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September 6, 2016 R&M No. 2397.01

Kelly Kass
Anchorage School District
1301 Labar Street
Anchorage, Alaska 99515
kass_kelly@asdk12.org

RE: Student Transportation Facility (ADEC File No. 2100.26.251)
2016 Groundwater Monitoring Report

Dear Ms. Kass:

This report details results of groundwater monitoring activities conducted on 22 June 2016 at the Anchorage School District (ASD) Student Transportation Facility located at 3580 East Tudor Road in Anchorage, Alaska (Figures 1 and 2, Attachment B). This work was completed in accordance with the Anchorage School District's Purchase Order No. P043860 dated 9 June 2016.

BACKGROUND

Five registered underground storage tanks (USTs) were removed from the Student Transportation Facility in 1997. Contamination remained in close proximity to the building foundation, despite extensive removal of contaminated soil, and may have extended beneath the building. Initial analysis indicated that groundwater was contaminated by petroleum hydrocarbons released from the USTs. Groundwater monitoring wells were installed at the Student Transportation Facility after removal of contaminated soil and have since been periodically monitored.

Upon review of the December 2003 Groundwater Monitoring Report, the Alaska Department of Environmental Conservation (ADEC) determined that shallow groundwater contamination remained above the established cleanup levels, did not pose a risk to human health or the environment, and was not migrating (R&M, 2003). Thus, ADEC made a "no further remedial action planned" (NFRAP) determination for the site (ADEC, 2004).

After receiving the NFRAP, the 2005 Annual Groundwater Monitoring Work Plan was produced by R&M and approved by ADEC (R&M, 2005 and ADEC, 2005). The 2005 work plan specified annual groundwater monitoring for three monitoring wells (MW-01, MW-4, and G-4) until results demonstrated stable or decreasing trends in contaminant concentrations and/or 18 AAC 75.345 Table C levels were achieved. The groundwater monitoring work plan was updated in 2013 (R&M, 2013). Periodic groundwater monitoring events have been conducted between 2003 and 2016.

In 2014, R&M monitored, decommissioned, and located various wells at the ASD Student Transportation Facility at the recommendation of ADEC in accordance with the 2013 work plan and ADEC Monitoring Well Guidance (R&M, 2013 and ADEC, 2013). Groundwater samples were collected from monitoring wells MW-01, MW-04, and G-4.

Summarized analytical results are included in Table 2 (Attachment A). Monitoring wells MW-02, G-1, G-3, G-6, G-2, and G-5 were decommissioned in accordance with the approved work plan. As recommended in the 2014 Groundwater Monitoring Report, a final round of groundwater sampling was proposed for the ASD Student Transportation Facility (R&M, 2014). ADEC agreed to a modification of the 2013 work plan to only require sampling of monitoring wells MW-01 and MW-04 as groundwater collected from monitoring well G-4 has been non-detect for all analytes since July 2010 (E. Reese, 2016 Personal Communication). Historical and current analytical results from groundwater monitoring events are included in Table 2 of Attachment A.

2016 GROUNDWATER SAMPLING AND OBSERVATIONS

Monitoring well MW-04 was intact and in good condition during the 22 June 2016 sampling event. Bentonite had to be cleared away prior to removal of the well plug for monitoring wells MW-01 and G-4. Well plugs were observed to be intact indicating that the interior of the well casings had not been affected. The plug for MW-01 appears to have had bentonite from within the flush mount protective casing on it when inserted during a previous sampling event leading to a half-inch smear on the top inside of the well casing. The well plug was cleaned and the smear wiped off of the inside of the well casing. Only groundwater elevation was measured for monitoring well G-4 and no analytical groundwater samples were collected.

Groundwater elevations were measured prior to purging and sampling with a water level indicator to 0.01 feet (Table 1, Attachment A). Existing survey elevations were used to determine current groundwater elevations. The interpreted 2016 groundwater flow direction is generally to the northwest with variation between west and northwest from 2003 to 2016. Comparison of current and historic groundwater elevation data indicate that groundwater flow direction experiences seasonal fluctuations. Groundwater in monitoring well MW-01 was turbid and grey with no observed hydrocarbon odor or sheen. Groundwater in monitoring well MW-04 was clear with a slight sheen and hydrocarbon odor.

Wells were purged and sampled in accordance with ADEC Field Sampling Guidance (ADEC, 2016b). Prior to sampling, three well casing volumes of water were purged from the wells. Approximately 15 gallons of purge and decontamination water were collected and retained in a steel 55-gallon open top steel drum and will be removed by NRC Alaska, LLC of Anchorage Alaska after receipt of analytical results. Groundwater samples were submitted to SGS North America Inc. (SGS) in Anchorage, Alaska for laboratory analysis on 23 June 2016. SGS is an ADEC-approved laboratory. Groundwater samples were collected with bailers in accordance with the approved work plan and were analyzed for the following analytical parameters:

- Gasoline Range Organics (GRO) by Alaska test method AK 101(MW-01 and MW-04)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA test method 8021B (MW-01 and MW-04)
- Diesel Range Organics (DRO) by Alaska test method AK 102 (MW-01 and MW-04)
- Residual Range organics (RRO) by Alaska test method 103 (MW-04)

Laboratory analytical results were received on 11 July 2016 and were compared to ADEC Table C cleanup levels in 18 AAC 75 (ADEC, 2016a). Summarized current and historical analytical results are presented in Table 2 (Attachment A). Complete analytical results from the 2016 sampling event are included in Attachment C. GRO, DRO, and benzene exceeded cleanup levels in groundwater from monitoring well MW-01. DRO and

RRO exceeded cleanup levels in groundwater from monitoring well MW-04.

One duplicate sample was collected for each analytical method, GRO and BTEX duplicate samples were collected from MW-01. DRO and RRO duplicate samples were collected from MW-04. Duplicate samples were submitted in the same manner as the primary samples. The relative percent difference between primary and duplicate samples were below the ADEC allowance of 30 percent variance for water samples. An ADEC laboratory data review checklist was completed and is included in Attachment C. A trip blank for GRO and BTEX analyses was prepared by the laboratory, taken to the site and handled like all other samples. GRO or BTEX were not detected in the trip blank, indicating that handling and ambient conditions did not affect the samples. Method blanks were prepared and analyzed by SGS for all parameters. No analytes were detected above the practical quantitation levels in the method blanks. The data from SGS are considered usable.

CONCLUSIONS AND RECOMMENDATIONS

A comparison of historical and current analytical results from monitoring wells MW-01 and MW-04 show an overall downward trend in contaminant concentrations for groundwater at the site and appear to be approaching the cleanup levels. Analytical results from monitoring well MW-01 are higher than results from 2014 but are still substantially lower when compared to historical results. Analytical results for samples from monitoring wells MW-01 and MW-04 have fluctuated in the past, and are likely due to seasonal fluctuations in groundwater elevation and flow direction. From 2003 to 2016, analytical results have decreased for the two monitoring wells showing a decreasing trend as specified in the 2004 NFRAP.

Based on 2016 and historical data, it is recommended that the site be closed and monitoring wells decommissioned as data from monitoring wells MW-01 and MW-04 display decreasing trends of groundwater contamination in accordance with the 2004 NFRAP (ADEC, 2004).

CLOSURE

This brief letter report has been prepared for the exclusive use of the ASD and their representatives in the study of this site. The findings presented within this report are based on limited sampling and laboratory analyses conducted by R&M. Since opinions of conditions prevailing on a particular site must be based on the work authorized by the client, all findings/data must be construed as representative of the site at a particular moment in time and the result of services performed within the scope, limitations, and cost of the work requested. Changes in the conditions of this site may occur with the passage of time and may be due to natural processes or human works. In addition, changes in government codes, either State or Federal regulations or laws, may occur. Due to such changes, which are beyond our control, observations and recommendations applicable to this site may need to be revised wholly or in part from time to time. We also need to advise you that various State and Federal agencies may require reporting of the information provided by this investigation. R&M does not assume the responsibility for reporting these findings and has not disclosed the results of this study.

R&M Consultants, Inc. performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence is made.

This report should be submitted to the Alaska Department of Environmental Conservation for their review and determination of any additional site investigations, monitoring, or corrective actions that may be required in the future. We appreciate the opportunity to perform this groundwater monitoring. Should you require further information concerning the current sampling results or this report, please contact us at your convenience.

Sincerely,
R&M CONSULTANTS, INC.

Kristi McLean, LEED AP BD+C
Group Manager – Environmental Services

Attachment A: Tables
Attachment B: Figures
Attachment C: Analytical Results and Laboratory Data Review Checklist

REFERENCES

ADEC (Alaska Department of Environmental Conservation), 2016a. Oil and Other Hazardous Substances (18 AAC 75). 8 May 2016.

ADEC, 2016b. Field Sampling Guidance. March 2016.

ADEC, 2013. Monitoring Well Guidance, September 2013.

ADEC, 2005. "RE: Work Plan for Annual Groundwater Monitoring, Student Transportation Facility 3580 Tudor Road, Anchorage, Alaska, ADEC Facility ID # 3089. Event ID # 1768." Letter dated 12 May 2005.

ADEC, 2004. "RE: Quarterly Groundwater Monitoring Report, Anchorage School District Student Transportation Facility, 3580 Tudor Road, Anchorage, Alaska Facility ID Number 3089." Letter dated 18 June 2004.

E. Reese, 2016 Personal Communication. Communication record documenting email between Kristi McLean of R&M Consultants, Inc. and Evonne Reese of Alaska Department of Environmental Conservation, 25 May 2016.

R&M (R&M Consultants, Inc.), 2014. "Re: Student Transportation Facility (ADEC File No. 2100.26.251) 2014 Groundwater monitoring Report." 23 July 2014.

R&M, 2013. “Groundwater Monitoring Work Plan, Anchorage School District Student Transportation Facility, Anchorage, Alaska” 10 December 2013.

R&M, 2005. Annual Groundwater Monitoring Work Plan, Anchorage School District Student Transportation Facility, Anchorage, Alaska” 19 April 2005.

R&M, 2003. “Quarterly Groundwater Monitoring Report, Anchorage School District Student Transportation Facility, 3580 Tudor Road, Anchorage, Alaska” 4 December 2005.

Attachment A

Tables

TABLE 1
STUDENT TRANSPORTATION FACILITY
GROUNDWATER TABLE ELEVATIONS

WELL ID	MW-01	MW-02	MW-04	G-1	G-3	G-4	G-5	G-6
Measured from June 22, 2016 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	NA	169.25	NA	NA	168.26	NA	NA
Depth to Groundwater (feet)	8.82	NA	9.30	NA	NA	8.62	NA	NA
Groundwater Elevation (feet)	160.08	NA	159.95[a]	NA	NA	159.64	NA	NA
Historical Results from May 10, 2014 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	NA	169.25	NA	NA	168.26	NA	NA
Depth to Groundwater (feet)	7.52	NA	7.40	NA	NA	7.09	NA	NA
Groundwater Elevation (feet)	161.38	NA	161.85	NA	NA	161.17	NA	NA
Historical Results from July 29, 2010 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	NA	169.25	NA	NA	168.26	NA	NA
Depth to Groundwater (feet)	8.68	NA	8.72	NA	NA	7.98	NA	NA
Groundwater Elevation (feet)	160.22	NA	160.53	NA	NA	160.28	NA	NA
Historical Results from September 19, 2006 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	NA	169.25	NA	NA	168.26	NA	NA
Depth to Groundwater (feet)	8.63	NA	8.73	NA	NA	8.24	NA	NA
Groundwater Elevation (feet)	160.27	NA	160.52	NA	NA	160.02	NA	NA
Historical Results from October 27, 2005 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	NA	169.25	NA	NA	168.26	NA	NA
Depth to Groundwater (feet)	8.72	NA	9.14	NA	NA	NA	NA	NA
Groundwater Elevation (feet)	160.18	NA	160.11	NA	NA	NA	NA	NA
Historical Results from May 04, 2004 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	169.98	169.25	168.38	169.11	168.26	167.12	166.70
Depth to Groundwater (feet)	7.48	8.21	6.86	5.74	7.85	6.98	5.79	NA[b]
Groundwater Elevation (feet)	161.42	161.77	162.39	162.64	161.26	161.28	161.33	NA[b]
Historical Results from October 10, 2003 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	169.98	169.25	168.38	169.11	168.26	167.12	166.70
Depth to Groundwater (feet)	8.72	8.59	8.81	7.89	9.12	8.19	7.02	6.72
Groundwater Elevation (feet)	160.18	161.39	160.44	160.49	159.99	160.07	160.1	159.98
Historical Results from July 15, 2003 – Prior to purging and sampling								
Measuring Point Elevation (feet)	168.90	169.98	169.25	168.38	169.11	168.26	167.12	166.70
Depth to Groundwater (feet)	8.98	8.41	9.81	8.64	9.61	8.99	7.91	7.71
Groundwater Elevation (feet)	159.92	161.57	159.44	159.74	159.50	159.27	159.21	158.99

Note: [a] = This elevation is an estimate. Groundwater was not obtained prior to purging. The groundwater level prior to sampling (after full recharge) was used to calculate the groundwater elevation.
[b] = No groundwater elevation determined due to well being seasonally frozen

TABLE 2 - STUDENT TRANSPORTATION FACILITY
LABORATORY ANALYTICAL RESULTS – GROUNDWATER

SAMPLE ID	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	DRO (mg/L)	RRO (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)
Current Results (6/22/16)											
ST-MW01-01	**3.14**	**0.0203**	0.00207	0.470	1.031	**2.04**	NA	NA	NA	NA	NA
ST-MW01-02 (duplicate)	**3.70**	**0.0187**	0.00215	0.511	1.231	NA	NA	NA	NA	NA	NA
ST-MW04-01	ND	0.000410 J	ND	ND	ND	**3.30**	**1.99**	NA	NA	NA	NA
ST-MW04-02 (duplicate)	NA	NA	NA	NA	NA	**2.98**	**1.89**	NA	NA	NA	NA
Historical Results (5/10/14)											
ST-MW01-01	1.48	**0.0108**	ND	0.123	0.372	1.27	NA	NA	NA	NA	NA
ST-MW01-02 (duplicate)	1.81	**0.0152**	ND	0.148	0.482	0.968	NA	NA	NA	NA	NA
ST-MW04-01	ND	0.000570	ND	ND	ND	**4.20**	**8.34**	NA	NA	NA	NA
ST-G4-01	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Historical Results (7/29/10)											
ST-MW01-01	**8.05**	**0.0534**	0.00147	0.513	3.50	**3.12**	NA	NA	NA	NA	NA
ST-MW01-02 (duplicate)	**4.32**	**0.0629**	0.00169	0.515	3.41	**2.44**	NA	NA	NA	NA	NA
ST-MW4-01	ND	0.00056	ND	ND	ND	**6.62**	**12.6**	NA	NA	NA	NA
ST-G4-01	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Historical Results (9/19/06)											
ST-MW01-01	**150**	**1.2**	0.057	**4.3**	**30**	**2.6**	NA	NA	NA	NA	NA
ST-MW04-01	ND	ND	ND	ND	ND	**4.7**	**3.5**	NA	NA	NA	NA
ST-G4-01	0.23	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Historical Results (10/27/05)											
ST-MW01-01	**27.4**	**1.23**	0.187	**1.4**	**11.85**	**3.91**	NA	NA	NA	NA	NA
ST-MW04-01	ND	0.000903	ND	ND	ND	**4.26**	**5.60**	NA	NA	NA	NA
ST-MW04-02	ND	0.000911	ND	ND	ND	**4.36**	**5.75**	NA	NA	NA	NA
Historical Results (05/05/04)											
ST-MW01-01	**7.18**	**0.445**	0.746	0.326	2.15	**2.39**	NA	NA	NA	NA	NA
ST-MW02-01	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-MW04-01	ND	ND	ND	ND	ND	**4.22**	**5.68**	ND	ND	ND	**3.01**
ST-MW04-02	ND	ND	ND	ND	ND	**4.27**	**6.56**	ND	ND	ND	**2.89**
ST-G01-01	ND	ND	ND	ND	ND	0.577	NA	NA	NA	NA	NA
ST-G03-01	ND	ND	ND	ND	ND	0.660	NA	NA	NA	NA	NA
ADEC Groundwater Cleanup Levels (18 AAC 75.345 Table C)	**2.2 (mg/L)**	**0.005 (mg/L)**	**1.0 (mg/L)**	**0.7 (mg/L)**	**10.0 (mg/L)**	**1.5 (mg/L)**	**1.1 (mg/L)**	**0.010 (mg/L)**	**0.005 (mg/L)**	**0.10 (mg/L)**	**0.015 (mg/L)**

(CONTINUED)

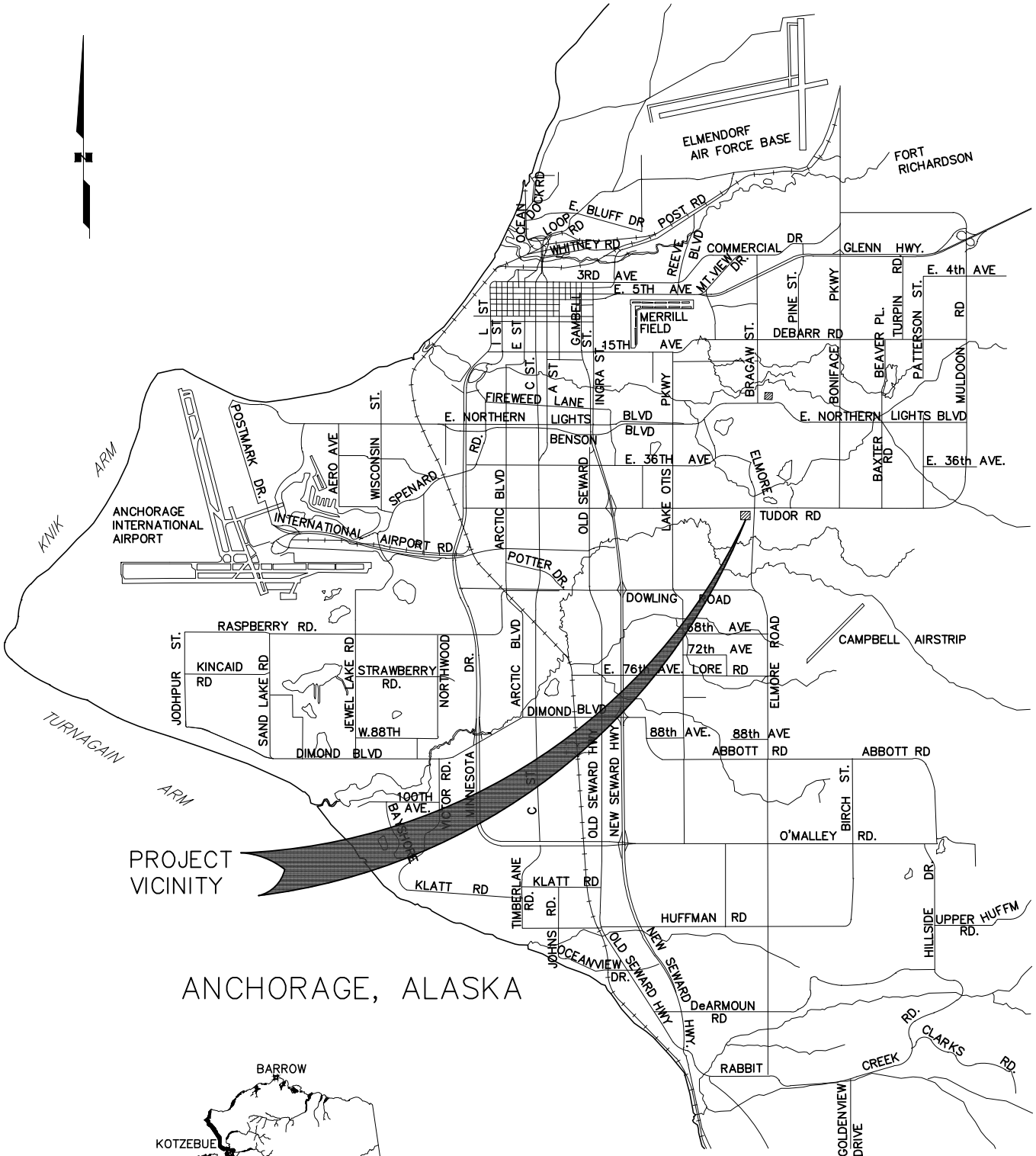
TABLE 2 - STUDENT TRANSPORTATION FACILITY
LABORATORY ANALYTICAL RESULTS – GROUNDWATER
(continued)

SAMPLE ID	GRO (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	DRO (mg/L)	RRO (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)
Historical Results (05/05/04), continued											
ST-G04-01	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-G05-01	ND	ND	ND	ND	ND	ND	0.559	ND	ND	**6.92**	**4.32**
ST-G06-01	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]	NA[a]
Historical Results (10/10/03)											
ST-MW01-01	**11.8**	**1.14**	**3.68**	0.644	2.86	**2.60**	NA	NA	NA	NA	NA
ST-MW02-01	ND	ND	ND	ND	ND	0.401	NA	NA	NA	NA	NA
ST-MW04-01	ND	ND	ND	ND	ND	**9.34**	**7.99**	**0.0116**	ND	0.00989	**0.0627**
ST-G01-01	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-G03-01	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-G04-01	ND	**0.0515**	ND	ND	ND	0.335	NA	NA	NA	NA	NA
ST-G05-01	ND	0.00159	ND	ND	ND	1.02	0.600	**0.0847**	0.00102	**0.314**	**0.160**
ST-G05-02	ND	0.00199	ND	ND	ND	1.38	0.879	0.0185	0.00100	0.0356	**0.0828**
ST-G06-01	ND	ND	ND	ND	ND	0.337	ND	**0.0725**	ND	0.0197	0.00818
Historical Results (7/15/03)											
ST-MW01-01	**36.0**	**3.86**	**12.9**	**1.32**	5.97	**2.19**	NA	NA	NA	NA	NA
ST-MW02-01	ND	ND	0.00811	ND	ND	0.433	NA	NA	NA	NA	NA
ST-MW04-01	ND	0.00124	0.00338	ND	ND	**7.77**	**7.47**	ND	ND	0.0102	**0.0239**
ST-G01-01	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-G03-01	ND	0.00111	0.00698	ND	0.00551	ND	NA	NA	NA	NA	NA
ST-G04-01	ND	0.000920	ND	ND	ND	ND	NA	NA	NA	NA	NA
ST-G05-01	0.438	**0.336**	ND	0.00678	ND	ND	0.614	ND	ND	0.041	**0.0166**
ST-G05-02	0.471	**0.360**	ND	0.00664	ND	0.668	ND	ND	ND	0.0541	**0.0193**
ST-G06-01	ND	ND	ND	ND	ND	ND	ND	**0.0597**	**0.00946**	**0.133**	**0.0313**
ADEC Groundwater Cleanup Levels (18 AAC 75.345 Table C)	**2.2 (mg/L)**	**0.005 (mg/L)**	**1.0 (mg/L)**	**0.7 (mg/L)**	**10.0 (mg/L)**	**1.5 (mg/L)**	**1.1 (mg/L)**	**0.010 (mg/L)**	**0.005 (mg/L)**	**0.10 (mg/L)**	**0.015 (mg/L)**

Key: ND = Not detected, or reported at the Practical Quantitation Limit (PQL)
NA = Not Analyzed
[a] = No sample collected due to well being seasonally frozen

Attachment B

Figures



ANCHORAGE SCHOOL DISTRICT

STUDENT TRANSPORTATION FACILITY
ANCHORAGE, ALASKA

LOCATION & VICINITY MAP

SEPTEMBER 2016 **FIGURE 1**

Plotted 9/1/2016 8:34 AM by Kyle Therrien

Z:\project\2397.01 ASD Student Transportation Facility\Earth\ACAD\2061.01 - Bus Barn Vicinity Map.dwg

PHOTO CREDIT: STATEWIDE DIGITAL MAPPING INITIATIVE

LEGEND

- MONITORING WELL SAMPLED 6/22/16
- GROUNDWATER MEASURED 6/22/16
- (XX.XX) GROUNDWATER ELEVATION IN FEET
- FENCE
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

ANCHORAGE SCHOOL DISTRICT

STUDENT TRANSPORTATION FACILITY
ANCHORAGE, ALASKA

MONITORING WELL LOCATIONS

SEPTEMBER 2016 FIGURE 2

Z:\project\2397.01 ASD Student Transportation Facility\Earth\ACAD\2061.01 - GW Report MWI Locations.dwg

Plotted 9/1/2016 9:23 AM by Kyle Therrien

Attachment C

Analytical Results and

Laboratory Data Review Checklist

Laboratory Report of Analysis

To: R & M Consultants Inc
9101 Vanguard Dr
Anchorage, AK 99507

Report Number: **1163351**

Client Project: **ASD GW Sampling 2397.01.01**

Dear Rebecca Hardcastle,

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

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

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

Sincerely,
SGS North America Inc.

Stephen C. Ede
Alaska Division Technical Director

Stephen Ede
2016.07.11
11:27:06 -08'00'

Stephen Ede Date
Project Manager
Stephen.Ede@sgs.com

Print Date: 07/11/2016 8:22:25AM

Case Narrative

SGS Client: **R & M Consultants Inc**
SGS Project: **1163351**
Project Name/Site: **ASD GW Sampling 2397.01.01**
Project Contact: **Rebecca Hardcastle**

Refer to sample receipt form for information on sample condition.

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

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Laboratory Qualifiers

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

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

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

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

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

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW-01-02	1163351001	06/22/2016	06/23/2016	Water (Surface, Eff., Ground)
MW-04-01	1163351002	06/22/2016	06/23/2016	Water (Surface, Eff., Ground)
MW-04-02	1163351003	06/22/2016	06/23/2016	Water (Surface, Eff., Ground)
TB1	1163351004	06/22/2016	06/23/2016	Water (Surface, Eff., Ground)
MW-01-01	1163351005	06/22/2016	06/23/2016	Water (Surface, Eff., Ground)

Method	Method Description
AK101	AK101/8021 Combo.
SW8021B	AK101/8021 Combo.
AK102	Diesel Range Organics (W)
AK102	Diesel/Residual Range Organics Water
AK103	Diesel/Residual Range Organics Water

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Detectable Results Summary

Client Sample ID: **MW-01-02**
Lab Sample ID: 1163351001
Volatile Fuels

Parameter	Result	Units
Benzene	18.7	ug/L
Ethylbenzene	511	ug/L
Gasoline Range Organics	3.70	mg/L
o-Xylene	291	ug/L
P & M -Xylene	940	ug/L
Toluene	2.15	ug/L

Client Sample ID: **MW-04-01**
Lab Sample ID: 1163351002
Semivolatile Organic Fuels

Parameter	Result	Units
Diesel Range Organics	3.30	mg/L
Residual Range Organics	1.99	mg/L

Volatile Fuels

Parameter	Result	Units
Benzene	0.410J	ug/L

Client Sample ID: **MW-04-02**
Lab Sample ID: 1163351003
Semivolatile Organic Fuels

Parameter	Result	Units
Diesel Range Organics	2.98	mg/L
Residual Range Organics	1.89	mg/L

Client Sample ID: **MW-01-01**
Lab Sample ID: 1163351005
Semivolatile Organic Fuels

Parameter	Result	Units
Diesel Range Organics	2.04	mg/L

Volatile Fuels

Parameter	Result	Units
Benzene	20.3	ug/L
Ethylbenzene	470	ug/L
Gasoline Range Organics	3.14	mg/L
o-Xylene	248	ug/L
P & M -Xylene	783	ug/L
Toluene	2.07	ug/L

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Results of **MW-01-02**

Client Sample ID: **MW-01-02**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351001
Lab Project ID: 1163351

Collection Date: 06/22/16 13:07
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	3.70		1.00	0.310	mg/L	10		07/06/16 15:19
Surrogates								
4-Bromofluorobenzene (surr)	98		50-150		%	10		07/06/16 15:19

Batch Information

Analytical Batch: VFC13120
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 07/06/16 15:19
Container ID: 1163351001-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	18.7		0.500	0.150	ug/L	1		07/05/16 19:05
Ethylbenzene	511		10.0	3.10	ug/L	10		07/06/16 15:19
o-Xylene	291		10.0	3.10	ug/L	10		07/06/16 15:19
P & M -Xylene	940		20.0	6.20	ug/L	10		07/06/16 15:19
Toluene	2.15		1.00	0.310	ug/L	1		07/05/16 19:05
Surrogates								
1,4-Difluorobenzene (surr)	92		77-115		%	1		07/05/16 19:05

Batch Information

Analytical Batch: VFC13112
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/05/16 19:05
Container ID: 1163351001-A

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 07/05/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VFC13120
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/06/16 15:19
Container ID: 1163351001-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 07/11/2016 8:22:30AM

J flagging is activated

Results of **MW-04-01**

Client Sample ID: **MW-04-01**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351002
Lab Project ID: 1163351

Collection Date: 06/22/16 17:00
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	3.30		0.652	0.196	mg/L	1		06/30/16 00:23
Surrogates								
5a Androstane (surr)	88.3		50-150		%	1		06/30/16 00:23

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 06/30/16 00:23
Container ID: 1163351002-D

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 06/28/16 10:14
Prep Initial Wt./Vol.: 920 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	1.99		0.543	0.163	mg/L	1		06/30/16 00:23
Surrogates								
n-Triacontane-d62 (surr)	80.7		50-150		%	1		06/30/16 00:23

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 06/30/16 00:23
Container ID: 1163351002-D

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 06/28/16 10:14
Prep Initial Wt./Vol.: 920 mL
Prep Extract Vol: 1 mL

Results of **MW-04-01**

Client Sample ID: **MW-04-01**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351002
Lab Project ID: 1163351

Collection Date: 06/22/16 17:00
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/06/16 11:50
Surrogates								
4-Bromofluorobenzene (surr)	94.9		50-150		%	1		07/06/16 11:50

Batch Information

Analytical Batch: VFC13120
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 07/06/16 11:50
Container ID: 1163351002-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.410	J	0.500	0.150	ug/L	1		07/06/16 11:50
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/06/16 11:50
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/06/16 11:50
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/06/16 11:50
Toluene	0.500	U	1.00	0.310	ug/L	1		07/06/16 11:50
Surrogates								
1,4-Difluorobenzene (surr)	90.4		77-115		%	1		07/06/16 11:50

Batch Information

Analytical Batch: VFC13120
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/06/16 11:50
Container ID: 1163351002-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW-04-02**

Client Sample ID: **MW-04-02**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351003
Lab Project ID: 1163351

Collection Date: 06/22/16 17:17
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	2.98		0.732	0.220	mg/L	1		06/30/16 00:34
Surrogates								
5a Androstane (surr)	85.4		50-150		%	1		06/30/16 00:34

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK102
Analyst: NRO
Analytical Date/Time: 06/30/16 00:34
Container ID: 1163351003-A

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 06/28/16 10:14
Prep Initial Wt./Vol.: 820 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	1.89		0.610	0.183	mg/L	1		06/30/16 00:34
Surrogates								
n-Triacontane-d62 (surr)	78.6		50-150		%	1		06/30/16 00:34

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK103
Analyst: NRO
Analytical Date/Time: 06/30/16 00:34
Container ID: 1163351003-A

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 06/28/16 10:14
Prep Initial Wt./Vol.: 820 mL
Prep Extract Vol: 1 mL

Results of **TB1**

Client Sample ID: **TB1**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351004
Lab Project ID: 1163351

Collection Date: 06/22/16 12:40
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		07/05/16 15:54
Surrogates								
4-Bromofluorobenzene (surr)	98.2		50-150		%	1		07/05/16 15:54

Batch Information

Analytical Batch: VFC13112
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 07/05/16 15:54
Container ID: 1163351004-A

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 07/05/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	0.250	U	0.500	0.150	ug/L	1		07/05/16 15:54
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		07/05/16 15:54
o-Xylene	0.500	U	1.00	0.310	ug/L	1		07/05/16 15:54
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		07/05/16 15:54
Toluene	0.500	U	1.00	0.310	ug/L	1		07/05/16 15:54
Surrogates								
1,4-Difluorobenzene (surr)	84.3		77-115		%	1		07/05/16 15:54

Batch Information

Analytical Batch: VFC13112
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/05/16 15:54
Container ID: 1163351004-A

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 07/05/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-01-01**

Client Sample ID: **MW-01-01**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351005
Lab Project ID: 1163351

Collection Date: 06/22/16 12:40
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	2.04		0.686	0.206	mg/L	1		07/06/16 13:55
Surrogates								
5a Androstane (surr)	83.7		50-150		%	1		07/06/16 13:55

Batch Information

Analytical Batch: XFC12501
Analytical Method: AK102
Analyst: S.G
Analytical Date/Time: 07/06/16 13:55
Container ID: 1163351005-D

Prep Batch: XXX35704
Prep Method: SW3520C
Prep Date/Time: 07/05/16 08:30
Prep Initial Wt./Vol.: 875 mL
Prep Extract Vol: 1 mL

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Results of **MW-01-01**

Client Sample ID: **MW-01-01**
Client Project ID: **ASD GW Sampling 2397.01.01**
Lab Sample ID: 1163351005
Lab Project ID: 1163351

Collection Date: 06/22/16 12:40
Received Date: 06/23/16 09:19
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	3.14		1.00	0.310	mg/L	10		07/06/16 17:33
Surrogates								
4-Bromofluorobenzene (surr)	101		50-150		%	10		07/06/16 17:33

Batch Information

Analytical Batch: VFC13120
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 07/06/16 17:33
Container ID: 1163351005-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Benzene	20.3		0.500	0.150	ug/L	1		07/05/16 19:43
Ethylbenzene	470		10.0	3.10	ug/L	10		07/06/16 17:33
o-Xylene	248		10.0	3.10	ug/L	10		07/06/16 17:33
P & M -Xylene	783		20.0	6.20	ug/L	10		07/06/16 17:33
Toluene	2.07		1.00	0.310	ug/L	1		07/05/16 19:43
Surrogates								
1,4-Difluorobenzene (surr)	85.2		77-115		%	1		07/05/16 19:43

Batch Information

Analytical Batch: VFC13112
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/05/16 19:43
Container ID: 1163351005-A

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 07/05/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VFC13120
Analytical Method: SW8021B
Analyst: ST
Analytical Date/Time: 07/06/16 17:33
Container ID: 1163351005-A

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 07/06/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Print Date: 07/11/2016 8:22:30AM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1738368 [VXX/29071]
Blank Lab ID: 1334524

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351001, 1163351004, 1163351005

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
4-Bromofluorobenzene (surr)	99.9	50-150		%

Batch Information

Analytical Batch: VFC13112
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 7/5/2016 12:33:00PM

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 7/5/2016 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [VXX29071]
Blank Spike Lab ID: 1334527
Date Analyzed: 07/05/2016 13:30

Spike Duplicate ID: LCSD for HBN 1163351 [VXX29071]
Spike Duplicate Lab ID: 1334528
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351001, 1163351004, 1163351005

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	1.04	104	1.00	0.957	96	(60-120)	8.10	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500	105	105	0.0500	104	104	(50-150)	0.23	

Batch Information

Analytical Batch: **VFC13112**
Analytical Method: **AK101**
Instrument: **Agilent 7890 PID/FID**
Analyst: **ST**

Prep Batch: **VXX29071**
Prep Method: **SW5030B**
Prep Date/Time: **07/05/2016 06:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1738368 [VXX/29071]
Blank Lab ID: 1334524

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351001, 1163351004, 1163351005

Results by **SW8021B**

Parameter	Results	LOQ/CL	DL	Units
Benzene	0.250U	0.500	0.150	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
Toluene	0.500U	1.00	0.310	ug/L
Surrogates				
1,4-Difluorobenzene (surr)	83.4	77-115		%

Batch Information

Analytical Batch: VFC13112
Analytical Method: SW8021B
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 7/5/2016 12:33:00PM

Prep Batch: VXX29071
Prep Method: SW5030B
Prep Date/Time: 7/5/2016 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [VXX29071]
Blank Spike Lab ID: 1334525
Date Analyzed: 07/05/2016 13:11

Spike Duplicate ID: LCSD for HBN 1163351 [VXX29071]
Spike Duplicate Lab ID: 1334526
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351001, 1163351004, 1163351005

Results by **SW8021B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Benzene	100	90.5	91	100	94.8	95	(80-120)	4.70	(< 20)
Ethylbenzene	100	87.9	88	100	91.3	91	(75-125)	3.80	(< 20)
o-Xylene	100	88.7	89	100	93.1	93	(80-120)	4.90	(< 20)
P & M -Xylene	200	177	88	200	184	92	(75-130)	4.10	(< 20)
Toluene	100	87.9	88	100	91.6	92	(75-120)	4.20	(< 20)
Surrogates									
1,4-Difluorobenzene (surr)	50	93	93	50	96.9	97	(77-115)	4.10	

Batch Information

Analytical Batch: **VFC13112**
Analytical Method: **SW8021B**
Instrument: **Agilent 7890 PID/FID**
Analyst: **ST**

Prep Batch: **VXX29071**
Prep Method: **SW5030B**
Prep Date/Time: **07/05/2016 06:00**
Spike Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1738468 [VXX/29082]
Blank Lab ID: 1334837

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351001, 1163351002, 1163351005

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
4-Bromofluorobenzene (surr)	98.7	50-150		%

Batch Information

Analytical Batch: VFC13120
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 7/6/2016 9:37:00AM

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 7/6/2016 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [VXX29082]
Blank Spike Lab ID: 1334840
Date Analyzed: 07/06/2016 10:34

Spike Duplicate ID: LCSD for HBN 1163351 [VXX29082]
Spike Duplicate Lab ID: 1334841
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351001, 1163351002, 1163351005

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	0.968	97	1.00	0.891	89	(60-120)	8.20	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500	107	107	0.0500	100	100	(50-150)	6.70	

Batch Information

Analytical Batch: **VFC13120**
Analytical Method: **AK101**
Instrument: **Agilent 7890 PID/FID**
Analyst: **ST**

Prep Batch: **VXX29082**
Prep Method: **SW5030B**
Prep Date/Time: **07/06/2016 06:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1738468 [VXX/29082]
Blank Lab ID: 1334837

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351001, 1163351002, 1163351005

Results by **SW8021B**

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

Batch Information

Analytical Batch: VFC13120
Analytical Method: SW8021B
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 7/6/2016 9:37:00AM

Prep Batch: VXX29082
Prep Method: SW5030B
Prep Date/Time: 7/6/2016 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [VXX29082]
Blank Spike Lab ID: 1334838
Date Analyzed: 07/06/2016 10:15

Spike Duplicate ID: LCSD for HBN 1163351 [VXX29082]
Spike Duplicate Lab ID: 1334839
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351001, 1163351002, 1163351005

Results by **SW8021B**

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

Batch Information

Analytical Batch: **VFC13120**
Analytical Method: **SW8021B**
Instrument: **Agilent 7890 PID/FID**
Analyst: **ST**

Prep Batch: **VXX29082**
Prep Method: **SW5030B**
Prep Date/Time: **07/06/2016 06:00**
Spike Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 100 ug/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1737575 [XXX/35641]
Blank Lab ID: 1332699

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351002, 1163351003

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	0.300U	0.600	0.180	mg/L
Surrogates				
5a Androstane (surr)	88.3	60-120		%

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK102
Instrument: Agilent 7890B F
Analyst: NRO
Analytical Date/Time: 6/29/2016 11:41:00PM

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 6/28/2016 10:14:44AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [XXX35641]
Blank Spike Lab ID: 1332700
Date Analyzed: 06/29/2016 23:52

Spike Duplicate ID: LCSD for HBN 1163351 [XXX35641]
Spike Duplicate Lab ID: 1332701
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351002, 1163351003

Results by **AK102**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	5	5.52	110	5	5.47	109	(75-125)	1.00	(< 20)
Surrogates									
5a Androstane (surr)	0.1	103	103	0.1	99.7	100	(60-120)	3.30	

Batch Information

Analytical Batch: **XFC12477**
Analytical Method: **AK102**
Instrument: **Agilent 7890B F**
Analyst: **NRO**

Prep Batch: **XXX35641**
Prep Method: **SW3520C**
Prep Date/Time: **06/28/2016 10:14**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL

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Method Blank

Blank ID: MB for HBN 1737575 [XXX/35641]
Blank Lab ID: 1332699

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351002, 1163351003

Results by **AK103**

Parameter	Results	LOQ/CL	DL	Units
Residual Range Organics	0.250U	0.500	0.150	mg/L
Surrogates				
n-Triacontane-d62 (surr)	84.9	60-120		%

Batch Information

Analytical Batch: XFC12477
Analytical Method: AK103
Instrument: Agilent 7890B F
Analyst: NRO
Analytical Date/Time: 6/29/2016 11:41:00PM

Prep Batch: XXX35641
Prep Method: SW3520C
Prep Date/Time: 6/28/2016 10:14:44AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [XXX35641]
Blank Spike Lab ID: 1332700
Date Analyzed: 06/29/2016 23:52

Spike Duplicate ID: LCSD for HBN 1163351 [XXX35641]
Spike Duplicate Lab ID: 1332701
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351002, 1163351003

Results by **AK103**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Residual Range Organics	5	5.83	117	5	5.71	114	(60-120)	2.10	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	0.1	86.8	87	0.1	82.5	83	(60-120)	5.10	

Batch Information

Analytical Batch: **XFC12477**
Analytical Method: **AK103**
Instrument: **Agilent 7890B F**
Analyst: **NRO**

Prep Batch: **XXX35641**
Prep Method: **SW3520C**
Prep Date/Time: **06/28/2016 10:14**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL

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Method Blank

Blank ID: MB for HBN 1738259 [XXX/35704]
Blank Lab ID: 1334215

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1163351005

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	0.300U	0.600	0.180	mg/L
Surrogates				
5a Androstane (surr)	86	60-120		%

Batch Information

Analytical Batch: XFC12503
Analytical Method: AK102
Instrument: Agilent 7890B R
Analyst: S.G
Analytical Date/Time: 7/6/2016 12:25:00AM

Prep Batch: XXX35704
Prep Method: SW3520C
Prep Date/Time: 7/5/2016 8:30:35AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1163351 [XXX35704]
Blank Spike Lab ID: 1334216
Date Analyzed: 07/06/2016 00:35

Spike Duplicate ID: LCSD for HBN 1163351 [XXX35704]
Spike Duplicate Lab ID: 1334217
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1163351005

Results by **AK102**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	5	5.26	105	5	5.67	113	(75-125)	7.40	(< 20)
Surrogates									
5a Androstane (surr)	0.1	102	102	0.1	111	111	(60-120)	8.40	

Batch Information

Analytical Batch: **XFC12503**
Analytical Method: **AK102**
Instrument: **Agilent 7890B R**
Analyst: **S.G**

Prep Batch: **XXX35704**
Prep Method: **SW3520C**
Prep Date/Time: **07/05/2016 08:30**
Spike Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 5 mg/L Extract Vol: 1 mL

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SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1163351

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

Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.

Section 1

CLIENT: R&M Consultants

CONTACT: Rebecca Hardcastle — PHONE #: 646-9682

PROJECT NAME: ASD Groundwater Sampling 2397.01.01 — Project/ PWSID/ PERMIT#:

REPORTS TO: Rebecca Hardcastle — E-MAIL: rhardcastle@rmconsult.com

INVOICE TO: R&M Consultants — QUOTE #: — P.O. #:

Section 3 — Preservative

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	GRO AK101/BTEX EPA 8021B Combo (HCl)	DRO AK102/RRO AK 103 (HCl)	GRO AK101/BTEX EPA 8021B Combo Trip Blank (HCl)	DRO AK102 (HCL)							REMARKS/ LOC ID
	~~MW-01-01~~	~~06/22/16~~	~~12:40pm~~	~~water~~	5		X			X	(RH)						
(1) A-C	MW-01-02	06/22/16	1:07pm	water	3		X										
(2) A-E	MW-04-01	06/22/16	5:00pm	water	5		X	X									
(3) A-B	MW-04-02	06/22/16	5:17pm	water	2			X									
(4) A-C	TB1				3				X								
(5) A-E	MW-01-01	06/22/16	12:40pm	water	5		X			X							

Section 5

	Date	Time	
Relinquished By: (1) Rebecca Hardcastle	6/23/16	9:19am	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	6/23/16	9:19 am	Received For Laboratory By:

Section 4 — DOD Project? Yes No

Cooler ID: _____

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions: Standard

Temp Blank °C: 4.7 #200 or Ambient [ ] (See attached Sample Receipt Form)

Chain of Custody Seal: (Circle) INTACT BROKEN (ABSENT) (See attached Sample Receipt Form)

hand delivered

[ ] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
[ ] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms-and-conditions

F083-Blank_COC_Templates_2015-03-19

SGS

e-SAMPLE RECEIPT FORM

1163351

Review Criteria	Y/N (yes/no)	Exceptions Noted below
	Y	exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location		ABSENT
COC accompanied samples?	Y	
		**exemption permitted if chilled & collected <8hrs ago or chlling not required (i.e., waste, oil)
Temperature blank compliant* (i.e., 0-6 °C after CF)?	Y	Cooler ID: 1 @ 4.7 °C Therm ID: 200
		Cooler ID: @ °C Therm ID:
		Cooler ID: @ °C Therm ID:
		Cooler ID: @ °C Therm ID:
		Cooler ID: @ °C Therm ID:
If >6°C, were samples collected <8 hours ago?		
If <0°C, were sample containers ice free?		
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
		Note: Refer to form F-083 "Sample Guide" for hold times.
Were samples received within hold time?	Y	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	Y	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous?	Y	
		***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	Y	
IF APPLICABLE		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	Y	
Were all VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	Y	
Were all soil VOAs field extracted with MeOH+BFB?		

Note to Client: Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1163351001-A	HCL to pH < 2	OK			
1163351001-B	HCL to pH < 2	OK			
1163351001-C	HCL to pH < 2	OK			
1163351002-A	HCL to pH < 2	OK			
1163351002-B	HCL to pH < 2	OK			
1163351002-C	HCL to pH < 2	OK			
1163351002-D	HCL to pH < 2	OK			
1163351002-E	HCL to pH < 2	OK			
1163351003-A	HCL to pH < 2	OK			
1163351003-B	HCL to pH < 2	OK			
1163351004-A	HCL to pH < 2	OK			
1163351004-B	HCL to pH < 2	OK			
1163351004-C	HCL to pH < 2	OK			
1163351005-A	HCL to pH < 2	OK			
1163351005-B	HCL to pH < 2	OK			
1163351005-C	HCL to pH < 2	OK			
1163351005-D	HCL to pH < 2	OK			
1163351005-E	HCL to pH < 2	OK			

Container Condition Glossary

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

OK - The container was received at an acceptable pH for the analysis requested.
BU - The container was received with headspace greater than 6mm.
DM- The container was received damaged.
FR- The container was received frozen and not usable for Bacteria or BOD analyses.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

Laboratory Data Review Checklist

Completed by:	Rebecca Hardcastle		
Title:	Environmental Specialist	Date:	Jul 12, 2016
CS Report Name:	ASD GW Sampling 2397.01.01	Report Date:	Jul 11, 2016
Consultant Firm:	R&M Consultants, Inc.		
Laboratory Name:	SGS North America, Inc.	Laboratory Report Number:	1163351
ADEC File Number:	2100.26.251	ADEC RecKey Number:	NA

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

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

Samples were submitted and analyzed by SGS Anchorage.

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 cooler temperature was 4.7° C at the time of the lab check-in.

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 issues noted.

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

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

No issues noted.

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

Comments:

Data quality or usability were not affected.

4. Case Narrative

a. Present and understandable?

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

b. Discrepancies, errors or QC failures identified by the lab?

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

There were no discrepancies, errors, or QC failures.

c. Were all corrective actions documented?

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

There were no discrepancies, errors, or QC failures therefore no corrective actions were required.

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

Comments:

Data quality or usability were not affected.

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:

No soil samples were analyzed as pat of this laboratory report.

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

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

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

Comments:

Data quality or usability were not affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

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

ii. All method blank results less than PQL?

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

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

Not applicable. All method blank results were less than PQL.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No samples were affected.

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

Data quality or usability were not affected.

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

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

GRO, DRO, RRO, BTEX

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ◉ NA (Please explain) Comments:

Metals were not analyzed.

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

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

Comments:

Not applicable. No %R or RPD were found outside of acceptable limits.

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

No affected samples.

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

Data quality or usability were not affected.

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

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

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ◉ NA (Please explain) Comments:

There were no failed surrogate recoveries.

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

Data quality or usability were not affected.

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

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

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

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

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

Only one cooler was required for sample transport.

iii. All results less than PQL?

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

iv. If above PQL, what samples are affected?

Comments:

NA, all results were less than PQL.

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

Comments:

Data quality or usability were not affected.

e. Field Duplicate

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

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

ii. Submitted blind to lab?

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

MW-01-02 (Duplicate for MW-01-01) for GRO and BTEX and MW-04-02 (Duplicate of MW-04-01) for DRO and RRO.

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

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

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

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

Data quality or usability were not affected.

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ◉ NA (Please explain) Comments:

None collected as sampling equipment was single use.

i. All results less than PQL?

○ Yes ○ No ◉ NA (Please explain) Comments:

None collected as sampling equipment was single use.

ii. If above PQL, what samples are affected?

Comments:

NA

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

Comments:

Data quality or usability were not affected.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ◉ NA (Please explain) Comments:

No additional flags were assigned.

Reset Form