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Remarks:

Should you have any questions or require additional information, please contact Siobhan Pritchard at (720) 974-0935

Copy to:	Dan Carrier (<i>electronic copy</i>) Spenard and Northern Lights, LLC Ellen M. Lekisch		\mathcal{O}
Completed by:	Siobhan Pritchard [Please Print]	Signed:	Julie -
Filing: Correspon	dence File		

 GHD

 14998 West 6th Avenue Suite 800 Golden Colorado 80401 USA

 T 720 974 0935
 F 720 974 0936
 W www.ghd.com







Log Crib Assessment Report

Former Unocal Service Station 4854 2730 Spenard Road Anchorage, Alaska ADEC File ID: 2100.26.116 Hazard ID: 23370

Chevron Environmental Management Company

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Chevron Environmental Management Company

Jeffrey Cloud Chemist

Oliver Yan Project Geologist

Siobhan Pritchard, P.G. Senior Project Geologist

GHD | 14998 West 6th Avenue Suite 800 Golden Colorado USA 80401 082676 | 2017.4 | 04.05 | Report No 3 | March 9, 2018



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List of Acronyms and Abbreviations

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
COPCs	constituents of potential concern
CSM	conceptual site model
DRO	diesel range organics
fbg	feet below grade
ft btoc	feet below top of casing
GRO	gasoline range organics
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
No	number
PAHs	polynuclear aromatic hydrocarbons
P.G.	Professional Geologist
PID	photoionization detector
PCBs	polychlorinated biphenyls
PVC	polyvinyl chloride
RRO	residual range organics
UCM	unresolved complex mixture
UST	underground storage tank
VOC	volatile organic compounds



1. Introduction

GHD is submitting this *Log Crib Assessment Report* to the Alaska Department of Environmental Conservation (ADEC) on behalf of Chevron Environmental Management Company (Chevron) for former Union Oil Company of California (dba Unocal) service station 4854. ADEC requested additional groundwater and soil assessment of the former log cribs (septic cribs) at the former Unocal service station during a February 26, 2013 meeting with Chevron, ADEC and GHD. ADEC requested a revised work plan to include quarterly groundwater sampling for a minimum of one year as well as assessment of the off-site property in a December 16, 2016 email. Two groundwater monitoring wells were installed within the log cribs and two additional groundwater monitoring wells were installed of the log cribs. ADEC conditionally approved GHD's March 15, 2017 *Former Log Crib Assessment Workplan* on March 31, 2017. Conditional approval included completing the four proposed borings as monitoring wells.

All fieldwork and reporting were completed in accordance with:

- ADEC's March 7, 2017 Site Characterization Work Plan and Reporting Guidance for Investigation of Contaminated Sites
- ADEC's September 2013 Monitoring Well Guidance.
- Applicable regulations in 18 Alaska Administrative Code (AAC) 78, Article 2, 6 and 9.
- Field work was conducted by a Qualified Environmental Professional (QEP) in accordance with 18 AAC 75.333.
- Soil samples were collected according to ADEC's August 2017 Field Sampling Guidance.

The site background, site conditions, monitoring well installation, soil and groundwater monitoring and sampling, and conclusions and recommendations are presented herein.

2. Site Background

2.1 Site Description

The site is a former Unocal service station located at 2730 Spenard Road in Anchorage, Alaska (Figure 1). The property's legal description is T13N R4W SEC 24 SE4SE4SE4SW4SE4 PTN 150 X 135. The latitude and longitude are 61.195508° north and 149.905965° west. The site is currently owned by Spenard & Northern Lights LLC, O'Neill Properties Inc.

The site was utilized as a service station from approximately 1956 to 2003 by various vendors, including Unocal, Mapco Express, and Williams. Unocal occupied the site from approximately 1956 through to the mid-1980s. A facility upgrade was conducted in 1971 to replace the southeast underground storage tank (UST) array with four USTs north of a new station building. Mapco Express operated the service station starting in 1988 and renovated the site in 1990, removing the northern USTs, installing USTs in the southwest, and remodeling the existing station building. In 1998, Mapco Express merged with Williams and the most recent set of active USTs, dispenser



islands, and piping were removed in 2003. The service station building was left in place and operated until it was demolished between 2005 and 2006. The site is currently an active parking lot for two different businesses. The locations of the two former log cribs and locations of the recently installed monitoring wells are shown on Figure 2. Site photographs are presented in Appendix A. An environmental history is presented in Appendix B.

The Williams/Mapco Express is listed as an ADEC Contaminated Site (File ID: 2100.26.09). Two releases were identified (Hazard ID's: 22873 and 22985); both have designations of Cleanup Complete and Cleanup Complete with Institutional Controls.

2.2 Site Geology

The site is located in south central Alaska, between the northern Knik arm and the southern Turnagain Arm, of Cook Inlet. Regional geology consists of Pleistocene alluvial, glacial, dune sand, loess, and reworked sand and silt deposits, underlain by Tertiary and Jurassic units. The Chugach Mountains are approximately eight miles west of the site.

Site subsurface sediments consist primarily of granular fill materials to approximately 5 to 7 feet below grade (fbg). The fill is underlain by sand with variable gravel and silt contents. A silt/clay layer was encountered at depths between 22 to 26 fbg. The thickness of the silt/clay layer was not determined.

2.3 Site Hydrogeology

Historical groundwater depths have ranged between approximately 16 and 19 feet below top of casing (ft btoc) and groundwater flows southeast based on review of Mapco/Williams data. During the initial groundwater monitoring performed on September 7, 2017, static groundwater depths ranged from 17.72 (MW-4) to 18.41 ft btoc (MW-1). On November 9, 2017, static groundwater depths ranged from 17.39 (MW-4) to 18.15 ft btoc (MW-1). Groundwater flow has ranged from west to southeast with a gradient of 0.01.

2.4 Constituents of Potential Concern and Cleanup Levels

Site constituents of potential concern (COPCs) are:

Table 1.1 Constituents of Potential Concern

CORCa	ADEC Cleanup Levels			
COPUS	Groundwater (mg/L)	Soil (mg/kg)		
residual range organics (RRO)	1.1	11,000		
diesel range organics (DRO)	1.5	250		
gasoline range organics (GRO)	2.2	300		
benzene	0.0046	0.022		
toluene	1.1	6.7		
ethylbenzene	0.015	0.13		
xylenes	0.190	1.5		
polychlorinated biphenyls (PCBs)	0.00050	1.0		



Table 1.1 Constituents of Potential Concern

COPCe	ADEC Cleanup Levels			
COPUS	Groundwater (mg/L)	Soil (mg/kg)		
polynuclear aromatic hydrocarbons (PAHs)	0.000034 - 0.530	0.038 - 15,000		
mg/L milligrams per liter mg/kg milligrams per kilogram				

ADEC Table C Groundwater Cleanup Levels (Title 18 AAC 75.345) and ADEC Method Two Soil Cleanup Levels, Tables B1 and B2, under 40 inch zone, migration to groundwater (18 AAC 75.341) are the default site groundwater and soil cleanup levels.

2.5 Conceptual Site Model

GHD completed a conceptual site model (CSM) for this site. The CSM human health scoping and graphic forms are presented in Appendix C.

3. Subsurface Investigation

3.1 Well Installation Rationale

The ADEC requested additional soil and groundwater assessment near the former log cribs. GHD proposed installing two monitoring wells (one down gradient of each log crib) and two soil borings (one in the center of the northwest former log crib and the other to the east of the southwest log crib). ADEC approved the scope of work; however required the proposed borings to be completed as groundwater monitoring wells. The installed monitoring wells are shown on Figure 2.

3.2 Pre-Field Coordination

GHD prepared a site-specific health and safety plan to inform all site workers of known hazards and provide health and safety guidance. GHD notified all associated contractors, stakeholders, the ADEC and Chevron of planned fieldwork in advance. GHD coordinated pre-field safety meetings with Chevron and all appropriate parties before starting fieldwork. GHD observed a private utility locate on August 7, 2017 to determine any potential underground obstructions. Alaska Digline was notified on August 8, 2017 to clear the drilling area with public utility companies. On August 10, 2017, GHD performed an onsite visit with ADEC representative, Robert Weimer, to discuss adjusting the proposed location of MW-2 due to utility conflict. Well MW-2, downgradient of the onsite log crib, was relocated approximately 10 feet to the southeast of the proposed location. Chevron and GHD safety protocols were reviewed with contractors daily at tailgate meetings and debriefs.

3.3 Drilling and Sampling

GHD cleared boreholes for MW-1 and MW-4 using a three-inch diameter hand auger to 2 fbg. A soil sample was collected at this depth per ADEC request. Alaska Pipeliner used a Vactor 2100 vacuum truck to clear all boreholes to 8 fbg on August 29, 2017. Discovery Drilling, Inc. completed the four



soil borings as monitoring wells MW-1 through MW-4 on August 30 and 31, 2017 using a Geoprobe[®] 7822DT direct-push drill rig equipped with eight-inch outer diameter hollow stem augers. Soil was logged using the Unified Soil Classification System and field screened in five foot intervals to the maximum explored depth of approximately 29 fbg.

Subsurface soils encountered during soil boring advancement consisted of gravelly sand fill between 7 to 10 fbg, underlain by silty sand to approximately 24 fbg, and silt to the maximum depth explored of 29 fbg (MW-4).

Soil samples were collected using the Geoprobe[®] dual tube sampling system, where a continuous Macro-Core acetate sampler was driven through the inner rod at five foot intervals. In addition, soil samples were collected at 2 fbg in wells MW-1 and MW-4 using a three-inch diameter hand auger. Soil samples were field-screened for volatile organic compounds (VOCs) using a photoionization detector (PID) at five foot intervals, lithology changes, and at the capillary fringe. A clean plastic bag was partially filled (one-third to one-half) with soil and set aside for ten to fifteen minutes to allow VOCs to volatilize. A calibrated PID was used to measure headspace VOC concentrations through a slit in the bag. Field screening results are presented on the soil boring logs in Appendix D. Field notes are presented in Appendix E.

Soil samples collected at the capillary fringe and samples with the highest VOC detections or based on field observations were submitted for analyses. Samples for VOC analyses were collected first with a Terra Core sampler and measuring approximately 25 grams of soil into a clean, laboratory supplied, glass jar preserved with methanol. Samples for RRO, DRO, PAHs, metals, and moisture were collected into clean, laboratory supplied, unpreserved jars and vials. Samples, including two blind field duplicates and two equipment/rinsate blanks, were submitted under chain-of-custody to Eurofins Lancaster Laboratories of Lancaster, Pennsylvania (Eurofins).

3.4 Monitoring Well Installation

Four soil borings were completed as groundwater monitoring wells MW-1 through MW-4. Groundwater was first encountered in all wells between 17 and 19 fbg. Wells were installed to 25 fbg, instead of ten feet below first encountered groundwater, as proposed in the work plan, due to a silt layer encountered at approximately 24 fbg in all boreholes. The wells were completed as two-inch diameter Schedule 40 polyvinyl chloride (PVC) groundwater monitoring wells, constructed with 0.020-inch slotted screen set from 10 to 25 fbg, surrounded by sand pack from 8 to 25 fbg, and with a continuous bentonite seal from 8 to 1 fbg. The wells were completed with flush mount well covers and asphalt pads to match existing grade. The Alaska Department of Natural Resources water well logs are presented in Appendix F.

3.5 Monitoring Well Development

On September 5, 2017, GHD field staff developed monitoring wells MW-1 through MW-4 by agitation and evacuation, using a surge block and submersible groundwater pump. However, during the first evacuation using the submersible pump in well MW-2, sheen was observed in groundwater; therefore, a Teflon bailer was lowered into the well, and approximately 0.2 inches of product was measured in the bailer. Subsequent evacuation was performed utilizing a Teflon bailer to continue well development. Turbidity, pH, dissolved oxygen, temperature, and specific conductivity



measurements were collected throughout well development. Approximately 10 to 16 case volumes of groundwater were purged from each well during development. Well development field forms are included in Appendix E.

3.6 Groundwater Monitoring and Sampling

GHD performed initial groundwater monitoring and sampling of wells MW-1, MW-3, and MW-4 on September 7, 2017 (third quarter) and on November 9, 2017 (fourth quarter). Well MW-2 was not sampled due to the presence of unidentified product measured during well development. Groundwater monitoring and sampling analytical data for both events are presented in GHD's December 6, 2017 *Third Quarter 2017 Groundwater Monitoring Report* and December 24, 2017 *Fourth Quarter Groundwater Monitoring Report*.

During the November 9, 2017 event, GHD also collected additional groundwater samples from wells MW-1, MW-2, and MW-3 for groundwater sheen/product analyses. GHD collected groundwater samples using an unused Teflon bailer in the wells to a depth of one bailer-length below the potentiometric surface. Approximately 1 liter of groundwater was collected from each well for the sheen analyses. In addition, GHD collected sheen samples from wells MW-1 through MW-3 using a Teflon Oil Spill Sampling Net. Approximately 5 liters of groundwater collected with a Teflon bailer was passively filtered through the net. The sampled net was then transferred into a laboratory provided glass jar, sealed for transport, and preserved on ice.

3.7 Data Quality

All field instruments were calibrated prior to mobilization according to the manufacturer's specifications and calibration was verified and documented onsite on a daily basis. All field staff is trained in routine maintenance and operation of instrumentation. All reusable sampling equipment was decontaminated between sample points using a stiff brush and a solution of water and laboratory grade detergent. Equipment was rinsed twice in clean water and once with distilled or deionized water.

Samples analyzed for VOCs were collected before samples for non-volatile compounds. Soil and groundwater samples, including one duplicate per ten samples collected and/or per day of sampling, and equipment/rinsate blanks were collected into clean containers supplied by the analytical laboratory, placed on ice in an insulated cooler, and chilled to a temperature of approximately 4°C (+/- 2°C). The coolers were sealed for transport and shipped to Eurofins Lancaster analytical laboratory under chain-of-custody. The groundwater samples for sheen/product analysis were persevered on ice, sealed in coolers for transport, and shipped to the Chevron Energy Technology Company, Environmental Analysis Lab in Richmond, California. Eurofins Lancaster laboratory data were qualified by a GHD chemist and an ADEC laboratory data review checklist completed.

All drilling, soil and groundwater sampling, and well development activities were observed or performed by Qualified Environmental Professionals (QEP), Oliver Yan and Travis Weaver of GHD, as defined by *18 AAC 75.333*. Fieldwork and reporting was supervised by QEP and Professional Geologist, Siobhan Pritchard.



3.8 Well Elevation and Location Survey

Lounsbury & Associates, Inc of Anchorage, Alaska surveyed the well locations and top of casing elevations of wells MW-1 through MW-4 to mean sea level on November 3 and 20, 2017.

3.9 Investigation Derived Waste

Investigation-derived waste was contained in labeled United States Department of Transportation 55-gallon steel drums onsite. Three drums of well development/sampling water and twelve drums of soil cuttings were generated during site assessment work and are stored temporarily at the site. Waste analytical data has been reviewed and determined to be non-hazardous. Following approval from ADEC, the soil and water waste will be transported to Chevron approved disposal facilities.

4. Sample Analysis and Results

4.1 Sample Analytical Methods

4.1.1 Soil Sample Analytical Methods

Select soil samples, blind field duplicates, trip blanks, and equipment/rinsate blanks were analyzed for the following constituents:

Analyte	Method	Method Detection Limits	Sample Hold Time
RRO	Alaska Series Method AK103	4.0 mg/kg	14 days
DRO	Alaska Series Method AK102	4.0 mg/kg	14 days
GRO	Alaska Series Method AK101	0.5 mg/kg	14 days
VOCs ^a	Method SW-846 8260B	0.0005-0.015 mg/kg	14 days
PAHs ^a	Method SW-846 8270M SIM	0.00035 – 0.00075 mg/kg	14 days
PCBs ^a	Method SW-846 8082A	0.0001 to 0.006 mg/kg	40 days
Metals ^a	Method SW-846 6010C/7471B	0.001 to 1.15 mg/kg	28 days/14 days
Moisture	Method SM 2540 G-1997	0.5 %	14 days

Table 4.1 Soil Analytical Methods

a A full list of constituents is presented in Appendix G

4.1.2 Groundwater Sheen/Product Analytical Methods

Select groundwater samples were analyzed for sheen/product by a liquid-liquid extraction method using methylene chloride. The extracts were then analyzed using a gas chromatography flame-ionization detector.



4.2 Soil Analytical Results

No RRO, GRO, PAHs (including naphthalene), or PCBs were detected above ADEC Method Two Soil Cleanup Levels in any collected soil sample. DRO and benzene were detected above soil cleanup levels in the sample from well MW-2 at 19 fbg at concentrations of 2,200 mg/kg DRO and 0.068 mg/kg benzene, respectively. High-level analysis of benzene did not meet ADEC's cleanup level of 0.022 mg/kg; therefore, low-level analysis of benzene was performed using sodium bisulfate in conjunction with high-level analysis (methanol). Benzene was not detected in any samples analyzed utilizing the low-level analysis.

No barium, cadmium, lead, mercury, selenium, and silver were detected above cleanup levels in any samples analyzed. Arsenic and chromium were detected at maximum concentrations of 7.77 mg/kg (MW-2 at 24.5 fbg) and 54 mg/kg (MW-4 at 23.5 fbg), respectively. However, per ADEC Method Two Soil Cleanup Levels, naturally occurring arsenic and chromium are prevalent throughout the state; therefore, concentrations detected at the site are considered background. Hydrocarbon concentrations are presented in Figure 2. Soil analytical data are presented in Tables 1 through 3. The laboratory analytical report is presented in Appendix H.

Based on the quality assurance/quality control review, the data submitted were judged to be acceptable for use with the specific qualifications noted. The ADEC Laboratory Data Review Checklist and memorandum are presented in Appendix I.

4.3 Groundwater Sheen Chromatogram Analyses

Both the groundwater and net samples collected yielded similar results for the respective monitoring wells. Chromatogram analysis from MW-2 results indicate an unresolved complex mixture (UCM) from Carbon-13 to Carbon-39 hydrocarbon range. A UCM with that carbon range is consistent with a lubricating oil or motor oil type of petroleum hydrocarbons (Figures 3 and 4 of Appendix H). Wells MW-1 and MW-3 do not contain any petroleum products; however they do contain traces of hydrocarbons. Based on the chromatograms, the trace hydrocarbons detected are likely background hydrocarbons and not from petroleum products (Figures 1, 2, 5, and 6 of Appendix H). The estimated total petroleum hydrocarbons were 0.869 mg/L in MW-1, 0.971 mg/L in MW-2, and 0.131 mg/L in MW-3. The laboratory analytical report is presented in Appendix H.

5. Conclusions

GHD installed groundwater monitoring wells MW-1 through MW-3 onsite and MW-4 on the adjacent property west of the site, to evaluate potential petroleum hydrocarbons in soil and groundwater associated with former log cribs for the site. Conclusions are as follows:

- No RRO, GRO, PAHs, or PCBs were detected above ADEC cleanup levels in any soil samples analyzed. DRO and benzene were detected above ADEC Method Two soil cleanup levels in samples collected in MW-2 at 19 fbg.
- Chromatogram analysis of groundwater collected from MW-2 indicate the product and sheen observed during well development in MW-2 is consistent with a lubricating oil or motor oil type



of petroleum product. Lubricating or motor oil is likely related to the proximity of MW-2 to the former oil sump tanks (Figure 2) and not related to the upgradient log crib.

- No dissolved-phase petroleum hydrocarbons were detected in wells MW-1, MW-3, and MW-4 (GHD's December 6, 2017 *Third Quarter 2017 Groundwater Monitoring Report* and December 24, 2017 *Fourth Quarter Groundwater Monitoring Report*).
- Based on hydrocarbon concentrations detected at well MW-2 and established hydrocarbon type, hydrocarbon impact is limited to the capillary fringe and vertically defined.
- GHD will continue quarterly monitoring and sampling of MW-1 through MW-4 and reassess after four quarters.









FORMER UNOCAL SERVICE STATION 4854 2730 SPENARD ROAD ANCHORAGE, ALASKA 82676-2017.4

Dec 18, 2017

VICINITY MAP

FIGURE 1

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HYDROCARBON CONCENTRATIONS IN SOIL

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Tables

Table 1

Soil Analytical Results - Petroleum Hydrocarbons Former Unocal Service Station 4854/Chevron Site 306449 2730 Spenard Road Anchorage, Alaska

				HYDROCARBO	NS			PRIMARY VOCS	i		
Location	Date Units	Sample Depth ft bgs	DRO mg/kg	GRO mg/kg	RRO mg/kg	High Benzene mg/kg	Low Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg	MTBE mg/kg
ADEC	C Method Two	Soil Cleanup Le	250	300	11,000	0.022	0.022	6.7	0.13	1.5	0.40
MW-1	8/29/2017	2	<5.1	<0.7	36	<0.029	0.0008 J	<0.059	<0.059	<0.059	<0.029
MW-1	8/30/2017	17.5	<11	0.8 J	49	<0.027	<0.0006	<0.055	<0.055	<0.055	<0.027
MW-1	8/30/2017	20	88 / <6.0	<7.4 / <0.8	450 J / <6.0	<0.037 / <0.036		1.6 J / <0.071	<0.074 / <0.071	<0.074 / <0.071	<0.037 / <0.036
MW-2	8/30/2017	19	2,200	<130	2,600	0.068 J		0.63	0.20 J	1.9	<0.027
MW-2	8/30/2017	24.5	<6.2	<0.8	<6.2	<0.038		<0.076	<0.076	<0.076	<0.038
MW-3	8/31/2017	15	35 / 51	<5.1/<11	140 / 220	<0.027 / <0.024	0.001 J	<0.055 / <0.048	<0.055 / <0.048	0.055 J / <0.048	<0.027 / <0.024
MW-3	8/31/2017	17.5	40	0.6 J	210	<0.037	<0.0005	<0.075	<0.075	<0.075	<0.037
MW-4	8/29/2017	2	<5.1	<0.4	<5.1	<0.031	0.001 J	<0.062	<0.062	<0.062	<0.031
MW-4	8/30/2017	18.5	<5.5	<0.6	<5.5	<0.030	<0.0008	<0.061	<0.061	<0.061	<0.030
MW-4	8/30/2017	23.5	<6.8	<0.7	<6.8	<0.040	<0.0004	<0.080	<0.080	<0.080	<0.040

Notes and Abbreviations

DRO = Diesel Range Organics by Alaska Series Method AK102

GRO = Gasoline Range Organics by Alaska Series Method AK101

RRO= Residual Range Organics AK102/103

Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B or 524.2

Total Xylenes = Sum of m-, o-, and p-xylenes

ADEC = Alaska Department of Environmental Conservation

a = ADEC Method Two - Soil Cleanup Levels, Tables B1 and B2, Under 40-inch zone (18 AAC 75.341), January 2017 (Table B2) and November 2017 (Table B1)

BOLD = Indicates concentration above the ADEC Method Two Soil Cleanup Levels

ft bgs = Feet Below Ground Surface

mg/kg = Milligrams per kilogram

J = Estimated Concentration

- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter</p>

x / y = Sample Results / Blind Duplicate Results

Table 2

Soil Analytical Results - Petroleum Hydrocarbons Former Unocal Service Station 4854/Chevron Site 306449 2730 Spenard Road Anchorage, Alaska

						PA	۱Hs			
Location	Date Units	Sample Depth ft bgs	w/ka	Acenaphttene Md/kd	yuthracene mg/kg	by Benzo(a)anthracene	Benzo(a)pyrene md/ka	Benzo(b)fluoranthene	ba//Benzo(g, h, i)perylene	Benzo(k)fluoranthene
ADEC M	ethod Two Soil	Cleanup Lev	18	37	390	0.28	0.27	2.7	15000	27
MW-1 MW-1	8/29/2017 8/30/2017	2	<0.00034	<0.00069	0.00076 J <0.00067	0.0036 J <0.0013	0.0065	0.012 0.0014 J	0.0043	0.0038
MW-1	8/30/2017	20	0.00075 J / <0.00040	<0.00079 / <0.00080	<0.00042J / <0.00040	<0.00079 / <0.00080	<0.00079 / <0.00080	0.0012 J / <0.00080	0.0063 J / <0.00080J	<0.00079 / <0.00080
MW-2	8/30/2017	19	<0.0035	<0.0069	<0.0035	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069
MW-2	8/30/2017	24.5	<0.00042	<0.00084	0.00054 J	0.00088 J	<0.00084	0.014	0.0022	0.0011 J
MW-3	8/31/2017	15	<0.00034 / <0.00034	<0.00068 / <0.00068	0.0010 J / <0.00056	0.0017 / <0.00068	0.0011 J / <0.00068	0.0029 / 0.0024	0.0019 / 0.0021	0.00091 J / 0.00074 J
MW-3	8/31/2017	17.5	<0.00037	0.0013 J	0.0028	0.0014 J	0.00091 J	0.0022	<0.00075	<0.00075
MW-4	8/29/2017	2	<0.00034 J	<0.00069	<0.00034	<0.00069	<0.00069	0.0031	<0.00069	<0.00069
MW-4	8/30/2017	18.5	<0.00034	<0.00074	<0.00034	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074
MW-4	8/30/2017	23.5	0.0014 J	<0.0025	0.0022 J	0.0032 J	0.0032 J	0.0048 J	0.016	<0.0025

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Table 2

Soil Analytical Results - Petroleum Hydrocarbons Former Unocal Service Station 4854/Chevron Site 306449 2730 Spenard Road Anchorage, Alaska

						PA	Hs			
Location	Date	Sample Depth	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
	Units	ft bgs	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
ADEC Me	ethod Two Soil Cle	anup Levels'	82	0.87	590	36	8.8	0.38	39	87
MW-1	8/29/2017	2	0.0074	0.0013 J	0.0066 J	<0.00069	0.0032	0.0022	0.0078	0.0074
MW-1	8/30/2017	17.5	0.00090 J	0.0047	<0.0013	<0.0013	0.0048	0.0030J	<0.0013	0.00094 J
MW-1	8/30/2017	20	0.00077 J / <0.00040	<0.00079J / <0.00080	<0.00079 / <0.00080	<0.00079 / <0.00080	0.0010 J / <0.00080	0.0097 J / 0.0017 J	0.0017 J / <0.00080	0.0014 J / <0.00040
MW-2	8/30/2017	19	<0.0035	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0069	<0.0035
MW-2	8/30/2017	24.5	0.024	0.0014 J	0.0034	0.00085 J	0.00095 J	0.013	0.025	0.0022
MW-3	8/31/2017	15	0.0044 / 0.0028	<0.00068 / <0.00068	0.0045 / <0.00068	<0.00068 / <0.00068	0.0022 / 0.0023	0.0025 / 0.0045	0.0041 / <0.00075	0.0066 / 0.0013 J
MW-3	8/31/2017	17.5	0.0031	<0.00075	0.0050	0.0011 J	<0.00075	0.0046	0.0091	0.0035
MW-4	8/29/2017	2	0.0044	<0.00069	0.00092 J	<0.00069	<0.00069	0.0033	0.0081	0.00060 J
MW-4	8/30/2017	18.5	<0.00037	<0.00074	<0.00074	<0.00074	<0.00074	0.0031	<0.00074	<0.00037
MW-4	8/30/2017	23.5	0.0055 J	<0.0025	0.0029 J	<0.0025	0.0071	0.019	0.0045 J	0.0049 J

Notes and Abbreviations

PAH = Polynuclear Aromatic Hydrocarbons by Environmental Protection Agency Method SW-846 8270C SIM (Selected Ion Monitoring)

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

ADEC = Alaska Department of Environmental Conservation

a = ADEC Method Two - Soil Cleanup Levels, Tables B1 and B2, Under 40-inch zone (18 AAC 75.341), January 2017 (Table B2) and November 2017 (Table B1)

BOLD = Indicates concentration above the ADEC Method Two Soil Cleanup Levels

J = Estimated value

<x = Constituent not detected above x milligrams per liter</pre>

x / y = Sample Results / Blind Duplicate Results

Table 3

Soil Analytical Results - Petroleum Hydrocarbons Former Unocal Service Station 4854/Chevron Site 306449 2730 Spenard Road Anchorage, Alaska

Loca							Metals			
	tion Date	Sample Depth	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
A	DEC Method Two Soil	Cleanup Levels ^a	0.20 ^b	2100	9.1	0.089 ^c	400	0.36	<u>mg/kg</u> 6.9	11
MW-1	8/29/2017	2	4.09	169	<0.0543	20.1	10.9	0.0325 J	<0.936	<0.241
MW-1	8/30/2017	17.5	2.21 J	64.7	<0.0516	36.2	9.85	0.0539 J	<0.888	<0.229
MW-1	8/30/2017	20	3.29 J / 3.02 J	63.8 / 53.6	<0.0444 / <0.0636	34.2 / 23.6	21.2 / 8.95	0.0393 J / 0.0435 J	<0.764 / <1.09	0.326 J /<0.282
MW-2	8/30/2017	19	3.19 J	75.9	<0.0470	31.0	9.70	0.0346 J	<0.809	0.232 J
MW-2	8/30/2017	24.5	7.77	168	<0.294	53.8	21.0	0.123	<1.01	0.936 J
MW-3	8/31/2017	15	2.99 J / 4.53	60.4 / 49.6	<0.0542 / <0.0426	27.8 / 26.9	10.2 / 9.32	0.0369 J / 0.0344 J	<0.934 / <0.734	<0.241 / 0.228 J
MW-3	8/31/2017	17.5	4.04	66.2	<0.0495	37.5	11.0	0.0468 J	<0.852	0.247 J
MW-4	8/29/2017	2	4.59	185	<0.0392	22.1	9.07	0.0437 J	<0.675	0.240 J
MW-4	8/30/2017	18.5	2.65 J	60.5	<0.0591	35.3	9.82	0.0284 J	<1.02	<0.263
MW-4	8/30/2017	23.5	4.32 J	152	<0.319	54.0	18.4	0.143	<1.10	0.492 J

Page 1 of 2

Table 3

Soil Analytical Results - Petroleum Hydrocarbons Former Unocal Service Station 4854/Chevron Site 306449 2730 Spenard Road Anchorage, Alaska

Locat	tion Date Units	Start Depth ft bgs	Moisture %	Aroclor 1016 mg/kg	Aroclor 1221 mg/kg	Aroclor 1232 mg/kg	PCB's Aroclor 1242 mg/kg	Aroclor 1248 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg
ADE	C Method Two Soil Clear	up Levels ^a								
MW-1	8/29/2017	2	3.5	<0.0034	<0.0052	<0.0042	<0.0042	<0.0034	<0.0045	<0.0040
MW-1	8/30/2017	17.5	6.5	<0.0035	<0.0055	<0.0044	<0.0044	<0.0035	<0.0047	<0.0042
MW-1	8/30/2017	20	17.2 / 18.3	<0.0039 / <0.0040	<0.0061 / <0.0062	<0.0049 / <0.0050	<0.0049 / <0.0050	<0.0039 / <0.0040	<0.0053 / <0.0054	<0.029 / <0.0048
MW-2	8/30/2017	19	4.2	<0.0034	<0.0053	<0.0042	<0.0042	<0.0034	<0.0046	<0.0040
MW-2	8/30/2017	24.5	20.8	<0.0042	<0.0064	<0.0052	<0.0052	<0.0042	<0.0055	<0.0049
MW-3	8/31/2017	15	3.3 / 3.3	<0.0034 / <0.0034	<0.0052 / <0.0052	<0.0042 / <0.0042	<0.0042 / <0.0042	<0.0034 / <0.0034	<0.0045 / <0.0045	0.011 J / 0.018
MW-3	8/31/2017	17.5	12.0	<0.0037	<0.0058	<0.0046	<0.0046	<0.0037	<0.0050	0.017 J
MW-4	8/29/2017	2	3.7	<0.0034	<0.0053	<0.0042	<0.0042	<0.0034	<0.0045	<0.0040
MW-4	8/30/2017	18.5	11.3	<0.0037	<0.0057	<0.0046	<0.0046	<0.0037	<0.0049	<0.0044
MW-4	8/30/2017	23.5	20.8	<0.0042	<0.0064	<0.0052	<0.0052	<0.0042	<0.0055	<0.0049

Notes and Abbreviations

Metals by Method SW-846 6010C

PCBs = polychlorinated biphenyls by SW-846 8082A

ft bgs = feet below ground surface

mg/kg = milligrams per kilogram

ADEC = Alaska Department of Environmental Conservation

a = ADEC Method Two - Soil Cleanup Levels, Tables B1 and B2, Under 40-inch zone (18 AAC 75.341), January 2017 (Table B2) and November 2017 (Table B1)

b = due to the prevalence of naturally occuring asrsenic throughout the state, arsenic at a site will be considred background arsenic unless anthropogenic

contribution from a source, activity, or mobilization by means of another introduced contaminants is known or suspected.

c = due to the prevalence of naturally occuring chromium III or IV throughout the state, sample results reported for total chromium detected at the site will be considered background chromium III unless anthropogenic contribution of chromium III or IV froma source, activity, or mobilization of means of another introduced contaminant is known or suspected. The calculated chromium III migration to groundwater cleanup level exceeds 1,000,000 per million.

BOLD = Indicates concentration above the ADEC Method Two Soil Cleanup Levels

J = Estimated value

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results



Appendix A Site Photographs



PHOTO 1 - DISCOVERY DIRECT-PUSH DRILLING OF WELL MW-4 FOR LITHOLOGY



PHOTO 2 - DISCOVERY INSTALLING WELL MW-1



PHOTO 3 - DISCOVERY INSTALLING WELL MW-3



PHOTO 4 - SITE ASSESSMENT WASTE DRUMS STORED ON PROPERTY



FORMER UNOCAL SERVICE STATION 4854 2730 SPENARD ROAD ANCHORAGE, ALASKA 82676-2017.4 Dec 18, 2017

SITE PHOTOGRAPHS

APPENDIX A

CAD File: P:\drawings\82000s\82676\82676-REPORTS\82676-2017.4(003)\82676-2017.4(003)GN\82676-2017.4(003)GN-WA004.DWG



PHOTO 5 - DISCOVERY INSTALLING MW-1



PHOTO 6 - DISCOVERY INSTALLING WELL MW-4



PHOTO 7 - LITHOLOGICAL CHANGE OBSERVED AT MW-4 (25-26 FBG)



FORMER UNOCAL SERVICE STATION 4854 2730 SPENARD ROAD ANCHORAGE, ALASKA

82676-2017.4 Dec 18, 2017

SITE PHOTOGRAPHS

APPENDIX A

CAD File: P:\drawings\82000s\82676\82676-REPORTS\82676-2017.4(003)\82676-2017.4(003)GN\82676-2017.4(003)GN\82676-2017.4(003)GN



Appendix B Site Environmental History



Appendix B

Site Environmental History Former Unocal Service Station 4854/ Chevron Site 306449

1986 Subsurface Investigation

Rittenhouse-Zeman and Associates (RZA) installed groundwater monitoring wells MW-1 through MW-4 in November 1986. Details are presented in RZA's *Subsurface Petroleum Hydrocarbon Contamination Evaluation*, UNOCAL Service Station, Unit No. 4854 Report.

1990 UST Removal

RZA removed six underground storage tanks (USTs) along with product piping and two log cribs. New USTs and piping were installed in 1990. Details are presented in RZA's December 14, 1990 *Underground Storage Tank Removal Observations and Soil Disposal Summary Report*.

1990 Installed Vapor Extraction System

RZA installed vapor extraction system. Vertical polyvinyl chloride screens installed at four locations. Perforated drain line installed in area of three remaining tanks. Details are presented on the ADEC web site under the cleanup chronology tab for the site.

1992 Well Install

RZA AGRA Alaska, Incorporated advanced three soil borings and completed two as groundwater monitoring wells MW-1 and MW-2. Details are presented in RZA AGRA's April 22, 1992 *Soil and Groundwater Investigation Report*.



Appendix C CSM Graphic and Scoping Forms

Appendix A - Human Health Conceptual Site Model Scoping Form and Standardized Graphic

Site Name:	
File Number:	
Completed by:	

Introduction

The form should be used to reach agreement with the Alaska Department of Environmental Conservation (DEC) about which exposure pathways should be further investigated during site characterization. From this information, summary text about the CSM and a graphic depicting exposure pathways should be submitted with the site characterization work plan and updated as needed in later reports.

General Instructions: Follow the italicized instructions in each section below.

1. General Information:

Sources (check potential sources at the site)

USTs	Vehicles
☐ ASTs	
Dispensers/fuel loading racks	Transformers
Drums	Other:
Release Mechanisms (check potential release m	nechanisms at the site)
	Direct discharge
☐ Leaks	Burning
	Other:
Impacted Media (check potentially-impacted m	edia at the site)
□ Surface soil (0-2 feet bgs*)	Groundwater
☐ Subsurface soil (>2 feet bgs)	Surface water
☐ Air	🗌 Biota
□ Sediment	Other:
Receptors (check receptors that could be affected	ed by contamination at the site)
Residents (adult or child)	Site visitor
Commercial or industrial worker	Trespasser
Construction worker	Recreational user

- Subsistence harvester (i.e. gathers wild foods)
- Subsistence consumer (i.e. eats wild foods)
- ☐ Farmer □ Other:

- **2. Exposure Pathways:** (*The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".*)
- a) Direct Contact -
 - 1. Incidental Soil Ingestion

Are contaminants present or potentially present in surface soil between 0 and 15 feet below the ground surface? (Contamination at deeper depths may require evaluation on a site-specific basis.)

If the box is checked, label this pathway complete:	
Comments:	
2. Dermal Absorption of Contaminants from Soil	
Are contaminants present or potentially present in surface soil between 0 and 1 (Contamination at deeper depths may require evaluation on a site specific basi	5 feet below the ground surface s.)
Can the soil contaminants permeate the skin (see Appendix B in the guidance	document)?
If both boxes are checked, label this pathway complete:	
Comments:	
Ingestion - 1. Ingestion of Groundwater	
Have contaminants been detected or are they expected to be detected in the gro or are contaminants expected to migrate to groundwater in the future?	oundwater,
Could the potentially affected groundwater be used as a current or future drink source? Please note, only leave the box unchecked if DEC has determined the water is not a currently or reasonably expected future source of drinking water to 18 AAC 75.350.	ing water □ ground- according
If both boxes are checked, label this pathway complete:	
Comments:	

2. Ingestion of Surface Water

Have contaminants been detected or are they expected to be detected in surface water, or are contaminants expected to migrate to surface water in the future?

Could potentially affected surface water bodies be used, currently or in the future, as a drinking water source? Consider both public water systems and private use (i.e., during residential, recreational or subsistence activities).

3. Ingestion of Wild and Farmed Foods	
s the site in an area that is used or reasonably could be used for narvesting of wild or farmed foods?	hunting, fishing, or
Do the site contaminants have the potential to bioaccumulate (so document)?	ee Appendix C in the guidance
Are site contaminants located where they would have the potent piota? (i.e. soil within the root zone for plants or burrowing dep groundwater that could be connected to surface water, etc.)	tial to be taken up into oth for animals, in
If all of the boxes are checked, label this pathway complete:	
Comments:	1
Comments:	,
Comments: nhalation- 1. Inhalation of Outdoor Air	
Comments: nhalation- 1. Inhalation of Outdoor Air Are contaminants present or potentially present in surface soil b ground surface? (Contamination at deeper depths may require o	between 0 and 15 feet below the evaluation on a site specific basis.)
Comments: nhalation- 1. Inhalation of Outdoor Air Are contaminants present or potentially present in surface soil b ground surface? (Contamination at deeper depths may require of Are the contaminants in soil volatile (see Appendix D in the g	between 0 and 15 feet below the evaluation on a site specific basis.) guidance document)?
Comments: nhalation- 1. Inhalation of Outdoor Air Are contaminants present or potentially present in surface soil b ground surface? (Contamination at deeper depths may require of Are the contaminants in soil volatile (see Appendix D in the g <i>If both boxes are checked, label this pathway complete:</i>	between 0 and 15 feet below the evaluation on a site specific basis.) guidance document)?

 \square

 \square

2. Inhalation of Indoor Air

Are occupied buildings on the site or reasonably expected to be occupied or placed on the site in an area that could be affected by contaminant vapors? (within 30 horizontal or vertical feet of petroleum contaminated soil or groundwater; within 100 feet of non-petroleum contaminted soil or groundwater; or subject to "preferential pathways," which promote easy airflow like utility conduits or rock fractures)

Are volatile compounds present in soil or groundwater (see Appendix D in the guidance document)?

If both boxes are checked, label this pathway complete:

Comments:

 \square

 \square

3. Additional Exposure Pathways: (Although there are no definitive questions provided in this section, these exposure pathways should also be considered at each site. Use the guidelines provided below to determine if further evaluation of each pathway is warranted.)

Dermal Exposure to Contaminants in Groundwater and Surface Water

Dermal exposure to contaminants in groundwater and surface water may be a complete pathway if:

- Climate permits recreational use of waters for swimming.
- Climate permits exposure to groundwater during activities, such as construction.
- Groundwater or surface water is used for household purposes, such as bathing or cleaning.

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are deemed protective of this pathway because dermal absorption is incorporated into the groundwater exposure equation for residential uses.

Check the box if further evaluation of this pathway is needed:

Comments:

Inhalation of Volatile Compounds in Tap Water

Inhalation of volatile compounds in tap water may be a complete pathway if:

- The contaminated water is used for indoor household purposes such as showering, laundering, and dish washing.
- The contaminants of concern are volatile (common volatile contaminants are listed in Appendix D in the guidance document.)

DEC groundwater cleanup levels in 18 AAC 75, Table C are protective of this pathway because the inhalation of vapors during normal household activities is incorporated into the groundwater exposure equation.

Check the box if further evaluation of this pathway is needed:

Comments:

 \square

Inhalation of Fugitive Dust

Inhalation of fugitive dust may be a complete pathway if:

- Nonvolatile compounds are found in the top 2 centimeters of soil. The top 2 centimeters of soil are likely to be dispersed in the wind as dust particles.
- Dust particles are less than 10 micrometers (Particulate Matter PM₁₀). Particles of this size are called respirable particles and can reach the pulmonary parts of the lungs when inhaled.

DEC human health soil cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway because the inhalation of particulates is incorporated into the soil exposure equation.

Check the box if further evaluation of this pathway is needed:

Comments:

Direct Contact with Sediment

This pathway involves people's hands being exposed to sediment, such as during some recreational, subsistence, or industrial activity. People then incidentally ingest sediment from normal hand-to-mouth activities. In addition, dermal absorption of contaminants may be of concern if the the contaminants are able to permeate the skin (see Appendix B in the guidance document). This type of exposure should be investigated if:

- Climate permits recreational activities around sediment.
- The community has identified subsistence or recreational activities that would result in exposure to the sediment, such as clam digging.

Generally, DEC direct contact soil cleanup levels in 18 AAC 75, Table B1, are assumed to be protective of direct contact with sediment.

Check the box if further evaluation of this pathway is needed:

Comments:

4. Other Comments (*Provide other comments as necessary to support the information provided in this form.*)
HUMAN HEALTH CONCEPTUAL SITE MODEL GRAPHIC FORM

Site: Chevron 306449		Instructions: Follow the numbered	d dire	ctions be	low.	Do not	
ADEC File ID: 2100.26.116		_ consider contaminant concentrati	ons o	r engine	ering	land	
Completed By: GHD Services, Inc		use controls when describing pat	iways	5.		_	
(1) (2) Check the media that could be directly affected by the release. For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Check additional media under (1) if the media acts as a secondary source.	(3) Check all exposure media identified in (2).	(4) Check all pathways that could be complete. The pathways identified in this column must agree with Sections 2 and 3 of the Human Health CSM Scoping Form.	lder exp "F" futu	ntify the rece posure pathw for future rec ire receptors Current	ptors por ay: Ente ceptors, or "I" for & Fu	(5) otentially affin er "C" for cun "C/F" for bo or insignifican iture Re / c / 8	ected by ea rrent receptor th current a int exposure eceptor
Media Transport Mechanisms	Exposure Media	Exposure Pathway/Route		1 2 2	spas	rkers	mns /
Direct release to surface soil check s Surface Migration to subsurface check s Soil Migration to groundwater check groundwater (0-2 ft bgs) Volatilization check		Lapoouro r uninagritouto	Residents	Commercial or industrial worke	Construction of Construction	Farmers or subs harvesters Subsid	Other
Runoff or erosion check surface was		Incidental Soil Ingestion	F	C/F C/F	C/F		
Uptake by plants or animals check bio		Dermal Absorption of Contaminants from Soil					
		Inhalation of Fugitive Dust		1.1.1			
Image: Subsurface Migration to groundwater Check groundwater Soil Volatilization check groundwater (2-15 ft bgs) Uptake by plants or animals check bid Other (list): Other (list): Check bid	ar ar ar ar ar ar ar ar ar ar	Ingestion of Groundwater Dermal Absorption of Contaminants in Groundwater Inhalation of Volatile Compounds in Tap Water	F	C/F C/F	C/F		
Ground- Volatilization check groundwater		Inhalation of Outdoor Air	F	C/F C/F	C/F		
water Flow to surface water body check surface water	er air VI	Inhalation of Indoor Air	F	C/F C/F	C/F		
Uptake by plants or animals check bid		Inhalation of Fugitive Dust					
Direct release to surface water check surface		ngestion of Surface Water					
Water Sedimentation check sedime	nt surface water		-		-		
Uptake by plants or animals check bio		nnalation of Volatile Compounds in Tap Water	_		-		
Direct release to sediment check sedime		Direct Contact with Sediment			1		
Sediment Resuspension, runoff, or erosion <u>check surface wat</u> Uptake by plants or animals <u>check bio</u> Other (list):	ta biota	Ingestion of Wild or Farmed Foods					

Revised, 10/01/2010



Appendix D Boring Logs

6	1	
		P.,

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: CHEVRON 306449

PROJECT NUMBER: 082676 CLIENT: CHEVRON EMC

LOCATION: 2730 SPENARD ROAD, ANCHORAGE, ALASKA

HOLE DESIGNATION: MW-1 DATE COMPLETED: August 30, 2017 DRILLING METHOD: HOLLOW STEM AUGER FIELD PERSONNEL: O. YAN

DEPTH		DEPTH			SAMPLE				
ft BGS		ft BGS		NUMBER	NTERVAL	REC (%)	N' VALUE	(mqq) Ol	
2 2 4 6	ASPHALT SP-GRAVELLY SAND (FILL), cobble up to 3-4", brown, moist - dry at 3.0ft BGS	0.25	ASPHALT 2" SCH. 40 PVC WELL CASING DRY BENTONITE 8" BOREHOLE	MW-1-2			-	1.7	
	SM-SILTY SAND, trace silt/clay, fine to coarse grained, well graded, brown, moist SW/SM-SILTY SAND, trace fine gravel, fine to coarse grained, brownish olive, dry	8.00	HYDRATED BENTONITE					2.5	
14 14 16	SM-SILTY SAND, fine to medium grained, poorly graded, brownish olive, dry	13.00	SAND PACK					3.1	
- - 	- moist at 17.0ft BGS - wet at 18.0ft BGS							2.9	
- 20	- fine grained at 19.0ft BGS SP/SM-SILTY SAND, fine to coarse grained, fine angular to subrounded gravel, brown, wet	20.00		(MW-1-20)				3.2	
22 24 24	ML-SILT, low plasticity, grayish brown, wet	24.00						1.2	
26	END OF BOREHOLE @ 25.0ft BGS		WELL DETAILS Screened interval: 10.00 to 25.00ft BGS Length: 15ft Diameter: 2in Slot Size: 0.020 Material: SCH 40 PVC						
32			Seal: 6.00 to 8.00ft BGS Material: BENTONITE Sand Pack: 8.00 to 25.00ft BGS Material: SAND						
	NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; WATER FOUND ♀ 8/30/2017 STATIC WATER CHEMICAL ANALYSIS	REFER TO C	CURRENT ELEVATION TABLE 9/5/17						

GHD

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: CHEVRON 306449 PROJECT NUMBER: 082676

CLIENT: CHEVRON EMC

LOCATION: 2730 SPENARD ROAD, ANCHORAGE, ALASKA

HOLE DESIGNATION: MW-2 DATE COMPLETED: August 30, 2017 DRILLING METHOD: HOLLOW STEM AUGER FIELD PERSONNEL: O. YAN

DEPTH	TH STRATIGRAPHIC DESCRIPTION & REMARKS			SAMPLE				
ft BGS		ft BGS		NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
-2-44	ASPHALT SP-GRAVELLY SAND (FILL), cobble, tannish brown, dry	0.25	ASPHALT 2" SCH. 40 PVC WELL CASING DRY BENTONITE					2.0
	SP/SM-SILTY SAND, fine to medium gravel, fine to medium grained, poorly graded, brownish olive, dry	7.00	BOREHOLE HYDRATED BENTONITE					
	- trace fine gravel, fine to coarse grained at 12.0ft BGS		2" PVC WELL SCREEN					2.0
14 	SM-SILTY SAND, fine to medium grained, poorly graded, brownish olive, dry SP/SM-SILTY SAND, fine gravel, fine to coarse grained, brownish olive, moist	14.00 15.00	SAND PACK					2.1
- 	SM-SILTY SAND, fine grained, poorly graded, brownish olive, moist	18.00		MW-2-19				2.7
	SP/SM-SILTY SAND, fine gravel, fine to coarse grained, brownish olive, wet - fine to medium grained at 21.0ft BGS	20.00						1.0
	ML-SILT, low plasticity, brownish olive, moist	24.00		MW-2-24.9	5			
- 26 			WELL DETAILS Screened interval: 10.00 to 25.00ft BGS Length: 15ft Diameter: 2in					
			Slot Size: 0.020 Material: SCH. 40 PVC Seal: 6.00 to 8.00ft BGS Material: BENTONITE					
			Sand Pack: 8.00 to 25.00ft BGS Material: SAND					
	NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; RI WATER FOUND ♀ 8/30/2017 STATIC WATER LI CHEMICAL ANALYSIS	EFER TO C	URRENT ELEVATION TABLE 9/5/17					

GHD

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: CHEVRON 306449 PROJECT NUMBER: 082676

CLIENT: CHEVRON EMC

LOCATION: 2730 SPENARD ROAD, ANCHORAGE, ALASKA

HOLE DESIGNATION: MW-3 DATE COMPLETED: August 31, 2017 DRILLING METHOD: HOLLOW STEM AUGER FIELD PERSONNEL: O. YAN

DEPTH				ON & REMARKS DEPTH MONITORING WELL SAM		STRATIGRAPHIC DESCRIPTION & REMARKS		SAMF	PLE	
ft BGS		ft BGS		NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)		
	ASPHALT GP-SANDY GRAVEL (FILL), cobble up to 6-7", dry 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.30	ASPHALT 2" SCH. 40 PVC WELL CASING DRY BENTONITE 8" BOREHOLE HYDRATED BENTONITE					22.6		
10 10 12	SP/SM-SILTY SAND, trace gravel, fine grained, grayish brown, moist	9.00	2" PVC WELL SCREEN					1.8		
- - - - - - - - - - - - - - - - - - -	- fine to medium grained at 13.0ft BGS - brownish olive at 15.0ft BGS		SAND PACK	MW-3-15				2.5		
- - 18 -	- wet at 17.0ft BGS		¥ ↓	MW-3-17.	5			2.1		
20 20	- trace fine gravel, fine to coarse grained at 19.0ft BGS					-		1.6		
_ 22 										
- 24 	END OF BOREHOLE @ 25.0ft BGS	25.00				-		1.7		
26 			WELL DETAILS Screened interval: 10.00 to 25.00ft BGS Length: 15ft Diameter: 2in Slot Size: 0.020							
30 30 			Material: SCH. 40 PVC Seal: 6.00 to 8.00ft BGS Material: BENTONITE							
			Sand Pack: 8.00 to 25.00ft BGS Material: SAND							
- - 	NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; RI WATER FOUND ♀ 8/31/2017 STATIC WATER LI CHEMICAL ANALYSIS	EFER TO C	Material: SAND CURRENT ELEVATION TABLE 9/5/17							

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

Page 1 of 1

PROJECT NAME: CHEVRON 306449 PROJECT NUMBER: 082676

CLIENT: CHEVRON EMC

LOCATION: 2730 SPENARD ROAD, ANCHORAGE, ALASKA

HOLE DESIGNATION: MW-4 DATE COMPLETED: August 30, 2017 DRILLING METHOD: HOLLOW STEM AUGER FIELD PERSONNEL: O. YAN

DEPTH	1 STRATIGRAPHIC DESCRIPTION & REMARKS				SAMPL			E	
ft BGS		ft BGS		NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)	
- - - - - - - - - - - - - - - - - - -	ASPHALT SP-GRAVELLY SAND (FILL), with cobble up to 4", brown, dry	0.25	ASPHALT 2" SCH. 40 PVC WELL CASING DRY BENTONITE 8" BOREHOLE HYDRATED BENTONITE	MW42				1.2 2.1	
	SM-SILTY SAND, fine grained, poorly graded, brown, moist	10.00	2" PVC WELL SCREEN					1.9	
- - 16 - 18 - 18 - 20 - 20	- fine gravel, fine to coarse grained, well graded, grayish brown at 18.0ft BGS - wet at 19.0ft BGS		SAND PACK	MW-4-18.5				1.3 1.7 2.2	
22 	CL-CLAY, fat, medium plasticity, brownish gray, moist SM-SILTY SAND, fine to medium grained, brownish gray, wet ML-SILT, low plasticity, brownish gray, moist	24.00 24.50 25.00 29.00	WELL DETAILS Screened interval: 10.00 to 25.00ft BGS Length: 15ft Diameter: 2in Slot Size: 0.020 Material: SCH. 40 PVC	MW-4-23.5				0.5 1.4 2.7	
	NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; RI	EFER TO (Seal: 6.00 to 8.00ft BGS Material: BENTONITE Sand Pack: 8.00 to 25.00ft BGS Material: SAND						
OVERBUR	WATER FOUND ¥ 8/30/2017 STATIC WATER LI CHEMICAL ANALYSIS	EVEL ¥	9/5/17						



Appendix E GHD Field Notes

Page _____ of

DAILY FIELD REPORT

Project Name: Omc 306449	GHD Proj. Mgr. S. PRITCHARD	Field Rep: T. WEAVER /0. 5AN
Project Number: 082675	Date: Manua 8/29/17	Site Address: 2730
Scope of Work: SAW CUTTING ; VAC-	ANCHORA GE, AK	
Equipment: VAC-RIG/A/R-ICNIFE	Weather: over us /em.	

Time	Activity/Comments	SWA
67:23	GHD/ AK PIPELINER ONDER CONSULT TAILGADE & SETE WALK	5
07:50	FINSH W/ TAILGATS	11 - Apr
07:54	LUT PAVEMENT WITH DEMO SAW @ MW-4, COUET RENSHIE BLANK I	B-1-w-1705
0517	COLLECT SAMPLE W/ MAND ANGER @ 2 FT @ MW-4	
0 4 33	START VAC TRUCK & START CLEARENG MW-4	
0840	START AER KNIFE	
0-546	COLLECT SOLL FROM MWY & 5 FT FOR PID SCREENENG, 2,1	PPM
0850	CONTINUE VACENG HOLF	
0856	PEA GRAVLE ARATVES STOP VAL TO UNLOAD TRUCK	
0900	DECON HAND AVERA & LOLLECT AB-2-W-170829	
mos	AESUME HOLE CLEARENG CMW-4	
1913	FENISH LLEAREND MW-4 TO SFT BACKFILL W/ PEA BRAVLE	
925	HOW TO BALL AND OF PACKING TO OFFICAR SUL ? ? DRIVES HAVE	
	BOREHOE.	
015	FINISH DUMPING JOIL; FUZ3 JACE TO ONSIDE	
1025	CALL D. CALDWAL W/ SOORTWOTH - WILL PULL DRUGS WHATE WE	
	STATTOS IN? HE WILL CHER IT OUT IND GU FROM THOME ; WILL GOT	
	A CON BACK 15 13 000 02 M	
1030	SET UP @ MW-1 (24Mmm) 1033 SEGIN LOW LETTER -> A LITTLE THIORY	
020	THEN BEFORE	
039	START HAND AUGER TO 2 FT, COLLECT MW-1-Z-S-170829@	11:00
103	START VAC TRUCK & BEGIN CLEARING MUM-1	
110	STA REPAIR ENTEE	
125	COLLECT SOTL TO SLAEEN W/ PED,	
1131	FINISH CLEARING MW-1 to SFT, BACKFTLL W/ PEA GANUE	t
200	BREAK FON LUNCH	
40	BACK FROM WHAT ; LOUD MFETS BRUGE ; NOB 70 MW-2.	
.52	BEGIN SAW (UTTING OF ASPHALT.	

SWA Key:	A: Person or People	B: Equipment	C: Environmental
	D: Procedures/Processes/JSA-review/revise	E: Visitors	

Operational Mileage: Start _____ End ____ Total _

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1.1					2
100					-
100		-	-		
- 22					

Project Number: 082675 Date: 08/25/17

Time	Activity/Comments	SWA
1304	FINISH W/ JAW CUTTING, ISEGIN WAC-RIG CLEANSINGE (2 1309 - NORD TO USE	
28	4K-> HARD BARKFILL, I MAY USE WATTOL TO CLEAR.	
	> KATH BU - WE PLOCHER TO DWUR AIK DETSILD FROM FLYING PL.	
	THOW GOING ; CONVESTE/ DIRTHIT LET IN PRICE ~ 1.5' REAL - DURANCE?	1.000
105111	LO ERRANTAMA BIG BASPIN - FUST CONDIT, ETC TIME: 1333	in teal
1348	The Stor sample for survey - 2 J.O	1.28
1408	FINDIN W/ BACKFILL WILL USO TO INFRIT HOUR MUN-3	
1419	BEGIN SAN CUTTANG @ MUD-3.	125
1425	BEGIN W/ AIR KINPE @ MW-3: -> TAKE 5' MANTER -> 22.6 PM-	1.1.3
1450	FINDER W/ CLEARING SITE CLEANUP THEN WILL OFF (600 SOIL INTO	
1545	FINISH OFFICIADING DIL INC DRUMS -> 2 TOTAL -> ITS APO ANINO	2.00
A	THE PLATES CLOSET.	M
1350	BENN VASING EXTRA GRAVES FINISH STIE CLEANUP Q	
1.08502	and there of an all was seen as	
in the second	Part A CAR TO BE A STATE AND A DESCRIPTION OF THE	1.1
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SWA Kevr	A: Person or People	B: Equipment	C: Environmental	7
www.	D: Procedures/Processes/JSA-review/revise	E: Visitors		

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DAILY FIELD REPORT

25

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Project Name: CEAC 306449	GHD Proj. Mgr. S. PRITCHARD	Field Rep: T-W5+JGA /OMAD
Project Number: 0529-36	Date: 8/30/(4	Site Address: 2230 Menune PO
Scope of Work: INSTALL HONITOCOL	weis.	ANCHORAGE, AK
Equipment SONE HSA SAME RIG; PI	0; SUFFECT THUM.	Weather: overcast - 500 - 600

Time	Activity/Comments	SWA
07:30	ARRIVE ON SITE & MEET ADAM & JESCE W DISCOVERY MATTI	kul
07:34	CONDUCT SAFETY TATILGATE MEETING & STTE WALK	
0 4 24	SET UP EQUIPMENT ON MW-4 & TEST KELL SWETCHES	
	Lo yop work ; writing the end	
0853	Equipment Designs and in the stand of the solard	
6928	COLLECT SAMPLE MW-4-18-5-170820	
0950	COLLECT SAMPLE MW-4-23-5-170830	
0958	CALL PM TO DISCUSS SCREEPAN SETTING DUE TO CONSETUTION I AVER	
	DECIDE to SET From 10'TO 25'	
1025	SET WELL PREPARY SCREEN EVEN 25' TO20'S BEASELINE TO 10'	
	RALKERU USAND & DENENTE	
1120	FINISH SETTING WELL STUDIES AND STUDIES	
	LOCATION OF LISD	
(1:38	SET UP Q HWY L (STATION)	
11:45	TAPE REFINE FOR WALL	
12:15	BACIC FROM LUNUTY : SET a MOU-1	100000000000000000000000000000000000000
1230	SEGIN SERVING Q MUST - WILL LOC SOIL	
1300	COLLECT MW-1-1755-5-170830	
1315	COLLECT MW-1-20-5-170830 \$ DUP-1-5-170830	
1337	FINISH DRILLING MULTI SET COPERN FROM 251 1 10' & RACK 54	
	W/ SAND TO 2' AROUE SCREEN THEN DENTRISEY	
1432	SET UP ON MW-7	
1570	COLLECT SAMPLE MW-2-19-5-170230	
1522	COLLECT SAMP/1= NW-Z-245-5-170830	
1527	FINISH DRILLING & SET WELL W/ SCREEN 10' TO 25' PACKETY	_
	W SAND & BENTONITE	
1555	PINNIN SETTING WELL > WILL INSTAN WELL BOX; SITE CUERNING	
1620	FINISH W/ STRE CLEANER / CREW DOTSITE @ 1900	
1720	BACA @ OFFINE	
WA Key:	A: Person of People B: Equipment C: Environmental	
	D: Procedures/Processes/JSA-review/revise E: Visitors	

2

Operational Mileage: Start _____ End _____ Total ____

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Page ____

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Project Number: _____ Date:

Time	Activity/Comments	SWA
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SMA Kent	A: Person or People	B: Equipment	C: Environmental	
SWAREY.	D: Procedures/Processes/JSA-review/revise	E: Visitors		

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DAILY FIELD REPORT

Project Name: 306 449	GHD Proj. Mgr. S. PRETCHARD	Field Rep: O.YAN, T.WEAVER		
Project Number: 082676	Date: %/3///7-	Site Address: 2730 SPENARD AD		
Scope of Work: INSTALL FENAL	MONITOKING WELL	ANCHORAGE, AK		
Equipment: SME DRTLL RTL, P	Weather: OVERLAST & SI"			

Time	Activity/Comments	SWA
0730	ARRIVE ON SETTE & MEET ADAM & JESSE W/ ATCONERY ARPINE	1
0705	CUNDUCT SAFETY TAEL DATE	
07-54	SET UP ON MIN-3 & START DATUTUR	
0848	COLLECT SAMPLE MW-3-17.5-5-170831	
	LOLLECT SAMPLE MW-3-15-5-170531 \$ DUP-2-5-170531	
0909	FINISH ORFLIEND & SET WELL SLREEN FROM 25' TO 10' BALKFILL	
	W STUDI BENTUNTTE	
D935	FINITH UN METARATION OF UPLE BEENN STIE CLEINUP.	
0950	OFFSITE; STEPAD BACK TO OFFICE TO PACK SAMPLES FOR	
	June-ett.	
26		

SWA Kev	A: Person or People	B: Equipment	C: Environmental
	D: Procedures/Processes/JSA-review/revise	E: Visitors	

Operational Mileage: Start _____ End _____ Total _____

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Client Name	CHEVRON EMC	
Job/Site Name	CHEVIEDN 306449	
Location	2730 SEENARD ROAD ANCHOKAGE, AK	
Project Number	082676	
Driller	QIJLOVERY ORILING	
Drilling Method	HOLLOW-STEM ANG MS	
Boring Diameter	8-INCH	1
Logged by	5. YAN	

Boring/Well Name	MW-1	Page 1	of
PE/PG S. PRT	TCHARLO		
Utility Cleared to	8 \$86		
Total Depth 2	S FBG.		17 C
Date Started 8/	201/17		
Date Completed	8/30/17		10
Screened Interval	10-25 F	54,	
Depth to water (first	encountered)	18.5	
Depth to water (stati	c) 18.51	(9/5/17)	
Located on	She	0.00/1.9	
Misc. Notes:	CRIK WEL	(JAME)	

	e Interva				the second s	ICTION	mbol		a		istance/		-	Es Per	centa	ted ages	sticity
0	Depth/Sampl	Time	Sample ID	DIA	Interest Include		U.S.C.S. Syr	Geologic Descriptions and Comme		Color	⁵ enetrationRes Blow Counts	Aoisture	leu	100	1110	Daliu	stimated Pla
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		-		Page 1	1	. 1	w-14	fire to caeve shit freeze great (the) o	ive.		ding	0	10	75	15	NP
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30				-			100	slotter; # 10/20 signer.									S 118H
				-		-	_		1								SF0



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Client Name	CHEVRON EMC.
Job/Site Name	CHEVIEDN 306449
Location	2730 SPENARD ROAD ANCHONOGE AN
Project Number	082676
Driller	DISCOVERY ORILING
Drilling Method	HOLLOW-STEM ALLERS
Boring Diameter	8-11404
Logged by	6.7AN

Boring/Well Name Mw-2 Page 1 of
PE/PG J. PRITCHARD
Utility Cleared to 8 Face
Total Depth
Date Started 8/29/17
Date Completed 8/39/19
Screened Interval
Depth to water (first encountered) 19
Depth to water (static)
Located ONSITE
Misc. Notes:

Depth/Sample Interval PenetrationResistance/ Estimated Percentages Well Construction Estimated Plasticity U.S.C.S. Symbol Geologic Descriptions and Comments Sample ID Blow Counts Moisture Time Gravel DId Color Sand Clay 0 Silt 3-114159 ASPHALT F DRY THE -> COBISCES Teanin GRAN Sichar greverly Serve UNY KAT 5 2.0 đ WAT 11 Part 1 1 18 1 5-54 Fire to ned said; purly guiss a fire re Bear Dry 1448 2.0 radgiaei 0 10 10 70 20 NP. F EE fine to said ; frace growi (Fine) 0 10 75 15 NP L'L'L ned soul; poorigground five. See. Jh 1 1455 2.1 15 0 25 75 0 TITC NP IISFO-S1/SHARED/GRAPHICSISPECIALTY FIGURES/BORING-SHEET (GHD),AI 1 3-54 fine. COM 30 3wd; the . 0 10 70 20 Nr. R SM That fine send pointygradu 144-2-19 1.50 1510 1515 20 75 <5 20 2.7 ur4 NP in Jr-54 **御**分 fireto com se Sev. tim grads. 10 ó 70 20 C.ne. med Jach 15 <10 75 3 10 Mu-2-215 70 20 522 5 SILT 25 ML mound 45 55 BOTTOM BOCA N4. @ 25 FB4. OF -> 2 - 1NCH JCH 42 PUC -> 0020-1NCH JLETTED SULAR at 10/20 SAMP

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Client Name	CHEVRON EMC
Job/Site Name	CHB/KON 306449
Location	2730 SPENARD ROAD ANCHONOLS AV
Project Number	082676
Driller	DISCOVERY DRILLING
Drilling Method	HOLLOW-STEM AUGORS
Boring Diameter	8-11404
Logged by	0.XAN

Boring/Well Name	MW-3		Page 1 of J
PE/PG 3. PR	ITCHARLO		
Utility Cleared to	8 586		
Total Depth 2	5 PB4		
Date Started	100ha 8/89	42	
Date Completed	8/314	2	
Screened Interval	10-25		
Depth to water (firs	t encountered)	17 5	86
Depth to water (sta	tic)	18 03	(a/5/12)
Located on	SITE		(44/12)
Misc. Notes:		1000	

	Interval				ction	Inde	2	ts				1						stance/			Pe	Estin	nated	des	Nich
0	Depth/Sample	Time	Sample ID	DID	Well Constru		Geologic	and Commen								Color	Denotration	Blow Counts	Moisture		clay	Silt	Sand	Gravel	Estimated Plas
				Onese On	110518	-	0.3 E	F1 A1	аРти - Se 6-7	чт Стор Э 7 Такич	-1	60,9	ں چاو	p he					5æ	2				0	
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				heri raapa	7										11										
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Client Name	CHEVRON EMC.
Job/Site Name	CHEVIRON 306449
Location	2730 SPENARD ROAD, ANCHOROGE, AK
Project Number	082676
Driller	OIJCONERY DRULLING
Drilling Method	HOLLOW-STEM AUGARS
Boring Diameter	8-11404
Logged by	0. YAN

all the	
Boring/Well Name MW-4	Page 1 of
PE/PG S. PRINCHARD	•
Utility Cleared to 8 FRG	
Total Depth 25 Fes.	
Date Started 19 8 ba/17	
Date Completed 6/30/1-3	
Screened Interval 10-25 Fe.	
Depth to water (first encountered)	FOG
Depth to water (static)	3 (9/6/17
Located OFFINE + AND	TATAT STIF
Misc. Notes	-// -// -//

	Interval					ction	lodn	<u>st</u>		stance/			Es Perc	timate centa	ed ges	ticity
0 -	Depth/Sample	Time	Sample ID	DIA		Well Constru	U.S.C.S. Syn	Geologic Descriptions and Commer	Color	PenetrationRes Blow Counts	Moisture	Clav		Sand	Gravel	stimated Plas
	•	0812	116-2-2-3	1.2	1 1920	200		Fin domath. - gravelly said w/ coesses - we do 4-room	Basin		pry _	0				
5 -				2.1	著	14							-			
					15		nory				-			2	1	
10 -	-		-	1.2		1.	SM	fill said) as pearly gradet				15	10			
					111 61 111 111						fhoit!	G	1S	40	Ø	NP
15 -				1.3	TUTIN	-					-	15	20	75	ø	
20	0	928	Kw-4-18-3	2.7	1 - 111 - 1	L. 0 .		fire the course band jult 1 graded; the	strey brow	1	Ne+	10	12	60	15	NP.
	09	1501	102-4-73	0.50	TURT							-25	20	70	5	
25			4	1.4	A	lo m	2 m	and is far day	Sund.	k.	0574 V 1	901	0	0	8	MP.
14				0.0		M		"LT DLAS		r	had	40	50	00	2	-
30				2.+		10	1	BOTTOM OF BORDER (2) 29 (ITTURAD		-	K	V	1	4	V	

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Page _____ of _____

DAILY FIELD REPORT

Project Name: Conc 30694 1	GHD Proj. Mgr: S. PRITCHAND	Field Rep: O. VAL
Project Number: 082676	Date: 015117	Site Address: 2720 Man
Scope of Work: Develop MONITORING	WELLS MULTI THEORY IN THE	ADE TOUR OF THE PED
Equipment: YSI; TYPHON RUMP;	THE THEOLEN MUN Y	Weather:

Time	Activity/Comments	CIA/A	
07:45	LOOP UP VEHICLES : HOLP TO TRULE -	SVVA	
08:05	APRILE Q TIT PILK UP FOLLOWERT OF 10 10		-
08:20	MOBILIZE TO THE STORE ? PERFORM TALLETE INTER THE STORE ?		
	SET UP (a) MIN-4 AND BLOCK OFE REST OF THE WORK		
0840	BEGIN V/ MW-Y WEIL DEVELOPMENT, BY SURGINA THR QURLING	1	-
	W/ TYPHON PUMP		
0954	FINGHW/ WELL DEVELOPMENT ~ 14.0 GAL RUGGED - WELL 13 STILL		-
la regeriera anno 200	A LITTLE CLOUDY BUT DUE TO SILB FORMATION ; NO SEDIMENTS @ NOTION OF		-
10-	I TRANSFOR PURGED WATER INTO WATE DRIVE.		-
1000	HOBILIZE TO ONSITE LOCATION - JET UP (a) HW-1.		-
1020	BELIN WELL DEVELOYMENT OF MW-1 - SUDGE/PUNCE METTROD, THUS		1
1100	CALGENETER READINGS - FEINISHED (2) 1/20 -> PURGE ~ 10 ETAL.		1
(17-	SET UP (2 HW-2 FOR GW WELL DEVELOPHENT.		1
1137	SITTLE FURGING -> JULIANO/PURGE		7
	NOTICED SHEEN; WITH PURSE WATER ; NOTIFY PM. DISCUSSION OF		
	USE RAMEN WORK -> DO NOT USE PUMP ANYMORE; WILL	(C O)	D
1284		\sim]
1320	PINISH W/ DOGUDEDT - D PENEWYMONT W/ BAILTR -> SURGE		
1375	SET of A MULIZ IN TO GALLONS PLOWED.		
	MOTHER . START & 1850	2	
1500	FINISH W/ WITH WOL BUD LOND OLIVER		
1505	STOLE ALL PARKE WATCH LIED PRIME 2 2 TELL		
	LI COLVEY INFITTE INFITE		-
1515	HERD TO THE POP OF FOLLOWING		-
1515	MEAD BALLE TO OFFICE		-
			-
			1

SWA Key:	A: Person or People	B. Equipment	
	D: Propodume /D	D. Equipment	C: Environmental
	D. Procedures/Processes/JSA-review/revise	E: Visitors	
Operation	al Mileage: Start End	Total	

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WELL DEVELOPMENT FORM



Projec	t Name: Chevron	306449			GHD Mgr:	Siobhan Pritcha	rd						
Projec	t Number: 082676				Date: 9/5/17				Tooksid				
Site A	ddress: 2730 Sper	ard Road			Developme	nt Method: Sur	rge & Purge			echnician(s):			
	Anchorage	, Alaska				and a sub-				Well Diameter: 2-inch			
Initial [Depth to Water:	8.51			Total Well E	Depth: Z4.7)		10	ater Column Heig	ght: 6.20		
Volum	e/ft: 6.992				1 Casing Vo	olume 0.99	2			Casing Volumes	9.92		
Purgin	g Device: Typhoor	Pump			Did WellDe	water?: Yes	No J	ৰ		tal Gallons Purge	ed: 16,00		
1 Casin	ng Volume = Water	r column h	ieight x Vol	ume/ ft.	-	We	11 Diam 2" 4" 6"	nron	ne/ft (gallb 0.16 0.65	ne Completed: 7 ns)	120		
Start	Activity	Water	Gallons	Temp	Conc.	Dissolved	PH	Reiox	< Turbic	dity			
TITLE	1.1.1	(feet)	Fulged		(ms/cm) 3%	(mg/L) 10%	01	(m/)	(NTL	J)	Notes		
1020	Surge Purge	18.59			- Provide Contract	(0.1	1					
0250	Surge Purge		1.0	10.17	6.465	8.73	65	A: 8	7/101				
1030	Surge Purge	1.000	P1			A.	0.2/	1,000	200	SILTY			
10:32	Surge Purge	1.46	2.1	10.04	6.460	8.91	6.55	410	001				
0:34		1		1.100	2.27	1		All and a second	2	- CONDY	~		
038		10	3.3	10.02	0.462	9-48	6.60	47.7	>100				
10.011			4,5	10.00	6.471	8.35	6.58	48.7	> 10	CLOLVER.	H		
10.41		18.32		1999 A. A.	BIKE		300 1	1 An	1. 100	and the state			
10.10			5.5	9.98	0.479	0.98	663	51.7	>100	12 Co			
10-1	Surge Purge		5.6	10.12	0.456	0.47	6.65	53.4	> 100	+ 12			
1054	Surge Purge		7,9	10.11	1.4.3.4.1	8.47	6.69	- 34.1	>100	1			
10.57	Surge Purge		86	997	0.454	0	CiA	C	A Lo	The state of the			
1059	Surge Purge	40	9.6	10.04	0.455	864	6.61	25.3 50 5	>100	CLOVAN			
101	Surge Purge	Allah	10.5	10.09	17 U40	A.D.	6.61	502	2/02	1 11 -			
105	Surge 🛛 Purge 🗌	18.58	100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100			The second second second	0.01	<u></u>	2/00				
110	Surge Purge	All Contractions	1.7	9.98	0.461	7.04	659	50/	No	1	C.2		
1112	Surge Purge	1.5	12.7	9.97	0.447	6.64	6.00	590	200	10000	Constant in Constant		
IB	Surge Purge		13,0	9.99	0.941	6015	659	59.0	1 AL	1 Alexandre			
1116			15.0	9.97	0.452	5.96	6.56	59.0	>100	SCREWEND US STREET	E STUL CLIMP		
- Ali		18.51	-	- PUR	041 03	GAILOND	49. 1949 - 19		- 1.90 · ·		LE MARCH		
All the		P	TB >27.7	FI		198		. C	K. A.		Contraction of the second second		

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					1	NELL DE	VELC	PMEN					
Project	Name: Chevron 3	06449			GHD Mgr:	Sobhan Pritcha	ard						
Project Number: 082676					Date: <	15/17				Well ID: MW-2			
Site Ac	dress: 2730 Spen	ard Road			Developmen	ntMethod Sur	ne & Purc	10	16	crinician(s): 0. Yan			
	Anchorage,	Alaska			p	and out	gearag	le	We	ell Diameter: 2-inch			
Initial D	epth to Water:	18 30			Total Well D	eth: 24.7			Wa	ter Column Height: Co 33			
Volume	e/ft: 1.011	2			1 Casing Vo	lume:			10 0	Casing Volumes:			
Purging	Device: Typhoon	Pump /	BAULDA		Did Well De	water? Yes	No	7	Tota	al Gallons Purged: 12 C			
		/-	pencert			We	ell Diam	1 Volume	Tim	e Completed: 1331			
1 Casin	g Volume = Water	column h	eight x Volu	ume/ ft.	1		2" 4" 6"	vam	<u>e/ft (gallon</u> 0.16 0.65 1.47	<u>(s)</u>			
Start Time	Activity	Water Depth (feet)	Gallons Purged	(C°)	Cond. (nS/cm) 3%	Dissolved Oxygen (mg/L) 10%	рН 0.1	Relox (m/)	Turbidi (NTU)) Notes			
1133		1835							1				
1137			1.70	9.98	5,980	7.32	6.53	625	1-2/02				
1234	Surge Purge	•••							1	LIGUNY; SHEEN OBTIME			
1237	Surge Purge		3.20	9.97	0-512	4.74	6-69	1018	>(0)	Circles			
1240	Surge Purge		20	0 - FA					1	CLOUD -> SHEEN PRODUT			
1250	Surge Purge		4.30	9,98	0-518	+.75	6.53	87.1	500	USP BAILOR			
1251			5.70	9.93	6.513	7.65	6.56	85.1	7100	USP BATTER			
1302							1	1		- SHEN			
1308			0-50	10.58	0.325	6.86	6-50	84.6	>100	USE GALLER			
1300			8.00	10.02	0-208	7.06	6.59	84.3	200	USE BUILD			
1500		10	<u>q.</u> 00	9.98	6-203	7.81	6-57	851	>100	USE BRUT			
	Surge Purge	18.36		- pun	UPP TUTAL	> 12.00	GALS	na		- JART - SHEW			
	Surge Purge			1997 - 1997 -	++				9.000				
-	Surge Purge				++								
	Surge Purge												
	Surge Purge			04-14- -0(0									
	Surge Purge												
	Surge Purge		1	1997)))))))))))))))))))))))))))))))))))									
	Surge Purge												
					<u>_</u>								

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Also

WELL DEVELOPMENT FORM



Project	Name: Chevron	306449			GHD Mgr:	Siobhan Pritchar	ď			Well ID: MW-3			
Project Number: 082676					Date: 4/51,7				Techni				
Site Address: 2730 Spenard Road					Developme	nt Method: Surg	A & Durgo			Ciality, O.YAN			
	Anchorage	e, Alaska				littletilet. Bulg	e or ruige		Vveli D	ameter: 2-inch			
Initial D	epth to Water:	18.03			Total Well	Penth: 71			Vvater	Column Height: 6-62			
Volume	e/ft: 6.62 1-	0592	/		1 Casing Vo	Jume:			10 Cas	ing Volumes: 60-572			
Purging	Device: Typhoor	n Pump			Did Well De	water2: Voc	No No	,	Total G	allons Purged: 17.5			
	-19			A Carlos				<u> </u>	Time C	ompleted: 1500			
1 Casin	g Volume = Water	r column I	neight x Volu	ume/ ft.		<u></u>	2" 2" 4" 6"		16 .16 .65 .47				
Time	Activity	Water Depth (feet)	Gallons Purged	Temp (C ^o)	Cond. (mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	pH	Redox (mV)	Turbidity (NTU)	Notes			
1350	Surge Purge	18.03			19	(1119/2) 10/0	0.1	10	1000 - 10000 - 10000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 -				
1403	Surge Purge		1-14	9.35	0-638	7.52	6.90	1076					
1405	Surge Purge		11 11 11 11	256		- Alter wan		103.98	-100	Clarsy			
1411			3.0	9.42	0.645	7.90	6.47	1057	21.00	Class.			
1415	Surge Purge			etter.		-	0.16	102.7	-100	Clarry			
1418	Surge Purge		4.51.3	9.42	0.629	a.76	6.50	104 11	3/00	P			
1420		لي اليونية. اليونية	6.00.0	9.39	0.679	7-43	6.46	100-7	700	SULUS			
1425	Surge Purge	N. Carl			9	and and a		103-1					
1427			6.5B5	9.36	6.627	7.23	6.45	INV.	7100				
1430			209,0	9.35	0.627	6.68	6.03	IM- (-	2100				
1437		-	10.705	9.37	0.631	7.05	6.43	104 5	5100				
1440		18.04	10 53.0	<u>1000</u>	A CONTRACTOR	LENG. W		i i i i i i i i i i i i i i i i i i i					
Ned I		<u> </u>	120	9.36	0.616	7,57	6.44	104.9	5/00				
440	Surge Purge	· · · ·	13.5	9.58	0.613	5.60	6.43	104.8	>160	CLEARING IN?			
10	Surge Purge		15.0	0.2	0.614	7.13	6.43	105.2	> 100				
4.20			16:50	9.52	0-612	5.13	642	106.0	>100				
	Surge Purge	1	Pure	107 TOTA	- 175	aguors >				V			
	Surge Purge	and the second		and and a second se									
199	Surge Purge		1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	199			1. N.						
- gary			No. 12	N See	Section Brown and		Real Marks						

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Project Name: Chevron 306449					GHD Mar: Siobhan Pritchard								
Projec	t Number: 082676				Date: 0/		u ,,,		VVell ID): MW-4			
ite A	ddress: 2730 Spe	nard Room	1		David	5/2017			Techni	cian(s): O. yth			
	Anchorage	alaska			Developme	nt Method: Surge	e & Purge		Well D	iameter: 2-inch			
itial	Depth to Water:	17-77			T			1	Water	Column Height: 6 9 4			
olum	e/ft: 10100	14.73			I otal Well D	Depth: 24.6	7		10 Cas	ing Volumes: 11.104			
Irain	a Device: Typhoor	Dump	a san an a		1 Casing Vo	olume: 1.110	4		Total G	allons Purged: 14,0 gaz			
argin	g Device. Typriodi	reump			Did Well De	water?: Yes 🗌	NoX		Time C	ompleted: 0954			
Casir	ig Volume = Wate	r column l	neight x Vol	ume/ ft.	मार अ ^{र्थ} े	We	<u>ll Diam.</u> 2" 4" 6"	Volume/ 0. 0.	ft (gallons) 16 65 47				
aπ me	Activity	Water Depth (feet)	Gallons Purged	Temp (C ⁰)	Cond. (mS/cm)	Dissolved Oxygen	pH	Redox (mV)	Turbidity (NTU)	Notes			
4	Surge Purge	17.93	1	- *	1	(119/2) 10 /0	10.1	, 10		al lane.			
	Surge Purge		1.1	10.84	0.745	7.71	6.74	953	21410				
	Surge Purge		47 			1 11	0.4	07.7	2100	CLAUDY .			
	Surge Purge		2.4	10.25	0.633	7.00	663	23.1	-				
6	Surge Purge	17.90	2.8		Ben . 9 and		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	. 30.1	7/00				
3		1	3.5	9.83	0.61%	8.10	4:00	78 5	>100				
29		2	4.8	9.85	0.596	7.51	7:00	26.4	> 100				
8	Surge Purge						1.0	- 10. 7	6 100				
12	Surge Purge		5.9	9.90	0.597	7.93	7.00	21.5	>100				
4	Surge Purge	1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	9.6	9.83	0.590	7.57.	6.99	22.4	200	UNTIL WIT TO IL			
7		17,73			Â.		1		1400	GAT			
			8,1	9.75	0.590	8.51-	6.97	23.1	· >/00				
2			9.2	9.75	0.572	8.15	6.95	24.1.2	>/00	2			
5		3	10.5	9.93	0.53	7.45	6.96	24.6	2012				
T			12-11			· · · · · · · · · · · · · · · · · · ·	3						
r		- 4	1.6	9.86	0.563	7.34	Ga	26.0	>/00				
S		1.00-12	12.7	9.66	0.555	4.43	6.85	26.2	7/0				
+		1	14.0	9.79	0.554	7.74	6.24	264	>/m	CIEARING LID'			
		17.75 0	TÒ	TAL Pr	RUEP ~ 1	7 6m	- <u>a</u> 1	- 0.	-100	MULTIN VIT BUT STILL CLOUBY			
		1.1.1.1.1	i stand	2			t de		1.1	2 4			
		1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	and all all and	12	4 9	N			8.1	<u>a</u>			

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INSTRUMENT RENTAL FUNCTION/CHECKLIST

The preferred source for instrument Rentals, Sales, Service, and Supplies!

SHL

Company Name:

Rental Description: YSI 556

	6,70138
S/O #:	5/12/220
Serial #:	3120

Item Description	Checked Out?	Checked In?	Damaged / Missing?
556 Multi parameter meter with barometer	/		
Wrist strap			
4 meter probe assembly w/ pH/ORP, cond./temp, & DO			
Pelican carrying case	1.		
556 Quick-start Guide & CD in ziploc bag			
YSI 5511 Maintenance kit (including the following):			
Probe installation/removal tool			
DO sensor set screw	11		
Allen wrench for DO sensor set screw	1/		
DO sensor port plug	1		
Conductivity probe cleaning brush			
O-Rings for DO sensor			
2 - Replacement Flow cell O-ring		7	
DO membrane kit (w/2 replacement caps & instructions)			
DO membrane solution (at least 1/4 full)	1		
Probe Sensor Guard	//	<	
Transport/Calibration cup	1/		
Stainless Steel sampling cup	//		
Granness Green Gamping Gop			
Optional: CI2D			
Flow cell (including the following):			
2 each hose barbs: 3/16", 1/4", 3/8", 1/2"			
Optional - 2 each YSI body couplings			
Both upper and lower o-rings in place on flow cell	/		

	Instrument Function Test / Inspection (Correct all deficiencies)
Pes	Pelican case general condition, rubber seal, TTT label, & foam in place and in good condition:
105	TTT property tag in place on top of instrument:
Yes	Instrument display face plate in good condition (only minor scratches and smears); And backlight functions properly:
Hes	Date and Time set correctly (Esc/system setup/date & time):
Tes	Shutoff time set to 60 min. (Esc/system setup/shut off time):
Yes	All data deleted (Esc/file/delete all files/delete):
Nes	Battery power bar (lower right hand corner) shows at least 30%:

Signature (Check-out):

Signature (Check-in):

Declared Value: \$3,700

- * By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).
- * Customer is responsible for all parts and equipment damaged or missing during rental.
- * All instruments have been inspected and calibrated (when applicable) prior to rental.
- * TTT suggests calibrating/bump testing instruments prior to each days use.

Email: info@tttenviro.com

www.tttenviro.com

TTT Environmental The preferred source for instrument Rentals, Sales, Service, and Supplie

CALIBRATION/INSPECTION REPORT

and, ouros, dervice, and	Supplies!	Calibration Date:	8/31/2017
	70	Report Date (check-out):	9/1/2017
Company Name:	GHD	S/O #:	S172238
101101 Description. 1015	00	Serial #:	556-15.E103128

	-	CALIBR/	ATION*			
Sensor	Zero Value	Calib	ration*	ТТ		
	<u></u>	Desired reading	Instrument reading	1-1-	mV	Slope/Gain
Spec. Conductivity/Cond.	na	1.413 @25 C	1.413 @ 22.08		1 413/1350	1.02
PH	na	7.02 @20 C	7.02 @ 21.3	C	10	1.02
рН	na	4.01 @20 C	4.00 @ 21.36		162	470
рН	na	10.06 @20 C	10.05 @ 21.00	F	105_1	1/3
ORP	na	240mV @25 C	240.0 @ 21.20	H	-185.1	175
D.O.	na	100% @25 C	98.4 % 20.95	ř.	-9.3 P.P.= 20.42	0.744
* Calibrated per manufactur			8.78 mg/L	H	D.P.= 29.43	0.744

	CALIE	BRATION SOLU	TION INFOR	MATION		
Components	Conc.	Lot #	Manuf	Accuracy	EIII Data	
Specific Conductivity	1.413@25C	L I\\\/1	a alitar	Accuracy	Fill Date	Exp. Date
рН	7.00@050	0001	Oakton			04/2018
pii	1.00@250	16C2S	YSI	+/- 0.02		11/2017
pH	4.01@25C	16A3R	YSI	+/- 0.02		01/2017
pH	10.01@250	141.17	1.01			01/2018
OPP		14611	YSI	+/- 0.02	/	09/2017
	240mV	9674	Hanna	+/- 20		01/2021

Calibrated by: Steve Ziegler

Signature:

	INSTRUMENT INSPECTION		0
Item	Pre-rental Check-out	Post-renta ("Damaged" or "No" may in	Check-in
cracks, damage, etc:		No Damage	Damaged
Meter (battery cover screws) & cable?:		No Damage	Damaged
Cable is plugged into handheld?:	(Yes)	Yes	No
Instrument powers on/off properly?:	(Yes)	Vos	No
Battery power bar (lower right hand corner) shows at least 30%?:	Yes		
Display/LCD contrast is correct and no black streaks in LCD screen exist?:	Yes	Yes	No
All display readings are positive (excluding pHmV & ORP)?:	Yes	Yes	No
Probe inspection?:		No Damage	Damagod
Probe transport cup is attached & contains 1/4" tap water or pH 4 buffer?:	Yes	Yes	No
Calibrated within the last 10 days?:	(Yes)		
Rental checklist completed?:	1 Yes		
Comments:		Yes .	
Signature (Check-out):	Signature (Che	ock-in):	
Phone: (907) 770-9041 Fax: (90	D7/ 270-9046 Email: info@ttter	iviro.com www.ttt	enviro.com

INSTRUMENT RENTAL FUNCTION/CHECKLIST

The preferred source for instrument Rentals, Sales, Service, and Supplies!

Company Name:

00 FT I/F probe -**Rental Description:**

Sales Order #:	51
Serial #:	464

72238

Item Description	Qty	Checked Out?	Checked In?	Damaged / Missing?
Interface Probe	1	1		
Cushioned carrying case	1			
Spare Battery (9V)	1 or 2			
Optional				
Operators manual				
Tape guide				

Instrument Function Test / Inspection (Correct all deficiencies)	4	Pre-rental Check-out	Post-renta ("No's" may be	al Check-in customer charge)
Soft sided case clean (inside and out) and in good condition with proper length, size, and meter type properly marked:	1		Yes	No
TTT property tag and s/n# in place on front of meter:	1			
Meter front and rear spools are in good condition:	11		Yes	No
Spool properly secured to frame and spool brake functional:	1		Yes	No
Meter sits flat, frame not bent, and probe holder in place:	1/		Yes	No
Probe not bent, probe bottom in good condition, and tape connection at top of probe in good condition when flexed:			Yes	No
Meter battery cover, buttons, and knobs in place, tight, and in good condition:	/		Yes	No
Red LED and buzzer works properly when "Start" button pressed (indicates good batteries). When applicable, Green LED stays flashing until "off is pressed":		Yes	Yes	No
Probe buzzes properly when placed in water:	173	Yes	Yes	No
Meter provides different tone when passed from Oil to watertransition is clear & precise going both directions:	1			
Spare batteries test good, white tape over contacts and placed in resealable bag in front pocket of meter bag:				

Signature (Check-out):

in Signature (Check-in)

Declared Value: \$1,350

* By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).

* Notify TTT within 24hrs of receipt if anything is damaged or missing.

- Customer is responsible for all parts and equipment damaged or missing during rental. *
- * All instruments have been inspected and calibrated (when applicable) prior to rental.

Phone: (907) 770-9041

Fax: (907) 770-9046

Email: info@tttenviro.com

www.tttenviro.com

of

DAILY FIELD REPORT

Project Name: 306449	GHD Proj. Mgr. S. PAITCHAAD	Field Rep: J. YAM, T. WEAVER
Project Number: 082676	Date: 4/2/17	Ante Here Hore AK
Scope of Work: Gw StmpLErb		Weather: cuport 20°
Equipment: YSI, MPSO, INTEKFA	CE VROISE TURBENETY METER	Troducti 7 4

Time	Activity/Comments	SWA
0515	LOAD TRUCK & MUB TO TIT & STORAGE SHED FOR SAMPLING SUMME	-
0930	ARRIVE ONSITE CONDUCT SAFETY MEETING NOTIFY PM & PROTERTY	
09.50	BEGIN GAUGING ALL WELLS.	
107.0	SET UP A MWZ -> TO COLLEG PRIDULT SAMPLE	
1025	COLLECT NAPL/SHEEDE JAMPLE & MW-2 (11, SPECIAL SAMIE MW-2-W-17109)	
1036	COLLECT SHEEN NET JAMPLE FROM MW-2	
1050	SET UP @ MW-1 FOR THEEN JAMPLE, LOW - FLOW	
1056	COLLECT SHEEN SMART (2) MW-1 W/ NET	
1059	SET UP FOR LOW- FLORN @ MW-1; 2000-FLOW PURAN	DUP-1
1132	CONSCE JAMPLE (MW-1-W-171109 (REGULATORY) & STECIAL WARL SAMPLE &	
1147	TRANSFER WATER FROM WELL DEVELOPEMENT (55641 DRUM) TO SO GAL DAVA	1.000
	TO OVER PACK FOR WENTER,	
1245	BREAK FOR LUNCIA & TO WARM UP	
1306	SET UP ON MW-3	
1313	COLLECT SHEEN SAMPLE W/ NET MW-S	
1315	COLLECT SAMPLE FOR NAPL & MW-S, SPIELIAL IL	
1318	LF PURGE MONITORENCE	
1350	COLLECT REGULATORY SAMPLE MW-3-WITTING	-
1359	MOB TO OFF SITE WELL MW-9 & LF FORDE C	
1446	COLLECT REGULATORY SAMULE MW-1-W THICK	-
1502	TRANSFER ALL PURCED ON TO OUEAFACTED DATAS	
1521	MOB TO BET ILE & DALK TO FFICE	
1845	ARREVE BACK & OPPLICE (OF THE THERE	

And the second	A: Person or People	B: Equipment	C: Environmental
SWA Key:	D: Procedures/Processes/JSA-review/revise	E: Visitors	

Operational Mileage: Start _____ End _____ Total _____

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Groundwater Monitoring Field Sheet

Project	Name:	306449 (AD	EC File ID: 21	100.26.116)		Project	ler:	082676	
Tield St	an	T. Weaver/G	J. fall		rest de la	Date:	Novemb	er 9, 2017	
Well ID	Time	DTW (ft - btoc)	DTB (ft-btoc)	DTP (ft-btoc)	Product Thickness (feet)	Amount of Product Removed (feet)	Casing Diameter (inches)	PID (ppm)	Comments
MW-1	1001	18.15	24.73	1		and the second second	2"		DUP-1-JAMPUOT
MW-2	2954	17.95	24.66	-	The second	2 1 11 K 164	2"	_	D. 1 GALLONS OF
MW-3	1005	17.66	24.67		-		2"		ON SITE IN 30-GALLOW
MW-4	1014	17.39	24.5%	- 6	- *		2"	-	(SECONDARY CONTAINAIONT)
						~			
						5			
							,		
				n-der	9				
				· Sta der			e.		
				1			10		
				¥.	-1	1 de			
				1.	5	1			
				1					
_				1.54	_				
GAC	Filtered Wa	ater Volume:	N/A_	gallons			Volume lo	gged on Pa	prtable GAC Volume Tracking Log?

DTP - depth to product; DTW - depth to water; DTB - depth to bottom; ft-btoc - feet below top of casing; ppm - parts per million

Desired M				GIU	unuwat	er sampli	ing Form				
Project No	082676	1	PM Siobhar	Pritchard		Well ID	MW-1		Date	11/9/17	Page of
Site ID / Location	3064	449 / 2	2730 Spenard R	oad, Anchor	age, Alaska	(ADEC File I	D: 2100 26 11	6)			
Screen	10.2	c'	Casing			Well Mater	ial x	PVC		Sampled	hy T Weaver
a contra la broch		5	Diameter (in.)	2'				SS			O. Yan
Static Water Level	11-		211	wate	r Column /	-			Sample ID	mu	1-1-171009
(ft-btoc)	.15	Total Dept	h (ft-btoc)	75 Gallo	ns in Well	6.58 1.0	5		Dup ID	DUP-1-0	W-17-1009
								Sample	1/ 72	G 1 .	
Sampler Length (No-Purg	e Methor		/	1		Lo	w Flow Metho	od	End
sampler Length (in)	So LI Sal	mpling _am	oler (trotoc)		Pump type	Bladder	3		Pump Intake	e (ft-btoc) 18.87
Weights	Top LOV	N-FIC	Position	Supend	ed 🗖	Elow rate (Other	100		Volumes F	Purged 1.1 Gr
Man Dalan	Bottom			Bottom	set 🗖	Did well Dev	/minute) vater? Yes			Purge Time	Start 1101
Time	Minutes	t non volatile Rate	samples	Yes	No D						End U26
	Elapsed	(gpm)	Water	Purged	(°C)	Cond. (mS/cm)	Dissolved	pH	Redox	Turbidity	
Ilmi	-	(mL/min)	(ft)			3%	(mg/L) 10%	0.1	(mV) 10	(NTU)	Additional notes
111	10	100	14.15	0.1	10.03	0.551	7.79	41.53	3743	71/00	BROWN
116	12	100	19.16	0.35	9.54	0.532	6.97	3.15	509.1	71100	4 4
//21	70	100	18.16	0.5	9.45	0.524	6.38	2.81	562.5	\$305	CLOUDN 17 8024
1176	2,-	100	19.17	97	9.25	0.518	5.94	2.73	589.8	551.3	*
11 20	25	100	14.1P	0.9	9.20	0.514	5.76	2.78	600.9	410.1	MOSTIVICA
				_				1			The STOR COLAT
onstituents Sampl	ed										
EX by 8260		0 8	8021		Container				Number		Preservative
CS by 8260					40 mL voa						
O by AK 102	••••••				40 mL voa				3		HCI
O by AK 103					250 ml ambe	er er			1	-	HCI
Hs by 8270									1		HCI
alinity by 2320B		0									
thane by RSK175											
rate/Nitrite by EP/	300	<u> </u>									
rous Iron		ă									
					•••••••••••••••••••••••••••••••••••••••						
Il Casing Volumes											
ons/Foot 1"	= 0.04	1.5" =	0.09	2.5" = 0.26	3.5"	= 0.50	5" = 1 47				
d Test C	- 0.00	2"=0	.10	3" = 0.37	4" =	0.65					
a rest Results:	Fei	rrous Iron		mall				-			
ll Information		2.031		mg/L N	itrate	1	mg/L O	ther			
Well Location:	0	N SITE	2						_		
Condition of We	11:	6000					Well I	ocked at	Arrival:	Tes	/ No
Well Completion	n: <	Flush N	Mount	Stick Un			Well Lock	ed at Dep	arture:	Tês	/ No
tional Nata											
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nonal Notes											

Operation Operation <t< th=""><th>Project No. 092676 PM Stabun Princhard Well ID MV2 Date 11/0/17 Page 2 Site ID / Loadin 206449 / 2730 Spanned Road, Androrse, Alaska (ADEC File ID: 200 26.016) Sampled by T. W. Setting It-baim 10 - 25' Obineter (n); 2' Ss Sampled by T. W. Static Water rayel Total Depth (n see; 2.4 - L.C. Caling Molt Asterial X PVC Sample ID Mu/-2 - V. 17 (III) Sample Langth (set) 36 Total Depth (n see; 2.4 - L.C. Caling Note Total Method Total Depth (n see; 2.4 - L.C. Sample Longt(N) Note the Method Note Note (n see; Noten see; Noten see; No</th><th>GHD</th><th></th><th></th><th>Grou</th><th>undwate</th><th>er Samplir</th><th>ng Form</th><th></th><th></th><th></th><th></th><th></th></t<>	Project No. 092676 PM Stabun Princhard Well ID MV2 Date 11/0/17 Page 2 Site ID / Loadin 206449 / 2730 Spanned Road, Androrse, Alaska (ADEC File ID: 200 26.016) Sampled by T. W. Setting It-baim 10 - 25' Obineter (n); 2' Ss Sampled by T. W. Static Water rayel Total Depth (n see; 2.4 - L.C. Caling Molt Asterial X PVC Sample ID Mu/-2 - V. 17 (III) Sample Langth (set) 36 Total Depth (n see; 2.4 - L.C. Caling Note Total Method Total Depth (n see; 2.4 - L.C. Sample Longt(N) Note the Method Note Note (n see; Noten see; Noten see; No	GHD			Grou	undwate	er Samplir	ng Form					
1610 / LOCATION 30640 / 2730 Spenzible (Back Anchorase, Alaska JABEC File (D / 200 / 201	bite ID / Location 3200 See and Road Anchorase. Alaska (ADEC File ID: 2100 Z6 116) Strict Water Level Non-Purge Method 2* Sample ID Number 0.1 Name Id-9_5 Diameter (w.) 2* Sample ID Number 0.1 Name Id-9_5 Diameter (w.) 2* Sample ID Number - Number 0.1 Name Id-9_5 Total Depth thistoci 24.55.5 Galoos in Well 6.71 1.0.127 Data Dat	roject No082676		PM <u>Siobhan P</u> i	ritchard	_	Well ID	MW-2		Date	11/9/17	Page 2	of
Orden Casing Diameter (n.) 2* Well Matchill X PVC Sampled by T. Weaver atic Water Level	Casing Casing During Number PVC Sampled by T. W Static Water lavel No Purge Method S Sampled by T. W Static Water lavel No Purge Method Sample D Multi-2	te ID / Location306	6449	2730 Spenard Roa	d. Anchora	Te Alacka					1.1=	1080 -	
Cases Diameter (n_i) 2* Construction Mode Sample by T. Weaver O. Yan atic Water Level (excl) III - 0.25* Diameter (n_i) 2* SS Sample (D Multice) Total Depth (n two) 2.4 - C.C. Gallons in Well Sample (D Multice) Total Depth (n two) 2.4 - C.C. Gallons in Well Sample (D Multice) Total Depth (n two) 2.4 - C.C. Gallons in Well Sample (D Multice) Total Depth (n two) 2.7 - C.C. Total Depth (n two) <	Description Diameter (m) 2" Non-Number PVC Sample by T. Model Static Water Level Water Column / Non-Purge Method Water Column / Static Water Level Sample ID Multi-2 - ky - 17 / 10 Dample ID Multi-2 - ky - 17 / 10 Ample ID Mod-Purge Method Sample ID Multi-2 - ky - 17 / 10 Dample ID Multi-2 - ky - 17 / 10 ample IC length (n) 36 Mod-Purge Method Dample ID Purge Time: Sample ID Purge Time: <t< td=""><td>creen</td><td></td><td>Casing</td><td>al r thomas</td><td>SC, Aldska</td><td>Well Materia</td><td>2100.26.12</td><td>16)</td><td></td><td></td><td></td><td></td></t<>	creen		Casing	al r thomas	SC, Aldska	Well Materia	2100.26.12	16)				
atte: Water Level	table Water Level Sample 10 MuV-2 - typ - 17 fr.c benov The Purp Trans Dop 10 op 10 Sample 10 MuV-2 - typ - 17 fr.c <	etting (ft-btoc) <u>10 - 2</u>	25'	Diameter (in.)	2"		well Materia	x	PVC SS		Sampled by	/T. W	/eaver an
deci Lif Also Total Depth Intseed 24: L C Gallons In Weit Dup ID Time No-Purge Method Time 102.5 Start Low Now Method Time Top Only Samphing Supplicit Supplicit Purp type Bladder Purp time Uot Now Method Time Market Rate No Dup ID No Purp time Bladder Bl	Table Total Depth if they? 24_LL Callons in Weil Call / L_0/37 Dip ID ampler Length (in) 36 more flow Sampling ampler and flow weil for the flow flow sampler and flow weil for the flow flow sampler and flow weil for the flow flow sampler and flow weil for the flow flow flow sampler and flow weil for the flow flow flow flow sampler and flow weil for the flow flow flow flow flow flow flow flow	atic Water Level			Water	Column /				Sample ID	MW-2-1	N-17/10	5
No-Purge Method Time [1025] Start Ind might Length (nd) 36 Start (nd) Top	No-Purge Method Time [022] Stat End ampler Length (m) 36	-btoc) <u>17-95</u>	Total Dept	th (ft-btoc) 24.6	C Gallor	ns in Well	5.71 /1.07	3	Sample	Dup ID			
Implementation Constraints Low Few Method Pump type Bidder Other Pump Intake rit stod Pump type Bidder Other Pump Intake rit stod Postion Pump type Bidder Pump Intake rit stod Postion Pump type Bidder Pump Intake rit stod Postion Pump type Bidder Pump Intake rit stod Postion Bidder Pump Intake rit stod Pump Intake rit stod Postion Bidder Pump Intake rit stod Pump Intake rit stod Postion Bidder Pump Intake rit stod Pump Intake rit stod Postion Bidder Pump Intake rit stod Pump Intake rit stod Postion Bidder Pump Intake rit stod Pump Intake rit stod Postion Rodow Introduction Pump Intake rit stod Pump Intake rit stod Postion Rodow Introduction Additional note Introduction Postion Rodow Introduction Rodow Introduction Postion Rodow Introduction Rodow Introduction Rodow Bidder Postion Introduction Introduction Rodow Bidder Introduction Introduction <	ampler Length (ii) 36 37 100 Supplied Pump type Bladder Pump type Pump		No-Pure	ze Method			4		Time _	1025	Start	End	
Top Dottion Supended Diverse	regits rop Desition Supended Direction Volumes Purged Or Time Minutes Rate Rate No No <td>mpler Length (in)</td> <td>36</td> <td>mpling _ample</td> <td>- (1- DLOC)</td> <td></td> <td>Pump type</td> <td>Bladder</td> <td>Lor</td> <td>w Flow Metho</td> <td>d Pump Intake</td> <td>ft-btoc) ></td> <td><</td>	mpler Length (in)	36	mpling _ample	- (1- DLOC)		Pump type	Bladder	Lor	w Flow Metho	d Pump Intake	ft-btoc) >	<
Bottom set logicition Did well Dewater? Yes No Outpet inter Start Time Minutes Rate Depth to Saling Temp Outpet inter Saling Depth to Depth to <td>Bottom all collect analysis Bottom set analysis Did well Dewater? Yes and all collect analysis Same analysis Same</td> <td>eights Top LO</td> <td>W-FIOW ST</td> <td>Position</td> <td>Supende</td> <td>ed 🗖</td> <td>Flow rate (ml/r</td> <td>Other</td> <td></td> <td></td> <td>Volumes Pu</td> <td>rged <u>O</u></td> <td>2 64</td>	Bottom all collect analysis Bottom set analysis Did well Dewater? Yes and all collect analysis Same	eights Top LO	W-FIOW ST	Position	Supende	ed 🗖	Flow rate (ml/r	Other			Volumes Pu	rged <u>O</u>	2 64
Time Minutes Res Dept No Dissolved PH Redox Turbidity Image Minutes Redox Turbidity Purged Cond. Dissolved D1 Redox Turbidity Additional note Image Minutes Redox Turbidity Additional note State D1 Redox Turbidity Additional note Image Minutes Redox Turbidity Additional note Image Image Redox Turbidity Additional note Image Minutes Redox Image Ima	Extension base to consist is any permitting to the second construction volume any permitting to the second construction volume any permitting to the second construction of the second construction volume any permitting to the second construction of the second construction volume any permitting to the second construction of the second consecond consecond construction of the second construction of the s	Bottom			Bottom	set 🗖	Did well Dewa	ter? Yes	No D		Purge Time:	Start End	~
Image Ander Elepted Ander (mL/min) Deptin to (mL/min) Gallons (mL/min) Temp (th) Cond. 3% Dissolved (mR/l) 10% P1 Redox (mR/l) Implify (th) Additional note 1	Intermed Multiple Sale Disolved PH Redox Turbidity Addition Elspeed (m/min) (tt) Purged (ft) 3% (mg/l) 10% 0.1 (mg/l) 10% 10 4 4 10 10 10 4	Time Minutor	ct non volatile	samples	Yes	No 🗖						Lind	
Source Source<	Image: 100 model	Elapsed	(gpm) (mL/min)	Uepth to Water (ft)	Gallons Purged	Temp (°C)	Cond. (mS/cm)	Dissolved Oxygen	рН 0.1	Redox (mV)	Turbidity (NTU)	Additior	nal notes
Image: Solution of Well: Solution Number Preservative Information Well Locked at Departure: 15"=0.09 2.5"=0.26 3.5"=0.50 6"=1.47 If Casing Volumes 1.5"=0.09 2.5"=0.26 3.5"=0.50 6"=1.47 Yes No If Casing Volumes Mg/L Nitrate mg/L Other Yes No Well Locked at Departure: Yes No Yes No Yes No	Image: Second						570	(11g/L) 10%		10			
Image: Second	Image: Second						1	0	1				
Image: Sampled in the system Container Number Preservative CS: by 8260 8021 0 0 1<	OC SAL Instituents Sampled Container Number REX by 8260 6021 Container Number 40 mL voa 3 HC 41 maber 1 HC 250 ml amber 1 HC 41 more 1 HC 41 maber 1					C A	reput	-					-
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ell Casing Volumes ons/Foot $1^{"} = 0.04$ $1.5^{"} = 0.09$ $2.5^{"} = 0.26$ $3.5^{"} = 0.50$ $6^{"} = 1.47$ Id Test Results: mg/L Other Well Location: ONSITE Well Location: ONSITE Well Locked at Arrival: Yes No Well Completion: Flush Mount Stick Up Well Locked at Departure: Yes No	ell Casing Volumes Ions/Foot 1" = 0.04 $1.5" = 0.09$ $2.5" = 0.26$ $3.5" = 0.50$ $6" = 1.47$ Ins/Foot 1" = 0.06 $2" = 0.16$ $3" = 0.37$ $4" = 0.65$ $6" = 1.47$ Ins/Foot Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume Instrume	Cs by 8260 O by AK 101 O by AK 102 O by AK 103 id by 6010 Hs by 8270 alinity by 2320B thane by RSK175 fate by EPA 300 rate/Nitrite by EPA 300 rous Iron			Kcou	40 mL voa 40 mL voa 250-ml amb 250 ml amb 45-9 A N 40-9	er er v.E. For Sy hits:	ken/war	X	3 3 1 1			
Id Test Results: Ferrous Iron mg/L Nitrate mg/L Other Ell Information Well Location: ONSITE Well Locked at Arrival: Yes / No Condition of Well: Guide Flush Mount Stick Up Well Locked at Departure: Yes / No Itional Notes Itional Notes Itional Notes Itional Notes Itional Notes Itional Notes	Id Test Results: Ferrous Iron mg/L Nitrate mg/L Other Ell Information Well Location: ONSITE Well Locked at Arrival: Yes / No Condition of Well: GOOV Well Locked at Departure: Yes / No Well Completion: Flush Mount Stick Up Well Locked at Departure: Yes / No	Il Casing Volumes ons/Foot 1" = 0.04 1.25" = 0.01	5 (2)	5" = 0.09 = 0.16	2.5" = 0.26 3" = 0.37	3.! 4"	5" = 0.50 = 0.65	6" = 1.47					
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Well Completion: Flush Mount Stick Up	Well Completion: Flush Mount Stick Up ditional Notes	Well Location: Condition of Well	GUDA					We	ell Locked a	t Arrival:	Yes	/ No)
ditional Notes	ditional Notes	Well Completion:	Flus	sh Mount	Stick Up	1		wen L	ockeu at De	-parture:	res	/ No)
		litional Notes											

Project No.	082676		PM Siobhan P	ritchard		Well ID	MANA/ 2			in a loss		n 1
Site ID / Location	306	449 / 3	730 Sponard Bos				10100-3		Date	11/9/17	Page	<u>3</u> of
creen			Casing	ad, Anchora	ge, Alaska	(ADEC File II	D: 2100.26.1	16)				
etting (ft-btoc)	2	5'	Diameter (in.)	2"		wen water	al <u>x</u>	PVC SS		Sampled I	by	T. Weaver
tatic Water Leve				Water	Column /				Sample IF	MW-3-	- W -13	U. Yan
t-btoc)	1.66	Total Depth	n (ft-btoc) 24.0	J Gallor	ns in Well	7.01/1.12	22		Dun ID			110/
	_							Sample	CES -	Charle		
ampler Length (in)	No-Purg	e Method	r //				Lov	v Flow Metho	od	Er	nd
loichte	LON	N-Flow Sar	npinio Janipie	totoc)	-	Pump type	Bladder	2	1	oump Intake	(ft-btoc)	18.10
reights	Top	T	Position	Supende	d 🔲	Flow rate (ml)	/minute)	TOR		Volumes P	urged	0.9 61
tea reflon Baler use	d to collect	non volatile	samples	Bottom s		Did well Dew	ater? Yes	No 🗵		Purge Time:		Start 134
Time	Minutes	Rate	Depth to	Gallons	Temp	Cond	Disselved	1		_		
	Elapsed	(gpm)	Water	Purged	(°C)	(mS/cm)	Oxygen	0.1	Redox (mV)	Turbidity (NTU)	Ad	ditional nota
17.23	5	(mir/min))	(ft)			3%	(mg/L) 10%		10	(1110)	Au	iunional notes
1224	12	(W)	14.69	0.15	10.19	0.598	9.67	6.24	282,2	446.7	CLOWNS	YBACK
1327	10	100	14.69	0.30	9.49	0.575	8.35	5.69	327.6	431 1	CLE	and
123.4	10	100	14.69	0.45	8.90	0.590	+.66	9.41	463.4	271.2	11	11
12 47	21	100	17.09	0.55	8.64	0.398	7.16	3.97	522.0	220.7	11	¥./.
1313	23	In	(+,69	U. 10	857	0.594	6.89	372	3450,6	108.7	R	
				-								
					-							
				1								
onstituents Samp	led	-			Container				Number		Drocor	
OCs by 8260			3021		40			<i>.</i>			Freser	vative
RO by AK 101					40 mL voa		~		3		HCI	
RO by AK 102 RO by AK 103					250 ml amb	er	1		1		HCI	
ead by 6010		0		÷ 4	250 ml amb	er	V		1		HCI	
AHs by 8270												
ethane by RSK175								•				
Ilfate by EPA 300	••••••	ă										
trate/Nitrite by EF	PA 300											
		<u> </u>		•								
'asing Volume	c											
ot 1	" = 0.04	1.5"	= 0.09	2.5" = 0.26	35	" - 0.50	CII 1 17					
1	.25" = 0.06	2"=	0.16	3" = 0.37	4" =	= 0.65	0 = 1.47					
sc Results:	NA -	arrous les-		104						_		
Information		errous iron		mg/L N	litrate	_	mg/L	Other	_			
Well Location	1;	ONSITE										
Condition of W	ell:	Gum					Wel	Locked at	Arrival:	Yes	1	No
Well Completio	on:	Flush	Mount	Stick Un			Well Loo	cked at Dep	arture:	Yes	1	No
litional Notes				side op							_	
and the second se											******	

Site ID / Locat Screen Setting (ft-btoc)	0826	06449 / - 25'	PM <u>Siobha</u> 2730 Spenard Casing Diameter (in.	an Pritchard Road, Ancho	Drage, Alaska 2"	Well ID (ADEC File Well Mate	<u>MW-4</u> 2 ID: 2100.26 erialx	. <u>.116)</u> PVC	Date _	11/9/1	7_ Page <u>L</u> of _
Static Water Le ^(ft-btoc) –	17.39	_ Total Dep	th (ft-btoc) 24	Wat SC Gal	er Column / lons in Well	7.17 /1.	147	SS	Sample Dup ID	Sampleo	d by <u>T. Weaver</u> <u>O. Yan</u> U-W-171107
Sampler Length	(in)	No-Pure 36 🗖 W-Flow Sa	mpling _amp	oler (Cotoc)	2	Pump type	DI	Sample Time	1446	_ Start	End
Was reflon Baler u	Top Lo Bottom	0	Position	Supend	led	Flow rate (mi	Other			Pump Intake Volumes P	e (ft-btoc) [7.95
Time	Minutes Elapsed	Rate (gpm)	samples Depth to	Yes	No D	Did well Dew	vater? Yes	O No.C	ŀ	Purge Time	Start (4/4 End /4/44
1419	5	(mL/min)	(ft)	Purged	(°C)	(mS/cm) 3%	Dissolved Oxygen (mg/L) 10%	рН 0.1	Redox (mV)	Turbidity (NTU)	Additional patro
1429	10	100	17.37	0.35	8.78	0.594	5.08	5.04	10 547 7	107.5	Claudy
1434 1431	10	107	17.38	Q. 35	8.46	0.578	5.41	5.75	210	71100	# +7
			17,38	0.70	8,64	0.5%	5.20	5.29	296.3	386.4	4 4
nstituents Sampl	ed										
X by 8260 Cs by 8260 D by AK 101 D by AK 102		80	21	- 4	0 mL voa				Number	Pr	eservative
by AK 103				2	0 mL voa 50 ml amber 50 ml amber			····	3 (3 (1)		
linity by 2320B hane by RSK175									1	HC	I
ite by EPA 300 hte/Nitrite by EPA pus Iron	300									······	
								·····			
Casing Volumes s/Foot 1" = 1.25	= 0.04 5" = 0.06	1.5" = 0.0 2" = 0.16	09 2) 3'	.5" = 0.26 " = 0.37	3.5" = 0 4" = 0.6).50 6" = 55	= 1.47				
rest Results:	Ferre	ous Iron	m	ng/L Nitr	ate	me	/1 0++			_	
Information	(PPS178					Well Lo			9	A-100
Information Well Location:		Clark	_	ick L In			Well Locke	d at Depar		Yes / Yes /	No No
Information Well Location: Indition of Well Vell Completion:		Flush Mc	ount St	скор							
nformation Well Location: andition of Well 'ell Completion: mal Notes		Flush Mc	ount St	ск ор							

eurofins	Longe								Fr	r Eurof	ingla				- 4	uc	30		IId	m or (Justo
	Laboratories		1	Acct. #				G	roup 7	#	ins Lai	icaste	er Labo	ample #	s use	only					
)	Client Informa	flan		-	_				Inst	uctions of	n reverse	e side co	orrespor	d with cir	cled nu	mbers.					
lity #	onent informa	WIRS		_		4) Ma	trix		5)		A	alvs	es F	eque	tod	-	-	-	
CHEVEON 306449		08.0	2									T	T				Teu			SCR #:	
Address		00.0																			
2730 SHINARY LU,	ANTHORACK, Ale									ŧ										Resulta i	Deviation
PART CARLAN	1	Lead Cor	sultant			- ti	g	8		daph					g						Porting needed
ultant/Office	GH	10 SELEVIE	es, inc	u.		<u> </u>	our	rfac		2					etho					Must mee	t lowest detection
45 G STREET . ST	TAN ANCHO	2 41 - 1				Sed	Ū	Su		ers 0 D			3260	dnue	Σ	por				limits pos	sible for 8260
Iltant Project Mgr.	in a cine	constra /	1.6							1310 826				Cle		Vietr				compoun	ds
HIVHAN PIZITCHMIZI)									ξ []	es		Gel		-					BE Confirmation
Itant Phone #					_		O	s.		12		enat	115	ica						Confirm N	ITBE + Naphthalen
(120) 9.16-0262					-	1	tab	出[4			vyge	80	is [F				Confirm a	hits by 8260
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A sumptioner		1 0-1			Soc	-	-			IN IN	ll sc		0	OF						Run	_ oxy's on all hits
ple Identification		Dete	lected	Tab	luo	i.	ate		Ţ	X ⁺	0 fu		5-Y	HOL	. -	-					
-1-W-171109		Date	Time	0	Ü	S	Š	Ċ	5 F	BTB	826		4T	TPH eac	Hd/						
-3 W- 171105		11/11/13	1132	X			GW			X			X	\times	Ť			-		O R	emarks
-11-W- 171107		11/11/12	150	X			GW			×			\times	\times				-		SERVER DELLE	and and a
1.1- W-171109		11/01/17	1446	X			GW			X			X	×	-			-			- 10:
1-W-171104		14/10/10		10			GW	-		×			X>	\langle				-		HOGHAN . PKII	FHARD @ GHS
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rnaround Time Reg	uested (TAT) (plea	se circle)		Peling	lichad													-		1	
Standard	5 dou			in confige		y/	r I	\bigcirc		Date		Tir	ne	t.	Rece	ived by		-	-	Date	Time
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72 hour	48 hour	24 hour		Relinqu	lished b	у	0			Date		Tin	ne	1	Rece	ived by				Date	Times
ta Package (circle if a	cuties d)																			Date	lime
	EDD EDD	(circle if red	auired)	Relinq	uished	d by C	Comme	rical C	arrier						Rece	ved by					
e I - Full Alaska	Type III CVX-F	RTBU-FI_05 (default)	UP	PS_		F	edEx	X		Othe	r								Date	Time
e VI (Raw Data)	Other				Tem	ner	aturo	Inor	D	-1-1			0	_							
	- 1101	-			1 On	perc	aurel	phou	Rec	eipt			20		CI	stody	Seale	Inte	2012	V	

Issued by Dept. 40 Management 7047.02

The preferred source for instrument Rentals, Sales, Service, and Supplies!

INSTRUMENT RENTAL FUNCTION/CHECKLIST

Company Name:	GHD	4
Rental Description:	I/F probe - 100	FT Th

Sales Order #:



Serial #:

Item Description		Checked Out?	Checked In?	Damaged / Missing?
Interface Probe	1	1		
Cushioned carrying case	1	11		
Spare Battery (9V)	1 or 2			
Optional		/		
Operators manual				
Tape guide				

Instrument Function Test / Inspection (Correct all deficiencies)		Pre-rental Check-out	Post-rental Check-in ("No's" may be customer charge)	
Soft sided case clean (inside and out) and in good condition with proper length, size, and meter type properly marked:	/		Vọc	No
TTT property tag and s/n# in place on front of meter:	11			
Meter front and rear spools are in good condition:	1.		Yes	No
Spool properly secured to frame and spool brake functional:	1,		Yes	No
Meter sits flat, frame not bent, and probe holder in place:	11		Yes	No
Probe not bent, probe bottom in good condition, and tape connection at top of probe in good condition when flexed:	11		Yes	Nu
Meter battery cover, buttons, and knobs in place, tight, and in good condition:			Yes	No
Red LED and buzzer works properly when "Start" button pressed (indicates good batteries). When applicable, Green LED stays flashing until "off is pressed":		Yes	Yes	No
Probe buzzes properly when placed in water:	/	Yes	Yes	No
Meter provides different tone when passed from Oil to watertransition is clear & precise going both directions:	1/2			
Spare batteries test good, white table over contacts and placed in resealable bag in front pocket of meter bag:	/			
				and the second se

Signature (Check-out):

Signature (Check-in):

Declared Value: \$1,350

- * By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).
- * Notify TTT within 24hrs of receipt if anything is damaged or missing.
- * Customer is responsible for all parts and equipment damaged or missing during rental.
- * All instruments have been inspected and calibrated (when applicable) prior to rental.

Phone: (907) 770-9041

Fax: (907) 770-9046

Email: info@tttenviro.com

www.tttenviro.com

CALIBRATION/INSPECTION REPORT

The preferred source for instrument Rentals, Sales, Service, and Supplies!

Calibration Date: 11/8/2017 Report Date (check-out): 11/8/2017

Company Name:

Γ

Rental Description: YSI 556

Serial #: 556-05.D2373AR

Sensor	17 11 1	CALIBRA	TION*		
0011001	Zero Value	Calil	bration*		
Spec. Conductivity/Cond		Desired reading	Instrument reading	mV	Clane (O-i
opee. Conductivity/Cond.	na	1.413 @25 C	1.413 @ 18.40 C	1 440/4005	Siope/Gain
рН	na	7.000 @25 C	7 02 @ 18 68 0	1.413/1235	0.992
pН	na	4.01 @25 C	1.02 @ 10.08 C	11.7	
pН	na	10,000 @25.0	4.00 @ 18.90 C	178.1	166
ORP	na	220mV @25.0	10.05 @ 19.12 C	-164.6	176
D.O.	na	220mV @25 C	240 @ 19.22 C	9.1	
		100% @25 C	100.6 % 18.82 C	BP=30.13	0.801
Calibrated per manufacture	er specifications		9.37 Mg/L		

GHD

				ATION		
Components	Conc.	Lot #	Manuf	1		
Specific Conductivity	100%	R\//1		Accuracy	Fill Date	Exp. Date
pН	7.00	12000	OAKTON	-	na	12/1/2017
pH	4.01@250	13028	YSI	+/- 0.01	na	2/1/2018
рН	10.0000050	13B3R	YSI	+/- 0.01	na	4/1/2019
	10.00@250	13B3T	YSI	+/- 0.01	na	10/4/0047
ORP	<u>220mV</u>	4118	Hanna		6	12/1/2017

NOTOLINA

Calibrated by: Steve Ziegler

Signature:

Item	Pre-rental Check-out	Post-rental Check-in
cracks, damage, etc:		No Damage Domograd
Meter (battery cover screws) & cable ?:		Damaged
Cable is plugged into handheld?:	Annu Chee	No Damage Damaged
Instrument powers on/off properly?	(Vac	Yes No
Battery power bar (lower right hand corner) shows at least 30%?	Yes	Yes No
Display/LCD contrast is correct and no black streaks in LCD screen exist?:	Yes	
All display readings are positive (excluding pHmV & ORP)?;	Yes	Yes No
Probe inspection?:		Tes No
Probe transport cup is attached &		No Damage Damaged
Calibrated within the last to deal	Yes	Yes No
Rental checklist completed?:	Yes 7 Yes	
Comments:		103
Signature (Check-out):	and Signature	

INSTRUMENT RENTAL FUNCTION/CHECKLIST

The preferred source for instrument Rentals, Sales, Service, and Supplies!

Company Name:

Rental Description: YSI 556

S/O #: 1860 Serial #:

Item Description	Checked Out?	Checked	Damaged / Missing?
ood Multi parameter meter with barometer	11		
Wrist strap			
4 meter probe assembly w/ pH/ORP, cond./temp, & DO			
Pelican carrying case			
556 Quick-start Guide & CD in ziploc bag			***********
YSI 5511 Maintenance kit (including the following):			
Probe installation/removal tool			
DO sensor set screw			
Allen wrench for DO sensor set screw			
DO sensor port plug			
Conductivity probe cleaning brush			
O-Rings for DO sensor			
2 - Replacement Flow cell O-ring			
DO membrane kit (w/2 replacement caps & instructions)			
DO membrane solution (at least 1/4 full)			
Probe Sensor Guard			
Transport/Calibration cup			
Stainless Steel sampling cup			
Optional:			
Flow cell (including the following):	11		
2 each hose barbs: 3/16", 1/4", 3/8", 1/2"			
Optional - 2 each YSI body couplings			
Both upper and lower o-rings in place on flow cell			

Instrument Function Test / Inspection (Correct all deficiencies)	
Pelican case general condition, rubber seal, TTT label, & foam in place and in good condition:	Tes
TTT property tag in place on top of instrument:	Hes
Instrument display face plate in good condition (only minor scratches and smears); And backlight functions properly:	Kes
Date and Time set correctly (Esc/system setup/date & time):	Hes
Shutoff time set to 60 min. (Esc/system setup/shut off time):	Aes
All data deleted (Esc/file/delete all files/delete):	Res
Battery power bar (lower right hand corner) shows at least 30%:	Yes
1 cm for	INC

Signature (Check-out):

Signature (Check-in):

Declared Value: \$3,700 <

* By renting with TTT customer agrees to the rental terms and conditions (copy available upon request).

* Customer is responsible for all parts and equipment damaged or missing during rental.

* All instruments have been inspected and calibrated (when applicable) prior to rental.

TTT suggests calibrating/bump testing instruments prior to each days use.

Request for Environmental Analysis and Chain of Custody

To: Enviror Chevror 100 Che Contact: Er	nmental Analysis Lab, Room 51-1151, n Energy Technology Co., evron Way, Richmond, CA 94802 nvironmental Lab: Karsia Yip 510-242-591	Date 1//9/17		
Chevron PM	DANIEL CARRIER		Phone (714)671-3371	
Company, D	Department	le	Charge Code	
Address				
Contract PN	STOBHAN RETENATO	E-mail Sill Haw. PRITCHAMS (2) GI	17. 004	Phone (720) 974-0963
Company, A	Address Solvices, INC	<u> </u>		C Prive (0)
Sampling Lo	2730 SPENARD RUND,	ANCHWAGE, AK	Facility	Number 30644 9
Service S Other field	Station () Fuel Terminal () Marine Termina	() Pipeline () Refinery	-	
Other U/) Exxon	
Type of Ana Identify P () Compare	lysis Desired roduct () Compare Spill with Potential Sou Samples with Previous Analyses. Log Numb	urces (Send Source Samples bers and/or Dates:	5)	
Reason for I	Request (Clearly State Problem, Site History	, Draw or Enclose a Map, Ind	dicate W	hether Leak or Spill)
DETERMIN	VE CONTAMENATION PRESENT FROM	FORMER LOG CREBS	. Pro	OUT / SHEEN NOTED DURKENL
WELL DEV	ELOAMENT IN MW-2. SEE ATTACH.	ED STIE MAP		
Normal turn-	-around time is 4-6 weeks. Call 510-242-165	4 to negotiate alternate arran	ngement	S.
Containers Per Sample	Sample Name/Description	Date Sampled		Sampled By
2	MW-1-W-17/109	11/9/17-		T.WEAVER, O.YAN
2	MW-2-W-171109		TWEAVER, O.YAN	
2	MW- 3-W-171109		TI ENEL OUL	
1	(UNTROL (ULEAN UNUSED NET)		T, WEAVER, O. YAN	
Transporter		Date Rece	eived	Initials
Laboratory Chevron En	ergy Technology Company	Date Rece	eived	Initials
It is the ship with. When 10/06/10	pper's responsibility to ensure Federal DC i in doubt, assume the sample is flammab	DT regulations and UN period	ormance	e standards are complied

Guidelines for shipping samples to ETC for Environmental Analysis

Sample containers and desired volumes:

- Hydrocarbons: 120 ml per gasoline sample, preferably in three 40 ml clear glass vials with solid teflon-coated caps (septum caps leak). 40 ml per distillate or oil sample. If 40 ml vials are unavailable, a pint or 4 oz. glass jar with teflon lined cap is acceptable. Leave approximately 1/8" headspace in the vials to allow for fuel expansion. If necessary, include produced water to minimize headspace.
- Water samples: Two 1000 mL clear glass bottles with teflon-lined caps. Make sure there is no headspace in the bottle. Do not send VOA vials of water - the volume is insufficient for fingerprint analysis. Water samples must be preserved with HCl at pH <2 and kept at 4°C.
- Soil samples: Two 8 ounce wide mouth clear glass jars with teflon-lined caps, or a capped brass sleeve from a split spoon sampler. Minimize headspace. Keep the samples at 4°C.

Shipping Instructions: All samples must be accompanied by a Request for Environmental Analysis and Chain of Custody form, obtained by calling 510-242-1654 (Kitty Kong). Please obtain the appropriate charge code for the site and note it on the form. Seal the form in a plastic bag and enclose it in the container with the samples.

Please ship all soil and water samples in an ice chest at 4^oC. Seal each sample in a plastic bag to keep the labels from getting wet. A mixture of foam blocks and plastic bags containing ice works well to chill the samples and protect them from breakage. Hydrocarbon samples need not be iced. They should be wrapped in plastic, enclosed in a metal can filled with vermiculite or other protective packing, and packed in a box that meets D.O.T. and U.N. requirements.

It is advisable to send the samples by overnight air. **No weekend deliveries**, please. It is the shipper's responsibility to ensure federal D.O.T. regulations and UN performance standards are complied with.

Local samplers must also comply with all Hazmat regulations. Call 510-242-1654 to obtain a COC form that **must** accompany the samples. **Samples that arrive without a shipping form will not be accepted**. Properly packed and chilled samples should be delivered to Chevron's Richmond Technology Center shipping and receiving dock. The address is 100 Chevron Way in Richmond, CA, but the property entrance is located on the Richmond Parkway at the Castro Street offramp from Interstate 580. Drive up to the guard kiosk and ask for directions to shipping and receiving.

Fuel Product Hazard Warnings (See Chevron MSDS for Additional Information)				
Gasoline (All Grades) Jet Fuel B Jet Fuel Gasoline Grade Aviation B Gasoline (All Grades)	Danger	Extremely flammable. Harmful or fatal if swallowed. Prolonged or repeated contact may cause skin/eye and respiratory irritation or other injury.		
Diesel (All Grades) Heating Fuel/Oil (All Grades) Jet Fuel (Grades A, A-1, A-50, JP-4, JP-5) Aviation Turbine Fuel, JP-5	Danger	Combustible. Harmful or fatal if swallowed. Prolonged or repeated contact may cause skin/respiratory irritation or other injury.		
Water samples with ppm or less hydrocarbon Soil samples with ppm or less hydrocarbon		Not hazardous.		
For Health and Safety Information Call or Write Chevron Emergency Information Center: P.O. Box 4054, Richmond, Ca 94804-0054, 800-457-2022 In case of leak, spill or fire, call CHEMTREC Toll Free 800-262-8200 (CCN 633019)				

10/06/10


Appendix F ADNR Water Well Logs



WATER WELL LOG Revised 08/18/2016

Drilling Start	ed: 08 / 29 /	2017	Comple	eted: 08 /3	0 / 2017 Pump Install: / /
City/Borough	Subdivisio	on	Block	Lot	Property Owner Name & Address
Anchorage	SE4SE4SE4SV	N4SE4	PTN	150 x 135	Chevron EMC - 145 South State College Blvd, Brea, CA 92821
Well location: Latitude _51* Meridian Towns	ship <u>13N</u> Rang	e_4W	Section		le 1495423.397W 1/4 of1/4 of1/4
BOREHOLE DATA: (from Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod	ground surface) geologic classific luct?id=a18500000	ation sy DOBYub3 De From	stem* AAD pth To	Drilling me Well use: Commer	thod: Air rotary, Cable tool, Other Hollow-Stem Augers Public supply, Domestic, Reinjection, Hydrofracking cial, Observation/Monitoring, Test/Exploratory, Cooling, /Agriculture, Grounding, Recharge/Aquifer Storage,
FILL (GP) - Gravelly Sand		0	8	Heating,	Geothermal Exploration, Other
SP - Silty Sand (f-m)		8	11	Fluids use	d:
SW-SM - Silty Sand (f-c)		11	13	Depth of h	ole: 25 ft Casing stickup:ft
SM - Silty Sand (f-m)		13	20.5	Casing typ	e: scheoryc Casing thickness: inches
SP-SM - Sand (f-m) 13 20.3 SP-SM - Sand (f-c) with gravel 20.5 24		24	Liner type:	Depth: ft Diameter: inches	
ML - Silt	3.2.0	24	25	Note:	
		24	23	Well intake Screen typ Screen sta Perforation to: 25 Gravel page Note:	e opening type: Open end, Open hole, Other e: SCH40 PVC, Screen mesh size: 0.020 int: 10 ft, Screen stop; 25 ft, Perforated Yes No n description: machine slotted Perf from: 10 ft, Perf ft, Perf from: ft, Perf to: ft cked Yes No Gravel start: 0.5 ft, Gravel stop; 20 ft
				Static wate Pumping le Method of Developm Recovery	er (from top of casing):ft_on _//Artesian well evel & yield:feet afterhours atgpm testing: ent method:Duration: rate:gpm
MW-1 - 2730 Spenard Road,	Anchorage, AK			Grout type	: Hydratad Bentonite Chips Volume
Include description or sketch o buildings, etc.):	ts Blvd) of well location (inc	lude road	d names,	Depth: Fro Final pump Pump size	m 2.0 ft, To 8.0 ft p intake depth: ft Model: t:hp Brand name:
Conditional Condit	Hw-I	SPENARD ROAD		Was well of Method of Was water Water qua Well driller Company	disinfected upon completion? Yes No disinfection: r quality tested? Yes No lity parameters tested: name: DISCOVERY DRILLING, INC. drags: 11341 QUVE LANE
W. NORTHERN LIGHTS AS 41.08.020(b)(4) and AAC copy of the well log be submit	GLVD 11 AAC 93.140(a) tted to the Departm	require nent of N	that a latural	City: <u>ANCHE</u> Phone nur Driller's sig	DRAGEState: <u>AK</u> Zip: <u>99515</u> nber: (907) 3446431 gnature: Kurkau
Resources within 45 days of well completion. Well logs may be submitted using the online well log reporting system available at: https://dnr.alaska.gov/welts/			s may	Date: // Anchorage that a copy within 30 da	Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require of this well log be submitted to the Development Services Department/City ays of well completion.
OR email electronic well logs	to			City Permit Date of Issu	Number:/
dnr.water.reports@alas	ka.gov			Parcel Iden	tification Number:

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press



WATER WELL LOG Revised 08/18/2018

Drilling Start	ed: 08 / 29 /	2017	Comple	eted: 08 / 30	0 / 2017 Pump Install: / /
City/Borough	Subdivisi	on	Block	Lot	Property Owner Name & Address
Anchorage	SE4SE4SE4S	N4SE4	PTN	150 x 135	Chevron EMC - 145 South State College Blvd, Brea, CA 92821
Well location: Latitude 61*	1144_177N			Longitud	e 149°54 22.82°W
Meridian Towns	ship 13N Rang	4W	_ Section	1_241	1/4 of1/4 of1/4
BOREHOLE DATA: (from Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod	ground surface) eologic classific uct?id=a1850000	ation sy 00BYub3 De From	stem* AAD pth <u>To</u>	Drilling met Well use:	hod: Air rotary, Cable tool Other Hollow-Stem Augens Public supply, Domestic, Reinjection, Hydrofracking cial, Observation/Monitoring, Test/Exploratory, Cooling, Agriculture, Grounding, Recharge/Aquifer Storage,
FILL (GP) - Gravelly Sand		0	7	Heating,	Geothermal Exploration, Other
SP-SM - Sand (f-m)		7	14	Fluids used	
SM - Silty Sand (f-m)		14	16	Depth of ho	ble: 25ft Casing stickup:ft
SP-SM - Sand (f-c)		16	18	Casing type	meter: 20 inches Casing unchess fit
SM - Silty Sand (f)		18	20	Liner type:	Depth: ft Diameter: inches
SP-SM - Sand (f-c) with o	oravel	20	24	Note:	
ML - Silt		24	25	Well intake Screen type	opening type: Open end, Open hole, Other
				Screen star Perforation to: 25 Gravel pac	rt: 10 ft, Screen stop: 25 ft, Perforated Yes No description: machine-slotted Perf from: 10 ft, Perf ft, Perf from: ft, Perf to: ft ked Yes No Gravel start: 0.5 ft , Gravel stop: 2.0 ft
				Static wate Pumping le Method of t Developme Recovery r	r (from top of casing): ft_on _/ _/ Artesian well evel & yield: feet after hours at gpm testing: ent method: Duration: ate: gpm
MW-2 - 2730 Spenard Road,	Anchorage, AK		-	Grout type:	Hydrated Bentonile Chips Volume
Include description or sketch o buildings, etc.):	f well location (inc	dude roa	d names,	Depth: From Final pump Pump size:	m 2.0 ft, To 8.0 ft intake depth:ft Model: hp Brand name:
(OMMARCIAL J	•Hw-2	SPONARD RD.		Was well d Method of Was water Water qual Well driller Company r	isinfected upon completion? Yes No disinfection: quality tested? Yes No ity parameters tested: name: DISCOVERY DRILLING, INC.
W. NORTHORN LIGHT	TS BLUD.		Noth	Mailing add	RAGEState: <u>AK</u> Zip: <u>99515</u>
AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural Resources within 45 days of well completion. Well logs may be submitted using the online well log reporting system available at: <u>https://dnr.alaska.gov/welts/</u> OR email electronic well logs to			that a latural s may	Phone num Driller's sig Date: _/ @ Anchorage I that a copy of within 30 da City Permit I Date of Issu	hber: (907) 344 - 6431 mature: K.B 6431 1 25 / 2017 Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require of this well log be submitted to the Development Services Department/City ys of well completion. Number:
dnr.water.reports@alas	ka.gov			Parcel Ident	ification Number:

*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press



WATER WELL LOG Revised 08/18/2016

Drilling Start	ed: 08 / 29 / 2017	Comple	eted: 08 /3	11 / 2017 Pump Install: / /				
City/Borough Subdivision Block		Lot	Property Owner Name & Address					
Anchorage	SE4SE4SE4SW4SE4	PTN	150 x 135 Chevron EMC - 145 South State College Blvd, Brea, CA 9282					
Well location: Latitude _61*	11'43 B3'N		Longitud	e 149°5472.99°W				
Meridian Towns	ship 13N Range 4W	Section	n <u>24</u>	1/4 of1/4 of1/4				
BOREHOLE DATA: (from g Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod	ground surface) leologic classification s uct?id≕a185000000BYub D <u>From</u>	ystem* <u>3AAD</u> epth <u>To</u>	Drilling me Well use:	thod: Air rotary, Cable tool, Other Hollow-Stem Augers Public supply, Domestic, Reinjection, Hydrofracking cial, Observation/Monitoring, Test/Exploratory, Cooling, /Agriculture, Grounding, Recharge/Aquifer Storage,				
FILL (GP) - Gravelly Sand	0	8	Heating,	Geothermal Exploration, Other				
SP-SM - Sand (f-m)	8	25	Fluids use	d:				
			Depth of h Casing typ Casing dia Liner type: Note: Well intake Screen typ Screen sta Perforation	cole: 25 ft Casing stickup: ft e: SCH40 PVC Casing thickness: inches meter: 20 inches Casing depth: ft				
			to: 25 Gravel pac Note: Static wate	_ft, Perf from: ft, Perf to: ft cked Ves No Gravel start: 0.5 ft , Gravel stop: 20 ft er (from top of casing): ft on/ / Artesian well				
			Pumping le Method of Developm Recovery	evel & yield: feet after hours at gpm testing: ent method: Duration: rate: gpm				
MW-3 - 2730 Spenard Road,	Anchorage, AK		Grout type	Hydrated Bentonite Chips Volume				
(-or- 1201 W. Northern Light	s Blvd)	1	Depth: Fro	om <u>2.0</u> ft, To <u>8.0</u> ft				
Include description or sketch o buildings, etc.):	f well location (include road	ad names,	Final pum Pump size	p intake depth:ft Model: ::hp Brand name:				
Compterial Busingersets	SFENARD RO.		Was well of Method of Was water Water qua Well driller Company Mailing ad	disinfected upon completion? Yes No disinfection: r quality tested? Yes No lity parameters tested: name: DISCOVERY DRILLING, INC. dress: 11341 OLIVE LANE				
W. NORTHERN LIGHT	\$	Nath	City: ANCHO	DRAGEState: <u>AK</u> Zip: <u>99515</u>				
AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural Resources within 45 days of well completion. Well logs may be submitted using the online well log reporting system available at: <u>https://dnr.alaska.gov/welts/</u> OR email electronic well logs to			Driller's signates in the number of the numb	gnature:				
		Mar -	Parcel loen					

"Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press



WATER WELL LOG Revised 08/18/2016

Drilling Start	ed: 08 / 29 /	2017	Comple	eted: 08 /3	0 / 2017 Pump Install://
City/Borough	Subdivisi	n	Block	Lot	Property Owner Name & Address
Anchorage	SE4SE4SE4S	W4SE4	PTN	150 x 135	Chevron EMC - 145 South State College Blvd, Brea, CA 92821
Well location: Latitude 61	'11'44.07"N			Longitud	e 149*54/23.41*W
Meridian Towns	ship 13N Rang	e_4W	Section	1_24)	1/4 of1/4 of1/4
BOREHOLE DATA: (from Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod	ground surface) jeologic classific uct?id=a1850000	ation sy 00BYub3 De From	stem* AAD pth <u>To</u>	Drilling me Well use: Commer	thod: Air rotary, Cable tool Other Hollow-Stem Augers Public supply, Domestic, Reinjection, Hydrofracking cial, Observation/Monitoring, Test/Exploratory, Cooling, /Agriculture, Grounding, Recharge/Aquifer Storage,
FILL (GP) - Gravelly Sand		0	8	Heating,	Geothermal Exploration, Other
SM - Silty Sand (f-c)		8	23	Fluids use	de: 290 ft Casing stickup: ft
CL - Clay		23	24.5	Casing typ	e: sch40 PVC Casing thickness: inches
SM - Silty Sand (f-m)		24.5	25.5	Casing dia	meter: 2.0 inches Casing depth: ft
ML - Silt		25.5	29	Liner type: Note:	Depth: ft Diameter:inches
MW-4 - 2730 Spenard Road, (-or- 1201 W. Northern Light Include description or sketch o buildings, etc.):	Anchorage, AK ts Blvd) of well location (inc PLATO') CLOSET	PLATE & CLOSET BOT	d names,	Veil Intake Screen typ Screen sta Perforation to: 29 Gravel pac Note: Static wate Pumping II Method of Developm Recovery Grout type Depth: Fro Final pum Pump size Was well of Was wate Water qua Well driller Company Mailing ad	sopening type:Open end,Open noie,Other
AS 41.08.020(b)(4) and AAC copy of the well log be submit Resources within 45 days of be submitted using the online available at:	11 AAC 93.140(a) tted to the Departr well completion. well log reporting) require nent of N Well log system	that a latural s may	City: ANCHO Phone nui Driller's sig Date: / (Anchorage	DRAGE State: AK Zip: 99515 mber: (907) 344 - 6431 gnature: A - 6431 / 25 / 2017 Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require of this well log be submitted to the Development Services Department/City
https://dnr.alaska.gov/w	elts/			within 30 da	ays of well completion.
OR email electronic well logs	to			Date of Iss	Je:/
dnr.water.reports@alas	ka.gov			Parcel Iden	tification Number:

"Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press



Appendix G Sample Analyte List

Appendix H

Sample Analyte List

Volatile Organic Compounds

Acetone t-Amyl methyl ether Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone t-Butyl alcohol n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon Disulfide Carbon Tetrachloride Chlorobenzene Chloroethane 2-Chloroethyl Vinyl Ether Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene 1,2-Dibromo-3-chloropropane Dibromochloromethane

1.2-Dibromoethane Dibromomethane 1.2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene cis-1,2-Dichloroethene trans-1,2-Dichloroethene 1,2-Dichloropropane 1,3-Dichloropropane 2,2-Dichloropropane 1,1-Dichloropropene cis-1,3-Dichloropropene trans-1,3-Dichloropropene Ethanol Ethyl t-butyl ether Ethylbenzene Freon Hexachlorobutadiene 2-Hexanone di-Isopropyl ether

Isopropylbenzene p-Isopropyltoluene Methyl Tertiary Butyl Ether 4-Methyl-2-pentanone Methylene Chloride Naphthalene n-Propylbenzene Styrene 1,1,1,2-Tetrachloroethane 1,1,2,2-Tetrachloroethane Tetrachloroethene Toluene 1,2,3-Trichlorobenzene 1.2.4-Trichlorobenzene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Trichloroethene Trichlorofluoromethane 1,2,3-Trichloropropane 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene Vinyl Chloride m+p-Xylene o-Xylene

Polynuclear Aromatic Hydrocarbons (Semi-Volatile Organic Compounds)

Acenapthylene Acenaphthene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenz(a,h)anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene

Pesticides/Polychlorinated Biphenyls (PCB)

PCB-1016	PCB-1242
PCB-1221	PCB-1248
PCB-1232	PCB-1254
PCB-1260	

Metals

Arsenic	Lead
Barium	Selenium
Cadmium	Silver
Chromium	Mercury



Appendix H Laboratory Analytical Reports



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Prepared for:

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Report Date: September 22, 2017

Project: 306449

Account #: 10880 Group Number: 1845654 PO Number: 0015250235 Release Number: CARRIER State of Sample Origin: AK

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <u>http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</u>. To request copies of prior scopes of accreditation, contact your project manager.

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Attn: GHD EDF Attn: Siobhan Pritchard Attn: Sarah Gillette Attn: Jeffrey Cloud Attn: GHD EDD

Respectfully Submitted,

mr Moellen

Megan A. Moeller Senior Specialist

(717) 556-7261

💸 eurofins

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SAMPLE INFORMATION

Client Sample Description	Collection Information	ELLE#
MW-1-S-17.5-170830 HIGH LEVEL Grab Soil	08/30/2017 13:00	9189682
MW-1-S-17.5-170830 LOW LEVEL Grab Soil	08/30/2017 13:00	9189683
MW-1-S-20-170830 HIGH LEVEL Grab Soil	08/30/2017 13:15	9189684
MW-2-S-19-170830 HIGH LEVEL Grab Soil	08/30/2017 15:10	9189686
MW-2-S-24.5-170830 HIGH LEVEL Grab Soil	08/30/2017 15:22	9189688
MW-3-S-15-170831 HIGH LEVEL Grab Soil	08/31/2017 08:33	9189690
MW-3-S-15-170831 LOW LEVEL Grab Soil	08/31/2017 08:33	9189691
MW-3-S-17.5-170831 HIGH LEVEL Grab Soil	08/31/2017 08:48	9189692
MW-3-S-17.5-170831 LOW LEVEL Grab Soil	08/31/2017 08:48	9189693
MW-4-S-18.5-170830 HIGH LEVEL Grab Soil	08/30/2017 09:28	9189694
MW-4-S-18.5-170830 LOW LEVEL Grab Soil	08/30/2017 09:28	9189695
MW-4-S-23.5-170830 HIGH LEVEL Grab Soil	08/30/2017 09:50	9189696
MW-4-S-23.5-170830 LOW LEVEL Grab Soil	08/30/2017 09:50	9189697
MW-1-S-2-170829 HIGH LEVEL Grab Soil	08/29/2017 11:00	9189698
MW-1-S-2-170829 LOW LEVEL Grab Soil	08/29/2017 11:00	9189699
MW-4-S-2-170829 HIGH LEVEL Grab Soil	08/29/2017 08:17	9189700
MW-4-S-2-170829 LOW LEVEL Grab Soil	08/29/2017 08:17	9189701
RB-1-O-170829 Grab Water	08/29/2017 07:54	9189702
RB-2-O-170829 Grab Water	08/29/2017 09:00	9189703
DUP-1-WD-170830 HIGH LEVEL Grab Soil	08/30/2017	9189704
DUP-1-WD-170830 LOW LEVEL Grab Soil	08/30/2017	9189705
DUP-2-WD-170831 HIGH LEVEL Grab Soil	08/31/2017	9189706
DUP-2-WD-170831 LOW LEVEL Grab Soil	08/31/2017	9189707
QA-1-T-170831 Methanol	08/31/2017	9189708

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

🔅 eurofins

Lancaster Laboratories Environmental

Project Name: 306449 LL Group #: 1845654

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

For dual column analyses, the surrogate (for multi-surrogate tests, at least one surrogate) must be within the acceptance limits on at least one of the two columns.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments: <u>SW-846 8270D SIM, GC/MS Semivolatiles</u>

<u>Sample #s: 9189686</u>

Reporting limits were raised due to interference from the sample matrix.

Sample #s: 9189696

Reporting limits were raised due to limited sample volume.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

Sample #s: 9189684, 9189688, 9189690, 9189692, 9189694, 9189704, 9189706

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

<u>Sample #s: 9189682</u>

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

Reporting limits were raised due to limited sample volume.

<u>Sample #s: 9189700</u>

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Sample #s: 9189698

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:

The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Batch #: 17248wAU026 (Sample number(s): 9189703)

The recovery(ies) for the following analyte(s) in the LCS and/or LCSD exceeded the acceptance window indicating a positive bias: Benzo(b)fluoranthene

The relative percent difference(s) for the following analyte(s) in the LCS/LCSD were outside acceptance windows: Benzo(b)fluoranthene. When the individual % recovery is within the acceptance limits, the data is reported.

<u>Batch #: 17249SLB026 (Sample number(s): 9189698, 9189700 UNSPK: 9189682)</u>

The recovery(ies) for the following analyte(s) in the LCS were below the acceptance window: Acenaphthylene, Fluoranthene, Benzo(a)anthracene

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: Fluoranthene, Benzo(g,h,i)perylene

<u>Batch #: 17256sLC026 (sample number(s): 9189682, 9189684, 9189686, 9189688, 9189690, 9189692, 9189694, 9189696, 9189704, 9189706 UNSPK: 9189684)</u>

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded

9/22/2017 3:49:15PM

the acceptance window indicating a positive bias: Benzo(b)fluoranthene, Benzo(k)fluoranthene

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: Acenaphthylene, Benzo(a)anthracene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

<u>AK 101, GC Volatiles</u>

Sample #s: 9189684, 9189686, 9189706

Reporting limits were raised due to sample foaming.

<u>Batch #: 17250A34A (Sample number(s): 9189682, 9189684, 9189686, 9189688, 9189692, 9189694, 9189696, 9189698, 9189700, 9189704, 9189706, 9189708)</u>

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9189684, 9189686, 9189706

Batch #: 17250A34B (Sample number(s): 9189690)

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9189690

<u>SW-846 8082A, Pesticides/PCBs</u>

<u>Sample #s: 9189702</u>

The holding time was not met. The analysis was added after the holding time had expired.

Batch #: 172480035A (Sample number(s): 9189682, 9189684, 9189686, 9189688, 9189690, 9189692, 9189694, 9189696, 9189698, 9189700, 9189704, 9189706 UNSPK: 9189696)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: PCB-1260

AK 102-SV 4/8/02, GC Petroleum Hydrocarbons

Sample #s: 9189702, 9189703

The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

Batch #: 172550001A (Sample number(s): 9189702-9189703)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9189702, 9189703, LCS

AK 102/AK 103 04/08/02, GC Petroleum Hydrocarbons

sample #s: 9189682, 9189684, 9189686, 9189688, 9189690, 9189692, 9189694, 9189696, 9189698, 9189700, 9189704, 9189706

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-extracted and the QC is again outside of the acceptance limit. The data is reported from the second trial per client request.

Batch #: 172540034A (Sample number(s): 9189682, 9189684, 9189686, 9189688, 9189690, 9189692, 9189694, 9189696, 9189698, 9189700, 9189704, 9189706 UNSPK: 9189682)

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: C25-C36 RRO

The recovery(ies) for one or more surrogates exceeded the acceptance window indicating a positive bias for sample(s) 9189686

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9189686, Blank

<u>SW-846 6010C, Metals</u>

Batch #: 172541063503 (Sample number(s): 9189702-9189703 UNSPK: P193064 BKG: P193064)

The duplicate RPD for the following analyte(s) exceeded the acceptance window: Lead $% \left({\left[{{{\rm{TPD}}} \right]_{{\rm{TPD}}}} \right)$



Analysis Report

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Sample Description: MW-1-S-17.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189682 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:00	by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA01

Сат			Dry	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.38	1.1	51.32
10237	Benzene	71-43-2	N.D.	0.027	0.27	51.32
10237	Bromodichloromethane	75-27-4	N.D.	0.055	0.27	51.32
10237	Bromoform	75-25-2	N.D.	0.055	0.27	51.32
10237	Bromomethane	74-83-9	N.D.	0.11	0.27	51.32
10237	2-Butanone	78-93-3	N.D.	0.22	0.55	51.32
10237	Carbon Disulfide	75-15-0	N.D.	0.055	0.27	51.32
10237	Carbon Tetrachloride	56-23-5	N.D.	0.055	0.27	51.32
10237	Chlorobenzene	108-90-7	N.D.	0.055	0.27	51.32
10237	Chloroethane	75-00-3	N.D.	0.11	0.27	51.32
10237	Chloroform	67-66-3	N.D.	0.055	0.27	51.32
10237	Chloromethane	74-87-3	N.D.	0.11	0.27	51.32
10237	Cyclohexane	110-82-7	N.D.	0.055	0.27	51.32
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.11	0.27	51.32
10237	Dibromochloromethane	124-48-1	N.D.	0.055	0.27	51.32
10237	1,2-Dibromoethane	106-93-4	N.D.	0.055	0.27	51.32
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.055	0.27	51.32
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.055	0.27	51.32
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.055	0.27	51.32
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.11	0.27	51.32
10237	1,1-Dichloroethane	75-34-3	N.D.	0.055	0.27	51.32
10237	1,2-Dichloroethane	107-06-2	N.D.	0.055	0.27	51.32
10237	1,1-Dichloroethene	75-35-4	N.D.	0.055	0.27	51.32
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.055	0.27	51.32
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.055	0.27	51.32
10237	1,2-Dichloropropane	78-87-5	N.D.	0.055	0.27	51.32
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.055	0.27	51.32
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.055	0.27	51.32
10237	Ethylbenzene	100-41-4	N.D.	0.055	0.27	51.32
10237	Freon 113	76-13-1	N.D.	0.11	0.55	51.32
10237	2-Hexanone	591-78-6	N.D.	0.16	0.55	51.32
10237	Isopropylbenzene	98-82-8	N.D.	0.055	0.27	51.32
10237	Methyl Acetate	79-20-9	N.D.	0.11	0.27	51.32
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.027	0.27	51.32
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.16	0.55	51.32
10237	Methylcyclohexane	108-87-2	N.D.	0.055	0.27	51.32
10237	Methylene Chloride	75-09-2	N.D.	0.11	0.27	51.32
10237	Styrene	100-42-5	N.D.	0.055	0.27	51.32
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.055	0.27	51.32
10237	Tetrachloroethene	127-18-4	N.D.	0.055	0.27	51.32
10237	Toluene	108-88-3	N.D.	0.055	0.27	51.32
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.055	0.27	51.32
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.055	0.27	51.32
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.055	0.27	51.32
10237	Trichloroethene	79-01-6	N.D.	0.055	0.27	51.32
10237	Trichlorofluoromethane	75-69-4	N.D.	0.11	0.27	51.32
10237	Vinyl Chloride	75-01-4	N.D.	0.055	0.27	51.32
10237	Xylene (Total)	1330-20-7	N.D.	0.055	0.27	51.32



Analysis Report

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Sample Description: MW-1-S-17.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189682 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.0013	0.0034	1
12969	Acenaphthylene	208-96-8	N.D.	0.00067	0.0034	1
12969	Anthracene	120-12-7	N.D.	0.00067	0.0034	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.0013	0.0034	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.0013	0.0034	1
12969	Benzo(b)fluoranthene	205-99-2	0.0014 J	0.0013	0.0034	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0062	0.0013	0.0034	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.0013	0.0034	1
12969	Chrysene	218-01-9	0.00090 Ј	0.00067	0.0034	1
12969	Dibenz(a,h)anthracene	53-70-3	0.0047	0.0013	0.0034	1
12969	Fluoranthene	206-44-0	N.D.	0.0013	0.0034	1
12969	Fluorene	86-73-7	N.D.	0.0013	0.0034	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0048	0.0013	0.0034	1
12969	Naphthalene	91-20-3	0.0030 J	0.0013	0.0034	1
12969	Phenanthrene	85-01-8	N.D.	0.0013	0.0034	1
12969	Pyrene	129-00-0	0.00094 J	0.00067	0.0034	1
Targe	et analytes were detected in t	-he method blank a	ssociated			

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

Reporting limits were raised due to limited sample volume.

GC Vo	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil	C6-C10	n.a.	0.8 J	0.6	5.6	26.34
Pesti	cides/PCBs	SW-846 8082	2A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. Dl	0.0035	0.018	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0055	0.018	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0044	0.018	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0044	0.018	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0035	0.018	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0047	0.018	1
10592	PCB-1260		11096-82-5	N.D. D1	0.0042	0.018	1
GC Pe	troleum	AK 102/AK 1	L03	mg/kg	mg/kg	mg/kg	
Hydro	carbons	04/08/02					
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>N.D.</td><td>11</td><td>26</td><td>2</td></c25>		n.a.	N.D.	11	26	2
01738	C25-C36 RRO		n.a.	49	11	26	2
The Spik	recovery for a ta e(s) is outside t	rget analyte(s) ir he QC acceptance l	n the Laborat limits as not	ory Control ed on the QC			



Analysis Report

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Sample Description: MW-1-S-17.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189682 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA01

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Summ The acce clie	ary. The followir sample was re-extr ptance limit. The nt request.	ng corrective a cacted and the e data is repor	ction was taken QC is again out ted from the se	: side of the cond trial per			
Metal	5	SW-846 6	010C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	2.21 J	0.917	3.82	1
06946	Barium		7440-39-3	64.7	0.0420	0.955	1
06949	Cadmium		7440-43-9	N.D.	0.0516	0.955	1
06951	Chromium		7440-47-3	36.2	0.162	2.86	1
06955	Lead		7439-92-1	9.85	0.573	2.86	1
06936	Selenium		7782-49-2	N.D.	0.888	3.82	1
06966	Silver		7440-22-4	N.D.	0.229	0.955	1
		SW-846 7	471B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0539 J	0.0104	0.104	1
Wet C	hemistry	SM 2540 (G-1997	%	8	8	
00111	Moisture		n.a.	6.5	0.50	0.50	1
	Moisture represen 103 - 105 degreen	nts the loss in s Celsius. The	n weight of the moisture result	sample after oven reported is on a	drying at n		

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	ne		Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	19:10	Jeremy C Giffin	51.32
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	13:00	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	09:27	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	15:50	Marie D Beamenderfer	26.34
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	13:00	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	00:15	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-17.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189682 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 13:00 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA01

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

Laboratory Sample Analysis Record Method Trial# Batch# CAT Analysis Name Analysis Analyst Dilution Date and Time Factor No. 01738 TPH-DRO/RRO (AK) 1 172540034A 09/13/2017 08:44 Nicholas R Rossi AK 102/AK 103 2 04/08/02 14417 MW Ext. for AK DRO/RRO SW-846 3546 2 172540034A 09/12/2017 09:00 1 Bradley W Soils VanLeuven 06935 Arsenic SW-846 6010C 1 172491063701 09/07/2017 15:11 Cindy M Gehman 1 09/07/2017 15:11 SW-846 6010C 06946 Barium 1 172491063701 Cindy M Gehman 1 06949 Cadmium SW-846 6010C 1 172491063701 09/07/2017 15:11 Cindy M Gehman 1 Cindy M Gehman 06951 SW-846 6010C 172491063701 Chromium 1 09/07/2017 15:11 1 06955 Lead SW-846 6010C 1 172491063701 09/07/2017 15:11 Cindy M Gehman 1 Cindy M Gehman 06936 Selenium SW-846 6010C 172491063701 09/07/2017 15:11 09/07/2017 15:11 1 1 06966 Silver SW-846 6010C 1 172491063701 Cindy M Gehman 1 00159 Mercury SW-846 7471B 1 172491063801 09/07/2017 11:17 Parker D Lindstrom 1 10637 ICP/ICPMS-SW, 3050B - U4 SW-846 3050B 1 172491063701 1 09/07/2017 06:40 Lisa J Cooke 10638 Hg - SW, 7471B - U4 SW-846 7471B 1 172491063801 09/07/2017 07:50 Lisa J Cooke 1 00111 Moisture SM 2540 G-1997 17250820012B 09/07/2017 21:07 Scott W Freisher 1 1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-17.5-170830 LOW LEVEL Grab SoilELLEFacility# 306449ELLE2730 Spendard Road - Anchorage, AKAccord

ELLE Sample # SW 9189683 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 13:00 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA02

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene		71-43-2	N.D.	0.0006	0.006	1.07
Wet Ch	nemistry	SM 2540	G-1997	%	%	%	
00118	Moisture		n.a.	6.5	0.50	0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	1	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017 1	0:29	Jennifer K Howe	1.07
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/30/2017 1	3:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201724546922	08/30/2017 1	3:00	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017 2	1:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-20-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189684 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:15	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA03

Сат			Dry	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.52	1.5	61.57
10237	Benzene	71-43-2	N.D.	0.037	0.37	61.57
10237	Bromodichloromethane	75-27-4	N.D.	0.074	0.37	61.57
10237	Bromoform	75-25-2	N.D.	0.074	0.37	61.57
10237	Bromomethane	74-83-9	N.D.	0.15	0.37	61.57
10237	2-Butanone	78-93-3	N.D.	0.30	0.74	61.57
10237	Carbon Disulfide	75-15-0	N.D.	0.074	0.37	61.57
10237	Carbon Tetrachloride	56-23-5	N.D.	0.074	0.37	61.57
10237	Chlorobenzene	108-90-7	N.D.	0.074	0.37	61.57
10237	Chloroethane	75-00-3	N.D.	0.15	0.37	61.57
10237	Chloroform	67-66-3	N.D.	0.074	0.37	61.57
10237	Chloromethane	74-87-3	N.D.	0.15	0.37	61.57
10237	Cyclohexane	110-82-7	N.D.	0.074	0.37	61.57
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.15	0.37	61.57
10237	Dibromochloromethane	124-48-1	N.D.	0.074	0.37	61.57
10237	1,2-Dibromoethane	106-93-4	N.D.	0.074	0.37	61.57
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.074	0.37	61.57
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.074	0.37	61.57
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.074	0.37	61.57
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.15	0.37	61.57
10237	1,1-Dichloroethane	75-34-3	N.D.	0.074	0.37	61.57
10237	1,2-Dichloroethane	107-06-2	N.D.	0.074	0.37	61.57
10237	1,1-Dichloroethene	75-35-4	N.D.	0.074	0.37	61.57
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.074	0.37	61.57
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.074	0.37	61.57
10237	1,2-Dichloropropane	78-87-5	N.D.	0.074	0.37	61.57
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.074	0.37	61.57
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.074	0.37	61.57
10237	Ethylbenzene	100-41-4	N.D.	0.074	0.37	61.57
10237	Freon 113	76-13-1	N.D.	0.15	0.74	61.57
10237	2-Hexanone	591-78-6	N.D.	0.22	0.74	61.57
10237	Isopropylbenzene	98-82-8	N.D.	0.074	0.37	61.57
10237	Methyl Acetate	79-20-9	N.D.	0.15	0.37	61.57
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.037	0.37	61.57
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.22	0.74	61.57
10237	Methylcyclohexane	108-87-2	N.D.	0.074	0.37	61.57
10237	Methylene Chloride	75-09-2	N.D.	0.15	0.37	61.57
10237	Styrene	100-42-5	N.D.	0.074	0.37	61.57
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.074	0.37	61.57
10237	Tetrachloroethene	127-18-4	N.D.	0.074	0.37	61.57
10237	Toluene	108-88-3	1.6	0.074	0.37	61.57
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.074	0.37	61.57
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.074	0.37	61.57
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.074	0.37	61.57
10237	Trichloroethene	79-01-6	N.D.	0.074	0.37	61.57
10237	Trichlorofluoromethane	75-69-4	N.D.	0.15	0.37	61.57
10237	Vinyl Chloride	75-01-4	N.D.	0.074	0.37	61.57
10237	Xylene (Total)	1330-20-7	N.D.	0.074	0.37	61.57



Analysis Report

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Sample Description: MW-1-S-20-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189684 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:15	hy OY
COTTCCCCC.	00/00/201/	T	Dy UI

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA03

CAT	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
No.			Repuire			140001
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00079	0.0020	1
12969	Acenaphthylene	208-96-8	0.00075 J	0.00040	0.0020	1
12969	Anthracene	120-12-7	0.00042 J	0.00040	0.0020	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.00079	0.0020	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00079	0.0020	1
12969	Benzo(b)fluoranthene	205-99-2	0.0012 J	0.00079	0.0020	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0063	0.00079	0.0020	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.00079	0.0020	1
12969	Chrysene	218-01-9	0.00077 J	0.00040	0.0020	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00079	0.0020	1
12969	Fluoranthene	206-44-0	N.D.	0.00079	0.0020	1
12969	Fluorene	86-73-7	N.D.	0.00079	0.0020	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0010 J	0.00079	0.0020	1
12969	Naphthalene	91-20-3	0.0097	0.00079	0.0020	1
12969	Phenanthrene	85-01-8	0.0017 J	0.00079	0.0020	1
12969	Pyrene	129-00-0	0.0014 J	0.00040	0.0020	1
Targe	analytes were detected in t	he method blank a	ssociated			

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vol	atiles	AK 101		mg/kg		mg/kg	mg/kg	
01450	TPH-GRO AK soil C6-	C10	n.a.	N.D.		7.4	74	307.28
	Reporting limits we	re raised d	lue to sample foa	ming.				
Pestic	ides/PCBs	SW-846 8	8082A	mg/kg		mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D.	D1	0.0039	0.020	1
10592	PCB-1221		11104-28-2	N.D.	D1	0.0061	0.020	1
10592	PCB-1232		11141-16-5	N.D.	D1	0.0049	0.020	1
10592	PCB-1242		53469-21-9	N.D.	D1	0.0049	0.020	1
10592	PCB-1248		12672-29-6	N.D.	D1	0.0039	0.020	1
10592	PCB-1254		11097-69-1	N.D.	D1	0.0053	0.020	1
10592	PCB-1260		11096-82-5	0.029	D1	0.0047	0.020	1
GC Pet	roleum	AK 102/A	K 103	mg/kg		mg/kg	mg/kg	
Hydroc	arbons	04/08/02	2					
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>88</td><td></td><td>30</td><td>72</td><td>5</td></c25>		n.a.	88		30	72	5
01738	C25-C36 RRO		n.a.	450		30	72	5
The 1	recovery for a targe	t analyte(s) in the Laborato	ory Cont	rol			
Spike	e(s) is outside the (QC acceptan	ce limits as note	ed on th	e QC			
Summa	ary. The following	corrective	action was taken:	:				



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-20-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189684 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	13:15	by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA03

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The acce clie	sample was re-extr ptance limit. The nt request.	acted and the (data is report	QC is again out ted from the se	side of t cond tria	he l per			
Metal	5	SW-846 60	10C	mg/kg		mg/kg	mg/kg	
06935	Arsenic		7440-38-2	3.29	J	0.789	3.29	1
06946	Barium		7440-39-3	63.8		0.0361	0.822	1
06949	Cadmium		7440-43-9	N.D.		0.0444	0.822	1
06951	Chromium		7440-47-3	34.2		0.140	2.46	1
06955	Lead		7439-92-1	21.2		0.493	2.46	1
06936	Selenium		7782-49-2	N.D.		0.764	3.29	1
06966	Silver		7440-22-4	0.326	J	0.197	0.822	1
		SW-846 74	71B	mg/kg		mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0393	J	0.0115	0.115	1
Wet Cl	hemistry	SM 2540 G	-1997	%		8	8	
00111	Moisture		n.a.	17.2		0.50	0.50	1
	Moisture represe	nts the loss in	weight of the	sample af	ter oven d	rying at		
	103 - 105 degree	s Celsius. The	moisture result	reported	is on an			

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	19:35	Jeremy C Giffin	61.57
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	13:15	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	14:59	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	16:36	Marie D Beamenderfer	307.28
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	13:15	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	00:26	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	10:10	Nicholas R Rossi	5



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-20-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189684 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 13:15 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA03

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tir	ne		Factor
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:15	Cindy M Gehman	1
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:19	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

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Sample Description: MW-2-S-19-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189686 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	15:10	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA05

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Meth Dete	, nod action Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles S	w-846 8	3260B	mg/kg		mg/k	g	mg/kg	
10237	Acetone		67-64-1	N.D.		0.38	3	1.1	52.06
10237	Benzene		71-43-2	0.068	J	0.02	27	0.27	52.06
10237	Bromodichloromethane		75-27-4	N.D.		0.05	54	0.27	52.06
10237	Bromoform		75-25-2	N.D.		0.05	54	0.27	52.06
10237	Bromomethane		74-83-9	N.D.		0.11		0.27	52.06
10237	2-Butanone		78-93-3	N.D.		0.22	2	0.54	52.06
10237	Carbon Disulfide		75-15-0	N.D.		0.05	54	0.27	52.06
10237	Carbon Tetrachloride		56-23-5	N.D.		0.05	54	0.27	52.06
10237	Chlorobenzene		108-90-7	N.D.		0.05	54	0.27	52.06
10237	Chloroethane		75-00-3	N.D.		0.11		0.27	52.06
10237	Chloroform		67-66-3	N.D.		0.05	54	0.27	52.06
10237	Chloromethane		74-87-3	N.D.		0.11		0.27	52.06
10237	Cyclohexane		110-82-7	0.097	J	0.05	54	0.27	52.06
10237	1,2-Dibromo-3-chlorop	ropane	96-12-8	N.D.		0.11		0.27	52.06
10237	Dibromochloromethane		124-48-1	N.D.		0.05	54	0.27	52.06
10237	1,2-Dibromoethane		106-93-4	N.D.		0.05	54	0.27	52.06
10237	1,2-Dichlorobenzene		95-50-1	N.D.		0.05	54	0.27	52.06
10237	1,3-Dichlorobenzene		541-73-1	N.D.		0.05	54	0.27	52.06
10237	1,4-Dichlorobenzene		106-46-7	N.D.		0.05	54	0.27	52.06
10237	Dichlorodifluorometha	ne	75-71-8	N.D.		0.11		0.27	52.06
10237	1,1-Dichloroethane		75-34-3	N.D.		0.05	54	0.27	52.06
10237	1,2-Dichloroethane		107-06-2	N.D.		0.05	54	0.27	52.06
10237	1,1-Dichloroethene		75-35-4	N.D.		0.05	54	0.27	52.06
10237	cis-1,2-Dichloroethene	e	156-59-2	N.D.		0.05	54	0.27	52.06
10237	trans-1,2-Dichloroethe	ene	156-60-5	N.D.		0.05	54	0.27	52.06
10237	1,2-Dichloropropane		78-87-5	N.D.		0.05	-4	0.27	52.06
10237	cis-1,3-Dichloroprope	ne	10061-01-5	N.D.		0.05	-4	0.27	52.06
10237	trans-1,3-Dichloroprop	pene	10061-02-6	N.D.	-	0.05	4	0.27	52.06
10237	Ethylbenzene		100-41-4	0.20	J	0.05	4	0.27	52.06
10237	Freon 113		/6-13-1 F01 70 C	N.D.		0.11		0.54	52.06
10237	2-Hexanone		591-78-6	N.D.	т	0.16) · /	0.54	52.06
10237	Isopropyidenzene		98-82-8	0.084 N D	J	0.05	94	0.27	52.06
10237	Methyl Montierry Dutyl	Ethow	1624 04 4	N.D.		0.11	- 7	0.27	52.06
10237	A Mothul 2 poptopopo	Ether	109 10 1	N.D.		0.02	. /	0.27	52.06
10237	4-Methylavalohovono		108-10-1	N.D.		0.10	, . 1	0.34	52.00
10237	Methylope Chloride		75 00 2	U.30		0.03	14	0.27	52.00
10237	Styrene		100-42-5	N.D.		0.11	-	0.27	52.00
10237	1 1 2 2-Tetrachloroet	hane	79-34-5	N.D.		0.05	1	0.27	52.00
10237	Tetrachloroethene	liane	127-18-4	N.D.		0.05	1	0.27	52.00
10237	Toluene		108-88-3	0.63		0.05	4	0.27	52.00
10237	1 2 4-Trichlorobenzen	<u>م</u>	120-82-1	0.05 N D		0.05	4	0.27	52.00
10237	1 1 1-Trichloroethane	<u> </u>	71-55-6	N.D.		0.05	4	0.27	52.00
10237	1.1.2-Trichloroethane		79-00-5	N.D.		0.05	4	0.27	52.06
10237	Trichloroethene		79-01-6	N.D.		0.05	4	0.27	52.06
10237	Trichlorofluoromethan	e	75-69-4	N.D.		0.11		0.27	52.06
10237	Vinyl Chloride	-	75-01-4	N.D.		0.05	4	0.27	52.06
10237	Xylene (Total)		1330-20-7	1.9		0.05	54	0.27	52.06



Analysis Report

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Sample Description: MW-2-S-19-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189686 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	15:10	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA05

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles	SW-846 82	70D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene		83-32-9	N.D.	0.0069	0.017	10
12969	Acenaphthylene		208-96-8	N.D.	0.0035	0.017	10
12969	Anthracene		120-12-7	N.D.	0.0035	0.017	10
12969	Benzo(a)anthracene		56-55-3	N.D.	0.0069	0.017	10
12969	Benzo(a)pyrene		50-32-8	N.D.	0.0069	0.017	10
12969	Benzo(b)fluoranthe	ne	205-99-2	N.D.	0.0069	0.017	10
12969	Benzo(g,h,i)peryle	ne	191-24-2	N.D.	0.0069	0.017	10
12969	Benzo(k)fluoranthe	ne	207-08-9	N.D.	0.0069	0.017	10
12969	Chrysene		218-01-9	N.D.	0.0035	0.017	10
12969	Dibenz(a,h)anthrac	ene	53-70-3	N.D.	0.0069	0.017	10
12969	Fluoranthene		206-44-0	N.D.	0.0069	0.017	10
12969	Fluorene		86-73-7	N.D.	0.0069	0.017	10
12969	Indeno(1,2,3-cd)py:	rene	193-39-5	N.D.	0.0069	0.017	10
12969	Naphthalene		91-20-3	N.D.	0.0069	0.017	10
12969	Phenanthrene		85-01-8	N.D.	0.0069	0.017	10
12969	Pyrene		129-00-0	N.D.	0.0035	0.017	10
Repo	rting limits were ra	ised due to i	nterference fr	om the sample matrix.			
GC Vol	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil C6	-C10	n.a.	N.D.	130	1,300	6316.54
	Reporting limits w	ere raised due	e to sample foa	ming.			
Pestic	cides/PCBs	SW-846 80	82A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. D1	0.0034	0.018	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0053	0.018	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0042	0.018	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0042	0.018	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0034	0.018	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0046	0.018	1
10592	PCB-1260		11096-82-5	N.D. Dl	0.0040	0.018	1
GC Pet	roleum	AK 102/AK	103	mg/kg	mg/kg	mg/kg	
Hydrod	arbons	04/08/02					
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>2,200</td><td>260</td><td>620</td><td>50</td></c25>		n.a.	2,200	260	620	50
01738	C25-C36 RRO		n.a.	2,600	260	620	50
The : Spike Summa The : accep	recovery for a targe e(s) is outside the ary. The following sample was re-extrac ptance limit. The c pt request	et analyte(s) QC acceptance corrective ac eted and the Q lata is report	in the Laborat e limits as not ction was taken QC is again out ted from the se	ory Control ed on the QC : side of the cond trial per			
	ne request.	atta 0.4.6 . 6.0	100	ma /ka	ma /ka	mg /kg	
Metals	5	SW-846 60	TUG	mg/Kg	mg/ Kg	mg/kg	
06935	Arsenic		7440-38-2	3.19 J	0.835	3.48	1
06946	Barium		7440-39-3	75.9	0.0383	0.870	1
06949	Cadmium		7440-43-9	N.D.	0.0470	0.870	1
06951	Chromium		7440-47-3	31.0	0.148	2.61	1



Analysis Report

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Sample Description: MW-2-S-19-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189686 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	15:10	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA05

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metal	5	SW-846 601	LOC	mg/kg	mg/kg	mg/kg	
06955	Lead		7439-92-1	9.70	0.522	2.61	1
06936	Selenium		7782-49-2	N.D.	0.809	3.48	1
06966	Silver		7440-22-4	0.232 J	0.209	0.870	1
		SW-846 743	71B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0346 J	0.0103	0.103	1
Wet Cl	hemistry	SM 2540 G-	-1997	8	8	8	
00111	Moisture		n.a.	4.2	0.50	0.50	1
	Moisture represent 103 - 105 degrees as-received basis	ts the loss in Celsius. The m	weight of the oisture result	sample after oven of reported is on an	drying at		

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	19:59	Jeremy C Giffin	52.06
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	15:10	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	09:57	Catherine E Bachman	10
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	17:35	Marie D Beamenderfer	6316.54
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	15:10	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	00:38	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	10:38	Nicholas R Rossi	50
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:24	Cindy M Gehman	1
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:24	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:24	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:24	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:24	Cindy M Gehman	1



Analysis Report

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Sample Description: MW-2-S-19-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189686 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 15:10 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA05

6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

ChevronTexaco

Laboratory Sample Analysis Record Method Dilution CAT Analysis Name Trial# Batch# Analysis Analyst Date and Time Factor No. 06936 Selenium SW-846 6010C 172491063701 09/07/2017 15:24 1 Cindy M Gehman 1 06966 Silver SW-846 6010C 1 172491063701 09/07/2017 15:24 Cindy M Gehman 1 00159 Mercury SW-846 7471B 1 172491063801 09/07/2017 11:21 Parker D Lindstrom 1 10637 ICP/ICPMS-SW, 3050B - U4 SW-846 3050B 1 172491063701 09/07/2017 06:40 Lisa J Cooke 1 10638 Hg - SW, 7471B - U4 SW-846 7471B 1 172491063801 09/07/2017 07:50 Lisa J Cooke 1 00111 Moisture SM 2540 G-1997 1 17250820012B 09/07/2017 21:07 Scott W Freisher 1



Analysis Report

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Sample Description: MW-2-S-24.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189688 ELLE Group # 1845654 Account # 10880

Project Name: 306449

COTTCCCCCCC O O O O O O O O O O O O O O	Collected:	08/30/2017	15:22	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA07

SV/MS Volatiles Sv-846 826/51 ms/ks ms/ks ms/ks 10237 Acctone 67-64-1 N.D. 0.54 1.5 60.54 10237 Bernoofichforomethane 72-43-2 N.D. 0.076 0.38 60.54 10237 Bernoofichforomethane 73-23-2 N.D. 0.076 0.38 60.54 10237 Carbon Disulfide 79-33-3 N.D. 0.31 0.76 60.54 10237 Carbon Disulfide 56-32-5 N.D. 0.076 0.38 60.54 10237 Carbon Detracholoxide 57-67-3 N.D. 0.176 0.38 60.54 10237 Chlorobehasne 79-07-3 N.D. 0.176 0.38 60.54 10237 Chlorobehasne 79-07-3 N.D. 0.176 0.38 60.54 10237 Chlorobehasne 79-10-3 N.D. 0.176 0.38 60.54 10237 Chlorobehasne 79-14-8 N.D. 0.176	CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
10227 Aretone 67-64-1 N.D. 0.54 1.5 60.54 10237 Bromodichloromethame 75-27-4 N.D. 0.038 0.38 60.54 10237 Bromodichloromethame 75-25-2 N.D. 0.076 0.38 60.54 10237 Bromomethame 74-83-9 N.D. 0.15 0.38 60.54 10237 Carbon Disulfide 75-15-0 N.D. 0.076 0.38 60.54 10237 Chlorom Tetrachloride 55-20-3 N.D. 0.076 0.38 60.54 10237 Chlorosthame 75-60-3 N.D. 0.15 0.38 60.54 10237 Chlorosthame 74-87-3 N.D. 0.15 0.38 60.54 10237 Chlorosthame 76-66-1 N.D. 0.076 0.38 60.54 10337 Chlorosthame 76-81-3 N.D. 0.076 0.38 60.54 10337 Lizotodama 10-81-81 N.D. 0.076 0.38	GC/MS	Volatiles SW-84	6 8260B	mg/kg	mg/kg	mg/kg	
10237 Bensene 1/1-4/3-2 N.D. 0.038 0.38 60.54 10237 Bromoform 75-27-4 N.D. 0.076 0.38 60.54 10237 Bromosethame 74-83-9 N.D. 0.15 0.38 60.54 10237 Carbon Disulfide 75-15-0 N.D. 0.076 0.38 60.54 10237 Carbon Disulfide 55-16-0 N.D. 0.076 0.38 60.54 10337 Chlorobenzene 108-00-7 N.D. 0.176 0.38 60.54 10337 Chlorobenzene 75-00-3 N.D. 0.176 0.38 60.54 10337 Chlorobenzene 75-01-3 N.D. 0.176 0.38 60.54 10337 Chlorobenzene 96-12-8 N.D. 0.176 0.38 60.54 10337 Chlorobenzene 96-12-1 N.D. 0.076 0.38 60.54 10337 1,2-Dichlorobenzene 95-0-1 N.D. 0.076 0.38	10237	Acetone	67-64-1	N.D.	0.54	1.5	60.54
Promodichloromethane 75-27-4 N.D. 0.076 0.38 60.54 10237 Promomethane 74-83-9 N.D. 0.15 0.38 60.54 10237 Carbon Disulfide 75-15-0 N.D. 0.076 0.38 60.54 10237 Carbon Tetrachloride 56-32-5 N.D. 0.076 0.38 60.54 10237 Carbon Tetrachloride 56-32-5 N.D. 0.076 0.38 60.54 10237 Chlorobenzene 108-90-7 N.D. 0.076 0.38 60.54 10237 Chlorobentane 74-67-3 N.D. 0.15 0.38 60.54 10237 Cyclohexane 104-82-7 N.D. 0.076 0.38 60.54 10237 Lj-Dibromo-3-chloropropane 106-93-4 N.D. 0.076 0.38 60.54 10237 Lj-Dibromo-3-chloropropane 106-94-7 N.D. 0.076 0.38 60.54 10237 Lj-Dibromo-3-anotane 96-12-8 N.D. 0.076 <td>10237</td> <td>Benzene</td> <td>71-43-2</td> <td>N.D.</td> <td>0.038</td> <td>0.38</td> <td>60.54</td>	10237	Benzene	71-43-2	N.D.	0.038	0.38	60.54
International 75-25-2 N.D. 0.766 0.38 60.54 10237 Promomethane 74-83-9 N.D. 0.15 0.38 60.54 10237 Carbon Disulfide 75-15-0 N.D. 0.76 0.38 60.54 10237 Carbon Tetrachloride 56-23-5 N.D. 0.766 0.38 60.54 10237 Chlorochanae 75-00-3 N.D. 0.767 0.38 60.54 10237 Chlorochanae 67-66-3 N.D. 0.767 0.38 60.54 10237 Chloromethane 74-87-3 N.D. 0.175 0.38 60.54 10337 Diromochane 67-66-3 N.D. 0.176 0.38 60.54 10337 Diromochane 74-87-1 N.D. 0.176 0.38 60.54 10337 J.A-Dibromochane 124-48-1 N.D. 0.076 0.38 60.54 10337 J.A-Dichorobenzene 106-47-7 N.D. 0.76 0.38 60.54	10237	Bromodichloromethane	75-27-4	N.D.	0.076	0.38	60.54
International system Yes N.D. D.S. D.38 G0.54 1237 Arknone 78-93-3 N.D. D.31 D.76 G.38 G0.54 1237 Carbon IsticalDiride 56-15-0 N.D. D.076 D.38 G0.54 1237 Chicorobername 188-90-7 N.D. D.076 D.38 G0.54 1237 Chicorobername 75-00-3 N.D. D.076 D.38 G0.54 1237 Chicorobername 74-87-3 N.D. D.15 D.38 G0.54 1237 Cyclohexame 10-82-7 N.D. D.076 D.38 G0.54 1237 1,2-Dichicorobername 96-12-8 N.D. D.076 D.38 G0.54 1237 1,2-Dichicorobername 10-82-7 N.D. D.076 D.38 G0.54 1237 1,2-Dichicorobername 10-82-7 N.D. D.076 D.38 G0.54 1237 1,2-Dichicorobername 104-4-10 N.D. D.076 <t< td=""><td>10237</td><td>Bromoform</td><td>75-25-2</td><td>N.D.</td><td>0.076</td><td>0.38</td><td>60.54</td></t<>	10237	Bromoform	75-25-2	N.D.	0.076	0.38	60.54
1921 2-Butanone 78-93-3 N.D. 0.31 0.76 65.04 10237 Carbon Disulfide 75-00 N.D. 0.076 0.38 60.54 10237 Carbon Tetrachloride 56-23-5 N.D. 0.076 0.38 60.54 10237 Chloroebname 75-00-3 N.D. 0.076 0.38 60.54 10237 Chloroebname 75-00-3 N.D. 0.076 0.38 60.54 10237 Chloromethane 74-07-3 N.D. 0.076 0.38 60.54 10237 Dichoexane 10-6-93-4 N.D. 0.076 0.38 60.54 10237 Dichoromethane 106-93-4 N.D. 0.076 0.38 60.54 10237 1.3-Dichloromethane 106-93-4 N.D. 0.076 0.38 60.54 10237 1.3-Dichloromethane 106-93-4 N.D. 0.076 0.38 60.54 10237 1.3-Dichloromethane 107-06-2 N.D. 0.076	10237	Bromomethane	74-83-9	N.D.	0.15	0.38	60.54
10217 Carbon Disulfide 75-15-0 N.D. 0.076 0.38 60.54 10237 Carbon Tetrachloride 56-32-5 N.D. 0.076 0.38 60.54 10237 Chlorobenane 178-00-3 N.D. 0.15 0.38 60.54 10237 Chloroform 67-66-3 N.D. 0.15 0.38 60.54 10237 Chloromethane 14-67-3 N.D. 0.15 0.38 60.54 10237 Cyclohexane 10-82-7 N.D. 0.076 0.38 60.54 10237 J.2-Dibrono-3-chloropropane 95-50-1 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 J.4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 J.1-Dichlorobenzene 75-34-3 N.D. 0.076 0.38 60.54 10237 J.1-Dichlorochenne 75-35-4 N.D. 0	10237	2-Butanone	78-93-3	N.D.	0.31	0.76	60.54
10217 Carbon Tetrachloride 56-23-5 N.D. 0.076 0.38 60.54 10217 Chloroehname 75-00-3 N.D. 0.15 0.38 60.54 10217 Chloroehname 75-00-3 N.D. 0.15 0.38 60.54 10217 Chloromethame 74-87-3 N.D. 0.076 0.38 60.54 10217 Chloromethame 10-82-7 N.D. 0.076 0.38 60.54 10217 1,2-Dibronochloromethame 164-81-1 N.D. 0.076 0.38 60.54 10217 1,2-Dibronochlaromethame 166-93-4 N.D. 0.076 0.38 60.54 10217 1,2-Dibronochlaromethame 166-91-4 N.D. 0.076 0.38 60.54 10217 1,3-Dichloromethame 75-71-8 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethame 75-71-8 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethame 155-2-7 N.D.	10237	Carbon Disulfide	75-15-0	N.D.	0.076	0.38	60.54
10237 Chlorobenzene 108-90-7 N.D. 0.076 0.38 60.54 10237 Chloroform 67-66-3 N.D. 0.076 0.38 60.54 10237 Chloromethane 14-87-3 N.D. 0.155 0.38 60.54 10237 Cyclohexane 110-82-7 N.D. 0.176 0.38 60.54 10237 Cyclohexane 124-48-1 N.D. 0.076 0.38 60.54 10237 1,2-Dithoromosthane 124-48-1 N.D. 0.076 0.38 60.54 10237 1,2-Dithoromethane 106-39-4 N.D. 0.076 0.38 60.54 10237 1,4-Dithorobenzane 55-0-1 N.D. 0.076 0.38 60.54 10237 1,4-Dithorobenzane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,1-Dithorobenzane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,1-Dithorothene 156-60-5 N.D. 0.076	10237	Carbon Tetrachloride	56-23-5	N.D.	0.076	0.38	60.54
10237 Chlorosthame 75-00-3 N.D. 0.15 0.38 60.54 10237 Chloromethane 74-87-3 N.D. 0.165 0.38 60.54 10237 Cyclohexane 110-82-7 N.D. 0.076 0.38 60.54 10237 Dyclohexane 124-84-1 N.D. 0.076 0.38 60.54 10237 J.2-Dibromethane 124-44-1 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorosethane 95-01 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorosethane 75-71-8 N.D. 0.076 0.38 60.54 10237 J.1-Dichlorosethane 75-71-8 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorosethane 107-06-2 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorosethane 156-59-2 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorosethane 156-59-2 N.D. 0.076	10237	Chlorobenzene	108-90-7	N.D.	0.076	0.38	60.54
10237Chloroform $67-66-3$ N.D. 0.076 0.38 60.54 10237Chloromethane $74-87-3$ N.D. 0.076 0.38 60.54 10237L2-Dibromo-1-chloropropane $96-12-8$ N.D. 0.076 0.38 60.54 10237L2-Dibromo-1-chloropropane $16-93-4$ N.D. 0.076 0.38 60.54 10237L2-Dichlorobenzene $95-50-1$ N.D. 0.076 0.38 60.54 10237L2-Dichlorobenzene $55-1$ N.D. 0.076 0.38 60.54 10237L2-Dichlorobenzene $541-73-1$ N.D. 0.076 0.38 60.54 10237L2-Dichlorobenzene $56-6-7$ N.D. 0.076 0.38 60.54 10237L1-Dichloroethane $75-71-8$ N.D. 0.076 0.38 60.54 10237L1-Dichloroethane $156-69-5$ N.D. 0.076 0.38 60.54 10237tisseptic distribution of the distr	10237	Chloroethane	75-00-3	N.D.	0.15	0.38	60.54
10237 Chloromethane 74-87-3 N.D. 0.15 0.38 60.54 10237 Cyclohexane 10-62-7 N.D. 0.076 0.38 60.54 10237 1,2-Dibromo-3-chloropropane 96-12-8 N.D. 0.076 0.38 60.54 10237 1,2-Dibromo-thane 104-8-1 N.D. 0.076 0.38 60.54 10237 1,2-Dibromochane 95-50-1 N.D. 0.076 0.38 60.54 10237 1,4-Dichlorobenzene 51-73-1 N.D. 0.076 0.38 60.54 10237 1,4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 156-59-2 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloropropane 76-65 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 186-60-5 <td< td=""><td>10237</td><td>Chloroform</td><td>67-66-3</td><td>N.D.</td><td>0.076</td><td>0.38</td><td>60.54</td></td<>	10237	Chloroform	67-66-3	N.D.	0.076	0.38	60.54
10237 Cyclohexane 110-82-7 N.D. 0.076 0.38 60.54 10237 J.2-Dibromo-shloropropane 96-12-8 N.D. 0.15 0.38 60.54 10237 J.2-Dibromoethane 106-93-4 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 95-50-1 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 564-71 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 564-71 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 107-06-2 N.D. 0.076 0.38 60.54 10237 J.2-Dichloroethane 75-54-3 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 1061-01-5	10237	Chloromethane	74-87-3	N.D.	0.15	0.38	60.54
1227 1,2-Ditromo-3-chloropropane 96-12-8 N.D. 0.15 0.38 60.54 10237 Dibromochloromethane 124-48-1 N.D. 0.076 0.38 60.54 10237 J.2-Dibromoethane 106-93-4 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 51-01 N.D. 0.076 0.38 60.54 10237 J.2-Dichlorobenzene 51-73-1 N.D. 0.076 0.38 60.54 10237 J.4-Dichlorobenzene 75-71-8 N.D. 0.076 0.38 60.54 10237 J.1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 J.2-Dichloroethane 156-69-2 N.D. 0.076 0.38 60.54 10237 trans-1, 2-Dichloroethane 156-69-5 N.D. 0.076 0.38 60.54 10237 trans-1, 3-Dichloroptopane 10061-01-5 N.D. 0.076 0.38 60.54 10237 ris-1, 3-Dichloroptopane <	10237	Cyclohexane	110-82-7	N.D.	0.076	0.38	60.54
Disromechloromethane 124-48-1 N.D. 0.076 0.38 60.54 10237 1,2-Dichlorobenzene 106-93-4 N.D. 0.076 0.38 60.54 10237 1,2-Dichlorobenzene 55-50-1 N.D. 0.076 0.38 60.54 10237 1,3-Dichlorobenzene 541-73-1 N.D. 0.076 0.38 60.54 10237 1,4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 75-71-8 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 tia-1,2-Dichloroethane 156-60-5 N.D. 0.076 0.38 60.54 10237 tia-1,2-Dichloropropene 10061-02-5 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-02-6	10237	1,2-Dibromo-3-chloropropan	e 96-12-8	N.D.	0.15	0.38	60.54
102371,2-Disconserbane106-93-4N.D.0.0760.3860.54102371,2-Dichlorobenzene95-50-1N.D.0.0760.3860.54102371,3-Dichlorobenzene106-46-7N.D.0.0760.3860.54102371,4-Dichlorobenzene106-46-7N.D.0.0760.3860.54102371,1-Dichlorocethane75-71-8N.D.0.0760.3860.54102371,1-Dichlorocethane75-34-3N.D.0.0760.3860.54102371,2-Dichlorocethane75-35-4N.D.0.0760.3860.54102371,2-Dichlorocethane156-59-2N.D.0.0760.3860.54102371,2-Dichlorocethane156-60-5N.D.0.0760.3860.54102371,2-Dichloropethane1061-01-5N.D.0.0760.3860.54102371,2-Dichloropropene10061-01-5N.D.0.0760.3860.5410237trans-1,2-Dichloropropene10061-01-5N.D.0.0760.3860.5410237trans-1,3-Dichloropropene10061-01-6N.D.0.0760.3860.5410237trans-1,3-Dichloropropene10061-01-7N.D.0.0760.3860.5410237trans-1,3-Dichloropropene10061-01-8N.D.0.0760.3860.5410237trans-1,3-Dichloropropene10061-01-7N.D.0.0760.3860.5410237trans-1,3-Dichloropropene<	10237	Dibromochloromethane	124-48-1	N.D.	0.076	0.38	60.54
10237 1,2-Dichlorobenzene 95-50-1 N.D. 0.076 0.38 60.54 10237 1,3-Dichlorobenzene 541-73-1 N.D. 0.076 0.38 60.54 10237 1,4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 Dichlorodifluoromethane 75-71-8 N.D. 0.15 0.38 60.54 10237 1,1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 <t< td=""><td>10237</td><td>1.2-Dibromoethane</td><td>106-93-4</td><td>N.D.</td><td>0.076</td><td>0.38</td><td>60.54</td></t<>	10237	1.2-Dibromoethane	106-93-4	N.D.	0.076	0.38	60.54
1037 1,3-Dichlorobenzene 541-73-1 N.D. 0.076 0.38 60.54 10237 1,4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 75-71-8 N.D. 0.15 0.38 60.54 10237 1,1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 75-35-4 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloroethane 156-59-2 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloroethene 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54	10237	1.2-Dichlorobenzene	95-50-1	N.D.	0.076	0.38	60.54
10237 1,4-Dichlorobenzene 106-46-7 N.D. 0.076 0.38 60.54 10237 Dichlorodifluoromethane 75-71-8 N.D. 0.15 0.38 60.54 10237 1,1-Dichloroethane 175-34-3 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloroethene 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 1061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 10041-4 N.D. 0.23 0.76 60.54	10237	1.3-Dichlorobenzene	541-73-1	N.D.	0.076	0.38	60.54
10237 Dichlorodifluoromethane 75-71-8 N.D. 0.15 0.38 60.54 10237 1,1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 75-35-4 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethane 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloropthene 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 recon 113 76-13-1 N.D. 0.15 0.76 60.54 10237 recon 113 76-13-1 N.D. 0.15 0.38 60.54 10237 recontal 98-82-8 N.D. 0.076 0.38 60.54 10237 Methyl Acetate <td>10237</td> <td>1.4-Dichlorobenzene</td> <td>106-46-7</td> <td>N.D.</td> <td>0.076</td> <td>0.38</td> <td>60.54</td>	10237	1.4-Dichlorobenzene	106-46-7	N.D.	0.076	0.38	60.54
10237 1,1-Dichloroethane 75-34-3 N.D. 0.076 0.38 60.54 10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-69-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 rins-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 Fthylbenzene 1004-14 N.D. 0.15 0.76 60.54 10237 Fthylenzene 100-41-4 N.D. 0.15 0.38 60.54 10237 Fthylenzene 91-78-6 N.D. 0.15 0.38 60.54 10237 Methyl	10237	Dichlorodifluoromethane	75-71-8	N.D.	0.15	0.38	60.54
10237 1,2-Dichloroethane 107-06-2 N.D. 0.076 0.38 60.54 10237 1,1-Dichloroethane 75-35-4 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethane 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloropthane 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloropthane 1061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.15 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.15 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.15 0.38 60.54 <td>10237</td> <td>1.1-Dichloroethane</td> <td>75-34-3</td> <td>N.D.</td> <td>0.076</td> <td>0.38</td> <td>60.54</td>	10237	1.1-Dichloroethane	75-34-3	N.D.	0.076	0.38	60.54
10237 1,1-Dichloroethene 75-35-4 N.D. 0.076 0.38 60.54 10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloroethene 156-60-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 100-41-4 N.D. 0.076 0.38 60.54 10237 Freon 113 76-13-1 N.D. 0.15 0.76 60.54 10237 Jepscopylbenzene 98-82-8 N.D. 0.076 0.38 60.54 10237 Jepscopylbenzene 98-82-8 N.D. 0.038 0.38 60.54 10237 Methyl Acetate 79-20-9 N.D. 0.15 0.38 60.54 10237 <td< td=""><td>10237</td><td>1.2-Dichloroethane</td><td>107-06-2</td><td>N.D.</td><td>0.076</td><td>0.38</td><td>60.54</td></td<>	10237	1.2-Dichloroethane	107-06-2	N.D.	0.076	0.38	60.54
10237 cis-1,2-Dichloroethene 156-59-2 N.D. 0.076 0.38 60.54 10237 trans-1,2-Dichloroethene 156-60-5 N.D. 0.076 0.38 60.54 10237 1,2-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 Teron 113 76-13-1 N.D. 0.15 0.76 60.54 10237 Jepropylbenzene 98-82-8 N.D. 0.15 0.38 60.54 10237 Methyl Acetate 79-20-9 N.D. 0.15 0.38 60.54 10237 Methyl Acetate 79-20-9 N.D. 0.076 0.38 60.54 10237 Methyl Acetate 79-20-9 N.D. 0.076 0.38 60.54 10237 Methyl Acet	10237	1.1-Dichloroethene	75-35-4	N.D.	0.076	0.38	60.54
10237 trans-1,2-Dichloropethene 156-60-5 N.D. 0.076 0.38 60.54 10237 1,2-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 Teron 113 76-13-1 N.D. 0.15 0.76 60.54 10237 Jepropylbenzene 98-82-8 N.D. 0.076 0.38 60.54 10237 Jeopropylbenzene 98-82-8 N.D. 0.15 0.38 60.54 10237 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 0.23 0.76 60.54 10237 Methyl-2-pentanone 108-10-1 N.D. 0.23 0.76 60.54 10237 Methyl-2-pentanone 108-10-1 N.D. 0.076 0.38 60.54 10237	10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.076	0.38	60.54
10237 1,2-Dichloropropane 78-87-5 N.D. 0.076 0.38 60.54 10237 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.076 0.38 60.54 10237 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.076 0.38 60.54 10237 Ethylbenzene 100-41-4 N.D. 0.076 0.38 60.54 10237 Freon 113 76-13-1 N.D. 0.076 0.38 60.54 10237 Jsopropylbenzene 98-82-8 N.D. 0.23 0.76 60.54 10237 Jsopropylbenzene 98-82-8 N.D. 0.076 0.38 60.54 10237 Methyl Acetate 79-20-9 N.D. 0.15 0.38 60.54 10237 Methyl Tertiary Butyl Ether 163+04-4 N.D. 0.038 0.38 60.54 10237 Methylacetate 108-10-1 N.D. 0.23 0.76 60.54 10237 Methylacyclohexane 108-87-2 N.D. 0.15 0.38 60.54 10237 Methylace Chloride	10237	trans-1.2-Dichloroethene	156-60-5	N.D.	0.076	0.38	60.54
10237cis-1,3-Dichloropropene10061-01-5N.D.0.0760.3860.5410237trans-1,3-Dichloropropene10061-02-6N.D.0.0760.3860.5410237Ethylbenzene100-41-4N.D.0.0760.3860.5410237Freon 11376-13-1N.D.0.150.7660.5410237J-Hexanone591-78-6N.D.0.230.7660.5410237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Isopropylbenzene98-82-8N.D.0.150.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Acetate108-10-1N.D.0.230.7660.5410237Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methyl-golohexane108-87-2N.D.0.0760.3860.5410237Methyleyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.0760.3860.5410237Tetrachloroethane10-42-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.54102371,2,4-Trichloroethane71-55-6N.D.0.0760.3860.54102371,2,4-Trichloroethane79-00-5N.D.0.0760.3860.541023	10237	1.2-Dichloropropane	78-87-5	N.D.	0.076	0.38	60.54
10237trans-1,3-Dichloropropene10061-02-6N.D.0.0760.3860.5410237Ethylbenzene100-41-4N.D.0.0760.3860.5410237Freon 11376-13-1N.D.0.150.7660.54102372-Hexanone591-78-6N.D.0.230.7660.5410237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Acetate108-10-1N.D.0.0380.3860.54102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methyl Choixane108-87-2N.D.0.0760.3860.5410237Methylcyclohexane108-87-2N.D.0.0760.3860.5410237Styrene100-42-5N.D.0.0760.3860.5410237Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane71-55-6N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,2,-Trichloroethane79-60-5N.D.0.0760.3860.54102371,1,2,-Trichloroethane79-01-6N.D.0.0760.3860.5410237	10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.076	0.38	60.54
10237Ethylbenzene100-41-4N.D.0.0760.3860.5410237Freon 11376-13-1N.D.0.150.7660.5410237Jepsynylbenzene591-78-6N.D.0.230.7660.5410237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.5410237Methyl-2-pentanone108-87-2N.D.0.0760.3860.5410237Methyleyclohexane100-42-5N.D.0.0760.3860.5410237Styrene100-42-5N.D.0.0760.3860.5410237Tetrachloroethene127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,1,2-Tetrachloroethane79-34-5N.D.0.0760.3860.54102371,1,2-Tetrachloroethane120-82-1N.D.0.0760.3860.54102371,1,1-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.541023	10237	trans-1.3-Dichloropropene	10061-02-6	N.D.	0.076	0.38	60.54
10237Freon 11376-13-1N.D.0.150.7660.54102372-Hexanone591-78-6N.D.0.230.7660.5410237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.5410237Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methyl-2-pentanone108-87-2N.D.0.0760.3860.5410237Methylcyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.5410237Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane120-82-1N.D.0.0760.3860.54102371,1,2,1-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,2-Trichlorobenzene70-0-5N.D.0.0760.3860.54102371,1,1,2-Trichloroethane79-01-6N.D.0.0760.3860.54<	10237	Ethylbenzene	100-41-4	N.D.	0.076	0.38	60.54
102372-Hexanone591-78-6N.D.0.230.7660.5410237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.54102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methyl gene Chloride75-09-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.0760.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichloroethane120-82-1N.D.0.0760.3860.54102371,1,2-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.54 <td< td=""><td>10237</td><td>Freon 113</td><td>76-13-1</td><td>N.D.</td><td>0.15</td><td>0.76</td><td>60.54</td></td<>	10237	Freon 113	76-13-1	N.D.	0.15	0.76	60.54
10237Isopropylbenzene98-82-8N.D.0.0760.3860.5410237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.54102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methylyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane108-83N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,2,4-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,1-Trichloroethane79-00-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Trichlorofluoromethane75-69-4N.D.0.15	10237	2-Hexanone	591-78-6	N.D.	0.23	0.76	60.54
10237Methyl Acetate79-20-9N.D.0.150.3860.5410237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.54102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methylcyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,2-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,1-Trichloroethane79-00-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54 </td <td>10237</td> <td>Isopropylbenzene</td> <td>98-82-8</td> <td>N.D.</td> <td>0.076</td> <td>0.38</td> <td>60.54</td>	10237	Isopropylbenzene	98-82-8	N.D.	0.076	0.38	60.54
10237Methyl Tertiary Butyl Ether1634-04-4N.D.0.0380.3860.54102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methylcyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.5410237Styrene100-42-5N.D.0.0760.3860.5410237Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2,-Trichloroethane79-00-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.0760.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Methyl Acetate	79-20-9	N.D.	0.15	0.38	60.54
102374-Methyl-2-pentanone108-10-1N.D.0.230.7660.5410237Methylcyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-09-4N.D.0.0760.3860.5410237Trichlorofluoromethane75-09-4N.D.0.0760.3860.5410237Trichlorofluoromethane75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Methyl Tertiary Butyl Ethe	r 1634-04-4	N.D.	0.038	0.38	60.54
10237Methyleyclohexane108-87-2N.D.0.0760.3860.5410237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,1-Trichloroethane79-00-5N.D.0.0760.3860.54102371,1,2-Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.23	0.76	60.54
10237Methylene Chloride75-09-2N.D.0.150.3860.5410237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.0760.3860.5410237Trichloroethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Methylcyclohexane	108-87-2	N.D.	0.076	0.38	60.54
10237Styrene100-42-5N.D.0.0760.3860.54102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethene127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Methylene Chloride	75-09-2	N.D.	0.15	0.38	60.54
102371,1,2,2-Tetrachloroethane79-34-5N.D.0.0760.3860.5410237Tetrachloroethane127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethane79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.0760.3860.5410237Vinyl Chloride75-01-4N.D.0.150.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Styrene	100-42-5	N.D.	0.076	0.38	60.54
10237Tetrachloroethene127-18-4N.D.0.0760.3860.5410237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.076	0.38	60.54
10237Toluene108-88-3N.D.0.0760.3860.54102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Tetrachloroethene	127-18-4	N.D.	0.076	0.38	60.54
102371,2,4-Trichlorobenzene120-82-1N.D.0.0760.3860.54102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.0760.3860.5410237Vinyl Chloride75-01-4N.D.0.150.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	Toluene	108-88-3	N.D.	0.076	0.38	60.54
102371,1,1-Trichloroethane71-55-6N.D.0.0760.3860.54102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.076	0.38	60.54
102371,1,2-Trichloroethane79-00-5N.D.0.0760.3860.5410237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.076	0.38	60.54
10237Trichloroethene79-01-6N.D.0.0760.3860.5410237Trichlorofluoromethane75-69-4N.D.0.150.3860.5410237Vinyl Chloride75-01-4N.D.0.0760.3860.5410237Xylene (Total)1330-20-7N.D.0.0760.3860.54	10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.076	0.38	60.54
10237 Trichlorofluoromethane 75-69-4 N.D. 0.15 0.38 60.54 10237 Vinyl Chloride 75-01-4 N.D. 0.076 0.38 60.54 10237 Xylene (Total) 1330-20-7 N.D. 0.076 0.38 60.54	10237	Trichloroethene	79-01-6	N.D.	0.076	0.38	60.54
10237 Vinyl Chloride 75-01-4 N.D. 0.076 0.38 60.54 10237 Xylene (Total) 1330-20-7 N.D. 0.076 0.38 60.54	10237	Trichlorofluoromethane	75-69-4	N.D.	0.15	0.38	60.54
10237 Xylene (Total) 1330-20-7 N.D. 0.076 0.38 60.54	10237	Vinyl Chloride	75-01-4	N.D.	0.076	0.38	60.54
	10237	Xylene (Total)	1330-20-7	N.D.	0.076	0.38	60.54



Analysis Report

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Sample Description: MW-2-S-24.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189688 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	15:22	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00084	0.0021	1
12969	Acenaphthylene	208-96-8	N.D.	0.00042	0.0021	1
12969	Anthracene	120-12-7	0.00054 J	0.00042	0.0021	1
12969	Benzo(a)anthracene	56-55-3	0.00088 J	0.00084	0.0021	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00084	0.0021	1
12969	Benzo(b)fluoranthene	205-99-2	0.014	0.00084	0.0021	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0022	0.00084	0.0021	1
12969	Benzo(k)fluoranthene	207-08-9	0.0011 J	0.00084	0.0021	1
12969	Chrysene	218-01-9	0.024	0.00042	0.0021	1
12969	Dibenz(a,h)anthracene	53-70-3	0.0014 J	0.00084	0.0021	1
12969	Fluoranthene	206-44-0	0.0034	0.00084	0.0021	1
12969	Fluorene	86-73-7	0.00085 J	0.00084	0.0021	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.00095 J	0.00084	0.0021	1
12969	Naphthalene	91-20-3	0.013	0.00084	0.0021	1
12969	Phenanthrene	85-01-8	0.025	0.00084	0.0021	1
12969	Pyrene	129-00-0	0.0022	0.00042	0.0021	1
Tara	at analytes were detected in t	he method blank a	geociated			

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vo	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil	C6-C10	n.a.	N.D.	0.8	8.3	32.82
Pesti	cides/PCBs	SW-846	8082A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. Dl	0.0042	0.021	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0064	0.021	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0052	0.021	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0052	0.021	1
10592	PCB-1248		12672-29-6	N.D. D2	0.0042	0.021	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0055	0.021	1
10592	PCB-1260		11096-82-5	N.D. D1	0.0049	0.021	1
GC Pe	troleum	AK 102/	AK 103	mg/kg	mg/kg	mg/kg	
Hydro	carbons	04/08/0	2				
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>N.D.</td><td>6.2</td><td>15</td><td>1</td></c25>		n.a.	N.D.	6.2	15	1
01738	C25-C36 RRO		n.a.	N.D.	6.2	15	1
The	recovery for a tax	rget analyte(:	s) in the Laborat	cory Control			
Spik	e(s) is outside the	ne QC accepta	nce limits as not	ed on the QC			
Summ	ary. The followin	ng corrective	action was taker	1:			
The	sample was re-ext	racted and the	e QC is again out	side of the			



Analysis Report

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Sample Description: MW-2-S-24.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189688 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: (38/30/2017	15:22	by	OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA07

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acce clie	ptance limit. T nt request.	The data is report	ted from the se	cond trial per			
Metal	S	SW-846 60	10C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	7.77	1.04	4.35	1
06946	Barium		7440-39-3	168	0.0479	1.09	1
06949	Cadmium		7440-43-9	N.D.	0.294	5.44	5
06951	Chromium		7440-47-3	53.8	0.185	3.27	1
06955	Lead		7439-92-1	21.0	0.653	3.27	1
06936	Selenium		7782-49-2	N.D.	1.01	4.35	1
06966	Silver		7440-22-4	0.936 J	0.261	1.09	1
		SW-846 74	71B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.123	0.0117	0.117	1
Wet C	hemistry	SM 2540 G	-1997	8	8	8	
00111	Moisture		n.a.	20.8	0.50	0.50	1
	Moisture repre	sents the loss in	weight of the	sample after oven o	drying at		
	103 - 105 degr	ees Celsius. The	moisture result	reported is on an			

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017 2	20:23	Jeremy C Giffin	60.54
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	15:22	Client Supplied	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201725647039	09/13/2017	11:02	Anastasia K Jaynes	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201725647039	09/13/2017	11:02	Anastasia K Jaynes	n.a.
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	10:27	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	22:06	Marie D Beamenderfer	32.82
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	15:22	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017 (00:49	Kirby B Turner	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-S-24.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189688 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 15:22 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA07

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		Laborat	ory Sa	mple Analysia	s Record			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
1132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
1738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	05:24	Nicholas R Rossi	1
4417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
6935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
6946	Barium	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
)6949	Cadmium	SW-846 6010C	1	172491063701	09/11/2017	08:47	Eric L Eby	5
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
)6955	Lead	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
6966	Silver	SW-846 6010C	1	172491063701	09/07/2017	14:51	Cindy M Gehman	1
0159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:07	Parker D Lindstrom	1
.0637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
0638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1
0111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

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Sample Description: MW-3-S-15-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189690 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	08:33	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	ND	0.38	1 1	52 78
10237	Benzene	71-43-2	N.D.	0.027	0.27	52.78
10237	Bromodichloromethane	75-27-4	N.D.	0.055	0.27	52.70
10237	Bromoform	75-27-4	N.D.	0.055	0.27	52.70
10237	Bromomethane	72-23-2	ND.	0.055	0.27	52.78
10237	2-Putanone	78-03-3	N.D.	0.22	0.27	52.70
10237	Carbon Digulfide	75-15-0	N.D.	0.22	0.33	52.70
10237	Carbon Tetrachloride	56-23-5	N.D.	0.055	0.27	52.78
10237	Chlorobenzene	108-90-7	N.D.	0.055	0.27	52.70
10237	Chloropenzene	75 00 2	N.D.	0.055	0.27	52.76
10237	Chloroform	67 66 2	N.D.	0.11	0.27	52.70
10237	Chloromothana	74 97 2	N.D.	0.055	0.27	52.70
10237	Chilohowana	110 00 7	N.D.	0.11	0.27	52.76
10237	1 2 Dibromo 2 abloropropono	110-82-7	N.D.	0.055	0.27	52.70
10237	Dibuement leverethere	104 40 1	N.D.	0.11	0.27	52.76
10237	1 2 Dibromochioromethane	124-40-1	N.D.	0.055	0.27	52.70
10237	1,2-Dipionoechane	106-93-4	N.D.	0.055	0.27	52.70
10237	1,2-Dichlorobenzene	95-50-1 E41 72 1	N.D.	0.055	0.27	52.70
10237	1,3-Dichlorobenzene	541-/3-1	N.D.	0.055	0.27	52.78
10237	I,4-D1Chlorobenzene	106-46-7	N.D.	0.055	0.27	52.78
10237	l l Dichleussthaus	75-71-8	N.D.	0.11	0.27	52.78
10237	1,1-Dichloroethane	107 06 0	N.D.	0.055	0.27	52.78
10237	1,2-Dichloroethane	107-06-2	N.D.	0.055	0.27	52.78
10237	1,1-Dichloroethene	15-35-4	N.D.	0.055	0.27	52.78
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.055	0.27	52.78
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.055	0.27	52.78
10237	1,2-Dichloropropane	/8-8/-5	N.D.	0.055	0.27	52.78
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.055	0.27	52.78
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.055	0.27	52.78
10237	Etnylbenzene	100-41-4	N.D.	0.055	0.27	52.78
10237	Freon 113	76-13-1	N.D.	0.11	0.55	52.78
10237	2-Hexanone	591-78-6	N.D.	0.16	0.55	52.78
10237	lsopropylbenzene	98-82-8	N.D.	0.055	0.27	52.78
10237	Methyl Acetate	79-20-9	N.D.	0.11	0.27	52.78
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.027	0.27	52.78
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.16	0.55	52.78
10237	Methylcyclohexane	108-87-2	N.D.	0.055	0.27	52.78
10237	Methylene Chloride	75-09-2	N.D.	0.11	0.27	52.78
10237	Styrene	100-42-5	N.D.	0.055	0.27	52.78
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.055	0.27	52.78
10237	Tetrachloroethene	127-18-4	N.D.	0.055	0.27	52.78
10237	Toluene	108-88-3	N.D.	0.055	0.27	52.78
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.055	0.27	52.78
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.055	0.27	52.78
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.055	0.27	52.78
10237	Trichloroethene	79-01-6	N.D.	0.055	0.27	52.78
10237	Trichlorofluoromethane	75-69-4	N.D.	0.11	0.27	52.78
10237	Vinyl Chloride	75-01-4	N.D.	0.055	0.27	52.78
10237	Xylene (Total)	1330-20-7	0.055 J	0.055	0.27	52.78



Analysis Report

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Sample Description: MW-3-S-15-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189690 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 08:33 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00068	0.0017	1
12969	Acenaphthylene	208-96-8	N.D.	0.00034	0.0017	1
12969	Anthracene	120-12-7	0.0010 J	0.00034	0.0017	1
12969	Benzo(a)anthracene	56-55-3	0.0017	0.00068	0.0017	1
12969	Benzo(a)pyrene	50-32-8	0.0011 J	0.00068	0.0017	1
12969	Benzo(b)fluoranthene	205-99-2	0.0029	0.00068	0.0017	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0019	0.00068	0.0017	1
12969	Benzo(k)fluoranthene	207-08-9	0.00091 J	0.00068	0.0017	1
12969	Chrysene	218-01-9	0.0044	0.00034	0.0017	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00068	0.0017	1
12969	Fluoranthene	206-44-0	0.0045	0.00068	0.0017	1
12969	Fluorene	86-73-7	N.D.	0.00068	0.0017	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0022	0.00068	0.0017	1
12969	Naphthalene	91-20-3	0.0025	0.00068	0.0017	1
12969	Phenanthrene	85-01-8	0.0041	0.00068	0.0017	1
12969	Pyrene	129-00-0	0.0066	0.00034	0.0017	1
Targe	at analytes were detected in t	he method blank a	geociated			

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San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vo	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil C	6-C10	n.a.	N.D.	5.1	51	248.13
Pesti	cides/PCBs	SW-846 80)82A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. D1	0.0034	0.017	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0052	0.017	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0042	0.017	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0042	0.017	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0034	0.017	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0045	0.017	1
10592	PCB-1260		11096-82-5	0.011 JD2	0.0040	0.017	1
GC Pe	troleum	AK 102/AH	C 103	mg/kg	mg/kg	mg/kg	
Hydro	carbons	04/08/02					
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>35</td><td>10</td><td>25</td><td>2</td></c25>		n.a.	35	10	25	2
01738	C25-C36 RRO		n.a.	140	10	25	2
The	recovery for a targ	get analyte(s)	in the Laborat	cory Control			
Spik	e(s) is outside the	e QC acceptanc	e limits as not	ted on the QC			
Summ	ary. The following	g corrective a	ction was taker	1:			
The	sample was re-extra	acted and the	QC is again out	side of the			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-15-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189690 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	08:33	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA09

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acce clie	ptance limit. Th nt request.	e data is reporte	d from the sec	cond trial per			
Metal	5	SW-846 601	.0C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	2.99 J	0.964	4.02	1
06946	Barium		7440-39-3	60.4	0.0442	1.00	1
06949	Cadmium		7440-43-9	N.D.	0.0542	1.00	1
06951	Chromium		7440-47-3	27.8	0.171	3.01	1
06955	Lead		7439-92-1	10.2	0.602	3.01	1
06936	Selenium		7782-49-2	N.D.	0.934	4.02	1
06966	Silver		7440-22-4	N.D.	0.241	1.00	1
		SW-846 747	'1B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0369 J	0.0098	0.0985	1
Wet C	hemistry	SM 2540 G-	1997	%	8	8	
00111	Moisture		n.a.	3.3	0.50	0.50	1
	Moisture represe 103 - 105 degree	nts the loss in v s Celsius. The mo	weight of the Disture result	sample after ov reported is or	ven drying at n an		

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	20:48	Jeremy C Giffin	52.78
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/31/2017	08:33	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	10:57	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34B	09/12/2017	15:07	Marie D Beamenderfer	248.13
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/31/2017	08:33	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	01:00	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	11:07	Nicholas R Rossi	2



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-15-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189690 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 08:33 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA09

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Time	e		Factor
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:27	Cindy M Gehman	1
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:23	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-15-170831 LOW LEVEL Grab SoilELLE SFacility# 306449ELLE G2730 Spendard Road - Anchorage, AKAccount

ELLE Sample # SW 9189691 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 08:33 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA10

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.001 J	0.0006	0.006	1.06
Wet Ch	emistry	SM 2540	G-1997	8	8	8	
00118	Moisture		n.a.	3.3	0.50	0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	11:14	Jennifer K Howe	1.06
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/31/2017	08:33	Client Supplied	1
02392	GC/MS - Field Preserved	SW-846 5035	2	201724546922	08/31/2017	08:33	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1


Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-17.5-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189692 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	08:48	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA11

				Dry	Dry	
CAT No.	Analysis Name	CAS Number	Dry Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.52	1.5	65.65
10237	Benzene	71-43-2	N.D.	0.037	0.37	65.65
10237	Bromodichloromethane	75-27-4	N.D.	0.075	0.37	65.65
10237	Bromoform	75-25-2	N.D.	0.075	0.37	65.65
10237	Bromomethane	74-83-9	N.D.	0.15	0.37	65.65
10237	2-Butanone	78-93-3	N.D.	0.30	0.75	65.65
10237	Carbon Disulfide	75-15-0	N.D.	0.075	0.37	65.65
10237	Carbon Tetrachloride	56-23-5	N.D.	0.075	0.37	65.65
10237	Chlorobenzene	108-90-7	N.D.	0.075	0.37	65.65
10237	Chloroethane	75-00-3	N.D.	0.15	0.37	65.65
10237	Chloroform	67-66-3	N.D.	0.075	0.37	65.65
10237	Chloromethane	74-87-3	N.D.	0.15	0.37	65.65
10237	Cyclohexane	110-82-7	N.D.	0.075	0.37	65.65
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.15	0.37	65.65
10237	Dibromochloromethane	124-48-1	N.D.	0.075	0.37	65.65
10237	1.2-Dibromoethane	106-93-4	N.D.	0.075	0.37	65.65
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.075	0.37	65.65
10237	1.3-Dichlorobenzene	541-73-1	N.D.	0.075	0.37	65.65
10237	1.4-Dichlorobenzene	106-46-7	N.D.	0.075	0.37	65.65
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.15	0.37	65.65
10237	1.1-Dichloroethane	75-34-3	N.D.	0.075	0.37	65.65
10237	1,2-Dichloroethane	107-06-2	N.D.	0.075	0.37	65.65
10237	1.1-Dichloroethene	75-35-4	N.D.	0.075	0.37	65.65
10237	cis-1.2-Dichloroethene	156-59-2	N.D.	0.075	0.37	65.65
10237	trans-1.2-Dichloroethene	156-60-5	N.D.	0.075	0.37	65.65
10237	1.2-Dichloropropane	78-87-5	N.D.	0.075	0.37	65.65
10237	cis-1.3-Dichloropropene	10061-01-5	N.D.	0.075	0.37	65.65
10237	trans-1.3-Dichloropropene	10061-02-6	N.D.	0.075	0.37	65.65
10237	Ethylbenzene	100-41-4	N.D.	0.075	0.37	65.65
10237	$\frac{1}{1}$	76-13-1	N.D.	0.15	0.75	65.65
10237	2-Hexanone	591-78-6	N D	0.22	0.75	65 65
10237	Isopropylbenzene	98-82-8	N D	0.075	0.37	65 65
10237	Methyl Acetate	79-20-9	N D	0.15	0.37	65 65
10237	Methyl Tertiary Butyl Ether	1634-04-4	N D	0.037	0.37	65 65
10237	4-Methyl-2-pentanone	108-10-1	N D	0.22	0.75	65 65
10237	Methylcyclohevane	108-87-2	N D	0.075	0.37	65 65
10237	Methylene Chloride	75-09-2	N D	0.15	0.37	65 65
10237	Styrene	100-42-5	N.D.	0.15	0.37	65 65
10237	1 1 2 2-Tetrachloroethane	79-34-5	N.D.	0.075	0.37	65.65
10237	Tetrachloroethene	127-18-4	N.D.	0.075	0.37	65.65
10237	Toluene	108-88-3	ND.	0.075	0.37	65 65
10237	1.2 A-Trichlorobenzene	120-82-1	N.D.	0.075	0.37	65.65
10237	1 1 1-Trichloroethane	71-55-6	N.D.	0.075	0.37	65 65
10237	1 1 2-Trichloroethane	79-00-5	N D	0.075	0.37	65 65
10237	Trighloroethene	79-00-5	N D	0.075	0.37	65 65
10237	Trighlorofluoromethanc	75-69-1	N D	0.075	0.37	65 65
10237	Vinul Chloride	75-01-4	N D	0.15	0.37	65 65
10237	Vulene (Total)	1330-20-7	N D	0.075	0.37	65 65
10237	AYICHE (IULAI)	1330-20-7	м.р.	0.075	0.37	03.03



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-17.5-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189692 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	08:48	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA11

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg		mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	0.0013	J	0.00075	0.0019	1
12969	Acenaphthylene	208-96-8	N.D.		0.00037	0.0019	1
12969	Anthracene	120-12-7	0.0028		0.00037	0.0019	1
12969	Benzo(a)anthracene	56-55-3	0.0014	J	0.00075	0.0019	1
12969	Benzo(a)pyrene	50-32-8	0.00091	J	0.00075	0.0019	1
12969	Benzo(b)fluoranthene	205-99-2	0.0022		0.00075	0.0019	1
12969	Benzo(g,h,i)perylene	191-24-2	N.D.		0.00075	0.0019	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.		0.00075	0.0019	1
12969	Chrysene	218-01-9	0.0031		0.00037	0.0019	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.		0.00075	0.0019	1
12969	Fluoranthene	206-44-0	0.0050		0.00075	0.0019	1
12969	Fluorene	86-73-7	0.0011	J	0.00075	0.0019	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.		0.00075	0.0019	1
12969	Naphthalene	91-20-3	0.0046		0.00075	0.0019	1
12969	Phenanthrene	85-01-8	0.0091		0.00075	0.0019	1
12969	Pyrene	129-00-0	0.0035		0.00037	0.0019	1
Tara	at analytes were detected in t	the method blank a	geociated				

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vo	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil C6	-C10	n.a.	0.6 J	0.6	6.0	26.25
Pesti	cides/PCBs	SW-846	8082A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. Dl	0.0037	0.019	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0058	0.019	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0046	0.019	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0046	0.019	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0037	0.019	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0050	0.019	1
10592	PCB-1260		11096-82-5	0.017 JD2	0.0044	0.019	1
GC Pe	troleum	AK 102/	/AK 103	mg/kg	mg/kg	mg/kg	
Hydro	carbons	04/08/0)2				
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>40</td><td>11</td><td>27</td><td>2</td></c25>		n.a.	40	11	27	2
01738	C25-C36 RRO		n.a.	210	11	27	2
The	recovery for a targe	et analyte(s) in the Laborat	ory Control			
Spik	e(s) is outside the	QC accepta	ance limits as not	ed on the QC			
Summ	ary. The following	corrective	e action was taken	1:			
The	sample was re-extrac	cted and th	ne QC is again out	side of the			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-17.5-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189692 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	08:48	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA11

CAT No.	Analysis Name	CAS Num	Dry ber Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acce clie	ptance limit. The nt request.	e data is reported from t	he second trial per			
Metal	5	SW-846 6010C	mg/kg	mg/kg	mg/kg	
06935	Arsenic	7440-38	-2 4.04	0.880	3.67	1
06946	Barium	7440-39	-3 66.2	0.0403	0.916	1
06949	Cadmium	7440-43	-9 N.D.	0.0495	0.916	1
06951	Chromium	7440-47	-3 37.5	0.156	2.75	1
06955	Lead	7439-92	-1 11.0	0.550	2.75	1
06936	Selenium	7782-49	-2 N.D.	0.852	3.67	1
06966	Silver	7440-22	-4 0.247 J	0.220	0.916	1
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97	-6 0.0468 J	0.0110	0.110	1
Wet Cl	hemistry	SM 2540 G-1997	8	8	8	
00111	Moisture	n.a.	12.0	0.50	0.50	1
	Moisture represe	nts the loss in weight of	f the sample after ove	n drying at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	21:11	Jeremy C Giffin	65.65
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/31/2017	08:48	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	11:27	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	23:24	Marie D Beamenderfer	26.25
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/31/2017	08:48	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	01:12	Kirby B Turner	1
11132	PCB Soils Update IV	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A	1
	Extraction						Newswanger	
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	11:36	Nicholas R Rossi	2



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-S-17.5-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189692 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 08:48 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA11

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tir	ne		Factor
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:31	Cindy M Gehman	1
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:25	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

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Sample Description: MW-3-S-17.5-170831 LOW LEVEL Grab SoilELLFacility# 306449ELL2730 Spendard Road - Anchorage, AKAcc

ELLE Sample # SW 9189693 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 08:48 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA12

Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Volatiles	SW-846 8260B	mg/kg	mg/kg	mg/kg	
Benzene	71-43-2	N.D.	0.0005	0.005	0.83
nemistry	SM 2540 G-1997	8	8	%	
Moisture	n.a.	12.0	0.50	0.50	1
	Analysis Name Volatiles Benzene Demistry Moisture	Analysis NameCAS NumberVolatiles BenzeneSW-846 8260B 71-43-2Volatiles BenzeneSM 2540 G-1997 n.a.	Analysis NameCAS NumberDry ResultVolatiles BenzeneSW-846 8260Bmg/kg71-43-2N.D.NoistureSM 2540 G-1997%Noisturen.a.12.0	Analysis NameCAS NumberDry ResultDry Method Detection Limit*Volatiles BenzeneSW-846 8260Bmg/kgmg/kg71-43-2N.D.0.0005emistry MoistureSM 2540 G-1997%%12.00.50	Analysis NameCAS NumberDry ResultDry MethodDry MethodDry Limit of QuantitationVolatiles BenzeneSW-846 8260Bmg/kgmg/kgmg/kg71-43-2N.D.0.00050.005emistry MoistureSM 2540 G-1997%%%12.00.500.500.50

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	12:45	Jennifer K Howe	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/31/2017	08:48	Client Supplied	1
02392	GC/MS - Field Preserved	SW-846 5035	2	201724546922	08/31/2017	08:48	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-18.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189694 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:28	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA13

CAT			Drv	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.42	1.2	53.78
10237	Benzene	71-43-2	N.D.	0.030	0.30	53.78
10237	Bromodichloromethane	75-27-4	N.D.	0.061	0.30	53.78
10237	Bromoform	75-25-2	N.D.	0.061	0.30	53.78
10237	Bromomethane	74-83-9	N.D.	0.12	0.30	53.78
10237	2-Butanone	78-93-3	N.D.	0.24	0.61	53.78
10237	Carbon Disulfide	75-15-0	N.D.	0.061	0.30	53.78
10237	Carbon Tetrachloride	56-23-5	N.D.	0.061	0.30	53.78
10237	Chlorobenzene	108-90-7	N.D.	0.061	0.30	53.78
10237	Chloroethane	75-00-3	N.D.	0.12	0.30	53.78
10237	Chloroform	67-66-3	N.D.	0.061	0.30	53.78
10237	Chloromethane	74-87-3	N.D.	0.12	0.30	53.78
10237	Cyclohexane	110-82-7	N.D.	0.061	0.30	53.78
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.12	0.30	53.78
10237	Dibromochloromethane	124-48-1	N.D.	0.061	0.30	53.78
10237	1,2-Dibromoethane	106-93-4	N.D.	0.061	0.30	53.78
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.061	0.30	53.78
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.061	0.30	53.78
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.061	0.30	53.78
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.12	0.30	53.78
10237	1,1-Dichloroethane	75-34-3	N.D.	0.061	0.30	53.78
10237	1,2-Dichloroethane	107-06-2	N.D.	0.061	0.30	53.78
10237	1,1-Dichloroethene	75-35-4	N.D.	0.061	0.30	53.78
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.061	0.30	53.78
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.061	0.30	53.78
10237	1,2-Dichloropropane	78-87-5	N.D.	0.061	0.30	53.78
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.061	0.30	53.78
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.061	0.30	53.78
10237	Ethylbenzene	100 - 41 - 4	N.D.	0.061	0.30	53.78
10237	Freon 113	76-13-1	N.D.	0.12	0.61	53.78
10237	2-Hexanone	591-78-6	N.D.	0.18	0.61	53.78
10237	Isopropylbenzene	98-82-8	N.D.	0.061	0.30	53.78
10237	Methyl Acetate	79-20-9	N.D.	0.12	0.30	53.78
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.030	0.30	53.78
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.18	0.61	53.78
10237	Methylcyclohexane	108-87-2	N.D.	0.061	0.30	53.78
10237	Methylene Chloride	75-09-2	N.D.	0.12	0.30	53.78
10237	Styrene	100-42-5	N.D.	0.061	0.30	53.78
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.061	0.30	53.78
10237	Tetrachloroethene	127-18-4	N.D.	0.061	0.30	53.78
10237	Toluene	108-88-3	N.D.	0.061	0.30	53.78
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.061	0.30	53.78
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.061	0.30	53.78
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.061	0.30	53.78
10237	Trichloroethene	79-01-6	N.D.	0.061	0.30	53.78
10237	Trichlorofluoromethane	75-69-4	N.D.	0.12	0.30	53.78
10237	Vinyl Chloride	75-01-4	N.D.	0.061	0.30	53.78
10237	Xylene (Total)	1330-20-7	N.D.	0.061	0.30	53.78



Analysis Report

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Sample Description: MW-4-S-18.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189694 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:28	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA13

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00074	0.0018	1
12969	Acenaphthylene	208-96-8	N.D.	0.00037	0.0018	1
12969	Anthracene	120-12-7	N.D.	0.00037	0.0018	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.00074	0.0018	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00074	0.0018	1
12969	Benzo(b)fluoranthene	205-99-2	N.D.	0.00074	0.0018	1
12969	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00074	0.0018	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.00074	0.0018	1
12969	Chrysene	218-01-9	N.D.	0.00037	0.0018	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00074	0.0018	1
12969	Fluoranthene	206-44-0	N.D.	0.00074	0.0018	1
12969	Fluorene	86-73-7	N.D.	0.00074	0.0018	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00074	0.0018	1
12969	Naphthalene	91-20-3	0.0031	0.00074	0.0018	1
12969	Phenanthrene	85-01-8	N.D.	0.00074	0.0018	1
12969	Pyrene	129-00-0	N.D.	0.00037	0.0018	1
Teres	t explorted upon detected in t	-he method blemk e	aaaaiatad			

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vol	latiles	AK	101		mg/kg		mg/kg	mg/kg	
01450	TPH-GRO AK soil C6-	C10		n.a.	N.D.		0.6	6.3	27.98
Pestic	ides/PCBs	SW-	-846 808	2A	mg/kg		mg/kg	mg/kg	
10592	PCB-1016			12674-11-2	N.D.	D1	0.0037	0.019	1
10592	PCB-1221			11104-28-2	N.D.	D1	0.0057	0.019	1
10592	PCB-1232			11141-16-5	N.D.	Dl	0.0046	0.019	1
10592	PCB-1242			53469-21-9	N.D.	Dl	0.0046	0.019	1
10592	PCB-1248			12672-29-6	N.D.	Dl	0.0037	0.019	1
10592	PCB-1254			11097-69-1	N.D.	D1	0.0049	0.019	1
10592	PCB-1260			11096-82-5	N.D.	D1	0.0044	0.019	1
GC Pet	croleum	AK	102/AK	103	mg/kg		mg/kg	mg/kg	
Hydrod	carbons	04/	/08/02						
01738	C10- <c25 dro<="" td=""><td></td><td></td><td>n.a.</td><td>N.D.</td><td></td><td>5.5</td><td>13</td><td>1</td></c25>			n.a.	N.D.		5.5	13	1
01738	C25-C36 RRO			n.a.	N.D.		5.5	13	1
The 1	recovery for a targe	t ana	alyte(s) i	n the Laborato	ry Cont	rol			
Spike	e(s) is outside the (QC ad	cceptance	limits as noted	d on th	e QC			
Summa	ary. The following	corre	ective act	ion was taken:					
The s	sample was re-extrac	ted a	and the QC	is again outs:	ide of	the			



Analysis Report

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Sample Description: MW-4-S-18.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189694 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:28	by 01
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA13

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acce clie	ptance limit. nt request.	The data is report	ted from the se	cond trial per			
Metal	5	SW-846 60	10C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	2.65 J	1.05	4.38	1
06946	Barium		7440-39-3	60.5	0.0482	1.09	1
06949	Cadmium		7440-43-9	N.D.	0.0591	1.09	1
06951	Chromium		7440-47-3	35.3	0.186	3.28	1
06955	Lead		7439-92-1	9.82	0.657	3.28	1
06936	Selenium		7782-49-2	N.D.	1.02	4.38	1
06966	Silver		7440-22-4	N.D.	0.263	1.09	1
		SW-846 74	71B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0284 J	0.0109	0.109	1
Wet Cl	hemistry	SM 2540 G	-1997	8	8	8	
00111	Moisture		n.a.	11.3	0.50	0.50	1
	Moisture repre	esents the loss in	weight of the	sample after oven o	drying at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	21:35	Jeremy C Giffin	53.78
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	09:28	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	11:57	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/08/2017	00:03	Marie D Beamenderfer	27.98
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	09:28	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	01:23	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	05:53	Nicholas R Rossi	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-18.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189694 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 09:28 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA13

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tim	1e		Factor
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:34	Cindy M Gehman	1
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:31	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-18.5-170830 LOW LEVEL Grab SoilELLEFacility# 306449ELLE2730 Spendard Road - Anchorage, AKAccord

ELLE Sample # SW 9189695 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 09:28 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA14

Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Volatiles	SW-846	8260B	mg/kg	mg/kg	mg/kg	
Benzene		71-43-2	N.D.	0.0008	0.008	1.38
nemistry	SM 2540	G-1997	%	%	%	
Moisture		n.a.	11.3	0.50	0.50	1
	Analysis Name Volatiles Benzene Moistry Moisture	Analysis Name Volatiles SW-846 Benzene Memistry SM 2540 Moisture	Analysis NameCAS NumberVolatiles BenzeneSW-846 8260B 71-43-2Volatiles BenzeneSM 2540 G-1997 n.a.	Analysis NameCAS NumberDry ResultVolatiles BenzeneSW-846 8260Bmg/kg71-43-2N.D.MoistureSM 2540 G-1997%11.311.3	Analysis NameCAS NumberDry ResultDry Method Detection Limit*Volatiles BenzeneSW-846 8260Bmg/kgmg/kg71-43-2N.D.0.0008emistry MoistureSM 2540 G-1997%%Noisturen.a.11.30.50	Analysis NameCAS NumberDry ResultDry MethodDry Limit of Detection Limit*Dry Limit of QuantitationVolatiles BenzeneSW-846 8260Bmg/kgmg/kgmg/kg71-43-2N.D.0.00080.008emistry MoistureSM 2540 G-1997%%%11.30.500.50

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	14:16	Jennifer K Howe	1.38
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/30/2017	09:28	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201724546922	08/30/2017	09:28	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-23.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189696 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:50	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA15

CAT			Dry	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.56	1.6	63.01
10237	Benzene	71-43-2	N.D.	0.040	0.40	63.01
10237	Bromodichloromethane	75-27-4	N.D.	0.080	0.40	63.01
10237	Bromoform	75-25-2	N.D.	0.080	0.40	63.01
10237	Bromomethane	74-83-9	N.D.	0.16	0.40	63.01
10237	2-Butanone	78-93-3	N.D.	0.32	0.80	63.01
10237	Carbon Disulfide	75-15-0	N.D.	0.080	0.40	63.01
10237	Carbon Tetrachloride	56-23-5	N.D.	0.080	0.40	63.01
10237	Chlorobenzene	108-90-7	N.D.	0.080	0.40	63.01
10237	Chloroethane	75-00-3	N.D.	0.16	0.40	63.01
10237	Chloroform	67-66-3	N.D.	0.080	0.40	63.01
10237	Chloromethane	74-87-3	N.D.	0.16	0.40	63.01
10237	Cyclohexane	110-82-7	N.D.	0.080	0.40	63.01
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.16	0.40	63.01
10237	Dibromochloromethane	124-48-1	N.D.	0.080	0.40	63.01
10237	1,2-Dibromoethane	106-93-4	N.D.	0.080	0.40	63.01
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.080	0.40	63.01
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.080	0.40	63.01
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.080	0.40	63.01
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.16	0.40	63.01
10237	1,1-Dichloroethane	75-34-3	N.D.	0.080	0.40	63.01
10237	1,2-Dichloroethane	107-06-2	N.D.	0.080	0.40	63.01
10237	1,1-Dichloroethene	75-35-4	N.D.	0.080	0.40	63.01
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.080	0.40	63.01
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.080	0.40	63.01
10237	1,2-Dichloropropane	78-87-5	N.D.	0.080	0.40	63.01
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.080	0.40	63.01
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.080	0.40	63.01
10237	Ethylbenzene	100-41-4	N.D.	0.080	0.40	63.01
10237	Freon 113	76-13-1	N.D.	0.16	0.80	63.01
10237	2-Hexanone	591-78-6	N.D.	0.24	0.80	63.01
10237	Isopropylbenzene	98-82-8	N.D.	0.080	0.40	63.01
10237	Methyl Acetate	79-20-9	N.D.	0.16	0.40	63.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.040	0.40	63.01
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.24	0.80	63.01
10237	Methylcyclohexane	108-87-2	N.D.	0.080	0.40	63.01
10237	Methylene Chloride	75-09-2	N.D.	0.16	0.40	63.01
10237	Styrene	100-42-5	N.D.	0.080	0.40	63.01
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.080	0.40	63.01
10237	Tetrachloroethene	127-18-4	N.D.	0.080	0.40	63.01
10237	Toluene	108-88-3	N.D.	0.080	0.40	63.01
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.080	0.40	63.01
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.080	0.40	63.01
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.080	0.40	63.01
10237	Trichloroethene	79-01-6	N.D.	0.080	0.40	63.01
10237	Trichlorofluoromethane	75-69-4	N.D.	0.16	0.40	63.01
10237	Vinyl Chloride	75-01-4	N.D.	0.080	0.40	63.01
10237	Xylene (Total)	1330-20-7	N.D.	0.080	0.40	63.01
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Analysis Report

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Sample Description: MW-4-S-23.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189696 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:50	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA15

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.0025	0.0063	1
12969	Acenaphthylene	208-96-8	0.0014 J	0.0013	0.0063	1
12969	Anthracene	120-12-7	0.0022 J	0.0013	0.0063	1
12969	Benzo(a)anthracene	56-55-3	0.0032 J	0.0025	0.0063	1
12969	Benzo(a)pyrene	50-32-8	0.0032 J	0.0025	0.0063	1
12969	Benzo(b)fluoranthene	205-99-2	0.0048 J	0.0025	0.0063	1
12969	Benzo(g,h,i)perylene	191-24-2	0.016	0.0025	0.0063	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.0025	0.0063	1
12969	Chrysene	218-01-9	0.0055 J	0.0013	0.0063	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0025	0.0063	1
12969	Fluoranthene	206-44-0	0.0029 J	0.0025	0.0063	1
12969	Fluorene	86-73-7	N.D.	0.0025	0.0063	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0071	0.0025	0.0063	1
12969	Naphthalene	91-20-3	0.019	0.0025	0.0063	1
12969	Phenanthrene	85-01-8	0.0045 J	0.0025	0.0063	1
12969	Pyrene	129-00-0	0.0049 J	0.0013	0.0063	1
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ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Reporting limits were raised due to limited sample volume.

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vol	latiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil	C6-C10	n.a.	N.D.	0.7	6.7	26.43
Pestic	cides/PCBs	SW-846 8	082A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. Dl	0.0042	0.021	1
10592	PCB-1221		11104-28-2	N.D. Dl	0.0064	0.021	1
10592	PCB-1232		11141-16-5	N.D. Dl	0.0052	0.021	1
10592	PCB-1242		53469-21-9	N.D. Dl	0.0052	0.021	1
10592	PCB-1248		12672-29-6	N.D. Dl	0.0042	0.021	1
10592	PCB-1254		11097-69-1	N.D. Dl	0.0055	0.021	1
10592	PCB-1260		11096-82-5	N.D. Dl	0.0049	0.021	1
GC Pet	croleum	AK 102/A	к 103	mg/kg	mg/kg	mg/kg	
Hydrod	carbons	04/08/02					
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>N.D.</td><td>6.8</td><td>16</td><td>1</td></c25>		n.a.	N.D.	6.8	16	1
01738	C25-C36 RRO		n.a.	N.D.	6.8	16	1
The : Spike	recovery for a ta e(s) is outside t	rget analyte(s he QC acceptan) in the Laborat ce limits as not	cory Control ed on the QC			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-23.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189696 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/30/2017	09:50	by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA15

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Summ The acce clie	ary. The following sample was re-extrac ptance limit. The d nt request.	corrective ted and the ata is repo	action was taken e QC is again out orted from the se	: side of the cond trial per			
Metal	S	SW-846	6010C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	4.32 J	1.13	4.72	1
06946	Barium		7440-39-3	152	0.0519	1.18	1
06949	Cadmium		7440-43-9	N.D.	0.319	5.90	5
06951	Chromium		7440-47-3	54.0	0.201	3.54	1
06955	Lead		7439-92-1	18.4	0.708	3.54	1
06936	Selenium		7782-49-2	N.D.	1.10	4.72	1
06966	Silver		7440-22-4	0.492 J	0.283	1.18	1
		SW-846	7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.143	0.0118	0.118	1
Wet C	hemistry	SM 2540	G-1997	%	8	8	
00111	Moisture		n.a.	20.8	0.50	0.50	1
	Moisture represents	the loss	in weight of the	sample after over	n drying at		

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Ti	me		Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	22:00	Jeremy C Giffin	63.01
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	09:50	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	12:28	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	20:08	Marie D Beamenderfer	26.43
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	09:50	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	01:35	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-23.5-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189696 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 09:50 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA15

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor	
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	06:21	Nicholas R Rossi	1	
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1	
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
06949	Cadmium	SW-846 6010C	1	172491063701	09/11/2017	09:06	Eric L Eby	5	
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:37	Cindy M Gehman	1	
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:33	Parker D Lindstrom	1	
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1	
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1	
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1	



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-23.5-170830 LOW LEVEL Grab SoilELLEFacility# 306449ELLE2730 Spendard Road - Anchorage, AKAcco

ELLE Sample # SW 9189697 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 09:50 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA16

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS 10237	Volatiles Benzene	SW-846 8260)B 71-43-2	mg/kg N.D.	mg/kg 0.0004	mg/kg 0.004	0.7
Wet Ch 00118	Memistry Moisture	SM 2540 G-1	L 997 n.a.	% 20.8	% 0.50	% 0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	13:08	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/30/2017	09:50	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201724546922	08/30/2017	09:50	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189698 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	11:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA17

CAT			Dry		Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result		Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg		mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.		0.41	1.2	56.72
10237	Benzene	71-43-2	N.D.		0.029	0.29	56.72
10237	Bromodichloromethane	75-27-4	N.D.		0.059	0.29	56.72
10237	Bromoform	75-25-2	N.D.		0.059	0.29	56.72
10237	Bromomethane	74-83-9	N.D.		0.12	0.29	56.72
10237	2-Butanone	78-93-3	N.D.		0.24	0.59	56.72
10237	Carbon Disulfide	75-15-0	N.D.		0.059	0.29	56.72
10237	Carbon Tetrachloride	56-23-5	N.D.		0.059	0.29	56.72
10237	Chlorobenzene	108-90-7	N.D.		0.059	0.29	56.72
10237	Chloroethane	75-00-3	N.D.		0.12	0.29	56.72
10237	Chloroform	67-66-3	N.D.		0.059	0.29	56.72
10237	Chloromethane	74-87-3	N.D.		0.12	0.29	56.72
10237	Cyclohexane	110-82-7	N.D.		0.059	0.29	56.72
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		0.12	0.29	56.72
10237	Dibromochloromethane	124-48-1	N.D.		0.059	0.29	56.72
10237	1,2-Dibromoethane	106-93-4	N.D.		0.059	0.29	56.72
10237	1,2-Dichlorobenzene	95-50-1	N.D.		0.059	0.29	56.72
10237	1,3-Dichlorobenzene	541-73-1	N.D.		0.059	0.29	56.72
10237	1,4-Dichlorobenzene	106-46-7	N.D.		0.059	0.29	56.72
10237	Dichlorodifluoromethane	75-71-8	N.D.		0.12	0.29	56.72
10237	1,1-Dichloroethane	75-34-3	N.D.		0.059	0.29	56.72
10237	1,2-Dichloroethane	107-06-2	N.D.		0.059	0.29	56.72
10237	1,1-Dichloroethene	75-35-4	N.D.		0.059	0.29	56.72
10237	cis-1,2-Dichloroethene	156-59-2	N.D.		0.059	0.29	56.72
10237	trans-1,2-Dichloroethene	156-60-5	N.D.		0.059	0.29	56.72
10237	1,2-Dichloropropane	78-87-5	N.D.		0.059	0.29	56.72
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.059	0.29	56.72
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.059	0.29	56.72
10237	Ethylbenzene	100-41-4	N.D.		0.059	0.29	56.72
10237	Freon 113	76-13-1	N.D.		0.12	0.59	56.72
10237	2-Hexanone	591-78-6	N.D.		0.18	0.59	56.72
10237	Isopropylbenzene	98-82-8	N.D.		0.059	0.29	56.72
10237	Methyl Acetate	79-20-9	0.14	J	0.12	0.29	56.72
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.		0.029	0.29	56.72
10237	4-Methyl-2-pentanone	108-10-1	N.D.		0.18	0.59	56.72
10237	Methylcyclohexane	108-87-2	N.D.		0.059	0.29	56.72
10237	Methylene Chloride	75-09-2	N.D.		0.12	0.29	56.72
10237	Styrene	100-42-5	N.D.		0.059	0.29	56.72
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.059	0.29	56.72
10237	Tetrachloroethene	127-18-4	N.D.		0.059	0.29	56.72
10237	Toluene	108-88-3	N.D.		0.059	0.29	56.72
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.		0.059	0.29	56.72
10237	1,1,1-Trichloroethane	71-55-6	N.D.		0.059	0.29	56.72
10237	1,1,2-Trichloroethane	79-00-5	N.D.		0.059	0.29	56.72
10237	Trichloroethene	79-01-6	N.D.		0.059	0.29	56.72
10237	Trichlorofluoromethane	75-69-4	N.D.		0.12	0.29	56.72
10237	Vinyi Chloride	75-01-4	N.D.		0.059	0.29	56.72
10237	xyiene (Total)	1330-20-7	N.D.		0.059	0.29	56.72



Analysis Report

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Sample Description: MW-1-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189698 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	11:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA17

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00069	0.0017	1
12969	Acenaphthylene	208-96-8	N.D.	0.00034	0.0017	1
12969	Anthracene	120-12-7	0.00076 J	0.00034	0.0017	1
12969	Benzo(a)anthracene	56-55-3	0.0036	0.00069	0.0017	1
12969	Benzo(a)pyrene	50-32-8	0.0065	0.00069	0.0017	1
12969	Benzo(b)fluoranthene	205-99-2	0.012	0.00069	0.0017	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0043	0.00069	0.0017	1
12969	Benzo(k)fluoranthene	207-08-9	0.0038	0.00069	0.0017	1
12969	Chrysene	218-01-9	0.0074	0.00034	0.0017	1
12969	Dibenz(a,h)anthracene	53-70-3	0.0013 J	0.00069	0.0017	1
12969	Fluoranthene	206-44-0	0.0066	0.00069	0.0017	1
12969	Fluorene	86-73-7	N.D.	0.00069	0.0017	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0032	0.00069	0.0017	1
12969	Naphthalene	91-20-3	0.0022	0.00069	0.0017	1
12969	Phenanthrene	85-01-8	0.0078	0.00069	0.0017	1
12969	Pyrene	129-00-0	0.0074	0.00034	0.0017	1
The	recovery for the sample interr	al standard is ou	tside the OC			

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken:

The sample was re-analyzed and internal standard areas are again outside of the QC acceptance limits, indicating a matrix effect. The reported data is from the initial analysis of the sample.

The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC V	olatiles	AK 101		mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil	C6-C10	n.a.	N.D.	0.7	7.3	35.09
Pest	icides/PCBs	SW-846	8082A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. D1	0.0034	0.017	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0052	0.017	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0042	0.017	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0042	0.017	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0034	0.017	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0045	0.017	1
10592	PCB-1260		11096-82-5	N.D. Dl	0.0040	0.017	1
GC P	etroleum	AK 102/	AK 103	mg/kg	mg/kg	mg/kg	
Hydro	ocarbons	04/08/0	2				
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>N.D.</td><td>5.1</td><td>12</td><td>1</td></c25>		n.a.	N.D.	5.1	12	1
01738	C25-C36 RRO		n.a.	36	5.1	12	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Descriptio	on: MW-1-S-2-170829 HIGH LEVEL Grab Soil	ELLE Sample # SW 9189698
	Facility# 306449	ELLE Group # 1845654
	2730 Spendard Road - Anchorage, AK	Account # 10880

Project Name: 306449

Reported: 09/22/2017 15:43

Collected:	08/29/2017	11:00	by OY	ChevronTexaco	
				6001 Bollinger Canyon Rd L43	310
Submitted:	09/01/2017	09:55		San Ramon CA 94583	

SRA17

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The Spik Summ The acce clie	recovery for a tap e(s) is outside th ary. The followin sample was re-extr ptance limit. The nt request.	rget analyte(s) i ne QC acceptance ng corrective act racted and the QC e data is reporte	In the Laborat limits as not ion was taken is again out is from the se	ory Control ed on the QC : side of the cond trial per			
Metal	S	SW-846 601	.0C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	4.09	0.966	4.02	1
06946	Barium		7440-39-3	169	0.0443	1.01	1
06949	Cadmium		7440-43-9	N.D.	0.0543	1.01	1
06951	Chromium		7440-47-3	20.1	0.171	3.02	1
06955	Lead		7439-92-1	10.9	0.604	3.02	1
06936	Selenium		7782-49-2	N.D.	0.936	4.02	1
06966	Silver		7440-22-4	N.D.	0.241	1.01	1
		SW-846 747	1B	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0325 J	0.0096	0.0957	1
Wet C	hemistry	SM 2540 G-	1997	%	8	8	
00111	Moisture		n.a.	3.5	0.50	0.50	1
	Moisture represe 103 - 105 degree as-received basi	nts the loss in w s Celsius. The mo s.	weight of the Disture result	sample after ove reported is on	en drying at an		

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

САТ	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.				200011	Date and Tir	ne		Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	18:22	Jeremy C Giffin	56.72
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/29/2017	11:00	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17249SLB026	09/12/2017	15:43	Linda M Hartenstine	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	17249SLB026	09/06/2017	17:20	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	18:11	Marie D Beamenderfer	35.09
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/29/2017	11:00	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	02:09	Kirby B Turner	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189698 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 11:00 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA17

	Laboratory Sample Analysis Record								
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	me	Analyst	Dilution Factor	
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1	
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	06:50	Nicholas R Rossi	1	
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1	
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:41	Cindy M Gehman	1	
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:35	Parker D Lindstrom	1	
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1	
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1	
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1	



Analysis Report

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Sample Description: MW-1-S-2-170829 LOW LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK ELLE Sample # SW 9189699 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 11:00 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA18

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8	260B	mg/kg	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.0008 J	0.0004	0.004	0.77
Wet Ch	nemistry	SM 2540	G-1997	8	8	8	
00118	Moisture		n.a.	3.5	0.50	0.50	1
Wet Ch 00118	Demistry Moisture	SM 2540	G-1997 n.a.	% 3.5	% 0.50	% 0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017 13	3:31	Jennifer K Howe	0.77
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/29/2017 11	:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201724546922	08/29/2017 11	:00	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017 21	:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189700 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	08:17	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA19

				Dry	Dry	
CAT No.	Analysis Name	CAS Number	Dry Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.43	1.2	59.5
10237	Benzene	71-43-2	N.D.	0.031	0.31	59.5
10237	Bromodichloromethane	75-27-4	N.D.	0.062	0.31	59.5
10237	Bromoform	75-25-2	N.D.	0.062	0.31	59.5
10237	Bromomethane	74-83-9	N.D.	0.12	0.31	59.5
10237	2-Butanone	78-93-3	N.D.	0.25	0.62	59.5
10237	Carbon Disulfide	75-15-0	N.D.	0.062	0.31	59.5
10237	Carbon Tetrachloride	56-23-5	N.D.	0.062	0.31	59.5
10237	Chlorobenzene	108-90-7	N.D.	0.062	0.31	59.5
10237	Chloroethane	75-00-3	N.D.	0.12	0.31	59.5
10237	Chloroform	67-66-3	N.D.	0.062	0.31	59.5
10237	Chloromethane	74-87-3	N.D.	0.12	0.31	59.5
10237	Cyclohexane	110-82-7	N.D.	0.062	0.31	59.5
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.12	0.31	59.5
10237	Dibromochloromethane	124-48-1	N.D.	0.062	0.31	59.5
10237	1,2-Dibromoethane	106-93-4	N.D.	0.062	0.31	59.5
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.062	0.31	59.5
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.062	0.31	59.5
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.062	0.31	59.5
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.12	0.31	59.5
10237	1,1-Dichloroethane	75-34-3	N.D.	0.062	0.31	59.5
10237	1,2-Dichloroethane	107-06-2	N.D.	0.062	0.31	59.5
10237	1,1-Dichloroethene	75-35-4	N.D.	0.062	0.31	59.5
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.062	0.31	59.5
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.062	0.31	59.5
10237	1,2-Dichloropropane	78-87-5	N.D.	0.062	0.31	59.5
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.062	0.31	59.5
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.062	0.31	59.5
10237	Ethylbenzene	100-41-4	N.D.	0.062	0.31	59.5
10237	Freon 113	76-13-1	N.D.	0.12	0.62	59.5
10237	2-Hexanone	591-78-6	N.D.	0.19	0.62	59.5
10237	Isopropylbenzene	98-82-8	N.D.	0.062	0.31	59.5
10237	Methyl Acetate	79-20-9	N.D.	0.12	0.31	59.5
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.031	0.31	59.5
10237	4-Methy1-2-pentanone	108-10-1	N.D.	0.19	0.62	59.5
10237	Methylcyclohexane	108-87-2	N.D.	0.062	0.31	59.5
10237	Methylene Chloride	75-09-2	N.D.	0.12	0.31	59.5
10237	Styrene	100-42-5	N.D.	0.062	0.31	59.5
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.062	0.31	59.5
10237	Tetrachloroethene	127-18-4	N.D.	0.062	0.31	59.5
10237	Toluene	108-88-3	N.D.	0.062	0.31	59.5
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.062	0.31	59.5
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.062	0.31	59.5
10237	1,1,2-Trichloroethane	/9-00-5 70 01 6	N.D.	0.062	0.31	59.5 FO F
10227	Trichlenefluerersthere	/9-U1-0 75 60 4	N.D.	0.062	0.31	59.5 FO F
10237	Trichiorofluoromethane	/5-69-4 75 01 4	N.D.	0.12	0.31	59.5 FO F
10227	VIIIYI CHIOFIGE	1220 20 7	N.D.	0.062	0.31	59.5 E0 E
10237	AYICHE (IUCAI)	1330-20-7	л	0.002	0.31	59.5



Analysis Report

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Sample Description: MW-4-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189700 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	08:17	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00069	0.0017	1
12969	Acenaphthylene	208-96-8	N.D.	0.00034	0.0017	1
12969	Anthracene	120-12-7	N.D.	0.00034	0.0017	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.00069	0.0017	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00069	0.0017	1
12969	Benzo(b)fluoranthene	205-99-2	0.0031	0.00069	0.0017	1
12969	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00069	0.0017	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.00069	0.0017	1
12969	Chrysene	218-01-9	0.0044	0.00034	0.0017	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00069	0.0017	1
12969	Fluoranthene	206-44-0	0.00092 J	0.00069	0.0017	1
12969	Fluorene	86-73-7	N.D.	0.00069	0.0017	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00069	0.0017	1
12969	Naphthalene	91-20-3	0.0033	0.00069	0.0017	1
12969	Phenanthrene	85-01-8	0.0081	0.00069	0.0017	1
12969	Pyrene	129-00-0	0.00060 J	0.00034	0.0017	1
ml		()	(1			

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The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:

The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

GC Vo	latiles	AK 10	1	mg/kg	mg/kg	mg/kg	
01450	TPH-GRO AK soil C6	-C10	n.a.	N.D.	0.4	4.1	19.89
Pesti	cides/PCBs	SW-84	6 8082A	mg/kg	mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D. D1	0.0034	0.018	1
10592	PCB-1221		11104-28-2	N.D. D1	0.0053	0.018	1
10592	PCB-1232		11141-16-5	N.D. D1	0.0042	0.018	1
10592	PCB-1242		53469-21-9	N.D. D1	0.0042	0.018	1
10592	PCB-1248		12672-29-6	N.D. D1	0.0034	0.018	1
10592	PCB-1254		11097-69-1	N.D. D1	0.0045	0.018	1
10592	PCB-1260		11096-82-5	N.D. Dl	0.0040	0.018	1
GC Pe	troleum	AK 10	2/AK 103	mg/kg	mg/kg	mg/kg	
Hydro	carbons	04/08	/02				
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>N.D.</td><td>5.1</td><td>12</td><td>1</td></c25>		n.a.	N.D.	5.1	12	1
01738	C25-C36 RRO		n.a.	N.D.	5.1	12	1
The	recovery for a targe	et analyt	e(s) in the Labor	atory Control			
Spik	e(s) is outside the	QC accep	tance limits as n	oted on the QC			
Summ	ary. The following	correcti	ve action was tak	en:			
The	sample was re-extrac	ted and	the QC is again o	utside of the			
acce	eptance limit. The d	lata is r	eported from the	second trial per			

client request.



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189700 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	08:17	by OY
001100000	00/0/001/	· · ·	~ ~ ~ ~

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA19

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Metal	5	SW-846 6010C	mg/kg	mg/kg	mg/kg	
06935	Arsenic	7440-38-2	4.59	0.697	2.90	1
06946	Barium	7440-39-3	185	0.0320	0.726	1
06949	Cadmium	7440-43-9	N.D.	0.0392	0.726	1
06951	Chromium	7440-47-3	22.1	0.123	2.18	1
06955	Lead	7439-92-1	9.07	0.436	2.18	1
06936	Selenium	7782-49-2	N.D.	0.675	2.90	1
06966	Silver	7440-22-4	0.240 J	0.174	0.726	1
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439-97-6	0.0437 J	0.0096	0.0959	1
Wet Cl	hemistry	SM 2540 G-1997	8	8	8	
00111	Moisture	n.a.	3.7	0.50	0.50	1
	Moisture represent	s the loss in weight of the	he sample after over	n drying at		

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6001 Bollinger Canyon Rd L4310

103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tim	ne		Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	18:46	Jeremy C Giffin	59.5
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/29/2017	08:17	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17249SLB026	09/12/2017	14:37	Linda M Hartenstine	1
10811	BNA Soil Microwave SIM	SW-846 3546	1	17249SLB026	09/06/2017	17:20	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	20:47	Marie D Beamenderfer	19.89
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/29/2017	08:17	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	02:21	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	07:19	Nicholas R Rossi	1
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1



Analysis Report

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Sample Description: MW-4-S-2-170829 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189700 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 08:17 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA19

Laboratory Sample Analysis Record

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:44	Cindy M Gehman	1
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:37	Parker D Lindstrom	1
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1
10638 00111	Hg - SW, 7471B - U4 Moisture	SW-846 7471B SM 2540 G-1997	1 1	172491063801 17250820012B	09/07/2017 09/07/2017	07:50 21:07	Lisa J Cooke Scott W Freisher	1 1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-4-S-2-170829 LOW LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189701 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 08:17 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA20

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Benzene		71-43-2	0.001 J	0.0006	0.006	1.12
Wet Ch	emistry	SM 2540	G-1997	ଝ	8	%	
00118	Moisture		n.a.	3.7	0.50	0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	13:53	Jennifer K Howe	1.12
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/29/2017	08:17	Client Supplied	1
02392	GC/MS - Field Preserved	SW-846 5035	2	201724546922	08/29/2017	08:17	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: RB-1-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189702 ELLE Group # 1845654 Account # 10880

Project Name: 306449

COTTECLED = 00/29/2017 07.54 Dy C	Collected:	08/29/2017	07:54	by 01
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA21

CAT				Method	Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/l	mg/l	mg/l	
10335	Acetone	67-64-1	N.D.	0.006	0.020	1
10335	Benzene	71-43-2	N.D.	0.0005	0.001	1
10335	Bromodichloromethane	75-27-4	N.D.	0.0005	0.001	1
10335	Bromoform	75-25-2	N.D.	0.0005	0.004	1
10335	Bromomethane	74-83-9	N.D.	0.0005	0.001	1
10335	2-Butanone	78-93-3	N.D.	0.003	0.010	1
10335	Carbon Disulfide	75-15-0	N.D.	0.001	0.005	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.0005	0.001	1
10335	Chlorobenzene	108-90-7	N.D.	0.0005	0.001	1
10335	Chloroethane	75-00-3	N.D.	0.0005	0.001	1
10335	Chloroform	67-66-3	N.D.	0.0005	0.001	1
10335	Chloromethane	74-87-3	N.D.	0.0005	0.001	1
10335	Cyclohexane	110-82-7	N.D.	0.002	0.005	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.002	0.005	1
10335	Dibromochloromethane	124-48-1	N.D.	0.0005	0.001	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.0005	0.001	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	0.001	0.005	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.005	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.005	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.0005	0.001	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.0005	0.001	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.0005	0.001	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.0005	0.001	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0005	0.001	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.001	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.0005	0.001	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.0005	0.001	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0005	0.001	1
10335	Ethylbenzene	100 - 41 - 4	N.D.	0.0005	0.001	1
10335	Freon 113	76-13-1	N.D.	0.002	0.010	1
10335	2-Hexanone	591-78-6	N.D.	0.003	0.010	1
10335	Isopropylbenzene	98-82-8	N.D.	0.001	0.005	1
10335	Methyl Acetate	79-20-9	N.D.	0.001	0.005	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.001	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.010	1
10335	Methylcyclohexane	108-87-2	N.D.	0.001	0.005	1
10335	Methylene Chloride	75-09-2	N.D.	0.002	0.004	1
10335	Styrene	100-42-5	N.D.	0.001	0.005	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.0005	0.001	1
10335	Tetrachloroethene	127-18-4	N.D.	0.0005	0.001	1
10335	Toluene	108-88-3	N.D.	0.0005	0.001	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.001	0.005	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.0005	0.001	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.0005	0.001	1
10335	Trichloroethene	79-01-6	N.D.	0.0005	0.001	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.0005	0.001	1
10335	Vinyl Chloride	75-01-4	N.D.	0.0005	0.001	1
10335	Xylene (Total)	1330-20-7	N.D.	0.0005	0.001	1



Analysis Report

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Sample Description: RB-1-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189702 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017	07:54	by 01
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA21

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Vo	latiles	AK 101	1	mg/l	mg/l	mg/l	
01438	TPH-GRO AK water C6	5-C10	n.a.	N.D.	0.010	0.10	1
Pesti	cides/PCBs	SW-846	6 8082A	mg/l	mg/l	mg/l	
10591	PCB-1016		12674-11-2	N.D. D1	0.000095	0.00047	1
10591	PCB-1221		11104-28-2	N.D. D1	0.000095	0.00047	1
10591	PCB-1232		11141-16-5	N.D. D1	0.00019	0.00047	1
10591	PCB-1242		53469-21-9	N.D. D1	0.000095	0.00047	1
10591	PCB-1248		12672-29-6	N.D. D1	0.000095	0.00047	1
10591	PCB-1254		11097-69-1	N.D. D1	0.000095	0.00047	1
10591	PCB-1260		11096-82-5	N.D. D1	0.00014	0.00047	1
The	holding time was not	met. The	e analysis was adde	d after the holding			
time	had expired.						
GC Pe	troleum	AK 102	2-SV 4/8/02	mg/l	mg/l	mg/l	
Hydro	carbons						
13222	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>0.061 J</td><td>0.050</td><td>0.25</td><td>1</td></c25>		n.a.	0.061 J	0.050	0.25	1
13222	C25-C36 RRO		n.a.	N.D.	0.076	0.25	1
The	recovery for the sam	ple surr	ogate(s) is outside	the OC			
acce	ptance limits as not	ed on the	e OC Summary. The	following			
corr	ective action was ta	ken:	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
The	sample was re-extrac	ted outs	ide the method requ	ired holding			
time	and the OC is compl	iant. A	ll results are repo	rted from the			
firs	t trial. Similar re	sults we	re obtained in both	trials.			
Metal	S	SW-846	6 6010C	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0096	0.0400	1
07046	Barium		7440-39-3	0.0019 J	0.00085	0.0100	1
07049	Cadmium		7440-43-9	N.D.	0.0018	0.0100	1
07051	Chromium		7440-47-3	N.D.	0.0033	0.0300	1
07055	Lead		7439-92-1	N.D.	0.0060	0.0300	1
07036	Selenium		7782-49-2	N.D.	0.0093	0.0400	1
07066	Silver		7440-22-4	N.D.	0.0024	0.0100	1
		SW-846	5 7470A	mg/l	mg/l	mg/l	
00259	Mercury	2 01	7439-97-6	N.D.	0.000050	0.00020	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: RB-1-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189702 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 07:54 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA21

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
10335	TCL 4.3 VOCs	SW-846 8260B	1	N172511AA	09/08/2017	11:54	Nicole S Lamoreaux	1		
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N172511AA	09/08/2017	11:54	Nicole S Lamoreaux	1		
01438	TPH-GRO AK water C6-C10	AK 101	1	17251A53A	09/08/2017	11:47	Marie D Beamenderfer	1		
01146	GC VOA Water Prep	SW-846 5030B	1	17251A53A	09/08/2017	11:47	Marie D Beamenderfer	1		
10591	PCBs in Water 8082A	SW-846 8082A	1	172490005A	09/08/2017	18:03	Kirby B Turner	1		
11121	PCB Waters Update IV Ext	SW-846 3510C	1	172490005A	09/06/2017	20:45	Nicholas W Shroyer	1		
13222	AK 102/103-SV	AK 102-SV 4/8/02	1	172550001A	09/16/2017	21:30	Tyler O Griffin	1		
13225	Mini-Ext. AK 102/103SV,DRO/RRO	AK 102-SV 4/8/02	1	172550001A	09/12/2017	16:58	Kate E Lutte	1		
07035	Arsenic	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07046	Barium	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07049	Cadmium	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07051	Chromium	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07055	Lead	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07036	Selenium	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
07066	Silver	SW-846 6010C	1	172541063503	09/13/2017	03:14	Jonathan J Allen	1		
00259	Mercury	SW-846 7470A	1	172510571304	09/12/2017	07:57	Damary Valentin	1		
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	172541063503	09/12/2017	05:32	James L Mertz	1		
05713	WW SW846 Hg Digest	SW-846 7470A	1	172510571304	09/11/2017	08:40	Lisa J Cooke	1		



Analysis Report

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Sample Description: RB-2-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189703 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	09:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA22

Analysis Name CAS Number Result Petetion Limit* Quantitation Petetor CG/MS Volatiles SW-846 8260B mg/1 mg/1 mg/1 mg/1 10335 Astrone 71-43-2 N.D. 0.0005 0.001 1 10335 Barnare 75-27-4 N.D. 0.0005 0.001 1 10335 Barnare 75-27-4 N.D. 0.0005 0.001 1 10335 Barnare 75-27-1 N.D. 0.0005 0.001 1 10335 Carbon Disulfide 75-17-0 N.D. 0.0015 0.001 1 10335 Carbon Disulfide 75-17-0 N.D. 0.0005 0.001 1 10335 Carbon Disulfide 75-17-3 N.D. 0.0005 0.001 1 10335 Carbon Tetrachloride 10-82-7 N.D. 0.002 0.005 1 10335 Cyclohexane 10-82-7 N.D. 0.001 1 1	CAT				Method	Limit of	Dilution
No. No. Mark Mark Mark 02058 Yolkilles SW-846 \$260B mg/1 mg/1 mg/1 10335 Acatoma 71-43-2 N.D. 0.0005 0.001 1 10335 Bromodichloromethane 75-27-4 N.D. 0.0005 0.001 1 10335 Bromodichloromethane 75-27-2 N.D. 0.0005 0.001 1 10335 Bromodichloromethane 75-27-2 N.D. 0.0005 0.001 1 10335 Bromomethane 78-93-3 N.D. 0.0005 0.001 1 10335 Carbon Disulfide 75-15-0 N.D. 0.0005 0.001 1 10335 Chiorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chiorobenzene 10-42-7 N.D. 0.0005 0.001 1 10335 Chiorobenzene 54-14-1 N.D. 0.0005 0.001 1 10335 1_2-Dibromoremat	No	Analysis Name	CAS Number	Bogult	Detection Limit*	Quantitation	Easter
GC/MSVolatileSW-84682-0*m/1m/1m/1m/1m/110335Actome17-47-2N.D.0.0050.001110335Benzene75-27-2N.D.0.0050.001110335Bromoform75-25-2N.D.0.00050.001110335Bromoferhane74-83-3N.D.0.00050.001110335Carbon Disulfide75-15-0N.D.0.00050.001110335Carbon Tetrachloride75-07-7N.D.0.00050.001110335Chlorobenzene108-90-7N.D.0.00050.001110335Chlorobenzene108-97-7N.D.0.00050.001110335Chlorobenzene75-07-3N.D.0.00050.001110335Chlorobenzene67-66-3N.D.0.0020.005110335Chlorobenzene106-93-4N.D.0.0020.005110335J.2-Dibromochlane104-93-4N.D.0.0011110335J.2-Dibromochlane106-93-4N.D.0.0011110335J.2-Dibromochlane106-93-4N.D.0.0011110335J.1-Dibriorobenzene94-17-8N.D.0.0010.005110335J.1-Dibriorobenzene95-50-1N.D.0.0010.005110335J.1-Dibriorobenzene106-93-4N.D.0.0011	NO.	-		Result			Factor
10335 Acetome 67-64-1 N.D. 0.006 0.020 1 10335 Bromodichloromethane 75-27-4 N.D. 0.0005 0.001 1 10335 Bromodichloromethane 75-27-2 N.D. 0.0005 0.001 1 10335 Bromomethane 74-83-9 N.D. 0.0005 0.001 1 10335 Carbon Disulfide 75-15-0 N.D. 0.0005 0.001 1 10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chlorobenzene 75-66-3 N.D. 0.0005 0.001 1 10335 Chlorobentane 74-67-3 N.D. 0.002 0.005 1 10335 Cyclohexane 106-93-7 N.D. 0.002 0.005 1 10335 Cyclohexane 10-82-7 N.D. 0.002 0.005 1 10335 Cyclohexane 106-63-7 N.D. 0.001 1 1	GC/MS	Volatiles SW-846	8260B	mg/l	mg/l	mg/l	
10335Benzene71-43-2N.D.0.00050.001110335Bromocichloromethane75-25-2N.D.0.00050.004110335Bromocethane74-83-9N.D.0.00050.0011103352-Butanone78-93-3N.D.0.00050.001110335Carbon Disulfide75-15-0N.D.0.00050.001110335Chlorobensene108-90-7N.D.0.00050.001110335Chlorobensene75-00-3N.D.0.00050.001110335Chlorobensene74-87-3N.D.0.00050.001110335Chlorobensene10-82-7N.D.0.00050.001110335Chlorobensene10-62-7N.D.0.0020.005110335J.2-Dibromochane96-12-8N.D.0.0020.001110335J.2-Dibromochane96-12-8N.D.0.0020.001110335J.2-Dibromochane106-93-4N.D.0.0010.005110335J.2-Dibromochane106-93-4N.D.0.0010.005110335J.1-Dichlorobensene106-46-7N.D.0.0010.005110335J.1-Dichlorobensene75-34-8N.D.0.0011110335J.1-Dichlorobensene75-35-4N.D.0.00050.001110335J.1-Dichlorobensene75-35-4N.D.0.0005	10335	Acetone	67-64-1	N.D.	0.006	0.020	1
Bacondot interm 75-27-4 N.D. 0.0005 0.001 1 10335 Bronnoethane 75-27-2 N.D. 0.0005 0.001 1 10335 Bronnoethane 74-83-9 N.D. 0.0005 0.001 1 10335 Carbon Tetrachloride 75-15-0 N.D. 0.001 0.005 0.001 1 10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chlorobenzene 75-06-3 N.D. 0.0005 0.001 1 10335 Chlorobenme 76-66-3 N.D. 0.002 0.005 1 10335 Cyclohexane 10-82-7 N.D. 0.002 0.005 1 10335 Syclohexane 10-82-7 N.D. 0.002 0.005 1 10335 Syclohexane 10-82-7 N.D. 0.001 0.005 1 10335 Syclohexane 10-82-7 N.D. 0.001 10 1	10335	Benzene	71-43-2	N.D.	0.0005	0.001	1
10335Bromotham75-25-2N.D.0.00050.0041103352-Butanone74-83-2N.D.0.00050.001110335Carbon Disulfide75-15-0N.D.0.0010.005110335Carbon Tetrachloride56-23-5N.D.0.00050.001110335Chlorobenzene108-07-7N.D.0.00050.001110335Chlorobenzene108-07-7N.D.0.00050.001110335Chlorobenzene75-00-3N.D.0.00050.001110335Chlorobenzene10-82-7N.D.0.00050.001110335Chlorobenzene10-82-7N.D.0.0020.0051103351,2-Dibromothane106-93-4N.D.0.0010.0051103351,2-Diblorobenzene96-12-8N.D.0.0010.0051103351,3-Dichlorobenzene96-17-8N.D.0.0010.0051103351,3-Dichlorobenzene106-93-4N.D.0.0010.0051103351,3-Dichlorobenzene106-93-4N.D.0.0010.0051103351,3-Dichlorobenzene106-93-4N.D.0.0010.0051103351,3-Dichlorobenzene106-93-4N.D.0.0010.0051103351,2-Dichlorobenzene106-67N.D.0.0010.0051103351,2-Dichlorobenzene106-67N.D.	10335	Bromodichloromethane	75-27-4	N.D.	0.0005	0.001	1
10335 Bronomethame 74-83-9 N.D. 0.0005 0.011 1 10335 Carbon Disulfide 75-15-0 N.D. 0.001 0.005 1 10335 Carbon Tetrachloride 56-23-5 N.D. 0.0005 0.001 1 10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chlorobethame 75-06-3 N.D. 0.0005 0.001 1 10335 Chlorobethame 74-67-3 N.D. 0.0005 0.001 1 10335 Cyclohexma 110-82-7 N.D. 0.002 0.005 1 10335 1,2-Dibromothame 124-48-1 N.D. 0.001 0.005 1 10335 1,2-Dibromothame 95-50-1 N.D. 0.001 0.005 1 10335 1,2-Dichlorobenzane 96-50-1 N.D. 0.001 0.005 1 10335 1,2-Dichlorobenzane 106-43-4 N.D. 0.001 0.005	10335	Bromoform	75-25-2	N.D.	0.0005	0.004	1
10335 2-Butanone 78-93-3 N.D. 0.003 0.010 1 10335 Carbon Disulfide 75-10 N.D. 0.0005 0.001 1 10335 Chironebrane 169-77 N.D. 0.0005 0.001 1 10335 Chironebrane 75-00-3 N.D. 0.0005 0.001 1 10335 Chironethane 75-06-3 N.D. 0.0005 0.001 1 10335 Chironethane 74-87-3 N.D. 0.0005 0.001 1 10335 Chiromethane 14-87-3 N.D. 0.002 0.005 1 10335 Liconechiromethane 16-82-7 N.D. 0.001 1 1 10335 Liconechiromethane 16-92-4 N.D. 0.001 0.005 1 1 10335 Liconechiromethane 16-93-4 N.D. 0.001 0.005 1 1 10335 Liconechirometane 75-18 N.D. 0.001 0	10335	Bromomethane	74-83-9	N.D.	0.0005	0.001	1
10335 Carbon Disulfide 75-15-0 N.D. 0.001 0.005 1 10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chloroberne 67-66-3 N.D. 0.0005 0.001 1 10335 Chloroberne 74-87-3 N.D. 0.0005 0.001 1 10335 Cyclohexane 110-82-7 N.D. 0.002 0.005 1 10335 Dibromochloromethane 124-48-1 N.D. 0.001 0.005 1 10335 1.2-Dibromochane 95-50-1 N.D. 0.001 0.005 1 10335 1.3-Dichlorobenzene 541-73-1 N.D. 0.001 0.005 1 10335 1.2-Dichlorobenzene 541-73-1 N.D. 0.001 0.005 1 10335 1.2-Dichlorobenzene 541-73-1 N.D. 0.001 1	10335	2-Butanone	78-93-3	N.D.	0.003	0.010	1
10335 Carbon Tetrachloride 56-23-5 N.D. 0.0005 0.001 1 10335 Chlorobenzene 16-90-7 N.D. 0.0005 0.001 1 10335 Chlorobenzene 75-00-3 N.D. 0.0005 0.001 1 10335 Chlorobenzene 74-87-3 N.D. 0.0005 0.001 1 10335 Cyclohexane 74-87-3 N.D. 0.002 0.005 1 10335 Cyclohexane 10-82-7 N.D. 0.002 0.005 1 10335 J.2-Dikromochlaromethane 124-48-1 N.D. 0.0005 0.001 1 10335 J.2-Dichlorobenzene 95-50-1 N.D. 0.001 0.005 1 10335 J.4-Dichlorobenzene 106-46-7 N.D. 0.001 0.005 1 10335 J.1-Dichlorobenzene 106-46-7 N.D. 0.0005 0.001 1 10335 J.1-Dichlorobenzene 106-46-7 N.D. 0.0005	10335	Carbon Disulfide	75-15-0	N.D.	0.001	0.005	1
10335 Chlorobenzene 108-90-7 N.D. 0.0005 0.001 1 10335 Chloroform 67-66-3 N.D. 0.0005 0.001 1 10335 Chloroform 67-66-3 N.D. 0.0005 0.001 1 10335 Chloromethane 74-87-3 N.D. 0.002 0.005 1 10335 Lychikromo-3-chloropropane 96-12-8 N.D. 0.002 0.005 1 10335 Lychikromochloromethane 104-48-1 N.D. 0.0005 0.001 1 10335 Lychikromethane 106-93-4 N.D. 0.001 0.005 1 10335 Lychikromethane 106-63-7 N.D. 0.001 0.005 1 10335 Lychikromethane 106-64-7 N.D. 0.001 0.005 1 10335 Lychichlorobethane 75-71-8 N.D. 0.0005 0.001 1 10335 Lychichloropethane 15-59-2 N.D. 0.0005 0.001	10335	Carbon Tetrachloride	56-23-5	N.D.	0.0005	0.001	1
10335 Chlorostame 75-00-3 N.D. 0.0005 0.001 1 10335 Chloromethane 74-87-3 N.D. 0.0005 0.001 1 10335 Cyclohexame 110-82-7 N.D. 0.002 0.005 1 10335 Cyclohexame 110-82-7 N.D. 0.002 0.005 1 10335 Dibromochloromethane 124-48-1 N.D. 0.0005 0.001 1 10335 J.2-Dibromochhane 16-93-4 N.D. 0.001 0.005 1 10335 J.2-Dibromochhane 16-46-7 N.D. 0.001 0.005 1 10335 J.1-Dichlorobenzene 166-46-7 N.D. 0.0005 0.001 1 10335 J.1-Dichlorobethane 75-31-8 N.D. 0.0005 0.001 1 10335 J.1-Dichlorobethane 156-59-2 N.D. 0.0005 0.001 1 10335 tia.1_2-Dichloropethane 156-60-5 N.D. 0.0005 <td< td=""><td>10335</td><td>Chlorobenzene</td><td>108-90-7</td><td>N.D.</td><td>0.0005</td><td>0.001</td><td>1</td></td<>	10335	Chlorobenzene	108-90-7	N.D.	0.0005	0.001	1
0335 Chloroform 67-66-3 N.D. 0.0005 0.001 1 10335 Chloromethane 74-87-3 N.D. 0.0005 0.001 1 10335 Cyclohexane 110-82-7 N.D. 0.002 0.005 1 10335 L.2-Dibromo-3-chloropropane 96-12-8 N.D. 0.002 0.005 1 10335 L.2-Dibromo-3-chloropropane 96-12-8 N.D. 0.0005 0.001 1 10335 L.2-Dibromoethane 106-93-4 N.D. 0.0005 0.001 1 10335 L.3-Dichlorobenzene 56-50-1 N.D. 0.001 0.005 1 10335 L.4-Dichlorobenzene 107-66-2 N.D. 0.0005 0.001 1 10335 L.1-Dichlorocethane 107-06-2 N.D. 0.0005 0.001 1 10335 L.1-Dichlorocethane 156-59-2 N.D. 0.0005 0.001 1 10335 t.is-1, 2-Dichloropropane 1061-02-5 N.D.	10335	Chloroethane	75-00-3	N.D.	0.0005	0.001	1
10335 Chloromethane 74-87-3 N.D. 0.0005 0.001 1 10335 Cyclohexane 110-82-7 N.D. 0.002 0.005 1 10335 Cyclohexane 110-82-7 N.D. 0.002 0.005 1 10335 Dibromochloromethane 124-48-1 N.D. 0.0005 0.001 1 10335 1,2-bibromochane 95-50-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 55-50-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 106-46-7 N.D. 0.001 0.005 1 10335 1,1-Dichloroethane 75-71-8 N.D. 0.0005 0.001 1 10335 1,2-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethene 156-60-5 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloropropane 78-87-5 N.D. 0.0005 <td>10335</td> <td>Chloroform</td> <td>67-66-3</td> <td>N.D.</td> <td>0.0005</td> <td>0.001</td> <td>1</td>	10335	Chloroform	67-66-3	N.D.	0.0005	0.001	1
Loss Cyclohexame 110-82-7 N.D. 0.002 0.005 1 10335 1,2-bibromo-3-chloropropane 96-12-8 N.D. 0.0005 0.001 1 10335 1,2-bibromo-thane 106-93-4 N.D. 0.0005 0.001 1 10335 1,2-bichlorobenzene 95-50-1 N.D. 0.001 0.005 1 10335 1,3-Dichlorobenzene 541-73-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 106-46-7 N.D. 0.0005 0.001 1 10335 1,4-Dichloroethane 75-71-8 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethane 156-69-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-01-5 N.D. </td <td>10335</td> <td>Chloromethane</td> <td>74-87-3</td> <td>N D</td> <td>0 0005</td> <td>0 001</td> <td>1</td>	10335	Chloromethane	74-87-3	N D	0 0005	0 001	1
Loss Cost Cost <thcost< th=""> Cost Cost <thc< td=""><td>10335</td><td>Cyclohevane</td><td>110-82-7</td><td>ND</td><td>0.002</td><td>0.005</td><td>1</td></thc<></thcost<>	10335	Cyclohevane	110-82-7	ND	0.002	0.005	1
10335 1.1.2.0.1.0.005 1.1.2.0.1.0.005 1.0.0.1.1.0.0.005 1.1.0.1.0.0.005 10335 1.2.2-Dichlorobenzene 95-50-1 N.D. 0.001 0.005 1 10335 1.2.2-Dichlorobenzene 95-50-1 N.D. 0.001 0.005 1 10335 1.4.2-Dichlorobenzene 541-73-1 N.D. 0.001 0.005 1 10335 1.4-Dichlorobenzene 106-46-7 N.D. 0.001 0.005 1 10335 1.4-Dichlorobenzene 75-71-8 N.D. 0.0005 0.001 1 10335 1.1-Dichloroethane 75-73-43 N.D. 0.0005 0.001 1 10335 1.1-Dichloroethane 75-73-43 N.D. 0.0005 0.001 1 10335 1.1-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1.2-Dichloroethene 156-60-5 N.D. 0.0005 0.001 1 10335 trans-1.3-Dichloropropene 10061-01-5 N.D. 0.0005 0.001 1 10335 trens-1.3-Dichloropropene <td>10335</td> <td>1 2-Dibromo-3-chloropropane</td> <td>96-12-8</td> <td>ND.</td> <td>0.002</td> <td>0.005</td> <td>± 1</td>	10335	1 2-Dibromo-3-chloropropane	96-12-8	ND.	0.002	0.005	± 1
10335 1,2-Dibromoethane 164-93-4 N.D. 0.0005 0.001 1 10335 1,2-Dibromoethane 95-50-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 95-70-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 164-45-7 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 75-71-8 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 75-73-43 N.D. 0.0005 0.001 1 10335 1,2-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloroethene 156-50-5 N.D. 0.0005 0.001 1 10335 tis-2-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 tis-1,3-Dichloropropane 1061-01-5 N.D. 0.0005 0.001 1 10335 tis-ns-1,3-Dichloropropane 10061-01-5 N.D. 0.0005 0.001 1 10335 thyblenzene	10335	Dibromochloromethane	124-48-1	N.D.	0.0005	0.003	± 1
1335 1,2-Dichlorobenzene 100-30-4 N.D. 0.0005 0.001 0.005 1 10335 1,3-Dichlorobenzene 54-50-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 106-46-7 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 106-46-7 N.D. 0.0005 0.001 1 10335 1,4-Dichloroethane 75-71-8 N.D. 0.0005 0.001 1 10335 1,4-Dichloroethane 75-34-3 N.D. 0.0005 0.001 1 10335 1,2-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethane 156-60-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropane 1061-02-6 N.D. 0.0005 0.001 1 10335 thylbenzene 100-41-4 N.D. 0.002 0.010 1 10335 Sthyl	10335	1 2 Dibromochioromethane	106 02 4	N.D.	0.0005	0.001	1
10335 1,2-Dichlorobenzene 95-90-1 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 106-46-7 N.D. 0.001 0.005 1 10335 1,4-Dichlorobenzene 16-46-7 N.D. 0.0005 0.001 1 10335 1,1-Dichlorobenzene 75-71-8 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 75-73-3 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 75-75-4 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloroethene 156-60-5 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 Freon 113 76-13-1 N.D. 0.002 0.010 1 10335 Strypolphenzene	10335	1,2-Dibromoethane	106-93-4	N.D.	0.0005	0.001	1
10335 1, 3-Dichlorobenzene 541-73-1 N.D. 0.001 0.005 1 10335 1, 4-Dichlorobenzene 166-66-7 N.D. 0.0005 0.001 1 10335 1, 4-Dichlorobenzene 75-71-8 N.D. 0.0005 0.001 1 10335 1, 1-Dichlorobenzene 75-34-3 N.D. 0.0005 0.001 1 10335 1, 1-Dichlorobenzene 107-06-2 N.D. 0.0005 0.001 1 10335 si-1, 2-Dichlorobenzene 156-50-2 N.D. 0.0005 0.001 1 10335 tis-1, 2-Dichloropthene 156-60-5 N.D. 0.0005 0.001 1 10335 tis-1, 3-Dichloroptopene 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1, 3-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 trans-1, 3-Dichloropropene 10061-02-6 N.D. 0.002 0.001 1 10335 trans-1, 3-Dichloropropene 10061-02-6 N.D. 0.002 0.001 1 1033	10335	1,2-Dichlorobenzene	95-50-1 541 72 1	N.D.	0.001	0.005	1
10335 1/4-Dichlorodenzene 106-46-7 N.D. 0.001 0.005 1 10335 Dichlorodifluoromethane 75-71-8 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 ti,2-Dichloroethene 156-59-2 N.D. 0.0005 0.001 1 10335 ti,2-Dichloroptopane 78-87-5 N.D. 0.0005 0.001 1 10335 cis-1,3-Dichloropropane 1061-01-5 N.D. 0.0005 0.001 1 10335 tistylbenzene 100-41-4 N.D. 0.0005 0.001 1 10335 Freon 113 76-13-1 N.D. 0.002 0.010 1 10335 Jsopropylbenzene 98-82-8 N.D. 0.001 0.005 1 10335 Heryl Acetate 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Acetate 79-20-9 <t< td=""><td>10335</td><td>1,3-Dichlorobenzene</td><td>541-73-1</td><td>N.D.</td><td>0.001</td><td>0.005</td><td>1</td></t<>	10335	1,3-Dichlorobenzene	541-73-1	N.D.	0.001	0.005	1
10335 Dichlorodifluorometname 75-71-8 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethene 156-60-5 N.D. 0.0005 0.001 1 10335 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.002 0.010 1 10335 trans-1,3-Dichloropropene <td>10335</td> <td>1,4-Dichlorobenzene</td> <td>106-46-7</td> <td>N.D.</td> <td>0.001</td> <td>0.005</td> <td>1</td>	10335	1,4-Dichlorobenzene	106-46-7	N.D.	0.001	0.005	1
10335 1,1-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 75-35-4 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethane 156-60-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloroptoethene 1066-00-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloroptopene 10061-02-6 N.D. 0.0005 0.001 1 10335 techylbenzene 100-41-4 N.D. 0.002 0.010 1 103	10335	Dichlorodifluoromethane	/5-/1-8	N.D.	0.0005	0.001	1
10335 1,2-Dichloroethane 107-06-2 N.D. 0.0005 0.001 1 10335 1,1-Dichloroethane 75-57-4 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloroethane 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethane 156-60-5 N.D. 0.0005 0.001 1 10335 tica-1,3-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 tica-1,3-Dichloropropane 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropane 10061-02-6 N.D. 0.0005 0.001 1 10335 Freon 113 76-13-1 N.D. 0.002 0.010 1 10335 Freon 113 76-13-1 N.D. 0.001 0.005 1 10335 Isopropylbenzene 98-82-8 N.D. 0.001 0.005 1 10335 Methyl Acetate 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Tertriary Butyl Ether	10335	1,1-Dichloroethane	75-34-3	N.D.	0.0005	0.001	1
10335 1,1-Dichloroethene 75-35-4 N.D. 0.0005 0.001 1 10335 cis-1,2-Dichloroethene 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroethene 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 Ethylbenzene 100-41-4 N.D. 0.002 0.010 1 10335 Strons-1,3-Dichloropropene 100-41-4 N.D. 0.002 0.010 1 10335 Stronspithenzene 591-78-6 N.D. 0.001 0.005 1 10335 Sethyl beztae 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Tertiary Butyl Ether 1634-04-4 N.D. 0.001 0.005 1 10335 Meth	10335	1,2-Dichloroethane	107-06-2	N.D.	0.0005	0.001	1
10335 cis-1,2-Dichloroethene 156-59-2 N.D. 0.0005 0.001 1 10335 trans-1,2-Dichloroptopane 156-60-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropane 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 Freon 113 76-13-1 N.D. 0.002 0.010 1 10335 Isopropylbenzene 98-82-8 N.D. 0.001 0.005 1 10335 Hehyl Acetate 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Acetate 108-10-1 N.D. 0.003 0.010 1 10335 Hehylen	10335	1,1-Dichloroethene	75-35-4	N.D.	0.0005	0.001	1
10335 trans-1,2-Dichloroethene 156-60-5 N.D. 0.0005 0.001 1 10335 1,2-Dichloropropane 78-87-5 N.D. 0.0005 0.001 1 10335 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 Sthylbenzene 100-41-4 N.D. 0.0005 0.001 1 10335 Streon 113 76-13-1 N.D. 0.002 0.010 1 10335 Jsporpylbenzene 98-82-8 N.D. 0.001 0.005 1 10335 Methyl Acetate 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Acetate 79-20-9 N.D. 0.001 1 1 10335 Methyl Acetate 108-10-1 N.D. 0.001 1 1 10335 Methyl-2-pentanone 108-10-1 N.D. 0.001 0.005 1 10335 Methylcyclohexane 108-87-2 N.D.	10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.0005	0.001	1
10335 1,2-Dichloropropene 78-87-5 N.D. 0.0005 0.001 1 10335 cis-1,3-Dichloropropene 10061-01-5 N.D. 0.0005 0.001 1 10335 trans-1,3-Dichloropropene 10061-02-6 N.D. 0.0005 0.001 1 10335 Ethylbenzene 100-41-4 N.D. 0.0005 0.001 1 10335 Sethylbenzene 100-41-4 N.D. 0.002 0.010 1 10335 Sethylbenzene 90-613-1 N.D. 0.002 0.010 1 10335 Jensone 591-78-6 N.D. 0.001 0.005 1 10335 Isopropylbenzene 98-82-8 N.D. 0.001 0.005 1 10335 Methyl Acetate 79-20-9 N.D. 0.001 0.005 1 10335 Methyl Ether 1684-04-4 N.D. 0.003 0.010 1 10335 Methylene Chloride 75-09-2 N.D. 0.001 0.005 1 10335 Styrene 100-42-5 N.D. 0	10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.0005	0.001	1
10335cis-1,3-Dichloropropene10061-01-5N.D.0.00050.001110335trans-1,3-Dichloropropene10061-02-6N.D.0.00050.001110335Ethylbenzene100-41-4N.D.0.00050.001110335Freon 11376-13-1N.D.0.0020.0101103352-Hexanone591-78-6N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.0030.010110335Methyl-2-pentanone108-87-2N.D.0.0010.005110335Methylyclohexane100-42-5N.D.0.0010.005110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.0011103351,1,2,2-Tetrachloroethane127-18-4N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,2,4-Trichloroethane71-55-6N.D.0.00111103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2	10335	1,2-Dichloropropane	78-87-5	N.D.	0.0005	0.001	1
10335trans-1,3-Dichloropropene10061-02-6N.D.0.00050.001110335Ethylbenzene100-41-4N.D.0.00050.001110335Freon 11376-13-1N.D.0.0020.0101103352-Hexanone591-78-6N.D.0.0010.005110335Isopropylbenzene98-82-8N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.0010.005110335Methyl-2-pentanone108-10-1N.D.0.0010.005110335Methylcyclohexane108-72N.D.0.0010.005110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.0011103351,1,2,2-Tetrichlorobenzene120-82-1N.D.0.00050.0011103351,2,4-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.0005	0.001	1
10335Ethylbenzene100-41-4N.D.0.00050.001110335Freon 11376-13-1N.D.0.0020.0101103352-Hexanone591-78-6N.D.0.0030.010110335Isopropylbenzene98-82-8N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.001110335Methyl-2-pentanone108-10-1N.D.0.0010.005110335Methyleyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.0010.0051103351,2,4-Trichlorobenzene120-82-1N.D.0.00050.0011103351,2,4-Trichloroethane71-55-6N.D.0.0010.0051103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.0005	0.001	1
10335Freon 11376-13-1N.D.0.0020.0101103352-Hexanone591-78-6N.D.0.0030.010110335Isopropylbenzene98-82-8N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.0011103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylene Chloride75-09-2N.D.0.0010.005110335Styrene100-42-5N.D.0.0010.005110335Tetrachloroethane79-34-5N.D.0.0011110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichloroethane120-82-1N.D.0.0010.0051103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane	10335	Ethylbenzene	100-41-4	N.D.	0.0005	0.001	1
103352-Hexanone591-78-6N.D.0.0030.010110335Isopropylbenzene98-82-8N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.0011103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylcyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.00050.001110335Tetrachloroethane79-34-5N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,2-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	Freon 113	76-13-1	N.D.	0.002	0.010	1
10335Isopropylbenzene98-82-8N.D.0.0010.005110335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.0011103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylucclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0010.005110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011	10335	2-Hexanone	591-78-6	N.D.	0.003	0.010	1
10335Methyl Acetate79-20-9N.D.0.0010.005110335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.0011103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylcyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	Isopropylbenzene	98-82-8	N.D.	0.001	0.005	1
10335Methyl Tertiary Butyl Ether1634-04-4N.D.0.00050.0011103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylcyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	Methyl Acetate	79-20-9	N.D.	0.001	0.005	1
103354-Methyl-2-pentanone108-10-1N.D.0.0030.010110335Methylcyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011	10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.001	1
10335Methylcyclohexane108-87-2N.D.0.0010.005110335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.0011103351,1,2-Trichloroethane79-01-6N.D.0.00050.0011	10335	4-Methyl-2-pentanone	108-10-1	N.D.	0.003	0.010	1
10335Methylene Chloride75-09-2N.D.0.0020.004110335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichloroethane71-55-6N.D.0.0010.0051103351,1,1-Trichloroethane79-00-5N.D.0.00050.001110335Trichloroethane79-00-5N.D.0.00050.0011	10335	Methylcyclohexane	108-87-2	N.D.	0.001	0.005	1
10335Styrene100-42-5N.D.0.0010.0051103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichloroethane71-55-6N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.001110335Trichloroethene79-01-6N.D.0.00050.0011	10335	Methylene Chloride	75-09-2	N.D.	0.002	0.004	1
103351,1,2,2-Tetrachloroethane79-34-5N.D.0.00050.001110335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.001110335Trichloroethene79-01-6N.D.0.00050.0011	10335	Styrene	100-42-5	N.D.	0.001	0.005	1
10335Tetrachloroethene127-18-4N.D.0.00050.001110335Toluene108-88-3N.D.0.00050.0011103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.001110335Trichloroethene79-01-6N.D.0.00050.0011	10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.0005	0.001	1
10335 Toluene 108-88-3 N.D. 0.0005 0.001 1 10335 1,2,4-Trichlorobenzene 120-82-1 N.D. 0.001 0.005 1 10335 1,1,1-Trichloroethane 71-55-6 N.D. 0.0005 0.001 1 10335 1,1,2-Trichloroethane 79-00-5 N.D. 0.0005 0.001 1 10335 Trichloroethene 79-01-6 N.D. 0.0005 0.001 1	10335	Tetrachloroethene	127-18-4	N.D.	0.0005	0.001	1
103351,2,4-Trichlorobenzene120-82-1N.D.0.0010.0051103351,1,1-Trichloroethane71-55-6N.D.0.00050.0011103351,1,2-Trichloroethane79-00-5N.D.0.00050.001110335Trichloroethene79-01-6N.D.0.00050.0011	10335	Toluene	108-88-3	N.D.	0.0005	0.001	1
10335 1,1,1-Trichloroethane 71-55-6 N.D. 0.0005 0.001 1 10335 1,1,2-Trichloroethane 79-00-5 N.D. 0.0005 0.001 1 10335 Trichloroethane 79-01-6 N.D. 0.0005 0.001 1	10335	1.2.4-Trichlorobenzene	120-82-1	N.D.	0.001	0.005	1
10335 Trichloroethane 79-00-5 N.D. 0.0005 0.001 1 10335 Trichloroethane 79-01-6 N.D. 0.0005 0.001 1	10335	1.1.1-Trichloroethane	71-55-6	N.D.	0.0005	0.001	1
10335 Trichloroethene 79-01-6 N.D. 0.0005 0.001 1	10335	1.1.2-Trichloroethane	79-00-5	N.D.	0.0005	0.001	1
	10335	Trichloroethene	79-01-6	N. D.	0.0005	0.001	-
10335 Trichlorofluoromethane 75-69-4 N.D. 0.0005 0.001 1	10335	Trichlorofluoromethane	75-69-4	N D	0.0005	0 001	- 1
10335 Vinvl Chloride $75-01-4$ N.D. 0.0005 0.001 1	10335	Vinvl Chloride	75-01-4	N D	0.0005	0 001	- 1
10335 Xulene (Total) $1330-20-7$ N.D. 0.0005 0.001 1	10335	Xvlene (Total)	1330-20-7	N D	0.0005	0 001	- 1
	10555		1000 20 /			5.50±	-



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: RB-2-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189703 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/29/2017	09:00	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA22

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-8	46 823	70D SIM	mg/l	mg/l	mg/l	
12971	Acenaphthene		83-32-9	N.D.	0.0000098	0.000049	1
12971	Acenaphthylene		208-96-8	N.D.	0.0000098	0.000049	1
12971	Anthracene		120-12-7	N.D.	0.0000098	0.000049	1
12971	Benzo(a)anthracene		56-55-3	N.D.	0.0000098	0.000049	1
12971	Benzo(a)pyrene		50-32-8	N.D.	0.0000098	0.000049	1
12971	Benzo(b)fluoranthene		205-99-2	N.D.	0.0000098	0.000049	1
12971	Benzo(g,h,i)perylene		191-24-2	N.D.	0.000098	0.000049	1
12971	Benzo(k)fluoranthene		207-08-9	N.D.	0.000098	0.000049	1
12971	Chrysene		218-01-9	N.D.	0.000098	0.000049	1
12971	Dibenz(a,h)anthracene		53-70-3	N.D.	0.000098	0.000049	1
12971	Fluoranthene		206-44-0	N.D.	0.000098	0.000049	1
12971	Fluorene		86-73-7	N.D.	0.000098	0.000049	1
12971	Indeno(1,2,3-cd)pyrene		193-39-5	N.D.	0.000098	0.000049	1
12971	Naphthalene		91-20-3	N.D.	0.000029	0.000059	1
12971	Phenanthrene		85-01-8	N.D.	0.000029	0.000059	1
12971	Pyrene		129-00-0	N.D.	0.000098	0.000049	1
GC Vol	atiles AK 1	01		mg/l	mg/l	mg/l	
01438	TPH-GRO AK water C6-C10		n.a.	N.D.	0.010	0.10	1
GC Pet	roleum AK 1	02-sv	4/8/02	mg/l	mg/l	mg/l	
Hydroc	arbons						
13222	C10- <c25 dro<="" td=""><td></td><td>n a</td><td>0.060 JT</td><td>0.051</td><td>0.26</td><td>1</td></c25>		n a	0.060 JT	0.051	0.26	1
13222	C25-C36 RRO		n.a.	N.D.	0.077	0.26	1
The maccept correct The st time first	recovery for the sample surple otance limits as noted on ective action was taken: sample was re-extracted our and the QC is compliant. t trial. Similar results	trogate the QC s tside the All res vere obt	(s) is outside a Summary. The fo ne method requir sults are report tained in both a	the QC ollowing red holding ted from the trials.			
Metals	s SW-8	46 601	L0C	mg/l	mg/l	mg/l	
07035	Arsenic		7440-38-2	N.D.	0.0096	0.0400	1
07046	Barium		7440-39-3	0.0166	0.00085	0.0100	1
07049	Cadmium		7440-43-9	N.D.	0.0018	0.0100	1
07051	Chromium		7440-47-3	0.0234 J	0.0033	0.0300	1
07055	Lead		7439-92-1	N.D.	0.0060	0.0300	1
07036	Selenium		7782-49-2	N.D.	0.0093	0.0400	1
07066	Silver		7440-22-4	N.D.	0.0024	0.0100	1
	SW-8	46 743	70A	mg/l	mg/l	mg/l	
00259	Mercury		7439-97-6	ND	0 000050	0 00020	1
00200	nereary		, 13, 7, 0	n	0.000000	0.00020	-

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: RB-2-O-170829 Grab Water Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # WW 9189703 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/29/2017 09:00 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA22

Sample Comments

ChevronTexaco

San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
10335	TCL 4.3 VOCs	SW-846 8260B	1	N172511AA	09/08/2017	12:18	Nicole S Lamoreaux	1			
01163	GC/MS VOA Water Prep	SW-846 5030B	1	N172511AA	09/08/2017	12:18	Nicole S Lamoreaux	1			
12971	SIM SVOAs 8270D, water	SW-846 8270D SIM	1	17248WAU026	09/06/2017	12:15	Linda M Hartenstine	1			
10466	BNA Water Extraction SIM	SW-846 3510C	1	17248WAU026	09/05/2017	17:00	Ryan J Dowdy	1			
01438	TPH-GRO AK water C6-C10	AK 101	1	17251A53A	09/08/2017	12:14	Marie D Beamenderfer	1			
01146	GC VOA Water Prep	SW-846 5030B	1	17251A53A	09/08/2017	12:14	Marie D Beamenderfer	1			
13222	AK 102/103-SV	AK 102-SV 4/8/02	1	172550001A	09/16/2017	21:58	Tyler O Griffin	1			
13225	Mini-Ext. AK 102/103SV,DRO/RRO	AK 102-SV 4/8/02	1	172550001A	09/12/2017	16:58	Kate E Lutte	1			
07035	Arsenic	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07046	Barium	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07049	Cadmium	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07051	Chromium	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07055	Lead	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07036	Selenium	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
07066	Silver	SW-846 6010C	1	172541063503	09/13/2017	03:18	Jonathan J Allen	1			
00259	Mercury	SW-846 7470A	1	172510571304	09/12/2017	08:03	Damary Valentin	1			
10635	ICP-WW, 3005A (tot rec) - U4	SW-846 3005A	1	172541063503	09/12/2017	05:32	James L Mertz	1			
05713	WW SW846 Hg Digest	SW-846 7470A	1	172510571304	09/11/2017	08:40	Lisa J Cooke	1			



Analysis Report

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Sample Description: DUP-1-WD-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189704 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA23

C A m			D	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.50	1.4	58.29
10237	Benzene	71-43-2	N.D.	0.036	0.36	58.29
10237	Bromodichloromethane	75-27-4	N.D.	0.071	0.36	58.29
10237	Bromoform	75-25-2	N.D.	0.071	0.36	58.29
10237	Bromomethane	74-83-9	N.D.	0.14	0.36	58.29
10237	2-Butanone	78-93-3	N.D.	0.29	0.71	58.29
10237	Carbon Disulfide	75-15-0	N.D.	0.071	0.36	58.29
10237	Carbon Tetrachloride	56-23-5	N.D.	0.071	0.36	58.29
10237	Chlorobenzene	108-90-7	N.D.	0.071	0.36	58.29
10237	Chloroethane	75-00-3	N.D.	0.14	0.36	58.29
10237	Chloroform	67-66-3	N.D.	0.071	0.36	58.29
10237	Chloromethane	74-87-3	N.D.	0.14	0.36	58.29
10237	Cyclohexane	110-82-7	N.D.	0.071	0.36	58.29
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.14	0.36	58.29
10237	Dibromochloromethane	124-48-1	N.D.	0.071	0.36	58.29
10237	1,2-Dibromoethane	106-93-4	N.D.	0.071	0.36	58.29
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.071	0.36	58.29
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.071	0.36	58.29
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.071	0.36	58.29
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.14	0.36	58.29
10237	1,1-Dichloroethane	75-34-3	N.D.	0.071	0.36	58.29
10237	1.2-Dichloroethane	107-06-2	N.D.	0.071	0.36	58.29
10237	1,1-Dichloroethene	75-35-4	N.D.	0.071	0.36	58.29
10237	cis-1.2-Dichloroethene	156-59-2	N.D.	0.071	0.36	58.29
10237	trans-1.2-Dichloroethene	156-60-5	N.D.	0.071	0.36	58.29
10237	1.2-Dichloropropane	78-87-5	N.D.	0.071	0.36	58.29
10237	cis-1.3-Dichloropropene	10061-01-5	N.D.	0.071	0.36	58.29
10237	trans-1.3-Dichloropropene	10061-02-6	N.D.	0.071	0.36	58.29
10237	Ethylbenzene	100 - 41 - 4	N.D.	0.071	0.36	58.29
10237	$\frac{1}{1}$	76-13-1	N.D.	0.14	0.71	58.29
10237	2-Hexanone	591-78-6	N.D.	0.21	0.71	58.29
10237	Isopropylbenzene	98-82-8	N.D.	0.071	0.36	58.29
10237	Methyl Acetate	79-20-9	N.D.	0.14	0.36	58.29
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.036	0.36	58.29
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.21	0.71	58.29
10237	Methylcyclohexane	108-87-2	N.D.	0.071	0.36	58.29
10237	Methylene Chloride	75-09-2	N.D.	0.14	0.36	58.29
10237	Styrene	100-42-5	N.D.	0.071	0.36	58.29
10237	1 1 2 2-Tetrachloroethane	79-34-5	N D	0 071	0.36	58 29
10237	Tetrachloroethene	127-18-4	N.D.	0 071	0.36	58 29
10237	Toluene	108-88-3	N.D.	0 071	0.36	58 29
10237	1 2 4-Trichlorobenzene	120-82-1	N D	0 071	0.36	58 29
10237	1 1 1-Trichloroethane	71-55-6	N.D.	0 071	0.36	58 29
10237	1.1.2-Trichloroethane	79-00-5	N.D.	0.071	0.36	58.29
10237	Trichloroethere	79-01-6	N.D.	0.071	0.36	58.29
10237	Trichlorofluoromethane	75-69-4	N D	0 14	0.36	58 29
10237	Vinvl Chloride	75-01-4	N.D.	0.071	0.36	58.29
10237	Xvlene (Total)	1330-20-7	N.D.	0.071	0.36	58.29
1929,		1000 20 /		0.071	0.00	55.25

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Analysis Report

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Sample Description: DUP-1-WD-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189704 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA23

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00080	0.0020	1
12969	Acenaphthylene	208-96-8	N.D.	0.00040	0.0020	1
12969	Anthracene	120-12-7	N.D.	0.00040	0.0020	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.00080	0.0020	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00080	0.0020	1
12969	Benzo(b)fluoranthene	205-99-2	N.D.	0.00080	0.0020	1
12969	Benzo(g,h,i)perylene	191-24-2	N.D.	0.00080	0.0020	1
12969	Benzo(k)fluoranthene	207-08-9	N.D.	0.00080	0.0020	1
12969	Chrysene	218-01-9	N.D.	0.00040	0.0020	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00080	0.0020	1
12969	Fluoranthene	206-44-0	N.D.	0.00080	0.0020	1
12969	Fluorene	86-73-7	N.D.	0.00080	0.0020	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00080	0.0020	1
12969	Naphthalene	91-20-3	0.0017 J	0.00080	0.0020	1
12969	Phenanthrene	85-01-8	N.D.	0.00080	0.0020	1
12969	Pyrene	129-00-0	N.D.	0.00040	0.0020	1
Targe	analytes were detected in t	he method blank a	ssociated			

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San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Volatiles AK	t 101	mg/kg	mg/kg	mg/kg
01450 TPH-GRO AK soil C6-C10	n.a.	N.D.	0.8	7.5 30.81
Postigidos / PCPs SW	1-846 80823	ma/ka	ma/ka	mg/kg
Pesticides/PCBs 5w	-010 0002A			
10592 PCB-1016	12674-11-2	N.D. D1	0.0040	0.021 1
10592 PCB-1221	11104-28-2	N.D. D1	0.0062	0.021 1
10592 PCB-1232	11141-16-5	N.D. Dl	0.0050	0.021 1
10592 PCB-1242	53469-21-9	N.D. D1	0.0050	0.021 1
10592 PCB-1248	12672-29-6	N.D. Dl	0.0040	0.021 1
10592 PCB-1254	11097-69-1	N.D. D1	0.0054	0.021 1
10592 PCB-1260	11096-82-5	N.D. Dl	0.0048	0.021 1
GC Petroleum AK	X 102/AK 103	mg/kg	mg/kg	mg/kg
Hydrocarbons 04	4/08/02			
01738 C10- <c25 dro<="" td=""><td>n.a.</td><td>N.D.</td><td>6.0</td><td>14 1</td></c25>	n.a.	N.D.	6.0	14 1
01738 C25-C36 RRO	n.a.	N.D.	6.0	14 1
The recovery for a target an	nalyte(s) in the Laborator	y Control		
Spike(s) is outside the QC a	acceptance limits as noted	on the QC		
Summary. The following corr	rective action was taken:			
The sample was re-extracted	and the OC is again outsi	de of the		



Analysis Report

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Sample Description: DUP-1-WD-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK ELLE Sample # SW 9189704 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA23

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
acce clie	ptance limit. Th nt request.	e data is reporte	d from the se	cond trial per			
Metal	5	SW-846 601	0C	mg/kg	mg/kg	mg/kg	
06935	Arsenic		7440-38-2	3.02 J	1.13	4.71	1
06946	Barium		7440-39-3	53.6	0.0518	1.18	1
06949	Cadmium		7440-43-9	N.D.	0.0636	1.18	1
06951	Chromium		7440-47-3	23.6	0.200	3.53	1
06955	Lead		7439-92-1	8.95	0.706	3.53	1
06936	Selenium		7782-49-2	N.D.	1.09	4.71	1
06966	Silver		7440-22-4	N.D.	0.282	1.18	1
		SW-846 747	18	mg/kg	mg/kg	mg/kg	
00159	Mercury		7439-97-6	0.0435 J	0.0115	0.115	1
Wet C	hemistry	SM 2540 G-	1997	8	8	8	
00111	Moisture		n.a.	18.3	0.50	0.50	1
	Moisture represe 103 - 105 degree	ents the loss in w es Celsius. The mo	veight of the Disture result	sample after oven reported is on an	drying at		

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	22:24	Jeremy C Giffin	58.29
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/30/2017	00:00	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	13:58	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	21:27	Marie D Beamenderfer	30.81
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/30/2017	00:00	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	02:32	Kirby B Turner	1
11132	PCB Soils Update IV	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A	1
	Extraction						Newswanger	
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	07:47	Nicholas R Rossi	1



Analysis Report

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Sample Description: DUP-1-WD-170830 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189704 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA23

	Laboratory Sample Analysis Record								
CAT	Analysis Name	Method	Trial#	Batch#	Analysis	mo	Analyst	Dilution	
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1	
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:48	Cindy M Gehman	1	
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:39	Parker D Lindstrom	1	
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1	
10638	Hg - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1	
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1	



Analysis Report

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Sample Description: DUP-1-WD-170830 LOW LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK ELLE Sample # SW 9189705 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/30/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA24

CAT No.	Analysis Name	C2	AS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846 8260E	3	mg/kg	mg/kg	mg/kg	
10237	Benzene	71	1-43-2	N.D.	0.0005	0.005	0.76
Wet Chemistry S		SM 2540 G-19	97	%	8	8	
00118	Moisture	n	.a.	18.3	0.50	0.50	1

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial# Batch#		Analysis Date and Time		Analyst Di F	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	14:39	Jennifer K Howe	0.76
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/30/2017	00:00	Client Supplied	1
02392	GC/MS - Field Preserved	SW-846 5035	2	201724546922	08/30/2017	00:00	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1


Analysis Report

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Sample Description: DUP-2-WD-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189706 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA25

CAT			Dry	Dry Method	Dry Limit of	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit*	Quantitation	Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.33	0.96	46.18
10237	Benzene	71-43-2	N.D.	0.024	0.24	46.18
10237	Bromodichloromethane	75-27-4	N.D.	0.048	0.24	46.18
10237	Bromoform	75-25-2	N.D.	0.048	0.24	46.18
10237	Bromomethane	74-83-9	N.D.	0.096	0.24	46.18
10237	2-Butanone	78-93-3	N.D.	0.19	0.48	46.18
10237	Carbon Disulfide	75-15-0	N.D.	0.048	0.24	46.18
10237	Carbon Tetrachloride	56-23-5	N.D.	0.048	0.24	46.18
10237	Chlorobenzene	108-90-7	N.D.	0.048	0.24	46.18
10237	Chloroethane	75-00-3	N.D.	0.096	0.24	46.18
10237	Chloroform	67-66-3	N.D.	0.048	0.24	46.18
10237	Chloromethane	74-87-3	N.D.	0.096	0.24	46.18
10237	Cyclohexane	110-82-7	N.D.	0.048	0.24	46.18
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.096	0.24	46.18
10237	Dibromochloromethane	124-48-1	N.D.	0.048	0.24	46.18
10237	1,2-Dibromoethane	106-93-4	N.D.	0.048	0.24	46.18
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.048	0.24	46.18
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.048	0.24	46.18
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.048	0.24	46.18
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.096	0.24	46.18
10237	1,1-Dichloroethane	75-34-3	N.D.	0.048	0.24	46.18
10237	1,2-Dichloroethane	107-06-2	N.D.	0.048	0.24	46.18
10237	1,1-Dichloroethene	75-35-4	N.D.	0.048	0.24	46.18
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.048	0.24	46.18
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.048	0.24	46.18
10237	1,2-Dichloropropane	78-87-5	N.D.	0.048	0.24	46.18
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.048	0.24	46.18
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.048	0.24	46.18
10237	Ethylbenzene	100-41-4	N.D.	0.048	0.24	46.18
10237	Freon 113	76-13-1	N.D.	0.096	0.48	46.18
10237	2-Hexanone	591-78-6	N.D.	0.14	0.48	46.18
10237	Isopropylbenzene	98-82-8	N.D.	0.048	0.24	46.18
10237	Methyl Acetate	79-20-9	N.D.	0.096	0.24	46.18
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	0.24	46.18
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.14	0.48	46.18
10237	Methylcyclohexane	108-87-2	N.D.	0.048	0.24	46.18
10237	Methylene Chloride	75-09-2	N.D.	0.096	0.24	46.18
10237	Styrene	100-42-5	N.D.	0.048	0.24	46.18
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.048	0.24	46.18
10237	Tetrachloroethene	127-18-4	N.D.	0.048	0.24	46.18
10237	Toluene	108-88-3	N.D.	0.048	0.24	46.18
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.048	0.24	46.18
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.048	0.24	46.18
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.048	0.24	46.18
10237	Trichloroethene	79-01-6	N.D.	0.048	0.24	46.18
10237	Trichlorofluoromethane	75-69-4	N.D.	0.096	0.24	46.18
10237	Vinyi Chloride	75-01-4	N.D.	0.048	0.24	46.18
10237	Xylene (Total)	1330-20-7	N.D.	0.048	0.24	46.18

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San Ramon CA 94583

6001 Bollinger Canyon Rd L4310



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DUP-2-WD-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189706 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA25

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
GC/MS	Semivolatiles SW-846	8270D SIM	mg/kg	mg/kg	mg/kg	
12969	Acenaphthene	83-32-9	N.D.	0.00068	0.0017	1
12969	Acenaphthylene	208-96-8	N.D.	0.00034	0.0017	1
12969	Anthracene	120-12-7	0.00056 J	0.00034	0.0017	1
12969	Benzo(a)anthracene	56-55-3	N.D.	0.00068	0.0017	1
12969	Benzo(a)pyrene	50-32-8	N.D.	0.00068	0.0017	1
12969	Benzo(b)fluoranthene	205-99-2	0.0024	0.00068	0.0017	1
12969	Benzo(g,h,i)perylene	191-24-2	0.0021	0.00068	0.0017	1
12969	Benzo(k)fluoranthene	207-08-9	0.00074 J	0.00068	0.0017	1
12969	Chrysene	218-01-9	0.0028	0.00034	0.0017	1
12969	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00068	0.0017	1
12969	Fluoranthene	206-44-0	N.D.	0.00068	0.0017	1
12969	Fluorene	86-73-7	N.D.	0.00068	0.0017	1
12969	Indeno(1,2,3-cd)pyrene	193-39-5	0.0023	0.00068	0.0017	1
12969	Naphthalene	91-20-3	0.0045	0.00068	0.0017	1
12969	Phenanthrene	85-01-8	0.00075 J	0.00068	0.0017	1
12969	Pyrene	129-00-0	0.0013 J	0.00034	0.0017	1
Targe	et analytes were detected in t	the method blank a	ssociated			

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San Ramon CA 94583

6001 Bollinger Canyon Rd L4310

Target analytes were detected in the method blank associated with the samples as noted on the QC Summary. The following corrective action was taken:

The sample was originally extracted within the method required holding time and target analytes were not detected in the method blank associated with the samples. However, recoveries for target analytes in the Laboratory Control Spikes were outside acceptance limits. All results are reported from the second trial. Similar results were obtained in both trials.

GC Vol	latiles	AK 101		mg/kg		mg/kg	mg/kg	
01450	TPH-GRO AK soil C6-	C10	n.a.	N.D.		11	110	525.25
	Reporting limits we	re raised due	e to sample foam	ming.				
Pestic	cides/PCBs	SW-846 80	82A	mg/kg		mg/kg	mg/kg	
10592	PCB-1016		12674-11-2	N.D.	Dl	0.0034	0.017	1
10592	PCB-1221		11104-28-2	N.D.	D1	0.0052	0.017	1
10592	PCB-1232		11141-16-5	N.D.	D1	0.0042	0.017	1
10592	PCB-1242		53469-21-9	N.D.	D1	0.0042	0.017	1
10592	PCB-1248		12672-29-6	N.D.	D1	0.0034	0.017	1
10592	PCB-1254		11097-69-1	N.D.	D1	0.0045	0.017	1
10592	PCB-1260		11096-82-5	0.018	D2	0.0040	0.017	1
GC Pet	croleum	AK 102/AK	103	mg/kg		mg/kg	mg/kg	
Hydrod	carbons	04/08/02						
01738	C10- <c25 dro<="" td=""><td></td><td>n.a.</td><td>51</td><td></td><td>10</td><td>24</td><td>2</td></c25>		n.a.	51		10	24	2
01738	C25-C36 RRO		n.a.	220		10	24	2
The :	recovery for a targe	t analyte(s)	in the Laborato	ory Cont:	rol			
Spik	e(s) is outside the	QC acceptance	limits as note	d on the	e QC			
Cimm	The following	aorroativo oc	tion was taken					

Summary. The following corrective action was taken:



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: DUP-2-WD-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK ELLE Sample # SW 9189706 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected:	08/31/2017	by OY
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Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43

SRA25

CAT No.	Analysis Name	CAS	Dry Number Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
The acce clie	sample was re-ext eptance limit. Th ent request.	racted and the QC is a e data is reported fro	gain outside of the m the second trial per			
Metal	S	SW-846 6010C	mg/kg	mg/kg	mg/kg	
06935	Arsenic	7440	-38-2 4.53	0.758	3.16	1
06946	Barium	7440	-39-3 49.6	0.0347	0.789	1
06949	Cadmium	7440	-43-9 N.D.	0.0426	0.789	1
06951	Chromium	7440	-47-3 26.9	0.134	2.37	1
06955	Lead	7439	-92-1 9.32	0.474	2.37	1
06936	Selenium	7782	-49-2 N.D.	0.734	3.16	1
06966	Silver	7440	-22-4 0.228 J	0.189	0.789	1
		SW-846 7471B	mg/kg	mg/kg	mg/kg	
00159	Mercury	7439	-97-6 0.0344 J	0.0098	0.0985	1
Wet C	hemistry	SM 2540 G-1997	8	8	8	
00111	Moisture	n.a.	3.3	0.50	0.50	1
	Moisture represe	nts the loss in weight	of the sample after ove	n drying at		

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6001 Bollinger Canyon Rd L4310

103 - 105 degrees Celsius. The moisture result reported is on an

as-received basis.

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	22:48	Jeremy C Giffin	46.18
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/31/2017	00:00	Client Supplied	1
12969	SIM SVOAs 8270D (microwave)	SW-846 8270D SIM	1	17256SLC026	09/15/2017	14:29	Catherine E Bachman	1
10811	BNA Soil Microwave SIM	SW-846 3546	2	17256SLC026	09/13/2017	17:45	Ashley R Transue	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	14:37	Marie D Beamenderfer	525.25
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/31/2017	00:00	Client Supplied	1
10592	PCBs in Soil 8082A	SW-846 8082A	1	172480035A	09/08/2017	02:44	Kirby B Turner	1
11132	PCB Soils Update IV Extraction	SW-846 3550C	1	172480035A	09/06/2017	09:00	Michelle A Newswanger	1
01738	TPH-DRO/RRO (AK)	AK 102/AK 103 04/08/02	1	172540034A	09/13/2017	12:04	Nicholas R Rossi	2



Analysis Report

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Sample Description: DUP-2-WD-170831 HIGH LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # SW 9189706 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA25

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
14417	MW Ext. for AK DRO/RRO Soils	SW-846 3546	2	172540034A	09/12/2017	09:00	Bradley W VanLeuven	1		
06935	Arsenic	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06946	Barium	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06949	Cadmium	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06951	Chromium	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06955	Lead	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06936	Selenium	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
06966	Silver	SW-846 6010C	1	172491063701	09/07/2017	15:51	Cindy M Gehman	1		
00159	Mercury	SW-846 7471B	1	172491063801	09/07/2017	11:41	Parker D Lindstrom	1		
10637	ICP/ICPMS-SW, 3050B - U4	SW-846 3050B	1	172491063701	09/07/2017	06:40	Lisa J Cooke	1		
10638	Hq - SW, 7471B - U4	SW-846 7471B	1	172491063801	09/07/2017	07:50	Lisa J Cooke	1		
00111	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1		



Analysis Report

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Sample Description: DUP-2-WD-170831 LOW LEVEL Grab Soil Facility# 306449 2730 Spendard Road - Anchorage, AK ELLE Sample # SW 9189707 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017 by OY

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA26

Analysis Name	c	CAS Number	Dry Result	Dry Method Detection Limit*	Dry Limit of Quantitation	Dilution Factor
Volatiles	SW-846 8260	в	mg/kg	mg/kg	mg/kg	
Benzene	5	71-43-2	N.D.	0.0004	0.004	0.7
nemistry	SM 2540 G-1	997	8	8	8	
Moisture	r	1.a.	3.3	0.50	0.50	1
	Analysis Name Volatiles Benzene Moistry Moisture	Analysis Name O Volatiles SW-846 8260 Benzene SM 2540 G-1 Moisture n	Analysis NameCAS NumberVolatiles BenzeneSW-846 8260B 71-43-2emistry MoistureSM 2540 G-1997 n.a.	Analysis NameCAS NumberDry ResultVolatiles BenzeneSW-846 8260Bmg/kg71-43-2N.D.Nemistry MoistureSM 2540 G-1997%3.3	Analysis NameCAS NumberDry ResultDry Method Detection Limit*Volatiles BenzeneSW-846 8260Bmg/kgmg/kg71-43-2N.D.0.0004emistry MoistureSM 2540 G-1997%%No.0.50%	Analysis NameCAS NumberDry ResultDry MethodDry MethodDry

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	e	Analyst	Dilution Factor
10237	VOCs Benzene only - Soil	SW-846 8260B	1	A172551AA	09/12/2017	15:02	Jennifer K Howe	0.7
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	1	201724546922	08/31/2017	00:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035	2	201724546922	08/31/2017	00:00	Client Supplied	1
00118	Moisture	SM 2540 G-1997	1	17250820012B	09/07/2017	21:07	Scott W Freisher	1



Analysis Report

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Sample Description: QA-1-T-170831 Methanol Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # G5 9189708 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA27

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	mg/kg	mg/kg	mg/kg	
10237	Acetone	67-64-1	N.D.	0.35	1.0	50
10237	Benzene	71-43-2	N.D.	0.025	0.25	50
10237	Bromodichloromethane	75-27-4	N.D.	0.050	0.25	50
10237	Bromoform	75-25-2	N.D.	0.050	0.25	50
10237	Bromomethane	74-83-9	N.D.	0.10	0.25	50
10237	2-Butanone	78-93-3	N.D.	0.20	0.50	50
10237	Carbon Disulfide	75-15-0	N.D.	0.050	0.25	50
10237	Carbon Tetrachloride	56-23-5	N.D.	0.050	0.25	50
10237	Chlorobenzene	108-90-7	N.D.	0.050	0.25	50
10237	Chloroethane	75-00-3	N.D.	0.10	0.25	50
10237	Chloroform	67-66-3	N.D.	0.050	0.25	50
10237	Chloromethane	74-87-3	N.D.	0.10	0.25	50
10237	Cyclohexane	110-82-7	N.D.	0.050	0.25	50
10237	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	0.10	0.25	50
10237	Dibromochloromethane	124-48-1	N.D.	0.050	0.25	50
10237	1,2-Dibromoethane	106-93-4	N.D.	0.050	0.25	50
10237	1,2-Dichlorobenzene	95-50-1	N.D.	0.050	0.25	50
10237	1,3-Dichlorobenzene	541-73-1	N.D.	0.050	0.25	50
10237	1,4-Dichlorobenzene	106-46-7	N.D.	0.050	0.25	50
10237	Dichlorodifluoromethane	75-71-8	N.D.	0.10	0.25	50
10237	1,1-Dichloroethane	75-34-3	N.D.	0.050	0.25	50
10237	1,2-Dichloroethane	107-06-2	N.D.	0.050	0.25	50
10237	1,1-Dichloroethene	75-35-4	N.D.	0.050	0.25	50
10237	cis-1,2-Dichloroethene	156-59-2	N.D.	0.050	0.25	50
10237	trans-1,2-Dichloroethene	156-60-5	N.D.	0.050	0.25	50
10237	1,2-Dichloropropane	78-87-5	N.D.	0.050	0.25	50
10237	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.050	0.25	50
10237	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.050	0.25	50
10237	Ethylbenzene	100-41-4	N.D.	0.050	0.25	50
10237	Freon 113	76-13-1	N.D.	0.10	0.50	50
10237	2-Hexanone	591-78-6	N.D.	0.15	0.50	50
10237	Isopropylbenzene	98-82-8	N.D.	0.050	0.25	50
10237	Methyl Acetate	79-20-9	N.D.	0.10	0.25	50
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.025	0.25	50
10237	4-Methyl-2-pentanone	108-10-1	N.D.	0.15	0.50	50
10237	Methylcyclohexane	108-87-2	N.D.	0.050	0.25	50
10237	Methylene Chloride	75-09-2	N.D.	0.10	0.25	50
10237	Styrene	100-42-5	N.D.	0.050	0.25	50
10237	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.050	0.25	50
10237	Tetrachloroethene	127-18-4	N.D.	0.050	0.25	50
10237	Toluene	108-88-3	N.D.	0.050	0.25	50
10237	1,2,4-Trichlorobenzene	120-82-1	N.D.	0.050	0.25	50
10237	1,1,1-Trichloroethane	71-55-6	N.D.	0.050	0.25	50
10237	1,1,2-Trichloroethane	79-00-5	N.D.	0.050	0.25	50
10237	Trichloroethene	79-01-6	N.D.	0.050	0.25	50
10237	Trichlorofluoromethane	75-69-4	N.D.	0.10	0.25	50
10237	Vinyl Chloride	75-01-4	N.D.	0.050	0.25	50
10237	Xylene (Total)	1330-20-7	N.D.	0.050	0.25	50



Analysis Report

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Sample Description: QA-1-T-170831 Methanol Facility# 306449 2730 Spendard Road - Anchorage, AK

ELLE Sample # G5 9189708 ELLE Group # 1845654 Account # 10880

Project Name: 306449

Collected: 08/31/2017

Submitted: 09/01/2017 09:55 Reported: 09/22/2017 15:43 ChevronTexaco 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

SRA27

CAT No. Analy:	sis Name		CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC Volatile	es A	K 101		mg/kg	mg/kg	mg/kg	
01450 TPH-G	RO AK soil C6-C1	C	n.a.	N.D.	0.5	5.0	25

Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor
10237	VOCs- Solid by 8260B	SW-846 8260B	1	R172541AA	09/11/2017	23:37	Jeremy C Giffin	50
06173	GC/MS - Field Preserved (Ak)	SW-846 5035	1	201724546922	08/31/2017	00:00	Client Supplied	1
01450	TPH-GRO AK soil C6-C10	AK 101	1	17250A34A	09/07/2017	19:29	Marie D Beamenderfer	25
06119	GC - Field Preserved (AK-101)	AK 101	1	201724546922	08/31/2017	00:00	Client Supplied	1



Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
Batch number: A172551AA	Sample number	(s):	
	9189683,91896	91,9189693	,9189695,9189697,9189699,9189701,9189705,9189707
Benzene	N.D.	0.0005	0.005
Batch number: R172541AA	Sample number	(s):	
	9189682,91896 ,9189706,9189	84,9189686 708	,9189688,9189690,9189692,9189694,9189696,9189698,9189700,9189704
Acetone	N.D.	0.35	1.0
Benzene	N.D.	0.025	0.25
Bromodichloromethane	N.D.	0.050	0.25
Bromoform	N.D.	0.050	0.25
Bromomethane	N.D.	0.10	0.25
2-Butanone	N.D.	0.20	0.50
Carbon Disulfide	N.D.	0.050	0.25
Carbon Tetrachloride	N.D.	0.050	0.25
Chlorobenzene	N.D.	0.050	0.25
Chloroethane	N.D.	0.10	0.25
Chloroform	N.D.	0.050	0.25
Chloromethane	N.D.	0.10	0.25
Cyclohexane	N.D.	0.050	0.25
1,2-Dibromo-3-chloropropane	N.D.	0.10	0.25
Dibromochloromethane	N.D.	0.050	0.25
1,2-Dibromoethane	N.D.	0.050	0.25
1,2-Dichlorobenzene	N.D.	0.050	0.25
1,3-Dichlorobenzene	N.D.	0.050	0.25
1,4-Dichlorobenzene	N.D.	0.050	0.25
Dichlorodifluoromethane	N.D.	0.10	0.25
1,1-Dichloroethane	N.D.	0.050	0.25
1,2-Dichloroethane	N.D.	0.050	0.25
1,1-Dichloroethene	N.D.	0.050	0.25
cis-1,2-Dichloroethene	N.D.	0.050	0.25
trans-1,2-Dichloroethene	N.D.	0.050	0.25
1,2-Dichloropropane	N.D.	0.050	0.25
cis-1,3-Dichloropropene	N.D.	0.050	0.25
trans-1,3-Dichloropropene	N.D.	0.050	0.25
Ethylbenzene	N.D.	0.050	0.25
Freon 113	N.D.	0.10	0.50
2-Hexanone	N.D.	0.15	0.50
Isopropylbenzene	N.D.	0.050	0.25
Methyl Acetate	N.D.	0.10	0.25
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25
4-Methyl-2-pentanone	N.D.	0.15	0.50

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.





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Quality Control Summary

Method Blank (continued)

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
Methylcyclohexane	N.D.	0.050	0.25
Methylene Chloride	N.D.	0.10	0.25
Styrene	N.D.	0.050	0.25
1,1,2,2-Tetrachloroethane	N.D.	0.050	0.25
Tetrachloroethene	N.D.	0.050	0.25
Toluene	N.D.	0.050	0.25
1,2,4-Trichlorobenzene	N.D.	0.050	0.25
1,1,1-Trichloroethane	N.D.	0.050	0.25
1,1,2-Trichloroethane	N.D.	0.050	0.25
Trichloroethene	N.D.	0.050	0.25
Trichlorofluoromethane	N.D.	0.10	0.25
Vinyl Chloride	N.D.	0.050	0.25
Xylene (Total)	N.D.	0.050	0.25
	mg/l	mg/l	mg/l
Batch number: N172511AA	Sample number	(s): 918970	02-9189703
Acetone	N.D.	0.006	0.020
Benzene	N.D.	0.0005	0.001
Bromodichloromethane	N.D.	0.0005	0.001
Bromoform	N.D.	0.0005	0.004
Bromomethane	N.D.	0.0005	0.001
2-Butanone	N.D.	0.003	0.010
Carbon Disulfide	N.D.	0.001	0.005
Carbon Tetrachloride	N.D.	0.0005	0.001
Chlorobenzene	N.D.	0.0005	0.001
Chloroethane	N.D.	0.0005	0.001
Chloroform	N.D.	0.0005	0.001
Chloromethane	N.D.	0.0005	0.001
Cyclohexane	N.D.	0.002	0.005
1,2-Dibromo-3-chloropropane	N.D.	0.002	0.005
Dibromochloromethane	N.D.	0.0005	0.001
1,2-Dibromoethane	N.D.	0.0005	0.001
1,2-Dichlorobenzene	N.D.	0.001	0.005
1,3-Dichlorobenzene	N.D.	0.001	0.005
1,4-Dichlorobenzene	N.D.	0.001	0.005
Dichlorodifluoromethane	N.D.	0.0005	0.001
1,1-Dichloroethane	N.D.	0.0005	0.001
1,2-Dichloroethane	N.D.	0.0005	0.001
1,1-Dichloroethene	N.D.	0.0005	0.001
cis-1,2-Dichloroethene	N.D.	0.0005	0.001
trans-1,2-Dichloroethene	N.D.	0.0005	0.001
1,2-Dichloropropane	N.D.	0.0005	0.001
cis-1,3-Dichloropropene	N.D.	0.0005	0.001
trans-1,3-Dichloropropene	N.D.	0.0005	0.001
Ethylbenzene	N.D.	0.0005	0.001
Freon 113	N.D.	0.002	0.010
2-Hexanone	N.D.	0.003	0.010
Isopropylbenzene	N.D.	0.001	0.005
Methyl Acetate	N.D.	0.001	0.005

*- Outside of specification

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Quality Control Summary

Method Blank (continued)

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.001
4-Methyl-2-pentanone	N.D.	0.003	0.010
Methylcyclohexane	N.D.	0.001	0.005
Methylene Chloride	N.D.	0.002	0.004
Styrene	N.D.	0.001	0.005
1,1,2,2-Tetrachloroethane	N.D.	0.0005	0.001
Tetrachloroethene	N.D.	0.0005	0.001
Toluene	N.D.	0.0005	0.001
1,2,4-Trichlorobenzene	N.D.	0.001	0.005
1,1,1-Trichloroethane	N.D.	0.0005	0.001
1,1,2-Trichloroethane	N.D.	0.0005	0.001
Trichloroethene	N.D.	0.0005	0.001
Trichlorofluoromethane	N.D.	0.0005	0.001
Vinyl Chloride	N.D.	0.0005	0.001
Xylene (Total)	N.D.	0.0005	0.001
	mg/kg	mg/kg	mg/kg
Batch number: 17249SLB026	Sample numb	er(s): 9189	9698,9189700
Acenaphthene	N.D.	0.00067	0.0017
Acenaphthylene	N.D.	0.00033	0.0017
Anthracene	N.D.	0.00033	0.0017
Benzo(a)anthracene	N.D.	0.00067	0.0017
Benzo(a)pyrene	N.D.	0.00067	0.0017
Benzo(b)fluoranthene	N.D.	0.00067	0.0017
Benzo(g,h,i)perylene	N.D.	0.00067	0.0017
Benzo(k)fluoranthene	N.D.	0.00067	0.0017
Chrysene	N.D.	0.00033	0.0017
Dibenz(a,h)anthracene	N.D.	0.00067	0.0017
Fluoranthene	N.D.	0.00067	0.0017
Fluorene	N.D.	0.00067	0.0017
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	0.0017
Naphthalene	N.D.	0.00067	0.0017
Phenanthrene	N.D.	0.00067	0.0017
Pyrene	N.D.	0.00033	0.0017
Batch number: 17256SLC026	Sample numb	er(s):	
	9189682,918	9684,918968	36,9189688,9189690,9189692,9189694,9189696,9189704,918970
Acenaphthene	N.D.	0.00067	0.0017
Acenaphthylene	N.D.	0.00033	0.0017
Anthracene	0.00086 J	0.00033	0.0017
Benzo(a)anthracene	N.D.	0.00067	0.0017
Benzo(a)pyrene	N.D.	0.00067	0.0017
Benzo(b)fluoranthene	N.D.	0.00067	0.0017
Benzo(g,h,i)perylene	N.D.	0.00067	0.0017
Benzo(k)fluoranthene	N.D.	0.00067	0.0017
Chrysene	N.D.	0.00033	0.0017
Dibenz(a,h)anthracene	N.D.	0.00067	0.0017
Fluoranthene	N.D.	0.00067	0.0017
71	0 00072 -	0 00067	0.0017

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

	E.	iechou b	Tank (concluded)
Analysis Name	Result	MDL**	LOQ
	mg/kg	mg/kg	mg/kg
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	0.0017
Naphthalene	0.00072 J	0.00067	0.0017
Phenanthrene	0.00076 J	0.00067	0.0017
Pyrene	N.D.	0.00033	0.0017
	mg/l	mg/l	mg/l
Batch number: 17248WAU026	Sample numb	er(s): 9189	703
Acenaphthene	N.D.	0.000010	0.00050
Acenaphthylene	N.D.	0.000010	0.00050
Anthracene	N.D.	0.000010	0.00050
Benzo(a)anthracene	N.D.	0.000010	0.00050
Benzo(a)pyrene	N.D.	0.000010	0.00050
Benzo(b)fluoranthene	N.D.	0.000010	0.00050
Benzo(g,h,i)pervlene	N.D.	0.000010	0.000050
Benzo(k)fluoranthene	N.D.	0.000010	0.000050
Chrysene	N.D.	0.000010	0.00050
Dibenz(a h)anthracene	N D	0 000010	0.00050
Fluoranthene	ND	0 000010	0.000050
Fluorene	N.D.	0.000010	0.000050
Indone (1, 2, 2, ad) pursons	N.D.	0.000010	
Namhthalana	N.D.	0.000010	0.000050
	N.D.	0.000030	
Phenanthrene	N.D.	0.000030	0.000060
Pyrene	N.D.	0.000010	0.000050
	mg/kg	mg/kg	mg/kg
Batch number: 17250A34A	Sample numb 9189682,918 .9189708	er(s): 9684,9189680	6,9189688,9189692,9189694,9189696,9189698,9189700,9189704,9189706
TPH-GRO AK soil C6-C10	N.D.	0.5	5.0
Batch number: 17250A34B	Sample numb	er(s): 9189	690
TPH-GRO AK soil C6-C10	N.D.	0.5	5.0
	mg/l	mg/l	mg/l
Batch number: 17251A53A	Sample numb	er(s): 9189	702-9189703
TPH-GRO AK water C6-C10	N.D.	0.010	0.10
	mg/kg	mg/kg	mg/kg
Batch number: 172480035A	Sample numb 9189682,918 ,9189706	er(s): 9684,9189680	6,9189688,9189690,9189692,9189694,9189696,9189698,9189700,9189704
PCB-1016	N.D.	0.0033	0.017
PCB-1221	N.D.	0.0051	0.017
PCB-1232	N.D.	0.0041	0.017
PCB-1242	N.D.	0.0041	0.017
PCB-1248	N.D.	0.0033	0.017
PCB-1254	N.D.	0.0044	0.017
PCB-1260	N.D.	0.0039	0.017

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l
Batch number: 172490005A PCB-1016 PCB-1221 PCB-1232 PCB-1242 PCB-1248 PCB-1254 PCB-1260	Sample number N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D	(s): 91897 0.00010 0.00010 0.00020 0.00010 0.00010 0.00010 0.00015	02 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050 0.00050
	mg/kg	mg/kg	mg/kg
Batch number: 172540034A	Sample number 9189682,91896 ,9189706	(s): 84,9189686	,9189688,9189690,9189692,9189694,9189696,9189698,9189700,9189704
C10- <c25 dro<="" td=""><td>N.D.</td><td>5.0</td><td>12</td></c25>	N.D.	5.0	12
C25-C36 RRO	N.D.	5.0	12
	mg/l	mg/l	mg/l
Batch number: 172550001A	Sample number	(s): 91897	02-9189703
C10- <c25 dro<="" td=""><td>N.D.</td><td>0.050</td><td>0.25</td></c25>	N.D.	0.050	0.25
C25-C36 RRO	N.D.	0.075	0.25
	mg/kg	mg/kg	mg/kg
Batch number: 172491063701	Sample number 9189682,91896	(s): 84,9189686	,9189688,9189690,9189692,9189694,9189696,9189698,9189700,9189704
Arsenic	N.D.	0.960	4.00
Barium	0.0580 J	0.0440	1.00
Cadmium	N.D.	0.0540	1.00
Chromium	N.D.	0.170	3.00
Lead	N.D.	0.600	3.00
Selenium	N.D.	0.930	4.00
Silver	N.D.	0.240	1.00
Batch number: 172491063801	Sample number 9189682,91896 ,9189706	(s): 84,9189686	,9189688,9189690,9189692,9189694,9189696,9189698,9189700,9189704
Mercury	N.D.	0.0100	0.100
	mg/l	mg/l	mg/l
Batch number: 172510571304	Sample number	(s): 91897	02-9189703
Mercury	N.D.	0.000050	0.00020
Batch number: 172541063503 Arsenic	Sample number N.D.	(s): 91897 0.0096	02-9189703 0.0400
Barium	N.D.	0.00085	0.0100
Cadmium	N.D.	0.0018	0.0100
Chromium	N.D.	0.0033	0.0300
Lead	N.D.	0.0060	0.0300
Selenium	N.D.	0.0093	0.0400
Silver	N.D.	0.0024	0.0100

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	mg/l	mg/l	mg/l

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: A172551AA	Sample numbe	er(s):							
	9189683,9189	691,9189693	3,9189695,9189	697,918969	9,918970	1,918970	5,9189707		
Benzene	0.0200	0.0188	0.0200	0.0190	94	95	80-120	1	30
Batch number: R172541AA	Sample numbe	er(s):							
	9189682,9189	684,9189686	5,9189688,9189	690,918969	2,918969	4,918969	6,9189698,91	89700,9	9189704
	,9189706,918	9708							
Acetone	7.50	6.63	7.50	7.67	88	102	32-144	15	30
Benzene	1.00	0.956	1.00	1.05	96	105	80-120	10	30
Bromodichloromethane	1.00	0.888	1.00	1.02	89	102	70-120	14	30
Bromoform	1.00	0.905	1.00	0.991	90	99	54-120	9	30
Bromomethane	1.00	0.890	1.00	1.02	89	102	31-160	13	30
2-Butanone	7.50	7.87	7.50	8.97	105	120	49-128	13	30
Carbon Disulfide	1.00	0.854	1.00	0.947	85	95	60-128	10	30
Carbon Tetrachloride	1.00	0.810	1.00	0.894	81	89	62-129	10	30
Chlorobenzene	1.00	0.932	1.00	1.05	93	105	80-120	12	30
Chloroethane	1.00	0.993	1.00	1.18	99	118	43-137	17	30
Chloroform	1.00	0.928	1.00	1.04	93	104	80-120	11	30
Chloromethane	1.00	0.839	1.00	0.882	84	88	56-120	5	30
Cyclohexane	1.00	0.827	1.00	0.851	83	85	58-126	3	30
1,2-Dibromo-3-chloropropane	1.00	0.783	1.00	0.901	78	90	47-126	14	30
Dibromochloromethane	1.00	0.894	1.00	1.02	89	102	65-120	13	30
1,2-Dibromoethane	1.00	0.926	1.00	1.05	93	105	74-120	12	30
1,2-Dichlorobenzene	1.00	1.06	1.00	1.18	106	118	80-120	11	30
1,3-Dichlorobenzene	1.00	1.04	1.00	1.17	104	117	80-120	12	30
1,4-Dichlorobenzene	1.00	1.06	1.00	1.19	106	119	80-120	12	30
Dichlorodifluoromethane	1.00	0.648	1.00	0.578	65	58	10-133	11	30
1,1-Dichloroethane	1.00	0.930	1.00	1.02	93	102	77-120	9	30
1,2-Dichloroethane	1.00	0.927	1.00	1.04	93	104	71-128	12	30
1,1-Dichloroethene	1.00	0.966	1.00	1.09	97	109	73-129	12	30
cis-1,2-Dichloroethene	1.00	1.01	1.00	1.13	101	113	80-120	12	30
trans-1,2-Dichloroethene	1.00	0.986	1.00	1.09	99	109	80-125	10	30
1.2-Dichloropropane	1.00	0.909	1.00	1.02	91	102	76-120	11	30
cis-1.3-Dichloropropene	1.00	0.834	1.00	0.944	83	94	66-120	12	30
trans-1.3-Dichloropropene	1.00	0.875	1.00	0.956	87	96	63-124	9	30
Ethylbenzene	1.00	0.873	1.00	0.956	87	96	80-120	9	30
Freon 113	1.00	0.918	1.00	0.980	92	98	59-139	7	30
2-Hexanone	5.00	4.75	5.00	5.40	95	108	51-131	13	30
Isopropylbenzene	1.00	0.822	1.00	0.880	82	88	76-120	7	30

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Methyl Acetate	1.00	0.917	1.00	1.07	92	107	54-146	15	30
Methyl Tertiary Butyl Ether	1.00	0.834	1.00	0.952	83	95	66-123	13	30
4-Methyl-2-pentanone	5.00	4.56	5.00	5.22	91	104	53-134	13	30
Methylcyclohexane	1.00	0.868	1.00	0.791	87	79	61-124	9	30
Methylene Chloride	1 00	0 957	1 00	1 10	96	110	76-122	14	30
Styrene	1.00	0.910	1.00	1.02	91	102	76-120	12	30
1 1 2 2-Tetrachloroethane	1 00	0 980	1 00	1 21	98	121	61-131	21	30
Tetrachloroethene	1 00	0.900	1 00	1 02	93	102	73-120	9	30
Toluene	1 00	0.906	1 00	1 04	91	104	80-120	13	30
1 2 4-Trichlorobenzene	1 00	1 04	1 00	0 893	104	89	62-127	15	30
1 1 1-Trichloroethane	1 00	0 837	1 00	0.000	84	91	61-125	8	30
1 1 2-Trichloroethane	1 00	0.037	1 00	1 09	98	109	80-120	10	30
Trighloroethene	1 00	0.905	1.00	0 989	80	205	80-120	10	30
Trichlevefluevemethere	1.00	0.094	1.00	0.989	09	99	00-120 47 122	10	20
Vinul Oblamida	1.00	0.000	1.00	0.943	00	94	47-13Z	1	20
Villyr Chioride	1.00	0.640	1.00	0.077	00	00	59-120	4	30
Ayrene (Totar)	3.00	2.61	3.00	2.80	87	95	80-120	9	30
	mg/l	mg/l	mg/l	mg/l					
Batch number: N172511AA	Sample numbe	er(s): 91897	702-9189703						
Acetone	0.150	0.173	0.150	0.195	115	130	44-177	12	30
Benzene	0.0200	0.0199	0.0200	0.0201	99	100	78-120	1	30
Bromodichloromethane	0.0200	0.0187	0.0200	0.0186	93	93	71-120	0	30
Bromoform	0.0200	0.0147	0.0200	0.0146	74	73	59-120	1	30
Bromomethane	0.0200	0.0188	0.0200	0.0191	94	96	44-139	2	30
2-Butanone	0.150	0.165	0.150	0.170	110	114	53-140	3	30
Carbon Disulfide	0.0200	0.0164	0.0200	0.0165	82	83	65-128	1	30
Carbon Tetrachloride	0.0200	0.0188	0.0200	0.0187	94	94	68-128	1	30
Chlorobenzene	0.0200	0.0195	0.0200	0.0196	97	98	80-120	0	30
Chloroethane	0.0200	0.0188	0.0200	0.0179	94	90	52-127	5	30
Chloroform	0.0200	0.0202	0.0200	0.0205	101	102	80-120	1	30
Chloromethane	0.0200	0.0209	0.0200	0.0206	105	103	57-120	2	30
Cyclohexane	0.0200	0.0180	0.0200	0.0183	90	92	67-121	2	30
1,2-Dibromo-3-chloropropane	0.0200	0.0174	0.0200	0.0168	87	84	64-120	4	30
Dibromochloromethane	0.0200	0.0178	0.0200	0.0174	89	87	71-120	2	30
1,2-Dibromoethane	0.0200	0.0196	0.0200	0.0196	98	98	75-120	0	30
1,2-Dichlorobenzene	0.0200	0.0186	0.0200	0.0186	93	93	80-120	0	30
1,3-Dichlorobenzene	0.0200	0.0180	0.0200	0.0184	90	92	80-120	2	30
1,4-Dichlorobenzene	0.0200	0.0186	0.0200	0.0186	93	93	80-120	0	30
Dichlorodifluoromethane	0.0200	0.0196	0.0200	0.0200	98	100	47-124	2	30
1,1-Dichloroethane	0.0200	0.0206	0.0200	0.0206	103	103	80-120	0	30
1.2-Dichloroethane	0.0200	0.0214	0.0200	0.0210	107	105	73-124	2	30
1.1-Dichloroethene	0.0200	0.0200	0.0200	0.0204	100	102	76-124	2	30
cis-1.2-Dichloroethene	0.0200	0.0205	0.0200	0.0206	103	103	80-120	0	30
trans-1.2-Dichloroethere	0.0200	0.0203	0.0200	0.0204	101	102	80-120	1	30
1.2-Dichloropropane	0.0200	0.0209	0.0200	0.0210	104	105	80-120	1	30
cis-1.3-Dichloropropene	0.0200	0.0186	0.0200	0.0187	93	93	75-120	0	30
trans-1.3-Dichloropropene	0.0200	0.0183	0.0200	0.0184	91	92	76-120	1	30
Ethylbenzene	0.0200	0.0197	0.0200	0.0197	99	98	78-120	0	30
	0.0200	0.010/	0.0200	5.0127		20	.0 100	0	55

*- Outside of specification

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(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.





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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/l	mg/l	mg/l	mg/l					
Freon 113	0.0200	0.0196	0.0200	0.0201	98	101	68-137	3	30
2-Hexanone	0.100	0.105	0.100	0.104	105	104	60-134	0	30
Isopropylbenzene	0.0200	0.0192	0.0200	0.0194	96	97	80-120	1	30
Methyl Acetate	0.0200	0.0201	0.0200	0.0203	100	101	61-137	1	30
Methyl Tertiary Butyl Ether	0.0200	0.0188	0.0200	0.0189	94	95	75-120	1	30
4-Methyl-2-pentanone	0.100	0.103	0.100	0.102	103	102	67-128	1	30
Methylcyclohexane	0.0200	0.0194	0.0200	0.0196	97	98	66-126	1	30
Methylene Chloride	0.0200	0.0200	0.0200	0.0201	100	101	80-120	0	30
Styrene	0.0200	0.0188	0.0200	0.0190	94	95	80-120	1	30
1,1,2,2-Tetrachloroethane	0.0200	0.0198	0.0200	0.0195	99	97	72-120	1	30
Tetrachloroethene	0.0200	0.0187	0.0200	0.0190	94	95	80-129	2	30
Toluene	0.0200	0.0198	0.0200	0.0198	99	99	80-120	0	30
1.2.4-Trichlorobenzene	0.0200	0.0166	0.0200	0.0163	83	82	70-120	2	30
1.1.1-Trichloroethane	0.0200	0.0183	0.0200	0.0185	91	93	67-120	1	30
1.1.2-Trichloroethane	0.0200	0.0204	0.0200	0.0206	102	103	80-120	1	30
Trichloroethene	0 0200	0 0191	0 0200	0 0196	96	98	80-120	2	30
Trichlorofluoromethane	0.0200	0.0101	0 0200	0.0219	110	109	52-143	1	30
Vinyl Chloride	0.0200	0.0221	0.0200	0.0211	105	106	63-121	1	30
Xylene (Total)	0.0600	0.0575	0.0600	0.0578	96	96	80-120	0	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17249SLB026	Sample numbe	r(g): 91896	598 9189700						
Acenaphthene	0 0333	0 0298	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		89		85-122		
Acenaphthylene	0.0333	0.0200			63*		68-102		
Anthracene	0.0333	0.0210			79		75-111		
Benzo(a)anthracene	0.0333	0.0269			81*		83-112		
Benzo(a) byrene	0.0333	0.0200			81		78-108		
Benzo(b)fluoranthene	0.0333	0.0270			84		75-120		
Benzo(g, h, i)pervlene	0.0333	0.0250			75		71_109		
Benzo(k)fluoranthene	0.0333	0.0250			22		78-113		
Chrygene	0.0333	0.0274			82		70-113		
Dibenz(a, h)anthragene	0.0333	0.0273			02 91		66-119		
Flueranthone	0.0333	0.0209			70*		00-119		
Fluorene	0.0333	0.0204			21 21		81-115		
Indone (1, 2, 2, ad) pursone	0.0333	0.0209			70		65 114		
Naphthalono	0.0333	0.0200			70		71 114		
Departhrop	0.0333	0.0270			01 70		70 106		
Purceno	0.0333	0.0259			76		72 100		
Pyrelle	0.0333	0.0250			/5		73-109		
Batch number: 17256SLC026	Sample numbe 9189682,9189	r(s): 684,9189686	5,9189688,9189	690,918969	2,918969	4,918969	6,9189704,91	89706	
Acenaphthene	0.0333	0.0340			102		85-122		
Acenaphthylene	0.0333	0.0244			73		68-102		
Anthracene	0.0333	0.0314			94		75-111		
Benzo(a)anthracene	0.0333	0.0309			93		83-112		
Benzo(a)pyrene	0.0333	0.0309			93		78-108		
Benzo(b)fluoranthene	0.0333	0.0338			101		75-120		
Benzo(g,h,i)perylene	0.0333	0.0307			92		71-109		

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

LCS/LCSD (continued)

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	mg/kg	mg/kg	mg/kg	mg/kg					
Benzo(k)fluoranthene	0.0333	0.0293			88		78-113		
Chrysene	0.0333	0.0308			92		79-111		
Dibenz(a,h)anthracene	0.0333	0.0328			98		66-119		
Fluoranthene	0.0333	0.0280			84		82-110		
Fluorene	0.0333	0.0308			92		81-115		
Indeno(1,2,3-cd)pyrene	0.0333	0.0316			95		65-114		
Naphthalene	0.0333	0.0305			91		71-114		
Phenanthrene	0.0333	0.0307			92		78-106		
Pyrene	0.0333	0.0301			90		73-109		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17248WAU026	Sample numbe	r(s): 91897	03						
Acenaphthene	0.00100	0.000954	0.00100	0.000878	95	88	62-127	8	30
Acenaphthylene	0.00100	0.000653	0.00100	0.000614	65	61	48-105	6	30
Anthracene	0.00100	0.000779	0.00100	0.000762	78	76	60-112	2	30
Benzo(a)anthracene	0.00100	0.000829	0.00100	0.000787	83	79	62-122	5	30
Benzo(a)pyrene	0.00100	0.000838	0.00100	0.000773	84	77	60-114	8	30
Benzo(b)fluoranthene	0.00100	0.000883	0.00100	0.00128	88	128*	59-126	37*	30
Benzo(g,h,i)perylene	0.00100	0.000830	0.00100	0.000748	83	75	58-118	10	30
Benzo(k)fluoranthene	0.00100	0.000912	0.00100	0.00111	91	111	63-117	19	30
Chrysene	0.00100	0.000831	0.00100	0.000757	83	76	63-116	9	30
Dibenz(a,h)anthracene	0.00100	0.000854	0.00100	0.000784	85	78	65-119	9	30
Fluoranthene	0.00100	0.000808	0.00100	0.000776	81	78	60-115	4	30
Fluorene	0.00100	0.000829	0.00100	0.000780	83	78	57-118	6	30
Indeno(1,2,3-cd)pyrene	0.00100	0.000826	0.00100	0.000764	83	76	64-115	8	30
Naphthalene	0.00100	0.000856	0.00100	0.000777	86	78	47-110	10	30
Phenanthrene	0.00100	0.000804	0.00100	0.000757	80	76	59-113	6	30
Pyrene	0.00100	0.000778	0.00100	0.000734	78	73	59-119	6	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17250A34A	Sample numbe 9189682,9189 ,9189708	er(s): 684,9189686	,9189688,9189	9692,9189694	,918969	6,918969	8,9189700,91	89704,9	9189706
TPH-GRO AK soil C6-C10	11	6.83	11	7.78	62	71	60-120	13	20
Batch number: 17250A34B	Sample numbe	r(s): 918969	90						
TPH-GRO AK soil C6-C10	11	6.83	11	7.78	62	71	60-120	13	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17251A53A TPH-GRO AK water C6-C10	Sample numbe 1.10	er(s): 918970 1.08	02-9189703 1.10	1.10	98	100	60-120	2	20
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 172480035A	Sample numbe 9189682,9189	er(s): 684,9189686	,9189688,9189	9690,9189692	2,918969	4,918969	6,9189698,91	89700,9	9189704
PCB-1016	0.167	0.159			95		80-121		

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/kg	LCS Conc mg/kg	LCSD Spike Added mg/kg	LCSD Conc mg/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
PCB-1260	0.168	0.197			117		84-125		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 172490005A	Sample numbe	r(s): 91897	02						
PCB-1016	0.00501	0.00443	0.00501	0.00438	88	87	60-117	1	30
PCB-1260	0.00504	0.00439	0.00504	0.00401	87	80	57-134	9	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 172540034A	Sample numbe 9189682,9189 ,9189706	r(s): 684,9189686	,9189688,9189	690,918969;	2,918969	4,918969	6,9189698,91	89700,9	9189704
C10- <c25 dro<="" td=""><td>40</td><td>30.89</td><td></td><td></td><td>77</td><td></td><td>75-125</td><td></td><td></td></c25>	40	30.89			77		75-125		
C25-C36 RRO	72	56.76			79		75-125		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 172550001A	Sample numbe	r(s): 91897	02-9189703						
C10- <c25 dro<="" td=""><td>1.00</td><td>0.918</td><td>1.00</td><td>0.946</td><td>92</td><td>95</td><td>75-125</td><td>3</td><td>20</td></c25>	1.00	0.918	1.00	0.946	92	95	75-125	3	20
C25-C36 RRO	1.80	1.76	1.80	1.86	98	104	60-120	6	20
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 172491063701	Sample numbe 9189682,9189 ,9189706	r(s): 684,9189686	,9189688,9189	690,918969:	2,918969	4,918969	6,9189698,91	89700,9	9189704
Arsenic	15	15.68			105		80-120		
Barium	200	204.15			102		80-120		
Cadmium	5.00	5.21			104		80-120		
Chromium	20	20.05			100		80-120		
Lead	15	15.42			103		80-120		
Selenium	15	15.99			107		80-120		
Silver	5.00	4.63			93		80-120		
Batch number: 172491063801	Sample numbe 9189682,9189 ,9189706	r(s): 684,9189686	,9189688,9189	690,918969:	2,918969	4,918969	6,9189698,91	89700,9	9189704
Mercury	0.100	0.0999			100		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 172510571304 Mercury	Sample numbe 0.00100	r(s): 91897 0.000932	02-9189703		93		80-120		
Batch number: 172541063503	Sample numbe	r(s): 91897	02-9189703						
Arsenic	0.150	0.165			110		80-120		
Barium	2.00	2.04			102		80-120		
Cadmium	0.0500	0.0516			103		80-120		
Chromium	0.200	0.201			101		80-120		
Lead	0.150	0.157			105		80-120		
Selenium	0.150	0.158			105		80-120		

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

LCS/LCSD (continued)

Analysis Name	LCS Spike Added mg/l	LCS Conc mg/l	LCSD Spike Added mg/l	LCSD Conc mg/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Silver	0.0500	0.0483			97		80-120		
	8	%	8	8					
Batch number: 17250820012B	Sample number	c(s): 91896	82-9189684,91	89686,9189	688,9189	590-9189	701,9189704-	9189707	
Moisture	89.5	89.41			100		99-101		
Moisture	89.5	89.41			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: N172511AA	Sample numb	per(s): 9189	702-9189	703 UNSPK: E	184807					
Acetone	N.D.	3.00	3.32	3.00	3.56	111	119	44-177	7	30
Benzene	N.D.	0.400	0.415	0.400	0.415	104	104	78-120	0	30
Bromodichloromethane	N.D.	0.400	0.379	0.400	0.375	95	94	71-120	1	30
Bromoform	N.D.	0.400	0.278	0.400	0.279	69	70	59-120	0	30
Bromomethane	N.D.	0.400	0.404	0.400	0.392	101	98	44-139	3	30
2-Butanone	N.D.	3.00	3.27	3.00	3.23	109	108	53-140	1	30
Carbon Disulfide	N.D.	0.400	0.343	0.400	0.353	86	88	65-128	3	30
Carbon Tetrachloride	N.D.	0.400	0.386	0.400	0.383	97	96	68-128	1	30
Chlorobenzene	N.D.	0.400	0.394	0.400	0.392	98	98	80-120	1	30
Chloroethane	N.D.	0.400	0.368	0.400	0.368	92	92	52-127	0	30
Chloroform	N.D.	0.400	0.424	0.400	0.420	106	105	80-120	1	30
Chloromethane	N.D.	0.400	0.425	0.400	0.424	106	106	57-120	0	30
Cyclohexane	N.D.	0.400	0.385	0.400	0.388	96	97	67-121	1	30
1,2-Dibromo-3-chloropropane	N.D.	0.400	0.331	0.400	0.344	83	86	64-120	4	30
Dibromochloromethane	N.D.	0.400	0.343	0.400	0.344	86	86	71-120	0	30
1,2-Dibromoethane	N.D.	0.400	0.392	0.400	0.391	98	98	75-120	0	30
1,2-Dichlorobenzene	N.D.	0.400	0.368	0.400	0.372	92	93	80-120	1	30
1,3-Dichlorobenzene	N.D.	0.400	0.358	0.400	0.364	90	91	80-120	2	30
1,4-Dichlorobenzene	N.D.	0.400	0.370	0.400	0.378	92	94	80-120	2	30
Dichlorodifluoromethane	N.D.	0.400	0.406	0.400	0.408	101	102	47-124	1	30
1,1-Dichloroethane	N.D.	0.400	0.431	0.400	0.429	108	107	80-120	1	30
1,2-Dichloroethane	N.D.	0.400	0.448	0.400	0.423	112	106	73-124	б	30
1,1-Dichloroethene	N.D.	0.400	0.426	0.400	0.427	107	107	76-124	0	30
cis-1,2-Dichloroethene	N.D.	0.400	0.430	0.400	0.411	107	103	80-120	4	30
trans-1,2-Dichloroethene	N.D.	0.400	0.413	0.400	0.420	103	105	80-120	2	30
1,2-Dichloropropane	N.D.	0.400	0.435	0.400	0.430	109	108	80-120	1	30
cis-1,3-Dichloropropene	N.D.	0.400	0.374	0.400	0.373	93	93	75-120	0	30
trans-1,3-Dichloropropene	N.D.	0.400	0.354	0.400	0.361	88	90	76-120	2	30
Ethylbenzene	N.D.	0.400	0.394	0.400	0.399	98	100	78-120	1	30

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Freon 113	N.D.	0.400	0.430	0.400	0.427	108	107	68-137	1	30
2-Hexanone	N.D.	2.00	2.10	2.00	2.09	105	105	60-134	0	30
Isopropylbenzene	N.D.	0.400	0.383	0.400	0.388	96	97	80-120	1	30
Methyl Acetate	N.D.	0.400	0.450	0.400	0.437	112	109	61-137	3	30
Methyl Tertiary Butyl Ether	N.D.	0.400	0.375	0.400	0.381	94	95	75-120	2	30
4-Methyl-2-pentanone	N.D.	2.00	2.12	2.00	2.09	106	105	67-128	1	30
Methylcyclohexane	N.D.	0.400	0.394	0.400	0.397	99	99	66-126	1	30
Methylene Chloride	N.D.	0.400	0.422	0.400	0.423	105	106	80-120	0	30
Styrene	N.D.	0.400	0.377	0.400	0.383	94	96	80-120	1	30
1.1.2.2-Tetrachloroethane	N.D.	0.400	0.389	0.400	0.395	97	99	72-120	2	30
Tetrachloroethene	N.D.	0.400	0.374	0.400	0.383	94	96	80-129	2	30
Toluene	N.D.	0.400	0.397	0.400	0.397	99	99	80-120	0	30
1,2,4-Trichlorobenzene	N.D.	0.400	0.315	0.400	0.328	79	82	70-120	4	30
1.1.1-Trichloroethane	N.D.	0.400	0.378	0.400	0.381	95	95	67-120	1	30
1.1.2-Trichloroethane	N.D.	0.400	0.407	0.400	0.409	102	102	80-120	0	30
Trichloroethene	N.D.	0.400	0.400	0.400	0.397	100	99	80-120	1	30
Trichlorofluoromethane	N.D.	0.400	0.466	0.400	0.464	116	116	52-143	1	30
Vinvl Chloride	N.D.	0.400	0.428	0.400	0.430	107	107	63-121	0	30
Xylene (Total)	N.D.	1.20	1.15	1.20	1.17	96	97	80-120	1	30
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17249SLB026	Sample numb	er(s): 9189	9698,9189	700 UNSPK:	P189682					
Acenaphthene	N.D.	0.0330	0.0342	0.0333	0.0352	103	106	85-122	3	30
Acenaphthylene	N.D.	0.0330	0.0227	0.0333	0.0235	69	71	68-102	3	30
Anthracene	N.D.	0.0330	0.0275	0.0333	0.0279	83	84	75-111	1	30
Benzo(a)anthracene	N.D.	0.0330	0.0293	0.0333	0.0294	89	88	83-112	1	30
Benzo(a)pyrene	N.D.	0.0330	0.0288	0.0333	0.0301	87	91	78-108	5	30
Benzo(b)fluoranthene	N.D.	0.0330	0.0319	0.0333	0.0343	97	103	75-120	7	30
Benzo(g,h,i)perylene	N.D.	0.0330	0.0226	0.0333	0.0187	68*	56*	71-109	19	30
Benzo(k)fluoranthene	N.D.	0.0330	0.0273	0.0333	0.0306	83	92	78-113	12	30
Chrysene	0.000355	0.0330	0.0286	0.0333	0.0285	86	85	79-111	0	30
Dibenz(a,h)anthracene	N.D.	0.0330	0.0261	0.0333	0.0229	79	69	66-119	13	30
Fluoranthene	N.D.	0.0330	0.0202	0.0333	0.0199	61*	60*	82-110	1	30
Fluorene	N.D.	0.0330	0.0293	0.0333	0.0299	89	90	81-115	2	30
Indeno(1,2,3-cd)pyrene	N.D.	0.0330	0.0250	0.0333	0.0218	76	65	65-114	14	30
Naphthalene	0.00329	0.0330	0.0333	0.0333	0.0348	91	94	71-114	4	30
Phenanthrene	0.000719	0.0330	0.0295	0.0333	0.0326	87	96	78-106	10	30
Pyrene	0.000468	0.0330	0.0262	0.0333	0.0262	78	77	73-109	0	30
Batch number: 17256SLC026	Sample numb 9189682,918 9189684	per(s): 9684,918968	36,918968	8,9189690,9	189692,918	39694,91	89696,91	89704,9189	706 UNS	PK:
Acenaphthene	N.D.	0.0331	0.0329	0.0331	0.0331	99	100	85-122	1	30
Acenaphthylene	0.000622	0.0331	0.0201	0.0331	0.0200	59*	59*	68-102	0	30
Anthracene	0.000345	0.0331	0.0278	0.0331	0.0274	83	82	75-111	1	30
Benzo(a)anthracene	N.D.	0.0331	0.0279	0.0331	0.0267	84	81*	83-112	4	30

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name		Unspiked Conc mg/kg	MS Spike Added mg/kg	MS Conc mg/kg	MSD Spike Added mg/kg	MSD Conc mg/kg	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Benzo(a)pyrene		N.D.	0.0331	0.0315	0.0331	0.0312	95	94	78-108	1	30
Benzo(b)fluora	nthene	0.000982	0.0331	0.0413	0.0331	0.0416	122*	123*	75-120	1	30
Benzo(g,h,i)pe	rylene	0.00525	0.0331	0.0200	0.0331	0.0209	44*	47*	71-109	5	30
Benzo(k)fluora	nthene	N.D.	0.0331	0.0394	0.0331	0.0390	119*	118*	78-113	1	30
Chrysene		0.000636	0.0331	0.0299	0.0331	0.0276	88	81	79-111	8	30
Dibenz(a,h)ant	hracene	N.D.	0.0331	0.0211	0.0331	0.0211	64*	64*	66-119	0	30
Fluoranthene		N.D.	0.0331	0.0297	0.0331	0.0295	90	89	82-110	1	30
Fluorene		N.D.	0.0331	0.0286	0.0331	0.0287	87	87	81-115	0	30
Indeno(1,2,3-co	d)pyrene	0.000835	0.0331	0.0204	0.0331	0.0203	59*	59*	65-114	0	30
Naphthalene		0.00805	0.0331	0.0332	0.0331	0.0351	76	82	71-114	6	30
Phenanthrene		0.00138	0.0331	0.0331	0.0331	0.0338	96	98	78-106	2	30
Pyrene		0.00114	0.0331	0.0272	0.0331	0.0260	79	75	73-109	5	30
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number:	172480035A	Sample numb 9189682,918 ,9189706 UN	er(s): 9684,918968 SPK: 918969	36,918968 96	8,9189690,93	189692,918	39694,918	89696,91	89698,9189	700,918	89704
PCB-1016		N.D.	0.167	0.154	0.165	0.134	92	81	80-121	14	50
PCB-1260		N.D.	0.168	0.217	0.166	0.185	129*	112	84-125	16	50
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number:	172540034A	Sample numb 9189682,918 ,9189706 UN	er(s): 9684,918968 SPK: 918968	36,918968 32	8,9189690,93	189692,918	39694,91	89696,91	89698,9189	700,918	9704
C10- <c25 dro<="" td=""><td></td><td>N.D.</td><td>39.5</td><td>39.16</td><td>39.5</td><td>35.26</td><td>99</td><td>89</td><td>75-125</td><td>10</td><td>50</td></c25>		N.D.	39.5	39.16	39.5	35.26	99	89	75-125	10	50
C25-C36 RRO		46.02	71.2	120.36	71.2	95.89	104	70*	75-125	23	50
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number:	172491063701	Sample numb 9189682,918 ,9189706 UN	er(s): 9684,918968 SPK: 918968	36,918968 38	8,9189690,93	189692,918	39694,91	89696,91	89698,9189	700,918	9704
Arsenic		6.15	11.28	17.65	13.04	18.83	102	97	75-125	б	20
Barium		133.29	150.38	299.8	173.91	310.28	111	102	75-125	3	20
Cadmium		N.D.	3.76	3.56	4.35	4.15	95	95	75-125	15	20
Chromium		42.62	15.04	59.52	17.39	60.64	112	104	75-125	2	20
Lead		16.62	11.28	28.56	13.04	28.64	106	92	75-125	0	20
Selenium		N.D.	11.28	9.84	13.04	11.65	87	89	75-125	17	20
Silver		0.741	3.76	4.21	4.35	4.38	92	84	75-125	4	20
Batch number:	172491063801	Sample numb 9189682,918	er(s): 9684,918968	36,918968	8,9189690,93	189692,918	39694,91	89696,91	89698,9189	700,918	89704
Mercury		,9189708 UN 0.0975	0.156	0.247	0.156	0.252	96	99	80-120	2	20
		mg/l	mg/l	mg/l	mg/l	mg/l					

*- Outside of specification

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 $\left(2\right)$ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name		Unspiked Conc mg/l	MS Spike Added mg/l	MS Conc mg/l	MSD Spike Added mg/l	MSD Conc mg/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: Mercury	172510571304	Sample numb N.D.	er(s): 9189 0.00100	9702-9189 0.000897	703 UNSPK: 0.00100	₽194727 0.000901	90	90	80-120	1	20
Batch number:	172541063503	Sample numb	er(s): 918	9702-9189	703 UNSPK:	P193064					
Arsenic		N.D.	0.150	0.165	0.150	0.161	110	107	75-125	2	20
Barium		0.0917	2.00	2.12	2.00	2.20	101	105	75-125	4	20
Cadmium		N.D.	0.0500	0.0502	0.0500	0.0517	100	103	75-125	3	20
Chromium		0.0101	0.200	0.211	0.200	0.219	101	104	75-125	4	20
Lead		N.D.	0.150	0.157	0.150	0.165	105	110	75-125	5	20
Selenium		N.D.	0.150	0.134	0.150	0.141	89	94	75-125	5	20
Silver		N.D.	0.0500	0.0469	0.0500	0.0487	94	97	75-125	4	20

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max	
	mg/kg	mg/kg			
Batch number: 172491063701	Sample number(s):				
	9189682,9189684,918 ,9189706 BKG: 91896	9686,9189688,918 88	39690,9189692,	9189694,9189696,9189	698,9189700,9189704
Arsenic	6.15	7.26	16 (1)	20	
Barium	133.29	130.43	2	20	
Cadmium	N.D.	N.D.	0 (1)	20	
Chromium	42.62	42.52	0	20	
Lead	16.62	17.3	4	20	
Selenium	N.D.	N.D.	0 (1)	20	
Silver	0.741	0.837	12 (1)	20	
Batch number: 172491063801	Sample number(s): 9189682,9189684,918 9189706 BKG: 91896	9686,9189688,918 88	39690,9189692,	9189694,9189696,9189	698,9189700,9189704
Mercury	0.0975	0.0961	1 (1)	20	
	mg/l	mg/l			
Batch number: 172510571304	Sample number(s): 9	189702-9189703 E	3KG: P194727		
Mercury	N.D.	N.D.	0 (1)	20	
Batch number: 172541063503	Sample number(s): 9	189702-9189703 E	3KG: P193064		
Arsenic	N.D.	N.D.	0 (1)	20	
Barium	0.0917	0.0836	9	20	
Cadmium	N.D.	N.D.	0 (1)	20	
Chromium	0.0101	0.0115	13 (1)	20	

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max	
	mg/l	mg/l			
Lead	N.D.	0.00607	200* (1)	20	
Selenium	N.D.	N.D.	0 (1)	20	
Silver	N.D.	N.D.	0 (1)	20	
	8	8			
Batch number: 17250820012B	Sample number(s): P185425	9189682-9189684,	9189686,9189688,	,9189690-918970	01,9189704-9189707 BKG:
Moisture	14.7	15.17	3	5	
Moisture	14.7	15.17	3	5	

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: VOCs Benzene only - Soil Batch number: A172551AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9189683	118	117	94	94
9189691	114	112	95	94
9189693	122	115	94	96
9189695	120	124	97	91
9189697	120	114	101	81
9189699	118	118	96	87
9189701	117	120	98	83
9189705	120	121	96	91
9189707	116	115	96	98
Blank	113	108	97	93
LCS	106	104	101	109
LCSD	104	103	101	110
Limits:	50-141	54-135	52-141	50-131

Analysis Name: TCL 4.3 VOCs Batch number: N172511AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9189702	101	98	98	96
9189703	101	102	98	96
Blank	99	98	98	96
LCS	102	100	104	101
LCSD	100	103	103	101

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: TCL 4.3 VOCs Batch number: N172511AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
MS	101	107	102	102
MSD	102	104	103	101
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- Solid by 8260B Batch number: R172541AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
9189682	86	91	78	70
9189684	87	89	74	69
9189686	97	104	89	91
9189688	82	85	72	67
9189690	96	102	86	82
9189692	82	84	73	72
9189694	86	92	76	68
9189696	73	75	63	64
9189698	95	97	87	80
9189700	88	92	80	75
9189704	99	104	90	79
9189706	93	101	84	77
9189708	99	105	87	79
Blank	94	98	85	75
LCS	95	99	90	89
LCSD	107	111	101	100
Limits:	50-141	54-135	52-141	50-131

Analysis Name: SIM SVOAs 8270D, water Batch number: 17248WAU026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9189703	79	87	80
Blank	76	84	84
LCS	81	90	89
LCSD	77	85	83
Limits:	42-119	39-121	29-123

Analysis Name: SIM SVOAs 8270D (microwave) Batch number: 17249SLB026

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: SIM SVOAs 8270D (microwave) Batch number: 17249SLB026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9189698	84	99	92
9189700	99	102	95
Blank	83	95	92
LCS	77	89	82
MS	59	96	93
MSD	59	100	95
Limits:	47-120	51-117	53-116

Analysis Name: SIM SVOAs 8270D (microwave) Batch number: 17256SLC026

	Fluoranthene-d10	Benzo(a)pyrene-d12	1-Methylnaphthalene-d10
9189682	85	100	103
9189684	84	96	95
9189686	83	87	98
9189688	70	85	87
9189690	83	96	97
9189692	90	97	96
9189694	80	97	96
9189696	84	91	95
9189704	89	100	101
9189706	89	85	98
Blank	81	100	98
LCS	82	100	97
MS	86	99	97
MSD	85	99	99
Limits:	47-120	51-117	53-116

Analysis Name: TPH-GRO AK soil C6-C10 Batch number: 17250A34A

	I rifluorotoluene-F
9189682	87
9189684	133*
9189686	531*
9189688	84
9189692	87
9189694	73
9189696	76
9189698	96
9189700	92
9189704	92

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: TPH-GRO AK soil C6-C10 Batch number: 17250A34A

	Trifluorotoluene-F	
9189706	146*	
9189708	99	
Blank	97	
LCS	93	
LCSD	101	

Limits: 60-120

Analysis Name: TPH-GRO AK soil C6-C10 Batch number: 17250A34B

	I rifluorotoluene-F
9189690	125*
Blank	89
LCS	93
LCSD	101
Limits:	60-120

Analysis Name: TPH-GRO AK water C6-C10 Batch number: 17251A53A Trifluorotoluene-F

9189702	93
9189703	96
Blank	96
LCS	106
LCSD	108
Limits:	60-120

Analysis Name: PCBs in Soil 8082A Batch number: 172480035A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
9189682	97	113	93	120
9189684	99	105	93	92
9189686	71	87	53	80
9189688	89	100	86	120
9189690	100	117	98	132
9189692	53	61	50	65
9189694	94	116	89	129
9189696	83	92	80	107
9189698	100	114	99	123

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: PCBs in Soil 8082A Batch number: 172480035A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
9189700	92	105	88	121
9189704	92	116	90	131
9189706	102	116	93	123
Blank	106	119	100	131
LCS	101	113	100	134
MS	99	118	97	131
MSD	84	102	83	116
Limits:	46-148	49-139	46-148	49-139

Analysis Name: PCBs in Water 8082A Batch number: 172490005A

	Tetrachloro-m-xylene-D1	Decachlorobiphenyl-D1	Tetrachloro-m-xylene-D2	Decachlorobiphenyl-D2
9189702	71	17	71	17
Blank	78	42	82	43
LCS	77	39	83	40
LCSD	79	32	82	32
Limits:	33-137	10-148	33-137	10-148

Analysis Name: TPH-DRO/RRO (AK) Batch number: 172540034A

	Orthoterphenyl	n-Triacontane-d62
9189682	94	75
9189684	106	93
9189686	33*	594*
9189688	76	62
9189690	98	83
9189692	85	120
9189694	91	69
9189696	74	64
9189698	95	77
9189700	93	76
9189704	90	74
9189706	102	96
Blank	93	57*
LCS	82	65
MS	84	57
MSD	88	62
Limits:	50-150	50-150

*- Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: ChevronTexaco Reported: 09/22/2017 15:43 Group Number: 1845654

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report. For dual column analyses, the surrogate (at least one surrogate for multi-surrogate tests) must be within the acceptance limits on at least one of the two columns.

Analysis Name: AK 102/103-SV Batch number: 172550001A

	Orthoterphenyl	n-Triacontane-d62	
9189702	67	22*	
9189703	82	23*	
Blank	98	78	
LCS	98	50*	
LCSD	103	99	
Limits:	50-150	50-150	

*- Outside of specification

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Chevron Generic Analysis Request/Chain of Custody

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Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

Chevron Generic Analysis Request/Chain of Custody

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Type VI (Raw Data) Other:			Temperature Upon Receipt 0.9 - 4.6 °C Custody Seals Intact?						Yes	No													

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Client: CHEVRON

Doc Log ID: 193214

Group Number(s): 1845654

Delivery Method: <u>F</u>	<u>ed Ex</u>	Arrival Timestamp: <u>09/01/</u>	<u>2017 9:55</u>
Number of Packages: <u>5</u>		Number of Projects: <u>1</u>	
	Arrival Cor	ndition Summary	
Shipping Container Sealed:	Yes	Sample IDs on COC match Containe	ers: No
Custody Seal Present:	Yes	Sample Date/Times match COC:	No
Custody Seal Intact:	Yes	VOA Vial Headspace ≥ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	2
Paperwork Enclosed:	Yes	Trip Blank Type:	See Belov
Samples Intact:	Yes	Air Quality Samples Present:	No
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on C	OC: No		

Samples Chilled Details Thermometer Types: DT = Digital (Temp. Bottle) *IR* = *Infrared* (*Surface Temp*) All Temperatures in °C. Elevated Temp? Cooler # Thermometer ID Corrected Temp Therm. Type Ice Type Ice Present? Ice Container DT42-02 DT Wet Y Ν 4.5 Bagged 1 DT42-02 Y 2 4.6 DT Wet Bagged Ν DT42-02 DT Wet Y Bagged 3 1.6 Ν DT42-02 DT Wet Y Bagged 4 1.1 Ν DT42-02 DT Wet Y Bagged Ν 5 0.9

Sample ID Discrepancy Details

Sample ID on COC	Sample ID on Label	<u>Comments</u>
DUP-1-W-170830	DUP-1-S-170830	
DUP-2-W-170830	DUP-2-S-170830	

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Lancaster Laboratories Environmental

Sample Administration Receipt Documentation Log

Doc Log ID: 193214

Group Number(s):

1845654

Client: CHEVRON

Sample Date/Time Discrepancy Details

Sample ID on COC	Date/Time on Label	<u>Comments</u>
MW-3-15-S-170831	8/31/2017 09:33	
MW-4-2-S-170829	8/29/2017 08:40	
RB-1-W-170829	8/29/2017 08:10	
RB-2-W-170829	8/29/2017 10:35	

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

Below Minimum Quantitation Level	mg	milligram(s)
degrees Celsius	mL	milliliter(s)
colony forming units	MPN	Most Probable Number
cobalt-chloroplatinate units	N.D.	non-detect
degrees Fahrenheit	ng	nanogram(s)
gram(s)	NTU	nephelometric turbidity units
International Units	pg/L	picogram/liter
kilogram(s)	RL	Reporting Limit
liter(s)	TNTC	Too Numerous To Count
pound(s)	μg	microgram(s)
cubic meter(s)	μL	microliter(s)
milliequivalents	umhos/cm	micromhos/cm
	Below Minimum Quantitation Level degrees Celsius colony forming units cobalt-chloroplatinate units degrees Fahrenheit gram(s) International Units kilogram(s) liter(s) pound(s) cubic meter(s) milliequivalents	Below Minimum Quantitation Levelmgdegrees CelsiusmLcolony forming unitsMPNcobalt-chloroplatinate unitsN.D.degrees Fahrenheitnggram(s)NTUInternational Unitspg/Lkilogram(s)RLliter(s)TNTCpound(s)µgcubic meter(s)µLmilliequivalentsumhos/cm

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Lancaster Laboratories Environmental

Definition
Result confirmed by reanalysis
Indicates for dual column analyses that the result is reported from column 1
Indicates for dual column analyses that the result is reported from column 2
Concentration exceeds the calibration range
Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
Concentration difference between the primary and confirmation column >40%. The lower result is reported.
Analyte was not detected at the value indicated
Concentration difference between the primary and confirmation column >100%. The reporting limit is raised
due to this disparity and evident interference.
The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

CHEVRON ENERGY TECHNOLOGY COMPANY PRODUCTS & ANALYTICAL DIVISION PROJECT SUMMARY

 Project No.:
 2017.0030

 Date Initiated:
 11/14/2017

 Date Completed:
 12/05/2017

 ETC Charge Code:
 YWEX01570426

Requested by: Daniel Carrier Location: 145 S State College Blvd. Brea, CA 92821 Phone: 714-671-3371

Project Description:

Analyze six samples collected at a former Unocal service station, facility number 306449, located at 2730 Spenard Rd, Anchorage, AK. Determine if any contamination occurred from former log cribs.

Results:

Three water samples were collected from three monitoring wells. Three teflon nets were also collected from the same monitoring wells, including a clean teflon net as a quality control sample. Each sample underwent a liquid-liquid extraction with methylene chloride and the extracts were analyzed by GC-FID. Table 1 provides the hydrocarbon breakdown of the samples, while Table 2 provides the estimated total petroleum hydrocarbon (TPH) values. Both the water and teflon net samples yielded fairly similar results for the respective monitoring wells, with the water samples containing more background hydrocarbons.

MW-2 consists of an unresolved complex mixture (UCM), stretching from C_{13} to C_{39} , as seen in Figures 3-4. A UCM with that carbon number range is consistent with a lubricating oil or motor oil. MW-1 and MW-3 do not contain any petroleum products. These two monitoring wells contain trace hydrocarbons, however the chromatograms in Figures 1-2 and 5-6 suggest these molecules are likely background hydrocarbons rather than from petroleum products.

Sample ID	Client Sample ID	Sample Description	C ₆ - (area %)	C ₇ -C ₁₀ (area %)	C ₁₁ -C ₁₄ (area %)	C ₁₅ -C ₂₄ (area %)	C ₂₅ -C ₃₉ (area %)	C ₄₀ + (area%)
2017.0030-1	MW-1-W-171109	Water	14.0	18.6	10.8	52.4	4.2	0.0
2017.0030-2	MW-1-W-171109 TN	Teflon Net	10.3	50.0	8.7	0.0	31.0	0.0
2017.0030-3	MW-2-W-171109	Water	0.6	10.5	2.2	68.8	17.9	0.0
2017.0030-4	MW-2-W-171109 TN	Teflon Net	0.0	0.0	0.5	73.1	26.3	0.1
2017.0030-5	MW-3-W-171109	Water	4.2	70.2	6.8	18.0	0.8	0.0
2017.0030-6	MW-3-W-171109 TN	Teflon Net	0.0	18.8	31.3	35.3	14.6	0.0
2017.0030-7	Control clean Net	Teflon Net	4.1	83.4	4.5	8.0	0.0	0.0

Table 1: Hydrocarbon breakdown of the 2017.0030 samples.

Sample ID	Client Sample ID	Sample Description	~ hydrocarbon concentration in water, μg/L
2017.0030-1	MW-1-W-171109	Water	869
2017.0030-3	MW-2-W-171109	Water	971
2017.0030-5	MW-3-W-171109	Water	131

Table 2: Estimate TPH values of the 2017.0030 samples.

Analytical Approach:

Hydrocarbon composition was determined by gas chromatography with a flame ionization detector (GC-FID).

Analyzed by: M. Hurt, B. Morlan, K. Yip Reported by: B. M. Morlan *Brim* Reviewed by: D. Y. Kong *Dyre*

DCarrier	SPritchard
CEspinoDevine	MEMoir
DKong	BMMorlan

Technical files ETC file



Figure 1: GC-FID Chromatogram of 2017.0030-01 Anchorage AK


Figure 2: GC-FID Chromatogram of 2017.0030-02 Anchorage AK

ЪА



Figure 3: GC-FID Chromatogram of 2017.0030-03 Anchorage AK

Ρd



Figure 4: GC-FID Chromatogram of 2017.0030-04 Anchorage AK



Figure 5: GC-FID Chromatogram of 2017.0030-05 Anchorage AK

ЪЧ



Figure 6: GC-FID Chromatogram of 2017.0030-06 Anchorage AK



Figure 7: GC-FID Chromatogram of 2017.0030-07 Anchorage AK



Figure 8: GC-FID Chromatogram of Solvent + Internal Standard

Ъ

Request for Environmental Analysis and Chain of Custody

To: Enviror Chevror 100 Che Contact: Er	nmental Analysis Lab, Room 51-1151, n Energy Technology Co., evron Way, Richmond, CA 94802 nvironmental Lab: Karsia Yip 510-242-591	8 or Kitty Kong 510-242-16	54	Date 1//ペ/1フ
Chevron P	DANIEL CARRIER		14.6	Phone (714)671-3371
Company, D	Department	le	Charge Code	
Address				
Contract PM	STOBHAN RETENATO	E-mail SIDI HAW. PRITCHAMS (2) GI	12, 04	Phone (720) 974-0963
Company, A	Address Sorvices, INC	<u> </u>		C Print Prop
Sampling Lo	2730 SPENARD RUND	ANCHWAGE, AK	Facility	Number 306449
Service S Service S Other file	Station () Fuel Terminal () Marine Termina	() Pipeline () Refinery		
Other U) Exxon	
Type of Ana Identify P () Compare	Ilysis Desired roduct () Compare Spill with Potential Sou Samples with Previous Analyses. Log Numl	Irces (Send Source Samples	5)	0
Reason for I	Request (Clearly State Problem, Site History	, Draw or Enclose a Map, Ind	tor Appro dicate Wh	val) nether Leak or Spill)
DETERMIN	VE GNTAMENATION PRESENT FROM	FORMER LOG CREBS	. Proc	ALT /SHEEN NOTED DURKENL
WELL DEV	ELOAMENT IN MW-2. SEE ATTACH!	ED STIE MAP		
Normal turn	-around time is 4-6 weeks. Call 510-242-165	4 to negotiate alternate arran	ngements	B.
Containers Per Sample	Sample Name/Description	Date Sampled		Sampled By
2	MW-1-W-17/109	11/9/17-	0	T.WEAVER, O.YAN
2	MW-2-W-171109	11/9/17		THEAVER, O.YAN
2	MW- 3-W-171109	11/91,2		TIDENEL OULL
1	(ONTROL (ULEAN UNUSED NET)			T, WEAVER, O. YAN
				1
Transporter		Date Rece	eived	Initials
Laboratory Chevron Er	nergy Technology Company	Date Rece	eived	Initials
It is the ship with. When 10/06/10	pper's responsibility to ensure Federal DC i in doubt, assume the sample is flammab	DT regulations and UN period	ormance	e standards are complied

Guidelines for shipping samples to ETC for Environmental Analysis

Sample containers and desired volumes:

- Hydrocarbons: 120 ml per gasoline sample, preferably in three 40 ml clear glass vials with solid teflon-coated caps (septum caps leak). 40 ml per distillate or oil sample. If 40 ml vials are unavailable, a pint or 4 oz. glass jar with teflon lined cap is acceptable. Leave approximately 1/8" headspace in the vials to allow for fuel expansion. If necessary, include produced water to minimize headspace.
- Water samples: Two 1000 mL clear glass bottles with teflon-lined caps. Make sure there is no headspace in the bottle. Do not send VOA vials of water - the volume is insufficient for fingerprint analysis. Water samples must be preserved with HCl at pH <2 and kept at 4°C.
- Soil samples: Two 8 ounce wide mouth clear glass jars with teflon-lined caps, or a capped brass sleeve from a split spoon sampler. Minimize headspace. Keep the samples at 4°C.

Shipping Instructions: All samples must be accompanied by a Request for Environmental Analysis and Chain of Custody form, obtained by calling 510-242-1654 (Kitty Kong). Please obtain the appropriate charge code for the site and note it on the form. Seal the form in a plastic bag and enclose it in the container with the samples.

Please ship all soil and water samples in an ice chest at 4^oC. Seal each sample in a plastic bag to keep the labels from getting wet. A mixture of foam blocks and plastic bags containing ice works well to chill the samples and protect them from breakage. Hydrocarbon samples need not be iced. They should be wrapped in plastic, enclosed in a metal can filled with vermiculite or other protective packing, and packed in a box that meets D.O.T. and U.N. requirements.

It is advisable to send the samples by overnight air. **No weekend deliveries**, please. It is the shipper's responsibility to ensure federal D.O.T. regulations and UN performance standards are complied with.

Local samplers must also comply with all Hazmat regulations. Call 510-242-1654 to obtain a COC form that **must** accompany the samples. **Samples that arrive without a shipping form will not be accepted**. Properly packed and chilled samples should be delivered to Chevron's Richmond Technology Center shipping and receiving dock. The address is 100 Chevron Way in Richmond, CA, but the property entrance is located on the Richmond Parkway at the Castro Street offramp from Interstate 580. Drive up to the guard kiosk and ask for directions to shipping and receiving.

Fuel Product Hazard Warnings (See Chevron MSDS for Additional Information)				
Gasoline (All Grades) Jet Fuel B Jet Fuel Gasoline Grade Aviation B Gasoline (All Grades)	Danger	Extremely flammable. Harmful or fatal if swallowed. Prolonged or repeated contact may cause skin/eye and respiratory irritation or other injury.		
Diesel (All Grades) Heating Fuel/Oil (All Grades) Jet Fuel (Grades A, A-1, A-50, JP-4, JP-5) Aviation Turbine Fuel, JP-5	Danger	Combustible. Harmful or fatal if swallowed. Prolonged or repeated contact may cause skin/respiratory irritation or other injury.		
Water samples with ppm or less hydrocarbon Soil samples with ppm or less hydrocarbon		Not hazardous.		
For Health and Safety Information Call or W 4054, Richmond, Ca 94804-0054, 800-457-20 In case of leak, spill or fire, call CHE	rite Chevroi 22 MTREC Tol	n Emergency Information Center: P.O. Box I Free 800-262-8200 (CCN 633019)		

10/06/10





Appendix I ADEC Laboratory Data Review Checklist and Memorandum





January 24, 2018

To:	ADEC	Ref. No.:	082676
	AuthorInitials		
From:	Jeffrey Cloud	Tel:	206-914-3141
CC:	Siobhan Pritchard		
Subject:	QA/QC Review ChevronTexaco Site 30-6449 Job # 1845654 August 2017		

1. Introduction

This document details a reduced validation of analytical results for soil samples collected in Anchorage, Alaska during August 2017. Samples were submitted to Eurofins Lancaster Laboratories Environmental, located in Lancaster, Pennsylvania.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS) and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods and applicable guidance from the documents entitled:

- "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008
- "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", USEPA 540-R-10-011, January 2010

These items will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria and sample preservation requirements for the analyses are summarized in the methods. The sample chain of custody documents and analytical report were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly delivered on ice, and stored by the laboratory at the required temperature (0-6°C).





3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation with the exception of a few analytes present at low concentrations. The anthracene, fluorene, naphthalene and phenanthrene results for samples MW-1-S-17.5, MW-1-S-20, MW-2-S-19-, MW-2-S-24.5, MW-3-S-15, MW-3-S-17.5, MW-4-S-18.5, MW-4-S-23.5 were qualified as non-detect due to contamination as evidenced by the blank.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices. Due to necessary sample dilutions, surrogate recoveries were not assessed for some samples.

All samples submitted for volatile organic compound (VOC), semivolatile organic compound (SVOC), gasoline range organics (GRO), diesel range organics (DRO)/residual range organics (RRO) and polychlorinated biphenyl (PCB) analysis were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the associated control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against the control limits. All surrogate recoveries met the associated criteria.

5. Laboratory Control Sample Analyses

Laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.



Organic Analyses

The LCS and LCS/LCSD contained all analytes of interest. All LCS and LCS/LCSD recoveries and RPDs were within associated control limits, demonstrating acceptable analytical accuracy and precision (where applicable) with a few exceptions. Where a high recovery was found the associated sample result was non-detect and was not impacted. Where low recoveries were found the acenaphthylene, benzo(a)anthracene and fluoranthene results for samples MW-1-S-2 and MW-4-S-2 were qualified as estimated due to the implied low bias.

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate Analyses

To evaluate the effects of sample matrices on the extraction process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as matrix spike/matrix spike duplicate (MS/MSD) samples. The RPD between the MS and MSD is used to assess analytical precision. If only the MS or MSD was outside of the control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

Organic Analyses

The MS/MSD samples were spiked with the analytes of interest. All percent recoveries and RPD values were within the associated control limits, demonstrating acceptable analytical accuracy and precision with a few exceptions. Where high recoveries were found the associated non-detect results were not impacted and the benzo(b)fluoranthene result for sample MW-1-S-20 was qualified as estimated due to the implied high bias. Where low recoveries were found the acenaphthylene, benzo(g,h,i)perylene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene results for sample MW-1-S-20 were qualified as estimated due to the implied low bias.

Inorganic Analyses

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision.

7. Duplicate Sample Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. The duplicate results were evaluated per the "Guidelines". All duplicate analyses performed were acceptable, demonstrating acceptable analytical precision.



8. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, two equipment blank samples and two field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for analysis. All results were non-detect for the analytes of interest.

Equipment Blank Sample Analysis

To assess field decontamination procedures, ambient conditions at the site, and cleanliness of sample containers, two equipment blanks were submitted for analysis. All results were non-detect for the analytes of interest with the exception of a few analytes present at low concentrations. The associated samples results were either non-detect or significantly greater than the blanks and were not impacted. No qualification of the data was deemed necessary.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, two field duplicate samples were collected and submitted "blind" to the laboratory. The RPDs associated with these duplicate samples must be less than 100 percent. If the reported concentration in both the investigative sample and its duplicate is less than five times the reporting limit (RL), the evaluation criterion is two times the RL value.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with a few exceptions. The toluene, benzo(g,h,i)perylene, naphthalene and RRO results for samples MW-1-A-20/DUP-1 and the pyrene results for samples MW-3-S-15/DUP-2 were qualified as estimated due to variability.

9. Analyte Reporting

Non-detect data were reported down to the laboratory's method detections limit (MDL) for each analyte. Positive analyte detections less than the reporting limit (RL) but greater than the MDL were reported as estimated (J).

All soil results were reported on a dry weight basis.

10. Conclusion

Based on the assessment detailed in the foregoing, the summarized data are acceptable with the specific qualifications noted herein.

	Laboratory Data Review Checklist
Completed by:	
J Cloud	
Title:	
Project Chemist	
Date:	
November 08, 2017	
CS Report Name:	
Report Date:	
September 22, 2017	
Consultant Firm:	
GHD Services Inc.	
Laboratory Name:	
Eurofins Lancaster Laborator	ries Environmental
Laboratory Report Number:	
1845654]
ADEC File Number:	

Hazard Identification Number:

1. Laboratory

a.	Did an ADE	C CS appr	oved laboratory receive and perform al	l of the submitted sample analyses?
	Yes	O No	Comments:	

	O Yes	No	Comments:
	Samples not the	ansferred	
<u>Chai</u>	n of Custody ((COC)	
a	. COC inform	ation completed	l, signed, and dated (including released/received by)?
	Yes	🔿 No	Comments:
b	. Correct anal	yses requested?	
	Yes	© No	Comments:
Γ			

Yes	O No	Comments:

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

	Yes	© No	Comments:	
c.	Sample con	dition docu	mented – broken, leaking (Me	ethanol), zero headspace (VOC vials)?
	Yes	O No	Comments:	

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

Yes	🔿 No	Comments:

	e.	Data quality	or usability	affected?
	1	None		
4.	Case 1	Narrative		
	a.	Present and	understandal	ble?
		Yes	O No	Comments:
	b.	Discrepanci	es, errors or (QC failures identified by the lab?
		Yes	🔿 No	Comments:
	c.	Were all cor	rective action	ns documented?
		Yes	🔿 No	Comments:
	d.	What is the	effect on data	a quality/usability according to the case narrative? Comments:
]	None		
5.	<u>Samp</u>	les Results		
	a.	Correct anal	yses perform	ned/reported as requested on COC?
		Yes	🔿 No	Comments:
	b.	All applicab	le holding ti	mes met?
		Yes	O No	Comments:

c. All soils reported on a dry weight basis?
• Yes • No Comments:

- d. Are the reported LOQs less than the Cleanup Level or the minimum required detection level for the project?
 - Yes No Comments:

e. Data quality or usability affected?

Comments:

None

6. <u>QC Samples</u>

- a. Method Blank
 - i. One method blank reported per matrix, analysis and 20 samples?
 - Yes No Comments:
 - ii. All method blank results less than limit of quantitation (LOQ)?
 - Yes No Comments:

One method 8270 method blank and one method 6010 method blank had detections

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

MW-1-S-17.5, MW-1-S-20, MW-2-S-19-, MW-2-S-24.5, MW-3-S-15, MW-3-S-17.5, MW-4-S-18.5, MW-4-S-23.5

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

• Yes • No Comments:

v. Data quality or usability affected? Comments:

The anthracene, fluorene, naphthalene and phenanthrene results for samples MW-1-S-17.5, MW-1-S-20, MW-2-S-19-, MW-2-S-24.5, MW-3-S-15, MW-3-S-17.5, MW-4-S-18.5, MW-4-S-23.5 were qualified as non-detect due to contamination as evidenced by the blank.

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 Comments:

- ii. Metals/Inorganics one LCS and one sample duplicate reported per matrix, analysis and 20 samples?
- Yes No 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 Comments:

Several recoveris were outside of the acceptable limits

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

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

MW-1-S-2, MW-1-S-20 and MW-4-S-2

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

vii. Data quality or usability affected?

Comments:

The acenaphthylene, benzo(a)anthracene and flouranthene results for samples MW-1-S-2 and MW-4-S-2 were qualified as estimated due to the implied low bias. The benzo(b)fluoranthene result for sample MW-1-S-20 was qualified as estimated due to the implied high bias and the acenaphthylene, benzo(g,h,i)perylene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene results for sample MW-1-S-20 were qualified as estimated due to the implied low bias.

c. Surrogates - Organics Only

- i. Are surrogate recoveries reported for organic analyses field, QC and laboratory samples?
- Yes No 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 Comments:

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

Due to necessary sample dilutions, surrogate recoveries were not assessed for some samples.

VICS 10110	0	Yes	🖲 No	
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Comments:

iv. Data quality or usability affected? Comments:			
None			
d. Trip blank – Volatile <u>Soil</u>	analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): <u>Water and</u>		
i. One trip blank	reported per matrix, analysis and cooler?		
🖲 Yes 🛛 No	Comments:		
ii. Is the cooler u (If not, a comr	sed to transport the trip blank and VOA samples clearly indicated on the COC? nent explaining why must be entered below)		
© Yes © No	Comments:		
iii. All results less	s than LOQ?		
• Yes • No	Comments:		
iv. If above LOQ	, what samples are affected? Comments:		
No affected samples			

v. Data quality or usability affected?

Comments:

None

e. Field Duplicate

- i. One field duplicate submitted per matrix, analysis and 10 project samples?
- Yes O No Comments:

ii. Submitted blind to lab?

• Yes • No Comments:

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

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

Where $R_1 =$ Sample Concentration $R_2 =$ Field Duplicate Concentration

○ Yes ● No Comments:

Toluene, benzo(g,h,i)perylene, naphthalene and RRO had high RPDs for samples MW-1-A-20/DUP-1 and pyrene had a high RPD for samples MW-3-S-15/DUP-2

iv. Data quality or usability affected?

Comments:

The toluene, benzo(g,h,i)perylene, naphthalene and RRO results for samples MW-1-A-20/DUP-1 and the pyrene results for samples MW-3-S-15/DUP-2 were qualified as estimated due to variability

f. Decontamination or Equipment Blank (If not applicable, a comment stating why must be entered below.)

• Yes • No • Not Applicable

i. All results less than LOQ?

○ Yes ● No Comments:

The equipment blanks had several detections

ii. If above LOQ, what samples are affected?

Comments:

No affected samples

iii. Data quality or usability affected?

Comments:

The associated sample results were either non-detect or significantly greater than the blanks and were not impacted. No qualification of the data was deemed necessary.

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

a. Defined and appropriate?

Yes	O No	Comments: