



Environmental & Geotechnical Solutions

In association with:

KENT & SULLIVAN, INC.

ENVIRONMENTAL CONSULTANTS

312 TYEE STREET

SOLDOTNA, AK 99669

FOCUSED SITE INVESTIGATION REPORT FORMER COASTAL DRILLING SITE, SOLDOTNA ALASKA ADEC FILE NO. 2333.38.013

Prepared for:

Reeves Amodio LLC

September 2010



Source: Google Earth

FORMER COASTAL DRILLING SITE

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1-1
1.1	BACKGROUND	1-1
1.2	PURPOSE AND SCOPE.....	1-2
2.0	INVESTIGATIVE ACTIVITIES	2-1
2.1	SITE SURVEY	2-1
2.2	TEST PIT EXCAVATIONS	2-1
2.3	TEST PIT SOIL SAMPLING AND ANALYSIS.....	2-1
2.4	GRATE SOIL SAMPLING AND ANALYSIS	2-2
2.5	DATA VALIDATION	2-2
3.0	DISCUSSION OF RESULTS	3-1
3.1	OPEN PIT	3-1
3.2	COVERED PIT.....	3-2
3.3	GRATE AREA.....	3-2
4.0	CONCLUSIONS.....	4-1
5.0	REFERENCES.....	5-1

LIST OF TABLES

Table 1.	PID Readings and Soil Sample Descriptions
Table 2.	Soil Metals and Hydrocarbons Analyses
Table 3.	Soil Polychlorinated Biphenyl (PCB) Analyses
Table 4.	Soil Volatile Organic Compound (VOC) Analyses

LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	1970 Air Photo with 2009 Ground Survey Data
Figure 4	2009 Test Pit Locations
Figure 5	Open Pit Volume Calculations

APPENDIXES

APPENDIX A	SITE SURVEY DATA
APPENDIX B	GEOTECHNICAL REPORT
APPENDIX A	LABORATORY ANALYSIS CERTIFICATES AND ADEC LABORATORY DATA REVIEW CHECKLIST

1.0 INTRODUCTION

This site investigation report summarizes the activities and findings of a focused site investigation conducted at the former Coastal Drilling Site (site) located in Soldotna, Alaska (Figure 1). The work was performed in general accordance with the *Focused Site Investigation Work Plan – Former Coastal Drilling Site*, (ALTA, November 13, 2009). Any changes that were implemented due to field conditions are identified in the appropriate sections of this report. All work was performed under the direction of a Qualified Person as required under 18 AAC 75.

1.1 BACKGROUND

The former Coastal Drilling facility is located at mile 0.5 Kenai Spur Road, Soldotna, Alaska. The legal description of the Property is described as the eastern half of Section 29, T5N, R10W, Seward Meridian. The entire property includes several adjacent parcels totaling approximately 7 acres as shown on Figure 2. The investigation described in this report is focused primarily on the area within the chain link fence also shown on Figure 2.

The site was first developed by Coastal Drilling Company in 1957. Coastal Drilling Company conducted their oil and gas well drilling business from the site. Operations at the site consisted of drill rig maintenance and cleaning. Drilling company operations at the site ceased about 1981, although various companies have continued to operate the machine shop (presently vacant).

Prior reports indicate that site development included digging a debris disposal pit and constructing a machine shop, a drilling shop, and an office building. During the time the drilling companies operated the site, scrap iron, engines, lumber, and other drilling rig junk were placed in the debris disposal pit. A grate and drain associated with the drilling shop (now demolished) is also reported to have received rig wash water which was conducted to the disposal pit via a 6-inch pipe. This pit was subsequently filled and is referred to as the “covered pit”. A second pit was excavated and remains open. Its use as a disposal pit has not been verified. This second pit is referred to as the “open pit” and is visible on the air photo in the frontispiece to this report.

Prior reports on the site include the following:

- August 1992: *Environmental Site Investigation Coastal Drilling Facility Soldotna, Alaska*. Shannon & Wilson, Inc.
- June, 1990: *Final Report Coastal Drilling Site Investigation, Soldotna, Alaska*. Harding Lawson Associates.

- 1988: *Preliminary Site Investigation*. ENSR, Inc.
- 1987: *Preliminary Assessment Report*. Tryck, Nyman, Hayes.

1.2 PURPOSE AND SCOPE

The overall goals of the investigation were to update old sampling data and to collect additional information necessary for completing a feasibility analysis for site cleanup. The specific goals of the project were to:

- Update the historical total petroleum hydrocarbon (TPH) data with gasoline-range organics (GRO), diesel-range organics (DRO), and residual-range organics (RRO) data for the purpose of comparing to current cleanup criteria.
- Estimate the volume of the open pit.
- Evaluate the potential for soil contamination in the open pit.
- Evaluate the potential presence of hexavalent chromium.
- Further evaluate the presence of lead in soil.
- Measure the density of the cover material over the covered pit for the suitability of capping.
- Estimate the volume of contaminated soil in the outside grate area.

2.0 INVESTIGATIVE ACTIVITIES

2.1 SITE SURVEY

A site topographic survey was conducted to provide a baseline map for future work. McLane Surveyors conducted the ground survey on November 10, 2009 and re-surveyed it on April 1, 2010. Appendix A provides the site topography and survey details. Figure 3 shows the elevation survey overlain onto a 1970 air photo of the site showing the location of the covered pit prior to being covered.

2.2 TEST PIT EXCAVATIONS

Test pits were excavated to help evaluate the depth of the open pit, collect soil samples from the bottom of the open pit, collect soil samples within the covered pit, and to characterize the cover material over the covered pit. One test pit that was to be excavated adjacent to the outside grate could not be excavated because concrete was present on the east side of the pit, well MW-01 is located on the south side, fencing is located on the west side, and the north side had been previously excavated to a depth of 8 feet in 1989. Although it may have been possible to break up the concrete, it appeared that doing so would result in demolishing the grate.

Six test pits (09TP-01 through 09TP-06) were excavated on December 21, 2009 at the locations shown on Figures 3 and 4. The test pits were excavated by L&J Excavators using a Komatsu PC200, and the excavations were supervised by Sue Kent with Kent & Sullivan, a qualified person as required by 18AAC75. Trees and brushy vegetation had been cleared the previous day around the perimeter of the open pit and across a portion of the covered pit. Slash was piled along the fence lines. The site was snow-covered and the ground was frozen to at least three feet at the time of the investigation. The maximum depth of the test pits around the perimeter of the open pit was generally constrained by long and bulky objects that were frozen into interlocking positions with other objects and/or the ground.

2.3 TEST PIT SOIL SAMPLING AND ANALYSIS

Soil samples were collected from the base of the excavations in all test pits except 09TP-04 and a second sample was collected from test pit 09TP-06 from two feet below the cover cap. The samples were field screened using head-space techniques with a photo-ionization detector (PID). Table 1 provides the field screening and sample descriptions for the soil samples.

The samples were collected for analysis of GRO, DRO, RRO, volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs), total lead, total chromium, and hexavalent chromium.

The samples were collected using clean trowels and placed into sample containers as follows:

Analysis	Method	Volume	Container	Preservative
GRO	AK101	4 oz	Amber glass w/ septa	MeOH
VOCs	SW8260B	4 oz	Amber glass w/ septa	MeOH
DRO/RRO	AK102/103	4-oz	Amber glass	None
PCBs	SW8082A	4-oz	Amber glass	None
Lead, Chromium	SW6020	4-oz	Amber glass	None

The sample containers were stored in a cooler with ice and held at 4!2) C and shipped to SGS Laboratory in Anchorage. Tables 2, 3, and 4 provide summaries of the analytical results; Appendix C contains the laboratory report and ADEC checklist.

2.4 GRATE SOIL SAMPLING AND ANALYSIS

Two shallow soil samples were collected adjacent to the grate located outside the fenced portion of the site (Figure 4) on July 15, 2010. Sample Grate-1 was collected between on the southwest side of the grate, and sample Grate-2 was collected on the northwest side of the grate, between the grate and the fence. The samples were collected from a depth of 0.5 to 1.0 feet and consisted of compacted sand and gravel with no evidence of staining or odors. The samples were placed in 4-ounce amber glass jars and submitted for PCB analysis by EPA Method 8082A. Table 3 includes a summary of the analytical results; Appendix C contains the laboratory report and ADEC checklist.

2.5 DATA VALIDATION

This QA summary includes a review, where appropriate, of holding times, blanks, matrix spike (MS) and laboratory control sample (LCS) recoveries, duplicate sample relative percent differences (RPDs), reporting limits, and overall assessment of data in the sample event. Each analysis that was performed is evaluated in the following subsections.

Field samples were reviewed to determine overall precision of sampling and analysis as well as matrix heterogeneity for GRO, BTEX/HVOC, DRO/RRO, PCBs, total chromium, hexavalent chromium, and total lead.

Laboratory data were evaluated using laboratory-supplied control criteria. In the following method-specific discussions, only the criteria exceedances that impact data qualification or require assessment beyond laboratory documentation are discussed.

Samples were submitted to SGS Environmental Services (SGS) in Anchorage. Seven

(7) soil samples, including one trip blank, were submitted in one laboratory batch on December 23, 2009. A field duplicate was not collected with this batch. A matrix spike/matrix spike duplicate (MS/MSD) sample was not designated for this batch.

Samples that contained greater than 26 mg/kg total chromium were subcontracted to Columbia Analytical Services (CAS) in Kelso, WA for hexavalent chromium analysis. Sample results are reported under CAS job number K1000269.

The sample results are reported under SGS job number 1096816, and all samples were received at SGS in good condition with the following exception:

- Samples were received in Anchorage, AK, and Kelso, WA, at temperatures below the recommended 4 ± 2 °C. Ice was not noted on the cooler receipt forms; no qualifications were made based on temperatures.

Two soil samples were submitted in one laboratory batch to SGS on July 16, 2010. A field duplicate sample was not submitted with this batch. A matrix spike/matrix spike duplicate (MS/MSD) sample was not designated for this batch. The sample results are reported under SGS job number 1103492, and all samples were received at SGS, with proper preservation and temperatures (4 ± 2 °C), in good condition.

2.5.1.1 GRO/BTEX/HVOC by AK101/8026B

All data elements/indicators are in conformance with the project criteria, with the following exceptions:

- 4-Bromofluorobenzene (surrogate) recoveries in samples 09TP-03 (1480%), 09TP-05 (343%) and 09-TP-06 (250%) (samples 1096816003, -004 and -005, respectively) are above QC limits (50-150%). The positive GRO results for these three samples are qualified as estimated (J).
- The soil Trip Blank collection date was noted as 11/18/09 on the COC, and was noted in the case narrative as being received past the holding time. Technical holding times do not apply for trip blanks.
- The Method Detection Level for several VOC analytes do not meet the most stringent ADEC soil cleanup criteria. See Table 4 for an identification of those samples.
- An MS/MSD was performed on sample 09TP-01 (1096816001) for VOC.
 - The MS and/or MSD recoveries for chloromethane, vinyl chloride and dichlorodifluoromethane are above QC limits (various). Results for these analytes in the un-spiked sample are non-detect; no qualifications were made.
 - The MS/MSD RPD for 2-butanone (51%) is above QC limits (<20%). All

other recoveries and QC limits were met; no qualifications were made.

2.5.1.2 DRO/RRO by AK102/AK103

All data elements/indicators are in conformance with the project criteria, with the following exceptions:

- Surrogate 5a-androstane (27%) and n-triacontane (22%) recoveries in sample 09TP-03 (1096816003) are below QC criteria (50-150%) due to sample dilution. Greater than 5X dilution was performed due to high levels of target analytes. No qualifications were made.

2.5.1.3 PCBs by SW8082

All data elements/indicators are in conformance with the project criteria.

2.5.1.4 Total Chromium and Lead by SW6020

All data elements/indicators are in conformance with the project criteria.

2.5.1.5 Hexavalent Chromium (Cr+6) by EPA 3060A (CAS, Kelso)

All data elements/indicators are in conformance with the project criteria.

2.5.1.6 Overall Assessment

The following summary highlights the data evaluation findings for this sampling event:

- No data are rejected.
- The completeness objectives (greater than 85 percent complete) for this project are met.
- The precision and accuracy of the laboratory data, as measured by laboratory quality control indicators, suggest that the data are useable as qualified for the purposes of this project.

3.0 DISCUSSION OF RESULTS

3.1 OPEN PIT

Four test pits (09TP-1 through 09TP-04) were excavated around the perimeter of the open pit. Test pits 09TP-01 and 09TP-02 appeared to reach the base of the pit at depths of 10 and 12 feet, respectively. The soils underlying the open pit at both locations are sands and gravels, and at the time of the investigation, dry.

Test pit 09TP-03 may not have reached the bottom of the pit at 10 feet, although it was difficult to ascertain because so much of the debris was frozen in place. Test pit 09TP-04 encountered about three feet of debris that was just piled on top of the ground, and the excavation did not extend into the frozen ground.

As reported in prior reports for this site, the pit debris is a heterogeneous mix of large amounts of pallets, tires, drums, lumber, cables, and scrap iron as well as miscellaneous items such as a desk and miscellaneous parts of vehicles and other machinery. The debris generally appears to be uncontaminated solid waste except in the area of test pit 09TP-03 where several vehicle batteries and battery parts were observed and hydrocarbon-impacted soils were encountered at a depth of about 10 feet. Analytical results from a sample of that soil (sample 09TP-03) contained elevated GRO (323 mg/kg) and DRO (9,650 mg/kg) concentrations (Table 2). This sample also contained the highest lead concentration (95.5 mg/kg) detected in the 2009 soil samples, but its concentration is significantly below ADEC Method 2 cleanup criteria (400 mg/kg). Samples collected at the bottom of the other test pits in the open pit did not contain petroleum hydrocarbons, chromium +6, chromium +3, lead, PCBs, or VOCs above soil criteria.

The volume of the open pit was estimated assuming that the pit bottom is essentially flat and by integrating the area within the pit using one foot “slices” based on the topographic contours shown on Figure 5. The total volume of the pit is estimated to be approximately 550 cubic yards.

3.2 COVERED PIT

Two test pits (09TP-05 and 09TP-06) were excavated in the covered pit area. The location for test pit 09TP-05 was selected to be near where the drain pipe from the grate area described in prior reports discharged into the pit. The drain pipe was not located during this site investigation however. Both excavations encountered approximately five feet of sandy, gravelly silt cover material, the upper three feet of which were frozen. Underlying the cover material was visibly stained soil with slight hydrocarbon odors and miscellaneous metal debris (including an engine block, cable, and drum). The bottom of test pit 09TP-06 was at 9 feet and appeared to be saturated, as a small volume of water seeped into the test pit while it was open (see adjacent photograph).



Only soil sample 09TP-05 contained an elevated DRO concentration (1,240 mg/kg) from the covered pit area, and none of the samples from the covered pit contained elevated concentrations of GRO, RRO, lead, chromium +6, chromium +3, PCBs, or VOCs.

On December 22, 2009, test pit 09TP-05 was extended about 10 feet to the south and to a depth of about three feet, just below the frost line. McLane Engineers collected a sample of cap soil for grain size analysis and performed a densitometer reading from the base of the excavation. Appendix B contains the results of those tests. The grain size analysis indicated that the soils consist of silty sand with gravel with a maximum density at 130 pounds/cubic foot. The densitometer testing indicated a relative compaction of 92.8%.



3.3 GRATE AREA

The soil sample collected from the northwest side of the grate (sample Grate-2) did not

contain detectable PCBs but the sample from the southwest side of the grate (sample Grate-1) contained 0.553 mg/kg PCBs. Previous sample results from the grate area include the following:

- 1991 shallow soil sample SS-1 collected by Shannon & Wilson from a similar location and depth as sample Grate-1 contained 2.5 mg/kg PCBs.
- 1991 shallow soil sample SS-3 collected by Shannon & Wilson at the 0.5 to 1.0 foot depth from the southeast corner of the grate did not contain detectable PCB concentrations.
- 1989 surface soil sample 89160000 collected by Harding Lawson from Trench 16 on the northeast side of the grate contained 2.4 mg/kg PCBs.
- 1989 soil sample MW011 collected by Harding Lawson at the one-foot depth from monitoring well MW-1 on the southwest side of the grate contained 21 mg/kg PCBs.

The data collected by this study confirms the presence of PCBs in shallow soil in the grate area, but does not support the levels reported from earlier studies. The concentration detected in the 2010 sample is below the ADEC cleanup criteria for unrestricted site land use.

4.0 CONCLUSIONS

The principal findings from this investigation are as follows.

- Evidence of contamination in the open pit was found only in the northeast side of the pit where several vehicle batteries and battery parts were observed and an apparently localized area of hydrocarbon-saturated soils were encountered at a depth of about 10 feet. A sample from that area contained more than 9,000 mg/kg DRO and more than 300 mg/kg GRO.
- The volume of the open pit is estimated to be approximately 550 cubic yards based on a topographic survey of the pit and assuming a flat bottom.
- In samples from the covered pit, only DRO in one sample (1,240 mg/kg) exceeded ADEC Method 2 cleanup criteria.
- Hexavalent chromium was not detected in samples containing up to 67 mg/kg total chromium, suggesting that chromium may not be a significant concern.
- Lead concentrations around the perimeter of the open pit are less than 100 mg/kg suggesting that the discarded batteries encountered on the northeast side have only a limited impact.
- Concentrations of volatile organic compounds and PCBs were all below the most restrictive ADEC Method 2 cleanup criteria.
- The fill soils at the covered pit are of sufficient density to provide structural support for a capping system.
- A low PCB concentration detected in shallow soil adjacent to the grate is below the ADEC cleanup level for unrestricted land use.

The results of this investigation suggest that capping and some minimal soil and debris removal is a viable remedial option for this site.

5.0 REFERENCES

ENSR, Inc., 1988: *Preliminary Site Investigation*.

Harding Lawson Associates' June, 1990: *Final Report Coastal Drilling Site Investigation, Soldotna, Alaska*.

Shannon & Wilson, Inc., August 1992: *Environmental Site Investigation Coastal Drilling Facility Soldotna, Alaska*.

Tryck, Nyman, Hayes, Inc., 1987: *Preliminary Assessment Report*.

TABLES

Table 1. PID readings and soil sample descriptions, Coastal Drilling Site.

Sample ID	Sample Depth (feet)	PID (ppm)	Sample Description
09TP-01A	10	0.9	Brownish-gray SILT and fine sand, most, no odor.
09TP-01B	11	1.6	Brownish-gray SILT with rounded pebbles and sand, moist, no odor
09TP-02	12	1.1	Medium brown, fine to coarse SAND with gravel (20-40%), dry, no odor.
09TP-03	10	910	Dark brownish-gray, fine to coarse SAND with gravel, heavy hydrocarbon sheens, strong odor, moist.
09TP-05	8	58.9	Dark brown SILT with sand, gravel, and metal debris; slight odor, moist.
09TP-06-6	6	18.2	Medium brown SILT with 10 to 30 percent sand and gravel, moist, slight odor.
09TP-06-9	9	10.1	Bluish-gray and dark brown swirled SILT with 10-15% sand and gravel, wet, slight odor.

Table 2. Soil metals and hydrocabons analyses, Coastal Drilling Site.

Sample ID	Sample Depth	Sample Date	Soil Criteria [1]							
			Total Cr	Cr ⁺⁶	Cr ⁺³ [2]	Lead	GRO	DRO	RRO	
			<i>Direct Contact:</i>	300	300	152,000	400	--	--	--
			<i>Migration to GW:</i>	25	25	>10 ⁶	--	300	250	11,000
			<i>Ingestion:</i>	--	--	--	--	1,400	12,500	10,000
			<i>Inhalation:</i>	--	--	--	--	1,400	10,250	22,000
09TP-01	10	12/21/2009		30.5	0.58 U	30.5	86.2	4.88 U	90.7	655
09TP-02	11	12/21/2009		29.9	0.52 U	29.9	6.64	2.16 U	20.6 U	20.6 U
09TP-03	12	12/21/2009		67.2	0.59 U	67.2	95.5	323 J	9,650	7,630
09TP-05	8	12/21/2009		43	0.61 U	43	26.1	41.4 J	1,240	2,620
09TP-06-6	6	12/21/2009		38.1	0.64 U	38.1	9.22	39.6 J	177	1,020
09TP-06-9	9	12/21/2009		29	0.65 U	29	8.96	5.06	98.2	416

Concentrations reported in mg/kg.

[1] Table B1. Method two - soil cleanup levels in 18AAC75.341 (January 2009)

[2] Cr⁺³ concentration = (Total Chromium - Cr⁺⁶) concentrations

BOLD Analyte was detected

Concentration exceeds one or more of the soil criteria.

-- Criteria not established.

Cr Chromium

J Estimated concentration.

U The analyte was not detected above the reporting level shown on the table.

Table 3. Soil polychlorinated biphenyl (PCB) analyses, Coastal Drilling Site.

Sample ID	Sample Depth	Sample Date	PCBs	
			Direct Contact:	
			Migration to GW:	--
			Ingestion:	--
			Inhalation:	--
09TP-01	10	12/21/2009		ND (0.0594 U)
09TP-02	11	12/21/2009		ND (0.0517 U)
09TP-03	12	12/21/2009		ND (0.0596 U)
09TP-05	8	12/21/2009		0.154 (Arochlor-1016)
09TP-06-6	6	12/21/2009		ND (0.0656 U)
09TP-06-9	9	12/21/2009		ND (0.0634 U)

Results reported in mg/kg.

BOLD Analyte was detected.

Concentration exceeds one or more of the soil criteria.

ND None of the analytes assessed by this method were detected.

Table 4. Soil volatile organic compound (VOC) analyses, Coastal Drilling Site.

Analyte	Soil Cleanup Levels [1]				Sample ID					
	Direct Contact	Ingestion	Outdoor Inhalation	Migration to GW	09TP-01	09TP-02	09TP-03	09TP-05	09TP-06-6	09TP-06-9
1,1,2,2-Tetrachloroethane	42	--	5.5	0.017	<u>0.0293 U</u>	0.0129 U	<u>0.0215 U</u>	<u>0.0321 U</u>	<u>0.0326 U</u>	<u>0.0248 U</u>
1,1,2-Trichloroethane	150	--	11	0.018	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
1,1-Dichloroethene	14	--	0.85	0.03	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
1,2,3-Trichloropropane	1.2	--	0.17	0.00053	<u>0.0293 U</u>	<u>0.0129 U</u>	<u>0.0215 U</u>	<u>0.0321 U</u>	<u>0.0326 U</u>	<u>0.0248 U</u>
1,2,4-Trimethylbenzene	5,100	--	49	23	0.0152 U	0.0673 U	1.010	12.20	0.824	0.173
1,2-Dibromoethane	4.2	--	0.6	0.00016	<u>0.0152 U</u>	<u>0.0673 U</u>	<u>0.0112 U</u>	<u>0.0167 U</u>	<u>0.0170 U</u>	<u>0.0129 U</u>
1,2-Dichloroethane	91	--	4.8	0.016	0.0152 U	<u>0.0673 U</u>	0.0112 U	<u>0.0167 U</u>	<u>0.0170 U</u>	0.0129 U
1,2-Dichloropropane	120	--	5.3	0.018	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
1,3,5-Trimethylbenzene	5,100	--	42	23	0.0152 U	0.0673 U	0.563	4.440	0.241	0.0368 J
4-Isopropyltoluene	--	--	--	--	0.0152 U	0.0673 U	0.528	0.333	0.0170 U	0.051
Benzene	150	--	11	0.025	0.00976 U	0.00431 U	0.00718 U	0.0107 U	0.0109 U	0.0145 J
Bromodichloromethane	130	--	10	0.044	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
Carbon tetrachloride	64	--	3.1	0.023	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
Dibromochloromethane	99	--	14	0.032	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
Ethylbenzene	10,100	--	110	6.9	0.0152 U	0.0673 U	0.216	0.054	0.0170 U	0.0153 J
Isopropylbenzene	10,100	--	62	51	0.0152 U	0.0673 U	0.079	0.262	0.172	0.133
Methylene chloride	1100	--	160	0.016	<u>0.0605 U</u>	<u>0.0267 U</u>	<u>0.0445 U</u>	<u>0.0663 U</u>	<u>0.0674 U</u>	<u>0.0512 U</u>
Naphthalene	1,400	--	28	20	0.0293 U	0.0129 U	0.0215 U	0.251	0.326	0.140
n-Butylbenzene	1,000	--	42	15	0.0152 U	0.0673 U	0.420	0.140	0.148	0.065
n-Propylbenzene	1,000	--	42	15	0.0152 U	0.0673 U	0.219	0.733	0.229	0.134
sec-Butylbenzene	1,000	--	41	12	0.0152 U	0.0673 U	0.363	0.155	0.093	0.050
tert-Butylbenzene	1,000	--	70	12	0.0152 U	0.0673 U	0.071	0.0167 U	0.0217 J	0.0129 U
Tetrachloroethene	15	--	10	0.024	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
Total Xylenes	20,300	--	63	63	0.0585 U	0.0259 U	0.582	0.420	0.135 J	0.0496 U
Trichloroethene	21	--	0.57	0.02	0.0152 U	<u>0.0673 U</u>	0.0112 U	0.0167 U	0.0170 U	0.0129 U
Vinyl chloride	5.5	--	4.3	0.0085	<u>0.0234 U</u>	<u>0.0140 U</u>	<u>0.0172 U</u>	<u>0.0257 U</u>	<u>0.0261 U</u>	<u>0.0198 U</u>

Concentrations are reported in mg/kg.

[1] Table B1. Method two - soil cleanup levels in 18AAC75.341 (January 2009)

BOLD The analyte was detected.

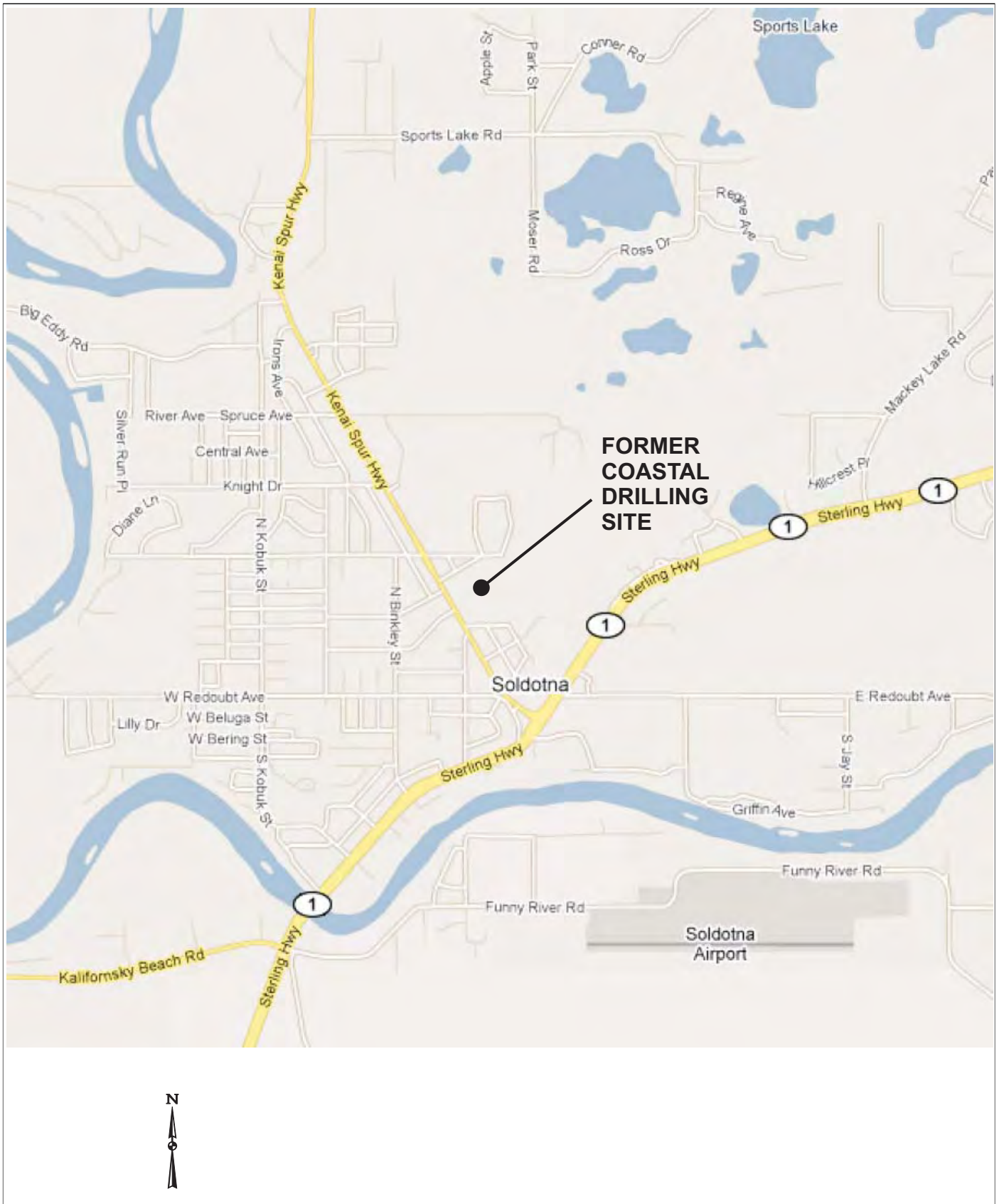
Underlined The detection level exceeds one or more soil criteria

The concentration exceeds one or more soil criteria.

-- Criteria not established.

U The analyte was not detected above the method detection level shown on the table.

FIGURES



ALTA GEOSCIENCES, INC.
 Bothell, Washington
 Prepared For:
 Reeves Amodio LLC

**FORMER COASTAL DRILLING SITE
 SOLDOTNA, ALASKA**

SITE LOCATION

FIGURE

1



**FORMER COASTAL DRILLING
PROPERTY BOUNDARY**



ALTA GEOSCIENCES, INC.
Bothell, Washington

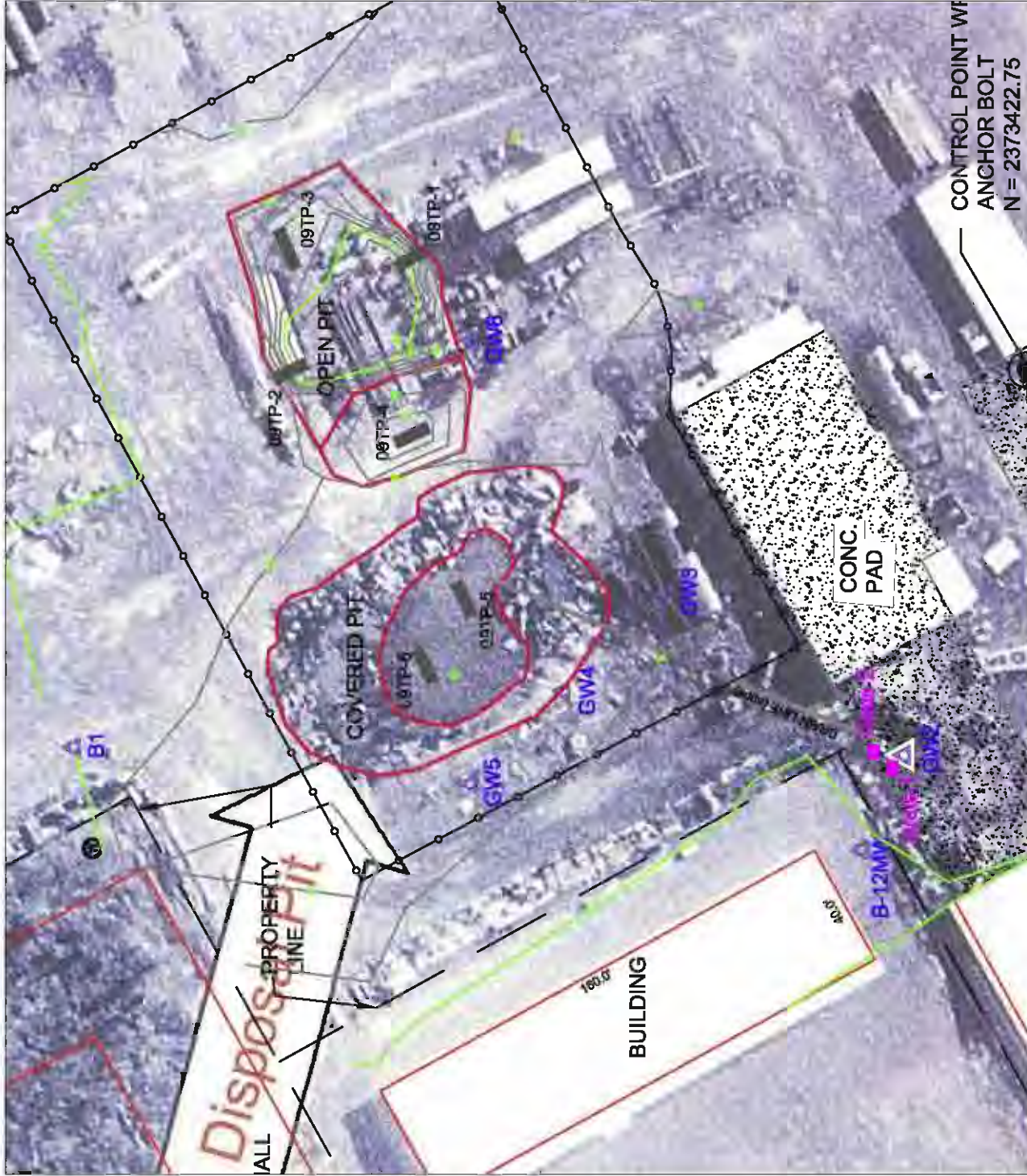
Prepared For:
Reeves Amodio LLC

**FORMER COASTAL DRILLING SITE
SOLDOTNA, ALASKA**

SITE PLAN

FIGURE

2



Explanation

- Monitoring well location
- Water well location
- Survey Monument
- 2009 test pit location with orientation and approximate length indicated
- Disposal pit boundaries, top and deepest part, based on airphoto mapping
- Fence
- Elevation, 1-ft contour interval
- Shallow soil sample location



**Former Coastal Drilling Site
2009 Focused Investigation Report**
1970 Air Photo with 2009 Ground Survey Data

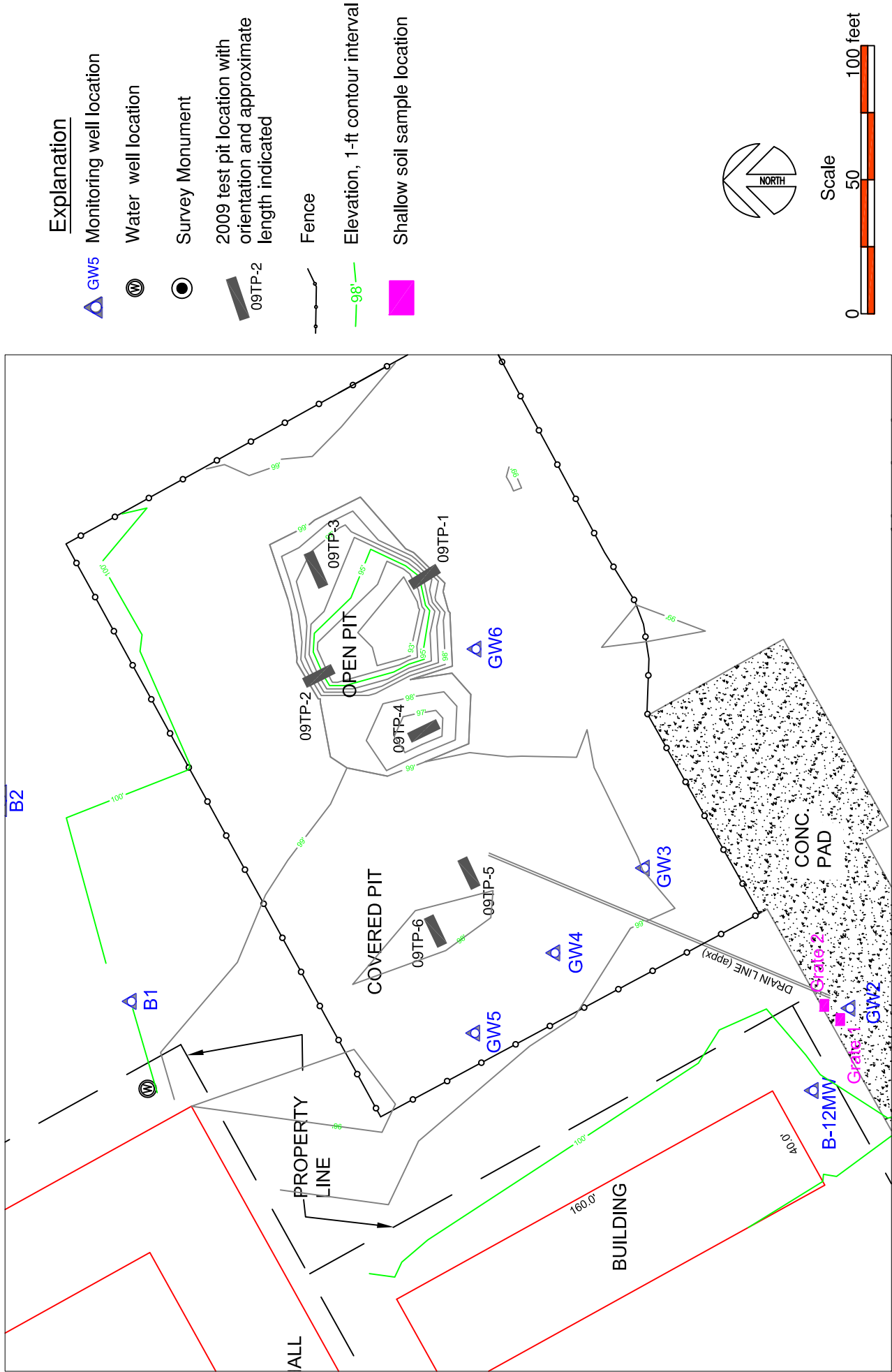
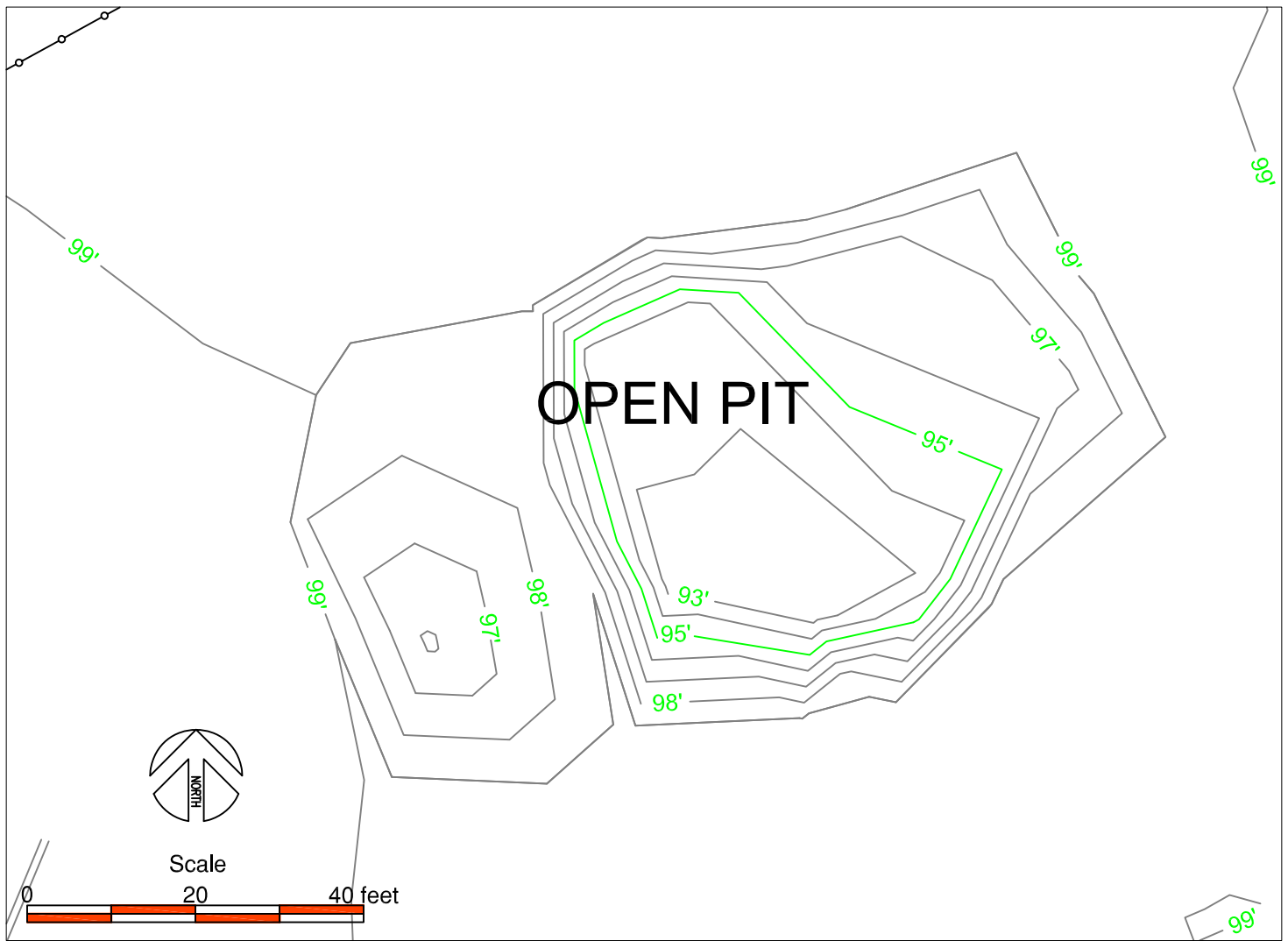


FIGURE 4

**Former Coastal Drilling Site
2009 Focused Investigation Report**

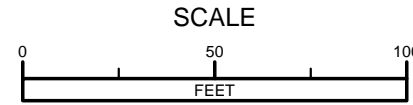
2009 Test Pit and 2010 Soil Sample Locations



Contour Elevation 1	Area Inside Contour Interval 1	Contour Elevation 2	Area Inside Contour Interval 2	Cubic Feet
A99	5025.12	A98	3583.49	V0 = 4,304.31
A98	3583.49	A97	2642.5	V1 = 3,113.00
A97	2642.5	A96	1840.58	V2 = 2,241.54
A96	1840.58	A95	1424.54	V3 = 1,632.56
A95	1424.54	A94	1056.66	V4 = 1,240.60
A94	1056.66	A93	428.56	V5 = 742.61
A93	428.56	A92	2115.29	V6 = 1,271.93
				Total Cubic Feet = 14,546.54
				Total Cubic Yards = 538.76

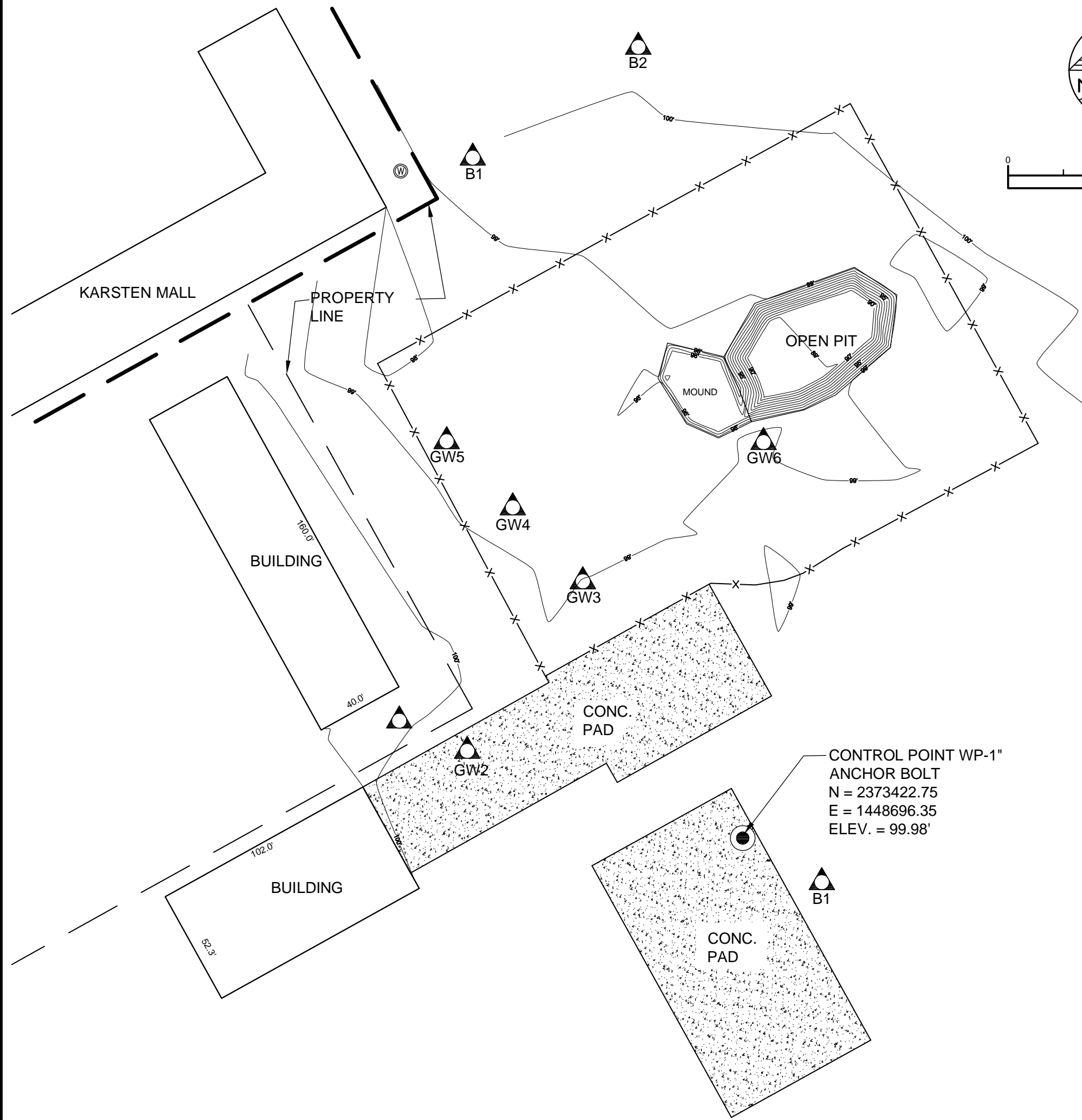
APPENDIX A
SITE SURVEY DATA

COASTAL DRILLING SITE TOPO



LEGEND

- SURVEY MONUMENT
- WATER WELL
- MONITOR WELL
- 90' CONTOUR
- CHAIN LINK FENCE



CONTROL POINT WP-1"
ANCHOR BOLT
N = 2373422.75
E = 1448696.35
ELEV. = 99.98'

NOTES

- 1) BASIS OF GEODETIC CONTROL AND NAD83 POSITION (EPOCH 2003) IS FROM NGS STATION "KEN5 CORS", TO ESTABLISH THE POSITION OF WP-1. THE GEODETIC POSITION OF WP-1 WAS DETERMINED TO HAVE A LATITUDE OF 60° 29' 32.7324"N AND A LONGITUDE OF 151° 03' 47.6076"W. THE ALASKA STATE PLANE COORDINATES NAD 83 (ASP) ZONE 4 ARE:
N=2373422.75
E=1448696.35
ELEV. 99.98' NAVD29 (DETERMINED FROM NGS BM B79 RESET)
- 2) CAUTION UNDERGROUND PIPELINES AND UTILITIES EXIST WHICH ARE NOT SHOWN HEREON.
- 3) ALL DISTANCES LISTED IN FEET.



REV	DATE	DESCRIPTION	BY

COASTAL DRILLING SITE
TOPO 2009
SOLDOTNA, AK

FIELD BOOK NO. 08-17
JOB NO. 085121
FIELD WORK DATE: 11-10-08



McLANE Consulting Inc
ENGINEERING - TESTING
SURVEYING - MAPPING
P.O. BOX 468
SOLDOTNA, AK, 99669
VOICE: (907) 283-4218
FAX: (907) 283-3265
WWW.MCLANECG.COM

DRAWN BY: BGB
CHECKED BY: MSM
HORZ. SCALE: H-SCALE
VERT. SCALE: N/A
SHEET: 1

APPENDIX B
GEOTECHNICAL REPORT

FIELD DENSITY REPORT

Project: COASTAL DRILLING SITE, Soldotna Alaska

McLane Job: 093121

Client: Kent & Sullivan

Gauge TROXLER 3440
Serial No. 29937

Method: ASTM D 1557 STANDARD DS 2198

DATE 12/22/2009

Technician: S. A. McLane COUNTS MS 655

PAGE 1 of 1

Test Location	MAT'L (USCS)	MAX (PCF)	OPT. MOIST	DD (PCF)	WD (PCF)	%M	% COMP	SPEC COMP
8" Mid Section of Covered Pit	SM	130	9	120.7	133.3	10.4	92.8%	N/A

Notes:

1. SOIL DENSITY TESTED IN SMALL TEST PIT AT 3.5 FT. DEPTH.
2. MAXIMUM DENSITY ASSUMED AT 130 PCF FOR SILTY SAND WITH GRAVEL TO 3".

Reviewed & approved

23-Dec-09



Kent & Sullivan COASTAL DRILLING PIT COVER MATERIAL Soldotna Site GRADATION SUMMARY SHEET Percent Passing by Weight			
Job Gradation	Sample #	TH #1	
Gradation Designation	Time Sampled	15:40	
Sieve Designation	Date Sampled	12/22/2009	
2" (50 mm)		94	
1-1/2" (37.5 mm)		89	
1" (25 mm)		81	
3/4" (19 mm)		80	
1/2" (12.5 mm)		77	
3/8" (9.5 mm)		75	
No. 4 (4.75 mm)		67	
No. 8 (2.36 mm)		63	
No. 16 (1.18 mm)		59	
No. 30 (600 um)		55	
No. 50 (300 um)		48	
No. 100 (150 um)		39	
No. 200 (75 um)		32	
Moisture		13.6%	
U.S.C.S.		SM	
Notes: 1. TEST PIT EXCAVATED THROUGH FROST IN COVER MATERIAL OVER WASTE PIT. 2. SAMPLE OBTAINED AT 3.5' - 4' DEPTH.			

APPENDIX C
LABORATORY ANALYSIS CERTIFICATES
AND ADEC LABORATORY DATA REVIEW CHECKLIST

SGS Environmental Services Work Order No. 1096816 & 1103492



SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project: Coastal
Client: ALTA Geosciences, INC
SGS Work Order: 1096816

Released by:

Contents:

Cover Page
Case Narrative
Final Report Pages
Quality Control Summary Forms
Chain of Custody/Sample Receipt Forms

Note:
Unless otherwise noted, all quality assurance/quality control criteria is in compliance with the standards set forth by the proper regulatory authority, the SGS Quality Assurance Program Plan, and the National Environmental Accreditation Conference.



Case Narrative

Client ALTAGEO ALTA Geosciences, INC
Workorder 1096816 Coastal

Printed Date/Time 1/28/2010 16:02

Sample ID Client Sample ID

Refer to the sample receipt form for information on sample condition.

1096816001 PS 09TP-01

AK102 - Unknown hydrocarbon with several peaks is present.
AK103 - The pattern is consistent with a lube oil.
Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816002 PS 09TP-02

Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816003 PS 09TP-03

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
AK102/103 - 5a-Androstane and n-triacontane (surrogates) recoveries are outside QC criteria due to sample dilution.
AK102 - The pattern is consistent with a weathered middle distillate.
AK103 - Unknown hydrocarbon with several peaks is present.
Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816004 PS 09TP-05

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
AK102/103 - The pattern is consistent with a lube oil.
Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816005 PS 09TP-06-6

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
AK102/103 - Unknown hydrocarbon with several peaks is present.
Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816006 PS 09TP-06-9

AK102/103 - Unknown hydrocarbon with several peaks is present.
Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

1096816007 TB Trip Blank

AK101/8021B - Trip blank was received out side of hold time.
8260B - Trip blank was received at the laboratory outside of hold time.

944433 MS V09-279-01(1096676001MS)

6020 - MS recovery for chromium is outside of acceptance criteria. Post-digestion spike was successful.

944434 MSD V09-279-01(1096676001MSD)

6020 - MSD recoveries for barium and chromium are outside of acceptance criteria. Post-digestion spike was successful.

945061 MS 1096816001A(945060MS)



Case Narrative

Client ALTAGEO ALTA Geosciences, INC
Workorder 1096816 Coastal

Printed Date/Time 1/28/2010 16:02

Sample ID **Client Sample ID**

8260B - MS recovery for dichlorodifluoromethane and vinyl chloride does not meet QC criteria (biased high). See LCS for accuracy.

945062 **MSD** **1096816001A(945060MSD)**

8260B - MSD recovery for dichlorodifluoromethane, chloromethane and vinyl chloride does not meet QC criteria (biased high). See LCS for accuracy.

8260B - MS/MSD recoveries for 2-butanone do not meet laboratory RPD criteria. This analyte was not detected above the PQL in the associated samples.

945109 **CCV** **CCV for HBN 224617 [VMS/11065]**

8260B - ICV recovery for several analytes does not meet QC criteria (biased high). These analytes were not detected above the PQL in the associated samples.

8260B - CCV recovery for chloroethane and carbon disulfide does not meet QC criteria (biased high). These analytes were not detected above the PQL in the associated samples.

Alex Tula
ALTA Geosciences, Inc.
22833 Bothell-Everett Hwy
Ste 102 #1168
Bothell, WA 980219365

Work Order:	1096816	
	Coastal	Released by:
Client:	ALTA Geosciences, INC	
Report Date:	January 28, 2010	

Enclosed are the analytical results associated with the above work order. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (http://www.sgs.com/terms_and_conditions.htm), unless other written agreements have been accepted by both parties.

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 AK100001 for NELAP (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6010B, 6020, 7470A, 7471B, 8021B, 8081B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 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, the National Environmental Laboratory Accreditation Program and 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 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
- 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., 2xDL)
- 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.



Detectable Results Summary

Print Date: 1/28/2010 4:02 pm

Client Sample ID: **09TP-01**

SGS Ref. #: 1096816001

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	30.5	mg/Kg
Lead	86.2	mg/Kg

Semivolatile Organic Fuels Department

Diesel Range Organics	90.7	mg/Kg
Residual Range Organics	655	mg/Kg

Client Sample ID: **09TP-02**

SGS Ref. #: 1096816002

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	29.9	mg/Kg
Lead	6.64	mg/Kg

Client Sample ID: **09TP-03**

SGS Ref. #: 1096816003

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	67.2	mg/Kg
Lead	95.5	mg/Kg

Volatile Fuels Department

Gasoline Range Organics	323	mg/Kg
-------------------------	-----	-------

Semivolatile Organic Fuels Department

Diesel Range Organics	9650	mg/Kg
Residual Range Organics	7630	mg/Kg

Volatile Gas Chromatography/Mass Spectroscopy

Ethylbenzene	216	ug/Kg
n-Butylbenzene	420	ug/Kg
1,3,5-Trimethylbenzene	563	ug/Kg
4-Isopropyltoluene	528	ug/Kg
n-Propylbenzene	219	ug/Kg
sec-Butylbenzene	363	ug/Kg
P & M -Xylene	521	ug/Kg
Xylenes (total)	582	ug/Kg
1,2,4-Trimethylbenzene	1010	ug/Kg
tert-Butylbenzene	71.4	ug/Kg
Isopropylbenzene (Cumene)	79.3	ug/Kg



Detectable Results Summary

Print Date: 1/28/2010 4:02 pm

Client Sample ID: **09TP-05**

SGS Ref. #: 1096816004

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	43.0	mg/Kg
Lead	26.1	mg/Kg

Volatile Fuels Department

Gasoline Range Organics	41.4	mg/Kg
-------------------------	------	-------

Semivolatile Organic Fuels Department

Diesel Range Organics	1240	mg/Kg
Residual Range Organics	2620	mg/Kg

Polychlorinated Biphenyls

Aroclor-1016	154	ug/Kg
--------------	-----	-------

Volatile Gas Chromatography/Mass Spectroscopy

Ethylbenzene	54.0	ug/Kg
n-Butylbenzene	140	ug/Kg
1,3,5-Trimethylbenzene	4440	ug/Kg
4-Isopropyltoluene	333	ug/Kg
n-Propylbenzene	733	ug/Kg
sec-Butylbenzene	155	ug/Kg
P & M -Xylene	163	ug/Kg
Naphthalene	251	ug/Kg
o-Xylene	258	ug/Kg
Xylenes (total)	420	ug/Kg
1,2,4-Trimethylbenzene	12200	ug/Kg
Isopropylbenzene (Cumene)	262	ug/Kg



Detectable Results Summary

Print Date: 1/28/2010 4:02 pm

Client Sample ID: **09TP-06-6**

SGS Ref. #: 1096816005

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	38.1	mg/Kg
Lead	9.22	mg/Kg

Volatile Fuels Department

Gasoline Range Organics	39.6	mg/Kg
-------------------------	------	-------

Semivolatile Organic Fuels Department

Diesel Range Organics	177	mg/Kg
Residual Range Organics	1020	mg/Kg

Volatile Gas Chromatography/Mass Spectroscopy

n-Butylbenzene	148	ug/Kg
1,3,5-Trimethylbenzene	241	ug/Kg
n-Propylbenzene	229	ug/Kg
sec-Butylbenzene	93.0	ug/Kg
Naphthalene	326	ug/Kg
1,2,4-Trimethylbenzene	824	ug/Kg
Isopropylbenzene (Cumene)	172	ug/Kg

Client Sample ID: **09TP-06-9**

SGS Ref. #: 1096816006

Metals by ICP/MS

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Chromium	29.0	mg/Kg
Lead	8.96	mg/Kg

Volatile Fuels Department

Gasoline Range Organics	5.06	mg/Kg
-------------------------	------	-------

Semivolatile Organic Fuels Department

Diesel Range Organics	98.2	mg/Kg
Residual Range Organics	416	mg/Kg

Volatile Gas Chromatography/Mass Spectroscopy

n-Butylbenzene	64.8	ug/Kg
4-Isopropyltoluene	50.8	ug/Kg
n-Propylbenzene	134	ug/Kg
sec-Butylbenzene	49.6	ug/Kg
Naphthalene	140	ug/Kg
1,2,4-Trimethylbenzene	173	ug/Kg
Isopropylbenzene (Cumene)	133	ug/Kg



SGS Ref.# 1096816001
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-01
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK102 - Unknown hydrocarbon with several peaks is present.

AK103 - The pattern is consistent with a lube oil.

Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	30.5	0.448	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	86.2	0.224	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	4.88 U	4.88	mg/Kg	AK101	A			12/24/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	108		%	AK101	A	50-150		12/24/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	90.7	23.9	mg/Kg	AK102	B		12/28/09	01/05/10	KDC
Residual Range Organics	655	23.9	mg/Kg	AK103	B		12/28/09	01/05/10	KDC
<u>Surrogates</u>									
5a Androstane <surr>	86.4		%	AK102	B	50-150	12/28/09	01/05/10	KDC
n-Triacontane-d62 <surr>	98.1		%	AK103	B	50-150	12/28/09	01/05/10	KDC
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1248	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816001
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-01
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1260	59.4 U	59.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	80		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	29.3 U	29.3	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	195 U	195	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	488 U	488	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	78.1 U	78.1	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	195 U	195	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816001
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-01
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,3-Dichloropropane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromoethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	390 U	390	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	390 U	390	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	488 U	488	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	195 U	195	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	195 U	195	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816001
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-01
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
trans-1,2-Dichloroethene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichlorobenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	488 U	488	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	48.8 U	48.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	97.6 U	97.6	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	110		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	108		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	120		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	82.5		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816002
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-02
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	29.9	0.414	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	6.64	0.207	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	2.16 U	2.16	mg/Kg	AK101	A			12/24/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	93.2		%	AK101	A	50-150		12/24/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	20.6 U	20.6	mg/Kg	AK102	B		12/28/09	01/05/10	KDC
Residual Range Organics	20.6 U	20.6	mg/Kg	AK103	B		12/28/09	01/05/10	KDC
<u>Surrogates</u>									
5a Androstane <surr>	78.2		%	AK102	B	50-150	12/28/09	01/05/10	KDC
n-Triacontane-d62 <surr>	83.5		%	AK103	B	50-150	12/28/09	01/05/10	KDC
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1248	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1260	51.7 U	51.7	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816002
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-02
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Surrogates									
Decachlorobiphenyl <surr>	70.5		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	12.9 U	12.9	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	86.3 U	86.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	216 U	216	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	34.5 U	34.5	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	86.3 U	86.3	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichloropropane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816002
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-02
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,2-Dibromoethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	173 U	173	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	173 U	173	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	216 U	216	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	86.3 U	86.3	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	86.3 U	86.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,2-Dichloroethene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816002
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-02
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 14:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,2-Dichlorobenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	216 U	216	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	21.6 U	21.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	43.1 U	43.1	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	107		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	103		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	110		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	96.4		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816003
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-03
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:10
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
 AK102/103 - 5a-Androstane and n-triacontane (surrogates) recoveries are outside QC criteria due to sample dilution.
 AK102 - The pattern is consistent with a weathered middle distillate.
 AK103 - Unknown hydrocarbon with several peaks is present.
 Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	67.2	0.462	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	95.5	0.231	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	323	35.9	mg/Kg	AK101	A			12/28/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	1480	!	%	AK101	A	50-150		12/28/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	9650	474	mg/Kg	AK102	B		12/28/09	01/07/10	HM
Residual Range Organics	7630	474	mg/Kg	AK103	B		12/28/09	01/07/10	HM
<u>Surrogates</u>									
5a Androstane <surr>	27.3	!	%	AK102	B	50-150	12/28/09	01/07/10	HM
n-Triacontane-d62 <surr>	22	!	%	AK103	B	50-150	12/28/09	01/07/10	HM
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816003
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-03
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:10
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1248	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1260	59.6 U	59.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	71.5		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	21.5 U	21.5	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	216	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	420	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	144 U	144	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	563	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	359 U	359	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	528	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	57.4 U	57.4	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	219	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	144 U	144	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816003
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-03
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:10
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Tetrachloroethene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichloropropane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromoethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	287 U	287	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	287 U	287	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	363	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	359 U	359	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	144 U	144	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	521	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	582	144	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	1010	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	71.4	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816003
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-03
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:10
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
2-Chlorotoluene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,2-Dichloroethene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichlorobenzene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	79.3	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	359 U	359	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	35.9 U	35.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	71.8 U	71.8	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	111		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	112		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	111		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	83.6		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816004
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-05
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:50
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
 AK102/103 - The pattern is consistent with a lube oil.
 Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	43.0	0.492	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	26.1	0.246	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	41.4	5.35	mg/Kg	AK101	A			12/24/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	343	!	%	AK101	A	50-150		12/24/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	1240	102	mg/Kg	AK102	B		12/28/09	01/07/10	HM
Residual Range Organics	2620	102	mg/Kg	AK103	B		12/28/09	01/07/10	HM
<u>Surrogates</u>									
5a Androstane <surr>	79.4		%	AK102	B	50-150	12/28/09	01/07/10	HM
n-Triacontane-d62 <surr>	85.5		%	AK103	B	50-150	12/28/09	01/07/10	HM
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	154	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1248	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816004
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-05
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:50
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1260	62.9 U	62.9	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	68		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	32.1 U	32.1	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	54.0	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	140	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	214 U	214	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	4440	1070	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	535 U	535	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	333	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	85.6 U	85.6	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	733	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	214 U	214	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816004
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-05
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:50
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,3-Dichloropropane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromoethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	428 U	428	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	428 U	428	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	155	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	535 U	535	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	214 U	214	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	163	107	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	251	107	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	258	107	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	420	214	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	12200	1070	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816004
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-05
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 15:50
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
trans-1,2-Dichloroethene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichlorobenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	262	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	535 U	535	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	53.5 U	53.5	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	107 U	107	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	109		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	105		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	109		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	77.9		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816005
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-6
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:15
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK101 - BFB (surrogate) recovery does not meet QC criteria (biased high) due to hydrocarbon interference.
 AK102/103 - Unknown hydrocarbon with several peaks is present.
 Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	38.1	0.501	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	9.22	0.251	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	39.6	5.44	mg/Kg	AK101	A			12/24/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	250	!	%	AK101	A	50-150		12/24/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	177	26.3	mg/Kg	AK102	B		12/28/09	01/05/10	KDC
Residual Range Organics	1020	105	mg/Kg	AK103	B		12/28/09	01/07/10	HM
<u>Surrogates</u>									
5a Androstane <surr>	77.4		%	AK102	B	50-150	12/28/09	01/05/10	KDC
n-Triacontane-d62 <surr>	81.3		%	AK103	B	50-150	12/28/09	01/07/10	HM
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1248	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816005
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-6
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:15
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1260	65.6 U	65.6	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	68.5		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	32.6 U	32.6	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	148	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	217 U	217	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	241	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	544 U	544	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	87.0 U	87.0	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	229	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	217 U	217	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816005
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-6
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:15
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,3-Dichloropropane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromoethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	435 U	435	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	435 U	435	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	93.0	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	544 U	544	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	217 U	217	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	326	109	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	217 U	217	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	824	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816005
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-6
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:15
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
trans-1,2-Dichloroethene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichlorobenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	172	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	544 U	544	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	54.4 U	54.4	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	109 U	109	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	109		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	110		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	113		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	75.1		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816006
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-9
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK102/103 - Unknown hydrocarbon with several peaks is present.
 Hexavalent Chromium was analyzed by Columbia Analytical Services in Kelso, WA.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Metals by ICP/MS</u>									
Chromium	29.0	0.470	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
Lead	8.96	0.235	mg/Kg	SW6020	B		12/28/09	01/04/10	NRB
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	5.06	4.13	mg/Kg	AK101	A			12/28/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	132		%	AK101	A	50-150		12/28/09	KPW
<u>Semivolatile Organic Fuels Department</u>									
Diesel Range Organics	98.2	25.2	mg/Kg	AK102	B		12/28/09	01/05/10	KDC
Residual Range Organics	416	25.2	mg/Kg	AK103	B		12/28/09	01/05/10	KDC
<u>Surrogates</u>									
5a Androstane <surr>	77		%	AK102	B	50-150	12/28/09	01/05/10	KDC
n-Triacontane-d62 <surr>	77.4		%	AK103	B	50-150	12/28/09	01/05/10	KDC
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1221	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1232	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1242	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1248	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1254	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE
Aroclor-1260	63.4 U	63.4	ug/Kg	SW8082A	B		12/23/09	12/28/09	CDE



SGS Ref.# 1096816006
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-9
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Surrogates									
Decachlorobiphenyl <surrogate>	76		%	SW8082A	B	60-125	12/23/09	12/28/09	CDE
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	24.8 U	24.8	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	64.8	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	165 U	165	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	413 U	413	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	50.8	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	66.1 U	66.1	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	134	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2,2-Tetrachloroethane	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	165 U	165	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichloropropane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816006
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-9
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,2-Dibromoethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	330 U	330	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	330 U	330	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	49.6	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	413 U	413	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	165 U	165	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	140	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	165 U	165	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	173	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1-Trichloroethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,2-Dichloroethene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816006
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID 09TP-06-9
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 12/21/2009 16:30
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,2-Dichlorobenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	133	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	413 U	413	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	41.3 U	41.3	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	82.6 U	82.6	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	108		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	104		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	105		%	SW8260B	A	65-144		01/04/10	DSH
<u>Solids</u>									
Total Solids	78.5		%	SM20 2540G	B			12/23/09	SMH



SGS Ref.# 1096816007
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID Trip Blank
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 11/18/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Sample Remarks:

AK101/8021B - Trip blank was received out side of hold time.
8260B - Trip blank was received at the laboratory outside of hold time.

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Fuels Department</u>									
Gasoline Range Organics	4.39 U	4.39	mg/Kg	AK101	A			12/23/09	KPW
<u>Surrogates</u>									
4-Bromofluorobenzene <surr>	88.2		%	AK101	A	50-150		12/23/09	KPW
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
Benzene	26.3 U	26.3	ug/Kg	SW8260B	A			01/04/10	DSH
Toluene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Ethylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
n-Butylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon disulfide	176 U	176	ug/Kg	SW8260B	A			01/04/10	DSH
1,4-Dichlorobenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloroethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3,5-Trimethylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Chlorotoluene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Chlorobenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Methyl-2-pentanone (MIBK)	439 U	439	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,2-Dichloroethene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
4-Isopropyltoluene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Methyl-t-butyl ether	70.2 U	70.2	ug/Kg	SW8260B	A			01/04/10	DSH
cis-1,3-Dichloropropene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
n-Propylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Styrene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromomethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,3-Dichloropropene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trichlorobenzene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816007
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID Trip Blank
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 11/18/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,1,2,2-Tetrachloroethane	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromo-3-chloropropane	176 U	176	ug/Kg	SW8260B	A			01/04/10	DSH
Tetrachloroethene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dibromochloromethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichloropropane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dibromoethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Carbon tetrachloride	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,1,2-Tetrachloroethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroform	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Bromobenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Chloromethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichloropropane	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Bromomethane	351 U	351	ug/Kg	SW8260B	A			01/04/10	DSH
Bromochloromethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Vinyl chloride	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Dichlorodifluoromethane	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Chloroethane	351 U	351	ug/Kg	SW8260B	A			01/04/10	DSH
sec-Butylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Bromodichloromethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
2-Butanone (MEK)	439 U	439	ug/Kg	SW8260B	A			01/04/10	DSH
Methylene chloride	176 U	176	ug/Kg	SW8260B	A			01/04/10	DSH
Trichlorofluoromethane	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
P & M -Xylene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Naphthalene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
o-Xylene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Bromoform	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Xylenes (total)	176 U	176	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,4-Trimethylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
tert-Butylbenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH



SGS Ref.# 1096816007
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Client Sample ID Trip Blank
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Collected Date/Time 11/18/2009 14:00
Received Date/Time 12/23/2009 11:15
Technical Director Stephen C. Ede

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>									
1,1,1-Trichloroethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloroethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
2-Chlorotoluene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Trichloroethene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
trans-1,2-Dichloroethene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichlorobenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
2,2-Dichloropropane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
Hexachlorobutadiene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
Isopropylbenzene (Cumene)	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
2-Hexanone	439 U	439	ug/Kg	SW8260B	A			01/04/10	DSH
1,2-Dichloropropane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1-Dichloropropene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,1,2-Trichloroethane	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,3-Dichlorobenzene	43.9 U	43.9	ug/Kg	SW8260B	A			01/04/10	DSH
1,2,3-Trichlorobenzene	87.8 U	87.8	ug/Kg	SW8260B	A			01/04/10	DSH
<u>Surrogates</u>									
1,2-Dichloroethane-D4 <surr>	109		%	SW8260B	A	69-132		01/04/10	DSH
Toluene-d8 <surr>	109		%	SW8260B	A	84-124		01/04/10	DSH
4-Bromofluorobenzene <surr>	119		%	SW8260B	A	65-144		01/04/10	DSH



SGS Ref.# 944237 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch XXX22151
Method SW3550C
Date 12/23/2009

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Polychlorinated Biphenyls

Aroclor-1016	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1221	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1232	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1242	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1248	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1254	30.0 U	50.0	15.0	ug/Kg	12/28/09
Aroclor-1260	30.0 U	50.0	15.0	ug/Kg	12/28/09

Surrogates

Decachlorobiphenyl <surr> 98.5 60-125 % 12/28/09

Batch XGC6855
Method SW8082A
Instrument HP 6890 Series II ECD SV H F



SGS Ref.# 944338 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch
Method
Date

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Solids

Total Solids	100			%	12/23/09
Batch	SPT8076				
Method	SM20 2540G				
Instrument					



SGS Ref.# 944349 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch XXX22155
Method SW3550C
Date 12/28/2009

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
Semivolatile Organic Fuels Department					
Diesel Range Organics	12.4 U	20.0	6.20	mg/Kg	01/05/10
Surrogates					
5a Androstane <surr>	80.9	60-120		%	01/05/10
Batch	XFC9080				
Method	AK102				
Instrument	HP 7890A	FID SV E F			
Residual Range Organics	12.4 U	20.0	6.20	mg/Kg	01/05/10
Surrogates					
n-Triacontane-d62 <surr>	88.4	60-120		%	01/05/10
Batch	XFC9080				
Method	AK103				
Instrument	HP 7890A	FID SV E F			



SGS Ref.# 944394 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch VXX20378
Method SW5035A
Date 12/23/2009

QC results affect the following production samples:

1096816001, 1096816002, 1096816004, 1096816005, 1096816007

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Volatile Fuels Department

Gasoline Range Organics	1.50 U	2.50	0.750	mg/Kg	12/23/09
-------------------------	--------	------	-------	-------	----------

Surrogates

4-Bromofluorobenzene <surr>	118	50-150		%	12/23/09
-----------------------------	-----	--------	--	---	----------

Batch VFC9821
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 944431 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch MXX22642
Method SW3050B
Date 12/28/2009

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Metals by ICP/MS

Chromium	0.240 U	0.400	0.120	mg/Kg	01/04/10
Lead	0.124 U	0.200	0.0620	mg/Kg	01/04/10

Batch MMS6252
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 944475 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch VXX20381
Method SW5035A
Date 12/28/2009

QC results affect the following production samples:
1096816003, 1096816006

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Volatile Fuels Department

Gasoline Range Organics	1.50 U	2.50	0.750	mg/Kg	12/28/09
-------------------------	--------	------	-------	-------	----------

Surrogates

4-Bromofluorobenzene <surr>	103	50-150		%	12/28/09
-----------------------------	-----	--------	--	---	----------

Batch VFC9822
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 945058 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch
Method
Date

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006, 1096816007

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 945058 Method Blank
 Client Name ALTA Geosciences, INC
 Project Name/# Coastal
 Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
 Prep Batch
 Method
 Date

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>					
Benzene	10.0 U	15.0	5.00	ug/Kg	01/04/10
Toluene	30.0 U	50.0	15.0	ug/Kg	01/04/10
Ethylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
n-Butylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Carbon disulfide	62.0 U	100	31.0	ug/Kg	01/04/10
1,4-Dichlorobenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2-Dichloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,3,5-Trimethylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
4-Chlorotoluene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Chlorobenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
4-Methyl-2-pentanone (MIBK)	156 U	250	78.0	ug/Kg	01/04/10
cis-1,2-Dichloroethene	15.6 U	25.0	7.80	ug/Kg	01/04/10
4-Isopropyltoluene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Methyl-t-butyl ether	24.0 U	40.0	12.0	ug/Kg	01/04/10
cis-1,3-Dichloropropene	15.6 U	25.0	7.80	ug/Kg	01/04/10
n-Propylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Styrene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Dibromomethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
trans-1,3-Dichloropropene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2,4-Trichlorobenzene	30.0 U	50.0	15.0	ug/Kg	01/04/10
1,1,2,2-Tetrachloroethane	30.0 U	50.0	15.0	ug/Kg	01/04/10
1,2-Dibromo-3-chloropropane	62.0 U	100	31.0	ug/Kg	01/04/10
Tetrachloroethene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Dibromochloromethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,3-Dichloropropane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2-Dibromoethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
Carbon tetrachloride	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,1,1,2-Tetrachloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
Chloroform	15.6 U	25.0	7.80	ug/Kg	01/04/10
Bromobenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Chloromethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2,3-Trichloropropane	30.0 U	50.0	15.0	ug/Kg	01/04/10
Bromomethane	124 U	200	62.0	ug/Kg	01/04/10
Bromochloromethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
Vinyl chloride	24.0 U	25.0	12.0	ug/Kg	01/04/10
Dichlorodifluoromethane	30.0 U	50.0	15.0	ug/Kg	01/04/10
Chloroethane	124 U	200	62.0	ug/Kg	01/04/10
sec-Butylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Bromodichloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10



SGS Ref.# 945058 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch Method Date

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Volatile Gas Chromatography/Mass Spectroscopy

1,1-Dichloroethene	15.6 U	25.0	7.80	ug/Kg	01/04/10
2-Butanone (MEK)	156 U	250	78.0	ug/Kg	01/04/10
Methylene chloride	62.0 U	100	31.0	ug/Kg	01/04/10
Trichlorofluoromethane	30.0 U	50.0	15.0	ug/Kg	01/04/10
P & M -Xylene	30.0 U	50.0	15.0	ug/Kg	01/04/10
Naphthalene	30.0 U	50.0	15.0	ug/Kg	01/04/10
o-Xylene	30.0 U	50.0	15.0	ug/Kg	01/04/10
Bromoform	15.6 U	25.0	7.80	ug/Kg	01/04/10
Xylenes (total)	60.0 U	100	30.0	ug/Kg	01/04/10
1,2,4-Trimethylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
tert-Butylbenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,1,1-Trichloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,1-Dichloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
2-Chlorotoluene	15.6 U	25.0	7.80	ug/Kg	01/04/10
Trichloroethene	15.6 U	25.0	7.80	ug/Kg	01/04/10
trans-1,2-Dichloroethene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2-Dichlorobenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
2,2-Dichloropropane	15.6 U	25.0	7.80	ug/Kg	01/04/10
Hexachlorobutadiene	30.0 U	50.0	15.0	ug/Kg	01/04/10
Isopropylbenzene (Cumene)	15.6 U	25.0	7.80	ug/Kg	01/04/10
2-Hexanone	156 U	250	78.0	ug/Kg	01/04/10
1,2-Dichloropropane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,1-Dichloropropene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,1,2-Trichloroethane	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,3-Dichlorobenzene	15.6 U	25.0	7.80	ug/Kg	01/04/10
1,2,3-Trichlorobenzene	30.0 U	50.0	15.0	ug/Kg	01/04/10

Surrogates

1,2-Dichloroethane-D4 <surr>	107	69-132		%	01/04/10
Toluene-d8 <surr>	106	84-124		%	01/04/10
4-Bromofluorobenzene <surr>	103	65-144		%	01/04/10

Batch VMS11065
Method SW8260B
Instrument HP 5890 Series II MS5 VLA



SGS Ref.# 944339 Duplicate
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Original 1096816001
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch
Method
Date

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
-----------	-----------------	-----------	-------	-----	------------	---------------

Solids

Total Solids	82.5	84.4	%	2	(< 15)	12/23/2009
Batch	SPT8076					
Method	SM20 2540G					
Instrument						



SGS Ref.# 944238 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
Prep Batch XXX22151
Method SW3550C
Date 12/23/2009

Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Polychlorinated Biphenyls

Aroclor-1016 LCS 413 93 (58-122) 444 ug/Kg 12/28/2009

Aroclor-1260 LCS 420 95 (61-130) 444 ug/Kg 12/28/2009

Surrogates

Decachlorobiphenyl <surr> LCS 103 (60-125) 12/28/2009

Batch XGC6855
Method SW8082A
Instrument HP 6890 Series II ECD SV H F



SGS Ref.# 944350 Lab Control Sample
 944351 Lab Control Sample Duplicate
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch XXX22155
Method SW3550C
Date 12/28/2009

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Semivolatile Organic Fuels Department

Diesel Range Organics	LCS	151	91	(75-125)			167 mg/Kg	01/05/2010
	LCSD	151	91		0	(< 20)	167 mg/Kg	01/05/2010

Surrogates

5a Androstane <surr>	LCS		84	(60-120)				01/05/2010
	LCSD		83		0			01/05/2010

Batch XFC9080
Method AK102
Instrument HP 7890A FID SV E F

Residual Range Organics	LCS	156	93	(60-120)			167 mg/Kg	01/05/2010
	LCSD	156	94		1	(< 20)	167 mg/Kg	01/05/2010

Surrogates

n-Triacontane-d62 <surr>	LCS		86	(60-120)				01/05/2010
	LCSD		88		2			01/05/2010

Batch XFC9080
Method AK103
Instrument HP 7890A FID SV E F



SGS Ref.# 944395 Lab Control Sample
 944396 Lab Control Sample Duplicate
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch VXX20378
Method SW5035A
Date 12/23/2009

QC results affect the following production samples:
 1096816001, 1096816002, 1096816004, 1096816005, 1096816007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Volatile Fuels Department

Gasoline Range Organics	LCS	12.1	107	(60-120)		11.3 mg/Kg	12/23/2009
	LCSD	12.4	110		2	(< 20)	11.3 mg/Kg 12/23/2009

Surrogates

4-Bromofluorobenzene <surr>	LCS		120	(50-150)			12/23/2009
	LCSD		120		0		12/23/2009

Batch VFC9821
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 944432 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
Prep Batch MXX22642
Method SW3050B
Date 12/28/2009

Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

QC results affect the following production samples:
1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Metals by ICP/MS

Chromium	LCS	20.3	101	(80-120)		20 mg/Kg	01/04/2010
Lead	LCS	57.5	115	(80-120)		50 mg/Kg	01/04/2010

Batch MMS6252
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 944476 Lab Control Sample
944477 Lab Control Sample Duplicate
Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Printed Date/Time 01/28/2010 16:03
Prep Batch VXX20381
Method SW5035A
Date 12/28/2009

QC results affect the following production samples:
1096816003, 1096816006

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Volatile Fuels Department

Gasoline Range Organics	LCS	12.0	106	(60-120)		11.3 mg/Kg	12/28/2009
	LCSD	12.0	107		0	(< 20)	11.3 mg/Kg 12/28/2009

Surrogates

4-Bromofluorobenzene <surr>	LCS		119	(50-150)			12/28/2009
	LCSD		117		2		12/28/2009

Batch VFC9822
Method AK101
Instrument HP 5890 Series II PID+FID VCA



SGS Ref.# 945059 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
Prep Batch

Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Method
Date

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006, 1096816007

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 945059 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
 Prep Batch Method Date

Client Name ALTA Geosciences, INC
 Project Name/# Coastal
 Matrix Soil/Solid (dry weight)

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>								
Benzene	LCS	805	107	(81-124)			750 ug/Kg	01/04/2010
Toluene	LCS	806	108	(87-119)			750 ug/Kg	01/04/2010
Ethylbenzene	LCS	817	109	(87-119)			750 ug/Kg	01/04/2010
n-Butylbenzene	LCS	845	113	(82-127)			750 ug/Kg	01/04/2010
Carbon disulfide	LCS	1390	124	(58-155)			1130 ug/Kg	01/04/2010
1,4-Dichlorobenzene	LCS	817	109	(86-118)			750 ug/Kg	01/04/2010
1,2-Dichloroethane	LCS	877	117	(83-121)			750 ug/Kg	01/04/2010
1,3,5-Trimethylbenzene	LCS	827	110	(87-120)			750 ug/Kg	01/04/2010
4-Chlorotoluene	LCS	832	111	(84-120)			750 ug/Kg	01/04/2010
Chlorobenzene	LCS	810	108	(84-121)			750 ug/Kg	01/04/2010
4-Methyl-2-pentanone (MIBK)	LCS	2520	112	(67-135)			2250 ug/Kg	01/04/2010
cis-1,2-Dichloroethene	LCS	788	105	(82-124)			750 ug/Kg	01/04/2010
4-Isopropyltoluene	LCS	855	114	(83-121)			750 ug/Kg	01/04/2010
Methyl-t-butyl ether	LCS	1280	114	(76-133)			1130 ug/Kg	01/04/2010
cis-1,3-Dichloropropene	LCS	817	109	(82-122)			750 ug/Kg	01/04/2010
n-Propylbenzene	LCS	841	112	(82-125)			750 ug/Kg	01/04/2010
Styrene	LCS	803	107	(91-120)			750 ug/Kg	01/04/2010
Dibromomethane	LCS	857	114	(80-123)			750 ug/Kg	01/04/2010
trans-1,3-Dichloropropene	LCS	836	111	(86-122)			750 ug/Kg	01/04/2010
1,2,4-Trichlorobenzene	LCS	800	107	(77-126)			750 ug/Kg	01/04/2010
1,1,2,2-Tetrachloroethane	LCS	840	112	(80-122)			750 ug/Kg	01/04/2010



SGS Ref.# 945059 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
Prep Batch Method Date

Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>							
1,2-Dibromo-3-chloropropane	LCS	790	105	(60-135)		750 ug/Kg	01/04/2010
Tetrachloroethene	LCS	774	103	(82-125)		750 ug/Kg	01/04/2010
Dibromochloromethane	LCS	796	106	(84-125)		750 ug/Kg	01/04/2010
1,3-Dichloropropane	LCS	862	115	(84-123)		750 ug/Kg	01/04/2010
1,2-Dibromoethane	LCS	833	111	(85-124)		750 ug/Kg	01/04/2010
Carbon tetrachloride	LCS	864	115	(79-128)		750 ug/Kg	01/04/2010
1,1,1,2-Tetrachloroethane	LCS	800	107	(77-123)		750 ug/Kg	01/04/2010
Chloroform	LCS	788	105	(77-124)		750 ug/Kg	01/04/2010
Bromobenzene	LCS	816	109	(86-119)		750 ug/Kg	01/04/2010
Chloromethane	LCS	773	103	(54-129)		750 ug/Kg	01/04/2010
1,2,3-Trichloropropane	LCS	851	114	(77-125)		750 ug/Kg	01/04/2010
Bromomethane	LCS	831	111	(49-141)		750 ug/Kg	01/04/2010
Bromochloromethane	LCS	827	110	(79-125)		750 ug/Kg	01/04/2010
Vinyl chloride	LCS	830	111	(67-125)		750 ug/Kg	01/04/2010
Dichlorodifluoromethane	LCS	761	102	(43-135)		750 ug/Kg	01/04/2010
Chloroethane	LCS	928	124	(51-141)		750 ug/Kg	01/04/2010
sec-Butylbenzene	LCS	831	111	(84-122)		750 ug/Kg	01/04/2010
Bromodichloromethane	LCS	817	109	(81-127)		750 ug/Kg	01/04/2010
1,1-Dichloroethene	LCS	861	115	(75-125)		750 ug/Kg	01/04/2010
2-Butanone (MEK)	LCS	2270	101	(57-135)		2250 ug/Kg	01/04/2010



SGS Ref.# 945059 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
 Prep Batch

Client Name ALTA Geosciences, INC
 Project Name/# Coastal
 Matrix Soil/Solid (dry weight)

Method
 Date

Parameter		QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Volatile Gas Chromatography/Mass Spectroscopy</u>								
Methylene chloride	LCS	852	114	(63-137)			750 ug/Kg	01/04/2010
Trichlorofluoromethane	LCS	808	108	(64-139)			750 ug/Kg	01/04/2010
P & M -Xylene	LCS	1690	113	(88-121)			1500 ug/Kg	01/04/2010
Naphthalene	LCS	759	101	(73-131)			750 ug/Kg	01/04/2010
o-Xylene	LCS	801	107	(89-120)			750 ug/Kg	01/04/2010
Bromoform	LCS	772	103	(72-135)			750 ug/Kg	01/04/2010
Xylenes (total)	LCS	2490	111	(89-120)			2250 ug/Kg	01/04/2010
1,2,4-Trimethylbenzene	LCS	833	111	(85-121)			750 ug/Kg	01/04/2010
tert-Butylbenzene	LCS	832	111	(82-122)			750 ug/Kg	01/04/2010
1,1,1-Trichloroethane	LCS	800	107	(77-129)			750 ug/Kg	01/04/2010
1,1-Dichloroethane	LCS	880	117	(81-126)			750 ug/Kg	01/04/2010
2-Chlorotoluene	LCS	841	112	(81-122)			750 ug/Kg	01/04/2010
Trichloroethene	LCS	779	104	(77-124)			750 ug/Kg	01/04/2010
trans-1,2-Dichloroethene	LCS	834	111	(79-125)			750 ug/Kg	01/04/2010
1,2-Dichlorobenzene	LCS	832	111	(88-113)			750 ug/Kg	01/04/2010
2,2-Dichloropropane	LCS	731	98	(69-132)			750 ug/Kg	01/04/2010
Hexachlorobutadiene	LCS	758	101	(74-124)			750 ug/Kg	01/04/2010
Isopropylbenzene (Cumene)	LCS	833	111	(89-121)			750 ug/Kg	01/04/2010
2-Hexanone	LCS	2650	118	(58-145)			2250 ug/Kg	01/04/2010
1,2-Dichloropropane	LCS	831	111	(81-120)			750 ug/Kg	01/04/2010
1,1-Dichloropropene	LCS	848	113	(76-134)			750 ug/Kg	01/04/2010



SGS Ref.# 945059 Lab Control Sample

Printed Date/Time 01/28/2010 16:03
Prep Batch

Client Name ALTA Geosciences, INC
Project Name/# Coastal
Matrix Soil/Solid (dry weight)

Method
Date

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------	-----------------	-----	------------	---------------	---------------

Volatile Gas Chromatography/Mass Spectroscopy

1,1,2-Trichloroethane	LCS	803	107	(85-121)		750 ug/Kg	01/04/2010
-----------------------	-----	-----	-----	------------	--	-----------	------------

1,3-Dichlorobenzene	LCS	812	108	(86-117)		750 ug/Kg	01/04/2010
---------------------	-----	-----	-----	------------	--	-----------	------------

1,2,3-Trichlorobenzene	LCS	794	106	(78-124)		750 ug/Kg	01/04/2010
------------------------	-----	-----	-----	------------	--	-----------	------------

Surrogates

1,2-Dichloroethane-D4 <surr>	LCS		107	(69-132)			01/04/2010
------------------------------	-----	--	-----	------------	--	--	------------

Toluene-d8 <surr>	LCS		109	(84-124)			01/04/2010
-------------------	-----	--	-----	------------	--	--	------------

4-Bromofluorobenzene <surr>	LCS		108	(65-144)			01/04/2010
-----------------------------	-----	--	-----	------------	--	--	------------

Batch VMS11065
Method SW8260B
Instrument HP 5890 Series II MS5 VLA



SGS Ref.# 944239 Matrix Spike
 944240 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch XXX22151
 Method Sonication Extraction Soil SW8
 Date 12/23/2009

Original 1096681001
 Matrix Soil/Solid (dry weight)

QC results affect the following production samples:
 1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS (420) U	2458		66	(58-122)			3720 ug/Kg	12/28/2009
	MSD	2390		65		3	(< 30)	3703 ug/Kg	12/28/2009
Aroclor-1260	MS (420) U	2398		65	(61-130)			3720 ug/Kg	12/28/2009
	MSD	2356		64		2	(< 30)	3703 ug/Kg	12/28/2009
Surrogates									
Decachlorobiphenyl <surr>	MS	2.68		72	(60-125)				12/28/2009
	MSD	2.59		70		3			12/28/2009

Batch XGC6855
 Method SW8082A
 Instrument HP 6890 Series II ECD SV H F



SGS Ref.# 944433 Matrix Spike
 944434 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch MXX22642
 Method Soils/Solids Digest for Metals b
 Date 12/28/2009

Original 1096676001
 Matrix Soil/Solid (dry weight)

QC results affect the following production samples:
 1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Metals by ICP/MS									
Chromium	MS	2580	3452		4,630* (80-120)			18.8 mg/Kg	01/04/2010
	MSD		3574		5,150*	3	(< 20)	19.3 mg/Kg	01/04/2010
Lead	MS	12.7	64.0		109 (80-120)			47.0 mg/Kg	01/04/2010
	MSD		65.6		110	3	(< 20)	48.1 mg/Kg	01/04/2010

Batch MMS6252
 Method SW6020
 Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 944435 Bench Spike DIGESTED

Printed Date/Time 01/28/2010 16:03
Prep Batch MXX22642
Method Soils/Solids Digest for Metals b
Date 12/28/2009

Original 1096676001
Matrix Soil/Solid (dry weight)

QC results affect the following production samples:
1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------------	-----------	-----------	---------------	-----	------------	---------------	---------------

Metals by ICP/MS

Chromium BND 2580 5472 121 (75-125) 2396 mg/Kg 01/04/2010

Batch MMS6252
Method SW6020
Instrument Perkin Elmer Sciex ICP-MS P3



SGS Ref.# 945061 Matrix Spike
945062 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
Prep Batch
Method
Date

Original 945060
Matrix Solid/Soil (Wet Weight)

QC results affect the following production samples:

1096816001, 1096816002, 1096816003, 1096816004, 1096816005, 1096816006, 1096816007

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------------	-----------	-----------	---------------	-----	------------	---------------	---------------

Volatile Gas Chromatography/Mass Spectroscopy



SGS Ref.# 945061 Matrix Spike
 945062 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch
 Method
 Date

Original 945060
 Matrix Solid/Soil (Wet Weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
Benzene	MS	(12.6) U	1000	106	(81-124)			946 ug/Kg	01/04/2010
	MSD		993	105		1	(< 20)	946 ug/Kg	01/04/2010
Toluene	MS	(37.8) U	970	103	(87-119)			946 ug/Kg	01/04/2010
	MSD		1040	110		7	(< 20)	946 ug/Kg	01/04/2010
Ethylbenzene	MS	(19.7) U	957	101	(87-119)			946 ug/Kg	01/04/2010
	MSD		1040	110		9	(< 20)	946 ug/Kg	01/04/2010
n-Butylbenzene	MS	(19.7) U	1100	117	(82-127)			946 ug/Kg	01/04/2010
	MSD		1110	117		0	(< 20)	946 ug/Kg	01/04/2010
Carbon disulfide	MS	(78.2) U	1810	128	(58-155)			1420 ug/Kg	01/04/2010
	MSD		1820	129		1	(< 20)	1420 ug/Kg	01/04/2010
1,4-Dichlorobenzene	MS	(19.7) U	1040	110	(86-118)			946 ug/Kg	01/04/2010
	MSD		1050	111		1	(< 20)	946 ug/Kg	01/04/2010
1,2-Dichloroethane	MS	(19.7) U	1090	115	(83-121)			946 ug/Kg	01/04/2010
	MSD		1090	116		1	(< 20)	946 ug/Kg	01/04/2010
1,3,5-Trimethylbenzene	MS	(19.7) U	1030	109	(87-120)			946 ug/Kg	01/04/2010
	MSD		1030	109		0	(< 20)	946 ug/Kg	01/04/2010
4-Chlorotoluene	MS	(19.7) U	1050	111	(84-120)			946 ug/Kg	01/04/2010
	MSD		1060	112		1	(< 20)	946 ug/Kg	01/04/2010
Chlorobenzene	MS	(19.7) U	980	104	(84-121)			946 ug/Kg	01/04/2010
	MSD		1050	111		7	(< 20)	946 ug/Kg	01/04/2010
4-Methyl-2-pentanone (MIBK)	MS	(197) U	3310	117	(67-135)			2840 ug/Kg	01/04/2010
	MSD		3140	111		5	(< 20)	2840 ug/Kg	01/04/2010
cis-1,2-Dichloroethene	MS	(19.7) U	984	104	(82-124)			946 ug/Kg	01/04/2010
	MSD		985	104		0	(< 20)	946 ug/Kg	01/04/2010
4-Isopropyltoluene	MS	(19.7) U	1020	108	(83-121)			946 ug/Kg	01/04/2010
	MSD		1060	112		4	(< 20)	946 ug/Kg	01/04/2010
Methyl-t-butyl ether	MS	(30.2) U	1660	117	(76-133)			1420 ug/Kg	01/04/2010
	MSD		1560	110		6	(< 20)	1420 ug/Kg	01/04/2010
cis-1,3-Dichloropropene	MS	(19.7) U	1040	110	(82-122)			946 ug/Kg	01/04/2010
	MSD		1060	112		2	(< 20)	946 ug/Kg	01/04/2010
n-Propylbenzene	MS	(19.7) U	1080	114	(82-125)			946 ug/Kg	01/04/2010
	MSD		1090	116		1	(< 20)	946 ug/Kg	01/04/2010
Styrene	MS	(19.7) U	981	104	(91-120)			946 ug/Kg	01/04/2010
	MSD		1040	110		6	(< 20)	946 ug/Kg	01/04/2010
Dibromomethane	MS	(19.7) U	1050	111	(80-123)			946 ug/Kg	01/04/2010
	MSD		1030	109		3	(< 20)	946 ug/Kg	01/04/2010
trans-1,3-Dichloropropene	MS	(19.7) U	1050	111	(86-122)			946 ug/Kg	01/04/2010
	MSD		1100	116		5	(< 20)	946 ug/Kg	01/04/2010
1,2,4-Trichlorobenzene	MS	(37.8) U	1060	112	(77-126)			946 ug/Kg	01/04/2010
	MSD		1050	111		1	(< 20)	946 ug/Kg	01/04/2010



SGS Ref.# 945061 Matrix Spike
 945062 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch
 Method
 Date

Original 945060
 Matrix Solid/Soil (Wet Weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
1,1,2,2-Tetrachloroethane	MS	(37.8) U	1110	117	(80-122)			946 ug/Kg	01/04/2010
	MSD		1100	117		0	(< 20)	946 ug/Kg	01/04/2010
1,2-Dibromo-3-chloropropane	MS	(78.2) U	1080	114	(60-135)			946 ug/Kg	01/04/2010
	MSD		1070	113		1	(< 20)	946 ug/Kg	01/04/2010
Tetrachloroethene	MS	(19.7) U	953	101	(82-125)			946 ug/Kg	01/04/2010
	MSD		1000	106		5	(< 20)	946 ug/Kg	01/04/2010
Dibromochloromethane	MS	(19.7) U	975	103	(84-125)			946 ug/Kg	01/04/2010
	MSD		1000	106		3	(< 20)	946 ug/Kg	01/04/2010
1,3-Dichloropropane	MS	(19.7) U	1070	113	(84-123)			946 ug/Kg	01/04/2010
	MSD		1080	114		1	(< 20)	946 ug/Kg	01/04/2010
1,2-Dibromoethane	MS	(19.7) U	1010	106	(85-124)			946 ug/Kg	01/04/2010
	MSD		1030	109		3	(< 20)	946 ug/Kg	01/04/2010
Carbon tetrachloride	MS	(19.7) U	1070	113	(79-128)			946 ug/Kg	01/04/2010
	MSD		1090	115		2	(< 20)	946 ug/Kg	01/04/2010
1,1,1,2-Tetrachloroethane	MS	(19.7) U	969	102	(77-123)			946 ug/Kg	01/04/2010
	MSD		1020	108		5	(< 20)	946 ug/Kg	01/04/2010
Chloroform	MS	(19.7) U	985	104	(77-124)			946 ug/Kg	01/04/2010
	MSD		996	105		1	(< 20)	946 ug/Kg	01/04/2010
Bromobenzene	MS	(19.7) U	1060	112	(86-119)			946 ug/Kg	01/04/2010
	MSD		1030	109		2	(< 20)	946 ug/Kg	01/04/2010
Chloromethane	MS	(19.7) U	1170	124	(54-129)			946 ug/Kg	01/04/2010
	MSD		1280	135*		9	(< 20)	946 ug/Kg	01/04/2010
1,2,3-Trichloropropane	MS	(37.8) U	1110	118	(77-125)			946 ug/Kg	01/04/2010
	MSD		1020	108		8	(< 20)	946 ug/Kg	01/04/2010
Bromomethane	MS	(156) U	1200	127	(49-141)			946 ug/Kg	01/04/2010
	MSD		1260	133		5	(< 20)	946 ug/Kg	01/04/2010
Bromochloromethane	MS	(19.7) U	1050	111	(79-125)			946 ug/Kg	01/04/2010
	MSD		1010	106		4	(< 20)	946 ug/Kg	01/04/2010
Vinyl chloride	MS	(30.2) U	1260	134*	(67-125)			946 ug/Kg	01/04/2010
	MSD		1300	138*		3	(< 20)	946 ug/Kg	01/04/2010
Dichlorodifluoromethane	MS	(37.8) U	1350	143*	(43-135)			946 ug/Kg	01/04/2010
	MSD		1420	150*		5	(< 20)	946 ug/Kg	01/04/2010
Chloroethane	MS	(156) U	1300	137	(51-141)			946 ug/Kg	01/04/2010
	MSD		1310	139		1	(< 20)	946 ug/Kg	01/04/2010
sec-Butylbenzene	MS	(19.7) U	1020	108	(84-122)			946 ug/Kg	01/04/2010
	MSD		1030	109		2	(< 20)	946 ug/Kg	01/04/2010
Bromodichloromethane	MS	(19.7) U	1010	106	(81-127)			946 ug/Kg	01/04/2010
	MSD		1010	107		1	(< 20)	946 ug/Kg	01/04/2010
1,1-Dichloroethene	MS	(19.7) U	1120	118	(75-125)			946 ug/Kg	01/04/2010
	MSD		1140	121		3	(< 20)	946 ug/Kg	01/04/2010



SGS Ref.# 945061 Matrix Spike
 945062 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch
 Method
 Date

Original 945060
 Matrix Solid/Soil (Wet Weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Volatile Gas Chromatography/Mass Spectroscopy									
2-Butanone (MEK)	MS	(197) U	3760	132	(57-135)			2840 ug/Kg	01/04/2010
	MSD		2240	79		51 * (< 20)		2840 ug/Kg	01/04/2010
Methylene chloride	MS	(78.2) U	1130	119	(63-137)			946 ug/Kg	01/04/2010
	MSD		1120	119		0 (< 20)		946 ug/Kg	01/04/2010
Trichlorofluoromethane	MS	(37.8) U	1170	124	(64-139)			946 ug/Kg	01/04/2010
	MSD		1230	130		4 (< 20)		946 ug/Kg	01/04/2010
P & M -Xylene	MS	(37.8) U	2010	106	(88-121)			1890 ug/Kg	01/04/2010
	MSD		2120	112		5 (< 20)		1890 ug/Kg	01/04/2010
Naphthalene	MS	(37.8) U	1050	111	(73-131)			946 ug/Kg	01/04/2010
	MSD		1060	112		1 (< 20)		946 ug/Kg	01/04/2010
o-Xylene	MS	(37.8) U	953	101	(89-120)			946 ug/Kg	01/04/2010
	MSD		1010	107		6 (< 20)		946 ug/Kg	01/04/2010
Bromoform	MS	(19.7) U	970	103	(72-135)			946 ug/Kg	01/04/2010
	MSD		978	103		1 (< 20)		946 ug/Kg	01/04/2010
Xylenes (total)	MS	(75.6) U	2970	105	(89-120)			2840 ug/Kg	01/04/2010
	MSD		3130	110		5 (< 20)		2840 ug/Kg	01/04/2010
1,2,4-Trimethylbenzene	MS	(19.7) U	1060	112	(85-121)			946 ug/Kg	01/04/2010
	MSD		1060	112		0 (< 20)		946 ug/Kg	01/04/2010
tert-Butylbenzene	MS	(19.7) U	1030	109	(82-122)			946 ug/Kg	01/04/2010
	MSD		1060	112		3 (< 20)		946 ug/Kg	01/04/2010
1,1,1-Trichloroethane	MS	(19.7) U	988	104	(77-129)			946 ug/Kg	01/04/2010
	MSD		1010	107		2 (< 20)		946 ug/Kg	01/04/2010
1,1-Dichloroethane	MS	(19.7) U	1090	115	(81-126)			946 ug/Kg	01/04/2010
	MSD		1100	116		1 (< 20)		946 ug/Kg	01/04/2010
2-Chlorotoluene	MS	(19.7) U	1070	113	(81-122)			946 ug/Kg	01/04/2010
	MSD		1080	114		1 (< 20)		946 ug/Kg	01/04/2010
Trichloroethene	MS	(19.7) U	964	102	(77-124)			946 ug/Kg	01/04/2010
	MSD		994	105		3 (< 20)		946 ug/Kg	01/04/2010
trans-1,2-Dichloroethene	MS	(19.7) U	1010	107	(79-125)			946 ug/Kg	01/04/2010
	MSD		1050	111		4 (< 20)		946 ug/Kg	01/04/2010
1,2-Dichlorobenzene	MS	(19.7) U	1050	111	(88-113)			946 ug/Kg	01/04/2010
	MSD		1050	111		0 (< 20)		946 ug/Kg	01/04/2010
2,2-Dichloropropane	MS	(19.7) U	1050	111	(69-132)			946 ug/Kg	01/04/2010
	MSD		1090	116		4 (< 20)		946 ug/Kg	01/04/2010
Hexachlorobutadiene	MS	(37.8) U	1080	114	(74-124)			946 ug/Kg	01/04/2010
	MSD		1050	111		2 (< 20)		946 ug/Kg	01/04/2010
Isopropylbenzene (Cumene)	MS	(19.7) U	1010	107	(89-121)			946 ug/Kg	01/04/2010
	MSD		1040	110		3 (< 20)		946 ug/Kg	01/04/2010
2-Hexanone	MS	(197) U	3580	126	(58-145)			2840 ug/Kg	01/04/2010
	MSD		3430	121		4 (< 20)		2840 ug/Kg	01/04/2010



SGS Ref.# 945061 Matrix Spike
 945062 Matrix Spike Duplicate

Printed Date/Time 01/28/2010 16:03
 Prep Batch
 Method
 Date

Original 945060
 Matrix Solid/Soil (Wet Weight)

Parameter	Qualifiers	Original Result	QC Result	Pct Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
-----------	------------	-----------------	-----------	-----------	---------------	-----	------------	---------------	---------------

Volatile Gas Chromatography/Mass Spectroscopy

1,2-Dichloropropane	MS	(19.7) U	1040	109	(81-120)			946 ug/Kg	01/04/2010
	MSD		1050	111		2	(< 20)	946 ug/Kg	01/04/2010
1,1-Dichloropropene	MS	(19.7) U	998	106	(76-134)			946 ug/Kg	01/04/2010
	MSD		1060	112		6	(< 20)	946 ug/Kg	01/04/2010
1,1,2-Trichloroethane	MS	(19.7) U	1000	106	(85-121)			946 ug/Kg	01/04/2010
	MSD		994	105		1	(< 20)	946 ug/Kg	01/04/2010
1,3-Dichlorobenzene	MS	(19.7) U	1020	108	(86-117)			946 ug/Kg	01/04/2010
	MSD		985	104		4	(< 20)	946 ug/Kg	01/04/2010
1,2,3-Trichlorobenzene	MS	(37.8) U	1060	112	(78-124)			946 ug/Kg	01/04/2010
	MSD		1040	110		2	(< 20)	946 ug/Kg	01/04/2010

Surrogates

1,2-Dichloroethane-D4 <surr>	MS		1000	106	(69-132)				01/04/2010
	MSD		1030	109		3			01/04/2010
Toluene-d8 <surr>	MS		983	104	(84-124)				01/04/2010
	MSD		1040	110		6			01/04/2010
4-Bromofluorobenzene <surr>	MS		2440	97	(65-144)				01/04/2010
	MSD		2500	99		2			01/04/2010

Batch VMS11065
 Method SW8260B
 Instrument HP 5890 Series II MS5 VLA

Long, Alesha (Anchorage)

From: Homestead, Charles (Anchorage)
Sent: Wednesday, December 23, 2009 2:11 PM
To: Long, Alesha (Anchorage)
Subject: FW: Coastal soil samples

I believe you have this WO. It came in today.

Charles Homestead

Alaska Division
General Manager

SGS North America Inc.
200 West Potter Drive
Anchorage, Alaska 99518

Phone: (907) 562-2343
Direct: (907) 550-3206
Fax: (907) 562-0119
E-mail : charles.homestead@sgs.com
Web: www.us.sgs.com

Please note that the attached report format uses new terminology for detection and reporting limits (i.e., DL, LOD and LOQ, instead of MDL and PQL). If you have any questions, please contact me for additional details.

SGS sends analytical reports via the Internet as Portable Document Format (PDF) files. Reports in this format, with authenticated electronic signatures, are considered official reports. You may distribute your PDF files electronically or as printed hardcopies, as long as they are distributed in their entirety. All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm

From: Sue Kent [mailto:sckent@ksienviro.com]
Sent: Wednesday, December 23, 2009 2:09 PM
To: Homestead, Charles (Anchorage)
Subject: Coastal soil samples

Chuck --

Please add the following instructions to the Coastal soil samples shipped to you today.

- 1) For any sample that contains more than 26 mg/kg total chromium, please analyze for Cr+6 concentration.
- 2) For all samples, please retain excess sample until further notice in case additional analyses are required.

Thank you.

Sue Kent
Kent & Sullivan, Inc.
312 Tyee Street
Soldotna AK 99669
907-260-4069
907-260-4699 (fax)



SGS North America Inc. CHAIN OF CUSTODY RECORD

Locations Na
• Alaska
• New Jersey
• North Carolina
• West Virginia
www.us...

1096816



84

1 CLIENT: ALTA GEDSCIENCES
CONTACT: SUE KENT PHONE NO: 260-4069
PROJECT: COASTAL SITE/PWSID#: _____
REPORTS TO: SUE KENT EMAIL: ks.kent@ksjenviro.com
ALEX TULA alex@atthgeo.com
INVOICE TO: ALEX TULA QUOTE #: 8588A P.O. #: _____

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required	REMARKS/ LOC ID
① A-C	09TP-01	12-21-09	2:00	SOIL	3	G	MeOH	GRO-BTEX-MVOC AK101-8260 AK-R0 AF 102-103 Total Pb Total Cr PCBs	
②	09TP-02		2:30						
③	09TP-03		3:10						
④	09TP-05		3:50						
⑤	09TP-06-6		4:15						
⑥	09TP-06-9		4:30						
⑦ A	TRIP Blank	11/18/09	16:45		1				

SGS Reference #: _____ page 1 of 1

4 DOD Project? YES NO
Cooler ID _____
Cooler Temp °C _____
Special Deliverable Requirements: _____

Requested Turnaround Time and/or Special Instructions: _____

Chain of Custody Seal: (Circle)
Temperature Blank °C: 1.7 Therm # 10d
or Ambient INTACT BROKEN

Collected/Relinquished By: (1)	Date	Time	Received By:	Time
<i>AS</i>	12/29/09	1610		
Relinquished By: (2)	Date	Time	Received By:	Time
Relinquished By: (3)	Date	Time	Received By:	Time
Relinquished By: (4)	Date	Time	Received For Laboratory By:	Time
	12/29/09	1115	<i>AS</i>	

SAMPLE RECEIPT FORM

SGS WO#:



Yes No NA

- Are samples RUSH, priority or w/in 72 hrs of hold time?
If yes, have you done e-mail ALERT notification?
Are samples within 24 hrs. of hold time or due date?
If yes, have you also spoken with supervisor?
Archiving bottles: Are lids marked w/ red "X" ?
Were samples collected with proper preservative?
Any problems (ID, cond'n , HT, etc)? Explain:

- If this is for PWS, provide PWSID:
Payment received: \$ by Check or Credit Card
Will courier charges apply?
Data package required? (Level: 1 / 2 / 3 / 4)
Notes:
Is this a DoD project? (USACE, Navy, AFCEE)

TAT (circle one): Standard -or- Rush
Received Date: 12-23-09
Received Time: 1115
Cooler ID Temperature Measured w/ (Therm #)
1 1.7 °C 10d

Note: Temperature readings include thermometer correction factors

Delivery method (circle all that apply):
Client / Alert Courier / Lynden / SGS
UPS / FedEx / USPS / DHL / Carlisle
AKAir Goldstreak / NAC ERA / PenAir
Other:

Additional Sample Remarks: (✓ if applicable)
Extra Sample Volume?
Limited Sample Volume?
Multi-Incremental Samples?
Lab-filtered for dissolved
Ref Lab required for Foreign Soil?

This section must be filled out for DoD projects (USACE, Navy, AFCEE):
Yes No Yes N/A
Is received temperature <=6°C? Was pH verified upon receipt?
Were containers ice-free? Notify PM immediately of any ice in samples.
If some cooler temperatures are non-compliant, see form FS-0029 (attached) for samples/analyses affected.
Was there an airbill? (If "yes," see attached.)
Was cooler sealed with custody seals & were they intact? # / where:
Was there a COC with cooler?
Was COC sealed in plastic bag & taped inside lid of cooler?
Was the COC filled out properly? Did labels correspond?
Did the COC indicate USACE / Navy / AFCEE project?
Samples were packed to prevent breakage with (circle one): Bubble Wrap Vermiculite Other (specify):
Were all samples sealed in separate plastic bags?
Were all VOCs free of headspace and/or MeOH preserved?
Were correct container / sample sizes submitted?
Was the PM notified of arrival so they can send Sample Receipt Acknowledgement to client?
Cooler ID Cooler Temp °C Cooler ID Cooler Temp °C
Cooler ID Cooler Temp °C Cooler ID Cooler Temp °C

This section must be completed if problems are noted.
Was client notified of problems? Yes / No
By (SGS PM):
Individual contacted:
Via: Phone / Fax / E-mail (circle one)
Date/Time:
Reason for contact:
Change Order Required? Yes / No

Notes:

Completed by (sign): [Signature] (print): JAMES DOCCATI
Login proof: Self-check completed [Signature] Peer-reviewer's In itials [Signature]

808 - 1045 3763

DASH

8

1096816



Shipper: KENT & SULLIVAN ENVIRONMENTAL 40258
 312 TYEE STREET
 SOLDOTNA, AK 99669
 907, 260-4069

 FlyEra.com	Era Aviation, Inc. 6160 Carl Brady Drive Anchorage, AK 99502
It is agreed that the good described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT FOUND AT www.flyera.com/pdf/CargoRulesTariff.pdf . THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.	
Accounting Information	

Consignee: SGS ENVIRONMENTAL SVCS 40623
 200 W. POTTER
 ANCHORAGE, AK 99518
 562, 2343

Origin	ENA	Currency	USD
Destination	ANC	Charge Code	PX
Handling Information	Declared Value for Carriage		
DEPTS 827 ARVS 9:05A	Declared Value for Customs		
			0

Pieces	Gross Weight	Nature of Goods	Chargeable Weight	Rate/Charge	Total	Length	Width	Height	Dim Weight
1	30	RED COOLER	30		47.06				30

1	30		30		47.06				30
---	----	--	----	--	-------	--	--	--	----

Fee	Prepaid	Collect	Other Charges			
Weight Charge	47.06		FSC Fee	7.06	CSF Fee	0.00
Valuation Charge	0.00		Cod Fee	0.00	DG Fee	0.00
Tax	3.38		P/U Fee	0.00	DEL Fee	0.00
Total Other Charges Due Agent	0.00		The shipper certifies that the particulars on the face hereof are correct, and that the shipment does not contain dangerous goods and that all ITEMS ARE ACCEPTED AT SHIPPERS RISK			
Total Other Charges Due Carrier	7.06					
Total	57.50					
COD		0.00	The consignee certifies that the shipment is received in good order except where noted below			
Signature of Issuing Carrier or its Agent	AWB Date	AWB Time				
43	23-DEC-09	0759				

For terms, conditions and contract of carriage, go to www.flyera.com/pdf/CargoRulesTariff.pdf

DBA/P

1096816



308100

8421 Flamingo

Date 12/23/01

From Kent Sullivan

To SBS

Collect <input type="checkbox"/>	Prepay <input type="checkbox"/> Account <input type="checkbox"/>	Advance Charges <input type="checkbox"/>
Job #	PO#	

1 pc	
Est # 1045-3763	

Shipped Signature

Received By: [Signature] 1115 Total Charge

January 27, 2010

Analytical Report for Service Request No: K1000269

Forest Taylor
SGS Environmental Services, Inc.
200 W. Potter Drive
Anchorage, AK 99518-1605

RE: Coastal


Dear Forest:

Enclosed are the results of the samples submitted to our laboratory on January 12, 2010. For your reference, these analyses have been assigned our service request number K1000269.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3281. You may also contact me via Email at PDivvela@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.
Pradeep Divvela
Project Chemist

PD/lb

Page 1 of 13

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL or LOQ but greater than or equal to the MDL or LOD.
The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD has been elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated concentration that is less than the MRL or LOQ but greater than or equal to the MDL or LOD.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for any dilution or
 - W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD has been elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
The compound was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* :
- U Analyte was not detected and is reported as less than the LOD or as defined by the project. The LOD has been adjusted for any dilution or
 - i The MRL/MDL or LOQ/LOD has been elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Program	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Colorado DPHE	-
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Utah DOH	COLU
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-



COLUMBIA ANALYTICAL SERVICES, INC.

Client: SGS Environmental Services, Inc.
Project: Coastal
Sample Matrix: Soil

Service Request No.: K1000269
Date Received: 01/12/10

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), and Matrix/Duplicate Matrix Spike (MS/DMS).

Sample Receipt

Six soil samples were received for analysis at Columbia Analytical Services on 01/12/10. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.



01/27/10

Approved by _____ Date _____

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: SGS Environmental Services, Inc.
 Project: Coastal
 Sample Matrix: Soil

Service Request: K1000269

Total Solids

Prep Method: NONE
 Analysis Method: 160.3M
 Test Notes:

Units: PERCENT
 Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
09TP-01	K1000269-001	12/21/2009	01/12/2010	01/13/2010	87.4	
09TP-02	K1000269-002	12/21/2009	01/12/2010	01/13/2010	96.2	
09TP-03	K1000269-003	12/21/2009	01/12/2010	01/13/2010	85.9	
09TP-05	K1000269-004	12/21/2009	01/12/2010	01/13/2010	82.5	
09TP-06-6	K1000269-005	12/21/2009	01/12/2010	01/13/2010	78.5	
09TP-06-9	K1000269-006	12/21/2009	01/12/2010	01/13/2010	78.0	

Client: SGS Environmental Services, Inc.
 Project: Coastal
 Sample Matrix: Soil

Service Request: K1000269
 Date Collected: 12/21/2009
 Date Received: 01/12/2010
 Date Analyzed: 01/13/2010

Duplicate Sample Summary
 Total Solids

Prep Method: NONE Units: PERCENT
 Analysis Method: 160.3M Basis: Wet
 Test Notes:

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
09TP-01	K1000269-001	87.4	87.2	87.3	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client : SGS Environmental Services, Inc.
Project Name : Coastal
Project Number : NA
Sample Matrix : SOIL

Service Request : K1000269
Date Collected : 12/21/09
Date Received : 01/12/10

Chromium, Hexavalent

Prep Method : EPA 3060A
Analysis Method : 7196A
Test Notes :

Units : mg/Kg
Basis : Dry

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Result	Result Notes
09TP-01	K1000269-001	0.58	0.10	1	1/20/2010	01/22/10	ND	
09TP-02	K1000269-002	0.52	0.09	1	1/20/2010	01/22/10	ND	
09TP-03	K1000269-003	0.59	0.10	1	1/20/2010	01/22/10	ND	
09TP-05	K1000269-004	0.61	0.10	1	1/20/2010	01/22/10	ND	
09TP-06-6	K1000269-005	0.64	0.10	1	1/20/2010	01/22/10	ND	
09TP-06-9	K1000269-006	0.65	0.10	1	1/20/2010	01/22/10	ND	
Method Blank	K1000269-MB	0.52	0.08	1	1/20/2010	01/22/10	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : SGS Environmental Services, Inc.
Project Name : Coastal
Project Number : NA
Sample Matrix : SOIL

Service Request : K1000269
Date Collected : 12/21/2009
Date Received : 1/12/2010
Date Prepared : 01/20/10
Date Analyzed : 01/22/10

Duplicate Summary
 Inorganic Parameters

Sample Name : 09TP-02
Lab Code : K1000269-002DUP
Test Notes :

Units : mg/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate		Relative Percent Difference	Result Notes
					Sample Result	Average		
Chromium, Hexavalent	EPA 3060A	7196A	0.52	ND	ND	ND	-	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : SGS Environmental Services, Inc.
Project Name : Coastal
Project Number : NA
Sample Matrix : SOIL

Service Request : K1000269
Date Collected : 12/21/2009
Date Received : 1/12/2010
Date Prepared : 01/20/10
Date Analyzed : 01/22/10

Matrix Spike/Duplicate Matrix Spike Summary

Sample Name : 09TP-02 Units : mg/Kg
 Lab Code : K1000269-002MS K1000269-002DMS Basis : Dry
 Test Notes :

Analyte	Prep Method	Analysis Method	MRL	Spike Level		Sample Result	Spike Result		Spike Recovery		CAS Acceptance Limits	Relative Percent Difference	Result Notes
				MS	DMS		MS	DMS	MS	DMS			
Chromium, Hexavalent	EPA 3060A	7196A	2.6	20.8	41.4	ND	21.9	43.8	105	106	75-125	<1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : SGS Environmental Services, Inc.
Project Name : Coastal
Project Number : NA
Sample Matrix : SOIL

Service Request : K1000269
Date Collected : NA
Date Received : NA
Date Prepared : 01/20/10
Date Analyzed : 01/22/10

Laboratory Control Sample Summary
Inorganic Parameters

Sample Name : Lab Control Sample
Lab Code : K1000269-LCS
Test Notes :

Units : mg/Kg
Basis : Dry

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS	Result Notes
						Percent Recovery	
Chromium, Hexavalent	EPA 3060A	7196A	214	200	93	80-120	



SGS North America Inc. CHAIN OF CUSTODY RECORD

- Locations Nationwide
- Alaska
 - Maryland
 - New Jersey
 - New York
 - North Carolina
 - Ohio
 - West Virginia
- www.us.sgs.com

K1006269

80

1 CLIENT: **SGS-AK** PHONE NO: **907 522 2343**

CONTACT: **FOREST TAYLOR** SITE/PWSID#: _____

PROJECT: **CONSTAL** EMAIL: _____

REPORTS TO: _____

INVOICE TO: _____ QUOTE #: _____

P.O. #: **1096816**

SGS Reference #: **CAS-KELSD** page 1 of 1

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used Analysis Required (3)	REMARKS/ LOG-ID
	φ9TP-φ1	12/21/09	1400	SOIL	1	G	<input checked="" type="checkbox"/>	1096816001
	φ9TP-φ2		1430				<input checked="" type="checkbox"/>	1096816002
	φ9TP-φ3		1510				<input checked="" type="checkbox"/>	1096816003
	φ9TP-φ5		1550				<input checked="" type="checkbox"/>	1096816004
	φ9TP-φ6-6		1615				<input checked="" type="checkbox"/>	1096816005
	φ9TP-φ6-9	12/21/09	1630	SOIL	1	G	<input checked="" type="checkbox"/>	1096816006

4 DOD Project? YES NO

Special Deliverable Requirements: **LEVEL II REPORT + EDD**

Cooler ID: _____

Cooler Temp °C: **0.8°C**

Requested Turnaround Time and/or Special Instructions: _____

5 Collected/Relinquished By: *Forest Taylor* Date: **1/11/10** Time: **0932** Received By: *Jan Jones* Date: **1/21/10** Time: **1035**

Relinquished By: (2) _____ Date: _____ Time: _____ Received By: _____

Relinquished By: (3) _____ Date: _____ Time: _____ Received By: _____

Relinquished By: (4) _____ Date: _____ Time: _____ Received For Laboratory By: _____

Temperature Blank _____ Therm # _____

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

**Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form**

PC PD

Client / Project: 565 Service Request K10 00969

Received: 1/12/10 Opened: 1/12/10 By: [Signature]

1. Samples were received via? *Mail* *Fed Ex* UPS *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) Cooler *Box* *Envelope* *Other* _____ NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? NA
- If present, were custody seals intact? Y NA N If present, were they signed and dated? Y NA N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	NA	Tracking Number	NA	Filed
0.8	1.4	268		NA	12A8619W0149358093		

7. Packing material used. *Inserts* *Baggies* Bubble Wrap Gel Packs *Wet Ice* *Sleeves* *Other* _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Out of	Head-	Broke	pH	Reagent	Volume	Reagent Lot	Initials	Time
	Bottle Type	Temp	space				added	Number		

Notes, Discrepancies, & Resolutions: _____

Laboratory Data Review Checklist

Completed by:	Victoria Yancey		
Title:	Environmental Scientist	Date:	Mar 11, 2010
CS Report Name:	Coastal	Report Date:	Jan 28, 2010
Consultant Firm:	Alta Geosciences		
Laboratory Name:	SGS Environmental Svcs	Laboratory Report Number:	1096816
ADEC File Number:	2333.38.013	ADEC RecKey Number:	

1. Laboratory

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

Yes No NA (Please explain.) Comments:

SGS Anchorage, AK 1096816

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:

CAS, Kelso, WA K1000269

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes No NA (Please explain) Comments:

No COC seals on coolers sent to CAS

b. Correct analyses requested?

Yes No NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No NA (Please explain) Comments:

in Anch (1.7°C), in Kelso (0.8/1.4°C); no ice noted.

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:

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:

Older TB used

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

Comments:

No

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:

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:

Usable as qualified

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:

Technical holding time for TB not applicable. Cr+6 prepared on day 30, analyzed on day 32.

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:

8260B - various compounds do not meet most stringent ADEC cleanup criteria.

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

Comments:

No

6. QC Samples

a. Method Blank

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

Yes No NA (Please explain)

Comments:

Yes

ii. All method blank results less than PQL?

Yes No NA (Please explain)

Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

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

Yes No NA (Please explain) Comments:

none affected

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

Comments:

No

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:

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:

NA

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

Yes No NA (Please explain) Comments:

none affected

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

Comments:

No

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:

GRO: -3, -4, -5 DRO/RRO: -3

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:

Usable as qualified

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

iii. All results less than PQL?

Yes No NA (Please explain.)

Comments:

iv. If above PQL, what samples are affected?

Comments:

NA

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

Comments:

No

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:

no duplicates

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Yes No NA (Please explain.)

Comments:

no duplicates

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

Yes No NA (Please explain.)

Comments:

f. Decontamination or Equipment Blank (if applicable)

Yes No NA (Please explain)

Comments:

No EB collected

i. All results less than PQL?

Yes No NA (Please explain)

Comments:

ii. If above PQL, what samples are affected?

Comments:

NA

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

Comments:

NA

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

a. Defined and appropriate?

Yes No NA (Please explain)

Comments:

Reset Form



SGS North America Inc.
Alaska Division
Level II Laboratory Data Report

Project: Coastal 16-15
Client: ALTA Geosciences, INC
SGS Work Order: 1103492

Released by:

Contents (Bookmarked in PDF):

Cover Page
Case Narrative
Sample Results Forms
Quality Control Summary Forms
Chain of Custody/Sample Receipt Forms
Attachments (if applicable)



Case Narrative

Client ALTAGEO ALTA Geosciences, INC
Workorder 1103492 Coastal 16-15

Printed Date/Time 7/30/2010 11:42

<u>Sample ID</u>	<u>Client Sample ID</u>
------------------	-------------------------

Refer to the sample receipt form for information on sample condition.

*

Alex Tula
ALTA Geosciences, Inc.
2020 Maltby Rd
Ste 7 #197
Bothell, WA 98021

Work Order: 1103492
Coastal 16-15
Client: ALTA Geosciences, INC
Report Date: July 30, 2010

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. If you have any questions regarding this report, or if we can be of any other assistance, please contact your SGS Project Manager at 907-562-2343. All work is provided under SGS general terms and conditions (http://www.sgs.com/terms_and_conditions.htm), unless other written agreements have been accepted by both parties.

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 AK100001 for NELAP (RCRA methods: 1020A, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035B, 6010B, 6020, 7470A, 7471B, 8021B, 8081B, 8082A, 8260B, 8270D, 8270D-SIM, 9040B, 9045C, 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, the National Environmental Laboratory Accreditation Program and 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 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
- 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., 2xDL)
- 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.



Detectable Results Summary

Print Date: 7/30/2010 11:42 am

Client Sample ID: **Grate-1**

SGS Ref. #: 1103492001

Polychlorinated Biphenyls

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aroclor-1254	553	ug/Kg



SGS Ref.# 1103492001
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Client Sample ID Grate-1
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Collected Date/Time 07/15/2010 9:05
Received Date/Time 07/16/2010 13:35
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1221	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1232	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1242	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1248	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1254	553	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
Aroclor-1260	ND	52.8	ug/Kg	SW8082A	A		07/19/10	07/23/10	RTS
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	85.9		%	SW8082A	A	60-125	07/19/10	07/23/10	RTS
<u>Solids</u>									
Total Solids	93.5		%	SM20 2540G	A			07/16/10	AHJ



SGS Ref.# 1103492002
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Client Sample ID Grate-2
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Collected Date/Time 07/16/2010 9:00
Received Date/Time 07/16/2010 13:35
Technical Director Stephen C. Ede

Sample Remarks:

Parameter	Results	LOQ	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<u>Polychlorinated Biphenyls</u>									
Aroclor-1016	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1221	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1232	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1242	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1248	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1254	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
Aroclor-1260	ND	51.9	ug/Kg	SW8082A	A		07/19/10	07/28/10	RTS
<u>Surrogates</u>									
Decachlorobiphenyl <surr>	115		%	SW8082A	A	60-125	07/19/10	07/28/10	RTS
<u>Solids</u>									
Total Solids	95.4		%	SM20 2540G	A			07/16/10	AHJ



SGS Ref.# 974191 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Prep Batch
Method
Date

QC results affect the following production samples:
1103492001, 1103492002

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Solids

Total Solids	100			%	07/16/10
Batch	SPT8184				
Method	SM20 2540G				
Instrument					



SGS Ref.# 974341 Method Blank
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Prep Batch XXX23080
Method SW3550C
Date 07/19/2010

QC results affect the following production samples:
1103492001, 1103492002

Parameter	Results	LOQ/CL	DL	Units	Analysis Date
-----------	---------	--------	----	-------	---------------

Polychlorinated Biphenyls

Aroclor-1016	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1221	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1232	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1242	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1248	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1254	ND	50.0	15.0	ug/Kg	07/23/10
Aroclor-1260	ND	50.0	15.0	ug/Kg	07/23/10

Surrogates

Decachlorobiphenyl <surr>	93.2	60-125		%	07/23/10
---------------------------	------	--------	--	---	----------

Batch XGC7077
Method SW8082A
Instrument HP 5890 Series II ECD SV I R



SGS Ref.# 974192 Duplicate
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Original 1103475001
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Prep Batch
Method
Date

QC results affect the following production samples:
1103492001, 1103492002

Parameter	Original Result	QC Result	Units	RPD	RPD Limits	Analysis Date
-----------	-----------------	-----------	-------	-----	------------	---------------

Solids

Total Solids	88.7	88.4	%	0	(< 15)	07/16/2010
Batch	SPT8184					
Method	SM20 2540G					
Instrument						



SGS Ref.# 974342 Lab Control Sample
Client Name ALTA Geosciences, INC
Project Name/# Coastal 16-15
Matrix Soil/Solid (dry weight)

Printed Date/Time 07/30/2010 11:42
Prep Batch XXX23080
Method SW3550C
Date 07/19/2010

QC results affect the following production samples:
1103492001, 1103492002

Parameter	QC Results	Pct Recov	LCS/LCSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
<u>Polychlorinated Biphenyls</u>							
Aroclor-1016	LCS	191	86	(58-122)		222 ug/Kg	07/23/2010
Aroclor-1260	LCS	264	119	(61-130)		222 ug/Kg	07/23/2010
Surrogates							
Decachlorobiphenyl <surr>	LCS		94	(60-125)			07/23/2010

Batch XGC7077
Method SW8082A
Instrument HP 5890 Series II ECD SV I R



SGS Ref.# 974343 Matrix Spike
 974344 Matrix Spike Duplicate

Printed Date/Time 07/30/2010 11:42
 Prep Batch XXX23080
 Method Sonication Extraction Soil SW8
 Date 07/19/2010

Original 1103492001
 Matrix Soil/Solid (dry weight)

QC results affect the following production samples:

1103492001, 1103492002

Parameter	Qualifiers	Original Result	QC Result	Pet Recov	MS/MSD Limits	RPD	RPD Limits	Spiked Amount	Analysis Date
Polychlorinated Biphenyls									
Aroclor-1016	MS	ND	239	101	(58-122)			236 ug/Kg	07/23/2010
	MSD		270	114		12	(< 30)	236 ug/Kg	07/23/2010
Aroclor-1260	MS	ND	263	111	(61-130)			236 ug/Kg	07/23/2010
	MSD		278	118		6	(< 30)	236 ug/Kg	07/23/2010
Surrogates									
Decachlorobiphenyl <surr>	MS		201	85	(60-125)				07/23/2010
	MSD		210	89		4			07/23/2010

Batch XGC7077
 Method SW8082A
 Instrument HP 5890 Series II ECD SV I R



**SGS Environmental Services Inc.
CHAIN OF CUSTODY RECORD**

1103492



1 CLIENT: *Alta Geosciences* PHONE NO: *260-4069*
 CONTACT: *Sue Kent* SITE/PWSID#: *16-15*
 PROJECT: *Coastal* EMAIL: *s.kent@altageo.com*
 REPORTS TO: *Sue Kent*
 INVOICE TO: *Alex Tula* QUOTE #: *8588A*
 P.O. #:

SGS Reference #: _____ page _____ of _____

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	SAMPLE TYPE C= COMP G= GRAB MI= Multi Incremental Samples	Preservatives Used	Analysis Required	REMARKS/ LOC ID
<i>DA-B</i>	<i>Grate-1</i>	<i>7/15/10</i>	<i>0905</i>	<i>3011</i>	<i>2</i>	<i>6</i>		<i>3</i>	
<i>DB</i>	<i>Grate-2</i>	<i>7/16/10</i>	<i>0900</i>	<i>3011</i>	<i>2</i>	<i>6</i>			

2

Collected/Relinquished By: (1)	Date	Time	Received By:
<i>Sara Morrison Jun Munn</i>	<i>7/16/10</i>	<i>0830</i>	
Relinquished By: (2)	Date	Time	Received By:
<i>Sara Morrison Jun Munn</i>	<i>7/16/10</i>	<i>0830</i>	
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received For Laboratory By:
	<i>7/16/2010</i>	<i>1335</i>	

5

4

DOD Project? YES NO
Cooler ID _____

Special Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:

Samples Received Cold? YES NO
Cooler TB
Temperature °C: *3.3* *110*

Chain of Custody Seal: (Circle)
(INTACT) BROKEN ABSENT

1103492




SAMPLE RECEIPT FORM

Review Criteria:	Condition:	Comments/Action Taken:
Were custody seals intact? Note # & location if applicable. COC accompanied samples?	<input checked="" type="radio"/> Yes No N/A	on front, on back
Temperature blank compliant (i.e., 0-6°C after correction factor)? Cooler ID: <u>1</u> @ <u>3.3</u> w/ Therm.ID: <u>11B</u> Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ Cooler ID: _____ @ _____ w/ Therm.ID: _____ <i>Note: If non-compliant, use form FS-0029 to document affected samples/analyses.</i> If samples are received <u>without</u> 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 <u>nor</u> cooler temp can be obtained, note "ambient" or "chilled." If temperature(s) <0°C, were all containers ice free?	<input checked="" type="radio"/> Yes No N/A	
Delivery method (specify all that apply): Client USPS <input checked="" type="radio"/> Alert Courier Road Runner AK Air Lynden Carlite <input checked="" type="radio"/> ERA FedEx UPS NAC PenAir Other:	Note airbill/tracking # <input checked="" type="radio"/> See Attached or N/A	ENA 8003 5911
* For samples received with payment, note amount (\$) and cash / check / CC (circle one). * For samples received in FBKS, ANCH staff will verify all criteria are reviewed.		<input checked="" type="radio"/> N/A SRF Initiated by: <input checked="" type="radio"/> N/A
Do samples match COC (i.e., sample IDs, dates/times collected)? Are analyses requested unambiguous?	<input checked="" type="radio"/> Yes No N/A <input checked="" type="radio"/> Yes No N/A	
Were samples in good condition (no leaks/cracks/breakage)? Packing material used (specify all that apply): <input checked="" type="radio"/> Bubble wrap Separate plastic bags Vermiculite Other:	<input checked="" type="radio"/> Yes No N/A	
Were all VOA vials free of headspace (i.e., bubbles ≤6 mm)? Were all soil VOAs field extracted with MeOH+BFB?	Yes No <input checked="" type="radio"/> N/A Yes No <input checked="" type="radio"/> N/A	
Were proper containers (type/mass/volume/preservative) used? Were the bottles provided by SGS? (Note apparent exceptions.) Were Trip Blanks (VOAs, LL-Hg) in cooler with samples?	<input checked="" type="radio"/> Yes No N/A <input checked="" type="radio"/> Yes No N/A <input checked="" type="radio"/> Yes No N/A	
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was pH verified and compliant ? If pH was adjusted, were bottles flagged (i.e., stickers)? <i>Refer to attached bottle sheet (form F066) for documentation.</i>	Yes No <input checked="" type="radio"/> N/A Yes No <input checked="" type="radio"/> N/A	
For RUSH or SHORT HOLD TIME samples, were the COC & this SRF flagged, bottles flagged (e.g., stickers) and lab notified?	Yes No <input checked="" type="radio"/> N/A	
For client requested, site-specific QC (e.g., MS/MSD/DUP), were bottles flagged (e.g., stickers) and numbered accordingly?	Yes No <input checked="" type="radio"/> N/A	
For special handling (e.g., "MI" or foreign soils, lab filter, limited volume, Ref Lab), were bottles/paperwork flagged (e.g., sticker)?	Yes No <input checked="" type="radio"/> N/A	
Was PEER REVIEW of sample numbering completed (i.e., compare WO# on containers to COC, container ID on containers to COC, each container had a unique container ID)? Was the WO# recorded in Front Counter/Sample Receiving log?	<input checked="" type="radio"/> Yes No N/A Yes No N/A	SRF Completed by: <u>JWS</u> Bottle Sheet by: <u>JWS</u> Peer Reviewed by: <u>AA</u>
For any questions answered "NO," was the PM notified?	Yes No <input checked="" type="radio"/> N/A	PM = _____ N/A
Additional notes (if applicable):		

WO# (7 digits)	Sample #	Sample #	Container ID	Container ID	Matrix	QC	Preservative (CHECKED)	TEST GROUP ID	PRINT LABELS	Notes: ANOMALIES - <i>e.g., preservative added</i> or SPECIAL HANDLING - <i>e.g., Multi-Incremental (MI), Field Filter (FF), Lab Filter (LF), use "same jar as" (SJA) for QC, 2xMeOH, bubbles, etc.</i>
										Type comments below:
SAMPLE ID				TYPE		CONTAINERS		ANALYSIS		
1103492	001	002	A	B	2 Soil		N/A		S_Weigh_Out	

Shipper: KENT & SULLIVAN ENVIRONMENTAL 40258
 312 TYEE STREET
 SOLDOTNA, AK 99669
 907, 260-4069

Consignee: SGS ENVIRONMENTAL SVCS 40623
 200 W. POTTER
 ANCHORAGE, AK 99518
 562, 2343

	Era Alaska 4700 West International Airport Rd. Anchorage, AK 99502
	It is agreed that the good described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT FOUND AT www.flyera.com/pdf/CargoRulesTariff.pdf . THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIER'S LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.
Accounting Information GENERAL FREIGHT	

Origin	ENA	Currency	USD
Destination	ANC	Charge Code	PX
Handling Information	Declared Value for Carriage		0.00
7H/831 ETA 1125			

Pieces	Nature of Goods	Gross Weight (LB)	Chargeable Weight (LB)	Rate/Charge	Total	Length	Width	Height	Dim Weight (LB)
1	LAB SAMPLES					1	1	1	0

1	14	14	0			
Fee	Prepaid	Collect	Other Charges			
Weight Charge	20.00		FSC Fee	3.00	CSF Fee	0.00
Valuation Charge	0.00		Cod Fee	0.00	DG Fee	0.00
Tax	1.44		P/U Fee	0.00	DEL Fee	0.00
Total Other Charges Due Agent	0.00		The shipper certifies that the particulars on the face hereof are correct, and that the shipment does not contain dangerous goods and that all ITEMS ARE ACCEPTED AT SHIPPERS RISK			
Total Other Charges Due Carrier	3.00					
Total	24.44		jeremy yancey			
COD		0.00	The consignee certifies that the shipment is received in good order except where noted below			
Signature of Issuing Carrier or its Agent	AWB Date	AWB Time				
44	16-JUL-10	0847				

or terms, conditions and contract of carriage, go to www.flyera.com/pdf/CargoRulesTariff.pdf

1103492


Laboratory Data Review Checklist

Completed by:	Victoria Yancey		
Title:	Environmental Scientist	Date:	Aug 31, 2010
CS Report Name:	Coastal	Report Date:	Jul 30, 2010
Consultant Firm:	Alta Geosciences		
Laboratory Name:	SGS Environmental Svcs	Laboratory Report Number:	1103492
ADEC File Number:	2333.38.013	ADEC RecKey Number:	

1. Laboratory

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

Yes No NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

Yes No NA (Please explain) Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

Yes No NA (Please explain) Comments:

b. Correct analyses requested?

Yes No NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?

Yes No NA (Please explain) Comments:

3.3°C

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

Yes No NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No NA (Please explain) Comments:

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

Yes No NA (Please explain) Comments:

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

Comments:

No

4. Case Narrative

a. Present and understandable?

Yes No NA (Please explain) Comments:

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

Yes No NA (Please explain) Comments:

No discrepancies

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:

None

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? (Please explain)

Comments:

No

6. QC Samples

a. Method Blank

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

Yes No NA (Please explain)

Comments:

Yes

ii. All method blank results less than PQL?

Yes No NA (Please explain)

Comments:

iii. If above PQL, what samples are affected?

Comments:

NA

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

Yes No NA (Please explain) Comments:

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

Comments:

No

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:

LCS

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:

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:

NA

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

Yes No NA (Please explain) Comments:

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

Comments:

No

c. Surrogates - Organics Only

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

Yes No NA (Please explain) Comments:

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

Yes No NA (Please explain) Comments:

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

Yes No NA (Please explain) Comments:

No failed surrogates

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

Comments:

No

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:

No volatiles

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:

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

Comments:

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)

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

Yes No NA (Please explain.)

Comments:

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

Yes No NA (Please explain.)

Comments:

f. Decontamination or Equipment Blank (if applicable)

Yes No NA (Please explain)

Comments:

No EB submitted

i. All results less than PQL?

Yes No NA (Please explain)

Comments:

ii. If above PQL, what samples are affected?

Comments:

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

Comments:

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

a. Defined and appropriate?

Yes No NA (Please explain)

Comments:

Reset Form