54.2-150)	3.64%	(25)	08/31/10 12:50	
Benzene	"	0.252	---	0.0200	"	"	--	"	84.2%	(75.8-122)	0.248%	"	"	
Trichloroethene	"	0.262	---	0.0270	"	"	--	"	87.4%	(78-122)	0.713%	"	"	
Toluene	"	0.283	---	0.100	"	"	--	"	94.3%	(80-124)	0.00%	"	"	
Chlorobenzene	"	0.280	---	0.100	"	"	--	"	93.2%	(80-120)	0.673%	"	"	
Surrogate(s): Dibromofluoromethane		*Recovery: 89.4%*			*Limits: 42.7-151%*	"							*08/31/10 12:50*	
Toluene-d8		*95.4%*			*50.8-132%*	"							"	
4-bromofluorobenzene		*103%*			*51-136%*	"							"	

TestAmerica Anchorage

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CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Conventional Chemistry Parameters by APHA/EPA Methods - Laboratory Quality Control Results
TestAmerica Spokane

QC Batch: 10I0009 **Soil Preparation Method: Wet Chem**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10I0009-DUP1)					**QC Source: ATH0063-13**								**Extracted: 08/30/10 14:30**	
% Solids	TA SOP	80.8	---	0.0100	% by Weight	1x	81.1	--	--	--	0.371%	(5)	08/31/10 14:15	

TestAmerica Anchorage

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BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H1001 **Soil Preparation Method: EPA 3050**

Analyte	Method	Result	MDL[A]	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (10H1001-BLK1)								Extracted: 08/31/10 10:16						
Lead	EPA 6020	ND	---	0.476	mg/kg wet	1x	--	--	--	--	--	--	08/31/10 21:34	
LCS (10H1001-BS1)								Extracted: 08/31/10 10:16						
Lead	EPA 6020	51.6	---	0.476	mg/kg wet	1x	--	47.6	108%	(80-120)	--	--	08/31/10 21:38	
Matrix Spike (10H1001-MS1)				QC Source: ATH0063-01				Extracted: 08/31/10 10:16						
Lead	EPA 6020	60.1	---	0.532	mg/kg dry	1x	3.41	53.2	106%	(75-125)	--	--	08/31/10 21:50	
Matrix Spike Dup (10H1001-MSD1)				QC Source: ATH0063-01				Extracted: 08/31/10 10:16						
Lead	EPA 6020	69.4	---	0.532	mg/kg dry	1x	3.41	53.2	124%	(75-125)	14.5%	(40)	08/31/10 21:54	

TestAmerica Anchorage

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BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Percent Dry Weight (Solids) per ASTM D2216-80 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 10H0881 **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (10H0881-DUP1)					**QC Source: ATH0063-01**				**Extracted: 08/26/10 14:50**					
% Solids	ASTM D2216-80	94.2	---	0.0100	% by Weight	1x	93.9	--	--	--	0.271%	(20)	08/27/10 07:10	
Duplicate (10H0881-DUP2)					**QC Source: ATH0063-02**				**Extracted: 08/26/10 14:50**					
% Solids	ASTM D2216-80	94.8	---	0.0100	% by Weight	1x	94.8	--	--	--	0.0635%	(20)	08/27/10 07:10	

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ph: (907) 563.9200 fax: (907) 563.9210
CS Approval Number: UST-067

BGES, INC.	Project Name:	**4540 W.50th Ave**	
1042 E 6th Ave	Project Number:	10-059-01	Report Created:
Anchorage, AK 99501	Project Manager:	Sean Peterson	12/15/10 09:19

Notes and Definitions

Report Specific Notes:

J	-	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
L	-	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	-	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
M7	-	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
QP	-	Hydrocarbon result partly due to individual peak(s) in quantitation range.
R1	-	The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000B, the higher value was reported.
R2	-	The RPD exceeded the acceptance limit.
RL7	-	Sample required dilution due to high concentrations of target analyte.
Z5	-	Due to sample matrix effects, the surrogate recovery was outside acceptance limits. Secondary surrogate recovery was within the acceptance limits.
ZX	-	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Laboratory Reporting Conventions:

DET	-	Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
ND	-	Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
NR/NA	-	Not Reported / Not Available
dry	-	Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
wet	-	Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
RPD	-	RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
MRL	-	METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
MDL*	-	METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
Dil	-	Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
Reporting Limits	-	Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
Electronic Signature	-	Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Anchorage

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11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: ATH1063

CLIENT: BGES

REPORT TO: 1042 E. 6TH AVE
ADDRESS: S. PETERSON

PHONE: 644-2900 FAX: SEAN@BGESINC.COM

PROJECT NAME: 4540 W. 50TH AVE

PROJECT NUMBER: 10-059-01

SAMPLED BY: S. PETERSON

INVOICE TO: BGES

P.O. NUMBER:

TURNAROUND REQUEST in Business Days *

Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [5] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE: None | None

REQUESTED ANALYSES: DRO/RRO | GRO/BTEX | EDB | NAPHTHALENE | LEAD | 1,2-DICHLOROETHANE

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	DRO/RRO	GRO/BTEX	EDB	NAPHTHALENE	LEAD	1,2-DICHLOROETHANE	MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1 SB1-1-0820	8/20/10 0938	X	X			X		S	6		01
2 SB1-2-0820	0943	X	X			X		S	6		02
3 SB1-3-0820	1001	X	X			X		S	6		03
4 SB1-4-0820	1039	X	X			X		S	6		04
5 SB2-1-0820	1047	X	X			X		S	6		05
6 SB2-2-0820	1109	X	X			X		S	6		06
7 SB2-3-0820	1139	X	X			X		S	6		07
8 SB2-4-0820	1210	X	X			X		S	6		08
9 SB2-5-0820	1555	X	X	X	X	X	X	S	6		09
10 SB1-5-0823	8/23/10 1014	X	X			X		S	6		10

RELEASED BY: PRINT NAME: SEAN PETERSON FIRM: BGES DATE: 8/23/10 TIME: 1109

RECEIVED BY: PRINT NAME: Robert Tin FIRM: TA-AK DATE: 8/23/10 TIME: 11:09

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS: DRO/RRO VIA AK 102/103; GRO/BTEX VIA AK101/8260 OR 8021B; LEAD VIA 6020; NAPHTHALENE VIA 8270SIM; EDB VIA 8011; + 1,2-DICHLOROETHANE (DCA) VIA 8260.

TEMP: TB 0.7°

TAL-1000(0408)

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2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: BGES

INVOICE TO: BGES

REPORT TO: 1042 E. 6TH AVE
ADDRESS: S. PETERSON

PHONE: 644-2900 FAX: SEAN@BGESINC.COM

P.O. NUMBER:

PROJECT NAME: 4540 W. 50TH AVE

PROJECT NUMBER: 10-059-01

SAMPLED BY: S. PETERSON

TURNAROUND REQUEST

in Business Days *

Organic & Inorganic Analyses: [X] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [X] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* *Turnaround Requests less than standard may incur Rush Charges.*

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE	REQUESTED ANALYSES: 8260/8260	1,2 Dichloroethane	DRO/RRO	NAPHTHALENE	LEAD	EDB							MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
1	TRIP BLANK			X	X														11,12
2	SB2-6-0820	8/2/10 1600		X	X	X	X	X	X							S	6		13
3																			
4																			
5																			
6																			
8																			
9																			
10																			

RELEASED BY:		DATE: 8/23/10	RECEIVED BY: Robert Tsin		DATE: 8/23/10
PRINT NAME: SEAN PETERSON	FIRM: BGES	TIME: 1109	PRINT NAME: Robert Tsin	FIRM: TA-AK	TIME: 11:09
RELEASED BY:		DATE:	RECEIVED BY:		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:

ADDITIONAL REMARKS:

TEMP: TB: 0.7°C

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ATH0063 CLIENT: BGES PROJECT: 4540 W. 50th Ave

Date /Time Cooler Arrived 8 / 23 / 16 11 : 09 Cooler signed for by: Robert Tsin
(Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received *or* ___/___/___

Cooler opened by (print) Robert Tsin (sign) Robert Tsin

1. Delivered by ☐ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☒ CLIENT ☐ Other: ____

Shipment Tracking # if applicable ____ (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ____ Date ___/___/___

Were custody seals unbroken and intact on arrival?	☐ Yes	☐ No
3. Were custody papers sealed in a plastic bag?	☒ Yes	☐ No
4. Were custody papers filled out properly (ink, signed, etc.)?	☒ Yes	☐ No
5. Did you sign the custody papers in the appropriate place?	☒ Yes	☐ No

6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☒ gel ice ☐ real ice ☐ dry ice Condition of Ice: ____

Temperature by Digi-Thermo Probe 0.7 °C Thermometer # 5
Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: ☐ bubble wrap ☐ styrofoam ☒ cardboard ☐ Other: ____

8. Did samples arrive in plastic bags?	☐ Yes	☒ No	
9. Did all bottles arrive unbroken, and with labels in good condition?	☒ Yes	☐ No	
10. Are all bottle labels complete (ID, date, time, etc.)	☒ Yes	☐ No	
11. Do bottle labels and Chain of Custody agree?	☒ Yes	☐ No	
12. Are the containers and preservatives correct for the tests indicated?	☒ Yes	☐ No	
13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2?	☐ Yes	☐ No	☒ N/A
14. Is there adequate volume for the tests requested?	☒ Yes	☐ No	
15. Were VOA vials free of bubbles? ☒ N/A	☐ Yes	☐ No	

If "NO" which containers contained "head space" or bubbles? ____

Log-in Phase:

Date of sample log-in 8 / 23 / 16

Samples logged in by (print) Robert Tsin (sign) Robert Tsin

1. Was project identifiable from custody papers?	☒ Yes	☐ No
2. Do Turn Around Times and Due Dates agree?	☒ Yes	☐ No
3. Was the Project Manager notified of status?	☒ Yes	☐ No
4. Was the Lab notified of status?	☒ Yes	☐ No
5. Was the COC scanned and copied?	☒ Yes	☐ No

Detection Summary

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

4

Client Sample ID: MW3-0826 — Lab Sample ID: ATH0076-01

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	5510	RL7	50.0		ug/l	100		AK101/EPA 8021B	total
Xylenes (total)	28500	RL7	150		ug/l	100		AK101/EPA 8021B	total
Benzene - RE1	115000	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Ethylbenzene - RE1	4360	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Gasoline Range Organics - RE1	535000	RL7	50000		ug/l	1000		AK101/EPA 8021B	total
Toluene - RE1	104000	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Xylenes (total) - RE1	29000	RL7	1500		ug/l	1000		AK101/EPA 8021B	total
Lead	0.0380		0.00500		mg/l	5		EPA 6020	total
1,2-Dibromoethane	0.150		0.0100		ug/l	1		EPA 8011	total

Client Sample ID: MW4-0826 — Lab Sample ID: ATH0076-02

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	8790	RL7	50.0		ug/l	100		AK101/EPA 8021B	total
Xylenes (total)	44200	RL7	150		ug/l	100		AK101/EPA 8021B	total
Benzene - RE1	64500	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Ethylbenzene - RE1	7810	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Gasoline Range Organics - RE1	523000	RL7	50000		ug/l	1000		AK101/EPA 8021B	total
Toluene - RE1	122000	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Xylenes (total) - RE1	45400	RL7	1500		ug/l	1000		AK101/EPA 8021B	total

Client Sample ID: MW5-0826 — Lab Sample ID: ATH0076-03

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	5460	RL7	50.0		ug/l	100		AK101/EPA 8021B	total
Xylenes (total)	28100	RL7	150		ug/l	100		AK101/EPA 8021B	total
Benzene - RE1	118000	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Ethylbenzene - RE1	5300	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Gasoline Range Organics - RE1	570000	RL7	50000		ug/l	1000		AK101/EPA 8021B	total
Toluene - RE1	110000	RL7	500		ug/l	1000		AK101/EPA 8021B	total
Xylenes (total) - RE1	33200	RL7	1500		ug/l	1000		AK101/EPA 8021B	total
Lead	0.0300		0.00500		mg/l	5		EPA 6020	total
1,2-Dibromoethane	0.153		0.0100		ug/l	1		EPA 8011	total

Client Sample ID: Trip Blank — Lab Sample ID: ATH0076-04

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: ATH0076-05

No Detections.

Client Sample ID: Trip Blank — Lab Sample ID: ATH0076-06

No Detections.

5

Client Sample ID: MW3-0826

Date Collected: 08/26/10 12:20
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-01

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND	RL3	100		ug/l		08/27/10 14:41	08/27/10 19:41	100
Naphthalene	ND	RL3	200		ug/l		08/27/10 14:41	08/27/10 19:41	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*83.6*	*RL3*	*62.2 - 128*	*08/27/10 14:41*	*08/27/10 19:41*	*100*
Toluene-d8	*89.2*	*RL3*	*67.8 - 120*	*08/27/10 14:41*	*08/27/10 19:41*	*100*
4-bromofluorobenzene	*91.6*	*RL3*	*77.3 - 129*	*08/27/10 14:41*	*08/27/10 19:41*	*100*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	5510	RL7	50.0		ug/l		08/31/10 08:32	09/01/10 02:52	100
Xylenes (total)	28500	RL7	150		ug/l		08/31/10 08:32	09/01/10 02:52	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*108*		*50 - 150*	*08/31/10 08:32*	*09/01/10 02:52*	*100*
4-BFB (PID)	*107*		*50 - 150*	*08/31/10 08:32*	*09/01/10 02:52*	*100*
a,a,a-TFT (FID)	*105*	*L1*	*50 - 150*	*08/31/10 08:32*	*09/01/10 02:52*	*100*
a,a,a-TFT (PID)	*104*		*50 - 150*	*08/31/10 08:32*	*09/01/10 02:52*	*100*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	535000	RL7	50000		ug/l		09/03/10 16:37	09/06/10 11:42	1000
Benzene	115000	RL7	500		ug/l		09/03/10 16:37	09/06/10 11:42	1000
Toluene	104000	RL7	500		ug/l		09/03/10 16:37	09/06/10 11:42	1000
Ethylbenzene	4360	RL7	500		ug/l		09/03/10 16:37	09/06/10 11:42	1000
Xylenes (total)	29000	RL7	1500		ug/l		09/03/10 16:37	09/06/10 11:42	1000

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*80.4*		*50 - 150*	*09/03/10 16:37*	*09/06/10 11:42*	*1000*
4-BFB (PID)	*82.4*		*50 - 150*	*09/03/10 16:37*	*09/06/10 11:42*	*1000*
a,a,a-TFT (FID)	*102*		*50 - 150*	*09/03/10 16:37*	*09/06/10 11:42*	*1000*
a,a,a-TFT (PID)	*104*		*50 - 150*	*09/03/10 16:37*	*09/06/10 11:42*	*1000*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.150		0.0100		ug/l		08/30/10 08:15	08/30/10 15:32	1

Method: EPA 6020 - Total Metals per EPA 6000/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0380		0.00500		mg/l		09/02/10 08:00	09/03/10 14:58	5

Client Sample ID: MW4-0826

Date Collected: 08/26/10 13:28
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-02

Matrix: Water

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	8790	RL7	50.0		ug/l		08/31/10 08:32	09/01/10 03:17	100
Xylenes (total)	44200	RL7	150		ug/l		08/31/10 08:32	09/01/10 03:17	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*109*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:17*	*100*
4-BFB (PID)	*108*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:17*	*100*

Client Sample ID: MW4-0826

Date Collected: 08/26/10 13:28
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-02

Matrix: Water

5

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-TFT (FID)	*110*	*L1*	*50 - 150*	*08/31/10 08:32*	*09/01/10 03:17*	*100*
a,a,a-TFT (PID)	*105*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:17*	*100*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	523000	RL7	50000		ug/l		09/03/10 16:37	09/06/10 12:07	1000
Benzene	64500	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:07	1000
Toluene	122000	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:07	1000
Ethylbenzene	7810	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:07	1000
Xylenes (total)	45400	RL7	1500		ug/l		09/03/10 16:37	09/06/10 12:07	1000

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*80.7*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:07*	*1000*
4-BFB (PID)	*82.8*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:07*	*1000*
a,a,a-TFT (FID)	*106*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:07*	*1000*
a,a,a-TFT (PID)	*106*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:07*	*1000*

Method: EPA 6020 - Total Metals per EPA 6000/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND	RL1	0.00500		mg/l		09/01/10 07:40	09/01/10 17:57	5

Client Sample ID: MW5-0826

Date Collected: 08/26/10 12:25
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-03

Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane (EDC)	ND	RL3	100		ug/l		08/27/10 14:41	08/27/10 20:09	100
Naphthalene	ND	RL3	200		ug/l		08/27/10 14:41	08/27/10 20:09	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*86.6*	*RL3*	*62.2 - 128*	*08/27/10 14:41*	*08/27/10 20:09*	*100*
Toluene-d8	*90.2*	*RL3*	*67.8 - 120*	*08/27/10 14:41*	*08/27/10 20:09*	*100*
4-bromofluorobenzene	*93.0*	*RL3*	*77.3 - 129*	*08/27/10 14:41*	*08/27/10 20:09*	*100*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	5460	RL7	50.0		ug/l		08/31/10 08:32	09/01/10 03:42	100
Xylenes (total)	28100	RL7	150		ug/l		08/31/10 08:32	09/01/10 03:42	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*105*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:42*	*100*
4-BFB (PID)	*105*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:42*	*100*
a,a,a-TFT (FID)	*101*	*L1*	*50 - 150*	*08/31/10 08:32*	*09/01/10 03:42*	*100*
a,a,a-TFT (PID)	*101*		*50 - 150*	*08/31/10 08:32*	*09/01/10 03:42*	*100*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	570000	RL7	50000		ug/l		09/03/10 16:37	09/06/10 12:31	1000
Benzene	118000	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:31	1000
Toluene	110000	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:31	1000
Ethylbenzene	5300	RL7	500		ug/l		09/03/10 16:37	09/06/10 12:31	1000

Client Sample ID: MW5-0826
Date Collected: 08/26/10 12:25
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-03
Matrix: Water

5

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes (total)	33200	RL7	1500		ug/l		09/03/10 16:37	09/06/10 12:31	1000

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*78.7*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:31*	*1000*
4-BFB (PID)	*80.7*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:31*	*1000*
a,a,a-TFT (FID)	*104*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:31*	*1000*
a,a,a-TFT (PID)	*105*		*50 - 150*	*09/03/10 16:37*	*09/06/10 12:31*	*1000*

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.153		0.0100		ug/l		08/30/10 08:15	08/30/10 15:56	1

Method: EPA 6020 - Total Metals per EPA 6000/7000 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0300		0.00500		mg/l		09/02/10 08:00	09/03/10 15:02	5

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-04
Matrix: Water

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/03/10 16:37	09/06/10 12:56	1

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/08/10 09:55	09/08/10 15:42	1
Benzene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 15:42	1
Toluene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 15:42	1
Ethylbenzene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 15:42	1
Xylenes (total)	ND		1.50		ug/l		09/08/10 09:55	09/08/10 15:42	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*75.4*		*50 - 150*	*09/08/10 09:55*	*09/08/10 15:42*	*1*
4-BFB (PID)	*76.8*		*50 - 150*	*09/08/10 09:55*	*09/08/10 15:42*	*1*
a,a,a-TFT (FID)	*112*		*50 - 150*	*09/08/10 09:55*	*09/08/10 15:42*	*1*
a,a,a-TFT (PID)	*110*		*50 - 150*	*09/08/10 09:55*	*09/08/10 15:42*	*1*

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-05
Matrix: Water

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Chloromethane	ND		3.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Vinyl chloride	ND		0.200		ug/l		08/27/10 14:41	08/27/10 16:25	1
Bromomethane	ND		5.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Chloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Trichlorofluoromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Carbon disulfide	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-05
Matrix: Water

5

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene chloride	ND		10.0		ug/l		08/27/10 14:41	08/27/10 16:25	1
Acetone	ND		25.0		ug/l		08/27/10 14:41	08/27/10 16:25	1
trans-1,2-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Methyl tert-butyl ether	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1-Dichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
cis-1,2-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
2,2-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Bromochloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Chloroform	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Carbon tetrachloride	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1,1-Trichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
2-Butanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Benzene	ND	B	0.200		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Trichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Dibromomethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Bromodichloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
cis-1,3-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Toluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
4-Methyl-2-pentanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 16:25	1
trans-1,3-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Tetrachloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1,2-Trichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Dibromochloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,3-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2-Dibromoethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
2-Hexanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 16:25	1
Ethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Chlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
m,p-Xylene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
o-Xylene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Styrene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Bromoform	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Isopropylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
n-Propylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Bromobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,3,5-Trimethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
2-Chlorotoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2,3-Trichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
4-Chlorotoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
tert-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2,4-Trimethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
sec-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
p-Isopropyltoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,3-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,4-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Anchorage
2000 West International Airport Road Suite A10
Anchorage, AK 99502-1119
Tel: (907) 563-9200

TestAmerica Job ID: ATH0076
TestAmerica Sample Delivery Group: ATH0076
Client Project/Site: [none]
Client Project Description: 4540 W.50th Ave

For:
BGES, INC.
1042 E 6th Ave
Anchorage, AK 99501

Attn: Sean Peterson

Johanna Dreher

Authorized for release by:
9/17/2010 7:27 PM

Johanna L Dreher
Client Services Manager
johanna.dreher@testamericainc.com

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

Table of Contents

Qualifier Definition/Glossary

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
B	Analyte was detected in the associated Method Blank.
RL3	Reporting limit raised due to high concentrations of non-target analytes.

GC Volatiles

Qualifier	Qualifier Description
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
R2	The RPD exceeded the acceptance limit.
RL7	Sample required dilution due to high concentrations of target analyte.
Z6	Surrogate recovery was below acceptance limits.

Metals

Qualifier	Qualifier Description
RL1	Reporting limit raised due to sample matrix effects.

Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-05
Matrix: Water

5

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Hexachlorobutadiene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2,4-Trichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
Naphthalene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 16:25	1
1,2,3-Trichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 16:25	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*82.8*		*62.2 - 128*	*08/27/10 14:41*	*08/27/10 16:25*	*1*
Toluene-d8	*93.4*		*67.8 - 120*	*08/27/10 14:41*	*08/27/10 16:25*	*1*
4-bromofluorobenzene	*99.4*		*77.3 - 129*	*08/27/10 14:41*	*08/27/10 16:25*	*1*

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-06
Matrix: Water

Method: EPA 8011 - EDB by EPA Method 8011

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		08/30/10 08:15	08/30/10 16:21	1

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(62.2-128)	(67.8-120)	(77.3-129)
10H0146-BLK1	10H0146-BLK1	85.6	88.4	88.6
10H0146-BS1	10H0146-BS1	83.8	88.2	86.4
10H0146-MS1	STH0136-02	83.4	93.0	109
10H0146-MSD1	STH0136-02	85.6	89.8	94.0
ATH0076-01	MW3-0826	83.6 RL3	89.2 RL3	91.6 RL3
ATH0076-03	MW5-0826	86.6 RL3	90.2 RL3	93.0 RL3
ATH0076-05	Trip Blank	82.8	93.4	99.4

Surrogate Legend

DBFM = Dibromofluoromethane

TOL = Toluene-d8

BFB = 4-bromofluorobenzene

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)			
		4-BFB (FID)	4-BFB (PID)	TFT(FID)	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)
10H0126-BLK1	10H0126-BLK1	119	117	117 L1	114
10H0126-DUP1	ATH0064-03	113	111	111 L	109
10I0014-BLK1	10I0014-BLK1	84.8	86.6	108	108
10I0014-DUP1	ATH0091-01	79.0	80.7	107	107
10I0014-MS1	ATH0091-02	85.3	87.5	108	108
10I0014-MS2	ATI0011-03	80.0	82.3	107	107
10I0014-MSD1	ATH0091-02	78.9	81.3	105	106
10I0014-MSD2	ATI0011-03	83.2	85.3	108	109
10I0032-BLK1	10I0032-BLK1	74.4	75.9	103	102
10I0032-DUP1	ATI0010-02	40.1 Z6	41.4 Z6	63.4	63.5
ATH0076-01	MW3-0826	108	107	105 L1	104
ATH0076-01 - RE1	MW3-0826	80.4	82.4	102	104
ATH0076-02	MW4-0826	109	108	110 L1	105
ATH0076-02 - RE1	MW4-0826	80.7	82.8	106	106
ATH0076-03	MW5-0826	105	105	101 L1	101
ATH0076-03 - RE1	MW5-0826	78.7	80.7	104	105
ATH0076-04 - RE1	Trip Blank	75.4	76.8	112	110

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)

4-BFB (PID) = 4-BFB (PID)

TFT(FID) = a,a,a-TFT (FID)

a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)	
		4-BFB (PID)	a,a-TFT (PI
Lab Sample ID	Client Sample ID	(60-120)	(60-120)
10H0126-BS1	10H0126-BS1	116	119
10H0126-BSD1	10H0126-BSD1	105	107
10I0032-BS1	10I0032-BS1	63.7	89.9

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	4-BFB (PID) (60-120)	a,a-TFT (PI (60-120)
10I0032-BSD1	10I0032-BSD1	70.7	101

Surrogate Legend

4-BFB (PID) = 4-BFB (PID)

a,a,a-TFT (PID) = a,a,a-TFT (PID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	4-BFB (FID) (60-120)	TFT(FID) (60-120)
10H0126-BS2	10H0126-BS2	109	121 L1
10H0126-BSD2	10H0126-BSD2	113	125 L1
10I0032-BS2	10I0032-BS2	69.3	106
10I0032-BSD2	10I0032-BSD2	70.5	106

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)

TFT(FID) = a,a,a-TFT (FID)

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Matrix: Water

Prep Type: total

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	4-BFB (FID) (60-120)	4-BFB (PID) (60-120)	TFT(FID) (60-120)	a,a-TFT (PI (60-120)
10I0014-BS1	10I0014-BS1	79.3	81.8	99.2	99.7
10I0014-BS2	10I0014-BS2	81.4	82.9	111	106
10I0014-BSD1	10I0014-BSD1	82.2	84.7	104	105
10I0014-BSD2	10I0014-BSD2	84.3	85.6	116	110

Surrogate Legend

4-BFB (FID) = 4-BFB (FID)

4-BFB (PID) = 4-BFB (PID)

TFT(FID) = a,a,a-TFT (FID)

a,a,a-TFT (PID) = a,a,a-TFT (PID)

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 10H0146-BLK1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: 10H0146-BLK1
Prep Type: total
Prep Batch: 10H0146_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Chloromethane	ND		3.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Vinyl chloride	ND		0.200		ug/l		08/27/10 14:41	08/27/10 18:45	1
Bromomethane	ND		5.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Chloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Trichlorofluoromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Carbon disulfide	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Methylene chloride	ND		10.0		ug/l		08/27/10 14:41	08/27/10 18:45	1
Acetone	ND		25.0		ug/l		08/27/10 14:41	08/27/10 18:45	1
trans-1,2-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Methyl tert-butyl ether	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1-Dichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
cis-1,2-Dichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
2,2-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Bromochloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Chloroform	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Carbon tetrachloride	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1,1-Trichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
2-Butanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Benzene	0.280	B	0.200		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2-Dichloroethane (EDC)	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Trichloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Dibromomethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Bromodichloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
cis-1,3-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Toluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
4-Methyl-2-pentanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 18:45	1
trans-1,3-Dichloropropene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Tetrachloroethene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1,2-Trichloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Dibromochloromethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,3-Dichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2-Dibromoethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
2-Hexanone	ND		10.0		ug/l		08/27/10 14:41	08/27/10 18:45	1
Ethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Chlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1,1,2-Tetrachloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
m,p-Xylene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
o-Xylene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Styrene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Bromoform	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Isopropylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
n-Propylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,1,2,2-Tetrachloroethane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Bromobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,3,5-Trimethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 10H0146-BLK1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: 10H0146-BLK1
Prep Type: total
Prep Batch: 10H0146_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2,3-Trichloropropane	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
4-Chlorotoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
tert-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2,4-Trimethylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
sec-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
p-Isopropyltoluene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,3-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,4-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
n-Butylbenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2-Dichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2-Dibromo-3-chloropropane	ND		5.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Hexachlorobutadiene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2,4-Trichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
Naphthalene	ND		2.00		ug/l		08/27/10 14:41	08/27/10 18:45	1
1,2,3-Trichlorobenzene	ND		1.00		ug/l		08/27/10 14:41	08/27/10 18:45	1

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*85.6*		*62.2 - 128*	*08/27/10 14:41*	*08/27/10 18:45*	*1*
Toluene-d8	*88.4*		*67.8 - 120*	*08/27/10 14:41*	*08/27/10 18:45*	*1*
4-bromofluorobenzene	*88.6*		*77.3 - 129*	*08/27/10 14:41*	*08/27/10 18:45*	*1*

Lab Sample ID: 10H0146-BS1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: 10H0146-BS1
Prep Type: total
Prep Batch: 10H0146_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene	10.0	9.99		ug/l		99.9	60.4 - 140
Benzene	10.0	10.2		ug/l		102	72.9 - 120
Trichloroethene	10.0	10.4		ug/l		104	73.7 - 120
Toluene	10.0	11.5		ug/l		115	72.4 - 132
Chlorobenzene	10.0	10.0		ug/l		100	80 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*83.8*		*62.2 - 128*
Toluene-d8	*88.2*		*67.8 - 120*
4-bromofluorobenzene	*86.4*		*77.3 - 129*

Lab Sample ID: 10H0146-MS1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: STH0136-02
Prep Type: total
Prep Batch: 10H0146_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
1,1-Dichloroethene			10.0	9.22		ug/l		92.2	52.5 - 135
Benzene			10.0	9.32		ug/l		93.2	72.3 - 120
Trichloroethene			10.0	9.58		ug/l		95.8	80 - 120
Toluene			10.0	10.6		ug/l		104	62.7 - 137
Chlorobenzene			10.0	9.21		ug/l		92.1	78.9 - 120

Method: EPA 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 10H0146-MS1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: STH0136-02
Prep Type: total
Prep Batch: 10H0146_P

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
Dibromofluoromethane	*83.4*		*62.2 - 128*
Toluene-d8	*93.0*		*67.8 - 120*
4-bromofluorobenzene	*109*		*77.3 - 129*

Lab Sample ID: 10H0146-MSD1
Matrix: Water
Analysis Batch: 10H0146

Client Sample ID: STH0136-02
Prep Type: total
Prep Batch: 10H0146_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene			10.0	9.68		ug/l		96.8	52.5 - 135	4.87	10.5
Benzene			10.0	9.88		ug/l		98.8	72.3 - 120	5.83	10.7
Trichloroethene			10.0	10.1		ug/l		101	80 - 120	5.68	10
Toluene			10.0	11.0		ug/l		109	62.7 - 137	3.99	13
Chlorobenzene			10.0	9.92		ug/l		99.2	78.9 - 120	7.42	11.2

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
Dibromofluoromethane	*85.6*		*62.2 - 128*
Toluene-d8	*89.8*		*67.8 - 120*
4-bromofluorobenzene	*94.0*		*77.3 - 129*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101

Lab Sample ID: 10H0126-BLK1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BLK1
Prep Type: total
Prep Batch: 10H0126_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		08/31/10 08:32	08/31/10 17:04	1
Benzene	ND		0.500		ug/l		08/31/10 08:32	08/31/10 17:04	1
Toluene	ND		0.500		ug/l		08/31/10 08:32	08/31/10 17:04	1
Ethylbenzene	ND		0.500		ug/l		08/31/10 08:32	08/31/10 17:04	1
Xylenes (total)	ND		1.50		ug/l		08/31/10 08:32	08/31/10 17:04	1

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*119*		*50 - 150*	*08/31/10 08:32*	*08/31/10 17:04*	*1*
4-BFB (PID)	*117*		*50 - 150*	*08/31/10 08:32*	*08/31/10 17:04*	*1*
a,a,a-TFT (FID)	*117*	*L1*	*50 - 150*	*08/31/10 08:32*	*08/31/10 17:04*	*1*
a,a,a-TFT (PID)	*114*		*50 - 150*	*08/31/10 08:32*	*08/31/10 17:04*	*1*

Lab Sample ID: 10H0126-BS1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BS1
Prep Type: total
Prep Batch: 10H0126_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	20.0	23.3		ug/l		116	70 - 130
Toluene	20.0	21.6		ug/l		108	70 - 130
Ethylbenzene	20.0	23.6		ug/l		118	70 - 130
Xylenes (total)	60.0	71.9		ug/l		120	70 - 130

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10H0126-BS1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BS1
Prep Type: total
Prep Batch: 10H0126_P

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*116*		*60 - 120*
a,a,a-TFT (PID)	*119*		*60 - 120*

Lab Sample ID: 10H0126-BS2
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BS2
Prep Type: total
Prep Batch: 10H0126_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Organics			500	594		ug/l		119	60 - 120		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*109*		*60 - 120*
a,a,a-TFT (FID)	*121*	*L1*	*60 - 120*

Lab Sample ID: 10H0126-BSD1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BSD1
Prep Type: total
Prep Batch: 10H0126_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	21.1		ug/l		106	70 - 130	9.74	20
Toluene			20.0	19.6		ug/l		98.0	70 - 130	9.86	20
Ethylbenzene			20.0	21.3		ug/l		107	70 - 130	9.98	20
Xylenes (total)			60.0	64.9		ug/l		108	70 - 130	10.2	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*105*		*60 - 120*
a,a,a-TFT (PID)	*107*		*60 - 120*

Lab Sample ID: 10H0126-BSD2
Matrix: Water
Analysis Batch: T000441

Client Sample ID: 10H0126-BSD2
Prep Type: total
Prep Batch: 10H0126_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			500	588		ug/l		118	60 - 120	0.963	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*113*		*60 - 120*
a,a,a-TFT (FID)	*125*	*L1*	*60 - 120*

Lab Sample ID: 10H0126-DUP1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: ATH0064-03
Prep Type: total
Prep Batch: 10H0126_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	933			947		ug/l				1.44	35
Benzene	0.218			0.217		ug/l				0.460	200
Toluene	0.756			0.813		ug/l				7.27	200
Ethylbenzene	33.6			34.2		ug/l				1.65	200
Xylenes (total)	120			122		ug/l				1.68	200

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10H0126-DUP1
Matrix: Water
Analysis Batch: T000441

Client Sample ID: ATH0064-03
Prep Type: total
Prep Batch: 10H0126_P

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*113*		*50 - 150*
4-BFB (PID)	*111*		*50 - 150*
a,a,a-TFT (FID)	*111*	*L*	*50 - 150*
a,a,a-TFT (PID)	*109*		*50 - 150*

Lab Sample ID: 10I0014-BLK1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: 10I0014-BLK1
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/03/10 16:37	09/06/10 10:52	1
Benzene	ND		0.500		ug/l		09/03/10 16:37	09/06/10 10:52	1
Toluene	ND		0.500		ug/l		09/03/10 16:37	09/06/10 10:52	1
Ethylbenzene	ND		0.500		ug/l		09/03/10 16:37	09/06/10 10:52	1
Xylenes (total)	ND		1.50		ug/l		09/03/10 16:37	09/06/10 10:52	1

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*84.8*		*50 - 150*	*09/03/10 16:37*	*09/06/10 10:52*	*1*
4-BFB (PID)	*86.6*		*50 - 150*	*09/03/10 16:37*	*09/06/10 10:52*	*1*
a,a,a-TFT (FID)	*108*		*50 - 150*	*09/03/10 16:37*	*09/06/10 10:52*	*1*
a,a,a-TFT (PID)	*108*		*50 - 150*	*09/03/10 16:37*	*09/06/10 10:52*	*1*

Lab Sample ID: 10I0014-BS1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: 10I0014-BS1
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	20.0	19.9		ug/l		99.6	70 - 130
Toluene	20.0	20.2		ug/l		101	70 - 130
Ethylbenzene	20.0	20.0		ug/l		100	70 - 130
Xylenes (total)	60.0	62.0		ug/l		103	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*79.3*		*60 - 120*
4-BFB (PID)	*81.8*		*60 - 120*
a,a,a-TFT (FID)	*99.2*		*60 - 120*
a,a,a-TFT (PID)	*99.7*		*60 - 120*

Lab Sample ID: 10I0014-BS2
Matrix: Water
Analysis Batch: T000457

Client Sample ID: 10I0014-BS2
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Gasoline Range Organics	550	498		ug/l		90.6	60 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*81.4*		*60 - 120*
4-BFB (PID)	*82.9*		*60 - 120*
a,a,a-TFT (FID)	*111*		*60 - 120*
a,a,a-TFT (PID)	*106*		*60 - 120*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10I0014-BSD1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: 10I0014-BSD1
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	20.0	20.7		ug/l		103	70 - 130	3.64	20
Toluene	20.0	20.8		ug/l		104	70 - 130	2.84	20
Ethylbenzene	20.0	20.7		ug/l		103	70 - 130	3.08	20
Xylenes (total)	60.0	63.8		ug/l		106	70 - 130	2.82	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*82.2*		*60 - 120*
4-BFB (PID)	*84.7*		*60 - 120*
a,a,a-TFT (FID)	*104*		*60 - 120*
a,a,a-TFT (PID)	*105*		*60 - 120*

Lab Sample ID: 10I0014-BSD2
Matrix: Water
Analysis Batch: T000457

Client Sample ID: 10I0014-BSD2
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics	550	508		ug/l		92.3	60 - 120	1.88	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*84.3*		*60 - 120*
4-BFB (PID)	*85.6*		*60 - 120*
a,a,a-TFT (FID)	*116*		*60 - 120*
a,a,a-TFT (PID)	*110*		*60 - 120*

Lab Sample ID: 10I0014-MS1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATH0091-02
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	ND		20.0	22.2		ug/l		111	60 - 140
Toluene	ND		20.0	21.9		ug/l		110	60 - 140
Ethylbenzene	ND		20.0	21.5		ug/l		107	60 - 140
Xylenes (total)	ND		60.0	65.1		ug/l		109	60 - 140

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (FID)	*85.3*		*50 - 150*
4-BFB (PID)	*87.5*		*50 - 150*
a,a,a-TFT (FID)	*108*		*50 - 150*
a,a,a-TFT (PID)	*108*		*50 - 150*

Lab Sample ID: 10I0014-MS2
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATI0011-03
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	ND		20.0	21.4		ug/l		107	60 - 140
Toluene	ND		20.0	21.5		ug/l		107	60 - 140
Ethylbenzene	ND		20.0	21.0		ug/l		105	60 - 140
Xylenes (total)	ND		60.0	64.1		ug/l		107	60 - 140

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10I0014-MS2
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATI0011-03
Prep Type: total
Prep Batch: 10I0014_P

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (FID)	*80.0*		*50 - 150*
4-BFB (PID)	*82.3*		*50 - 150*
a,a,a-TFT (FID)	*107*		*50 - 150*
a,a,a-TFT (PID)	*107*		*50 - 150*

Lab Sample ID: 10I0014-MSD1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATH0091-02
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	ND		20.0	21.6		ug/l		108	60 - 140	2.49	25
Toluene	ND		20.0	21.3		ug/l		106	60 - 140	3.05	25
Ethylbenzene	ND		20.0	20.8		ug/l		104	60 - 140	3.34	25
Xylenes (total)	ND		60.0	62.8		ug/l		105	60 - 140	3.65	25

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (FID)	*78.9*		*50 - 150*
4-BFB (PID)	*81.3*		*50 - 150*
a,a,a-TFT (FID)	*105*		*50 - 150*
a,a,a-TFT (PID)	*106*		*50 - 150*

Lab Sample ID: 10I0014-MSD2
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATI0011-03
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	ND		20.0	21.6		ug/l		108	60 - 140	0.614	25
Toluene	ND		20.0	21.7		ug/l		108	60 - 140	0.829	25
Ethylbenzene	ND		20.0	21.3		ug/l		106	60 - 140	1.28	25
Xylenes (total)	ND		60.0	65.2		ug/l		109	60 - 140	1.67	25

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (FID)	*83.2*		*50 - 150*
4-BFB (PID)	*85.3*		*50 - 150*
a,a,a-TFT (FID)	*108*		*50 - 150*
a,a,a-TFT (PID)	*109*		*50 - 150*

Lab Sample ID: 10I0014-DUP1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATH0091-01
Prep Type: total
Prep Batch: 10I0014_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gasoline Range Organics	7.32		5.96		ug/l		20.4	35
Benzene	ND		ND		ug/l			200
Toluene	ND		ND		ug/l			200
Ethylbenzene	ND		ND		ug/l			200
Xylenes (total)	ND		ND		ug/l			200

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10I0014-DUP1
Matrix: Water
Analysis Batch: T000457

Client Sample ID: ATH0091-01
Prep Type: total
Prep Batch: 10I0014_P

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*79.0*		*50 - 150*
4-BFB (PID)	*80.7*		*50 - 150*
a,a,a-TFT (FID)	*107*		*50 - 150*
a,a,a-TFT (PID)	*107*		*50 - 150*

Lab Sample ID: 10I0032-BLK1
Matrix: Water
Analysis Batch: T000465

Client Sample ID: 10I0032-BLK1
Prep Type: total
Prep Batch: 10I0032_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics	ND		50.0		ug/l		09/08/10 09:55	09/08/10 13:39	1
Benzene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 13:39	1
Toluene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 13:39	1
Ethylbenzene	ND		0.500		ug/l		09/08/10 09:55	09/08/10 13:39	1
Xylenes (total)	ND		1.50		ug/l		09/08/10 09:55	09/08/10 13:39	1

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*74.4*		*50 - 150*	*09/08/10 09:55*	*09/08/10 13:39*	*1*
4-BFB (PID)	*75.9*		*50 - 150*	*09/08/10 09:55*	*09/08/10 13:39*	*1*
a,a,a-TFT (FID)	*103*		*50 - 150*	*09/08/10 09:55*	*09/08/10 13:39*	*1*
a,a,a-TFT (PID)	*102*		*50 - 150*	*09/08/10 09:55*	*09/08/10 13:39*	*1*

Lab Sample ID: 10I0032-BS1
Matrix: Water
Analysis Batch: T000465

Client Sample ID: 10I0032-BS1
Prep Type: total
Prep Batch: 10I0032_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	20.0	19.8		ug/l		99.2	70 - 130
Toluene	20.0	20.7		ug/l		103	70 - 130
Ethylbenzene	20.0	20.4		ug/l		102	70 - 130
Xylenes (total)	60.0	62.1		ug/l		103	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*63.7*		*60 - 120*
a,a,a-TFT (PID)	*89.9*		*60 - 120*

Lab Sample ID: 10I0032-BS2
Matrix: Water
Analysis Batch: T000465

Client Sample ID: 10I0032-BS2
Prep Type: total
Prep Batch: 10I0032_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Gasoline Range Organics	550	463		ug/l		84.2	60 - 120

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*69.3*		*60 - 120*
a,a,a-TFT (FID)	*106*		*60 - 120*

Method: AK101/EPA 8021B - Gasoline Range Organics (C6-C10) and BTEX per AK101 (Continued)

Lab Sample ID: 10I0032-BSD1
Matrix: Water
Analysis Batch: T000465

Client Sample ID: 10I0032-BSD1
Prep Type: total
Prep Batch: 10I0032_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	20.6		ug/l		103	70 - 130	3.68	20
Toluene			20.0	21.5		ug/l		107	70 - 130	3.83	20
Ethylbenzene			20.0	21.2		ug/l		106	70 - 130	3.89	20
Xylenes (total)			60.0	64.4		ug/l		107	70 - 130	3.73	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*70.7*		*60 - 120*
a,a,a-TFT (PID)	*101*		*60 - 120*

Lab Sample ID: 10I0032-BSD2
Matrix: Water
Analysis Batch: T000465

Client Sample ID: 10I0032-BSD2
Prep Type: total
Prep Batch: 10I0032_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Organics			550	461		ug/l		83.8	60 - 120	0.446	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*70.5*		*60 - 120*
a,a,a-TFT (FID)	*106*		*60 - 120*

Lab Sample ID: 10I0032-DUP1
Matrix: Water
Analysis Batch: T000465

Client Sample ID: ATI0010-02
Prep Type: total
Prep Batch: 10I0032_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Organics	442			5.94	R2	ug/l				195	35
Benzene	ND			ND		ug/l					200
Toluene	2.11			ND		ug/l					200
Ethylbenzene	29.4			ND		ug/l					200
Xylenes (total)	165			ND		ug/l					200

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*40.1*	*Z6*	*50 - 150*
4-BFB (PID)	*41.4*	*Z6*	*50 - 150*
a,a,a-TFT (FID)	*63.4*		*50 - 150*
a,a,a-TFT (PID)	*63.5*		*50 - 150*

Method: EPA 8011 - EDB by EPA Method 8011

Lab Sample ID: 10H0147-BLK1
Matrix: Water
Analysis Batch: 10H0147

Client Sample ID: 10H0147-BLK1
Prep Type: total
Prep Batch: 10H0147_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.0100		ug/l		08/30/10 08:15	08/30/10 14:43	1

Method: EPA 8011 - EDB by EPA Method 8011 (Continued)

Lab Sample ID: 10H0147-BS1
Matrix: Water
Analysis Batch: 10H0147

Client Sample ID: 10H0147-BS1
Prep Type: total
Prep Batch: 10H0147_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,2-Dibromoethane	0.125	0.110		ug/l		88.3	60 - 140

Lab Sample ID: 10H0147-BS2
Matrix: Water
Analysis Batch: 10H0147

Client Sample ID: 10H0147-BS2
Prep Type: total
Prep Batch: 10H0147_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,2-Dibromoethane	0.125	0.113		ug/l		90.6	60 - 140

Method: EPA 6020 - Total Metals per EPA 6000/7000 Series Methods

Lab Sample ID: 10I0001-BLK1
Matrix: Water
Analysis Batch: 10I0001

Client Sample ID: 10I0001-BLK1
Prep Type: total
Prep Batch: 10I0001_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/l		09/01/10 07:40	09/01/10 16:55	1

Lab Sample ID: 10I0001-BS1
Matrix: Water
Analysis Batch: 10I0001

Client Sample ID: 10I0001-BS1
Prep Type: total
Prep Batch: 10I0001_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Lead	0.100	0.0909		mg/l		90.9	80 - 120

Lab Sample ID: 10I0001-MS1
Matrix: Water
Analysis Batch: 10I0001

Client Sample ID: PTH0846-02
Prep Type: total
Prep Batch: 10I0001_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Lead			0.100	0.0910		mg/l		91.0	75 - 125

Lab Sample ID: 10I0001-MS2
Matrix: Water
Analysis Batch: 10I0001

Client Sample ID: PTH0981-01
Prep Type: total
Prep Batch: 10I0001_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Lead			0.100	0.0896		mg/l		89.6	75 - 125

Lab Sample ID: 10I0001-DUP1
Matrix: Water
Analysis Batch: 10I0001

Client Sample ID: PTH0846-01
Prep Type: total
Prep Batch: 10I0001_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Lead			ND		mg/l			20

Method: EPA 6020 - Total Metals per EPA 6000/7000 Series Methods (Continued)

Lab Sample ID: 10I0029-BLK1
Matrix: Water
Analysis Batch: 10I0029

Client Sample ID: 10I0029-BLK1
Prep Type: total
Prep Batch: 10I0029_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/l		09/01/10 15:15	09/03/10 14:46	1

Lab Sample ID: 10I0029-BS1
Matrix: Water
Analysis Batch: 10I0029

Client Sample ID: 10I0029-BS1
Prep Type: total
Prep Batch: 10I0029_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Lead	0.100	0.101		mg/l		101	80 - 120

Lab Sample ID: 10I0029-MS1
Matrix: Water
Analysis Batch: 10I0029

Client Sample ID: PTI0008-02
Prep Type: total
Prep Batch: 10I0029_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits
Lead			0.100	0.127		mg/l		114	75 - 125

Lab Sample ID: 10I0029-MSD1
Matrix: Water
Analysis Batch: 10I0029

Client Sample ID: PTI0008-02
Prep Type: total
Prep Batch: 10I0029_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Lead			0.100	0.112		mg/l		99.4	75 - 125	12.0	20

GCMS Volatiles

Analysis Batch: 10H0146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
ATH0076-05	Trip Blank	total	Water	EPA 8260B	10H0146_P
10H0146-MS1	STH0136-02	total	Water	EPA 8260B	
10H0146-MSD1	STH0136-02	total	Water	EPA 8260B	
10H0146-BLK1	10H0146-BLK1	total	Water	EPA 8260B	
10H0146-BS1	10H0146-BS1	total	Water	EPA 8260B	
ATH0076-01	MW3-0826	total	Water	EPA 8260B	10H0146_P
ATH0076-03	MW5-0826	total	Water	EPA 8260B	10H0146_P

Prep Batch: 10H0146_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
ATH0076-05	Trip Blank	total	Water	GC/MS Volatiles	
10H0146-MS1	STH0136-02	total	Water	GC/MS Volatiles	
10H0146-MSD1	STH0136-02	total	Water	GC/MS Volatiles	
10H0146-BLK1	10H0146-BLK1	total	Water	GC/MS Volatiles	
10H0146-BS1	10H0146-BS1	total	Water	GC/MS Volatiles	
ATH0076-01	MW3-0826	total	Water	GC/MS Volatiles	
ATH0076-03	MW5-0826	total	Water	GC/MS Volatiles	

GC Volatiles

Prep Batch: 10H0126_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10H0126-BS1	10H0126-BS1	total	Water	EPA 5030B	
10H0126-BSD1	10H0126-BSD1	total	Water	EPA 5030B	
10H0126-BS2	10H0126-BS2	total	Water	EPA 5030B	
10H0126-BSD2	10H0126-BSD2	total	Water	EPA 5030B	
10H0126-BLK1	10H0126-BLK1	total	Water	EPA 5030B	
10H0126-DUP1	ATH0064-03	total	Water	EPA 5030B	
ATH0076-01	MW3-0826	total	Water	EPA 5030B	
ATH0076-02	MW4-0826	total	Water	EPA 5030B	
ATH0076-03	MW5-0826	total	Water	EPA 5030B	

Prep Batch: 10I0014_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0014-BS1	10I0014-BS1	total	Water	EPA 5030B	
10I0014-BSD1	10I0014-BSD1	total	Water	EPA 5030B	
10I0014-BS2	10I0014-BS2	total	Water	EPA 5030B	
10I0014-BSD2	10I0014-BSD2	total	Water	EPA 5030B	
10I0014-BLK1	10I0014-BLK1	total	Water	EPA 5030B	
ATH0076-01 - RE1	MW3-0826	total	Water	EPA 5030B	
ATH0076-02 - RE1	MW4-0826	total	Water	EPA 5030B	
ATH0076-03 - RE1	MW5-0826	total	Water	EPA 5030B	
ATH0076-04	Trip Blank	total	Water	EPA 5030B	
10I0014-DUP1	ATH0091-01	total	Water	EPA 5030B	
10I0014-MS1	ATH0091-02	total	Water	EPA 5030B	
10I0014-MSD1	ATH0091-02	total	Water	EPA 5030B	
10I0014-MS2	ATI0011-03	total	Water	EPA 5030B	
10I0014-MSD2	ATI0011-03	total	Water	EPA 5030B	

Prep Batch: 10I0032_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0032-BS1	10I0032-BS1	total	Water	EPA 5030B	

GC Volatiles (Continued)

Prep Batch: 10I0032_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0032-BSD1	10I0032-BSD1	total	Water	EPA 5030B	
10I0032-BS2	10I0032-BS2	total	Water	EPA 5030B	
10I0032-BSD2	10I0032-BSD2	total	Water	EPA 5030B	
10I0032-BLK1	10I0032-BLK1	total	Water	EPA 5030B	
ATH0076-04 - RE1	Trip Blank	total	Water	EPA 5030B	
10I0032-DUP1	ATI0010-02	total	Water	EPA 5030B	

Analysis Batch: T000441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10H0126-BS1	10H0126-BS1	total	Water	AK101/EPA 8021B	10H0126_P
10H0126-BSD1	10H0126-BSD1	total	Water	AK101/EPA 8021B	10H0126_P
10H0126-BS2	10H0126-BS2	total	Water	AK101/EPA 8021B	10H0126_P
10H0126-BSD2	10H0126-BSD2	total	Water	AK101/EPA 8021B	10H0126_P
10H0126-BLK1	10H0126-BLK1	total	Water	AK101/EPA 8021B	10H0126_P
10H0126-DUP1	ATH0064-03	total	Water	AK101/EPA 8021B	10H0126_P
ATH0076-01	MW3-0826	total	Water	AK101/EPA 8021B	10H0126_P
ATH0076-02	MW4-0826	total	Water	AK101/EPA 8021B	10H0126_P
ATH0076-03	MW5-0826	total	Water	AK101/EPA 8021B	10H0126_P

Analysis Batch: T000457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0014-BS1	10I0014-BS1	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-BSD1	10I0014-BSD1	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-BS2	10I0014-BS2	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-BSD2	10I0014-BSD2	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-BLK1	10I0014-BLK1	total	Water	AK101/EPA 8021B	10I0014_P
ATH0076-01 - RE1	MW3-0826	total	Water	AK101/EPA 8021B	10I0014_P
ATH0076-02 - RE1	MW4-0826	total	Water	AK101/EPA 8021B	10I0014_P
ATH0076-03 - RE1	MW5-0826	total	Water	AK101/EPA 8021B	10I0014_P
ATH0076-04	Trip Blank	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-DUP1	ATH0091-01	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-MS1	ATH0091-02	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-MSD1	ATH0091-02	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-MS2	ATI0011-03	total	Water	AK101/EPA 8021B	10I0014_P
10I0014-MSD2	ATI0011-03	total	Water	AK101/EPA 8021B	10I0014_P

Analysis Batch: T000465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0032-BS1	10I0032-BS1	total	Water	AK101/EPA 8021B	10I0032_P

GC Volatiles (Continued)

Analysis Batch: T000465 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0032-BSD1	10I0032-BSD1	total	Water	AK101/EPA 8021B	10I0032_P
10I0032-BS2	10I0032-BS2	total	Water	AK101/EPA 8021B	10I0032_P
10I0032-BSD2	10I0032-BSD2	total	Water	AK101/EPA 8021B	10I0032_P
10I0032-BLK1	10I0032-BLK1	total	Water	AK101/EPA 8021B	10I0032_P
ATH0076-04 - RE1	Trip Blank	total	Water	AK101/EPA 8021B	10I0032_P
10I0032-DUP1	ATI0010-02	total	Water	AK101/EPA 8021B	10I0032_P

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Semivolatiles

Analysis Batch: 10H0147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10H0147-BS2	10H0147-BS2	total	Water	EPA 8011	
10H0147-BLK1	10H0147-BLK1	total	Water	EPA 8011	
10H0147-BS1	10H0147-BS1	total	Water	EPA 8011	
ATH0076-01	MW3-0826	total	Water	EPA 8011	10H0147_P
ATH0076-03	MW5-0826	total	Water	EPA 8011	10H0147_P
ATH0076-06	Trip Blank	total	Water	EPA 8011	10H0147_P

Prep Batch: 10H0147_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10H0147-BS2	10H0147-BS2	total	Water	EPA 3510/600 Series	
10H0147-BLK1	10H0147-BLK1	total	Water	EPA 3510/600 Series	
10H0147-BS1	10H0147-BS1	total	Water	EPA 3510/600 Series	
ATH0076-01	MW3-0826	total	Water	EPA 3510/600 Series	
ATH0076-03	MW5-0826	total	Water	EPA 3510/600 Series	
ATH0076-06	Trip Blank	total	Water	EPA 3510/600 Series	

Metals

Analysis Batch: 10I0001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0001-BLK1	10I0001-BLK1	total	Water	EPA 6020	
10I0001-BS1	10I0001-BS1	total	Water	EPA 6020	
10I0001-DUP1	PTH0846-01	total	Water	EPA 6020	
10I0001-MS1	PTH0846-02	total	Water	EPA 6020	
ATH0076-02	MW4-0826	total	Water	EPA 6020	10I0001_P
10I0001-MS2	PTH0981-01	total	Water	EPA 6020	

Prep Batch: 10I0001_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0001-BLK1	10I0001-BLK1	total	Water	EPA 200/3005	
10I0001-BS1	10I0001-BS1	total	Water	EPA 200/3005	
10I0001-DUP1	PTH0846-01	total	Water	EPA 200/3005	
10I0001-MS1	PTH0846-02	total	Water	EPA 200/3005	
ATH0076-02	MW4-0826	total	Water	EPA 200/3005	

Metals (Continued)

Prep Batch: 10I0001_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0001-MS2	PTH0981-01	total	Water	EPA 200/3005	

Analysis Batch: 10I0029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0029-BLK1	10I0029-BLK1	total	Water	EPA 6020	
10I0029-BS1	10I0029-BS1	total	Water	EPA 6020	
ATH0076-01	MW3-0826	total	Water	EPA 6020	10I0029_P
ATH0076-03	MW5-0826	total	Water	EPA 6020	10I0029_P
10I0029-MS1	PTI0008-02	total	Water	EPA 6020	
10I0029-MSD1	PTI0008-02	total	Water	EPA 6020	

Prep Batch: 10I0029_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
10I0029-BLK1	10I0029-BLK1	total	Water	EPA 200/3005	
10I0029-BS1	10I0029-BS1	total	Water	EPA 200/3005	
ATH0076-01	MW3-0826	total	Water	EPA 200/3005	
ATH0076-03	MW5-0826	total	Water	EPA 200/3005	
10I0029-MS1	PTI0008-02	total	Water	EPA 200/3005	
10I0029-MSD1	PTI0008-02	total	Water	EPA 200/3005	

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Client Sample ID: MW3-0826

Date Collected: 08/26/10 12:20
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-01
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	GC/MS Volatiles		1	10H0146_P	08/27/10 14:41	CBW	TestAmerica Spokane
total	Analysis	EPA 8260B		100	10H0146	08/27/10 19:41	CBW	TestAmerica Spokane
total	Prep	EPA 5030B		1	10H0126_P	08/31/10 08:32	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B		100	T000441	09/01/10 02:52	JJB	TestAmerica Anchorage
total	Prep	EPA 5030B	RE1	1	10I0014_P	09/03/10 16:37	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B	RE1	1000	T000457	09/06/10 11:42	JJB	TestAmerica Anchorage
total	Prep	EPA 3510/600 Series		1	10H0147_P	08/30/10 08:15	MS	TestAmerica Spokane
total	Analysis	EPA 8011		1	10H0147	08/30/10 15:32	mrs	TestAmerica Spokane
total	Prep	EPA 200/3005		1	10I0029_P	09/02/10 08:00	JMF	TestAmerica Portland
total	Analysis	EPA 6020		5	10I0029	09/03/10 14:58	kah	TestAmerica Portland

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Client Sample ID: MW4-0826

Date Collected: 08/26/10 13:28
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-02
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1	10H0126_P	08/31/10 08:32	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B		100	T000441	09/01/10 03:17	JJB	TestAmerica Anchorage
total	Prep	EPA 5030B	RE1	1	10I0014_P	09/03/10 16:37	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B	RE1	1000	T000457	09/06/10 12:07	JJB	TestAmerica Anchorage
total	Prep	EPA 200/3005		1	10I0001_P	09/01/10 07:40	JMF	TestAmerica Portland
total	Analysis	EPA 6020		5	10I0001	09/01/10 17:57	kah	TestAmerica Portland

Client Sample ID: MW5-0826

Date Collected: 08/26/10 12:25
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-03
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	GC/MS Volatiles		1	10H0146_P	08/27/10 14:41	CBW	TestAmerica Spokane
total	Analysis	EPA 8260B		100	10H0146	08/27/10 20:09	CBW	TestAmerica Spokane
total	Prep	EPA 5030B		1	10H0126_P	08/31/10 08:32	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B		100	T000441	09/01/10 03:42	JJB	TestAmerica Anchorage
total	Prep	EPA 5030B	RE1	1	10I0014_P	09/03/10 16:37	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B	RE1	1000	T000457	09/06/10 12:31	JJB	TestAmerica Anchorage
total	Prep	EPA 3510/600 Series		1	10H0147_P	08/30/10 08:15	MS	TestAmerica Spokane
total	Analysis	EPA 8011		1	10H0147	08/30/10 15:56	mrs	TestAmerica Spokane
total	Prep	EPA 200/3005		1	10I0029_P	09/02/10 08:00	JMF	TestAmerica Portland
total	Analysis	EPA 6020		5	10I0029	09/03/10 15:02	kah	TestAmerica Portland

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-04
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 5030B		1	10I0014_P	09/03/10 16:37	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B		1	T000457	09/06/10 12:56	JJB	TestAmerica Anchorage
total	Prep	EPA 5030B	RE1	1	10I0032_P	09/08/10 09:55	JJB	TestAmerica Anchorage
total	Analysis	AK101/EPA 8021B	RE1	1	T000465	09/08/10 15:42	JJB	TestAmerica Anchorage

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-05
Matrix: Water

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Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	GC/MS Volatiles		1	10H0146_P	08/27/10 14:41	CBW	TestAmerica Spokane
total	Analysis	EPA 8260B		1	10H0146	08/27/10 16:25	CBW	TestAmerica Spokane

Client Sample ID: Trip Blank
Date Collected: 08/26/10 00:00
Date Received: 08/26/10 14:45

Lab Sample ID: ATH0076-06
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
total	Prep	EPA 3510/600 Series		1	10H0147_P	08/30/10 08:15	MS	TestAmerica Spokane
total	Analysis	EPA 8011		1	10H0147	08/30/10 16:21	mrs	TestAmerica Spokane

Certification Summary

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Laboratory	Authority	Program	EPA Region	Certification ID	Expiration Date
TestAmerica Anchorage	Alaska	Alaska UST	10	UST-067	06/16/11
TestAmerica Anchorage	Alaska	State Program	10	AK00975	06/30/11
TestAmerica Portland		USDA		P330-07-XXXXXX	11/13/10
TestAmerica Portland	Alaska	Alaska UST	10	UST-012	12/26/10
TestAmerica Portland	Alaska	State Program	10	OR00040	04/21/11
TestAmerica Portland	California	State Program	9	2597	09/30/11
TestAmerica Portland	Oregon	NELAC Primary AB	10	OR100021	01/09/11
TestAmerica Portland	Washington	State Program	10	C586	06/23/11
TestAmerica Spokane	Alaska	Alaska UST	10	UST-071	10/31/10
TestAmerica Spokane	Washington	State Program	10	C569	01/06/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Method	Method Description	Protocol	Laboratory
EPA 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL SPK
AK101/EPA 8021B	Gasoline Range Organics (C6-C10) and BTEX per AK101		TAL ANC
EPA 8011	EDB by EPA Method 8011		TAL SPK
EPA 6020	Total Metals per EPA 6000/7000 Series Methods		TAL PTL

Protocol References:

=

Laboratory References:

TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200

TAL PTL = TestAmerica Portland, 9405 SW Nimbus Avenue, Beaverton, OR/USA 97008, TEL (503) 906-9200

TAL SPK = TestAmerica Spokane, 11922 E. 1st Ave., Spokane, WA/USA 99206, TEL (509) 924-9200

Sample Summary

Client: BGES, INC.
Project/Site: [none]

TestAmerica Job ID: ATH0076
SDG: ATH0076

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
ATH0076-01	MW3-0826	Water	08/26/10 12:20	08/26/10 14:45
ATH0076-02	MW4-0826	Water	08/26/10 13:28	08/26/10 14:45
ATH0076-03	MW5-0826	Water	08/26/10 12:25	08/26/10 14:45
ATH0076-04	Trip Blank	Water	08/26/10 00:00	08/26/10 14:45
ATH0076-05	Trip Blank	Water	08/26/10 00:00	08/26/10 14:45
ATH0076-06	Trip Blank	Water	08/26/10 00:00	08/26/10 14:45

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave,Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: ATH0176

CLIENT: BGES

REPORT TO: 1042 E. 6th Ave
ADDRESS:

PHONE: 644-2900 FAX: sean@bgesinc.com

PROJECT NAME: 4540 W. 30TH AVE

PROJECT NUMBER:

SAMPLED BY: S. PETERSON

INVOICE TO: BGES

P.O. NUMBER:

TURNAROUND REQUEST

In Business Days *

Organic & Inorganic Analyses: [10] STD. [7] [5] [4] [3] [2] [1] [<1]

Petroleum Hydrocarbon Analyses: [X] STD. [4] [3] [2] [1] [<1]

[OTHER] Specify:

* Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	PRESERVATIVE						MATRIX (W, S, O)	# OF CONT.	LOCATION/ COMMENTS	TA WO ID
		HCl	HCl		Nitric Acid	HCl	HCl				
		REQUESTED ANALYSES									
		GRO/BTEX	DRO/RRO	EDB 8011	Total Lead 6020	Naphthalene 8260	DCA 8260				
1 MW3-0826	8/26/10 1220	X	X	X	X	X	X	W	10		01
2 MW4-0826	1328	X	X		X			W	6		02
3 MW5-0826	1225	X	X	X	X	X	X	W	10		03
4 TRIP BLANK		X		X		X	X				04,05,06
5											
6											
7											
8											
9											
10											

RELEASED BY: PRINT NAME: SEAN PETERSON FIRM: BGES DATE: 8/26/10 TIME: 1445

RECEIVED BY: PRINT NAME: Troy Engstrom FIRM: TAL-ANC DATE: 8-26-10 TIME: 14:45

RELEASED BY: PRINT NAME: FIRM: DATE: TIME:

RECEIVED BY: PRINT NAME: FIRM: DATE: TIME:

ADDITIONAL REMARKS:

GRO/BTEX VIA AK101/EPA 8260 OR 8021B; DRO/RRO VIA AK 102/103; EDB VIA 8011; NAPHTHALENE + DCA VIA 8260

TEMP: 2.9°C PAGE 1 OF 1

TAL-1000(0408)

Test America Anchorage Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # ATH0076 CLIENT: BGES PROJECT: 4540 W. 50th AVE

Date /Time Cooler Arrived 8/26/10 14:45 Cooler signed for by: Troy Engstrom (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ____/____/____

Cooler opened by (print) Troy Engstrom (sign) Troy Engstrom

1. Delivered by ☐ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☒ CLIENT ☐ Other: ____

Shipment Tracking # if applicable No (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ____ Date ____/____/____

Were custody seals unbroken and intact on arrival?	☐ Yes	☐ No	☒ n/a
3. Were custody papers sealed in a plastic bag?	☒ Yes	☐ No	
4. Were custody papers filled out properly (ink, signed, etc.)?	☒ Yes	☐ No	
5. Did you sign the custody papers in the appropriate place?	☒ Yes	☐ No	

6. Was ice used? ☐ Yes ☐ No Type of ice: ☐ blue ice ☐ gel ice ☐ real ice ☐ dry ice Condition of Ice: Frozen

Temperature by Digi-Thermo Probe 2.9 °C Thermometer # 5

Acceptance Criteria: 0 - 6°C

7. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☐ cardboard ☐ Other: ____

8. Did samples arrive in plastic bags?	☒ Yes	☐ No	
9. Did all bottles arrive unbroken, and with labels in good condition?	☒ Yes	☐ No	
10. Are all bottle labels complete (ID, date, time, etc.)	☒ Yes	☐ No	
11. Do bottle labels and Chain of Custody agree?	☒ Yes	☐ No	
12. Are the containers and preservatives correct for the tests indicated?	☒ Yes	☐ No	
13. Conoco Phillips, Alyeska, BP H2O samples only: pH < 2?	☐ Yes	☐ No	☒ N/A
14. Is there adequate volume for the tests requested?	☒ Yes	☐ No	
15. Were VOA vials free of bubbles? ☒ N/A	☐ Yes	☐ No	

If "NO" which containers contained "head space" or bubbles? ____

Log-in Phase:

Date of sample log-in 8/26/10

Samples logged in by (print) Robert Tsin (sign) Robert Tsin

1. Was project identifiable from custody papers?	☒ Yes	☐ No
2. Do Turn Around Times and Due Dates agree?	☒ Yes	☐ No
3. Was the Project Manager notified of status?	☒ Yes	☐ No
4. Was the Lab notified of status?	☒ Yes	☐ No
5. Was the COC scanned and copied?	☒ Yes	☐ No

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APPENDIX D
LABORATORY ANALYTICAL DATA QUALITY CONTROL CHECKLISTS

Laboratory Data Review Checklist

Completed by: Sean Peterson

Title: Environmental Scientist II Date: May 13, 2011

CS Report Name: 2010 Site Characterization Report Report Date: July 2011

Consultant Firm: BGES, Inc.

Laboratory Name: Test America Laboratory Report Number: ATH0063

ADEC File Number: 2100.26.133 ADEC Hazard ID #: 24091

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      (Yes) No NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      (Yes) No NA (Please explain.) Comments:

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      (Yes) No NA (Please explain.) Comments:

   b. Correct analyses requested?
      (Yes) No NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      Yes (No) NA (Please explain.) Comments:

The temperature of the sample cooler was measured at the laboratory at the time of receipt to be 0.7° Celsius (C). This temperature was below the above-listed acceptance range; however, because the recorded temperature was below the acceptance range, there is a reduced potential for contaminant concentration loss within the samples due to natural attenuation. For this reason it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
(Yes) No NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
Yes No NA (Please explain.) Comments:

No irregularities or abnormalities with respect to sample containers were reported.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
Yes No (NA) (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)
Comments:

N/A

4. Case Narrative

a. Present and understandable?
(Yes) No NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?
(Yes) No NA (Please explain.) Comments:

The reported concentration of 1,2-dibromo-3-chloropropane for Field Sample SB2-5 was detected at a concentration less than the laboratory's MRL and greater than or equal to the laboratory's method detection limit (MDL); for this reason, the concentration of the analyte listed above should be considered an estimated value and is qualified with "J" in Table 1. It should be noted that there is no published ADEC cleanup criterion for 1,2-dibromo-3-chloropropane.

According to the laboratory, the laboratory control sample (LCS) exhibited a recovery percentage that exceeded the laboratory's acceptance range for the surrogate 4-bromofluorobenzene (BFB) as measured by a flame ionization detector (FID), with respect to the GRO analysis; indicating a potential for the reported concentrations of GRO within Field Samples SB2-3 through SB2-6 to be biased high for GRO. For this reason, the GRO concentrations in the field samples are qualified with "J" in Table 2, indicating that the reported concentrations should be considered to be estimates. However, because Field Samples SB2-3 through SB2-6 exhibited concentrations of GRO which were well above the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

Detectable concentrations of benzene, toluene, and total xylenes were identified in the trip blank sample; indicating a potential for the reported concentrations of these analytes within field

samples (SB1-1 through SB1-5 and SB2-1 through SB2-6) to be biased high. For this reason, the benzene, toluene, and total xylenes concentrations in the field samples identified above are qualified with "J" in Table 2 and should be considered estimates. However, because multiple field samples (SB1-5, SB2-4, SB2-4, SB2-5, and SB2-6) exhibited concentrations of BTEX which, in some cases, greatly exceed ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

The percent recoveries for BTEX in the matrix spike (MS) and matrix spike duplicate (MSD) samples (laboratory sample numbers 10H0091-MS1, 10H0091-MSD1, respectively) exceeded the laboratory's acceptance limits. The percent recoveries for BTEX were within their acceptance limit ranges for the LCS and laboratory control sample duplicate (LCSD). Because the MS and MSD samples were derived from field samples collected as part of another project, it is our opinion that there is an increased potential for the data QC failure to be due to matrix effects. For the above-stated reasons, it is our opinion that this QC failure does not affect the acceptability of the data for their intended use.

The laboratory reported that the DRO concentration in Sample SB2-4 was partly due to hydrocarbons outside of the DRO range, however, the reported concentration was below the ADEC cleanup criterion, therefore, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the percent recoveries for the surrogates a,a,a-trifluorotoluene (TFT), as measured by an FID, and a,a,a-TFT, as measured by a PID; exceeded their acceptance limit ranges in Field Samples SB1-5, SB2-3, SB2-4, and SB2-6 with respect to the GRO and BTEX analysis, indicating a potential for the field samples to be biased high for these analytes; for this reason the GRO and BTEX concentrations in the field samples listed above are qualified with "J" in Table 2, indicating that the reported concentrations should be considered estimates. However, because the recovery percentages for the additional surrogates (4-BFB by FID and 4-BFB by PID) were within their acceptance limit ranges, and because all of these analytes were considerably above the ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the percent recoveries exceeded their acceptance limits for the surrogate toluene-d8 in Field Samples SB2-5and SB2-6 with respect to the EDC and naphthalene analyses, indicating a potential for the field samples to be biased high for these analytes; for this reason the EDC and naphthalene concentrations for Field Samples SB2-5 and SB2-6 are qualified with "J" in Table 2. However, because Field Samples SB2-5 and SB2-6 exhibited concentrations of EDC and naphthalene below ADEC cleanup criteria and because the percent recoveries of the additional surrogates (dibromofluoromethane and 4-bromofluorobenzene) were within their acceptance limit ranges, it is our opinion that the data are acceptable for their intended use.

c. Were all corrective actions documented?
Yes No (NA) (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?
Comments:

See 4.b, above.

5. Samples Results
   a. Correct analyses performed/reported as requested on COC?
      (Yes) No NA (Please explain.) Comments:

b. All applicable holding times met?
(Yes) No NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?
(Yes) No NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
(Yes) No NA (Please explain.) Comments:

e. Data quality or usability affected?
Comments:

N/A

6. QC Samples
   a. Method Blank
      i. One method blank reported per matrix, analysis and 20 samples?
      (Yes) No NA (Please explain.) Comments:

      ii. All method blank results less than PQL?
      Yes (No) NA (Please explain.) Comments:

See 4.b, above.

      iii. If above PQL, what samples are affected?
      Comments:

See 4.b, above.

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

See 4.b, above.

      v. Data quality or usability affected? (Please explain.)
      Comments:

See 4.b, above.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
(Yes) No NA (Please explain.) Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?
(Yes) No NA (Please explain.) Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)
Yes (No) NA (Please explain.) Comments:

See 4.b above

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)
Yes (No) NA (Please explain.) Comments:

See 4.b above

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

See 4.b above

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:

See 4.b above

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?
(Yes) No NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

Yes (No) NA (Please explain.) Comments:

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:

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

Comments:

See 4b, above.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

(Yes) No NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes No (NA) (Please explain.) Comments:

iii. All results less than PQL?

Yes (No) NA (Please explain.) Comments:

See 4.b, above.

iv. If above PQL, what samples are affected?

Comments:

See 4.b, above.

v. Data quality or usability affected? (Please explain.)

Comments:

See 4.b, above.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(Yes) No NA (Please explain.) Comments:

ii. Submitted blind to lab?

(Yes) No NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

Yes (No) NA (Please explain.) Comments:

With the exception of naphthalene, the relative percent differenced RPDs as calculated between the reported analyte concentrations within the original sample SB2-5 and the duplicate sample (SB2-6) were below the ADEC recommended acceptable limit of 50 percent (Table 2), indicating an acceptable level of precision with respect to the field sampling procedures.

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

Comments:

See 6.e(iii), above.

f. Decontamination or Equipment Blank (If not used explain why).

Yes No NA (Please explain.) Comments:

Not applicable. A decontamination or equipment blank was not collected; not part of our approved scope of work.

i. All results less than PQL?

Yes No NA (Please explain.) Comments:

N/A

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

N/A

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)
   a. Defined and appropriate?
      Yes No (NA) (Please explain.) Comments:

Laboratory Data Review Checklist

Completed by: Sean Peterson

Title: Environmental Scientist II Date: May 13, 2011

CS Report Name: 2010 Site Characterization Report Report Date: July 2011

Consultant Firm: BGES, Inc.

Laboratory Name: Test America Laboratory Report Number: ATH0076

ADEC File Number: 2100.26.133 ADEC Hazard ID #: 24091

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      (Yes) No NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      (Yes) No NA (Please explain.) Comments:

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      (Yes) No NA (Please explain.) Comments:

   b. Correct analyses requested?
      (Yes) No NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      (Yes) No NA (Please explain.) Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
      (Yes) No NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
Yes No NA (Please explain.) Comments:

No irregularities or abnormalities with respect to sample containers were reported.

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
Yes No (NA) (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)
Comments:

N/A

4. Case Narrative

a. Present and understandable?
(Yes) No NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?
(Yes) No NA (Please explain.) Comments:

A detectable concentration of benzene was identified in the laboratory method blank sample, indicating a potential for the field samples (MW3 through MW5) to be biased high for this analyte; for this reason, the benzene concentrations in the field samples identified above are qualified with "J" in Table 3. However, because the field samples exhibited concentrations of benzene at concentrations five to six orders of magnitude above the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

The MRLs for EDC and naphthalene, and associated surrogate compounds, were raised in Field Samples MW3 and MW5 (a duplicate sample of MW3), due to high concentrations of non-target analytes; however, the MRLs for naphthalene in both of the field samples (MW3 and MW5) were below the ADEC cleanup criterion of 20 mg/L. With regards to the contaminant constituent EDC, it cannot be determined if actual concentrations of EDC within Field Samples MW3 and MW5 exceed their respective ADEC cleanup criteria; however, because the field samples exhibited concentrations of GRO, benzene, toluene, ethylbenzene, and total xylenes which in some cases, greatly exceeded ADEC cleanup criteria, it is our opinion that the lack of information concerning EDC does not affect the interpretation of the data for their intended use.

According to the laboratory, the LCS and LCSD (laboratory sample numbers 10H0126-BS2 and 10H0126-BSD2, respectively) exhibited recovery percentages that exceeded the laboratory's acceptance limits for the surrogate a,a,a-TFT by FID, with respect to the GRO analysis, indicating a potential for the reported concentrations of GRO within the field samples (MW3 through MW5) to be biased high for GRO. For this reason, the GRO concentrations in the field samples are qualified with "J" in Table 2, indicating that the reported concentrations should be considered estimates. Samples which were run within the same analytical batch but were not impacted by the QC failure described above were assigned the qualifier "L" by the laboratory.

Because Field Samples MW3 through MW5 exhibited concentrations of GRO two orders of magnitude greater than the ADEC cleanup criterion, it is our opinion that the data are acceptable for their intended use.

The RPD for GRO in the laboratory-prepared duplicate sample (10I0032-DUP1) exceeded its acceptance limit (195 percent; acceptance limit 35 percent), with respect to the GRO analysis; indicating poor laboratory precision for this analyte. For this reason, the GRO concentrations in the field samples (MW3 through MW5) are qualified with "J" in Table 3. However, because the RPDs for GRO were within their acceptance limits in the LCSDs and the additional laboratory-prepared duplicate samples, it is our opinion that the data are acceptable for their intended use.

The percent recoveries for the surrogates 4-BFB(FID) and 4-BFB(PID) in the laboratory prepared duplicate sample, were below their acceptance limit ranges (40.1 percent and 41.4 percent; acceptance limit range 50 percent to 150 percent) with respect to the GRO/BTEX analysis; indicating a potential for the field samples to be biased low for these analytes. However, because all of the field samples (MW3 through MW5) exhibited concentrations of GRO and BTEX well above ADEC cleanup criteria, it is our opinion that the data are acceptable for their intended use.

Due to sample matrix effects, the MRL for lead was raised for Field Sample MW4; however, the MRL was below the ADEC cleanup criterion of 0.015 mg/L. For this reason, it is our opinion that the data are acceptable for their intended use.

c. Were all corrective actions documented?
Yes No (NA) (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?
Comments:

See 4.b, above.

5. Samples Results
a. Correct analyses performed/reported as requested on COC?
(Yes) No NA (Please explain.) Comments:

b. All applicable holding times met?
(Yes) No NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?
(Yes) No NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
Yes (No) NA (Please explain.) Comments:

The reporting limits for EDC in Field Samples MW3 and MW5 exceeded their applicable ADEC cleanup criteria; as such it cannot be determined if actual concentrations of EDC within Field Samples MW3 and MW5 exceed the ADEC cleanup criterion for EDC. Because Field Samples MW3 and MW5 exhibited concentrations of GRO, benzene, toluene, ethylbenzene, total xylenes, and EDB that, in some cases, greatly exceeded ADEC cleanup criteria, it is our opinion that the lack of information concerning EDC does not affect the interpretation of the data for their intended use.

e. Data quality or usability affected?
Comments:

See 5.d above.

6. QC Samples
   a. Method Blank
      i. One method blank reported per matrix, analysis and 20 samples?
      (Yes) No NA (Please explain.) Comments:

      ii. All method blank results less than PQL?
      Yes (No) NA (Please explain.) Comments:

See 4.b, above.

      iii. If above PQL, what samples are affected?
      Comments:

See 4.b, above.

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

v. Data quality or usability affected? (Please explain.)
Comments:

See 4.b, above.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)
(Yes) No NA (Please explain.) Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?
(Yes) No NA (Please explain.) Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)
Yes (No) NA (Please explain.) Comments:

See 4.b above

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)
Yes (No) NA (Please explain.) Comments:

See 4.b above

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

See 4.b above

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:

See 4.b above

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?
(Yes) No NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)
Yes (No) NA (Please explain.) Comments:

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:

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

See 4b, above.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)
(Yes) No NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)
Yes No (NA) (Please explain.) Comments:

iii. All results less than PQL?
(Yes) No NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?
Comments:

N/A

v. Data quality or usability affected? (Please explain.)

Comments:

N/A

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

(Yes) No NA (Please explain.) Comments:

ii. Submitted blind to lab?

(Yes) No NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

(Yes) No NA (Please explain.) Comments:

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

Comments:

The RPDs calculated utilizing the duplicate sample (MW5) collected in association with Water Sample MW3 were below the ADEC recommended acceptable limit of 30 percent (Table 3), indicating an acceptable level of precision with respect to the field sampling procedures.

f. Decontamination or Equipment Blank (If not used explain why).

Yes No NA (Please explain.) Comments:

Not applicable. A decontamination or equipment blank was not collected; not part of our approved scope of work.

i. All results less than PQL?

Yes No NA (Please explain.) Comments:

N/A

ii. If above PQL, what samples are affected?

Comments:

N/A

iii. Data quality or usability affected? (Please explain.)

Comments:

N/A

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No (NA) (Please explain.) Comments:

APPENDIX E
CONCEPTUAL SITE MODEL

HUMAN HEALTH CONCEPTUAL SITE MODEL

Site: 4540 West 50th Avenue, Anchorage, Alaska

Completed By: Sean Peterson, Environmental Scientist II

Date Completed: May 13, 2011

Follow the directions below. Do not consider engineering or land use controls when describing pathways.

(1) *Check the media that could be directly affected by the release.*

(2) *For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Briefly list other mechanisms or reference the report for details.*

(3) *Check exposure media identified in (2).*

(4) *Check exposure pathways that are complete or need further evaluation. The pathways identified must agree with Sections 2 and 3 of the CSM Scoping Form.*

(5) *Identify the receptors potentially affected by each exposure pathway: Enter "C" for current receptors, "F" for future receptors, or "C/F" for both current and future receptors.*

Media	Transport Mechanisms	Exposure Media	Exposure Pathways	Current & Future Receptors: Residents (adults or children)	Commercial or industrial workers	Site visitors, trespassers, or recreational users	Construction workers	Farmers or subsistence harvesters	Subsistence consumers	Other
✓ Surface Soil (0-2 ft bgs)	✓ Direct release to surface soil — check soil	✓ soil	✓ Incidental Soil Ingestion				F			
	✓ Migration or leaching to subsurface — check soil		✓ Dermal Absorption of Contaminants from Soil				F			
	✓ Migration or leaching to groundwater — check groundwater									
	✓ Volatilization — check air									
	☐ Runoff or erosion — check surface water									
	☐ Uptake by plants or animals — check biota									
	☐ Other (list):									
✓ Subsurface Soil (2-15 ft bgs)	✓ Direct release to subsurface soil — check soil	✓ groundwater	✓ Ingestion of Groundwater		C/F		F			
	✓ *Migration to groundwater* — check groundwater		✓ Dermal Absorption of Contaminants in Groundwater		C/F		F			
	✓ *Volatilization* — check air		✓ Inhalation of Volatile Compounds in Tap Water		C/F		F			
	☐ *Other (list):*									
☐ Ground-water	☐ Direct release to groundwater — check groundwater	✓ air	✓ Inhalation of Outdoor Air				F			
	☐ *Volatilization* — check air		✓ Inhalation of Indoor Air				F			
	☐ *Flow to surface water body* — check surface water		✓ Inhalation of Fugitive Dust				F			
	☐ *Flow to sediment* — check sediment									
	☐ *Uptake by plants or animals* — check biota									
	☐ *Other (list):*									
☐ Surface Water	☐ Direct release to surface water — check surface water	☐ surface water	☐ Ingestion of Surface Water							
	☐ *Volatilization* — check air		☐ Dermal Absorption of Contaminants in Surface Water							
	☐ *Sedimentation* — check sediment		☐ Inhalation of Volatile Compounds in Tap Water							
	☐ *Uptake by plants or animals* — check biota									
	☐ *Other (list):*									
☐ Sediment	☐ Direct release to sediment — check sediment	☐ sediment	☐ Direct Contact with Sediment							
	☐ *Resuspension, runoff, or erosion* — check surface water									
	☐ *Uptake by plants or animals* — check biota	☐ biota	☐ Ingestion of Wild Foods							
	☐ *Other (list):*									

Revised 3/21/06