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Letter Report
Subsurface Soil and Groundwater Investigation
500 Old Steese Highway
Fairbanks, Alaska
ADEC File Number 102.26.177
Hazard ID 26324

Dear Ms. Jacobs:

AECOM Technical Services, Inc. (AECOM) has been contracted by Albertsons LLC (Albertsons) to conduct a site assessment at the Safeway Fuel Center #3410 located at 500 Old Steese Highway in Fairbanks, Alaska (Figure 1). This letter report describes the methods and results of soil and groundwater investigation activities performed at the site in May 2018. Investigation activities were performed per the Work Plan titled "Work Plan, Subsurface Soil and Groundwater Investigation, 500 and 530 Old Steese Highway, Fairbanks, Alaska, ADEC File Number 102.26.177," dated August 3, 2017. It should be noted that, due to access restrictions, onsite conditions, and requests from the Alaska Department of Environmental Conservation (ADEC), performed activities included several approved Work Plan deviations that are described herein.

The purpose of the site assessment was to evaluate data gaps associated with a former waste oil underground storage tank (UST) release source referred to as Tank #2 from a previous property owner. The investigation included soil and groundwater sampling activities to delineate the vertical and horizontal extents of potential contamination.

1.0 BACKGROUND

Safeway Fuel Center #3410 is an operational fuel station facility located at 500 Old Steese Highway in Fairbanks, Alaska (Figure 2).

During a 2014 construction project on the adjacent property, an UST (Tank #2) was identified on the property line between the Safeway Fuel Center and the adjacent commercial property. This tank, discovered during the demolition of the building foundation on the adjacent property, was identified as an approximately 1,500-gallon waste oil tank, containing approximately 1,312 gallons of waste oil and settled materials (tank bottom debris). The contents were removed and the tank was excavated in May of 2014. Soil screening was conducted upon removal of the tank, and impacted soils were identified adjacent to the tank footprint. Approximately 84 cubic

yards of impacted material was removed from the excavation area, and a geofabric liner was installed to delineate the excavation. Analytical data indicated that contaminated materials remained at the excavation extents.

Previous investigations (2001 and 2002 Phase I and II Environmental Site Assessments) were conducted at the Albertsons property, and concluded that there was the potential for contamination on the Albertsons property from an offsite source. No indications of contamination occurring on the Albertsons property were identified. During the 2002 investigation, benzene concentrations were identified on the south side of property, in groundwater monitoring wells MW-3 and MW-4 (Figure 2). There were no detections along the eastern side of the property line (MW-1 and MW-2). In March 2017, ADEC requested Albertsons investigate the potential contamination on the Albertsons property from this offsite source.

2.0 FIELD ACTIVITIES AND PROCEDURES

Field activities included advancement of two soil borings; soil sampling; installation of two monitoring wells; monitoring well development, and low flow groundwater sampling. All field activities were performed from May 23 through May 25, 2018.

Field activities were conducted under a prepared site-specific health and safety plan in accordance with Title 29 of the Code of Federal Regulations (CFR), Part 1910-Occupational Safety and Health Administration (OSHA), Subpart H-Hazardous Materials, Subsection 120-Hazardous Waste Operations and Emergency Response (29 CFR 1910.120). The on-site AECOM qualified environmental professional (QEP) served as the Site Safety Officer during the field activities.

2.1 Soil Boring Installation

Four soil borings were specified in the site investigation Work Plan; however, only two soil borings were advanced. Two of the proposed locations were not advanced due to adjacent landowner access considerations and unknown subsurface configuration of the fuel retail facility utilities (e.g., buried fuel line conveyance). Additional information is provided in Section 6.0.

Prior to conducting borehole clearance and soil boring advancement activities, AECOM located each proposed location based on available figures and diagrams that illustrated the former Tank #2 location. Linear scales (e.g., figures) were used to establish spatial relationships amongst proposed locations using “swing-tie” triangulation from existing landmarks using a cloth tape. An ADEC on-site representative pre-inspected each proposed soil boring location (i.e., Ms. Laura Jacobs). In response to ADEC’s concerns regarding the accuracy of the proposed soil boring locations relative to the former Tank #2 excavation, Edmond Packee of Travis/Peterson Environmental Consulting, Inc. was contacted by AECOM. Mr. Packee was responsible for supervising the former Tank #2 removal and excavation activities. The specific location of the former tank and excavation was established with Mr. Packee’s assistance, and refined boring locations were considered acceptable to Ms. Jacobs of ADEC (Figure 2). Soil boring SB-2 was advanced immediately outside the excavation footprint in the estimated downgradient direction of groundwater flow relative to the former tank location. Soil boring SB-3 was advanced

immediately outside the excavation footprint in the estimated upgradient direction of groundwater flow.

Drilling services were provided by GeoTek of Alaska Inc., using a track-mounted Geoprobe Systems® model 6620DT drill rig. Initial soil profiling and sampling at each soil boring location was conducted using a direct push vibratory drill hammer and pre-cleaned 5-foot long macro core sample drives. Recovered soil was logged by the AECOM QEP per the Unified Soil Classification System. Copies of field boring logs, well construction diagrams, and groundwater sample forms are provided in Attachment 1. Groundwater was encountered at a depth of approximately 15 feet below ground surface (bgs). Sample recovery continued below groundwater to evaluate soil conditions for well installation.

2.2 Soil Field Screening

Soil screening samples were collected from each boring location to determine the potential presence and depth of contamination. A minimum of two field screen samples were collected from each 5-foot macro core sample drive above groundwater. Discrete field screen samples were preferentially collected to capture changes in soil types, color variation, and the capillary fringe immediately above groundwater. No readily apparent hydrocarbon odors, stains or sheening was observed in recovered samples.

Each soil field screen sample was analyzed using a calibrated 10.6 electron-volt MiniRae 3000 photoionization detector (PID) for the presence of volatiles. Each field screen sample was placed in a disposable, one-third full sealed ziploc® bag, and allowed sit for headspace vapor development prior to agitation and measurement. Each field screen result was recorded in the corresponding soil boring log (Attachment 1). No field screen samples recovered from each soil boring reported the presence of detectable volatile compounds. All field screen samples were consolidated with drummed soil cuttings generated at each soil boring location.

2.3 Laboratory Soil Sampling

One vadose soil sample was collected from each soil boring as prescribed in the Work Plan. The primary sample from each soil boring was collected from the capillary fringe immediately above groundwater since no volatile hydrocarbons were detected in the field screen samples. Per ADEC sampling guidance, a minimum of one duplicate soil sample was collected each day. Since the duration of the soil sampling program occurred over two days, the primary sample from each boring was accompanied with the collection of a duplicate sample. Primary sample SB-2 and its duplicate (SB-2A) were collected from downgradient soil boring SB-2 at a depth of 14.5 feet bgs. Primary sample SB-3 and its duplicate (SB-3A) were collected from upgradient soil boring SB-3 at a depth of 14.5 feet bgs.

Each sample was collected using disposable sampling equipment and new nitrile gloves to eliminate potential for cross contamination. Samples were placed in prescribed laboratory containers provided by SGS North America Inc. (SGS) laboratories in Fairbanks, Alaska. Each container was labeled with the sample name and depth, time and date of collection, and

sampler's initials. All samples were placed in an ice chest cooled with gel-ice and completed chain-of-custody (COC) for drop-off delivery at the SGS transfer location in Fairbanks, Alaska.

Each primary and duplicate soil sample was submitted for the following analyses:

- Volatile organic compounds (VOCs) by method SW8260C in addition to select compounds by low level methods (SW8260C LL);
- Polychlorinated biphenyls (PCBs) by method SW8082A;
- Resource Conservation and Recovery Act (RCRA) eight metals by SW 6020A
- Polycyclic Aromatic Hydrocarbons (PAHs) by 8270D selected ion monitoring (SIM);
- Gasoline Range Organics (GRO) by Alaska Method 101;
- Diesel Range Organics (DRO) by Alaska Method 102; and,
- Residual Range Organics (RRO) by Alaska Method 103.

2.4 Groundwater Sampling

Each soil boring (SB-2 and SB-3) was over-drilled with pre-cleaned hollow stem auger and converted to a monitoring well following soil sampling activities. Each well was constructed of threaded 2-inch polyvinyl chloride (PVC) casing and ten feet of 0.010-inch slot screen. Each monitoring well screen extended approximately seven feet below the water table with approximately three feet of screen above. The exterior of each pre-packed well screen also included #10/#20 silica sand retained within a stainless wire mesh. Additional #10/#20 sand filter pack was placed around and above each screen interval. Overlying seals were constructed of hydrated bentonite chips followed by pea gravel to minimize the potential for future frost jacking. Each well was constructed with a flush mount surface completion in an asphalt apron and equipped with a lockable well plug. Copies of field monitoring well construction logs are provided in Attachment 1.

Each well was developed following installation. A period of 24 hours had elapsed prior to development of monitoring well SB-2. Only 19 hours had elapsed prior to development of monitoring well SB-3; however, an ADEC variance to the 24-hour post-well installation development requirement was approved by Ms. Laura Jacobs of ADEC based on conditional use of low flow sample collection methods.

All reusable downhole equipment (e.g., water level indicator and stainless pump) was decontaminated between well locations during development and sampling. All equipment was washed or cycled in an Alconox® solution followed by a double rinse/cycle with clean water. Nitrile gloves were changed between each well, development activity, and sampling activity. Disposable materials were also dedicated to each well (e.g., bailer and tubing).

Greater than ten well volume equivalents were removed from each well during development. Three well volumes were removed from each well using a dedicated polyethylene disposable bailer. Initial bailer volumes removed from each well were inspected for the presence of free product (light non-aqueous phase liquid), sheening or odor. None were observed at either well location.

Remaining well volumes were removed using a decontaminated stainless steel MegaMonsoon® centrifugal pump and disposable polyethylene tubing. The bailer and pump were simultaneously surged across the entire saturated well screen length to promote sand pack development at each well. Development continued until a significant reduction in turbidity was achieved. Turbidity throughout development was measured using a HACH® 2400P turbidimeter. Post development turbidity measurements of 2.72 nephelometric turbidity units (NTUs) and 2.94 NTUs were achieved at SB-2 and SB-3, respectively. No odor or sheen was observed in water generated from either well. All development and sample purgewater was consolidated into sealed and placarded 55-gallon steel drums on-site pending sample results prior to disposal.

Per ADEC field sampling guidance, low flow groundwater sampling commenced immediately after groundwater equilibration. Groundwater parameters were measured every five minutes using a calibrated Yellow Springs Instruments (YSI) model 556 multi-parameter sonde equipped with a flow through cell. Monitored parameters included temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity. All low flow requirements (e.g., parameter stabilization, flow rate and drawdown) prescribed in the ADEC Field Sampling Guidance Manual were achieved prior to sample collection. Copies of the field well development, purge, and sample records are provided in Attachment 1.

One primary sample was collected from each well (SB-2 and SB-3) and a duplicate sample from monitoring well SB-2 (SB-2A). Each low flow sample was collected directly from the dedicated polyethylene tubing connected directly to the centrifugal pump. Samples were placed in prescribed laboratory containers provided by SGS and labeled with the sample name and depth, time and date of collection, and sampler's initials. All samples were placed in an ice chest cooled with gel-ice and COC for drop-off delivery at the SGS transfer location in Fairbanks, Alaska. Each primary and duplicate groundwater sample was submitted for the same analyses as the soil (Section 2.3).

2.5 Site Reconnaissance Observations

A site monitoring well survey was performed by the AECOM QEP. Monitoring wells installed at the site during previous investigations included MW-1, MW-2, MW-3, and MW-4. Monitoring wells MW-1 and MW-4 were not found based on locations provided in available figures. MW-1 is suspected of no longer existing based on an exhaustive effort to locate the well. Although MW-4 could not be located, it could potentially exist under (buried) accumulated sand and gravel from winter plowing activities. Monitoring well MW-2 was successfully identified at the location specified in reviewed figures. Monitoring well MW-3 was also located; however, the integrity of the well has been compromised. Well MW-3 had no flush mount well cover or cap and was filled with sand and gravel materials. The damage appeared to be attributed to frost heave (casing jacking).

3.0 APPLICABLE CLEANUP LEVELS

Potential chemicals of concern addressed in the soil and groundwater evaluation include GRO, DRO, RRO, benzene, toluene, ethylbenzene and total xylene (BTEX), 1,2-dichloroethane (1,2

DCA), additional VOCs, PAHs, ethylene dibromide (EDB), RCRA metals, and PCBs. Cleanup levels used to evaluate soil and groundwater results are based on Alaska Administrative Code (AAC) 18 AAC 75, *Oil and Other Hazardous Substances Pollution Control*, as amended through November 7, 2017. Applicable soil cleanup levels include those listed under Method Two, Tables B1 and B2, Migration to groundwater, Under 40 Inch Zone as applicable. Applicable groundwater cleanup levels include those provided in Table C of 18 AAC 75 under Human Health.

4.0 ADEC LABORATORY DATA REVIEW CHECKLIST

All sample extraction and analysis was performed by SGS in Anchorage, Alaska on a standard turnaround time. A completed ADEC laboratory data review checklist is included in Attachment 2 for each analytical data package generated. Analytical data generated by this project was reviewed by an AECOM chemist. The chemist provided the following analysis of the analytical reports:

4.1 Soil

Notable data review findings associated with soil samples included the following:

- Methods used to analyze for the presence of VOC compounds 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,3-trichloropropane, 1,2-dibromoethane, 1,2-DCA, bromodichloromethane, bromomethane, chloroform, dibromochloromethane, trichloroethene, and vinyl chloride included both EPA Method 8260C as well as EPA Method 8260C modified for low-level with methanol. As the reporting limits for these analytes were lower for the low-level EPA Method 8260C analyses, the results for the compounds reported by EPA Method 8260C were flagged ‘DNR’ for Do Not Report.

- The percent recoveries for the surrogate 2-methylnaphthalene-d10 in the method blank (108%), the matrix spike (115%), and the matrix spike duplicate (120%) associated with analytical batch XXX39582 exceeded the control limits of 58-103%. The percent recovery for the surrogate fluoranthene-d10 in the method blank (120%) reported in this batch also exceeded the control limits of 54-113%. No data were qualified based on surrogate recoveries in QC samples.

- Chloroform (0.753 micrograms per kilogram [µg/kg]) was detected in the trip blank submitted with this sample set at a concentration less than the limit of quantitation (LOQ) and above the method detection limit (MDL). The concentrations for chloroform in SB-2A-14.5, SB-3-14.5, and SB-3A-14.5 were between the LOQs and the MDLs; therefore, the results for chloroform in these samples were flagged ‘U’ at the reporting limits which indicates the analyte was analyzed for but not detected.

4.2 Groundwater

Notable data review findings associated with groundwater samples included the following:

- Naphthalene was reported by EPA Method 8260C as well as EPA Method 8270D-SIM. The reporting limits for naphthalene were lower for EPA Method 8270D-SIM; therefore, the results for naphthalene reported by EPA Method 8260C were flagged 'DNR' for Do Not Report.

- Mercury (0.0794 micrograms per liter [µg/L]) was detected in the method blank prepared on June 1, 2018, at a concentration less than the LOQ, but above the MDL. The concentration for mercury in SB-3 was between the LOQ and the MDL, was flagged 'J' as a quantitated estimate by the laboratory, was qualified as not detected, and was flagged 'U' based on the method blank concentration. Mercury was not detected in the other samples associated with this method blank.

- The laboratory flagged the mercury result in SB-3 with a 'J' to indicate a concentration less than the LOQ but above the MDL. The laboratory-assigned 'J' flag was superseded by the validation-assigned 'U' qualifier.

- The percent recoveries for the surrogate 4-bromofluorobenzene in SB-3 (38.2%) and the laboratory control spike associated with analytical batch VXX32415 (75.0%) were below the control limits of 85-114%. This surrogate is not associated with the reported compound, 1,2-dibromoethane; therefore, no data were qualified based on these surrogate recoveries.

- o-Xylene (0.770 µg/L), m,p-xylene (1.00 µg/L), and toluene (2.40 µg/L) were detected in the trip blank associated with this sample set. The concentrations for o-xylene and m,p-xylene were between the LOQs and the MDLs. As o-xylene, m,p-xylene, and toluene were not detected in the samples associated with this trip blank, no data were qualified based on the trip blank results.

5.0 RESULTS

Summarized results for potential chemicals of concern described in Section 3 are provided in Table 1 and Table 2 below. Tabularized results and corresponding cleanup levels for all soil and groundwater analytes and complete laboratory data packages is provided in Attachment 5. With the exception of arsenic and detection limits (DLs) for two VOC compounds, all soil and groundwater analytes for primary and duplicate samples were below their respective cleanup levels.

No PAH or PCB compounds were detected in soil or groundwater samples. Reported concentrations of GRO, DRO, and RRO in soil samples were either non-detect or low quantitated estimates. However, the primary and duplicate groundwater samples from downgradient well SB-2 reported the presence of elevated DRO concentrations. Reported concentrations of DRO in groundwater for samples SB-2 and SB-2A were 0.922 mg/L and 0.929 mg/L, respectively. Similarly, elevated concentrations of benzene at 3.53 µg/L and 4.57 µg/L were reported in groundwater samples from downgradient monitoring well SB-2, but were below detection limits in corresponding soil samples. No benzene was detected in groundwater from upgradient monitoring well SB-3.

All primary and duplicate soil samples exceeded the arsenic cleanup level of 0.2 milligrams per kilogram (mg/kg). Reported concentrations of arsenic in soil ranged from 1.8 mg/kg to 3.29 mg/kg. Quantitated estimates or DLs for arsenic in all primary and duplicate groundwater samples were above the cleanup level of 0.52 µg/L. Estimated concentrations ranged from 2.23 µg/L to 2.50 µg/L. The reported range of arsenic concentrations in soil and groundwater are considered to be representative of naturally occurring conditions per ADEC Technical Memorandum, *Arsenic in Soil*, date March 2009.

Table 1 – Summarized Soil Results for Potential Contaminants of Concern

CONSTITUENT		CLEANUP LEVEL	SB-2-14.5	SB-2A-14.5	SB-3-14.5	SB-3A-14.5
DRO (mg/kg)		230	7.16 J	< 10.2	< 10.4	< 10.7
RRO (mg/kg)		9700	< 10.2	< 10.2	< 10.4	6.64 J
GRO (mg/kg)		260	1.83 J	< 1.79	< 1.43	< 1.37
Benzene (µg/kg)		22	< 9.60	< 8.95	< 7.15	< 6.85
Toluene (µg/kg)		6,700	< 19.3	< 17.9	< 14.3	< 13.7
Ethylbenzene (µg/kg)		130	< 19.3	< 17.9	< 14.3	< 13.7
Total Xylenes (µg/kg)		1,500	< 57.5	< 53.5	< 42.9	< 41.0
PCB (µg/kg)		1,000	< 25.6	< 25.3	< 25.8	< 26.4
EDB (µg/kg)		0.24	< 0.385	< 0.385	< 0.285	< 0.273
PCE (µg/kg)		190	< 9.6	< 8.95	< 7.15	< 6.85
1,2 DCA (µg/kg)		5.5	< 1.54	< 1.43	< 1.14	< 1.09
RCRA Metals (mg/kg)	Arsenic	0.20	1.80	2.18	2.74	3.29
	Barium	2100	53.3	30.9	62.0	47.4
	Cadmium	9.1	< 0.102	< 0.0935	< 0.102	0.0629 J
	Chromium	$1x10^5$ / 0.089 [1]	8.69	7.39	10.3	11.8
	Lead	400 [2]	2.73	2.84	3.41	3.40
	Mercury	0.36	< 0.0204	< 0.0187	< 0.0204	0.0157
	Selenium	6.9	< 0.510	< 0.469	< 0.510	< 0.505
	Silver	11	< 0.102	< 0.0935	< 0.102	< 0.102

Notes:
Listed cleanup values per 18 AAC 75, Method Two, Tables B1 and B2, Migration to groundwater (Under 40 Inch Zone).
1 – Clean up levels provided for $Chromium^{3+}$ and Hexavalent Chromium, respectively.
2 – No migration to groundwater level is listed for Lead. The next most stringent value has been substituted.
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
< = less than detection limit; non-detect
DRO = Diesel range organics
EDB – Ethylene dibromide
J = quantitation is an estimate
PCB = Polychlorinated biphenyls
PCE = Tetrachloroethylene
RCRA = Resource Conservation and Recovery Act
RRO = Residual range organics
1,2 DCA = 1,2-Dichloroethane

Table 2 – Summarized Groundwater Results for Potential Contaminants of Concern

CONSTITUENT (µg/L)		CLEANUP LEVEL	SB-2	SB-2A	SB-3
DRO		1,500	922	929	301 J
RRO		1,100	363 J	370 J	< 247
GRO		2,200	< 50	< 50	< 50
Benzene		4.6	3.53	4.57	< 0.200
Toluene		1,100	< 0.500	< 0.500	< 0.500
Ethylbenzene		15	< 0.500	< 0.500	< 0.500
Total Xylenes		190	< 1.50	< 1.50	< 1.50
Total PCBs		0.5	< 0.0510	< 0.0525	< 0.0540
EDB		0.075	< 0.0375	< 0.0375	< 0.0375
PCE		41	< 0.430 J	0.400 J	< 0.500
1,2 DCA		1.7	0.340 J	0.390 J	0.240 J
RCRA Metals	Arsenic	0.52	**2.36**	**2.23**	**2.50**
	Barium	3,800	92.6	91.1	96.1
	Cadmium	9.2	< 1.00	< 1.00	< 1.00
	Chromium [1]	22,000 / 0.35	< 2.00	< 2.00	< 2.00
	Lead	15	< 0.500	< 0.500	< 0.500
	Mercury	0.52	< 0.100	< 0.100	0.0713 J
	Selenium	100	< 10.0	< 10.0	< 10.0
	Silver	94	< 1.00	< 1.00	< 1.00

Notes:
Listed cleanup values per 18 AAC 75, Table C, Human Health.
1 – Clean up levels provided for Chromium^{3+} and Hexavalent Chromium, respectively.
µg/L = micrograms per liter
< = less than detection limit; non-detect
DRO = Diesel range organics
EDB – Ethylene dibromide / 1,2-Dibromoethane
J = quantitation is an estimate
PCE = Tetrachloroethylene
PCB = Polychlorinated biphenyls
RCRA = Resource Conservation and Recovery Act
RRO = Residual range organics
1,2 DCA = 1,2-Dichloroethane

Furthermore, ADEC also considers the arsenic concentrations to be within background concentrations with the state and the interior of Alaska based on preliminary correspondence provided in Attachment 3.

The reported detection limits for 1,2,3-trichloropropane and EDB in all soil samples was greater than the ADEC cleanup levels of 0.031 µg/kg and 0.24 µg/kg, respectively. Since no corresponding detections of EDB were reported in any of the water samples, this analyte data deficiency warrants no further evaluation or environmental concern. Since no other VOC compounds were reported above applicable soil or groundwater cleanup levels, the detection limit deficiency for 1,2,3-Trichloropropane is also warrant no further evaluation or environmental concern.

Reported concentrations of total chromium in all soil samples were well below the ADEC cleanup level for chromium III, but well above the cleanup level for hexavalent chromium (Cr^{6+}). Based on the absence of chromium detections in groundwater samples, the chromium detections in soil samples are indicative of chromium III, which is insoluble in water. No other adverse metal concentrations were reported in soil and groundwater samples. Consistent with 18 AAC 75 Table C groundwater cleanup levels notes, the chromium detections are considered to be naturally occurring (chromium III) since no anthropogenic source of hexavalent chromium is suspected and naturally occurring chromium is prevalent throughout the state.

6.0 WORK PLAN DEVIATIONS

Deviations to work activities prescribed in the Work Plan occurred during and after the field program and approved by ADEC. The following deviations were made in response to observations and conditions:

- One additional soil sample (duplicate) was collected to comply with ADEC minimum field quality control sample daily requirements.
- The easternmost upgradient boring and well location was not installed. This was attributed to adjacent landowner property access limitations.
- The westernmost downgradient boring and well location was not installed. This was attributed to an unknown subsurface configuration of fuel pipeline conveyance extending from the facility's UST to fuel island dispensers. According to representatives of Prism Design and Construction LLC, the dual wall polyethylene fuel lines likely make broad sweeping arcs between connection points. Investigation at this location is no longer considered to be warranted based on soil and groundwater results from SB-2 and SB-3.
- Monitoring well SB-3 was developed within 24 hours after installation. An ADEC variance to the 24-hour post-well installation development requirement was approved by Ms. Laura Jacobs of ADEC based on conditional use of low flow sample collection methods.
- No monitoring well land survey was conducted by a licensed professional for several reasons. Monitoring points used to develop historical groundwater flow directions and gradients (wells) no longer exist, and the westernmost monitoring well was not installed as a third point for evaluation. As described above, there is no apparent need to install the westernmost downgradient well based on soil and groundwater results from SB-2 and SB-3. The only serviceable well capable of providing any water table information on site is MW-2. Well MW-2 is aligned linearly with wells SB-2 and SB-3 (Figure 2). Furthermore, follow-up investigation is considered unwarranted at this time due to the absence of any contaminants above soil and groundwater cleanup levels around the immediate periphery of the former Tank #2 excavation.

7.0 INVESTIGATIVE DERIVED WASTE

Investigative derived waste (IDW) currently stored on-site in sealed and placarded 55-gallon steel drums includes the following:

- Three drums of consolidated soil boring cuttings; and,
- Two drums of consolidated groundwater from monitoring well development, purging and sampling.

AECOM has received approval from ADEC to dispose of the IDW based on provision and review of the soil and groundwater sample results (Attachment 3). Approved disposal options include on-site disposal. Alternatively, arrangements can be made with NRC to dispose of the soil and groundwater at their Viking facility in Anchorage, Alaska. Although the soil meets all criteria for disposal at the Fairbanks North Star Borough landfill, they have an exclusive policy to refuse soil from any source.

8.0 CONCEPTUAL SITE MODEL

A completed human health conceptual site model graphic form is provided in Attachment 4. There is no potential for surface soil, surface water, or sediment media to be directly affected by the release from the adjacent Tank #2 on the Albertsons property based on the subsurface nature of the release (UST), prior excavation; absence of standing water; and presence of asphalt apron and engineered storm water control infrastructure and conveyances. Potential media that could be directly affected by the release on the Albertsons property is limited to subsurface soil and groundwater. Although Tank #2 resulted in a direct release to surface soils, all vadose soil results from this investigation on the Albertsons property were either non-detect, flagged unqualified (i.e., chloroform), naturally occurring, or below 1/10th of the human health based cleanup level. For this reason, migration to groundwater is the only potential pathway for contaminant transport from subsurface soil. Due to the developed nature of the site and absence of any significant vadose soil contamination above 1/10th of the human health based cleanup level, there are no applicable transport mechanisms associated with groundwater media (Attachment 5).

Groundwater pathways that could be complete on the Albertsons property are limited to dermal absorption of contaminants in groundwater. This is based on the commercial nature of the property (zoning) and existing water conveyance infrastructure. Foreseeable current and future receptors are limited to construction workers that may be associated with future subsurface disturbances.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Conclusions

All soil and groundwater sample analytes were below applicable cleanup levels. Elevated concentrations of several (DRO and benzene) compounds in groundwater indicate that residual impairments have migrated to the Albertsons property but persist at concentrations below cleanup levels. The waste oil tank and bulk contaminant soil mass has since been removed.

Surface water influx that could otherwise facilitate the mobilization of residual contaminant mass in soil is considered to be minimal. This is based on the asphalt apron in the immediate vicinity of the former Tank #2 excavation; existing wastewater drainage infrastructure; and engineered liner placement at depth in the excavation to minimize contaminant mobilization though surface water infiltration.

With the exception of arsenic, analyte concentrations in soil were either non-detect or comparatively less than corresponding groundwater results relative to applicable cleanup levels. Although all analyte concentrations in groundwater were below their respective cleanup levels, more VOC and hydrocarbon analytes were reported above detection limits, and elevated concentrations of DRO and benzene were reported. The disparity between the soil and groundwater results indicates that no residual soil impairments exist on the Albertsons property. The results also indicate that groundwater contamination derived from residual Tank #2 soil impairments is discrete. Groundwater impairments around the immediate periphery of the former excavation are all below applicable cleanup levels based on primary and duplicate samples from upgradient monitoring well SB-3 and downgradient monitoring well SB-2. The soil and groundwater results are also consistent with field observations, which include the following:

- No detectable VOC compounds in field screen (i.e., headspace) soil samples from either soil boring;
- No readily apparent soil stains, or odors from either soil boring;
- No sheening or odor in monitoring well purge water from either monitoring well.

9.2 Recommendations

No further investigative action is recommended related to Tank #2 adjacent to the Albertsons property located at 500 Old Steese Highway in Fairbanks, Alaska. This recommendation is based on the absence of any soil or groundwater impairments above ADEC cleanup levels in the immediate upgradient and downgradient periphery of the former Tank #2 excavation. Although some residual source material likely persists in the former excavation, existing chemical and physical conditions do not support adverse impairment.

If monitoring wells SB-2 and SB-3 are no longer used to support other investigation activities unrelated to Tank #2, it recommended that both be properly abandoned in addition to well MW-3.

10.0 REPORT PREPARER QUALIFICATIONS

This section includes qualification statement of the environmental professional responsible for preparing this work plan and conducting the field investigation.

Paul Myerchin of the AECOM Anchorage, Alaska office conducted the field program on behalf of AECOM, and has prepared this letter report. Mr. Myerchin has 20 years of experience in environmental site investigation, characterization, and assessment with AECOM (Formerly URS Corporation), and is listed as an ADEC QEP. In addition, Mr. Myerchin declares that, to the best of his professional knowledge and belief, he meets the definition of a QEP, as defined by ADEC.

If you have any questions regarding any information provided in this letter report, please feel free to contact me at 907-261-6785 (office) or 907-351-9934 (cell). In addition, Albertsons can be contacted directly through Jane Anderson at (208) 395-5362.

Sincerely,

AECOM

Paul Myerchin
Staff Geologist

cc: Ms. Jane Anderson, P.G., Albertsons, LLC

Attachments
Figure 1 – Site Location Map
Figure 2 – Site Layout

Attachment 1 – Field Forms
- Soil Boring Logs
- Monitoring Well Construction Log
- Well Development, Purge, & Sample Record

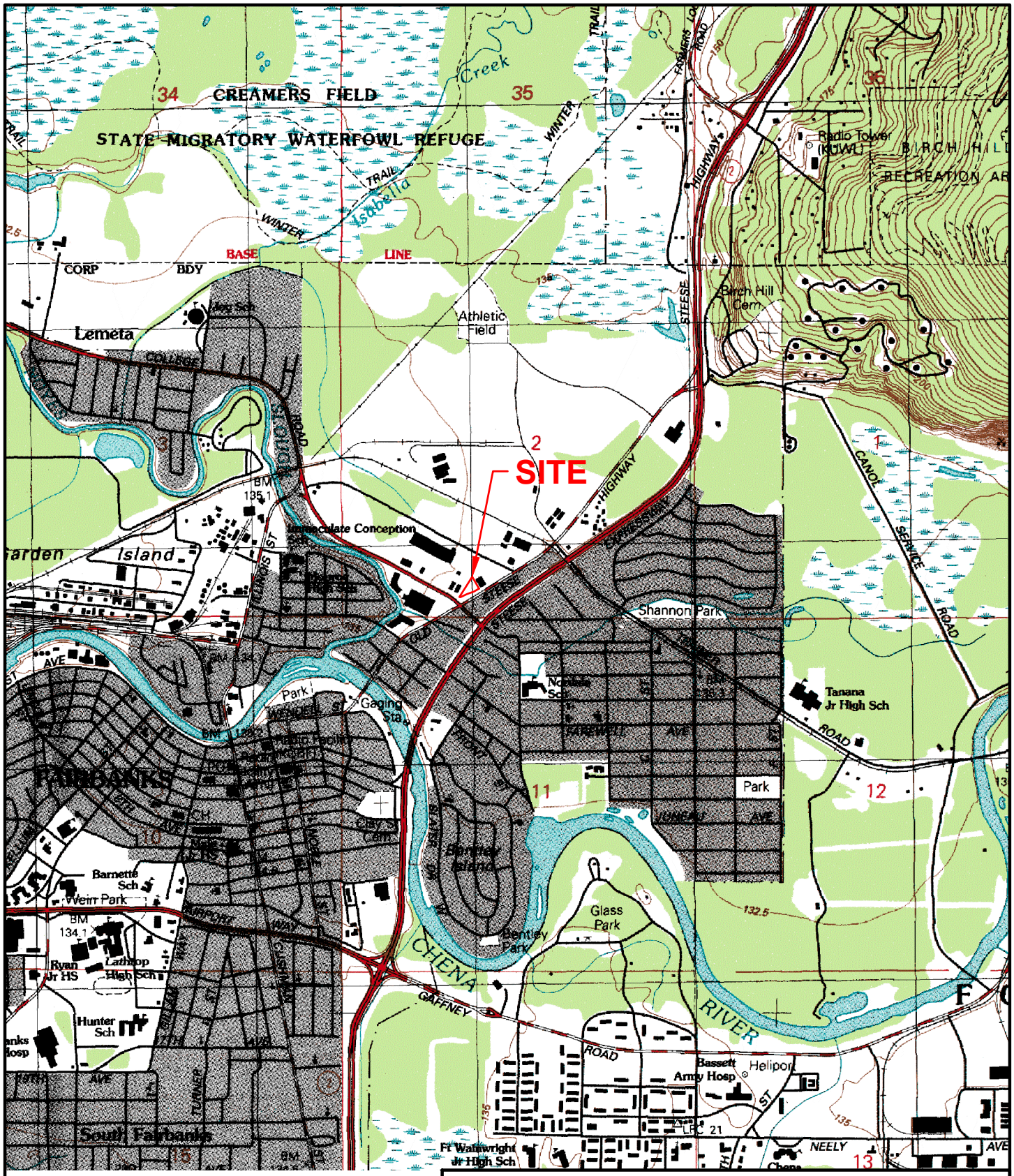
Attachment 2 – Quality Assurance / Quality Control
- Laboratory Data Review Checklist (Soil)
- Summary of Qualified Data (Soil)
- Laboratory Data Review Checklist (Groundwater)
- Summary of Qualified Data (Groundwater)

Attachment 3 – ADEC Correspondence
- Transport, Treatment, & Disposal Approval Form for Contaminated Media
- ADEC Authorization to Dispose of IDW (email)

Attachment 4 – Conceptual Site Model
- Human Health Conceptual Site Model Graphic Form

Attachment 5 – Laboratory Data Packages
- Summarized Soil and Groundwater Results
- Laboratory Report of Analysis (Soil)
- Laboratory Report of Analysis (Water)

FIGURES



Source: USGS 1:25,0000 Topographic Map Series
Fairbanks (D-2) SW, SE Quadrangle

2000 1000 0 2000
SCALE IN FEET

N
W E

ALBERTSONS - 500 OLD STEESE HIGHWAY
FORMER UST INVESTIGATION

SITE LOCATION MAP

FAIRBANKS, ALASKA

JOB NO: 60543830	DRAWN: ELK
DATE: JUNE 2017	FILE: 60543830 FIGS.DWG

AECOM

FIGURE 1

C:\TEMP\ACPUBLISH_9060\60543830 FIGS.DWG; Revised Wed, 07 Jun 2017 - 10:36am; Printed Thu, 08 Jun 2017 - 12:55pm

C:\TEMP\ACPUBLISH_9060\60543830 FIGS.DWG; Revised Wed, 07 Jun 2017 - 10:36am; Printed Thu, 08 Jun 2017 - 12:55pm

LEGEND

- WELLS INSTALLED IN 2002
- 2018 BORING/MONITORING WELL LOCATION

50 25 0 50
SCALE IN FEET

Image source: Google Earth; July 2016 image

ALBERTSONS - 500 OLD STEESE HIGHWAY
FORMER UST INVESTIGATION

SITE LAYOUT

FAIRBANKS, ALASKA

AECOM

JOB NO: 60543830	DRAWN: ELK
DATE: JUNE 2017	FILE: 60543830 FIGS.DWG

FIGURE 2

ATTACHMENT 1 – FIELD FORMS

AECOM
7720 North 16th Street
Phoenix/Arizona 85020

WELL NUMBER SB-2

CLIENT Albertsons
PROJECT NAME Albertsons - Fairbanks
PROJECT NUMBER 60543830
PROJECT LOCATION Fairbanks, Alaska
DATE STARTED 5/23/18 **COMPLETED** 5/24/18
GROUND ELEVATION _____ **HOLE SIZE** 8.25 inches
DRILLING CONTRACTOR GeoTek of Alaska
GROUND WATER LEVELS:
DRILLING METHOD DPT 6620 - HSA
▽ **AT TIME OF DRILLING** 15.00 ft
LOGGED BY Paul Myerchin **CHECKED BY** Marianne Burrus
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0				0.2 Asphalt		Well Vault Flush with Surface Cement Seal
		GW		(GW) Brown, well graded gravel with sand. Trace cobbles. No odor or discolored soils. Frozen at 3.5 feet to approximately 8 feet.		Pea-Gravel
5						2-inch Sch. 40 PVC Riser (Blank)
				7.0 Dark stained seam of soil approximately 4 inches deep, asphaltic in appearance, gravelly.	PID = 0	
		SM		8.0 (SM) 60 % sand, 40 %. fines Brownish gray, sandy silt. Very fine to fine sand, frozen, very dense, and no odor.	PID = 0	3/8" Baroid Bentonite Chip Seal
		SP		9.0 (SP) 100 % sand. Gray, poorly graded fine sand, dry, dense, and no odor.	PID = 0	
10		SM		10.0 (SM) 70 % sand, 30 % fines. Brownish gray, silty sand, moist, medium density, and no odor.		
		SP		(SP) 100 % sand. Gray, poorly graded fine to medium grained sand, moist, medium density, and no odor.	PID = 0	
					PID = 0	#10/20 Colorado Sand Filter Pack
				13.0	PID = 0	
		SW		13.5 (SW) 15 % gravel, 85 % sand. Grayish brown, well graded sand with gravel. Fine to coarse gravel, subrounded up to 1.25 inches in diameter. Fine to medium sand, very moist, and no odor.	PID = 0	
15	GB SB-2, SB-2A	SP		15.0 ▽ (SP) 100 % sand. Gray poorly graded sand. Fine to medium grained sand, very moist, medium density, and no odor.	PID = 0	
				Prevalent woody debris (rich organics) fragments from 17 feet to 17.5 feet. Anoxic smell and appearance, darker discoloration and no sheen.		
						2-inch Sch. 40 PVC with 0.010" Slot Pre-Pack Stainless Mesh Screen
20				20.0		
		SP		(SP) 95 % sand, 5 % fines. Dark gray, very fine to fine sand. Trace fines, wet, medium density, and no odor or sheen. Prevalent organics and woody debris from 21.5 feet to 23 feet. Anoxic in appearance.		
25				25.0		

Bottom of borehole at 25.0 feet.

WELL NUMBER SB-3 (B)

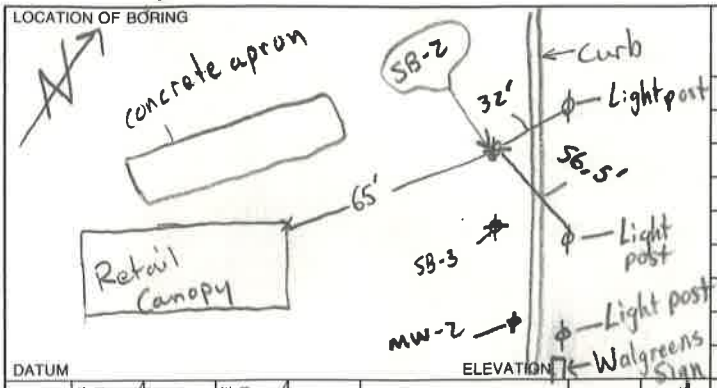
AECOM
7720 North 16th Street
Phoenix/Arizona 85020

CLIENT Albertsons
PROJECT NAME Albertsons - Fairbanks
PROJECT NUMBER 60543830
PROJECT LOCATION Fairbanks, Alaska
DATE STARTED 5/24/18 **COMPLETED** 5/25/18
GROUND ELEVATION _____ **HOLE SIZE** 8.25 inches
DRILLING CONTRACTOR GeoTek of Alaska
GROUND WATER LEVELS:
DRILLING METHOD DPT 6620 - HSA
▽ **AT TIME OF DRILLING** 14.80 ft
LOGGED BY Paul Myerchin **CHECKED BY** Marianne Burrus
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	ENVIRONMENTAL DATA	WELL DIAGRAM
0				0.2 Asphalt		Well Vault Flush with Surface Cement Seal
		GW		(GW) Brown well graded gravel with sand, dense and no odor. Frozen at 4 feet.		Pea-Gravel
5				5.4		2-inch Sch. 40 PVC Riser (Blank)
		SM		(SM) 60 % sand, 40 % fines. Gray silty sand, dense, frozen, and no odor or stain. Organics present at 8 feet.	PID = 0	3/8" Baroid Bentonite Chip Seal
				8.0		
		GW		8.5 (GW) Gray brown well graded gravel with sand, fine to coarse gravel, dense, moist, and no odor or stain. Metallic debris consisting of capacitor/battery windings, chain link, and steel rod and container fragments.	PID = 0	
		SM		9.0		
		SP		10.0 (SM) 80 % sand, 20 % fines. Gray silty sand, medium density, moist, and no odor or stain.	PID = 0	
10		SM		11.5 (SP) 100 % sand. Gray poorly graded sand. Fine to very fine sand, medium density, and no odor or stain.	PID = 0	#10/20 Colorado Sand Filter Pack
				(SM) 70 % sand, 30 % fines. Gray silty sand, moist, and no odor or stain.	PID = 0	
	GB SB-3, SB-3A	SP		(SP) 100 % sand. Brown poorly graded sand. Fine to medium sand, medium density, and no odor or sheen. Wet at 14.8 feet.		
15				15.0 ▽		
		SW		(SW) 5 % gravel, 95 % sand. Gray well graded sand with trace fine gravel. Very fine to medium sand, wet, medium density, and no odor or sheen. Well rounded gravel.		
				17.5		2-inch Sch. 40 PVC with 0.010" Slot Pre-Pack Stainless Mesh Screen
		SW-SM		(SW-SM) 90 % sand, 10 % fines. Gray poorly graded sand with silt. Fine sand, medium density, wet, and no odor or sheen.		
20				20.0		
				22.5		

Bottom of borehole at 22.5 feet.

LOCATION OF BORING



DATUM ELEVATION

JOB NUMBER	CLIENT	LOCATION
60543830	ALBERTSONS	TANK #2 FAIRBANKS, AK

DRILLING METHOD: DPT 6620
4.25" ID HSA
6.25" Bit. To set well.

BORING NUMBER: SB-2

SAMPLING METHOD: Macro Core Sampler
5' Runs
OD - 2.25"
ID - 1.5"

SHEET: 1 OF 2

DRILLING: START TIME 1640 DATE 5/23/18; FINISH TIME 0815 DATE 5/24/18

SURFACE CONDITIONS: Asphalt ~ 2.5" thick

DRILLING CONTRACTOR GeoTek of AK

BY [signature] DATE 5-23-18 CHECKED BY _____

002997

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	TIME	SAMPLE NUMBER / SAMPLE DEPTH	BLOWS/FT SAMPLER	OVA AUGER	OVA SAMPLE	OVA CUTTINGS	DEPTH IN FEET	SOIL GRAPH
CB	60/45	–	6'			0.0		5	GW
CB			6.5			0.0		6	stain
CB			8			0.0		7	SM
CB			10			0.0		8	SP
								9	SM
								10	SP
CB	60/48	–	11			0.0		11	
CB			12			0.0		12	
CB			13.5			0.0		13	SW
CB			15			0.0		14	SP
								15	
CB	60/48	–	16					16	
								17	
								18	
								19	
CB			20					20	
								21	

AIR KNIFE TO 5.5' bgs.

GW (to 5.5') Brown, well graded gravel with sand. Trace cobbles. Frozen @ 3.5 to 8' approx. No odor or discolored soils

STAIN (6.5-7.0') Dark stained seam of soil (4"), asphaltic in appearance, gravelly SM (7-8) Brownish gray Sandy silt. Very fine to fine sand, frozen, very dense, no HC odor, (0, 60, 40, 0)

SP (8-9) Gray, poorly graded fine sand, dry, no HC odor, dense, (0, 100, 0, 0)

SM (9-10) Brownish gray, silty sand, ~~dry~~, moist, med. dense, no HC odor (0, 70, 30, 0)

SP (10-13) Gray poorly graded fine to medium sand, moist, med. dense, no HC odor (0, 100, 0, 0)

SW (13-13.5) Gray Brown, well graded sand with gravel. Fine to coarse gravel, Subrounded up to 1.25" dia. Fine to med. sand, very moist, no HC odor. (15, 85, 0, 0)

SP (13.5-15) Gray, well poorly graded sand. Fine to medium sand, very moist, medium dense, no HC odor (0, 100, 0, 0)
Groundwater @ approx. 15' bgs.

Prevalent woody debris (rich organics) fragments from 17' to 17.5' bgs; anoxic smell & appearance, darker discoloration & no sheen

SAMPLE (LAB) Summary:
Sample SB-2 (primary) @ 17:25 @ 14.5' bgs.
Sample SB-2A (duplicate) @ 17:26 @ 14.5' bgs.

LOCATION OF BORING

SEE PAGE 1

JOB NUMBER	CLIENT	LOCATION
60543850	ALBERTSONS	TANK 2 FAIRBANKS, AK

DRILLING METHOD: See Pg. 1

BORING NUMBER: SB-2

SHEET: 2 OF 2

SAMPLING METHOD: SEE Pg. 1

DRILLING: START TIME Pg. 1 / FINISH TIME Pg. 1

SURFACE CONDITIONS: ASPHALT

DRILLING: START DATE Pg. 1 / FINISH DATE Pg. 1

DRILLING CONTRACTOR: GeoTek of Alaska

DATUM

ELEVATION

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	TIME	SAMPLE NUMBER / SAMPLE DEPTH	BLOWS/FT. SAMPLER	OVA: AUGER	OVA: SAMPLE	OVA: CUTTINGS	DEPTH IN FEET	SOIL GRAPH
								20	
								21	
								22	
								23	
								24	
								25	
								6	
								7	
								8	
								9	
								0	
								1	
								2	
								3	
								4	
								5	
								6	
								7	
								8	
								9	
								0	
								1	
								2	

SP (20-25) Dark gray, very fine to fine sand. Trace fines, wet, medium dense, no HC odor or sheen (0, 95, 5, 0)

Prevalent organics & woody debris from 21.5' to 23' bgs. Anoxic in appearance.

WELL CONSTRUCTION

Materials:
- 10' pre-pack, 0.010" slot PVC Screen with #10/#20 silica sand.
- Stainless wire mesh for sand pack.
- Threaded 2" PVC, SCH40 blank to 0.5' bgs.
- #10/#20 Colorado Sand filter pack
- 3/8" Baroid Bentonite chip seal.

Bottom of Screen @ 22.5' bgs.
Top of Screen @ 12.5' bgs.
Top of Sand @ 10.2' bgs.
Top of chips @ 4.0' bgs.
Pea-gravel from 4.0 to 0.5' bgs.

10" flush mount surface completion with locking well cap.

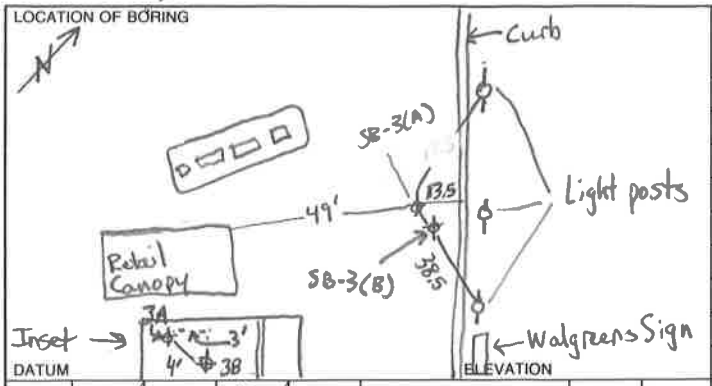
NOTE - Pea gravel used for surface completion due to frost heave/jacking of bentonite in sub arctic conditions!

4 bags sand (50 lbs/ea.)
3 bags chips (50 lbs/ea.) Hydrated

BY [signature] DATE 5-23-18 CHECKED BY

000617

LOCATION OF BORING



JOB NUMBER	CLIENT	LOCATION
60543830	ALBERTSONS	TANK #2 FAIRBANKS, AK

DRILLING METHOD: 6620 DPT Direct Push &/or HSA. 4.25" HSA; 8" Bit.

BORING NUMBER: SB-3(B)

SHEET: 1 OF 2

SAMPLING METHOD: Macro Core Sampler
5' Runs
OD - 2.25"
ID - 1.25"

DRILLING

START TIME	FINISH TIME
11:00	1000

SURFACE CONDITIONS: Asphalt 2.5" thick

DATE	DATE
5/24/18	5/25/18

DRILLING CONTRACTOR GeoTek of Alaska

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	TIME	SAMPLE NUMBER / SAMPLE DEPTH	BLOWS/FT SAMPLER	OVA AUGER	OVA SAMPLE	OVA CUTTINGS	DEPTH IN FEET	SOIL GRAPH	
								0		Note Concete refusal @ SB-3A. Stepped out Location to SB-3(B), cleared hole to 5.4' bgs (Air-Vac)
								1		
								2		
								3	GW	GW (0-5.4') Brown well graded gravel with sand, frozen @ 4' bgs, dense, no HC odor.
								4		
								5		
CB	60/42	1105						6		SM (5.5-8') Gray Silty Sand, frozen, dense, no HC odor or stain (0,60,40,0), organics present @ 8' bgs.
CB			7			0.0		7	SM	GW (8.0-8.5') Gray brown, well graded gravel with sand, fine to coarse gravel, dense, moist, no HC odor or stain. Metallic debris consisting of capacitor/battery winding, chain link, & steel rod & container fragments from 8-8.5, reportedly former landfill per ADEC & passerby knowledge.
CB			8.5			0.0		8	GW	
								9	SM	
								10	SP	
CB			10			0.0				SM (8.5-9.0') Gray Silty Sand. Medium dense, moist, no HC odor or stain (0,80,20,0)
CB	60/48	1120	11.5			0.0		11	SM	
CB			12.5			0.0		12	SP	SP (9.0-10') Gray Poorly graded Sand. Fine to very fine, medium dense, no HC odor or stain (0,100,0)
G	Sample SB-3 @ 11:27 @ 14.5'							13		SM (10-11.5) Gray Silty Sand, moist, no HC odor or stain (0,70,30,0)
G	Sample SB-3A @ 11:30 @ 14.5'							14		
								15		SP (11.5-15) Brown, poorly graded Sand. Fine to medium sand, medium dense, wet @ 14.8' bgs. No HC odor or sheen (0,100,0,0).
CB	60/60	1140						16	SW	
								17		SW (15-17.5) Gray well graded sand. Trace fine gravel. Very fine to medium sand, well rounded gravel, wet, medium dense, no HC odor (5,95,0,0).
								18	SW-SM	
								19		SW-SM (17.5-20) Gray poorly graded sand with silt. Fine sand, medium dense, wet, no HC odor or sheen (0,90,10,0).
								20		

BY [signature] DATE 5-24-18 CHECKED BY

001651

LOCATION OF BORING

SEE PAGE 1 of 2

JOB NUMBER	CLIENT	LOCATION
60543830	ALBERTSONS	TANK 2 FAIRBANKS, AK

DRILLING METHOD: See Page 1

BORING NUMBER: SB-3 (B)

SAMPLING METHOD: See Page 1

SHEET: 2 OF 2

DRILLING: START TIME Pg. 1 / FINISH TIME Pg. 1

SURFACE CONDITIONS: Asphalt ~ 2.5" thick

DATE: Pg. 1 / DATE: Pg. 1

DATUM

ELEVATION

SAMPLER TYPE	INCHES DRIVEN / INCHES RECOVERED	TIME	SAMPLE NUMBER / SAMPLE DEPTH	BLOWS/FT. SAMPLER	OVA: AUGER	OVA: SAMPLE	OVA: CUTTINGS	DEPTH IN FEET	SOIL GRAPH
								0	
								1	
								2	
								3	
								4	
								5	
								6	
								7	
								8	
								9	
								0	
								1	
								2	
								3	
								4	
								5	
								6	
								7	
								8	
								9	
								0	

AUGER ADVANCED TO 22.5' bgs to set well.

WELL CONSTRUCTION MATERIALS:

- 10' pre-pack, 0.010" slot PVC Screen, SCH 40 with #10/#20 silica Sand
- Stainless wire mesh for sand pre-pack
- Threaded 2" PVC, SCH 40 blank to 0.5' bgs.
- #10/#20 Colorado Sand filter pack
- 3/8" baroid bentonite chip seal

Bottom of Screen @ 22.5' bgs.
Top of Screen @ 12.5' bgs.
Top of sand @ 10.2' bgs.
Top of chips @ 4.0' bgs.
Pea-Gravel from 4.0 to 0.5' bgs.

10" flush mount surface completion with locking well cap.

Pea-Gravel used due to frost heave/jacking of bentonite in sub-arctic conditions.

3.8 bags of sand (50 lb/ea.)
3 bags of chips (50 lb/ea.) Hydrated.

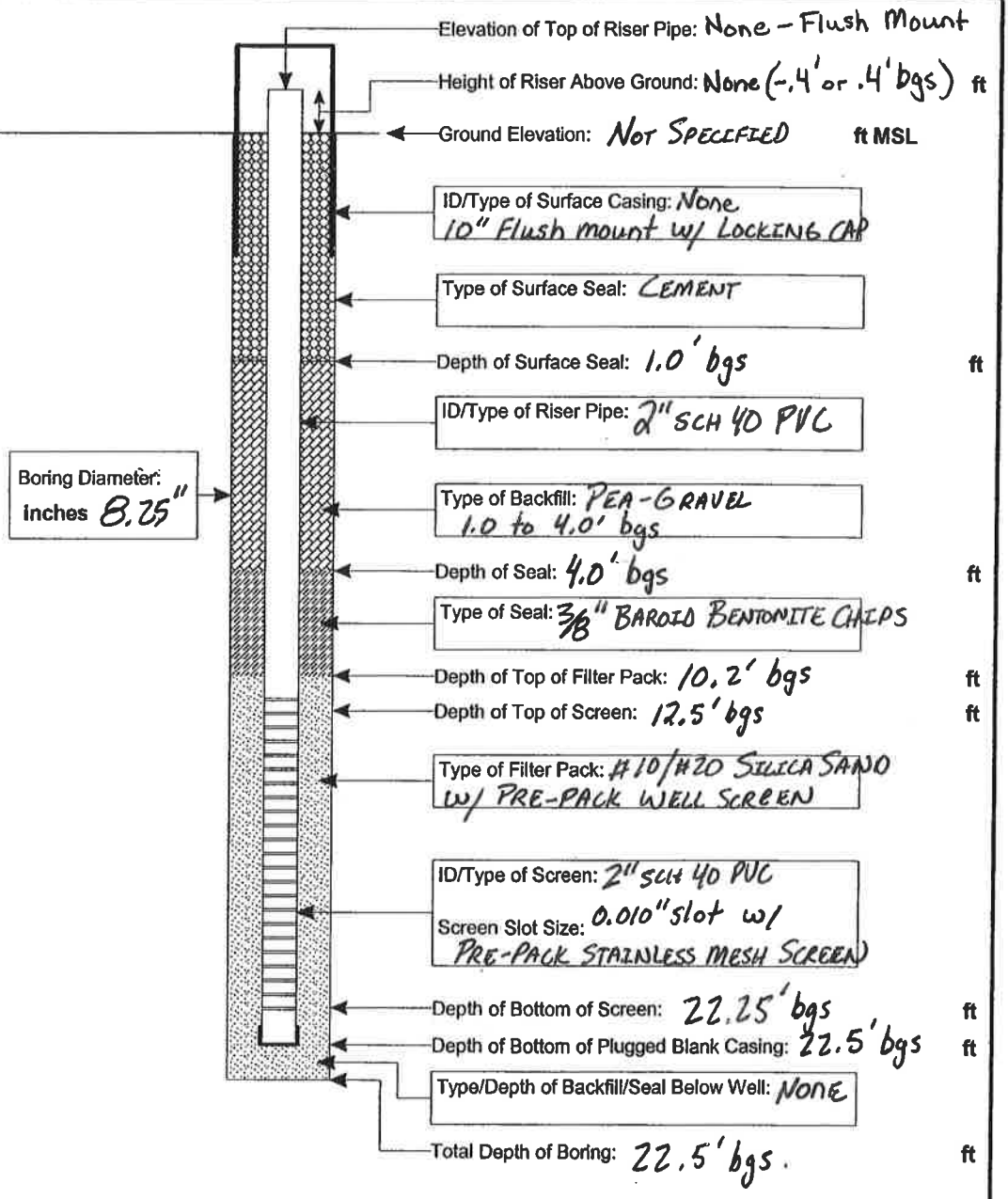
DRILLING CONTRACTOR GeoTek of AK

BY Sam DATE 5-24-18 CHECKED BY

000618

Project: ALBERTSONS **Project Location:** TANK #2 INV.; FAIRBANKS, AK **Project Number:** 60543830	**MONITORING WELL CONSTRUCTION LOG FOR** SB-2

Well Location FORMER TANK #2 (DOWN GRADIENT)	Date(s) Installed 5/24/18	Time 18:10
Installed By GEOTEK OF ALASKA	Observed By PAUL MYERCHIN	Total Depth 22.5' bgs
Method of Installation DPT 6620 RIG; 4.25" HSA WITH 8.25" bit		
Screened Interval 12.5' to 22.5' bgs	Completion Zone POORLY GRADED SAND (SP)	
Remarks		



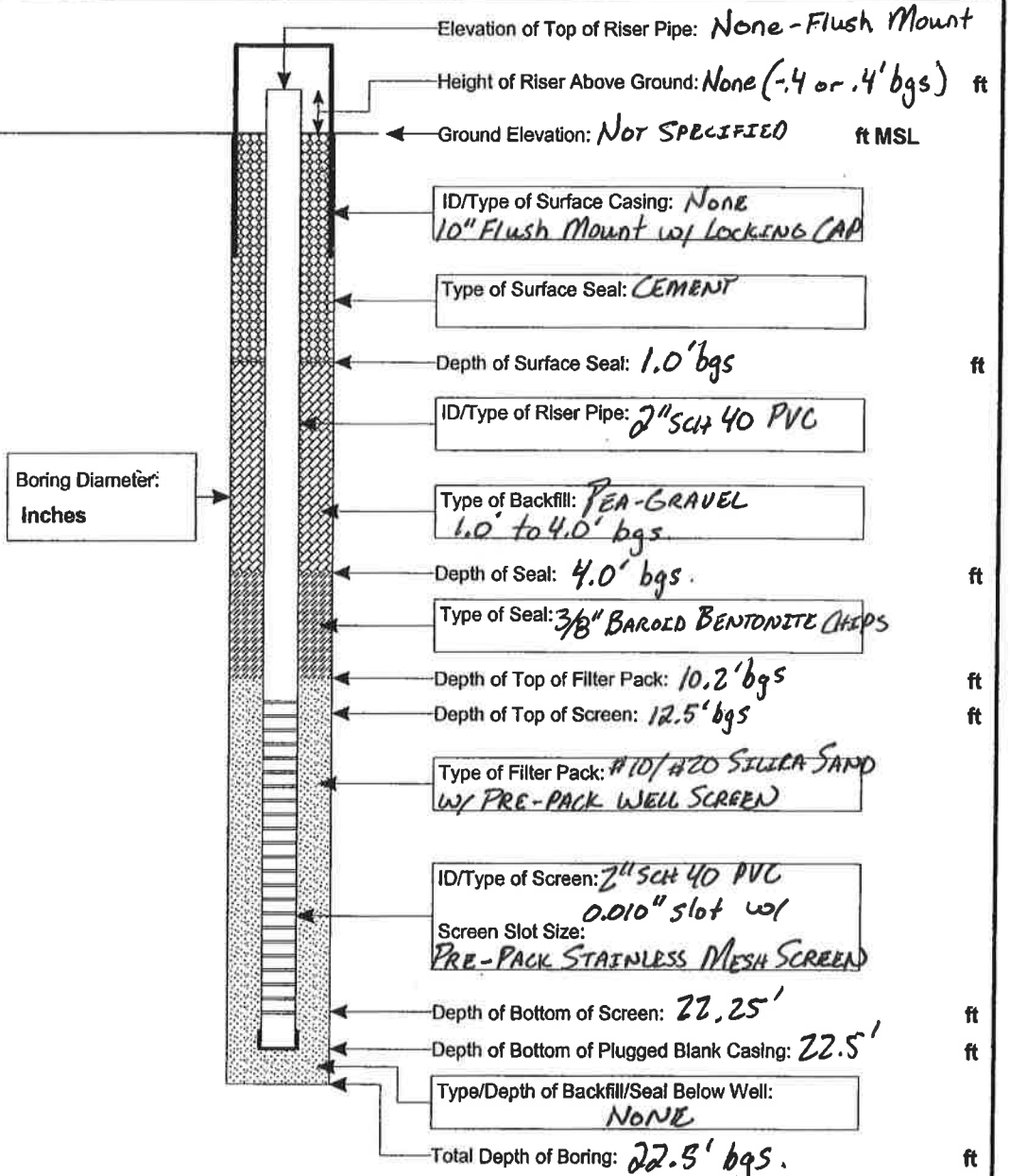
NOTE: DIAGRAM IS NOT TO SCALE

AECOM

Report: ENV_WELL_CONSTR_ABOVE_GROUND; File: DUMMY.GPJ; 11/2/2001 1

Project: ALBERTSONS **Project Location:** TANK #2 INV.; FAIRBANKS, AK **Project Number:** 60543830	**MONITORING WELL CONSTRUCTION LOG FOR** SB-3(B)

Well Location FORMER TANK #2 (UP GRADIENT)	Date(s) Installed 5/24/18	Time 14:00
Installed By GEOTEK OF ALASKA	Observed By PAUL MYERCHIN	Total Depth 22.5' bgs.
Method of Installation DPT 6620 RIG; 4.25" HSA WITH 8.25" BIT		
Screened Interval 12.5 to 22.5' bgs	Completion Zone WELL GRADED SAND WITH SILT.	
Remarks		



NOTE: DIAGRAM IS NOT TO SCALE

AECOM

Report: ENV_WELL_CONSTR_ABOVE_GROUND; File: DUMMY.GPJ; 11/2/2001 1

AECOM	WELL DEVELOPMENT, PURGE, & SAMPLE RECORD	Date 5/25/18	Field Book # 1
		Sampler Names: [illegible]	

Project Location: Fairbanks AK | Project No. 60543830 | Page 1 of 2

Location / Well ID: SB-3

Task (circle): Annual | Triannual (List Event in Other) | Initial Sample | Other (list) & Developement.

EQUIPMENT USED: Type of pump/equipment: ☐Grundfos ☐Peristaltic ☐QED ☐Air Bladder ☐ Bailer ☐ Other:
Type of slug (for development): Stainless Mega Monsoon PTS. Volume of Slug:

METHOD OF DEVELOPMENT/PURGING ☒ Bailing ☒ Pump – Well Volume ☐ Pump – Parameter Stabilization ☐ Low flow

WATER QUALITY PARAMETERS by (a) HACH DR2400; (b) YSI 556 & 2100P Turbidimeter (c) other (describe):
Calibrated? ☒ Yes ☐ No Equipment Decontaminated? ☒ Yes ☐ No Describe:

CASING WELL VOLUME INFORMATION (circle)

Casing ID (inch)	0.75	2.0	3.0	4.0
Unit Casing Volume (A) (gal/ft)	0.023	0.16	0.37	0.65

Formula: (Diameter)^2 /÷ 24.5 = gals / ft

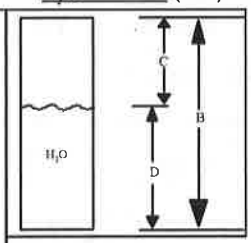
BAILER CHECK ☒ Yes ☐ No Describe:
Color: Turbid / Brown Sheen: ☐ Yes ☒ No
Odor: ☐ Yes ☒ No Describe: Free-Phase Product: ☐ Yes ☒ No
Notes: 3 gallons initial pulled w/ bailer.

THICKNESS OF PRODUCT (if present) Measured with: Bailer ☒ or Interface Probe ☐ Type:
Top of product (ft btoc): none Top of Groundwater (ft btoc): 14.69 Thickness of Product (ft): none

PURGING INFORMATION **Note: If no obvious reference, measure off north side of PVC casing and tick mark pipe.**
Measurement Reference Point: ☒ BTOC (at tick mark) ☐ BGS ☐ Bottom of "V" Notch on PVC casing
☐ Other (describe) Measured from High point on PVC casing (east side)

Depth to Top of Well Screen 11.75 (feet) Length of Well Screen: 10 (feet) Tubing Placement: ~~[illegible]~~ (feet)

Total Well Depth (B) 21.75 feet
Measured Water Level Depth (not product) [Start] (C) 14.69 feet
Length of Static Water Column (D) 21.75 (B) - 14.69 (C) = 7.06 (D) feet
Casing Water Volume 0.16 (A) x 7.06 (D) = 1.13 gallons



sampling pump placed @ 17' btoc.

Conversion from Gallons to Liters: # gal x 3.784 = Liters
Three Casing Water Volumes 3.4 (Liters) (gallons)
Maintain pump rate at less than 1 Liters / min for low flow purging.
Maintain pump rate at less than 4 Liters/min for all other purge methods

Total Water Volume Removed 25 Development (gallons) 0.95 Sampling (~~Liters~~)
Measured Water Level Depth [End] (C) 14.72 feet

IMPORTANT! VERIFY UNITS AND CIRCLE APPROPRIATE VALUE FOR EACH WELL!

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Purging Options: Purge well dry with 80% head recovery. Remove 3 casing volume equivalents; or, Low Flow – 4 parameters stabilize (with temp.) within shown limits using flow through cell; <0.3' drawdown; 50-500 ml/minute flow rate.				+/- 3% (min +/- 2%)	+/- 0.1 units	+/- 3%	NA	+/- 10%	+/- 10%	+/- 10% or less than 5 NTUs
NOTE - INITIAL 3 WELL VOLUMES REMOVED USING BAILER & SURGE TO PULL WATER INTO SCREEN & REMOVE PARTICULATES. - NO PARAMETERS.										
1000	15 bailers Removed by 10:25.									
1030	Start Pump & purge for development monitoring turbidity only.									
1035	1 gal./min.	5 gals.								>1000

Samplers Signature: [signature] Date: 5-25-18

FORM	WELL DEVELOPMENT, PURGE, & SAMPLE RECORD (Continued)	Date 5/25/18	Field Book # 1
		Sampler Names: [illegible]	

Project Location: Fairbanks - Safeway | Project No. 60543830 | Page 2 of 2

Location / Well ID: SB-3 (Upgradient of Tank 2)

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. ~~mS/cm~~ (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1045	0.5gpm		5 gal/10 Total							>1000
1055	0.5gpm		5gal/15 Total							>1,000
1105	0.5gpm		5gal/20 Total							120
1115	0.5gpm		5gal/25 total							5.29 NTU
Shut pump off to equilibrate for low flow sampling.										
1135	~~400~~ mL	14.72	~~800~~ mL	5.61	6.84	~~0.736~~	—	3.91	51.2	4.8
1140	400 mL	14.71	1200	5.71	6.85	~~0.744~~	—	3.68	37.1	5.0
1145	400	14.72	1600	5.86	6.85	476	—	4.48	41.0	6.2
1150	400	14.72	2000	5.77	6.85	477	—	4.21	36.0	4.42
1155	400	14.72	2400	5.80	6.85	480	—	3.90	28.0	4.35
1200	400	14.72	2800	5.75	6.85	480	—	3.65	24.5	3.56
1205	400	14.72	3,200	5.83	6.85	482	—	3.55	25.2	3.64
1210			3600	5.87	6.85	481	—	3.52	23.8	3.76

SAMPLE COLLECTION

Sample ID: SB-3 | Sample Date/Time: 5-25-18 @ 1215

1215	400	14.72	4,000	5.79	6.85	481	-	3.45	11.7	2.94

Additional Field Sample Parameters Analyzed in Field with Equipment/Test Kits

Analyzed Methods: Complete below.

ORO	DRO/RRO	PCBs	RCRA Metals
VOCs	PAHs (Hold)		

QA/QC SAMPLES

Trip blank carried with samples?	(Yes) No	Sample ID:	~~Albertsons~~ TB-1
Was a duplicate sample collected?	~~Yes~~ (No)	Sample ID:	
Was an equipment blank sample collected?	Yes (No)	Sample ID:	
Was an MS/MSD sample collected?	Yes (No)	Note on COC which sample is the MS/MSD	

Scanned and Input to Database by:		Date:
Samplers Signature:	[signature]	Date: 5-26-18

AECOM

WELL DEVELOPMENT, PURGE, & SAMPLE RECORD

Date: 5/25/18 | Field Book #: 1

Sampler Names: BJM

Project Location: Fairbanks, AK | Project No. 60543830 | Page 1 of 4 (BJM)

Location / Well ID: SB-2

Task (circle): Annual | Triannual (List Event in Other) | Initial Sample | Other (list): & Development

EQUIPMENT USED
Type of pump/equipment: ☐Grundfos ☐Peristaltic ☐QED ☐Air Bladder ☐ Bailer ☐ Other:
Type of slug (for development): Stainless Mega Monsoon Plus | Volume of Slug:

METHOD OF DEVELOPMENT/PURGING ☒ Bailing ☒ Pump – Well Volume w/ Surge ☐ Pump – Parameter Stabilization ☐ Low flow

WATER QUALITY PARAMETERS by (a) HACH DR2400; (b) YSI 556 & 2100P Turbidimeter (c) other (describe):
Calibrated? ☑ Yes ☐ No Equipment Decontaminated? ☒ Yes ☐ No Describe:

CASING WELL VOLUME INFORMATION (circle)

Casing ID (inch)	0.75	2.0	3.0	4.0
Unit Casing Volume (A) (gal/ft)	0.023	0.16	0.37	0.65

Formula: (Diameter)^2 /÷ 24.5 = gals / ft

BAILER CHECK ☐ Yes ☒ No Describe: Very turbid

Color: clear | Sheen: ☐ Yes ☑ No

Odor: ☐ Yes ☒ No Describe: | Free-Phase Product: ☐ Yes ☒ No

Notes: ~~Sump~~ Development immediately followed by Sampling.

THICKNESS OF PRODUCT (if present) Measured with: Bailer ☒ or Interface Probe ☐ Type: bailer

Top of product (ft btoc): None Top of Groundwater (ft btoc): 15.45 Thickness of Product (ft): None

PURGING INFORMATION **Note: If no obvious reference, measure off north side of PVC casing and tick mark pipe.**
Measurement Reference Point: ☒ BTOC (at tick mark) ☐ BGS ☐ Bottom of "V" Notch on PVC casing
☐ Other (describe) Top most point of PVC casing (South side)

Depth to Top of Well Screen ~~22.32~~ 12 (feet) Length of Well Screen: 10 (feet) Tubing Placement: ~~17.45~~ (feet)

Total Well Depth (B) 22.32 feet

Measured Water Level Depth (not product) [Start] (C) 15.45 feet

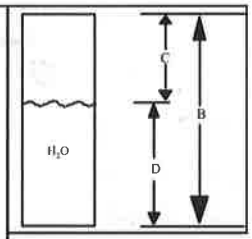
Length of Static Water Column (D) 22.32 (B) - 15.18 (C) = 7.2 (D) feet

Casing Water Volume 0.16 (A) x 7.2 (D) = 1.15 gallons

Conversion from Gallons to Liters: # gal x 3.784 = Liters

Three Casing Water Volumes 3.45~3.5 (Liters) (gallons)

Maintain pump rate at less than 1 Liters / min for low flow purging.
Maintain pump rate at less than 4 Liters/min for all other purge methods



Sampling
Tubing placed @ 17' bgs. for sampling.

Total Water Volume Removed 32.5 Development (gallons) 4.75 Sampling ~~(Liters)~~

Measured Water Level Depth [End] (C) 15.10 feet

IMPORTANT! VERIFY UNITS AND CIRCLE APPROPRIATE VALUE FOR EACH WELL!

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Purging Options: Purge well dry with 80% head recovery. Remove 3 casing volume equivalents; or, Low Flow – 4 parameters stabilize (with temp.) within shown limits using flow through cell; <0.3' drawdown; 50-500 ml/minute flow rate.				+/- 3% (min +/- 2%)	+/- 0.1 units	+/- 3%	NA	+/- 10%	+/- 10%	+/- 10% or less than 5 NTUs
NOTE - INITIAL 3 VOLUMES REMOVED USING BAILER & SURGE TO PULL WATER (PULSE) INTO SCREEN #REMOVE PARTICULATES - NO PARAMETERS										
15 Bailers removed by 1300 - No odor or sheen, very Turbid										>1000
1305 Start pump & purge (surging) across screen interval, Turbidity only,										
1310	0.5 gpm		2.5 gallons							>1,000

Samplers Signature: [signature] Date: 5-25-18

FORM	WELL DEVELOPMENT, PURGE, & SAMPLE RECORD (Continued)	Date 5/25/18	Field Book # 1
		Sampler Names: STM	

Project Location: Fairbanks | Project No. 60543830 | Page 2 of 4

Location / Well ID: SB-2

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
1315	1Gpm	-	7.5gal.	-	-	-	-	-	-	>1000
1320	1 gpm	-	12.5gal	-	-	-	-	-	-	>1000
1325	1gpm	-	17.5gal.	-	-	-	-	-	-	>1000
1330	1 gpm	-	22.5gals.	-	-	-	-	-	-	596
1335	1 gpm	-	27.5gals	-	-	-	-	-	-	437
1340	1gpm	-	32.5gals	-	-	-	-	-	-	31.4
STOP Pump for well to equilibrate prior to low flow sampling.										
1355	400ml	15.10	0	-	-	START Pumps	-	-	-	
1400	400ml	15.12	2L	5.91	6.75	517	-	1.16	53.5	10.67
1405	400 ml	15.11	4L	6.80	6.76	524	-	0.99	47.8	8.66
1410	400ml	15.11	6L	6.73	6.76	522	-	0.44	45.1	5.07
1415	400ml	15.10	8L	7.38	6.76	529	-	0.75	45.3	4.38

SAMPLE COLLECTION

Sample ID:	Sample Date/Time:

Additional Field Sample Parameters Analyzed in Field with Equipment/Test Kits

Analyzed Methods: Complete below.

SEE PAGE 4

QA/QC SAMPLES

Trip blank carried with samples?	Yes	No	Sample ID:
Was a duplicate sample collected?	Yes	No	Sample ID:
Was an equipment blank sample collected?	Yes	No	Sample ID:
Was an MS/MSD sample collected?	Yes	No	Note on COC which sample is the MS/MSD

Scanned and Input to Database by:		Date:
Samplers Signature:		Date:

SEE PAGE 1 FOR DETAILS

AECOM	WELL DEVELOPMENT, PURGE, & SAMPLE RECORD	Date 5/25/18	Field Book # 1
		Sampler Names: RM	

Project Location: Fairbanks		Project No. 60543830	Page 3 of 4	
Location / Well ID: SB-2				
Task (circle):	Annual	Triannual (List Event in Other)	Initial Sample	Other (list) —
EQUIPMENT USED	Type of pump/equipment: ☐Grundfos ☐Peristaltic ☐QED ☐Air Bladder ☐ Bailer ☐ Other: Type of slug (for development): Pg. 1		Volume of Slug:	

METHOD OF DEVELOPMENT/PURGING ☐ Bailing ☐ Pump – Well Volume ☐ Pump – Parameter Stabilization ☐ Low flow

WATER QUALITY PARAMETERS by (a) HACH DR2400; (b) YSI 556 & 2100P Turbidimeter (c) other (describe):
Calibrated? ☐ Yes ☐ No Equipment Decontaminated? ☐ Yes ☐ No Describe:

CASING WELL VOLUME INFORMATION (circle)

Casing ID (inch)	0.75	2.0	3.0	4.0
Unit Casing Volume (A) (gal/ft)	0.023	0.16	0.37	0.65

Formula: (Diameter)^2 /÷ 24.5 = gals / ft

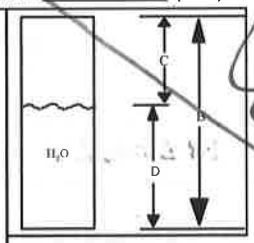
BAILER CHECK ☐ Yes ☐ No Describe:
Color: Sheen: ☐ Yes ☐ No
Odor: ☐ Yes ☐ No Describe: Free-Phase Product: ☐ Yes ☐ No
Notes:

THICKNESS OF PRODUCT (if present) Measured with: Bailer ☐ or Interface Probe ☐ Type:
Top of product (ft btoc): _____ Top of Groundwater (ft btoc): _____ Thickness of Product (ft): _____.

PURGING INFORMATION **Note: If no obvious reference, measure off north side of PVC casing and tick mark pipe.**
Measurement Reference Point: ☐ BTOC (at tick mark) ☐ BGS ☐ Bottom of "V" Notch on PVC casing
☐ Other (describe)

Depth to Top of Well Screen _____ (feet) Length of Well Screen: _____ (feet) Tubing Placement: _____ (feet)

Total Well Depth (B) _____ feet
Measured Water Level Depth (not product) [Start] (C) _____ feet
Length of Static Water Column (D) _____ (B) - _____ (C) = _____ (D) feet
Casing Water Volume _____ (A) x _____ (D) = _____ gallons



SEE PAGE 1

Conversion from Gallons to Liters: # gal x 3.784 = Liters
Three Casing Water Volumes _____ (Liters) (gallons)
Maintain pump rate at less than 1 Liters / min for low flow purging.
Maintain pump rate at less than 4 Liters/min for all other purge methods

Total Water Volume Removed _____ (Liters)
Measured Water Level Depth [End] (C) _____ feet

IMPORTANT! VERIFY UNITS AND CIRCLE APPROPRIATE VALUE FOR EACH WELL!

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
Purging Options: Purge well dry with 80% head recovery. Remove 3 casing volume equivalents; or, Low Flow – 4 parameters stabilize (with temp.) within shown limits using flow through cell; <0.3' drawdown; 50-500 ml/minute flow rate.				+/- 3% (min +/- 2%)	+/- 0.1 units	+/- 3%	NA	+/- 10%	+/- 10%	+/- 10% or less than 5 NTUs
1420	400 ml	~~10~~ 15.12	10L	7.26	6.76	533	—	0.99	47.4	3.77
1425	400ml	15.11	12L	5.81	6.75	506	—	1.11	45.0	2.78
1430	400ml	15.12	14L	6.60	6.74	515		1.14	47.3	3.19
1435	400 ml	15.11	16L	6.58	6.76	532		1.15	48.1	3.51
1440	400 ml	15.10	18L	6.21	6.74	520	—	1.18	50.2	2.72

Samplers Signature: RM Date: 5/25/18

FORM	WELL DEVELOPMENT, PURGE, & SAMPLE RECORD (Continued)	Date 5/25/18	Field Book # 1
		Sampler Names:	

Project Location: SB-2, FAIRBANKS	Project No. 20543830	Page 2 of 4

Location / Well ID:

Time	Purge Rate (L/min)	Water Level Depth (feet)	Volume Purged (Liter)	Temp (°C)	pH	Specific Cond. (µS/cm)	Salinity (ppt)	DO (mg/L)	ORP (mV)	Turbidity (NTU)

SAMPLE COLLECTION

Sample ID: SB-2						Sample Date/Time: 5/25/18 @ 1545				
1440	~~400ml 15...~~	15.10	18 L total	6.21	6.74	520	—	1.18	50.2	2.72

Additional Field Sample Parameters Analyzed in Field with Equipment/Test Kits

Analyzed Methods: Complete below.

GRO	DRO/RRO	PCB's	RCRA METALS
VOC's	PAH's		

QA/QC SAMPLES

Trip blank carried with samples?	(Yes)	No	Sample ID:	TB-1
Was a duplicate sample collected?	(Yes)	No	Sample ID:	SB-2A @ 1555
Was an equipment blank sample collected?	~~Yes~~	(No)	Sample ID:	
Was an MS/MSD sample collected?	Yes	(No)	Note on COC which sample is the MS/MSD	

Scanned and Input to Database by:		Date:
Samplers Signature:		Date: 5/25/18

ATTACHMENT 2 – QUALITY ASSURANCE / QUALITY CONTROL

Laboratory Data Review Checklist

Completed By:

Jennifer B. Garner, AECOM

Title:

Chemist

Date:

July 19, 2018

CS Report Name:

Draft Letter Report, Subsurface Soil and Groundwater Investigation. 500 Old Steese Highway, Fairbanks, Alaska, ADEC File Number 102.26.177, Hazard ID 26324

Report Date:

July 19, 2018

Consultant Firm:

AECOM

Laboratory Name:

SGS

Laboratory Report Number:

1189328

ADEC File Number:

102.26.177

Hazard Identification Number:

26324

1189328

1. Laboratory

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

   (•) Yes ( ) No Comments:

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

   ( ) Yes ( ) No Comments:

   Not applicable

2. Chain of Custody (CoC)

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

   (•) Yes ( ) No Comments:

   b. Correct Analyses requested?

   (•) Yes ( ) No Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   (•) Yes ( ) No Comments:

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

   (•) Yes ( ) No Comments:

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

   (•) Yes ( ) 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:

Not applicable

e. Data quality or usability affected?

Comments:

Not applicable. Samples were received in good condition.

4. Case Narrative

a. Present and understandable?

◉ Yes ○ No Comments:

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

◉ Yes ○ No Comments:

c. Were all corrective actions documented?

◉ Yes ○ No Comments:

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

Comments:

The results for 1,2-dibromoethane reported by EPA Method 8260C-SIM were qualified in all samples and the associated trip blank based on holding time exceedances identified in the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

◉ Yes ○ No Comments:

b. All applicable holding times met?

○ Yes ◉ No Comments:

Samples SB-3, SB-2, SB-2A (field duplicate of SB-2), and TB-1 (trip blank) were analyzed for 1,2-dibromoethane by EPA Method 8260C modified by selected ion monitoring (SIM) between 6 and 15 days past the 14-day holding time. The samples were not analyzed within the holding time due to instrument malfunction. The results for 1,2-dibromoethane in the samples indicated above were qualified as estimated and flagged 'J' if reported as detected or 'UJ' if reported as not detected. Although samples analyzed by EPA 8260C SIM were past hold times, it should be noted that all 1,2-dibromoethane non-detect results for samples analyzed within hold times for EPA Method 8260C by GC/MS were below cleanup levels.

c. All soils reported on a dry weight basis?

○ Yes ○ No Comments:

Not applicable. The samples in this data set were waters.

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

○ Yes ◉ No Comments:

With the exceptions of 1,2,3-trichloropropane, Aroclor 1221, and arsenic, all reported results were below the ADEC Cleanup Level 18 AAC 75 Amended through November 7, 2017.

It should be noted that 1,2-dibromoethane was analyzed by EPA Method 8260C as well as EPA Method 8260C-SIM. As the reporting limits for this analyte were lower for the EPA Method 8260C-SIM, the results for 1,2-dibromoethane reported by EPA Method 8260C were flagged 'DNR' for Do Not Report. The reported results for 1,2-dibromoethane were below cleanup levels for both methods used for analysis for this compound. Similarly, naphthalene was reported by EPA Method 8260C as well as EPA Method 8270D-SIM. The reporting limits for naphthalene were lower for EPA Method 8270D-SIM; therefore, the results for naphthalene reported by EPA Method 8260C were flagged 'DNR. Naphthalene results were below cleanup levels.

e. Data quality or usability affected?

○ Yes ◉ No Comments:

6. QC Samples

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:

Mercury (0.0794 ug/L) was detected in the method blank prepared on June 1, 2018, at a concentration less than the LOQ, but above the method detection limit (MDL). The concentration for mercury in SB-3 was between the LOQ and the MDL, was flagged 'J' by the laboratory, was qualified as not detected, and was flagged 'U' based on the method blank concentration. Mercury was not detected in the other samples associated with this method blank.

iii. If above LOQ, what samples are affected?

Comments:

SB-3 – See previous comment regarding the method blank detection.

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

(●) Yes ( ) No Comments:

The laboratory flagged the mercury result in SB-3 with a 'J' to indicate a concentration less than the LOQ but above the MDL. The laboratory-assigned 'J' flag was superseded by the validation-assigned 'U' qualifier.

v. Data quality or usability affected?

Comments:

The result for mercury in SB-3 is usable with the validation-assigned qualification.

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:

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:

No project samples were used for MS/MSD analysis. LCS/LCSD RPDs were acceptable, where applicable.

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

Comments:

Not applicable

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

○ Yes ○ No Comments:

Not applicable

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

Comments:

Not applicable

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:

1,2-Dibromoethane by EPA Method 8260C-SIM - The percent recoveries for the surrogate 4-bromofluorobenzene in SB-3 (38.2%) and the LCS associated with analytical batch VXX32415 (75.0%) were below the control limits of 85-114%. This surrogate is not associated with the reported compound, 1,2-dibromoethane; therefore, no data were qualified based on these surrogate recoveries.

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

○ Yes ◉ No Comments:

As noted in the previous comment, no sample results were qualified based on surrogate recoveries.

iv. Data quality or usability affected?

Comments:

As described above, data quality and usability were not impacted by these surrogate outliers.

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

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

(•) Yes ( ) No Comments:

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

(•) Yes ( ) No Comments:

iii. All results less than LOQ?

( ) Yes (•) No Comments:

o-Xylene (0.770 ug/L), m,p-xylene (1.00 ug/L), and toluene (2.40 ug/L) were detected in the trip blank associated with this sample set. The concentrations for o-xylene and m,p-xylene were between the LOQs and the MDLs.

iv. If above LOQ, what samples are affected?

Comments:

o-Xylene, m,p-xylene, and toluene were not detected in the samples associated with this trip blank.

v. Data quality or usability affected?

Comments:

As o-xylene, m,p-xylene, and toluene were not detected in the samples associated with this trip blank, no data were qualified based on the trip blank results.

e. Field Duplicate

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

(•) Yes ( ) No Comments:

A field duplicate was collected at SB-2 and identified as SB-2A.

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: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

◉ Yes ○ No Comments:

RPDs for field duplicates were evaluated when the concentrations were more than five times (5x) the LOQs. All applicable field duplicate RPDs were less than 30%.

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

Comments:

As all applicable field duplicate RPDs were less than 30%, no data were qualified based on field duplicate precision.

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:

Not applicable

ii. If above LOQ, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected?

Comments:

Not applicable

1189328

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

   a. Defined and appropriate?

   (•) Yes ( ) No Comments:

Laboratory Data Review Checklist

Completed By:

Jennifer B. Garner, AECOM

Title:

Chemist

Date:

July 18, 2018

CS Report Name:

Draft Letter Report, Subsurface Soil and Groundwater Investigation. 500 Old Steese Highway, Fairbanks, Alaska, ADEC File Number 102.26.177, Hazard ID 26324

Report Date:

July 19, 2018

Consultant Firm:

AECOM

Laboratory Name:

SGS

Laboratory Report Number:

1189325

ADEC File Number:

102.26.177

Hazard Identification Number:

26324

1189325

1. Laboratory

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

   ◉ Yes ○ No Comments:

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

   ○ Yes ○ No Comments:

   Not applicable

2. Chain of Custody (CoC)

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

   ◉ Yes ○ No Comments:

   b. Correct Analyses requested?

   ◉ Yes ○ No Comments:

3. Laboratory Sample Receipt Documentation

   a. Sample/cooler temperature documented and within range at receipt (0° to 6° C)?

   ◉ Yes ○ No Comments:

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

   ◉ Yes ○ No Comments:

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

   ◉ Yes ○ 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:

Not applicable

e. Data quality or usability affected?

Comments:

Not applicable. Samples were received in good condition.

4. Case Narrative

a. Present and understandable?

● Yes ○ No Comments:

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

● Yes ○ No Comments:

c. Were all corrective actions documented?

● Yes ○ No Comments:

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

Comments:

No results were qualified based on discrepancies, errors, or QC failures identified in the case narrative.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

● Yes ○ No Comments:

b. All applicable holding times met?

● Yes ○ 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:

With the exceptions of 1,2,3-trichloropropane, 1,2-dibromoethane, arsenic, and hexavalent chromium, all results were less than Cleanup Levels for Migration to Groundwater, Tables B1 and B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone. It should be noted that all chromium results were reported as total chromium; therefore, hexavalent chromium concentrations cannot be determined.

It should be noted that 1,1,2,2-tetrachloroethane, 1,1,2-trichloroethane, 1,2,3-trichloropropane, 1,2-dibromoethane, 1,2-dichloroethane, bromodichloromethane, bromomethane, chloroform, dibromochloromethane, trichloroethene, and vinyl chloride were analyzed by EPA Method 8260C as well as EPA Method 8260C modified for low-level with methanol. As the reporting limits for these analytes were lower for the low-level EPA Method 8260C analyses, the results for the compounds reported by EPA Method 8260C were flagged 'DNR' for Do Not Report. Similarly, naphthalene was reported by EPA Method 8260C as well as EPA Method 8270D-SIM. The reporting limits for naphthalene were lower for EPA Method 8270D-SIM; therefore, the results for naphthalene reported by EPA Method 8260C were flagged 'DNR.'

e. Data quality or usability affected?

○ Yes ◉ No Comments:

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:

iii. If above LOQ, what samples are affected?

Comments:

iv. Data quality or usability affected?

Comments:

No

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

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

(●) Yes ( ) No 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:

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:

No project samples were used for MS/MSD analysis. LCS/LCSD RPDs were acceptable, where applicable.

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

Comments:

Not applicable

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

○ Yes ○ No Comments:

Not applicable

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

Comments:

No

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:

PAHs by EPA Method 8270D-SIM - The percent recoveries for the surrogate 2-methylnaphthalene-d10 in the method blank (108%), the MS (115%), and the MSD (120%) associated with analytical batch XXX39582 exceeded the control limits of 58-103%. The percent recovery for the surrogate fluoranthene-d10 in the method blank (120%) reported in this batch also exceeded the control limits of 54-113%. No data were qualified based on surrogate recoveries in QC samples.

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

○ Yes ◉ No Comments:

All surrogate recoveries in project samples were within the applicable control limits.

iv. Data quality or usability affected?

Comments:

As described above, data quality and usability were not impacted by these surrogate outliers.

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

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

◉ Yes ○ No Comments:

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

(•) Yes ( ) No Comments:

iii. All results less than LOQ?

(•) Yes ( ) No Comments:

Chloroform (0.753 ug/kg) was detected in the trip blank submitted with this sample set at a concentration less than the LOQ and above the method detection limit (MDL). The concentrations for chloroform in SB-2A-14.5, SB-3-14.5, and SB-3A-14.5 were between the LOQs and the MDLs; therefore, the results for chloroform in these samples were qualified as not detected and flagged 'U' at the reporting limits.

iv. If above LOQ, what samples are affected?

Comments:

SB-2A-14.5, SB-3-14.5, and SB-3A-14.5 – See previous comment regarding qualifiers assigned to the results for chloroform in these samples.

v. Data quality or usability affected?

Comments:

The results for chloroform in SB-2A-14.5, SB-3-14.5, and SB-3A-14.5 were qualified as not detected and flagged 'U' at the reporting limits.

e. Field Duplicate

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

(•) Yes ( ) No Comments:

Field duplicates were collected at SB-2-14.5 and SB-3-14.5 and identified as SB-2A-14.5 and SB-3-14.5, respectively.

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: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

○ Yes ○ No Comments:

RPDs for field duplicates were evaluated when the concentrations were more than five times (5x) the LOQs. The RPD for barium (53%) for the parent sample/field duplicate pair SB-2-14.5/ SB-2A-14.5 was more than 50%.

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

Comments:

The results for barium in SB-2-14.5 and SB-2A-14.5 were qualified as estimated.

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:

Not applicable

ii. If above LOQ, what samples are affected?

Comments:

Not applicable

iii. Data quality or usability affected?

Comments:

Not applicable

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

a. Defined and appropriate?

◉ Yes ○ No Comments:

ATTACHMENT 3 – ADEC CORRESPONDENCE

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites and Prevention and Emergency Response Programs

Transport, Treatment, & Disposal Approval Form for Contaminated Media

DEC HAZARD/SPILL ID #	NAME OF SPILL OR CONTAMINATED SITE	
102.26.177	Safeway Fueling Station, 500 Old Steese Highway	
SITE OR SPILL LOCATION		
500 Old Steese Highway - Fairbanks, Alaska		
CURRENT LOCATION AND TYPE OF CONTAMINATED MEDIA		**SOURCE OF THE CONTAMINATION**
On-site; soil cuttings and monitoring well purgewater		Waste Oil Tank
COMPOUNDS OF CONCERN	**ESTIMATED VOLUME**	**DATE(S) GENERATED**
Naturally Occurring Arsenic	See comments	May 2018
POST TREATMENT ANALYSIS REQUIRED *(such as GRO, DRO, RRO, BTEX, and/or Chlorinated Solvents)*		
None		
COMMENTS		
With the exception of naturally occurring arsenic, all compounds analyzed (VOCs; PAHs, GRO,DRO, RRO, RCRA Metals, and PCBs) were below the most stringent migration to groundwater ADEC cleanup levels for soil and human health groundwater cleanup levels per 18 AAC 75 Tables B1 and B2 (soil) and Table C (groundwater).		

Facility Accepting the Contaminated Media

NAME OF THE FACILITY	PHYSICAL ADDRESS/PHONE NUMBER
On-site or OIT and/or NRC	500 Old Steese Hwy (site); 2355 Richardson Hwy, North Pole, AK 99705 (OIT); Anchorage and/or Fairbanks (NRC)

Responsible Party and Contractor Information

BUSINESS/NAME	ADDRESS/PHONE NUMBER
Albertsons/ Jane Anderson	250 East Parkcenter Boulevard PO Box 20 Boise, ID 83706 (jane.anderson@albertsons.com)
AECOM/ Paul Myerchin	700 G St. Suite 500 Anchorage, AK 99501 (907-261-6785; 907-351-9934)

PAUL MYERCHIN
Name of the Person Requesting Approval (printed)

GEOLOGIST-QUALIFIED ENV. PROFESSIONAL (AECOM)
Title/Association

Signature

7-18-18
Date

907-351-9934
Phone Number

----------DEC USE ONLY----------

Based on the information provided, ADEC approves transport of the above-described media for treatment in accordance with the approved facility operations plan. The Responsible Party or their consultant must submit to the DEC Project Manager a copy of weight/volume receipts of the loads transported to the facility and a post treatment analytical report. If the media is contaminated soil, it shall be transported as a covered load in compliance with 18 AAC 60.015.

DEC Project Manager Name (printed)

Project Manager Title

Signature

Date

Phone Number

Myerchin, Paul

From: Jacobs, Laura L (DEC) <laura.jacobs@alaska.gov>
Sent: Wednesday, July 18, 2018 2:05 PM
To: Myerchin, Paul
Cc: Parker, Elizabeth; Burrus, Marianne; Jacobs, Laura L (DEC)
Subject: RE: Request to Transport Soil and Groundwater IDW off-site

Paul,
ADEC, Contaminated Sites Program has reviewed the draft groundwater and soil sample results in relation to your request to dispose of IDW from the June 2018 sample event. ADEC agrees that the IDW soils and groundwater can be disposed of on site. The arsenic levels, although above ADEC clean up levels for both Human Health and Groundwater, are within the range of values documented in past studies of background metals within the state and in the interior of Alaska. Thank you, Laura

Laura Jacobs
Environmental Program Specialist
DEC-Contaminated Sites
610 University Avenue
Fairbanks, AK 99709
(907) 451-2911

From: Myerchin, Paul [mailto:paul.myerchin@aecom.com]
Sent: Wednesday, July 18, 2018 10:12 AM
To: Jacobs, Laura L (DEC) <laura.jacobs@alaska.gov>
Cc: Parker, Elizabeth <elizabeth.parker@aecom.com>; Burrus, Marianne <marianne.burrus@aecom.com>
Subject: Request to Transport Soil and Groundwater IDW off-site

Laura,

I have attached a completed soil transport form to dispose of IDW generated at the Albertsons Facility at 500 Old Steese Highway (ADEC File No. 102.26.177). I have also attached a complete summary table for all soil and groundwater analyses for comparison. In summary all of the compounds analyzed were below applicable ADEC cleanup levels with the exception of arsenic in soil and groundwater. The arsenic concentrations are considered to be naturally occurring per ADEC Technical Memorandum, Arsenic in Soil, dated March 2009.

ATTACHMENT 4 – CONCEPTUAL SITE MODEL

HUMAN HEALTH CONCEPTUAL SITE MODEL GRAPHIC FORM

Site: Safeway Fuel Center #3410
500 Old Steese Highway - Fairbanks, Alaska

Completed By: Paul Myerchin
Date Completed: 7/18/2018

***Instructions*: Follow the numbered directions below. Do not consider contaminant concentrations or engineering/land use controls when describing pathways.**

(1)
Check the media that could be directly affected by the release.

(2)
For each medium identified in (1), follow the top arrow and check possible transport mechanisms. Check additional media under (1) if the media acts as a secondary source.

Media / **Transport Mechanisms**

- ☐ **Surface Soil (0-2 ft bgs)**
  - Direct release to surface soil — check soil
  - ☐ Migration to subsurface — check soil
  - ☐ Migration to groundwater — check groundwater
  - ☐ Volatilization — check air
  - ☐ Runoff or erosion — check surface water
  - ☐ Uptake by plants or animals — check biota
  - ☐ Other (list):
- ☑ **Subsurface Soil (2-15 ft bgs)**
  - Direct release to subsurface soil — check soil
  - ☑ Migration to groundwater — check groundwater
  - ☐ Volatilization — check air
  - ☐ Uptake by plants or animals — check biota
  - ☐ Other (list):
- ☑ **Ground-water**
  - Direct release to groundwater — check groundwater
  - ☐ Volatilization — check air
  - ☐ Flow to surface water body — check surface water
  - ☐ Flow to sediment — check sediment
  - ☐ Uptake by plants or animals — check biota
  - ☐ Other (list):
- ☐ **Surface Water**
  - Direct release to surface water — check surface water
  - ☐ Volatilization — check air
  - ☐ Sedimentation — check sediment
  - ☐ Uptake by plants or animals — check biota
  - ☐ Other (list):
- ☐ **Sediment**
  - Direct release to sediment — check sediment
  - ☐ Resuspension, runoff, or erosion — check surface water
  - ☐ Uptake by plants or animals — check biota
  - ☐ Other (list):

(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.*

(5)
Identify the receptors potentially affected by each exposure pathway: Enter "C" for current receptors, "F" for future receptors, "C/F" for both current and future receptors, or "I" for insignificant exposure.

Current & Future Receptors

Exposure Media	Exposure Pathway/Route	Residents (adults or children)	Commercial or industrial workers	Site visitors, trespassers, or recreational users	Construction workers	Farmers or subsistence harvesters	Subsistence consumers	Other
☑ soil	☐ Incidental Soil Ingestion							
	☑ Dermal Absorption of Contaminants from Soil	I	I	I	I	I	I	I
	☐ Inhalation of Fugitive Dust							
☑ groundwater	☐ Ingestion of Groundwater							
	☑ Dermal Absorption of Contaminants in Groundwater	I	I	I	I	C/F	I	I
	☐ Inhalation of Volatile Compounds in Tap Water							
☐ air	☐ Inhalation of Outdoor Air							
	☐ Inhalation of Indoor Air							
	☐ Inhalation of Fugitive Dust							
☐ surface water	☐ Ingestion of Surface Water							
	☐ Dermal Absorption of Contaminants in Surface Water							
	☐ Inhalation of Volatile Compounds in Tap Water							
☐ sediment	☐ Direct Contact with Sediment							
☐ biota	☐ Ingestion of Wild or Farmed Foods							

Revised, 10/01/2010

ATTACHMENT 5 – LABORATORY DATA PACKAGES

Summarized Soil and Groundwater Results

Notes:
1) Red shaded cells exceed media applicable cleanup level
2) Orange shaded cells indicate result is greater than CL

Analysis	Analyte	Unit	Job Code:	1189325	1189325	1189325	1189325	**Applicable ADEC Cleanup Levels**	1189328	1189328	1189328	1189328
			Client Sample Id:	SB-2-14.5	SB-2A-14.5	SB-3-14.5	SB-3A-14.5		SB-3	SB-2	SB-2A	TB-1
			Lab Sample Id:	1189325001	1189325002	1189325003	1189325004	**Soil** - 18 AAC 75, Migration to Groundwater, Tables B1 and B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone	1189328001	1189328002	1189328003	1189328004
			Matrix:	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)		Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)
			Location:	N/A	N/A	N/A	N/A		N/A	N/A	N/A	FieldQC
			Date Sampled:	2018/05/23 17:25:00	2018/05/23 17:26:00	2018/05/24 11:27:00	2018/05/24 11:30:00	**Water -** 18 AAC 75, Table C Human Health	2018/05/25 12:15:00	2018/05/25 15:45:00	2018/05/25 15:55:00	2018/05/25 08:00:00
8270D SIM (PAH)	1-Methylnaphthalene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	330				
8270D SIM (PAH)	1-Methylnaphthalene	ug/L						11	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	2-Methylnaphthalene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	1,300				
8270D SIM (PAH)	2-Methylnaphthalene	ug/L						36	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Acenaphthene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	37,000				
8270D SIM (PAH)	Acenaphthene	ug/L						530	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Acenaphthylene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	18,000				
8270D SIM (PAH)	Acenaphthylene	ug/L						260	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Anthracene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	390,000				
8270D SIM (PAH)	Anthracene	ug/L						43	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Benzo(a)Anthracene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	280				
8270D SIM (PAH)	Benzo(a)Anthracene	ug/L						0.12	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Benzo[a]pyrene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	270				
8270D SIM (PAH)	Benzo[a]pyrene	ug/L						0.034	0.00259 U	0.00263 U	0.00261 U	
8270D SIM (PAH)	Benzo[b]Fluoranthene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	2,700				
8270D SIM (PAH)	Benzo[b]Fluoranthene	ug/L						0.34	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Benzo[g,h,i]perylene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	15,000,000				
8270D SIM (PAH)	Benzo[g,h,i]perylene	ug/L						0.26	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Benzo[k]fluoranthene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	27,000				
8270D SIM (PAH)	Benzo[k]fluoranthene	ug/L						0.8	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Chrysene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	82,000				
8270D SIM (PAH)	Chrysene	ug/L						2	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Dibenzo[a,h]anthracene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	870				
8270D SIM (PAH)	Dibenzo[a,h]anthracene	ug/L						0.034	0.00259 U	0.00263 U	0.00261 U	
8270D SIM (PAH)	Fluoranthene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	590,000				
8270D SIM (PAH)	Fluoranthene	ug/L						260	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Fluorene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	36,000				
8270D SIM (PAH)	Fluorene	ug/L						290	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Indeno[1,2,3-c,d] pyrene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	8,800				
8270D SIM (PAH)	Indeno[1,2,3-c,d] pyrene	ug/L						0.19	0.00650 U	0.00660 U	0.00650 U	
8270D SIM (PAH)	Naphthalene	ug/Kg		10.1 U	10.1 U	10.2 U	10.7 U	38				
8270D SIM (PAH)	Naphthalene	ug/L						1.7	0.0130 U	0.0334	0.0396	
8270D SIM (PAH)	Phenanthrene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	39,000				
8270D SIM (PAH)	Phenanthrene	ug/L						170	0.0259 U	0.0263 U	0.0261 U	
8270D SIM (PAH)	Pyrene	ug/Kg		12.6 U	12.6 U	12.8 U	13.4 U	87,000				
8270D SIM (PAH)	Pyrene	ug/L						120	0.0259 U	0.0263 U	0.0261 U	
AK101	Gasoline Range Organics	mg/Kg		1.83 J	1.79 U	1.43 U	1.37 U	300				
AK101	Gasoline Range Organics	mg/L						2200	0.0500 U	0.0500 U	0.0500 U	0.0500 U
AK102/103	Diesel Range Organics	mg/Kg		7.16 J	10.2 U	10.4 U	10.7 U	250				
AK102/103	Residual Range Organics	mg/Kg		10.2 U	10.2 U	10.4 U	6.64 J	11,000				
AK102/103 LV	Diesel Range Organics	mg/L						1500	0.301 J	0.922	0.929	
AK102/103 LV	Residual Range Organics	mg/L						1100	0.247 U	0.363 J	0.370 J	
SM21 2540G	Total Solids	%		97.5	98.3	96.1	93.1					
SW6020A	Arsenic	mg/Kg		1.80	2.18	2.74	3.29	0.2				
SW6020A	Arsenic	ug/L						0.52	2.50 U	2.36 J	2.23 J	
SW6020A	Barium	mg/Kg		53.3	30.9	62.0	47.4	2,100				
SW6020A	Barium	ug/L						3800	96.1	92.6	91.1	
SW6020A	Cadmium	mg/Kg		0.102 U	0.0935 U	0.102 U	0.0629 J	9.1				
SW6020A	Cadmium	ug/L						9.2	1.00 U	1.00 U	1.00 U	
SW6020A	Chromium	mg/Kg		8.69	7.39	10.3	11.8	$1x10^5$ / 0.089				
SW6020A	Chromium	ug/L						22,000 / 0.35	2.00 U	2.00 U	2.00 U	
SW6020A	Lead	mg/Kg		2.73	2.84	3.41	3.40	400				
SW6020A	Lead	ug/L						15	0.500 U	0.500 U	0.500 U	
SW6020A	Mercury	mg/Kg		0.0204 U	0.0187 U	0.0204 U	0.0157 J	0.36				
SW6020A	Mercury	ug/L						0.52	0.0713 J	0.100 U	0.100 U	
SW6020A	Selenium	mg/Kg		0.510 U	0.469 U	0.510 U	0.505 U	6.9				
SW6020A	Selenium	ug/L						100	10.0 U	10.0 U	10.0 U	
SW6020A	Silver	mg/Kg		0.102 U	0.0935 U	0.102 U	0.102 U	11				
SW6020A	Silver	ug/L						94	1.00 U	1.00 U	1.00 U	
SW8082A	Aroclor-1016	ug/Kg		25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1016	ug/L						0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8082A	Aroclor-1221	ug/Kg		102 U	101 U	103 U	106 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1221	ug/L						0.5 (total Aroclors)	0.540 U	0.510 U	0.525 U	

Summarized Soil and Groundwater Results

Notes:
1) Red shaded cells exceed media applicable cleanup level
2) Orange shaded cells indicate result is greater than CL

		Job Code:	1189325	1189325	1189325	1189325	**Applicable ADEC Cleanup Levels**	1189328	1189328	1189328	1189328
		Client Sample Id:	SB-2-14.5	SB-2A-14.5	SB-3-14.5	SB-3A-14.5		SB-3	SB-2	SB-2A	TB-1
		Lab Sample Id:	1189325001	1189325002	1189325003	1189325004	**Soil** - 18 AAC 75, Migration to Groundwater, Tables B1 and B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone	1189328001	1189328002	1189328003	1189328004
		Matrix:	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)		Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)
		Location:	N/A	N/A	N/A	N/A		N/A	N/A	N/A	FieldQC
		Date Sampled:	2018/05/23 17:25:00	2018/05/23 17:26:00	2018/05/24 11:27:00	2018/05/24 11:30:00	**Water -** 18 AAC 75, Table C Human Health	2018/05/25 12:15:00	2018/05/25 15:45:00	2018/05/25 15:55:00	2018/05/25 08:00:00
SW8082A	Aroclor-1232	ug/Kg	25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1232	ug/L					0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8082A	Aroclor-1242	ug/Kg	25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1242	ug/L					0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8082A	Aroclor-1248	ug/Kg	25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1248	ug/L					0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8082A	Aroclor-1254	ug/Kg	25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1254	ug/L					0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8082A	Aroclor-1260	ug/Kg	25.6 U	25.3 U	25.8 U	26.4 U	1,000 (total Aroclors)				
SW8082A	Aroclor-1260	ug/L					0.5 (total Aroclors)	0.0540 U	0.0510 U	0.0525 U	
SW8260C	1,1,1,2-Tetrachloroethane	ug/Kg	15.4 U	14.3 U	11.4 U	10.9 U	22				
SW8260C	1,1,1,2-Tetrachloroethane	ug/L					5.7	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	1,1,1-Trichloroethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	32,000				
SW8260C	1,1,1-Trichloroethane	ug/L					8,000	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,1,2,2-Tetrachloroethane	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	3				
SW8260C	1,1,2,2-Tetrachloroethane	ug/L					5.7	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	1,1,2-Trichloroethane	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	1.4				
SW8260C	1,1,2-Trichloroethane	ug/L					0.41	0.200 U	0.200 U	0.200 U	0.200 U
SW8260C	1,1-Dichloroethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	92				
SW8260C	1,1-Dichloroethane	ug/L					28	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,1-Dichloroethene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	1,200				
SW8260C	1,1-Dichloroethene	ug/L					280	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,1-Dichloropropene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	None				
SW8260C	1,1-Dichloropropene	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2,3-Trichlorobenzene	ug/Kg	38.5 U	35.8 U	28.6 U	27.3 U	150				
SW8260C	1,2,3-Trichlorobenzene	ug/L					7	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2,3-Trichloropropane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	0.031				
SW8260C	1,2,3-Trichloropropane	ug/L					0.0075	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2,4-Trichlorobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	82				
SW8260C	1,2,4-Trichlorobenzene	ug/L					4	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2,4-Trimethylbenzene	ug/Kg	38.5 U	35.8 U	28.6 U	27.3 U	160				
SW8260C	1,2,4-Trimethylbenzene	ug/L					15	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2-Dibromo-3-chloropropane	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	None				
SW8260C	1,2-Dibromo-3-chloropropane	ug/L					None	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	1,2-Dibromoethane	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	0.24				
SW8260C	1,2-Dibromoethane	ug/L					0.075	0.0375 U	0.0375 U	0.0375 U	0.0375 U
SW8260C	1,2-Dichlorobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	2,400				
SW8260C	1,2-Dichlorobenzene	ug/L					300	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,2-Dichloroethane	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	5.5				
SW8260C	1,2-Dichloroethane	ug/L					1.7	0.240 J	0.340 J	0.390 J	0.250 U
SW8260C	1,2-Dichloropropane	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	16				
SW8260C	1,2-Dichloropropane	ug/L					4.4	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,3,5-Trimethylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	1,300				
SW8260C	1,3,5-Trimethylbenzene	ug/L					120	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,3-Dichlorobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	2,300				
SW8260C	1,3-Dichlorobenzene	ug/L					300	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	1,3-Dichloropropane	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	18				
SW8260C	1,3-Dichloropropane	ug/L					None	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	1,4-Dichlorobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	37				
SW8260C	1,4-Dichlorobenzene	ug/L					4.8	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	2,2-Dichloropropane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	None				
SW8260C	2,2-Dichloropropane	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	2-Butanone (MEK)	ug/Kg	193 U	179 U	143 U	137 U	15,000				
SW8260C	2-Butanone (MEK)	ug/L					5,600	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	2-Chlorotoluene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	None				
SW8260C	2-Chlorotoluene	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	2-Hexanone	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	110				
SW8260C	2-Hexanone	ug/L					38	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	4-Chlorotoluene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	None				
SW8260C	4-Chlorotoluene	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	4-Isopropyltoluene	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	None				
SW8260C	4-Isopropyltoluene	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	4-Methyl-2-pentanone (MIBK)	ug/Kg	193 U	179 U	143 U	137 U	18,000				
SW8260C	4-Methyl-2-pentanone (MIBK)	ug/L					6,300	5.00 U	5.00 U	5.00 U	5.00 U

Summarized Soil and Groundwater Results

Notes:
1) Red shaded cells exceed media applicable cleanup level
2) Orange shaded cells indicate result is greater than CL

		Job Code:	1189325	1189325	1189325	1189325	**Applicable ADEC Cleanup Levels**	1189328	1189328	1189328	1189328
		Client Sample Id:	SB-2-14.5	SB-2A-14.5	SB-3-14.5	SB-3A-14.5		SB-3	SB-2	SB-2A	TB-1
		Lab Sample Id:	1189325001	1189325002	1189325003	1189325004	**Soil** - 18 AAC 75, Migration to Groundwater, Tables B1 and B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone	1189328001	1189328002	1189328003	1189328004
		Matrix:	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)		Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)
		Location:	N/A	N/A	N/A	N/A		N/A	N/A	N/A	FieldQC
		Date Sampled:	2018/05/23 17:25:00	2018/05/23 17:26:00	2018/05/24 11:27:00	2018/05/24 11:30:00	**Water -** 18 AAC 75, Table C Human Health	2018/05/25 12:15:00	2018/05/25 15:45:00	2018/05/25 15:55:00	2018/05/25 08:00:00
SW8260C	Benzene	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	22				
SW8260C	Benzene	ug/L					4.6	0.200 U	3.53	4.57	0.200 U
SW8260C	Bromobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	360				
SW8260C	Bromobenzene	ug/L					62	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Bromochloromethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	None				
SW8260C	Bromochloromethane	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Bromodichloromethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	4.3				
SW8260C	Bromodichloromethane	ug/L					1.3	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	Bromoform	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	100				
SW8260C	Bromoform	ug/L					33	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Bromomethane	ug/Kg	154 U	143 U	114 U	109 U	24				
SW8260C	Bromomethane	ug/L					7.5	2.50 U	2.50 U	2.50 U	2.50 U
SW8260C	Carbon disulfide	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	2,900				
SW8260C	Carbon disulfide	ug/L					810	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	Carbon tetrachloride	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	21				
SW8260C	Carbon tetrachloride	ug/L					4.6	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Chlorobenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	460				
SW8260C	Chlorobenzene	ug/L					78	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	Chloroethane	ug/Kg	154 U	143 U	114 U	109 U	None				
SW8260C	Chloroethane	ug/L					None	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Chloroform	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	7.1				
SW8260C	Chloroform	ug/L					2.2	0.940 J	1.32	0.950 J	0.500 U
SW8260C	Chloromethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	610				
SW8260C	Chloromethane	ug/L					190	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Dibromochloromethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	2.7				
SW8260C	Dibromochloromethane	ug/L					8.7	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	Dibromomethane	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	25				
SW8260C	Dibromomethane	ug/L					8.3	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Dichlorodifluoromethane	ug/Kg	38.5 U	35.8 U	28.6 U	27.3 U	3,900				
SW8260C	Dichlorodifluoromethane	ug/L					200	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Ethylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	130				
SW8260C	Ethylbenzene	ug/L					15	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Freon-113	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	None				
SW8260C	Freon-113	ug/L					None	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	Hexachlorobutadiene	ug/Kg	15.4 U	14.3 U	11.4 U	10.9 U	20				
SW8260C	Hexachlorobutadiene	ug/L					1.4	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Isopropylbenzene (Cumene)	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	5,600				
SW8260C	Isopropylbenzene (Cumene)	ug/L					450	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Methyl-t-butyl ether	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	400				
SW8260C	Methyl-t-butyl ether	ug/L					140	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	Methylene chloride	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	330				
SW8260C	Methylene chloride	ug/L					110	2.50 U	2.50 U	2.50 U	2.50 U
SW8260C	Naphthalene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	38				
SW8260C	Naphthalene	ug/L					1.7	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	P & M -Xylene	ug/Kg	38.5 U	35.8 U	28.6 U	27.3 U	1,500 (total)				
SW8260C	P & M -Xylene	ug/L					190 (total)	1.00 U	1.00 U	1.00 U	1.00 J
SW8260C	Styrene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	10,000				
SW8260C	Styrene	ug/L					1,200	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	Tetrachloroethene	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	190				
SW8260C	Tetrachloroethene	ug/L					41	0.500 U	0.430 J	0.400 J	0.500 U
SW8260C	Toluene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	6,700				
SW8260C	Toluene	ug/L					1,100	0.500 U	0.500 U	0.500 U	2.40
SW8260C	Trichloroethene	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	11				
SW8260C	Trichloroethene	ug/L					2.8	0.360 J	0.370 J	0.430 J	0.500 U
SW8260C	Trichlorofluoromethane	ug/Kg	38.5 U	35.8 U	28.6 U	27.3 U	41,000				
SW8260C	Trichlorofluoromethane	ug/L					5,200	9.92	7.24	8.19	0.500 U
SW8260C	Vinyl acetate	ug/Kg	77.0 U	71.5 U	57.0 U	54.5 U	1,100				
SW8260C	Vinyl acetate	ug/L					410	5.00 U	5.00 U	5.00 U	5.00 U
SW8260C	Vinyl chloride	ug/Kg	7.70 U	7.15 U	5.70 U	5.45 U	0.8				
SW8260C	Vinyl chloride	ug/L					0.19	0.0750 U	0.0750 U	0.0750 U	0.0750 U
SW8260C	Xylenes (total)	ug/Kg	57.5 U	53.5 U	42.9 U	41.0 U	1,500				
SW8260C	Xylenes (total)	ug/L					190 (total)	1.50 U	1.50 U	1.50 U	1.77 J
SW8260C	cis-1,2-Dichloroethene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	120				
SW8260C	cis-1,2-Dichloroethene	ug/L					36	0.500 U	0.500 U	0.340 J	0.500 U

Summarized Soil and Groundwater Results

Notes:
1) Red shaded cells exceed media applicable cleanup level
2) Orange shaded cells indicate result is greater than CL

		Job Code:	1189325	1189325	1189325	1189325	**Applicable ADEC Cleanup Levels**	1189328	1189328	1189328	1189328
		Client Sample Id:	SB-2-14.5	SB-2A-14.5	SB-3-14.5	SB-3A-14.5		SB-3	SB-2	SB-2A	TB-1
		Lab Sample Id:	1189325001	1189325002	1189325003	1189325004	**Soil** - 18 AAC 75, Migration to Groundwater, Tables B1 and B2. Method Two - Petroleum Hydrocarbon Soil Cleanup Levels, Under 40 Inch Zone	1189328001	1189328002	1189328003	1189328004
		Matrix:	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)	Soil/Solid (dry weight)		Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)	Water (Surface, Eff., Ground)
		Location:	N/A	N/A	N/A	N/A		N/A	N/A	N/A	FieldQC
		Date Sampled:	2018/05/23 17:25:00	2018/05/23 17:26:00	2018/05/24 11:27:00	2018/05/24 11:30:00	**Water -** 18 AAC 75, Table C Human Health	2018/05/25 12:15:00	2018/05/25 15:45:00	2018/05/25 15:55:00	2018/05/25 08:00:00
SW8260C	cis-1,3-Dichloropropene	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	18				
SW8260C	cis-1,3-Dichloropropene	ug/L					4.7	0.250 U	0.250 U	0.250 U	0.250 U
SW8260C	n-Butylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	23,000				
SW8260C	n-Butylbenzene	ug/L					1,000	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	n-Propylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	9,100				
SW8260C	n-Propylbenzene	ug/L					660	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	o-Xylene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	1,500				
SW8260C	o-Xylene	ug/L					190 (total)	0.500 U	0.500 U	0.500 U	0.770 J
SW8260C	sec-Butylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	42,000				
SW8260C	sec-Butylbenzene	ug/L					2,000	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	tert-Butylbenzene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	11,000				
SW8260C	tert-Butylbenzene	ug/L					690	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C	trans-1,2-Dichloroethene	ug/Kg	19.3 U	17.9 U	14.3 U	13.7 U	1,300				
SW8260C	trans-1,2-Dichloroethene	ug/L					360	0.410 J	0.500 U	0.500 U	0.500 U
SW8260C	trans-1,3-Dichloropropene	ug/Kg	9.60 U	8.95 U	7.15 U	6.85 U	18				
SW8260C	trans-1,3-Dichloropropene	ug/L					4.7	0.500 U	0.500 U	0.500 U	0.500 U
SW8260C LL w/MeOH	1,1,2,2-Tetrachloroethane	ug/Kg	1.54 U	1.43 U	1.14 U	1.09 U	22				
SW8260C LL w/MeOH	1,1,2-Trichloroethane	ug/Kg	0.615 U	0.575 U	0.457 U	0.437 U	1.4				
SW8260C LL w/MeOH	1,2,3-Trichloropropane	ug/Kg	0.770 U	0.715 U	0.570 U	0.545 U	0.031				
SW8260C LL w/MeOH	1,2-Dibromoethane	ug/Kg	0.385 U	0.358 U	0.285 U	0.273 U	0.24				
SW8260C LL w/MeOH	1,2-Dichloroethane	ug/Kg	1.54 U	1.43 U	1.14 U	1.09 U	5.5				
SW8260C LL w/MeOH	Bromodichloromethane	ug/Kg	1.54 U	1.43 U	1.14 U	1.09 U	4.3				
SW8260C LL w/MeOH	Bromomethane	ug/Kg	15.4 U	14.3 U	11.4 U	10.9 U	24				
SW8260C LL w/MeOH	Chloroform	ug/Kg	1.54 U	1.07 J	0.857 J	0.819 J	7.1				
SW8260C LL w/MeOH	Dibromochloromethane	ug/Kg	1.54 U	1.43 U	1.14 U	1.09 U	2.7				
SW8260C LL w/MeOH	Trichloroethene	ug/Kg	3.85 U	3.58 U	2.86 U	2.73 U	11				
SW8260C LL w/MeOH	Vinyl chloride	ug/Kg	0.615 U	0.575 U	0.457 U	0.437 U	0.8				
SW8260C-SIM	1,2-Dibromoethane	ug/L					0.075	0.00250 U	0.0123	0.0141	0.00250 U
		Sample Comments									

Client Sample Id	Lab Sample Id	Comments
SB-2	1189328002	8260 SIM For EDB - Sample was analyzed past hold time.
SB-2A	1189328003	8260 SIM For EDB - Sample was analyzed past hold time.
SB-3	1189328001	8260 SIM - Surrogate recovery for 4-bromofluorobenzene (38.2%) does not meet QC criteria. No compounds associated with this surrogate were reported.8260 SIM For EDB - Sample was analyzed past hold time.
TB-1	1189328004	8260 SIM For EDB - Sample was analyzed past hold time.

Laboratory Report of Analysis

To: AECOM Environmental
700 G St. Ste. 500
Anchorage, AK 99501
(907)261-6785

Report Number: **1189325**

Client Project: **Albertsons Fairbanks UST**

Dear Paul Myerchin,

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

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

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

Sincerely,
SGS North America Inc.

Chuck Homestead Date
Project Manager
Charles.Homestead@sgs.com

Print Date: 06/18/2018 3:34:04PM

Case Narrative

SGS Client: **AECOM Environmental**
SGS Project: **1189325**
Project Name/Site: **Albertsons Fairbanks UST**
Project Contact: **Paul Myerchin**

Refer to sample receipt form for information on sample condition.

MB for HBN 1780180 [XXX/39582] (1448992) MB

8270D SIM - PAH surrogate recovery for 2-Methylnaphthalene-d10(108%) and Fluoranthene-d10 (120%) do not meet QC criteria.

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

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Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
8270D SIM (PAH)				
1182419003	LABREFQC	XMS10790	Benzo[k]fluoranthene	RP
1449038	1182419003MS	XMS10790	Acenaphthene	SP
1449038	1182419003MS	XMS10790	Benzo[k]fluoranthene	RP
1449039	1182419003MSD	XMS10790	Acenaphthene	SP
1449039	1182419003MSD	XMS10790	Benzo[k]fluoranthene	RP
SW8082A				
1448905	1182437001MS	XGC10109	Aroclor-1016	RP
1448905	1182437001MS	XGC10109	Aroclor-1260	RP
1448906	1182437001MSD	XGC10109	Aroclor-1016	RP
1448906	1182437001MSD	XGC10109	Aroclor-1260	RP

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

Print Date: 06/18/2018 3:34:06PM

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & Microbiology & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

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

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SB-2-14.5	1189325001	05/23/2018	05/25/2018	Soil/Solid (dry weight)
SB-2A-14.5	1189325002	05/23/2018	05/25/2018	Soil/Solid (dry weight)
SB-3-14.5	1189325003	05/24/2018	05/25/2018	Soil/Solid (dry weight)
SB-3A-14.5	1189325004	05/24/2018	05/25/2018	Soil/Solid (dry weight)
Trip Blank	1189325005	05/23/2018	05/25/2018	Soil/Solid (dry weight)

Method	Method Description
8270D SIM (PAH)	8270 PAH SIM Semi-Volatiles GC/MS
AK102	Diesel/Residual Range Organics
AK103	Diesel/Residual Range Organics
AK101	Gasoline Range Organics (S)
SW6020A	Metals by ICP-MS (S)
SM21 2540G	Percent Solids SM2540G
SW8082A	SW8082 PCB's
SW8260C	VOC 8260 (S) Field Extracted
SW8260C LL w/MeOH	VOC 8260 LL (S) w/MeOH

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Detectable Results Summary

Client Sample ID: **SB-2-14.5**
Lab Sample ID: 1189325001

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	1.80	mg/Kg
	Barium	53.3	mg/Kg
	Chromium	8.69	mg/Kg
	Lead	2.73	mg/Kg
Semivolatile Organic Fuels	Diesel Range Organics	7.16J	mg/Kg
Volatile Fuels	Gasoline Range Organics	1.83J	mg/Kg

Client Sample ID: **SB-2A-14.5**
Lab Sample ID: 1189325002

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	2.18	mg/Kg
	Barium	30.9	mg/Kg
	Chromium	7.39	mg/Kg
	Lead	2.84	mg/Kg
Volatile GC/MS Low Level	Chloroform	1.07J	ug/Kg

Client Sample ID: **SB-3-14.5**
Lab Sample ID: 1189325003

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	2.74	mg/Kg
	Barium	62.0	mg/Kg
	Chromium	10.3	mg/Kg
	Lead	3.41	mg/Kg
Volatile GC/MS Low Level	Chloroform	0.857J	ug/Kg

Client Sample ID: **SB-3A-14.5**
Lab Sample ID: 1189325004

	Parameter	Result	Units
Metals by ICP/MS	Arsenic	3.29	mg/Kg
	Barium	47.4	mg/Kg
	Cadmium	0.0629J	mg/Kg
	Chromium	11.8	mg/Kg
	Lead	3.40	mg/Kg
	Mercury	0.0157J	mg/Kg
Semivolatile Organic Fuels	Residual Range Organics	6.64J	mg/Kg
Volatile GC/MS Low Level	Chloroform	0.819J	ug/Kg

Client Sample ID: **Trip Blank**
Lab Sample ID: 1189325005

	Parameter	Result	Units
Volatile GC/MS	Toluene	9.03J	ug/Kg
Volatile GC/MS Low Level	Chloroform	0.753J	ug/Kg

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Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	1.80		1.02	0.315	mg/Kg	10		05/31/18 18:54
Barium	53.3		0.305	0.0956	mg/Kg	10		05/31/18 18:54
Cadmium	0.102	U	0.203	0.0631	mg/Kg	10		05/31/18 18:54
Chromium	8.69		0.407	0.132	mg/Kg	10		05/31/18 18:54
Lead	2.73		0.203	0.0631	mg/Kg	10		05/31/18 18:54
Mercury	0.0204	U	0.0407	0.0122	mg/Kg	10		05/31/18 18:54
Selenium	0.510	U	1.02	0.315	mg/Kg	10		05/31/18 18:54
Silver	0.102	U	0.203	0.0631	mg/Kg	10		05/31/18 18:54

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 05/31/18 18:54
Container ID: 1189325001-A

Prep Batch: MXX31614
Prep Method: SW3050B
Prep Date/Time: 05/31/18 08:27
Prep Initial Wt./Vol.: 1.008 g
Prep Extract Vol: 50 mL

J flagging is activated

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Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Aroclor-1221	102	U	204	51.1	ug/Kg	1		06/01/18 20:28
Aroclor-1232	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Aroclor-1242	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Aroclor-1248	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Aroclor-1254	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Aroclor-1260	25.6	U	51.1	12.8	ug/Kg	1		06/01/18 20:28
Surrogates								
Decachlorobiphenyl (surr)	91.5		60-125		%	1		06/01/18 20:28

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/01/18 20:28
Container ID: 1189325001-A

Prep Batch: XXX39577
Prep Method: SW3550C
Prep Date/Time: 05/29/18 15:58
Prep Initial Wt./Vol.: 22.59 g
Prep Extract Vol: 5 mL

J flagging is activated

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Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
2-Methylnaphthalene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Acenaphthene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Acenaphthylene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Anthracene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Benzo(a)Anthracene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Benzo[a]pyrene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Benzo[b]Fluoranthene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Benzo[g,h,i]perylene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Benzo[k]fluoranthene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Chrysene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Dibenzo[a,h]anthracene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Fluoranthene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Fluorene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Indeno[1,2,3-c,d] pyrene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Naphthalene	10.1	U	20.1	5.04	ug/Kg	1		05/31/18 15:40
Phenanthrene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Pyrene	12.6	U	25.2	6.29	ug/Kg	1		05/31/18 15:40
Surrogates								
2-Methylnaphthalene-d10 (surr)	79.9		58-103		%	1		05/31/18 15:40
Fluoranthene-d10 (surr)	88.1		54-113		%	1		05/31/18 15:40

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Analyst: BMZ
Analytical Date/Time: 05/31/18 15:40
Container ID: 1189325001-A

Prep Batch: XXX39582
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:20
Prep Initial Wt./Vol.: 22.905 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	7.16	J	20.4	6.33	mg/Kg	1		05/31/18 14:45
Surrogates								
5a Androstane (surr)	83.8		50-150		%	1		05/31/18 14:45

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 05/31/18 14:45
Container ID: 1189325001-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.115 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	10.2	U	20.4	6.33	mg/Kg	1		05/31/18 14:45
Surrogates								
n-Triacontane-d62 (surr)	84.2		50-150		%	1		05/31/18 14:45

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 05/31/18 14:45
Container ID: 1189325001-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.115 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.83	J	3.85	1.15	mg/Kg	1		06/03/18 16:14
Surrogates								
4-Bromofluorobenzene (surr)	92		50-150		%	1		06/03/18 16:14

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Analyst: NRO
Analytical Date/Time: 06/03/18 16:14
Container ID: 1189325001-B

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:25
Prep Initial Wt./Vol.: 34.459 g
Prep Extract Vol: 25.8488 mL

J flagging is activated

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Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	15.4	U	30.8	9.54	ug/Kg	1		05/30/18 16:39
1,1,1-Trichloroethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,1,2,2-Tetrachloroethane	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
1,1,2-Trichloroethane	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
1,1-Dichloroethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,1-Dichloroethene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,1-Dichloropropene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,2,3-Trichlorobenzene	38.5	U	76.9	23.1	ug/Kg	1		05/30/18 16:39
1,2,3-Trichloropropane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,2,4-Trichlorobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,2,4-Trimethylbenzene	38.5	U	76.9	23.1	ug/Kg	1		05/30/18 16:39
1,2-Dibromo-3-chloropropane	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
1,2-Dibromoethane	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
1,2-Dichlorobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,2-Dichloroethane	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
1,2-Dichloropropane	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
1,3,5-Trimethylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,3-Dichlorobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
1,3-Dichloropropane	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
1,4-Dichlorobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
2,2-Dichloropropane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
2-Butanone (MEK)	193	U	385	120	ug/Kg	1		05/30/18 16:39
2-Chlorotoluene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
2-Hexanone	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
4-Chlorotoluene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
4-Isopropyltoluene	77.0	U	154	38.5	ug/Kg	1		05/30/18 16:39
4-Methyl-2-pentanone (MIBK)	193	U	385	120	ug/Kg	1		05/30/18 16:39
Benzene	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
Bromobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Bromochloromethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Bromodichloromethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Bromoform	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Bromomethane	154	U	308	95.4	ug/Kg	1		05/30/18 16:39
Carbon disulfide	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
Carbon tetrachloride	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
Chlorobenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Chloroethane	154	U	308	95.4	ug/Kg	1		05/30/18 16:39

Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Chloromethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
cis-1,2-Dichloroethene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
cis-1,3-Dichloropropene	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
Dibromochloromethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Dibromomethane	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Dichlorodifluoromethane	38.5	U	76.9	23.1	ug/Kg	1		05/30/18 16:39
Ethylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Freon-113	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
Hexachlorobutadiene	15.4	U	30.8	9.54	ug/Kg	1		05/30/18 16:39
Isopropylbenzene (Cumene)	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Methylene chloride	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
Methyl-t-butyl ether	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
Naphthalene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
n-Butylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
n-Propylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
o-Xylene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
P & M -Xylene	38.5	U	76.9	23.1	ug/Kg	1		05/30/18 16:39
sec-Butylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Styrene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
tert-Butylbenzene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
Tetrachloroethene	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
Toluene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
trans-1,2-Dichloroethene	19.3	U	38.5	12.0	ug/Kg	1		05/30/18 16:39
trans-1,3-Dichloropropene	9.60	U	19.2	6.00	ug/Kg	1		05/30/18 16:39
Trichloroethene	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
Trichlorofluoromethane	38.5	U	76.9	23.1	ug/Kg	1		05/30/18 16:39
Vinyl acetate	77.0	U	154	47.7	ug/Kg	1		05/30/18 16:39
Vinyl chloride	7.70	U	15.4	4.77	ug/Kg	1		05/30/18 16:39
Xylenes (total)	57.5	U	115	35.1	ug/Kg	1		05/30/18 16:39
Surrogates								
1,2-Dichloroethane-D4 (surr)	95.5		71-136		%	1		05/30/18 16:39
4-Bromofluorobenzene (surr)	99.8		55-151		%	1		05/30/18 16:39
Toluene-d8 (surr)	98.7		85-116		%	1		05/30/18 16:39

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 05/30/18 16:39
Container ID: 1189325001-B

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:25
Prep Initial Wt./Vol.: 34.459 g
Prep Extract Vol: 25.8488 mL

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Results of **SB-2-14.5**

Client Sample ID: **SB-2-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325001
Lab Project ID: 1189325

Collection Date: 05/23/18 17:25
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):97.5
Location:

Results by **Volatile GC/MS Low Level**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,2,2-Tetrachloroethane	1.54	U	3.08	0.954	ug/Kg	1		05/30/18 16:39
1,1,2-Trichloroethane	0.615	U	1.23	0.385	ug/Kg	1		05/30/18 16:39
1,2,3-Trichloropropane	0.770	U	1.54	0.477	ug/Kg	1		05/30/18 16:39
1,2-Dibromoethane	0.385	U	0.769	0.231	ug/Kg	1		05/30/18 16:39
1,2-Dichloroethane	1.54	U	3.08	0.954	ug/Kg	1		05/30/18 16:39
Bromodichloromethane	1.54	U	3.08	0.954	ug/Kg	1		05/30/18 16:39
Bromomethane	15.4	U	30.8	9.54	ug/Kg	1		05/30/18 16:39
Chloroform	1.54	U	3.08	0.954	ug/Kg	1		05/30/18 16:39
Dibromochloromethane	1.54	U	3.08	0.954	ug/Kg	1		05/30/18 16:39
Trichloroethene	3.85	U	7.69	2.31	ug/Kg	1		05/30/18 16:39
Vinyl chloride	0.615	U	1.23	0.385	ug/Kg	1		05/30/18 16:39
Surrogates								
1,2-Dichloroethane-D4 (surr)	95.5		71-136		%	1		05/30/18 16:39
4-Bromofluorobenzene (surr)	99.8		55-151		%	1		05/30/18 16:39
Toluene-d8 (surr)	98.7		85-116		%	1		05/30/18 16:39

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Analyst: NRO
Analytical Date/Time: 05/30/18 16:39
Container ID: 1189325001-B

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:25
Prep Initial Wt./Vol.: 34.459 g
Prep Extract Vol: 25.8488 mL

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.18		0.937	0.290	mg/Kg	10		05/31/18 18:59
Barium	30.9		0.281	0.0880	mg/Kg	10		05/31/18 18:59
Cadmium	0.0935	U	0.187	0.0581	mg/Kg	10		05/31/18 18:59
Chromium	7.39		0.375	0.122	mg/Kg	10		05/31/18 18:59
Lead	2.84		0.187	0.0581	mg/Kg	10		05/31/18 18:59
Mercury	0.0187	U	0.0375	0.0112	mg/Kg	10		05/31/18 18:59
Selenium	0.469	U	0.937	0.290	mg/Kg	10		05/31/18 18:59
Silver	0.0935	U	0.187	0.0581	mg/Kg	10		05/31/18 18:59

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 05/31/18 18:59
Container ID: 1189325002-A

Prep Batch: MXX31614
Prep Method: SW3050B
Prep Date/Time: 05/31/18 08:27
Prep Initial Wt./Vol.: 1.086 g
Prep Extract Vol: 50 mL

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Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Aroclor-1221	101	U	202	50.5	ug/Kg	1		06/01/18 20:38
Aroclor-1232	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Aroclor-1242	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Aroclor-1248	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Aroclor-1254	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Aroclor-1260	25.3	U	50.5	12.6	ug/Kg	1		06/01/18 20:38
Surrogates								
Decachlorobiphenyl (surr)	91.1		60-125		%	1		06/01/18 20:38

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/01/18 20:38
Container ID: 1189325002-A

Prep Batch: XXX39577
Prep Method: SW3550C
Prep Date/Time: 05/29/18 15:58
Prep Initial Wt./Vol.: 22.679 g
Prep Extract Vol: 5 mL

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Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
2-Methylnaphthalene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Acenaphthene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Acenaphthylene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Anthracene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Benzo(a)Anthracene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Benzo[a]pyrene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Benzo[b]Fluoranthene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Benzo[g,h,i]perylene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Benzo[k]fluoranthene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Chrysene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Dibenzo[a,h]anthracene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Fluoranthene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Fluorene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Indeno[1,2,3-c,d] pyrene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Naphthalene	10.1	U	20.1	5.02	ug/Kg	1		05/31/18 16:01
Phenanthrene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Pyrene	12.6	U	25.1	6.28	ug/Kg	1		05/31/18 16:01
Surrogates								
2-Methylnaphthalene-d10 (surr)	81		58-103		%	1		05/31/18 16:01
Fluoranthene-d10 (surr)	88.4		54-113		%	1		05/31/18 16:01

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Analyst: BMZ
Analytical Date/Time: 05/31/18 16:01
Container ID: 1189325002-A

Prep Batch: XXX39582
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:20
Prep Initial Wt./Vol.: 22.77 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	10.2	U	20.3	6.28	mg/Kg	1		05/31/18 14:54
Surrogates								
5a Androstane (surr)	95.3		50-150		%	1		05/31/18 14:54

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 05/31/18 14:54
Container ID: 1189325002-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.109 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	10.2	U	20.3	6.28	mg/Kg	1		05/31/18 14:54
Surrogates								
n-Triacontane-d62 (surr)	96.3		50-150		%	1		05/31/18 14:54

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 05/31/18 14:54
Container ID: 1189325002-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.109 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.79	U	3.58	1.07	mg/Kg	1		06/03/18 16:32
Surrogates								
4-Bromofluorobenzene (surr)	84		50-150		%	1		06/03/18 16:32

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Analyst: NRO
Analytical Date/Time: 06/03/18 16:32
Container ID: 1189325002-B

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:26
Prep Initial Wt./Vol.: 36.38 g
Prep Extract Vol: 25.6102 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	14.3	U	28.6	8.88	ug/Kg	1		05/30/18 16:57
1,1,1-Trichloroethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,1,2,2-Tetrachloroethane	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
1,1,2-Trichloroethane	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
1,1-Dichloroethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,1-Dichloroethene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,1-Dichloropropene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,2,3-Trichlorobenzene	35.8	U	71.6	21.5	ug/Kg	1		05/30/18 16:57
1,2,3-Trichloropropane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,2,4-Trichlorobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,2,4-Trimethylbenzene	35.8	U	71.6	21.5	ug/Kg	1		05/30/18 16:57
1,2-Dibromo-3-chloropropane	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
1,2-Dibromoethane	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
1,2-Dichlorobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,2-Dichloroethane	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
1,2-Dichloropropane	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
1,3,5-Trimethylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,3-Dichlorobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
1,3-Dichloropropane	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
1,4-Dichlorobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
2,2-Dichloropropane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
2-Butanone (MEK)	179	U	358	112	ug/Kg	1		05/30/18 16:57
2-Chlorotoluene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
2-Hexanone	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
4-Chlorotoluene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
4-Isopropyltoluene	71.5	U	143	35.8	ug/Kg	1		05/30/18 16:57
4-Methyl-2-pentanone (MIBK)	179	U	358	112	ug/Kg	1		05/30/18 16:57
Benzene	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
Bromobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Bromochloromethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Bromodichloromethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Bromoform	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Bromomethane	143	U	286	88.8	ug/Kg	1		05/30/18 16:57
Carbon disulfide	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
Carbon tetrachloride	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
Chlorobenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Chloroethane	143	U	286	88.8	ug/Kg	1		05/30/18 16:57

Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Chloromethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
cis-1,2-Dichloroethene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
cis-1,3-Dichloropropene	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
Dibromochloromethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Dibromomethane	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Dichlorodifluoromethane	35.8	U	71.6	21.5	ug/Kg	1		05/30/18 16:57
Ethylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Freon-113	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
Hexachlorobutadiene	14.3	U	28.6	8.88	ug/Kg	1		05/30/18 16:57
Isopropylbenzene (Cumene)	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Methylene chloride	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
Methyl-t-butyl ether	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
Naphthalene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
n-Butylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
n-Propylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
o-Xylene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
P & M -Xylene	35.8	U	71.6	21.5	ug/Kg	1		05/30/18 16:57
sec-Butylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Styrene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
tert-Butylbenzene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
Tetrachloroethene	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
Toluene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
trans-1,2-Dichloroethene	17.9	U	35.8	11.2	ug/Kg	1		05/30/18 16:57
trans-1,3-Dichloropropene	8.95	U	17.9	5.58	ug/Kg	1		05/30/18 16:57
Trichloroethene	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
Trichlorofluoromethane	35.8	U	71.6	21.5	ug/Kg	1		05/30/18 16:57
Vinyl acetate	71.5	U	143	44.4	ug/Kg	1		05/30/18 16:57
Vinyl chloride	7.15	U	14.3	4.44	ug/Kg	1		05/30/18 16:57
Xylenes (total)	53.5	U	107	32.6	ug/Kg	1		05/30/18 16:57
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.5		71-136		%	1		05/30/18 16:57
4-Bromofluorobenzene (surr)	96.1		55-151		%	1		05/30/18 16:57
Toluene-d8 (surr)	99.9		85-116		%	1		05/30/18 16:57

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 05/30/18 16:57
Container ID: 1189325002-B

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:26
Prep Initial Wt./Vol.: 36.38 g
Prep Extract Vol: 25.6102 mL

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Results of **SB-2A-14.5**

Client Sample ID: **SB-2A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325002
Lab Project ID: 1189325

Collection Date: 05/23/18 17:26
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):98.3
Location:

Results by **Volatile GC/MS Low Level**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,2,2-Tetrachloroethane	1.43	U	2.86	0.888	ug/Kg	1		05/30/18 16:57
1,1,2-Trichloroethane	0.575	U	1.15	0.358	ug/Kg	1		05/30/18 16:57
1,2,3-Trichloropropane	0.715	U	1.43	0.444	ug/Kg	1		05/30/18 16:57
1,2-Dibromoethane	0.358	U	0.716	0.215	ug/Kg	1		05/30/18 16:57
1,2-Dichloroethane	1.43	U	2.86	0.888	ug/Kg	1		05/30/18 16:57
Bromodichloromethane	1.43	U	2.86	0.888	ug/Kg	1		05/30/18 16:57
Bromomethane	14.3	U	28.6	8.88	ug/Kg	1		05/30/18 16:57
Chloroform	1.07	J	2.86	0.888	ug/Kg	1		05/30/18 16:57
Dibromochloromethane	1.43	U	2.86	0.888	ug/Kg	1		05/30/18 16:57
Trichloroethene	3.58	U	7.16	2.15	ug/Kg	1		05/30/18 16:57
Vinyl chloride	0.575	U	1.15	0.358	ug/Kg	1		05/30/18 16:57
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.5		71-136		%	1		05/30/18 16:57
4-Bromofluorobenzene (surr)	96.1		55-151		%	1		05/30/18 16:57
Toluene-d8 (surr)	99.9		85-116		%	1		05/30/18 16:57

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Analyst: NRO
Analytical Date/Time: 05/30/18 16:57
Container ID: 1189325002-B

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 05/23/18 17:26
Prep Initial Wt./Vol.: 36.38 g
Prep Extract Vol: 25.6102 mL

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.74		1.02	0.315	mg/Kg	10		05/31/18 19:03
Barium	62.0		0.305	0.0956	mg/Kg	10		05/31/18 19:03
Cadmium	0.102	U	0.203	0.0631	mg/Kg	10		05/31/18 19:03
Chromium	10.3		0.407	0.132	mg/Kg	10		05/31/18 19:03
Lead	3.41		0.203	0.0631	mg/Kg	10		05/31/18 19:03
Mercury	0.0204	U	0.0407	0.0122	mg/Kg	10		05/31/18 19:03
Selenium	0.510	U	1.02	0.315	mg/Kg	10		05/31/18 19:03
Silver	0.102	U	0.203	0.0631	mg/Kg	10		05/31/18 19:03

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 05/31/18 19:03
Container ID: 1189325003-A

Prep Batch: MXX31614
Prep Method: SW3050B
Prep Date/Time: 05/31/18 08:27
Prep Initial Wt./Vol.: 1.023 g
Prep Extract Vol: 50 mL

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Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Aroclor-1221	103	U	206	51.6	ug/Kg	1		06/01/18 20:49
Aroclor-1232	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Aroclor-1242	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Aroclor-1248	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Aroclor-1254	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Aroclor-1260	25.8	U	51.6	12.9	ug/Kg	1		06/01/18 20:49
Surrogates								
Decachlorobiphenyl (surr)	93.2		60-125		%	1		06/01/18 20:49

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/01/18 20:49
Container ID: 1189325003-A

Prep Batch: XXX39577
Prep Method: SW3550C
Prep Date/Time: 05/29/18 15:58
Prep Initial Wt./Vol.: 22.692 g
Prep Extract Vol: 5 mL

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Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
2-Methylnaphthalene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Acenaphthene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Acenaphthylene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Anthracene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Benzo(a)Anthracene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Benzo[a]pyrene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Benzo[b]Fluoranthene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Benzo[g,h,i]perylene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Benzo[k]fluoranthene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Chrysene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Dibenzo[a,h]anthracene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Fluoranthene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Fluorene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Indeno[1,2,3-c,d] pyrene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Naphthalene	10.2	U	20.4	5.10	ug/Kg	1		05/31/18 16:21
Phenanthrene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Pyrene	12.8	U	25.5	6.38	ug/Kg	1		05/31/18 16:21
Surrogates								
2-Methylnaphthalene-d10 (surr)	80.6		58-103		%	1		05/31/18 16:21
Fluoranthene-d10 (surr)	89.2		54-113		%	1		05/31/18 16:21

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Analyst: BMZ
Analytical Date/Time: 05/31/18 16:21
Container ID: 1189325003-A

Prep Batch: XXX39582
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:20
Prep Initial Wt./Vol.: 22.929 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	10.4	U	20.7	6.41	mg/Kg	1		05/31/18 15:04
Surrogates								
5a Androstane (surr)	82.9		50-150		%	1		05/31/18 15:04

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 05/31/18 15:04
Container ID: 1189325003-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.176 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	10.4	U	20.7	6.41	mg/Kg	1		05/31/18 15:04
Surrogates								
n-Triacontane-d62 (surr)	82.1		50-150		%	1		05/31/18 15:04

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 05/31/18 15:04
Container ID: 1189325003-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.176 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.43	U	2.86	0.857	mg/Kg	1		06/03/18 16:50
Surrogates								
4-Bromofluorobenzene (surr)	83.7		50-150		%	1		06/03/18 16:50

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Analyst: NRO
Analytical Date/Time: 06/03/18 16:50
Container ID: 1189325003-B

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:27
Prep Initial Wt./Vol.: 48.994 g
Prep Extract Vol: 26.9015 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	11.4	U	22.8	7.08	ug/Kg	1		05/30/18 17:15
1,1,1-Trichloroethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,1,2,2-Tetrachloroethane	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
1,1,2-Trichloroethane	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
1,1-Dichloroethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,1-Dichloroethene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,1-Dichloropropene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,2,3-Trichlorobenzene	28.6	U	57.1	17.1	ug/Kg	1		05/30/18 17:15
1,2,3-Trichloropropane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,2,4-Trichlorobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,2,4-Trimethylbenzene	28.6	U	57.1	17.1	ug/Kg	1		05/30/18 17:15
1,2-Dibromo-3-chloropropane	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
1,2-Dibromoethane	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
1,2-Dichlorobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,2-Dichloroethane	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
1,2-Dichloropropane	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
1,3,5-Trimethylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,3-Dichlorobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
1,3-Dichloropropane	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
1,4-Dichlorobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
2,2-Dichloropropane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
2-Butanone (MEK)	143	U	286	89.1	ug/Kg	1		05/30/18 17:15
2-Chlorotoluene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
2-Hexanone	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
4-Chlorotoluene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
4-Isopropyltoluene	57.0	U	114	28.6	ug/Kg	1		05/30/18 17:15
4-Methyl-2-pentanone (MIBK)	143	U	286	89.1	ug/Kg	1		05/30/18 17:15
Benzene	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
Bromobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Bromochloromethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Bromodichloromethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Bromoform	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Bromomethane	114	U	228	70.8	ug/Kg	1		05/30/18 17:15
Carbon disulfide	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
Carbon tetrachloride	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
Chlorobenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Chloroethane	114	U	228	70.8	ug/Kg	1		05/30/18 17:15

Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Chloromethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
cis-1,2-Dichloroethene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
cis-1,3-Dichloropropene	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
Dibromochloromethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Dibromomethane	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Dichlorodifluoromethane	28.6	U	57.1	17.1	ug/Kg	1		05/30/18 17:15
Ethylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Freon-113	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
Hexachlorobutadiene	11.4	U	22.8	7.08	ug/Kg	1		05/30/18 17:15
Isopropylbenzene (Cumene)	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Methylene chloride	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
Methyl-t-butyl ether	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
Naphthalene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
n-Butylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
n-Propylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
o-Xylene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
P & M -Xylene	28.6	U	57.1	17.1	ug/Kg	1		05/30/18 17:15
sec-Butylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Styrene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
tert-Butylbenzene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
Tetrachloroethene	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
Toluene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
trans-1,2-Dichloroethene	14.3	U	28.6	8.91	ug/Kg	1		05/30/18 17:15
trans-1,3-Dichloropropene	7.15	U	14.3	4.46	ug/Kg	1		05/30/18 17:15
Trichloroethene	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
Trichlorofluoromethane	28.6	U	57.1	17.1	ug/Kg	1		05/30/18 17:15
Vinyl acetate	57.0	U	114	35.4	ug/Kg	1		05/30/18 17:15
Vinyl chloride	5.70	U	11.4	3.54	ug/Kg	1		05/30/18 17:15
Xylenes (total)	42.9	U	85.7	26.0	ug/Kg	1		05/30/18 17:15
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.7		71-136		%	1		05/30/18 17:15
4-Bromofluorobenzene (surr)	95.7		55-151		%	1		05/30/18 17:15
Toluene-d8 (surr)	99.7		85-116		%	1		05/30/18 17:15

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 05/30/18 17:15
Container ID: 1189325003-B

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:27
Prep Initial Wt./Vol.: 48.994 g
Prep Extract Vol: 26.9015 mL

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Results of **SB-3-14.5**

Client Sample ID: **SB-3-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325003
Lab Project ID: 1189325

Collection Date: 05/24/18 11:27
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):96.1
Location:

Results by **Volatile GC/MS Low Level**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,2,2-Tetrachloroethane	1.14	U	2.28	0.708	ug/Kg	1		05/30/18 17:15
1,1,2-Trichloroethane	0.457	U	0.914	0.286	ug/Kg	1		05/30/18 17:15
1,2,3-Trichloropropane	0.570	U	1.14	0.354	ug/Kg	1		05/30/18 17:15
1,2-Dibromoethane	0.285	U	0.571	0.171	ug/Kg	1		05/30/18 17:15
1,2-Dichloroethane	1.14	U	2.28	0.708	ug/Kg	1		05/30/18 17:15
Bromodichloromethane	1.14	U	2.28	0.708	ug/Kg	1		05/30/18 17:15
Bromomethane	11.4	U	22.8	7.08	ug/Kg	1		05/30/18 17:15
Chloroform	0.857	J	2.28	0.708	ug/Kg	1		05/30/18 17:15
Dibromochloromethane	1.14	U	2.28	0.708	ug/Kg	1		05/30/18 17:15
Trichloroethene	2.86	U	5.71	1.71	ug/Kg	1		05/30/18 17:15
Vinyl chloride	0.457	U	0.914	0.286	ug/Kg	1		05/30/18 17:15
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.7		71-136		%	1		05/30/18 17:15
4-Bromofluorobenzene (surr)	95.7		55-151		%	1		05/30/18 17:15
Toluene-d8 (surr)	99.7		85-116		%	1		05/30/18 17:15

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Analyst: NRO
Analytical Date/Time: 05/30/18 17:15
Container ID: 1189325003-B

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:27
Prep Initial Wt./Vol.: 48.994 g
Prep Extract Vol: 26.9015 mL

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	3.29		1.01	0.314	mg/Kg	10		05/31/18 19:08
Barium	47.4		0.304	0.0952	mg/Kg	10		05/31/18 19:08
Cadmium	0.0629	J	0.203	0.0628	mg/Kg	10		05/31/18 19:08
Chromium	11.8		0.405	0.132	mg/Kg	10		05/31/18 19:08
Lead	3.40		0.203	0.0628	mg/Kg	10		05/31/18 19:08
Mercury	0.0157	J	0.0405	0.0122	mg/Kg	10		05/31/18 19:08
Selenium	0.505	U	1.01	0.314	mg/Kg	10		05/31/18 19:08
Silver	0.102	U	0.203	0.0628	mg/Kg	10		05/31/18 19:08

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Analyst: ACF
Analytical Date/Time: 05/31/18 19:08
Container ID: 1189325004-A

Prep Batch: MXX31614
Prep Method: SW3050B
Prep Date/Time: 05/31/18 08:27
Prep Initial Wt./Vol.: 1.061 g
Prep Extract Vol: 50 mL

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Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Aroclor-1221	106	U	211	52.9	ug/Kg	1		06/01/18 20:59
Aroclor-1232	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Aroclor-1242	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Aroclor-1248	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Aroclor-1254	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Aroclor-1260	26.4	U	52.9	13.2	ug/Kg	1		06/01/18 20:59
Surrogates								
Decachlorobiphenyl (surr)	91.7		60-125		%	1		06/01/18 20:59

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/01/18 20:59
Container ID: 1189325004-A

Prep Batch: XXX39577
Prep Method: SW3550C
Prep Date/Time: 05/29/18 15:58
Prep Initial Wt./Vol.: 22.868 g
Prep Extract Vol: 5 mL

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Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
2-Methylnaphthalene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Acenaphthene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Acenaphthylene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Anthracene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Benzo(a)Anthracene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Benzo[a]pyrene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Benzo[b]Fluoranthene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Benzo[g,h,i]perylene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Benzo[k]fluoranthene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Chrysene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Dibenzo[a,h]anthracene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Fluoranthene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Fluorene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Indeno[1,2,3-c,d] pyrene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Naphthalene	10.7	U	21.4	5.35	ug/Kg	1		05/31/18 16:42
Phenanthrene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Pyrene	13.4	U	26.7	6.68	ug/Kg	1		05/31/18 16:42
Surrogates								
2-Methylnaphthalene-d10 (surr)	77.3		58-103		%	1		05/31/18 16:42
Fluoranthene-d10 (surr)	83.9		54-113		%	1		05/31/18 16:42

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Analyst: BMZ
Analytical Date/Time: 05/31/18 16:42
Container ID: 1189325004-A

Prep Batch: XXX39582
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:20
Prep Initial Wt./Vol.: 22.613 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

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Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	10.7	U	21.4	6.62	mg/Kg	1		05/31/18 16:03
Surrogates								
5a Androstane (surr)	84.2		50-150		%	1		05/31/18 16:03

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 05/31/18 16:03
Container ID: 1189325004-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.193 g
Prep Extract Vol: 5 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	6.64	J	21.4	6.62	mg/Kg	1		05/31/18 16:03
Surrogates								
n-Triacontane-d62 (surr)	83.4		50-150		%	1		05/31/18 16:03

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 05/31/18 16:03
Container ID: 1189325004-A

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 05/30/18 11:48
Prep Initial Wt./Vol.: 30.193 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.37	U	2.73	0.819	mg/Kg	1		06/03/18 17:08
Surrogates								
4-Bromofluorobenzene (surr)	90.4		50-150		%	1		06/03/18 17:08

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Analyst: NRO
Analytical Date/Time: 06/03/18 17:08
Container ID: 1189325004-B

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:30
Prep Initial Wt./Vol.: 56.946 g
Prep Extract Vol: 28.9467 mL

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Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	10.9	U	21.8	6.77	ug/Kg	1		05/30/18 17:33
1,1,1-Trichloroethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,1,2,2-Tetrachloroethane	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
1,1,2-Trichloroethane	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
1,1-Dichloroethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,1-Dichloroethene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,1-Dichloropropene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,2,3-Trichlorobenzene	27.3	U	54.6	16.4	ug/Kg	1		05/30/18 17:33
1,2,3-Trichloropropane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,2,4-Trichlorobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,2,4-Trimethylbenzene	27.3	U	54.6	16.4	ug/Kg	1		05/30/18 17:33
1,2-Dibromo-3-chloropropane	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
1,2-Dibromoethane	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
1,2-Dichlorobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,2-Dichloroethane	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
1,2-Dichloropropane	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
1,3,5-Trimethylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,3-Dichlorobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
1,3-Dichloropropane	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
1,4-Dichlorobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
2,2-Dichloropropane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
2-Butanone (MEK)	137	U	273	85.2	ug/Kg	1		05/30/18 17:33
2-Chlorotoluene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
2-Hexanone	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
4-Chlorotoluene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
4-Isopropyltoluene	54.5	U	109	27.3	ug/Kg	1		05/30/18 17:33
4-Methyl-2-pentanone (MIBK)	137	U	273	85.2	ug/Kg	1		05/30/18 17:33
Benzene	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
Bromobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Bromochloromethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Bromodichloromethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Bromoform	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Bromomethane	109	U	218	67.7	ug/Kg	1		05/30/18 17:33
Carbon disulfide	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
Carbon tetrachloride	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
Chlorobenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Chloroethane	109	U	218	67.7	ug/Kg	1		05/30/18 17:33

Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Chloromethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
cis-1,2-Dichloroethene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
cis-1,3-Dichloropropene	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
Dibromochloromethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Dibromomethane	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Dichlorodifluoromethane	27.3	U	54.6	16.4	ug/Kg	1		05/30/18 17:33
Ethylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Freon-113	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
Hexachlorobutadiene	10.9	U	21.8	6.77	ug/Kg	1		05/30/18 17:33
Isopropylbenzene (Cumene)	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Methylene chloride	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
Methyl-t-butyl ether	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
Naphthalene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
n-Butylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
n-Propylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
o-Xylene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
P & M -Xylene	27.3	U	54.6	16.4	ug/Kg	1		05/30/18 17:33
sec-Butylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Styrene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
tert-Butylbenzene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
Tetrachloroethene	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
Toluene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
trans-1,2-Dichloroethene	13.7	U	27.3	8.52	ug/Kg	1		05/30/18 17:33
trans-1,3-Dichloropropene	6.85	U	13.7	4.26	ug/Kg	1		05/30/18 17:33
Trichloroethene	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
Trichlorofluoromethane	27.3	U	54.6	16.4	ug/Kg	1		05/30/18 17:33
Vinyl acetate	54.5	U	109	33.9	ug/Kg	1		05/30/18 17:33
Vinyl chloride	5.45	U	10.9	3.39	ug/Kg	1		05/30/18 17:33
Xylenes (total)	41.0	U	81.9	24.9	ug/Kg	1		05/30/18 17:33
Surrogates								
1,2-Dichloroethane-D4 (surr)	99.8		71-136		%	1		05/30/18 17:33
4-Bromofluorobenzene (surr)	106		55-151		%	1		05/30/18 17:33
Toluene-d8 (surr)	99.9		85-116		%	1		05/30/18 17:33

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 05/30/18 17:33
Container ID: 1189325004-B

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:30
Prep Initial Wt./Vol.: 56.946 g
Prep Extract Vol: 28.9467 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Results of **SB-3A-14.5**

Client Sample ID: **SB-3A-14.5**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325004
Lab Project ID: 1189325

Collection Date: 05/24/18 11:30
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):93.1
Location:

Results by **Volatile GC/MS Low Level**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,2,2-Tetrachloroethane	1.09 U		2.18	0.677	ug/Kg	1		05/30/18 17:33
1,1,2-Trichloroethane	0.437 U		0.874	0.273	ug/Kg	1		05/30/18 17:33
1,2,3-Trichloropropane	0.545 U		1.09	0.339	ug/Kg	1		05/30/18 17:33
1,2-Dibromoethane	0.273 U		0.546	0.164	ug/Kg	1		05/30/18 17:33
1,2-Dichloroethane	1.09 U		2.18	0.677	ug/Kg	1		05/30/18 17:33
Bromodichloromethane	1.09 U		2.18	0.677	ug/Kg	1		05/30/18 17:33
Bromomethane	10.9 U		21.8	6.77	ug/Kg	1		05/30/18 17:33
Chloroform	0.819 J		2.18	0.677	ug/Kg	1		05/30/18 17:33
Dibromochloromethane	1.09 U		2.18	0.677	ug/Kg	1		05/30/18 17:33
Trichloroethene	2.73 U		5.46	1.64	ug/Kg	1		05/30/18 17:33
Vinyl chloride	0.437 U		0.874	0.273	ug/Kg	1		05/30/18 17:33
Surrogates								
1,2-Dichloroethane-D4 (surr)	99.8		71-136		%	1		05/30/18 17:33
4-Bromofluorobenzene (surr)	106		55-151		%	1		05/30/18 17:33
Toluene-d8 (surr)	99.9		85-116		%	1		05/30/18 17:33

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Analyst: NRO
Analytical Date/Time: 05/30/18 17:33
Container ID: 1189325004-B

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 05/24/18 11:30
Prep Initial Wt./Vol.: 56.946 g
Prep Extract Vol: 28.9467 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325005
Lab Project ID: 1189325

Collection Date: 05/23/18 08:00
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	1.25	U	2.51	0.753	mg/Kg	1		06/03/18 13:49
Surrogates								
4-Bromofluorobenzene (surr)	87.2		50-150		%	1		06/03/18 13:49

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Analyst: NRO
Analytical Date/Time: 06/03/18 13:49
Container ID: 1189325005-A

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 05/23/18 08:00
Prep Initial Wt./Vol.: 49.825 g
Prep Extract Vol: 25 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325005
Lab Project ID: 1189325

Collection Date: 05/23/18 08:00
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	10.1	U	20.1	6.22	ug/Kg	1		05/30/18 14:51
1,1,1-Trichloroethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,1,2,2-Tetrachloroethane	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
1,1,2-Trichloroethane	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
1,1-Dichloroethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,1-Dichloroethene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,1-Dichloropropene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,2,3-Trichlorobenzene	25.1	U	50.2	15.1	ug/Kg	1		05/30/18 14:51
1,2,3-Trichloropropane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,2,4-Trichlorobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,2,4-Trimethylbenzene	25.1	U	50.2	15.1	ug/Kg	1		05/30/18 14:51
1,2-Dibromo-3-chloropropane	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
1,2-Dibromoethane	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
1,2-Dichlorobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,2-Dichloroethane	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
1,2-Dichloropropane	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
1,3,5-Trimethylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,3-Dichlorobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
1,3-Dichloropropane	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
1,4-Dichlorobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
2,2-Dichloropropane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
2-Butanone (MEK)	126	U	251	78.3	ug/Kg	1		05/30/18 14:51
2-Chlorotoluene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
2-Hexanone	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
4-Chlorotoluene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
4-Isopropyltoluene	50.0	U	100	25.1	ug/Kg	1		05/30/18 14:51
4-Methyl-2-pentanone (MIBK)	126	U	251	78.3	ug/Kg	1		05/30/18 14:51
Benzene	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
Bromobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Bromochloromethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Bromodichloromethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Bromoform	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Bromomethane	101	U	201	62.2	ug/Kg	1		05/30/18 14:51
Carbon disulfide	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
Carbon tetrachloride	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
Chlorobenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Chloroethane	101	U	201	62.2	ug/Kg	1		05/30/18 14:51

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325005
Lab Project ID: 1189325

Collection Date: 05/23/18 08:00
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Chloromethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
cis-1,2-Dichloroethene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
cis-1,3-Dichloropropene	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
Dibromochloromethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Dibromomethane	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Dichlorodifluoromethane	25.1	U	50.2	15.1	ug/Kg	1		05/30/18 14:51
Ethylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Freon-113	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
Hexachlorobutadiene	10.1	U	20.1	6.22	ug/Kg	1		05/30/18 14:51
Isopropylbenzene (Cumene)	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Methylene chloride	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
Methyl-t-butyl ether	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
Naphthalene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
n-Butylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
n-Propylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
o-Xylene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
P & M -Xylene	25.1	U	50.2	15.1	ug/Kg	1		05/30/18 14:51
sec-Butylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Styrene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
tert-Butylbenzene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
Tetrachloroethene	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
Toluene	9.03	J	25.1	7.83	ug/Kg	1		05/30/18 14:51
trans-1,2-Dichloroethene	12.6	U	25.1	7.83	ug/Kg	1		05/30/18 14:51
trans-1,3-Dichloropropene	6.25	U	12.5	3.91	ug/Kg	1		05/30/18 14:51
Trichloroethene	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
Trichlorofluoromethane	25.1	U	50.2	15.1	ug/Kg	1		05/30/18 14:51
Vinyl acetate	50.0	U	100	31.1	ug/Kg	1		05/30/18 14:51
Vinyl chloride	5.00	U	10.0	3.11	ug/Kg	1		05/30/18 14:51
Xylenes (total)	37.6	U	75.3	22.9	ug/Kg	1		05/30/18 14:51
Surrogates								
1,2-Dichloroethane-D4 (surr)	100		71-136		%	1		05/30/18 14:51
4-Bromofluorobenzene (surr)	94.6		55-151		%	1		05/30/18 14:51
Toluene-d8 (surr)	99.1		85-116		%	1		05/30/18 14:51

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325005
Lab Project ID: 1189325

Collection Date: 05/23/18 08:00
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Analyst: NRO
Analytical Date/Time: 05/30/18 14:51
Container ID: 1189325005-A

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 05/23/18 08:00
Prep Initial Wt./Vol.: 49.825 g
Prep Extract Vol: 25 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **Albertsons Fairbanks UST**
Lab Sample ID: 1189325005
Lab Project ID: 1189325

Collection Date: 05/23/18 08:00
Received Date: 05/25/18 16:00
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS Low Level**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,2,2-Tetrachloroethane	1.00 U		2.01	0.622	ug/Kg	1		05/30/18 14:51
1,1,2-Trichloroethane	0.402 U		0.803	0.251	ug/Kg	1		05/30/18 14:51
1,2,3-Trichloropropane	0.500 U		1.00	0.311	ug/Kg	1		05/30/18 14:51
1,2-Dibromoethane	0.251 U		0.502	0.151	ug/Kg	1		05/30/18 14:51
1,2-Dichloroethane	1.00 U		2.01	0.622	ug/Kg	1		05/30/18 14:51
Bromodichloromethane	1.00 U		2.01	0.622	ug/Kg	1		05/30/18 14:51
Bromomethane	10.1 U		20.1	6.22	ug/Kg	1		05/30/18 14:51
Chloroform	0.753 J		2.01	0.622	ug/Kg	1		05/30/18 14:51
Dibromochloromethane	1.00 U		2.01	0.622	ug/Kg	1		05/30/18 14:51
Trichloroethene	2.51 U		5.02	1.51	ug/Kg	1		05/30/18 14:51
Vinyl chloride	0.402 U		0.803	0.251	ug/Kg	1		05/30/18 14:51
Surrogates								
1,2-Dichloroethane-D4 (surr)	100		71-136		%	1		05/30/18 14:51
4-Bromofluorobenzene (surr)	94.6		55-151		%	1		05/30/18 14:51
Toluene-d8 (surr)	99.1		85-116		%	1		05/30/18 14:51

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Analyst: NRO
Analytical Date/Time: 05/30/18 14:51
Container ID: 1189325005-A

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 05/23/18 08:00
Prep Initial Wt./Vol.: 49.825 g
Prep Extract Vol: 25 mL

Print Date: 06/18/2018 3:34:09PM

J flagging is activated

Method Blank

Blank ID: MB for HBN 1780241 [MXX/31614]
Blank Lab ID: 1449245

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	0.500U	1.00	0.310	mg/Kg
Barium	0.150U	0.300	0.0940	mg/Kg
Cadmium	0.100U	0.200	0.0620	mg/Kg
Chromium	0.200U	0.400	0.130	mg/Kg
Lead	0.100U	0.200	0.0620	mg/Kg
Mercury	0.0200U	0.0400	0.0120	mg/Kg
Selenium	0.500U	1.00	0.310	mg/Kg
Silver	0.100U	0.200	0.0620	mg/Kg

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: ACF
Analytical Date/Time: 5/31/2018 4:47:40PM

Prep Batch: MXX31614
Prep Method: SW3050B
Prep Date/Time: 5/31/2018 8:27:19AM
Prep Initial Wt./Vol.: 1 g
Prep Extract Vol: 50 mL

Print Date: 06/18/2018 3:34:12PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [MXX31614]
Blank Spike Lab ID: 1449246
Date Analyzed: 05/31/2018 16:52

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **SW6020A**

Blank Spike (mg/Kg)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	50	49.4	99	(82-118)
Barium	50	47.2	95	(86-116)
Cadmium	5	5.00	100	(84-116)
Chromium	20	19.4	97	(83-119)
Lead	50	50.3	101	(84-118)
Mercury	0.5	0.492	99	(74-126)
Selenium	50	51.2	102	(80-119)
Silver	5	5.13	103	(83-118)

Batch Information

Analytical Batch: **MMS10179**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexlon P5**
Analyst: **ACF**

Prep Batch: **MXX31614**
Prep Method: **SW3050B**
Prep Date/Time: **05/31/2018 08:27**
Spike Init Wt./Vol.: 50 mg/Kg Extract Vol: 50 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1449247
MS Sample ID: 1449249 MS
MSD Sample ID: 1449250 MSD

Analysis Date: 05/31/2018 16:57
Analysis Date: 05/31/2018 17:01
Analysis Date: 05/31/2018 17:06
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **SW6020A**

		Matrix Spike (mg/Kg)				Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Arsenic	8.89	48.2	54.2	94		47.6	55.8	99		82-118	2.87	(< 20)
Barium	348	48.2	330	-39	*	47.6	327	-45	*	86-116	0.91	(< 20)
Cadmium	3.06	4.82	7.29	88		4.76	7.39	91		84-116	1.27	(< 20)
Chromium	31.7	19.3	45.4	71	*	19.0	47.3	82	*	83-119	4.11	(< 20)
Lead	25.4	48.2	72.8	98		47.6	77.1	109		84-118	5.80	(< 20)
Mercury	0.468	0.482	.869	83		0.476	0.877	86		74-126	0.88	(< 20)
Selenium	0.486U	48.2	49.1	102		47.6	48.3	101		80-119	1.67	(< 20)
Silver	0.325	4.82	5.08	99		4.76	5.15	101		83-118	1.33	(< 20)

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: VDL
Analytical Date/Time: 5/31/2018 5:01:47PM

Prep Batch: MXX31614
Prep Method: Soils/Solids Digest for Metals by ICP-MS
Prep Date/Time: 5/31/2018 8:27:19AM
Prep Initial Wt./Vol.: 1.04g
Prep Extract Vol: 50.00mL

Print Date: 06/18/2018 3:34:14PM

Bench Spike Summary

Original Sample ID: 1449247
MS Sample ID: 1449248 BND
MSD Sample ID:

Analysis Date: 05/31/2018 19:24
Analysis Date: 05/31/2018 19:38
Analysis Date:
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **SW6020A**

		Matrix Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Barium	348	1220	1500	95				80-120		
Chromium	31.7	122	151	98				80-120		

Batch Information

Analytical Batch: MMS10179
Analytical Method: SW6020A
Instrument: Perkin Elmer NexIon P5
Analyst: ACF
Analytical Date/Time: 5/31/2018 7:38:54PM

Prep Batch: MXX31614
Prep Method: Soils/Solids Digest for Metals by ICP-MS
Prep Date/Time: 5/31/2018 8:27:19AM
Prep Initial Wt./Vol.: 1.03g
Prep Extract Vol: 50.00mL

Print Date: 06/18/2018 3:34:14PM

Method Blank

Blank ID: MB for HBN 1780170 [SPT/10491]
Blank Lab ID: 1448956

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100			%

Batch Information

Analytical Batch: SPT10491
Analytical Method: SM21 2540G
Instrument:
Analyst: E.M
Analytical Date/Time: 5/29/2018 4:50:00PM

Print Date: 06/18/2018 3:34:15PM

Duplicate Sample Summary

Original Sample ID: 1182442001
Duplicate Sample ID: 1448957
QC for Samples:
1189325001

Analysis Date: 05/29/2018 16:50
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	77.6	77.7	%	0.15	(< 15)

Batch Information

Analytical Batch: SPT10491
Analytical Method: SM21 2540G
Instrument:
Analyst: E.M

Print Date: 06/18/2018 3:34:16PM

Duplicate Sample Summary

Original Sample ID: 1189325001
Duplicate Sample ID: 1448958
QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Analysis Date: 05/29/2018 16:50
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	97.5	97.5	%	0.05	(< 15)

Batch Information

Analytical Batch: SPT10491
Analytical Method: SM21 2540G
Instrument:
Analyst: E.M

Print Date: 06/18/2018 3:34:16PM

Duplicate Sample Summary

Original Sample ID: 1189326001
Duplicate Sample ID: 1448959
QC for Samples:
1189325002, 1189325003, 1189325004

Analysis Date: 05/29/2018 16:50
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	73.3	72.3	%	1.30	(< 15)

Batch Information

Analytical Batch: SPT10491
Analytical Method: SM21 2540G
Instrument:
Analyst: E.M

Print Date: 06/18/2018 3:34:16PM

Method Blank

Blank ID: MB for HBN 1780274 [VXX/32292]
Blank Lab ID: 1449395

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	10.0U	20.0	6.20	ug/Kg
1,1,1-Trichloroethane	12.5U	25.0	7.80	ug/Kg
1,1,2,2-Tetrachloroethane	6.25U	12.5	3.90	ug/Kg
1,1,2-Trichloroethane	5.00U	10.0	3.10	ug/Kg
1,1-Dichloroethane	12.5U	25.0	7.80	ug/Kg
1,1-Dichloroethene	12.5U	25.0	7.80	ug/Kg
1,1-Dichloropropene	12.5U	25.0	7.80	ug/Kg
1,2,3-Trichlorobenzene	25.0U	50.0	15.0	ug/Kg
1,2,3-Trichloropropane	12.5U	25.0	7.80	ug/Kg
1,2,4-Trichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,2,4-Trimethylbenzene	25.0U	50.0	15.0	ug/Kg
1,2-Dibromo-3-chloropropane	50.0U	100	31.0	ug/Kg
1,2-Dibromoethane	5.00U	10.0	3.10	ug/Kg
1,2-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,2-Dichloroethane	5.00U	10.0	3.10	ug/Kg
1,2-Dichloropropane	5.00U	10.0	3.10	ug/Kg
1,3,5-Trimethylbenzene	12.5U	25.0	7.80	ug/Kg
1,3-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
1,3-Dichloropropane	5.00U	10.0	3.10	ug/Kg
1,4-Dichlorobenzene	12.5U	25.0	7.80	ug/Kg
2,2-Dichloropropane	12.5U	25.0	7.80	ug/Kg
2-Butanone (MEK)	125U	250	78.0	ug/Kg
2-Chlorotoluene	12.5U	25.0	7.80	ug/Kg
2-Hexanone	50.0U	100	31.0	ug/Kg
4-Chlorotoluene	12.5U	25.0	7.80	ug/Kg
4-Isopropyltoluene	50.0U	100	25.0	ug/Kg
4-Methyl-2-pentanone (MIBK)	125U	250	78.0	ug/Kg
Benzene	6.25U	12.5	3.90	ug/Kg
Bromobenzene	12.5U	25.0	7.80	ug/Kg
Bromochloromethane	12.5U	25.0	7.80	ug/Kg
Bromodichloromethane	12.5U	25.0	7.80	ug/Kg
Bromoform	12.5U	25.0	7.80	ug/Kg
Bromomethane	100U	200	62.0	ug/Kg
Carbon disulfide	50.0U	100	31.0	ug/Kg
Carbon tetrachloride	6.25U	12.5	3.90	ug/Kg
Chlorobenzene	12.5U	25.0	7.80	ug/Kg
Chloroethane	100U	200	62.0	ug/Kg
Chloroform	12.5U	25.0	7.80	ug/Kg

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Method Blank

Blank ID: MB for HBN 1780274 [VXX/32292]
Blank Lab ID: 1449395

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	12.5U	25.0	7.80	ug/Kg
cis-1,2-Dichloroethene	12.5U	25.0	7.80	ug/Kg
cis-1,3-Dichloropropene	6.25U	12.5	3.90	ug/Kg
Dibromochloromethane	12.5U	25.0	7.80	ug/Kg
Dibromomethane	12.5U	25.0	7.80	ug/Kg
Dichlorodifluoromethane	25.0U	50.0	15.0	ug/Kg
Ethylbenzene	12.5U	25.0	7.80	ug/Kg
Freon-113	50.0U	100	31.0	ug/Kg
Hexachlorobutadiene	10.0U	20.0	6.20	ug/Kg
Isopropylbenzene (Cumene)	12.5U	25.0	7.80	ug/Kg
Methylene chloride	50.0U	100	31.0	ug/Kg
Methyl-t-butyl ether	50.0U	100	31.0	ug/Kg
Naphthalene	12.5U	25.0	7.80	ug/Kg
n-Butylbenzene	12.5U	25.0	7.80	ug/Kg
n-Propylbenzene	12.5U	25.0	7.80	ug/Kg
o-Xylene	12.5U	25.0	7.80	ug/Kg
P & M -Xylene	25.0U	50.0	15.0	ug/Kg
sec-Butylbenzene	12.5U	25.0	7.80	ug/Kg
Styrene	12.5U	25.0	7.80	ug/Kg
tert-Butylbenzene	12.5U	25.0	7.80	ug/Kg
Tetrachloroethene	6.25U	12.5	3.90	ug/Kg
Toluene	12.5U	25.0	7.80	ug/Kg
trans-1,2-Dichloroethene	12.5U	25.0	7.80	ug/Kg
trans-1,3-Dichloropropene	6.25U	12.5	3.90	ug/Kg
Trichloroethene	5.00U	10.0	3.10	ug/Kg
Trichlorofluoromethane	25.0U	50.0	15.0	ug/Kg
Vinyl acetate	50.0U	100	31.0	ug/Kg
Vinyl chloride	5.00U	10.0	3.10	ug/Kg
Xylenes (total)	37.5U	75.0	22.8	ug/Kg
Surrogates				
1,2-Dichloroethane-D4 (surr)	100	71-136		%
4-Bromofluorobenzene (surr)	97.4	55-151		%
Toluene-d8 (surr)	99.3	85-116		%

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Method Blank

Blank ID: MB for HBN 1780274 [VXX/32292]
Blank Lab ID: 1449395

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRO
Analytical Date/Time: 5/30/2018 11:25:00AM

Prep Batch: VXX32292
Prep Method: SW5035A
Prep Date/Time: 5/30/2018 6:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [VXX32292]
Blank Spike Lab ID: 1449396
Date Analyzed: 05/30/2018 11:43

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
1,1,1,2-Tetrachloroethane	750	799	107	(78-125)
1,1,1-Trichloroethane	750	815	109	(73-130)
1,1,2,2-Tetrachloroethane	750	750	100	(70-124)
1,1,2-Trichloroethane	750	753	100	(78-121)
1,1-Dichloroethane	750	779	104	(76-125)
1,1-Dichloroethene	750	770	103	(70-131)
1,1-Dichloropropene	750	803	107	(76-125)
1,2,3-Trichlorobenzene	750	680	91	(66-130)
1,2,3-Trichloropropane	750	731	97	(73-125)
1,2,4-Trichlorobenzene	750	694	93	(67-129)
1,2,4-Trimethylbenzene	750	742	99	(75-123)
1,2-Dibromo-3-chloropropane	750	767	102	(61-132)
1,2-Dibromoethane	750	773	103	(78-122)
1,2-Dichlorobenzene	750	732	98	(78-121)
1,2-Dichloroethane	750	697	93	(73-128)
1,2-Dichloropropane	750	775	103	(76-123)
1,3,5-Trimethylbenzene	750	744	99	(73-124)
1,3-Dichlorobenzene	750	727	97	(77-121)
1,3-Dichloropropane	750	761	101	(77-121)
1,4-Dichlorobenzene	750	731	97	(75-120)
2,2-Dichloropropane	750	783	104	(67-133)
2-Butanone (MEK)	2250	2290	102	(51-148)
2-Chlorotoluene	750	737	98	(75-122)
2-Hexanone	2250	2260	101	(53-145)
4-Chlorotoluene	750	751	100	(72-124)
4-Isopropyltoluene	750	717	96	(73-127)
4-Methyl-2-pentanone (MIBK)	2250	2260	100	(65-135)
Benzene	750	770	103	(77-121)
Bromobenzene	750	746	100	(78-121)
Bromochloromethane	750	733	98	(78-125)
Bromodichloromethane	750	753	100	(75-127)
Bromoform	750	722	96	(67-132)
Bromomethane	750	601	80	(53-143)
Carbon disulfide	1130	1090	97	(63-132)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [VXX32292]
Blank Spike Lab ID: 1449396
Date Analyzed: 05/30/2018 11:43

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Carbon tetrachloride	750	751	100	(70-135)
Chlorobenzene	750	745	99	(79-120)
Chloroethane	750	785	105	(59-139)
Chloroform	750	790	105	(78-123)
Chloromethane	750	748	100	(50-136)
cis-1,2-Dichloroethene	750	764	102	(77-123)
cis-1,3-Dichloropropene	750	840	112	(74-126)
Dibromochloromethane	750	755	101	(74-126)
Dibromomethane	750	779	104	(78-125)
Dichlorodifluoromethane	750	915	122	(29-149)
Ethylbenzene	750	757	101	(76-122)
Freon-113	1130	1230	110	(66-136)
Hexachlorobutadiene	750	642	86	(61-135)
Isopropylbenzene (Cumene)	750	765	102	(68-134)
Methylene chloride	750	711	95	(70-128)
Methyl-t-butyl ether	1130	1120	99	(73-125)
Naphthalene	750	730	97	(62-129)
n-Butylbenzene	750	716	95	(70-128)
n-Propylbenzene	750	759	101	(73-125)
o-Xylene	750	742	99	(77-123)
P & M -Xylene	1500	1500	100	(77-124)
sec-Butylbenzene	750	721	96	(73-126)
Styrene	750	757	101	(76-124)
tert-Butylbenzene	750	740	99	(73-125)
Tetrachloroethene	750	778	104	(73-128)
Toluene	750	731	98	(77-121)
trans-1,2-Dichloroethene	750	768	102	(74-125)
trans-1,3-Dichloropropene	750	843	112	(71-130)
Trichloroethene	750	764	102	(77-123)
Trichlorofluoromethane	750	811	108	(62-140)
Vinyl acetate	750	795	106	(50-151)
Vinyl chloride	750	801	107	(56-135)
Xylenes (total)	2250	2240	100	(78-124)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [VXX32292]
Blank Spike Lab ID: 1449396
Date Analyzed: 05/30/2018 11:43

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

	Blank Spike (%)			
Parameter	Spike	Result	Rec (%)	CL
Surrogates				
1,2-Dichloroethane-D4 (surr)	750	97.9	98	(71-136)
4-Bromofluorobenzene (surr)	750	93.8	94	(55-151)
Toluene-d8 (surr)	750	101	101	(85-116)

Batch Information

Analytical Batch: **VMS17829**
Analytical Method: **SW8260C**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **NRO**

Prep Batch: **VXX32292**
Prep Method: **SW5035A**
Prep Date/Time: **05/30/2018 06:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1449410
MS Sample ID: 1449397 MS
MSD Sample ID: 1449398 MSD

Analysis Date: 05/30/2018 18:45
Analysis Date: 05/30/2018 13:21
Analysis Date: 05/30/2018 13:39
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	19.6U	1470	1510	103	1470	1530	105	78-125	1.90	(< 20)
1,1,1-Trichloroethane	24.4U	1470	1580	108	1470	1560	107	73-130	1.30	(< 20)
1,1,2,2-Tetrachloroethane	12.2U	1470	1360	93	1470	1470	100	70-124	7.40	(< 20)
1,1,2-Trichloroethane	9.75U	1470	1380	94	1470	1460	100	78-121	5.40	(< 20)
1,1-Dichloroethane	24.4U	1470	1470	101	1470	1480	101	76-125	0.20	(< 20)
1,1-Dichloroethene	24.4U	1470	1600	109	1470	1520	104	70-131	5.00	(< 20)
1,1-Dichloropropene	24.4U	1470	1560	106	1470	1530	105	76-125	1.90	(< 20)
1,2,3-Trichlorobenzene	48.9U	1470	1020	70	1470	1350	92	66-130	27.70	* (< 20)
1,2,3-Trichloropropane	24.4U	1470	1370	93	1470	1450	99	73-125	5.90	(< 20)
1,2,4-Trichlorobenzene	24.4U	1470	1130	77	1470	1370	93	67-129	18.50	(< 20)
1,2,4-Trimethylbenzene	48.9U	1470	1410	96	1470	1410	96	75-123	0.04	(< 20)
1,2-Dibromo-3-chloropropane	97.5U	1470	1350	92	1470	1560	106	61-132	14.00	(< 20)
1,2-Dibromoethane	9.75U	1470	1410	96	1470	1500	103	78-122	6.10	(< 20)
1,2-Dichlorobenzene	24.4U	1470	1380	94	1470	1420	97	78-121	3.00	(< 20)
1,2-Dichloroethane	9.75U	1470	1270	87	1470	1330	91	73-128	4.40	(< 20)
1,2-Dichloropropane	9.75U	1470	1450	99	1470	1480	101	76-123	2.20	(< 20)
1,3,5-Trimethylbenzene	24.4U	1470	1420	97	1470	1400	96	73-124	0.94	(< 20)
1,3-Dichlorobenzene	24.4U	1470	1400	95	1470	1420	97	77-121	1.40	(< 20)
1,3-Dichloropropane	9.75U	1470	1390	95	1470	1470	100	77-121	5.60	(< 20)
1,4-Dichlorobenzene	24.4U	1470	1400	96	1470	1430	97	75-120	1.70	(< 20)
2,2-Dichloropropane	24.4U	1470	1560	106	1470	1510	103	67-133	3.00	(< 20)
2-Butanone (MEK)	245U	4400	3970	90	4400	4470	102	51-148	11.70	(< 20)
2-Chlorotoluene	24.4U	1470	1430	97	1470	1430	97	75-122	0.03	(< 20)
2-Hexanone	97.5U	4400	3960	90	4400	4410	100	53-145	10.70	(< 20)
4-Chlorotoluene	24.4U	1470	1440	98	1470	1460	100	72-124	1.10	(< 20)
4-Isopropyltoluene	97.5U	1470	1320	90	1470	1380	94	73-127	4.50	(< 20)
4-Methyl-2-pentanone (MIBK)	245U	4400	3960	90	4400	4410	100	65-135	10.80	(< 20)
Benzene	12.2U	1470	1450	99	1470	1460	100	77-121	0.37	(< 20)
Bromobenzene	24.4U	1470	1470	100	1470	1440	98	78-121	2.20	(< 20)
Bromochloromethane	24.4U	1470	1380	94	1470	1400	95	78-125	0.91	(< 20)
Bromodichloromethane	24.4U	1470	1420	97	1470	1460	100	75-127	2.60	(< 20)
Bromoform	24.4U	1470	1330	91	1470	1440	99	67-132	7.90	(< 20)
Bromomethane	196U	1470	1510	103	1470	1400	95	53-143	7.90	(< 20)
Carbon disulfide	97.5U	2200	2360	107	2200	2180	99	63-132	8.10	(< 20)
Carbon tetrachloride	12.2U	1470	1480	101	1470	1460	99	70-135	1.40	(< 20)
Chlorobenzene	24.4U	1470	1400	95	1470	1430	98	79-120	2.20	(< 20)
Chloroethane	196U	1470	1520	104	1470	1400	96	59-139	7.80	(< 20)

Print Date: 06/18/2018 3:34:20PM

Matrix Spike Summary

Original Sample ID: 1449410
MS Sample ID: 1449397 MS
MSD Sample ID: 1449398 MSD

Analysis Date: 05/30/2018 18:45
Analysis Date: 05/30/2018 13:21
Analysis Date: 05/30/2018 13:39
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloroform	24.4U	1470	1470	100	1470	1510	103	78-123	2.80	(< 20)
Chloromethane	24.4U	1470	1470	100	1470	1440	98	50-136	1.90	(< 20)
cis-1,2-Dichloroethene	24.4U	1470	1440	99	1470	1460	100	77-123	0.91	(< 20)
cis-1,3-Dichloropropene	12.2U	1470	1580	108	1470	1620	111	74-126	2.50	(< 20)
Dibromochloromethane	24.4U	1470	1410	96	1470	1470	100	74-126	4.10	(< 20)
Dibromomethane	24.4U	1470	1420	97	1470	1500	102	78-125	5.20	(< 20)
Dichlorodifluoromethane	48.9U	1470	1790	122	1470	1640	112	29-149	8.50	(< 20)
Ethylbenzene	24.4U	1470	1420	97	1470	1430	98	76-122	0.92	(< 20)
Freon-113	97.5U	2200	2510	114	2200	2410	110	66-136	3.80	(< 20)
Hexachlorobutadiene	19.6U	1470	1300	89	1470	1250	85	61-135	4.00	(< 20)
Isopropylbenzene (Cumene)	24.4U	1470	1390	95	1470	1450	99	68-134	3.60	(< 20)
Methylene chloride	97.5U	1470	1340	91	1470	1340	91	70-128	0.04	(< 20)
Methyl-t-butyl ether	97.5U	2200	2040	93	2200	2170	99	73-125	5.90	(< 20)
Naphthalene	24.4U	1470	1160	79	1470	1480	101	62-129	24.30	* (< 20)
n-Butylbenzene	24.4U	1470	1300	88	1470	1370	93	70-128	5.50	(< 20)
n-Propylbenzene	24.4U	1470	1430	97	1470	1430	98	73-125	0.51	(< 20)
o-Xylene	24.4U	1470	1400	95	1470	1440	98	77-123	2.90	(< 20)
P & M -Xylene	48.9U	2930	2830	97	2930	2860	97	77-124	0.79	(< 20)
sec-Butylbenzene	24.4U	1470	1300	89	1470	1350	92	73-126	3.10	(< 20)
Styrene	24.4U	1470	1440	98	1470	1460	100	76-124	1.30	(< 20)
tert-Butylbenzene	24.4U	1470	1330	91	1470	1400	95	73-125	4.80	(< 20)
Tetrachloroethene	12.2U	1470	1530	104	1470	1530	104	73-128	0.38	(< 20)
Toluene	19.1J	1470	1390	93	1470	1400	94	77-121	1.10	(< 20)
trans-1,2-Dichloroethene	24.4U	1470	1640	112	1470	1460	100	74-125	11.50	(< 20)
trans-1,3-Dichloropropene	12.2U	1470	1580	108	1470	1640	112	71-130	3.40	(< 20)
Trichloroethene	9.75U	1470	1460	100	1470	1450	99	77-123	1.20	(< 20)
Trichlorofluoromethane	48.9U	1470	1680	114	1470	1580	108	62-140	5.70	(< 20)
Vinyl acetate	97.5U	1470	1390	95	1470	1500	102	50-151	7.20	(< 20)
Vinyl chloride	9.75U	1470	1540	105	1470	1420	97	56-135	8.20	(< 20)
Xylenes (total)	73.5U	4400	4230	96	4400	4290	98	78-124	1.50	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		1470	1390	95	1470	1430	97	71-136	3.00	
4-Bromofluorobenzene (surr)		2440	2050	84	2440	2080	85	55-151	1.40	
Toluene-d8 (surr)		1470	1490	102	1470	1480	101	85-116	0.20	

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Matrix Spike Summary

Original Sample ID: 1449410
MS Sample ID: 1449397 MS
MSD Sample ID: 1449398 MSD

Analysis Date:
Analysis Date: 05/30/2018 13:21
Analysis Date: 05/30/2018 13:39
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C**

		Matrix Spike (%)			Spike Duplicate (%)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: VMS17829
Analytical Method: SW8260C
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRO
Analytical Date/Time: 5/30/2018 1:21:01PM

Prep Batch: VXX32292
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/30/2018 6:00:00AM
Prep Initial Wt./Vol.: 25.58g
Prep Extract Vol: 25.00mL

Print Date: 06/18/2018 3:34:20PM

Method Blank

Blank ID: MB for HBN 1780317 [VXX/32299]
Blank Lab ID: 1449593

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C LL w/MeOH**

Parameter	Results	LOQ/CL	DL	Units
1,1,2,2-Tetrachloroethane	1.00U	2.00	0.620	ug/Kg
1,1,2-Trichloroethane	0.400U	0.800	0.250	ug/Kg
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/Kg
1,2-Dibromoethane	0.250U	0.500	0.150	ug/Kg
1,2-Dichloroethane	1.00U	2.00	0.620	ug/Kg
Bromodichloromethane	1.00U	2.00	0.620	ug/Kg
Bromomethane	10.0U	20.0	6.20	ug/Kg
Chloroform	1.00U	2.00	0.620	ug/Kg
Dibromochloromethane	1.00U	2.00	0.620	ug/Kg
Trichloroethene	2.50U	5.00	1.50	ug/Kg
Vinyl chloride	0.400U	0.800	0.250	ug/Kg
Surrogates				
1,2-Dichloroethane-D4 (surr)	100	71-136		%
4-Bromofluorobenzene (surr)	97.4	55-151		%
Toluene-d8 (surr)	99.3	85-116		%

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRO
Analytical Date/Time: 5/30/2018 11:25:00AM

Prep Batch: VXX32299
Prep Method: SW5035A
Prep Date/Time: 5/30/2018 6:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [VXX32299]
Blank Spike Lab ID: 1449594
Date Analyzed: 05/30/2018 11:43

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C LL w/MeOH**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
1,1,2,2-Tetrachloroethane	750	750	100	(70-124)
1,1,2-Trichloroethane	750	753	100	(78-121)
1,2,3-Trichloropropane	750	731	97	(73-125)
1,2-Dibromoethane	750	773	103	(78-122)
1,2-Dichloroethane	750	697	93	(73-128)
Bromodichloromethane	750	753	100	(75-127)
Bromomethane	750	601	80	(53-143)
Chloroform	750	790	105	(78-123)
Dibromochloromethane	750	739	99	(74-126)
Trichloroethene	750	764	102	(77-123)
Vinyl chloride	750	801	107	(56-135)
Surrogates				
1,2-Dichloroethane-D4 (surr)	750	97.9	98	(71-136)
4-Bromofluorobenzene (surr)	750	93.8	94	(55-151)
Toluene-d8 (surr)	750	101	101	(85-116)

Batch Information

Analytical Batch: **VMS17835**
Analytical Method: **SW8260C LL w/MeOH**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **NRO**

Prep Batch: **VXX32299**
Prep Method: **SW5035A**
Prep Date/Time: **05/30/2018 06:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1449622
MS Sample ID: 1449623 MS
MSD Sample ID: 1449624 MSD

Analysis Date: 05/30/2018 18:45
Analysis Date: 05/30/2018 13:21
Analysis Date: 05/30/2018 13:39
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **SW8260C LL w/MeOH**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,2,2-Tetrachloroethane	1.96U	1470	1360	93	1470	1470	100	70-124	7.40	(< 20)
1,1,2-Trichloroethane	0.780U	1470	1380	94	1470	1460	100	78-121	5.40	(< 20)
1,2,3-Trichloropropane	0.975U	1470	1370	93	1470	1450	99	73-125	5.90	(< 20)
1,2-Dibromoethane	0.488U	1470	1410	96	1470	1500	103	78-122	6.10	(< 20)
1,2-Dichloroethane	1.96U	1470	1270	87	1470	1330	91	73-128	4.40	(< 20)
Bromodichloromethane	1.96U	1470	1420	97	1470	1460	100	75-127	2.60	(< 20)
Bromomethane	19.6U	1470	1510	103	1470	1400	95	53-143	7.90	(< 20)
Chloroform	1.96U	1470	1470	100	1470	1510	103	78-123	2.80	(< 20)
Dibromochloromethane	1.96U	1470	1380	94	1470	1440	98	74-126	4.10	(< 20)
Trichloroethene	4.88U	1470	1460	100	1470	1450	99	77-123	1.20	(< 20)
Vinyl chloride	0.780U	1470	1540	105	1470	1420	97	56-135	8.20	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		1470	1390	95	1470	1430	97	71-136	3.00	
4-Bromofluorobenzene (surr)		2440	2050	84	2440	2080	85	55-151	1.40	
Toluene-d8 (surr)		1470	1490	102	1470	1480	101	85-116	0.20	

Batch Information

Analytical Batch: VMS17835
Analytical Method: SW8260C LL w/MeOH
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRO
Analytical Date/Time: 5/30/2018 1:21:00PM

Prep Batch: VXX32299
Prep Method: Vol. Extraction SW8260 LL w/MeOH
Prep Date/Time: 5/30/2018 6:00:00AM
Prep Initial Wt./Vol.: 25.58g
Prep Extract Vol: 25.00mL

Print Date: 06/18/2018 3:34:23PM

Method Blank

Blank ID: MB for HBN 1780441 [VXX/32320]
Blank Lab ID: 1450124

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	1.25U	2.50	0.750	mg/Kg
Surrogates				
4-Bromofluorobenzene (surr)	81	50-150		%

Batch Information

Analytical Batch: VFC14166
Analytical Method: AK101
Instrument: Agilent 7890A PID/FID
Analyst: NRO
Analytical Date/Time: 6/3/2018 1:31:00PM

Prep Batch: VXX32320
Prep Method: SW5035A
Prep Date/Time: 6/2/2018 6:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

Print Date: 06/18/2018 3:34:23PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [VXX32320]
Blank Spike Lab ID: 1450125
Date Analyzed: 06/03/2018 11:43

Spike Duplicate ID: LCSD for HBN 1189325 [VXX32320]
Spike Duplicate Lab ID: 1450126
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004, 1189325005

Results by **AK101**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	12.5	11.0	88	12.5	11.0	88	(60-120)	0.56	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	1.25	80.8	81	1.25	81.2	81	(50-150)	0.47	

Batch Information

Analytical Batch: **VFC14166**
Analytical Method: **AK101**
Instrument: **Agilent 7890A PID/FID**
Analyst: **NRO**

Prep Batch: **VXX32320**
Prep Method: **SW5035A**
Prep Date/Time: **06/02/2018 06:00**
Spike Init Wt./Vol.: 12.5 mg/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: 12.5 mg/Kg Extract Vol: 25 mL

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Method Blank

Blank ID: MB for HBN 1780159 [XXX/39577]
Blank Lab ID: 1448903

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	25.0U	50.0	12.5	ug/Kg
Aroclor-1221	100U	200	50.0	ug/Kg
Aroclor-1232	25.0U	50.0	12.5	ug/Kg
Aroclor-1242	25.0U	50.0	12.5	ug/Kg
Aroclor-1248	25.0U	50.0	12.5	ug/Kg
Aroclor-1254	25.0U	50.0	12.5	ug/Kg
Aroclor-1260	25.0U	50.0	12.5	ug/Kg
Surrogates				
Decachlorobiphenyl (surr)	89.5	60-125		%

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: CMC
Analytical Date/Time: 6/1/2018 8:08:00PM

Prep Batch: XXX39577
Prep Method: SW3550C
Prep Date/Time: 5/29/2018 3:58:16PM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:26PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [XXX39577]
Blank Spike Lab ID: 1448904
Date Analyzed: 06/01/2018 20:18

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **SW8082A**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Aroclor-1016	222	152	68	(47-134)
Aroclor-1260	222	213	96	(53-140)
Surrogates				
Decachlorobiphenyl (surr)	222	92	92	(60-125)

Batch Information

Analytical Batch: **XGC10109**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW F**
Analyst: **CMC**

Prep Batch: **XXX39577**
Prep Method: **SW3550C**
Prep Date/Time: **05/29/2018 15:58**
Spike Init Wt./Vol.: 222 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1182437001
MS Sample ID: 1448905 MS
MSD Sample ID: 1448906 MSD

Analysis Date: 06/01/2018 21:19
Analysis Date: 06/01/2018 21:40
Analysis Date: 06/01/2018 22:01
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **SW8082A**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	104U	229	265	115	227	216	95	47-134	20.10	(< 30)
Aroclor-1260	104U	229	177	77	227	177	78	53-140	0.17	(< 30)
Surrogates										
Decachlorobiphenyl (surr)		229	221	96	227	230	101	60-125	4.00	

Batch Information

Analytical Batch: XGC10109
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: CMC
Analytical Date/Time: 6/1/2018 9:40:00PM

Prep Batch: XXX39577
Prep Method: Sonication Extraction Soil SW8080 PCB
Prep Date/Time: 5/29/2018 3:58:16PM
Prep Initial Wt./Vol.: 22.71g
Prep Extract Vol: 5.00mL

Print Date: 06/18/2018 3:34:28PM

Method Blank

Blank ID: MB for HBN 1780180 [XXX/39582]
Blank Lab ID: 1448992

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **8270D SIM (PAH)**

Parameter	Results	LOQ/CL	DL	Units
1-Methylnaphthalene	12.5U	25.0	6.25	ug/Kg
2-Methylnaphthalene	12.5U	25.0	6.25	ug/Kg
Acenaphthene	12.5U	25.0	6.25	ug/Kg
Acenaphthylene	12.5U	25.0	6.25	ug/Kg
Anthracene	12.5U	25.0	6.25	ug/Kg
Benzo(a)Anthracene	12.5U	25.0	6.25	ug/Kg
Benzo[a]pyrene	12.5U	25.0	6.25	ug/Kg
Benzo[b]Fluoranthene	12.5U	25.0	6.25	ug/Kg
Benzo[g,h,i]perylene	12.5U	25.0	6.25	ug/Kg
Benzo[k]fluoranthene	12.5U	25.0	6.25	ug/Kg
Chrysene	12.5U	25.0	6.25	ug/Kg
Dibenzo[a,h]anthracene	12.5U	25.0	6.25	ug/Kg
Fluoranthene	12.5U	25.0	6.25	ug/Kg
Fluorene	12.5U	25.0	6.25	ug/Kg
Indeno[1,2,3-c,d] pyrene	12.5U	25.0	6.25	ug/Kg
Naphthalene	10.0U	20.0	5.00	ug/Kg
Phenanthrene	12.5U	25.0	6.25	ug/Kg
Pyrene	12.5U	25.0	6.25	ug/Kg
Surrogates				
2-Methylnaphthalene-d10 (surr)	108*	58-103		%
Fluoranthene-d10 (surr)	120*	54-113		%

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Instrument: SVA Agilent 780/5975 GC/MS
Analyst: BMZ
Analytical Date/Time: 5/31/2018 11:35:00AM

Prep Batch: XXX39582
Prep Method: SW3550C
Prep Date/Time: 5/30/2018 11:20:01AM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:29PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [XXX39582]
Blank Spike Lab ID: 1448993
Date Analyzed: 05/31/2018 11:55

Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **8270D SIM (PAH)**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
1-Methylnaphthalene	111	101	91	(43-111)
2-Methylnaphthalene	111	95.5	86	(39-114)
Acenaphthene	111	110	99	(44-111)
Acenaphthylene	111	99.7	90	(39-116)
Anthracene	111	104	93	(50-114)
Benzo(a)Anthracene	111	104	94	(54-122)
Benzo[a]pyrene	111	96.5	87	(50-125)
Benzo[b]Fluoranthene	111	106	95	(53-128)
Benzo[g,h,i]perylene	111	105	94	(49-127)
Benzo[k]fluoranthene	111	108	97	(56-123)
Chrysene	111	112	100	(57-118)
Dibenzo[a,h]anthracene	111	98.9	89	(50-129)
Fluoranthene	111	109	98	(55-119)
Fluorene	111	104	93	(47-114)
Indeno[1,2,3-c,d] pyrene	111	103	93	(49-130)
Naphthalene	111	96.1	87	(38-111)
Phenanthrene	111	104	93	(49-113)
Pyrene	111	111	100	(55-117)
Surrogates				
2-Methylnaphthalene-d10 (surr)	111	82	82	(58-103)
Fluoranthene-d10 (surr)	111	87.6	88	(54-113)

Batch Information

Analytical Batch: **XMS10790**
Analytical Method: **8270D SIM (PAH)**
Instrument: **SVA Agilent 780/5975 GC/MS**
Analyst: **BMZ**

Prep Batch: **XXX39582**
Prep Method: **SW3550C**
Prep Date/Time: **05/30/2018 11:20**
Spike Init Wt./Vol.: 111 ug/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/18/2018 3:34:30PM

Matrix Spike Summary

Original Sample ID: 1182419003
MS Sample ID: 1449038 MS
MSD Sample ID: 1449039 MSD

Analysis Date: 05/31/2018 12:57
Analysis Date: 05/31/2018 13:17
Analysis Date: 05/31/2018 13:37
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **8270D SIM (PAH)**

		Matrix Spike (ug/Kg)				Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)		Spike	Result	Rec (%)		CL	RPD (%)	RPD CL
Acenaphthene	446	126	554	86		127	551	83		44-111	0.43	(< 20)
Acenaphthylene	14.0U	126	209	167	*	127	210	166	*	39-116	0.59	(< 20)
Anthracene	48.8	126	177	102		127	175	99		50-114	1.70	(< 20)
Benzo(a)Anthracene	27.2J	126	143	92		127	138	88		54-122	3.00	(< 20)
Benzo[a]pyrene	16.1J	126	129	91		127	126	87		50-125	2.80	(< 20)
Benzo[b]Fluoranthene	23.0J	126	138	92		127	136	89		53-128	2.40	(< 20)
Benzo[g,h,i]perylene	7.44J	126	127	95		127	122	91		49-127	3.80	(< 20)
Benzo[k]fluoranthene	8.79J	126	131	98		127	126	93		56-123	4.50	(< 20)
Chrysene	28.7	126	148	96		127	143	91		57-118	3.90	(< 20)
Dibenzo[a,h]anthracene	14.0U	126	116	93		127	112	89		50-129	4.10	(< 20)
Fluoranthene	130	126	234	83		127	231	79		55-119	1.50	(< 20)
Indeno[1,2,3-c,d] pyrene	14.0U	126	124	100		127	120	95		49-130	4.10	(< 20)
Pyrene	121	126	234	91		127	229	86		55-117	2.30	(< 20)
1-Methylnaphthalene	9170	126	9338	129	*	127	9132	-34	*	43-111	2.20	(< 20)
2-Methylnaphthalene	15000	126	15297	219	*	127	14954	-81	*	39-114	2.50	(< 20)
Fluorene	1070J	126	1221J	115	*	127	1199J	95		47-114	2.00	(< 20)
Naphthalene	7470	126	7751	218	*	127	7340	-107	*	38-111	5.40	(< 20)
Phenanthrene	980J	126	1119J	110		127	1102J	96		49-113	1.50	(< 20)
Surrogates												
2-Methylnaphthalene-d10 (surr)		126	145	115	*	127	152	120	*	58-103	4.80	
Fluoranthene-d10 (surr)		126	101	81		127	98.3	78		54-113	3.00	

Batch Information

Analytical Batch: XMS10790
Analytical Method: 8270D SIM (PAH)
Instrument: SVA Agilent 780/5975 GC/MS
Analyst: BMZ
Analytical Date/Time: 5/31/2018 1:17:01PM

Prep Batch: XXX39582
Prep Method: Sonication Extr Soil 8270 PAH SIM 5ml
Prep Date/Time: 5/30/2018 11:20:01AM
Prep Initial Wt./Vol.: 22.77g
Prep Extract Vol: 5.00mL

Analytical Batch: XMS10795
Analytical Method: 8270D SIM (PAH)
Instrument: SVA Agilent 780/5975 GC/MS
Analyst: BMZ
Analytical Date/Time: 6/1/2018 10:26:00AM

Prep Batch: XXX39582
Prep Method: Sonication Extr Soil 8270 PAH SIM 5ml
Prep Date/Time: 5/30/2018 11:20:01AM
Prep Initial Wt./Vol.: 22.77g
Prep Extract Vol: 5.00mL

Print Date: 06/18/2018 3:34:32PM

Method Blank

Blank ID: MB for HBN 1780198 [XXX/39584]
Blank Lab ID: 1449056

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **AK102**

Parameter	Results	LOQ/CL	DL	Units
Diesel Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
5a Androstane (surr)	87	60-120		%

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK102
Instrument: Agilent 7890B F
Analyst: VDL
Analytical Date/Time: 5/31/2018 2:15:00PM

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 5/30/2018 11:48:55AM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 5 mL

Print Date: 06/18/2018 3:34:33PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [XXX39584]
Blank Spike Lab ID: 1449057
Date Analyzed: 05/31/2018 14:25

Spike Duplicate ID: LCSD for HBN 1189325 [XXX39584]
Spike Duplicate Lab ID: 1449058
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **AK102**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	833	784	94	833	784	94	(75-125)	0.04	(< 20)
Surrogates									
5a Androstane (surr)	16.7	97.1	97	16.7	96.7	97	(60-120)	0.35	

Batch Information

Analytical Batch: **XFC14242**
Analytical Method: **AK102**
Instrument: **Agilent 7890B F**
Analyst: **VDL**

Prep Batch: **XXX39584**
Prep Method: **SW3550C**
Prep Date/Time: **05/30/2018 11:48**
Spike Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1780198 [XXX/39584]
Blank Lab ID: 1449056

Matrix: Soil/Solid (dry weight)

QC for Samples:
1189325001, 1189325002, 1189325003, 1189325004

Results by **AK103**

Parameter	Results	LOQ/CL	DL	Units
Residual Range Organics	10.0U	20.0	6.20	mg/Kg
Surrogates				
n-Triacontane-d62 (surr)	86.8	60-120		%

Batch Information

Analytical Batch: XFC14242
Analytical Method: AK103
Instrument: Agilent 7890B F
Analyst: VDL
Analytical Date/Time: 5/31/2018 2:15:00PM

Prep Batch: XXX39584
Prep Method: SW3550C
Prep Date/Time: 5/30/2018 11:48:55AM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189325 [XXX39584]
Blank Spike Lab ID: 1449057
Date Analyzed: 05/31/2018 14:25

Spike Duplicate ID: LCSD for HBN 1189325 [XXX39584]
Spike Duplicate Lab ID: 1449058
Matrix: Soil/Solid (dry weight)

QC for Samples: 1189325001, 1189325002, 1189325003, 1189325004

Results by **AK103**

	Blank Spike (mg/Kg)			Spike Duplicate (mg/Kg)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Residual Range Organics	833	770	92	833	766	92	(60-120)	0.51	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	16.7	91	91	16.7	88.6	89	(60-120)	2.60	

Batch Information

Analytical Batch: **XFC14242**
Analytical Method: **AK103**
Instrument: **Agilent 7890B F**
Analyst: **VDL**

Prep Batch: **XXX39584**
Prep Method: **SW3550C**
Prep Date/Time: **05/30/2018 11:48**
Spike Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL
Dupe Init Wt./Vol.: 833 mg/Kg Extract Vol: 5 mL

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Homestead, Charles (Anchorage)

From: Homestead, Charles (Anchorage)
Sent: Monday, June 18, 2018 3:44 PM
To: Homestead, Charles (Anchorage)
Subject: 1189325_CO

From: Myerchin, Paul
Sent: Tuesday, May 29, 2018 12:34 PM
To: Ede, Stephen (Anchorage) (Stephen.Ede@sgs.com)
Cc: Burrus, Marianne
Subject: Modification to COC Lab Work Order

Stephen,

On Thursday and Friday of last week, I submitted several water and soil samples for which the corresponding COC's indicated "Hold PAH analyses". Please proceed with PAH analyses for the samples listed on the COCs for Lab Work Order Numbers #1189325 (samples SB-2, SB-2A, SB-3, and SB-3A), and 1189328 (samples SB-3, SB-2, and SB-2A). Also, there may be some available volume issues associated with the soil samples. Please let me know if this will be an issue.

Thanks,

Paul Myerchin

SGS

SGS North America Inc.
CHAIN OF CUSTODY RECORD

1189325

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: AECOM

CONTACT: Paul ~~Marshall~~ Myerchin — PHONE #: (907) 351-9934 (cell) 907-261-6785 office

PROJECT NAME: Albertsons Fairbanks UST — Project/ PWSID/ PERMIT#: 60543830

REPORTS TO: Paul ~~Marshall~~ Myerchin — E-MAIL: paul.myerchin@aecom.com

INVOICE TO: AECOM — QUOTE #: 355176 — P.O. #:

Section 3

Preservative

Section 2 RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: (Comp / Grab / MI (Multi-incremental))	VOC 8260 (MeOH)	GRO/BTEX 8021 (MeOH)	LL 8260 (MeOH)	PCBs 8082	DRO 8015M	RCRA Metals 6010/7470	PAH 8270	PAH 8270		REMARKS/ LOC ID
(5)A	TRIP BLANK	05/23/18	0800	soil	1	—	x	x	x	x	x	x	x	x		
(1)A-B	SB-2-14.5	05/23/18	1725	Soil	2	G	x	x	x	x	x	x	x	x		Hold PAH Analyses
(2)A-B	SB-2A-14.5	5/23/18	1726	Soil	2	G	x	x	x	x	x	x	x	x		Hold PAH Analyses
(3)A-B	SB-3-14.5	5/24/18	11:27	Soil	2	G	x	x	x	x	x	x	x	x		
(4)A-B	SB-3A-14.5	5/24/18	11:30	Soil	2	G	x	x	x	x	x	x	x	x		

Section 5

	Date	Time		
Relinquished By: (1) Dave Myerchin	5/25/18	0810	Received By:	5/25/18 0810
Relinquished By: (2)	5/25/18	1115	Received By:	
Relinquished By: (3)	Date	Time	Received By:	
Relinquished By: (4)	5/25/18	1600	Received For Laboratory By:	NSW

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:
Analyses to include 1,2 DCA & EDB, & PAHs (hold PAH)

Temp Blank °C: 6.0°C or Ambient [ ]
(See attached Sample Receipt Form)

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

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

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

TB: 5.0 (D25), 4.5 (D40)
CS: IF, JB

SGS

1189325

FAIRBANKS SAMPLE RECEIPT FORM

Note: This form is to be completed by Fairbanks Receiving Staff for all samples

Review Criteria:	Condition:	Comments/Actions Taken
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	(Yes) No N/A (Yes) No N/A	□*Exemption permitted if sampler hand carries/delivers.*
Temperature blank compliant* (i.e., 0-6°C) *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID:_____@ 6.0°C w/Therm. ID: D11 Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank and "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note ambient ( ) or chilled ( ). Please check one.	(Yes) No Yes No (N/A) Yes No (N/A)	□*Exemption permitted if chilled & collected <8hrs ago* ***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.***
Delivery Method: (Client) (hand carried) Other:_____	Tracking/AB# : Or see attached Or (N/A)	
→For samples received with payment, note amount ($) and whether cash / check / CC (**circle one**) was received.		
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): (Bubble Wrap) Separate plastic bags Vermiculite Other:_____	(Yes) No N/A	***Note: some samples are sent to Anchorage without inspection by SGS Fairbanks personnel.***
Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?	(Yes) No N/A	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	Yes No (N/A) Yes No (N/A)	

Additional notes (if applicable):

Profile #:

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

e-Sample Receipt Form

SGS Workorder #: **1189325**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		n/a Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	yes	1 front, 1 back
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 5.0 °C Therm. ID: D25
	yes	Cooler ID: 2 @ 4.5 °C Therm. ID: D40
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
		Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	
		n/a ***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	yes	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	n/a	
Were all soil VOAs field extracted with MeOH+BFB?	yes	

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

Additional notes (if applicable):

PAH added to samples 1-A and 2-A per SCE. NJW 5/29

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1189325001-A	No Preservative Required	OK			
1189325001-B	Methanol field pres. 4 C	OK			
1189325002-A	No Preservative Required	OK			
1189325002-B	Methanol field pres. 4 C	OK			
1189325003-A	No Preservative Required	OK			
1189325003-B	Methanol field pres. 4 C	OK			
1189325004-A	No Preservative Required	OK			
1189325004-B	Methanol field pres. 4 C	OK			
1189325005-A	Methanol field pres. 4 C	OK			

Container Condition Glossary

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

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

Laboratory Report of Analysis

To: AECOM Environmental
700 G St. Ste. 500
Anchorage, AK 99501
(907)261-6785

Report Number: **1189328**

Client Project: **60543830 Albertsons FBX UST**

Dear Paul Myerchin,

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

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

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

Sincerely,
SGS North America Inc.

Chuck Homestead Date
Project Manager
Charles.Homestead@sgs.com

Print Date: 06/25/2018 3:59:58PM

Case Narrative

SGS Client: **AECOM Environmental**
SGS Project: **1189328**
Project Name/Site: **60543830 Albertsons FBX UST**
Project Contact: **Paul Myerchin**

Refer to sample receipt form for information on sample condition.

SB-3 (1189328001) PS

8260 SIM - Surrogate recovery for 4-bromofluorobenzene (38.2%) does not meet QC criteria. No compounds associated with this surrogate were reported.
8260 SIM For EDB - Sample was analyzed past hold time.

SB-2 (1189328002) PS

8260 SIM For EDB - Sample was analyzed past hold time.

SB-2A (1189328003) PS

8260 SIM For EDB - Sample was analyzed past hold time.

LCS for HBN 1781084 [VXX/32415 (1453047) LCS

8260 SIM - Surrogate recovery for 4-bromofluorobenzene (74.9%) does not meet QC criteria. No compounds related to this surrogate were reported in the associated samples.

LCSD for HBN 1781084 [VXX/3241 (1453048) LCSD

8260 SIM - Surrogate RPD for 4-bromofluorobenzene (26.4%) does not meet QC criteria. No compounds related to this surrogate were reported in the associated samples.

TB-1 (1189328004) TB

8260 SIM For EDB - Sample was analyzed past hold time.

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

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Report of Manual Integrations

Laboratory ID	Client Sample ID	Analytical Batch	Analyte	Reason
SW8082A				
1450435	LCS for HBN 1780516 [XXX/39633	XGC10112	Aroclor-1016	BLC
1450435	LCS for HBN 1780516 [XXX/39633	XGC10112	Aroclor-1260	BLC
1450436	LCSD for HBN 1780516 [XXX/3963	XGC10112	Aroclor-1016	BLC
1450436	LCSD for HBN 1780516 [XXX/3963	XGC10112	Aroclor-1260	BLC

Manual Integration Reason Code Descriptions

Code	Description
O	Original Chromatogram
M	Modified Chromatogram
SS	Skimmed surrogate
BLG	Closed baseline gap
RP	Reassign peak name
PIR	Pattern integration required
IT	Included tail
SP	Split peak
RSP	Removed split peak
FPS	Forced peak start/stop
BLC	Baseline correction
PNF	Peak not found by software

All DRO/RRO analysis are integrated per SOP.

Print Date: 06/25/2018 4:00:00PM

Laboratory Qualifiers

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

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

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 DW Chemistry (Provisionally Certified as of 06/11/2018 for Mercury by EPA245.1,Beryllium and Copper by EPA200.8) & Microbiology & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8015C, 8021B, 8082A, 8260C, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

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

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
U	Indicates the analyte was analyzed for but not detected.

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

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
SB-3	1189328001	05/25/2018	05/30/2018	Water (Surface, Eff., Ground)
SB-2	1189328002	05/25/2018	05/30/2018	Water (Surface, Eff., Ground)
SB-2A	1189328003	05/25/2018	05/30/2018	Water (Surface, Eff., Ground)
TB-1	1189328004	05/25/2018	05/30/2018	Water (Surface, Eff., Ground)

Method	Method Description
8270D SIM (PAH)	8270 PAH SIM Semi-Vol GC/MS Liq/Liq ext.
AK102	DRO/RRO Low Volume Water
AK103	DRO/RRO Low Volume Water
AK101	Gasoline Range Organics (W)
SW6020A	Metals by ICP-MS
SW8082A	SW8082 PCB's
SW8260C-SIM	SW8260-SIM (W)
SW8260C	Volatile Organic Compounds (W) FULL

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Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,2-Dibromoethane	0.00250	U	0.00500	0.00125	ug/L	1		06/14/18 16:46
Surrogates								
4-Bromofluorobenzene (surr)	38.2	*	85-114		%	1		06/14/18 16:46
Toluene-d8 (surr)	104		89-112		%	1		06/14/18 16:46

Batch Information

Analytical Batch: VMS17894
Analytical Method: SW8260C-SIM
Analyst: NRB
Analytical Date/Time: 06/14/18 16:46
Container ID: 1189328001-J

Prep Batch: VXX32415
Prep Method: SW5030B
Prep Date/Time: 06/14/18 06:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

J flagging is activated

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Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	ug/L	5		06/01/18 15:56
Barium	96.1		3.00	0.940	ug/L	5		06/01/18 15:56
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/01/18 15:56
Chromium	2.00	U	4.00	1.30	ug/L	5		06/01/18 15:56
Lead	0.500	U	1.00	0.310	ug/L	5		06/01/18 15:56
Mercury	0.0713	J	0.200	0.0620	ug/L	5		06/01/18 15:56
Selenium	10.0	U	20.0	6.20	ug/L	5		06/01/18 15:56
Silver	1.00	U	2.00	0.620	ug/L	5		06/01/18 15:56

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/01/18 15:56
Container ID: 1189328001-E

Prep Batch: MXX31617
Prep Method: SW3010A
Prep Date/Time: 06/01/18 07:27
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

J flagging is activated

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Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Aroclor-1221	0.540	U	1.08	0.333	ug/L	1		06/07/18 21:40
Aroclor-1232	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Aroclor-1242	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Aroclor-1248	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Aroclor-1254	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Aroclor-1260	0.0540	U	0.108	0.0333	ug/L	1		06/07/18 21:40
Surrogates								
Decachlorobiphenyl (surr)	76		40-135		%	1		06/07/18 21:40

Batch Information

Analytical Batch: XGC10112
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/07/18 21:40
Container ID: 1189328001-B

Prep Batch: XXX39633
Prep Method: SW3520C
Prep Date/Time: 06/06/18 08:36
Prep Initial Wt./Vol.: 930 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
2-Methylnaphthalene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Acenaphthene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Acenaphthylene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Anthracene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Benzo(a)Anthracene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Benzo[a]pyrene	0.00259	U	0.00518	0.00155	ug/L	1		06/02/18 15:23
Benzo[b]Fluoranthene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Benzo[g,h,i]perylene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Benzo[k]fluoranthene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Chrysene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Dibenzo[a,h]anthracene	0.00259	U	0.00518	0.00155	ug/L	1		06/02/18 15:23
Fluoranthene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Fluorene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Indeno[1,2,3-c,d] pyrene	0.00650	U	0.0130	0.00383	ug/L	1		06/02/18 15:23
Naphthalene	0.0130	U	0.0259	0.00808	ug/L	1		06/02/18 15:23
Phenanthrene	0.0259	U	0.0518	0.00383	ug/L	1		06/02/18 15:23
Pyrene	0.0259	U	0.0518	0.00383	ug/L	1		06/02/18 15:23
Surrogates								
2-Methylnaphthalene-d10 (surr)	69.9		47-106		%	1		06/02/18 15:23
Fluoranthene-d10 (surr)	70.7		24-116		%	1		06/02/18 15:23

Batch Information

Analytical Batch: XMS10796
Analytical Method: 8270D SIM (PAH)
Analyst: DSD
Analytical Date/Time: 06/02/18 15:23
Container ID: 1189328001-A

Prep Batch: XXX39587
Prep Method: SW3520C
Prep Date/Time: 05/31/18 08:30
Prep Initial Wt./Vol.: 965 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.301	J	0.593	0.178	mg/L	1		06/01/18 12:00
Surrogates								
5a Androstane (surr)	80.6		50-150		%	1		06/01/18 12:00

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 06/01/18 12:00
Container ID: 1189328001-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 253 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.247	U	0.494	0.148	mg/L	1		06/01/18 12:00
Surrogates								
n-Triacontane-d62 (surr)	86.7		50-150		%	1		06/01/18 12:00

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 06/01/18 12:00
Container ID: 1189328001-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 253 mL
Prep Extract Vol: 1 mL

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Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		06/01/18 21:24
Surrogates								
4-Bromofluorobenzene (surr)	84		50-150		%	1		06/01/18 21:24

Batch Information

Analytical Batch: VFC14162
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 06/01/18 21:24
Container ID: 1189328001-I

Prep Batch: VXX32306
Prep Method: SW5030B
Prep Date/Time: 06/01/18 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

J flagging is activated

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Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		05/31/18 14:41
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		05/31/18 14:41
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,2-Dichloroethane	0.240	J	0.500	0.150	ug/L	1		05/31/18 14:41
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
Benzene	0.200	U	0.400	0.120	ug/L	1		05/31/18 14:41
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Bromomethane	2.50	U	5.00	1.50	ug/L	1		05/31/18 14:41
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41

Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.940	J	1.00	0.310	ug/L	1		05/31/18 14:41
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:41
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/31/18 14:41
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
Naphthalene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/31/18 14:41
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Styrene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Toluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
trans-1,2-Dichloroethene	0.410	J	1.00	0.310	ug/L	1		05/31/18 14:41
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:41
Trichloroethene	0.360	J	1.00	0.310	ug/L	1		05/31/18 14:41
Trichlorofluoromethane	9.92		1.00	0.310	ug/L	1		05/31/18 14:41
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:41
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		05/31/18 14:41
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/31/18 14:41
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.9		81-118		%	1		05/31/18 14:41
4-Bromofluorobenzene (surr)	94.5		85-114		%	1		05/31/18 14:41
Toluene-d8 (surr)	97.5		89-112		%	1		05/31/18 14:41

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-3**

Client Sample ID: **SB-3**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328001
Lab Project ID: 1189328

Collection Date: 05/25/18 12:15
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 05/31/18 14:41
Container ID: 1189328001-F

Prep Batch: VXX32296
Prep Method: SW5030B
Prep Date/Time: 05/31/18 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,2-Dibromoethane	0.0123		0.00500	0.00125	ug/L	1		06/23/18 04:13
Surrogates								
4-Bromofluorobenzene (surr)	104		85-114		%	1		06/23/18 04:13
Toluene-d8 (surr)	101		89-112		%	1		06/23/18 04:13

Batch Information

Analytical Batch: VMS17928
Analytical Method: SW8260C-SIM
Analyst: NRB
Analytical Date/Time: 06/23/18 04:13
Container ID: 1189328002-J

Prep Batch: VXX32465
Prep Method: SW5030B
Prep Date/Time: 06/22/18 06:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

J flagging is activated

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Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.36	J	5.00	1.50	ug/L	5		06/01/18 16:00
Barium	92.6		3.00	0.940	ug/L	5		06/01/18 16:00
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/01/18 16:00
Chromium	2.00	U	4.00	1.30	ug/L	5		06/01/18 16:00
Lead	0.500	U	1.00	0.310	ug/L	5		06/01/18 16:00
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/01/18 16:00
Selenium	10.0	U	20.0	6.20	ug/L	5		06/01/18 16:00
Silver	1.00	U	2.00	0.620	ug/L	5		06/01/18 16:00

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/01/18 16:00
Container ID: 1189328002-E

Prep Batch: MXX31617
Prep Method: SW3010A
Prep Date/Time: 06/01/18 07:27
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Aroclor-1221	0.510	U	1.02	0.316	ug/L	1		06/07/18 21:50
Aroclor-1232	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Aroclor-1242	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Aroclor-1248	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Aroclor-1254	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Aroclor-1260	0.0510	U	0.102	0.0316	ug/L	1		06/07/18 21:50
Surrogates								
Decachlorobiphenyl (surr)	70.2		40-135		%	1		06/07/18 21:50

Batch Information

Analytical Batch: XGC10112
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/07/18 21:50
Container ID: 1189328002-B

Prep Batch: XXX39633
Prep Method: SW3520C
Prep Date/Time: 06/06/18 08:36
Prep Initial Wt./Vol.: 980 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
2-Methylnaphthalene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Acenaphthene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Acenaphthylene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Anthracene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Benzo(a)Anthracene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Benzo[a]pyrene	0.00263	U	0.00526	0.00158	ug/L	1		06/02/18 15:44
Benzo[b]Fluoranthene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Benzo[g,h,i]perylene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Benzo[k]fluoranthene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Chrysene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Dibenzo[a,h]anthracene	0.00263	U	0.00526	0.00158	ug/L	1		06/02/18 15:44
Fluoranthene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Fluorene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Indeno[1,2,3-c,d] pyrene	0.00660	U	0.0132	0.00389	ug/L	1		06/02/18 15:44
Naphthalene	0.0334		0.0263	0.00821	ug/L	1		06/02/18 15:44
Phenanthrene	0.0263	U	0.0526	0.00389	ug/L	1		06/02/18 15:44
Pyrene	0.0263	U	0.0526	0.00389	ug/L	1		06/02/18 15:44
Surrogates								
2-Methylnaphthalene-d10 (surr)	61.5		47-106		%	1		06/02/18 15:44
Fluoranthene-d10 (surr)	63.3		24-116		%	1		06/02/18 15:44

Batch Information

Analytical Batch: XMS10796
Analytical Method: 8270D SIM (PAH)
Analyst: DSD
Analytical Date/Time: 06/02/18 15:44
Container ID: 1189328002-A

Prep Batch: XXX39587
Prep Method: SW3520C
Prep Date/Time: 05/31/18 08:30
Prep Initial Wt./Vol.: 950 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.922		0.595	0.179	mg/L	1		06/01/18 12:09
Surrogates								
5a Androstane (surr)	86.2		50-150		%	1		06/01/18 12:09

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 06/01/18 12:09
Container ID: 1189328002-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 252 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.363	J	0.496	0.149	mg/L	1		06/01/18 12:09
Surrogates								
n-Triacontane-d62 (surr)	91.5		50-150		%	1		06/01/18 12:09

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 06/01/18 12:09
Container ID: 1189328002-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 252 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		06/01/18 21:42
Surrogates								
4-Bromofluorobenzene (surr)	82.6		50-150		%	1		06/01/18 21:42

Batch Information

Analytical Batch: VFC14162
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 06/01/18 21:42
Container ID: 1189328002-I

Prep Batch: VXX32306
Prep Method: SW5030B
Prep Date/Time: 06/01/18 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		05/31/18 14:58
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:58
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		05/31/18 14:58
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,2-Dichloroethane	0.340	J	0.500	0.150	ug/L	1		05/31/18 14:58
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:58
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:58
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:58
Benzene	3.53		0.400	0.120	ug/L	1		05/31/18 14:58
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
Bromomethane	2.50	U	5.00	1.50	ug/L	1		05/31/18 14:58
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/31/18 14:58
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 14:58
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 14:58

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Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	1.32		1.00	0.310	ug/L	1		05/31/18 14:58
Chloromethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
cis-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
cis-1,3-Dichloropropene	0.250 U		0.500	0.150	ug/L	1		05/31/18 14:58
Dibromochloromethane	0.250 U		0.500	0.150	ug/L	1		05/31/18 14:58
Dibromomethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Dichlorodifluoromethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Ethylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Freon-113	5.00 U		10.0	3.10	ug/L	1		05/31/18 14:58
Hexachlorobutadiene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Isopropylbenzene (Cumene)	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Methylene chloride	2.50 U		5.00	1.00	ug/L	1		05/31/18 14:58
Methyl-t-butyl ether	5.00 U		10.0	3.10	ug/L	1		05/31/18 14:58
Naphthalene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
n-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
n-Propylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
o-Xylene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
P & M -Xylene	1.00 U		2.00	0.620	ug/L	1		05/31/18 14:58
sec-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Styrene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
tert-Butylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Tetrachloroethene	0.430 J		1.00	0.310	ug/L	1		05/31/18 14:58
Toluene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
trans-1,2-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
trans-1,3-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		05/31/18 14:58
Trichloroethene	0.370 J		1.00	0.310	ug/L	1		05/31/18 14:58
Trichlorofluoromethane	7.24		1.00	0.310	ug/L	1		05/31/18 14:58
Vinyl acetate	5.00 U		10.0	3.10	ug/L	1		05/31/18 14:58
Vinyl chloride	0.0750 U		0.150	0.0500	ug/L	1		05/31/18 14:58
Xylenes (total)	1.50 U		3.00	1.00	ug/L	1		05/31/18 14:58
Surrogates								
1,2-Dichloroethane-D4 (surr)	100		81-118		%	1		05/31/18 14:58
4-Bromofluorobenzene (surr)	94.7		85-114		%	1		05/31/18 14:58
Toluene-d8 (surr)	97.4		89-112		%	1		05/31/18 14:58

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2**

Client Sample ID: **SB-2**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328002
Lab Project ID: 1189328

Collection Date: 05/25/18 15:45
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 05/31/18 14:58
Container ID: 1189328002-F

Prep Batch: VXX32296
Prep Method: SW5030B
Prep Date/Time: 05/31/18 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,2-Dibromoethane	0.0141		0.00500	0.00125	ug/L	1		06/14/18 17:41
Surrogates								
4-Bromofluorobenzene (surr)	104		85-114		%	1		06/14/18 17:41
Toluene-d8 (surr)	102		89-112		%	1		06/14/18 17:41

Batch Information

Analytical Batch: VMS17894
Analytical Method: SW8260C-SIM
Analyst: NRB
Analytical Date/Time: 06/14/18 17:41
Container ID: 1189328003-J

Prep Batch: VXX32415
Prep Method: SW5030B
Prep Date/Time: 06/14/18 06:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

J flagging is activated

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Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Metals by ICP/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.23	J	5.00	1.50	ug/L	5		06/01/18 16:05
Barium	91.1		3.00	0.940	ug/L	5		06/01/18 16:05
Cadmium	1.00	U	2.00	0.620	ug/L	5		06/01/18 16:05
Chromium	2.00	U	4.00	1.30	ug/L	5		06/01/18 16:05
Lead	0.500	U	1.00	0.310	ug/L	5		06/01/18 16:05
Mercury	0.100	U	0.200	0.0620	ug/L	5		06/01/18 16:05
Selenium	10.0	U	20.0	6.20	ug/L	5		06/01/18 16:05
Silver	1.00	U	2.00	0.620	ug/L	5		06/01/18 16:05

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Analyst: DSH
Analytical Date/Time: 06/01/18 16:05
Container ID: 1189328003-E

Prep Batch: MXX31617
Prep Method: SW3010A
Prep Date/Time: 06/01/18 07:27
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

J flagging is activated

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Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polychlorinated Biphenyls**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Aroclor-1016	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Aroclor-1221	0.525	U	1.05	0.326	ug/L	1		06/07/18 22:00
Aroclor-1232	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Aroclor-1242	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Aroclor-1248	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Aroclor-1254	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Aroclor-1260	0.0525	U	0.105	0.0326	ug/L	1		06/07/18 22:00
Surrogates								
Decachlorobiphenyl (surr)	75.1		40-135		%	1		06/07/18 22:00

Batch Information

Analytical Batch: XGC10112
Analytical Method: SW8082A
Analyst: CMC
Analytical Date/Time: 06/07/18 22:00
Container ID: 1189328003-B

Prep Batch: XXX39633
Prep Method: SW3520C
Prep Date/Time: 06/06/18 08:36
Prep Initial Wt./Vol.: 950 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Polynuclear Aromatics GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1-Methylnaphthalene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
2-Methylnaphthalene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Acenaphthene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Acenaphthylene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Anthracene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Benzo(a)Anthracene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Benzo[a]pyrene	0.00261	U	0.00521	0.00156	ug/L	1		06/02/18 16:04
Benzo[b]Fluoranthene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Benzo[g,h,i]perylene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Benzo[k]fluoranthene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Chrysene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Dibenzo[a,h]anthracene	0.00261	U	0.00521	0.00156	ug/L	1		06/02/18 16:04
Fluoranthene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Fluorene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Indeno[1,2,3-c,d] pyrene	0.00650	U	0.0130	0.00385	ug/L	1		06/02/18 16:04
Naphthalene	0.0396		0.0260	0.00813	ug/L	1		06/02/18 16:04
Phenanthrene	0.0261	U	0.0521	0.00385	ug/L	1		06/02/18 16:04
Pyrene	0.0261	U	0.0521	0.00385	ug/L	1		06/02/18 16:04
Surrogates								
2-Methylnaphthalene-d10 (surr)	70.9		47-106		%	1		06/02/18 16:04
Fluoranthene-d10 (surr)	71.3		24-116		%	1		06/02/18 16:04

Batch Information

Analytical Batch: XMS10796
Analytical Method: 8270D SIM (PAH)
Analyst: DSD
Analytical Date/Time: 06/02/18 16:04
Container ID: 1189328003-A

Prep Batch: XXX39587
Prep Method: SW3520C
Prep Date/Time: 05/31/18 08:30
Prep Initial Wt./Vol.: 960 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Semivolatile Organic Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Diesel Range Organics	0.929		0.595	0.179	mg/L	1		06/01/18 12:19
Surrogates								
5a Androstane (surr)	82.1		50-150		%	1		06/01/18 12:19

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK102
Analyst: VDL
Analytical Date/Time: 06/01/18 12:19
Container ID: 1189328003-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 252 mL
Prep Extract Vol: 1 mL

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Residual Range Organics	0.370	J	0.496	0.149	mg/L	1		06/01/18 12:19
Surrogates								
n-Triacontane-d62 (surr)	86.9		50-150		%	1		06/01/18 12:19

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK103
Analyst: VDL
Analytical Date/Time: 06/01/18 12:19
Container ID: 1189328003-C

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 05/31/18 09:09
Prep Initial Wt./Vol.: 252 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		06/01/18 23:50
Surrogates								
4-Bromofluorobenzene (surr)	79.8		50-150		%	1		06/01/18 23:50

Batch Information

Analytical Batch: VFC14162
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 06/01/18 23:50
Container ID: 1189328003-I

Prep Batch: VXX32306
Prep Method: SW5030B
Prep Date/Time: 06/01/18 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
1,1,2-Trichloroethane	0.200	U	0.400	0.120	ug/L	1		05/31/18 15:16
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
1,2-Dibromoethane	0.0375	U	0.0750	0.0180	ug/L	1		05/31/18 15:16
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,2-Dichloroethane	0.390	J	0.500	0.150	ug/L	1		05/31/18 15:16
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
Benzene	4.57		0.400	0.120	ug/L	1		05/31/18 15:16
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Bromomethane	2.50	U	5.00	1.50	ug/L	1		05/31/18 15:16
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16

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Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.950	J	1.00	0.310	ug/L	1		05/31/18 15:16
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
cis-1,2-Dichloroethene	0.340	J	1.00	0.310	ug/L	1		05/31/18 15:16
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 15:16
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/31/18 15:16
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
Naphthalene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/31/18 15:16
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Styrene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Tetrachloroethene	0.400	J	1.00	0.310	ug/L	1		05/31/18 15:16
Toluene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 15:16
Trichloroethene	0.430	J	1.00	0.310	ug/L	1		05/31/18 15:16
Trichlorofluoromethane	8.19		1.00	0.310	ug/L	1		05/31/18 15:16
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/31/18 15:16
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		05/31/18 15:16
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/31/18 15:16
Surrogates								
1,2-Dichloroethane-D4 (surr)	102		81-118		%	1		05/31/18 15:16
4-Bromofluorobenzene (surr)	93.7		85-114		%	1		05/31/18 15:16
Toluene-d8 (surr)	98.4		89-112		%	1		05/31/18 15:16

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **SB-2A**

Client Sample ID: **SB-2A**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328003
Lab Project ID: 1189328

Collection Date: 05/25/18 15:55
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 05/31/18 15:16
Container ID: 1189328003-F

Prep Batch: VXX32296
Prep Method: SW5030B
Prep Date/Time: 05/31/18 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **TB-1**

Client Sample ID: **TB-1**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328004
Lab Project ID: 1189328

Collection Date: 05/25/18 08:00
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,2-Dibromoethane	0.00250	U	0.00500	0.00125	ug/L	1		06/14/18 14:44
Surrogates								
4-Bromofluorobenzene (surr)	101		85-114		%	1		06/14/18 14:44
Toluene-d8 (surr)	100		89-112		%	1		06/14/18 14:44

Batch Information

Analytical Batch: VMS17894
Analytical Method: SW8260C-SIM
Analyst: NRB
Analytical Date/Time: 06/14/18 14:44
Container ID: 1189328004-F

Prep Batch: VXX32415
Prep Method: SW5030B
Prep Date/Time: 06/14/18 06:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Results of **TB-1**

Client Sample ID: **TB-1**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328004
Lab Project ID: 1189328

Collection Date: 05/25/18 08:00
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile Fuels**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Gasoline Range Organics	0.0500	U	0.100	0.0310	mg/L	1		06/01/18 18:56
Surrogates								
4-Bromofluorobenzene (surr)	81.6		50-150		%	1		06/01/18 18:56

Batch Information

Analytical Batch: VFC14162
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 06/01/18 18:56
Container ID: 1189328004-D

Prep Batch: VXX32306
Prep Method: SW5030B
Prep Date/Time: 06/01/18 08:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

J flagging is activated

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Results of **TB-1**

Client Sample ID: **TB-1**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328004
Lab Project ID: 1189328

Collection Date: 05/25/18 08:00
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
1,1,1-Trichloroethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,1,2,2-Tetrachloroethane	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
1,1,2-Trichloroethane	0.200 U		0.400	0.120	ug/L	1		05/31/18 12:03
1,1-Dichloroethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,1-Dichloroethene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,1-Dichloropropene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2,3-Trichlorobenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2,3-Trichloropropane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2,4-Trichlorobenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2,4-Trimethylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2-Dibromo-3-chloropropane	5.00 U		10.0	3.10	ug/L	1		05/31/18 12:03
1,2-Dibromoethane	0.0375 U		0.0750	0.0180	ug/L	1		05/31/18 12:03
1,2-Dichlorobenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,2-Dichloroethane	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
1,2-Dichloropropane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,3,5-Trimethylbenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,3-Dichlorobenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
1,3-Dichloropropane	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
1,4-Dichlorobenzene	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
2,2-Dichloropropane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
2-Butanone (MEK)	5.00 U		10.0	3.10	ug/L	1		05/31/18 12:03
2-Chlorotoluene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
2-Hexanone	5.00 U		10.0	3.10	ug/L	1		05/31/18 12:03
4-Chlorotoluene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
4-Isopropyltoluene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
4-Methyl-2-pentanone (MIBK)	5.00 U		10.0	3.10	ug/L	1		05/31/18 12:03
Benzene	0.200 U		0.400	0.120	ug/L	1		05/31/18 12:03
Bromobenzene	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
Bromochloromethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
Bromodichloromethane	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
Bromoform	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
Bromomethane	2.50 U		5.00	1.50	ug/L	1		05/31/18 12:03
Carbon disulfide	5.00 U		10.0	3.10	ug/L	1		05/31/18 12:03
Carbon tetrachloride	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03
Chlorobenzene	0.250 U		0.500	0.150	ug/L	1		05/31/18 12:03
Chloroethane	0.500 U		1.00	0.310	ug/L	1		05/31/18 12:03

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Results of **TB-1**

Client Sample ID: **TB-1**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328004
Lab Project ID: 1189328

Collection Date: 05/25/18 08:00
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/31/18 12:03
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/31/18 12:03
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/31/18 12:03
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/31/18 12:03
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/31/18 12:03
Naphthalene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
o-Xylene	0.770	J	1.00	0.310	ug/L	1		05/31/18 12:03
P & M -Xylene	1.00	J	2.00	0.620	ug/L	1		05/31/18 12:03
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Styrene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Toluene	2.40		1.00	0.310	ug/L	1		05/31/18 12:03
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/31/18 12:03
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/31/18 12:03
Vinyl chloride	0.0750	U	0.150	0.0500	ug/L	1		05/31/18 12:03
Xylenes (total)	1.77	J	3.00	1.00	ug/L	1		05/31/18 12:03
Surrogates								
1,2-Dichloroethane-D4 (surr)	98.8		81-118		%	1		05/31/18 12:03
4-Bromofluorobenzene (surr)	95.5		85-114		%	1		05/31/18 12:03
Toluene-d8 (surr)	97.7		89-112		%	1		05/31/18 12:03

Print Date: 06/25/2018 4:00:05PM

J flagging is activated

Results of **TB-1**

Client Sample ID: **TB-1**
Client Project ID: **60543830 Albertsons FBX UST**
Lab Sample ID: 1189328004
Lab Project ID: 1189328

Collection Date: 05/25/18 08:00
Received Date: 05/30/18 09:15
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Analyst: FDR
Analytical Date/Time: 05/31/18 12:03
Container ID: 1189328004-A

Prep Batch: VXX32296
Prep Method: SW5030B
Prep Date/Time: 05/31/18 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1780292 [MXX/31617]
Blank Lab ID: 1449467

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003

Results by **SW6020A**

Parameter	Results	LOQ/CL	DL	Units
Arsenic	2.50U	5.00	1.50	ug/L
Barium	1.50U	3.00	0.940	ug/L
Cadmium	1.00U	2.00	0.620	ug/L
Chromium	2.00U	4.00	1.30	ug/L
Lead	0.500U	1.00	0.310	ug/L
Mercury	0.0794J	0.200	0.0620	ug/L
Selenium	10.0U	20.0	6.20	ug/L
Silver	1.00U	2.00	0.620	ug/L

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/1/2018 3:23:15PM

Prep Batch: MXX31617
Prep Method: SW3010A
Prep Date/Time: 6/1/2018 7:27:06AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [MXX31617]
Blank Spike Lab ID: 1449468
Date Analyzed: 06/01/2018 15:27

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **SW6020A**

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Arsenic	1000	1000	100	(84-116)
Barium	1000	1020	102	(86-114)
Cadmium	100	104	104	(87-115)
Chromium	400	427	107	(85-116)
Lead	1000	1030	103	(88-115)
Mercury	10	10.1	101	(70-124)
Selenium	1000	972	97	(80-120)
Silver	100	106	106	(85-116)

Batch Information

Analytical Batch: **MMS10181**
Analytical Method: **SW6020A**
Instrument: **Perkin Elmer Nexion P5**
Analyst: **DSH**

Prep Batch: **MXX31617**
Prep Method: **SW3010A**
Prep Date/Time: **06/01/2018 07:27**
Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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Matrix Spike Summary

Original Sample ID: 1449469
MS Sample ID: 1449471 MS
MSD Sample ID: 1449472 MSD

Analysis Date: 06/01/2018 15:32
Analysis Date: 06/01/2018 15:37
Analysis Date: 06/01/2018 15:42
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	6.59	1000	1030	102	1000	1010	101	84-116	1.53	(< 20)
Barium	189	1000	1210	102	1000	1180	100	86-114	1.92	(< 20)
Cadmium	1.00U	100	102	102	100	102	102	87-115	0.85	(< 20)
Chromium	2.00U	400	413	103	400	405	101	85-116	1.81	(< 20)
Lead	0.500U	1000	1030	103	1000	1010	101	88-115	1.87	(< 20)
Mercury	0.100U	10.0	10.2	102	10.0	10.1	101	70-124	1.18	(< 20)
Selenium	10.0U	1000	1000	100	1000	1010	101	80-120	1.11	(< 20)
Silver	1.00U	100	106	106	100	104	104	85-116	2.17	(< 20)

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/1/2018 3:37:18PM

Prep Batch: MXX31617
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/1/2018 7:27:06AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/25/2018 4:00:10PM

Bench Spike Summary

Original Sample ID: 1449469
MS Sample ID: 1449470 BND
MSD Sample ID:

Analysis Date: 06/01/2018 15:32
Analysis Date: 06/01/2018 15:46
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **SW6020A**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Arsenic	6.59	125	137	104				80-120		
Barium	189	2500	2640	98				80-120		
Cadmium	1.00U	1250	1220	97				80-120		
Chromium	2.00U	1250	1190	95				80-120		
Lead	0.500U	1250	1250	100				80-120		
Mercury	0.100U	25.0	24.4	98				80-120		
Selenium	10.0U	125	125	100				80-120		
Silver	1.00U	25.0	25.5	102				80-120		

Batch Information

Analytical Batch: MMS10181
Analytical Method: SW6020A
Instrument: Perkin Elmer Nexlon P5
Analyst: DSH
Analytical Date/Time: 6/1/2018 3:46:42PM

Prep Batch: MXX31617
Prep Method: 3010 H20 Digest for Metals ICP-MS
Prep Date/Time: 6/1/2018 7:27:06AM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/25/2018 4:00:10PM

Method Blank

Blank ID: MB for HBN 1780305 [VXX/32296]
Blank Lab ID: 1449538

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,1-Trichloroethane	0.500U	1.00	0.310	ug/L
1,1,2,2-Tetrachloroethane	0.250U	0.500	0.150	ug/L
1,1,2-Trichloroethane	0.200U	0.400	0.120	ug/L
1,1-Dichloroethane	0.500U	1.00	0.310	ug/L
1,1-Dichloroethene	0.500U	1.00	0.310	ug/L
1,1-Dichloropropene	0.500U	1.00	0.310	ug/L
1,2,3-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,3-Trichloropropane	0.500U	1.00	0.310	ug/L
1,2,4-Trichlorobenzene	0.500U	1.00	0.310	ug/L
1,2,4-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,2-Dibromo-3-chloropropane	5.00U	10.0	3.10	ug/L
1,2-Dibromoethane	0.0375U	0.0750	0.0180	ug/L
1,2-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,2-Dichloroethane	0.250U	0.500	0.150	ug/L
1,2-Dichloropropane	0.500U	1.00	0.310	ug/L
1,3,5-Trimethylbenzene	0.500U	1.00	0.310	ug/L
1,3-Dichlorobenzene	0.500U	1.00	0.310	ug/L
1,3-Dichloropropane	0.250U	0.500	0.150	ug/L
1,4-Dichlorobenzene	0.250U	0.500	0.150	ug/L
2,2-Dichloropropane	0.500U	1.00	0.310	ug/L
2-Butanone (MEK)	5.00U	10.0	3.10	ug/L
2-Chlorotoluene	0.500U	1.00	0.310	ug/L
2-Hexanone	5.00U	10.0	3.10	ug/L
4-Chlorotoluene	0.500U	1.00	0.310	ug/L
4-Isopropyltoluene	0.500U	1.00	0.310	ug/L
4-Methyl-2-pentanone (MIBK)	5.00U	10.0	3.10	ug/L
Benzene	0.200U	0.400	0.120	ug/L
Bromobenzene	0.500U	1.00	0.310	ug/L
Bromochloromethane	0.500U	1.00	0.310	ug/L
Bromodichloromethane	0.250U	0.500	0.150	ug/L
Bromoform	0.500U	1.00	0.310	ug/L
Bromomethane	2.50U	5.00	1.50	ug/L
Carbon disulfide	5.00U	10.0	3.10	ug/L
Carbon tetrachloride	0.500U	1.00	0.310	ug/L
Chlorobenzene	0.250U	0.500	0.150	ug/L
Chloroethane	0.500U	1.00	0.310	ug/L
Chloroform	0.500U	1.00	0.310	ug/L

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Method Blank

Blank ID: MB for HBN 1780305 [VXX/32296]
Blank Lab ID: 1449538

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units
Chloromethane	0.500U	1.00	0.310	ug/L
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
cis-1,3-Dichloropropene	0.250U	0.500	0.150	ug/L
Dibromochloromethane	0.250U	0.500	0.150	ug/L
Dibromomethane	0.500U	1.00	0.310	ug/L
Dichlorodifluoromethane	0.500U	1.00	0.310	ug/L
Ethylbenzene	0.500U	1.00	0.310	ug/L
Freon-113	5.00U	10.0	3.10	ug/L
Hexachlorobutadiene	0.500U	1.00	0.310	ug/L
Isopropylbenzene (Cumene)	0.500U	1.00	0.310	ug/L
Methylene chloride	2.50U	5.00	1.00	ug/L
Methyl-t-butyl ether	5.00U	10.0	3.10	ug/L
Naphthalene	0.500U	1.00	0.310	ug/L
n-Butylbenzene	0.500U	1.00	0.310	ug/L
n-Propylbenzene	0.500U	1.00	0.310	ug/L
o-Xylene	0.500U	1.00	0.310	ug/L
P & M -Xylene	1.00U	2.00	0.620	ug/L
sec-Butylbenzene	0.500U	1.00	0.310	ug/L
Styrene	0.500U	1.00	0.310	ug/L
tert-Butylbenzene	0.500U	1.00	0.310	ug/L
Tetrachloroethene	0.500U	1.00	0.310	ug/L
Toluene	0.500U	1.00	0.310	ug/L
trans-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
trans-1,3-Dichloropropene	0.500U	1.00	0.310	ug/L
Trichloroethene	0.500U	1.00	0.310	ug/L
Trichlorofluoromethane	0.500U	1.00	0.310	ug/L
Vinyl acetate	5.00U	10.0	3.10	ug/L
Vinyl chloride	0.0750U	0.150	0.0500	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	99.3	81-118		%
4-Bromofluorobenzene (surr)	96.6	85-114		%
Toluene-d8 (surr)	97.1	89-112		%

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Method Blank

Blank ID: MB for HBN 1780305 [VXX/32296]
Blank Lab ID: 1449538

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Instrument: VPA 780/5975 GC/MS
Analyst: FDR
Analytical Date/Time: 5/31/2018 9:29:00AM

Prep Batch: VXX32296
Prep Method: SW5030B
Prep Date/Time: 5/31/2018 12:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32296]
Blank Spike Lab ID: 1449539
Date Analyzed: 05/31/2018 09:47

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32296]
Spike Duplicate Lab ID: 1449540
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	30	30.8	103	30	29.0	97	(78-124)	6.00	(< 20)
1,1,1-Trichloroethane	30	30.5	102	30	29.8	99	(74-131)	2.20	(< 20)
1,1,2,2-Tetrachloroethane	30	27.8	93	30	27.2	91	(71-121)	2.30	(< 20)
1,1,2-Trichloroethane	30	29.5	98	30	28.5	95	(80-119)	3.30	(< 20)
1,1-Dichloroethane	30	29.0	97	30	28.3	94	(77-125)	2.70	(< 20)
1,1-Dichloroethene	30	30.7	102	30	30.6	102	(71-131)	0.16	(< 20)
1,1-Dichloropropene	30	29.9	100	30	29.1	97	(79-125)	2.60	(< 20)
1,2,3-Trichlorobenzene	30	32.2	107	30	30.9	103	(69-129)	4.20	(< 20)
1,2,3-Trichloropropane	30	28.0	93	30	27.4	91	(73-122)	2.30	(< 20)
1,2,4-Trichlorobenzene	30	31.8	106	30	31.3	104	(69-130)	1.60	(< 20)
1,2,4-Trimethylbenzene	30	30.2	101	30	29.2	97	(79-124)	3.50	(< 20)
1,2-Dibromo-3-chloropropane	30	29.0	97	30	28.0	94	(62-128)	3.20	(< 20)
1,2-Dibromoethane	30	30.4	101	30	29.7	99	(77-121)	2.20	(< 20)
1,2-Dichlorobenzene	30	30.0	100	30	29.2	97	(80-119)	2.70	(< 20)
1,2-Dichloroethane	30	27.6	92	30	27.5	92	(73-128)	0.58	(< 20)
1,2-Dichloropropane	30	29.1	97	30	28.7	96	(78-122)	1.50	(< 20)
1,3,5-Trimethylbenzene	30	29.4	98	30	28.9	96	(75-124)	1.90	(< 20)
1,3-Dichlorobenzene	30	29.3	98	30	28.6	95	(80-119)	2.50	(< 20)
1,3-Dichloropropane	30	29.0	97	30	28.2	94	(80-119)	2.90	(< 20)
1,4-Dichlorobenzene	30	29.4	98	30	28.6	95	(79-118)	3.00	(< 20)
2,2-Dichloropropane	30	30.2	101	30	28.8	96	(60-139)	4.80	(< 20)
2-Butanone (MEK)	90	81.0	90	90	80.9	90	(56-143)	0.11	(< 20)
2-Chlorotoluene	30	29.6	99	30	28.3	94	(79-122)	4.70	(< 20)
2-Hexanone	90	79.1	88	90	78.8	88	(57-139)	0.35	(< 20)
4-Chlorotoluene	30	29.0	97	30	28.3	94	(78-122)	2.50	(< 20)
4-Isopropyltoluene	30	30.0	100	30	30.1	100	(77-127)	0.57	(< 20)
4-Methyl-2-pentanone (MIBK)	90	89.3	99	90	89.6	100	(67-130)	0.30	(< 20)
Benzene	30	29.8	99	30	28.9	97	(79-120)	2.80	(< 20)
Bromobenzene	30	29.8	100	30	28.7	96	(80-120)	3.90	(< 20)
Bromochloromethane	30	31.1	104	30	31.0	103	(78-123)	0.13	(< 20)
Bromodichloromethane	30	31.3	104	30	30.9	103	(79-125)	1.30	(< 20)
Bromoform	30	32.3	108	30	31.8	106	(66-130)	1.60	(< 20)
Bromomethane	30	25.6	85	30	26.9	90	(53-141)	4.90	(< 20)
Carbon disulfide	45	44.1	98	45	44.0	98	(64-133)	0.25	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32296]
Blank Spike Lab ID: 1449539
Date Analyzed: 05/31/2018 09:47

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32296]
Spike Duplicate Lab ID: 1449540
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	31.5	105	30	31.1	104	(72-136)	1.00	(< 20)
Chlorobenzene	30	29.2	97	30	28.1	94	(82-118)	3.80	(< 20)
Chloroethane	30	31.9	106	30	34.5	115	(60-138)	7.90	(< 20)
Chloroform	30	30.0	100	30	29.4	98	(79-124)	2.00	(< 20)
Chloromethane	30	24.4	81	30	22.1	74	(50-139)	10.20	(< 20)
cis-1,2-Dichloroethene	30	30.2	101	30	29.6	99	(78-123)	1.80	(< 20)
cis-1,3-Dichloropropene	30	31.4	105	30	30.8	103	(75-124)	1.80	(< 20)
Dibromochloromethane	30	31.2	104	30	30.5	102	(74-126)	2.10	(< 20)
Dibromomethane	30	30.5	102	30	30.8	103	(79-123)	0.85	(< 20)
Dichlorodifluoromethane	30	30.5	102	30	30.5	102	(32-152)	0.20	(< 20)
Ethylbenzene	30	29.2	97	30	28.1	94	(79-121)	3.80	(< 20)
Freon-113	45	47.8	106	45	47.2	105	(70-136)	1.20	(< 20)
Hexachlorobutadiene	30	30.7	102	30	35.5	118	(66-134)	14.70	(< 20)
Isopropylbenzene (Cumene)	30	31.6	105	30	30.6	102	(72-131)	3.20	(< 20)
Methylene chloride	30	31.3	104	30	29.9	100	(74-124)	4.50	(< 20)
Methyl-t-butyl ether	45	44.8	100	45	44.3	99	(71-124)	1.00	(< 20)
Naphthalene	30	31.6	105	30	29.2	97	(61-128)	8.10	(< 20)
n-Butylbenzene	30	29.6	99	30	29.9	100	(75-128)	1.00	(< 20)
n-Propylbenzene	30	28.6	95	30	27.8	93	(76-126)	3.10	(< 20)
o-Xylene	30	29.8	99	30	28.3	94	(78-122)	5.20	(< 20)
P & M -Xylene	60	58.0	97	60	56.0	93	(80-121)	3.50	(< 20)
sec-Butylbenzene	30	30.1	100	30	29.5	98	(77-126)	2.10	(< 20)
Styrene	30	30.9	103	30	30.0	100	(78-123)	3.20	(< 20)
tert-Butylbenzene	30	29.8	99	30	29.4	98	(78-124)	1.20	(< 20)
Tetrachloroethene	30	30.8	103	30	29.4	98	(74-129)	4.80	(< 20)
Toluene	30	27.8	93	30	26.6	89	(80-121)	4.60	(< 20)
trans-1,2-Dichloroethene	30	30.3	101	30	29.6	99	(75-124)	2.20	(< 20)
trans-1,3-Dichloropropene	30	29.8	99	30	28.9	96	(73-127)	2.80	(< 20)
Trichloroethene	30	30.7	102	30	30.1	100	(79-123)	2.10	(< 20)
Trichlorofluoromethane	30	31.7	106	30	31.9	106	(65-141)	0.66	(< 20)
Vinyl acetate	30	27.2	91	30	27.5	92	(54-146)	1.00	(< 20)
Vinyl chloride	30	27.7	92	30	27.5	92	(58-137)	0.83	(< 20)
Xylenes (total)	90	87.9	98	90	84.4	94	(79-121)	4.10	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32296]
Blank Spike Lab ID: 1449539
Date Analyzed: 05/31/2018 09:47

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32296]
Spike Duplicate Lab ID: 1449540
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	96	96	30	96.9	97	(81-118)	0.93	
4-Bromofluorobenzene (surr)	30	96	96	30	95.3	95	(85-114)	0.73	
Toluene-d8 (surr)	30	97.3	97	30	96	96	(89-112)	1.40	

Batch Information

Analytical Batch: **VMS17831**
Analytical Method: **SW8260C**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **FDR**

Prep Batch: **VXX32296**
Prep Method: **SW5030B**
Prep Date/Time: **05/31/2018 00:00**
Spike Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 30 ug/L Extract Vol: 5 mL

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Matrix Spike Summary

Original Sample ID: 1449541
MS Sample ID: 1449542 MS
MSD Sample ID: 1449543 MSD

Analysis Date: 05/31/2018 13:13
Analysis Date: 05/31/2018 17:36
Analysis Date: 05/31/2018 17:54
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,1,1,2-Tetrachloroethane	0.250U	30.0	31.3	104	30.0	31.7	106	78-124	1.20	(< 20)
1,1,1-Trichloroethane	0.500U	30.0	31	103	30.0	30.9	103	74-131	0.32	(< 20)
1,1,2,2-Tetrachloroethane	0.250U	30.0	29.3	98	30.0	29.4	98	71-121	0.31	(< 20)
1,1,2-Trichloroethane	0.200U	30.0	29.3	98	30.0	29.6	99	80-119	0.71	(< 20)
1,1-Dichloroethane	0.500U	30.0	29.2	97	30.0	29.1	97	77-125	0.34	(< 20)
1,1-Dichloroethene	0.500U	30.0	31.5	105	30.0	31.4	105	71-131	0.57	(< 20)
1,1-Dichloropropene	0.500U	30.0	30.4	101	30.0	30.2	101	79-125	0.59	(< 20)
1,2,3-Trichlorobenzene	0.500U	30.0	30.4	101	30.0	31.5	105	69-129	3.70	(< 20)
1,2,3-Trichloropropane	0.500U	30.0	29.9	100	30.0	29.6	99	73-122	1.10	(< 20)
1,2,4-Trichlorobenzene	0.500U	30.0	30.9	103	30.0	31.3	104	69-130	1.40	(< 20)
1,2,4-Trimethylbenzene	1.80	30.0	33.2	105	30.0	32.6	103	79-124	1.80	(< 20)
1,2-Dibromo-3-chloropropane	5.00U	30.0	30.5	102	30.0	31.2	104	62-128	2.50	(< 20)
1,2-Dibromoethane	0.0375U	30.0	30.5	102	30.0	30.7	102	77-121	0.85	(< 20)
1,2-Dichlorobenzene	0.500U	30.0	30.4	101	30.0	30.2	101	80-119	0.53	(< 20)
1,2-Dichloroethane	0.250U	30.0	27.8	93	30.0	27.9	93	73-128	0.25	(< 20)
1,2-Dichloropropane	0.500U	30.0	29.5	98	30.0	30.0	100	78-122	1.50	(< 20)
1,3,5-Trimethylbenzene	2.36	30.0	33.4	103	30.0	32.5	100	75-124	2.90	(< 20)
1,3-Dichlorobenzene	0.500U	30.0	30.3	101	30.0	30.1	100	80-119	0.56	(< 20)
1,3-Dichloropropane	0.250U	30.0	28.8	96	30.0	29.3	98	80-119	1.60	(< 20)
1,4-Dichlorobenzene	0.250U	30.0	30.6	102	30.0	30.5	102	79-118	0.33	(< 20)
2,2-Dichloropropane	0.500U	30.0	27.7	92	30.0	27.4	91	60-139	1.00	(< 20)
2-Butanone (MEK)	5.00U	90.0	89.8	100	90.0	90.3	100	56-143	0.56	(< 20)
2-Chlorotoluene	0.500U	30.0	30.6	102	30.0	30.6	102	79-122	0.13	(< 20)
2-Hexanone	5.00U	90.0	81.8	91	90.0	82.3	91	57-139	0.51	(< 20)
4-Chlorotoluene	0.500U	30.0	30.4	101	30.0	29.7	99	78-122	2.10	(< 20)
4-Isopropyltoluene	0.500U	30.0	31.6	105	30.0	31.6	105	77-127	0.16	(< 20)
4-Methyl-2-pentanone (MIBK)	5.00U	90.0	93.2	104	90.0	93.9	104	67-130	0.79	(< 20)
Benzene	1.39	30.0	31.3	100	30.0	31.2	100	79-120	0.03	(< 20)
Bromobenzene	0.500U	30.0	30.8	103	30.0	30.4	101	80-120	1.20	(< 20)
Bromochloromethane	0.500U	30.0	31.9	106	30.0	31.9	106	78-123	0.03	(< 20)
Bromodichloromethane	0.250U	30.0	31.3	104	30.0	31.4	105	79-125	0.42	(< 20)
Bromoform	0.500U	30.0	32.5	108	30.0	33.1	110	66-130	1.80	(< 20)
Bromomethane	2.50U	30.0	28	93	30.0	29.0	97	53-141	3.50	(< 20)
Carbon disulfide	5.00U	45.0	44.7	99	45.0	44.5	99	64-133	0.56	(< 20)
Carbon tetrachloride	0.500U	30.0	32.1	107	30.0	32.1	107	72-136	0.03	(< 20)
Chlorobenzene	0.250U	30.0	29.6	99	30.0	29.3	98	82-118	1.10	(< 20)
Chloroethane	0.500U	30.0	34.1	114	30.0	33.6	112	60-138	1.50	(< 20)

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Matrix Spike Summary

Original Sample ID: 1449541
MS Sample ID: 1449542 MS
MSD Sample ID: 1449543 MSD

Analysis Date: 05/31/2018 13:13
Analysis Date: 05/31/2018 17:36
Analysis Date: 05/31/2018 17:54
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

		Matrix Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloroform	0.500U	30.0	30.4	101	30.0	30.2	101	79-124	0.63	(< 20)
Chloromethane	0.500U	30.0	17.9	60	30.0	21.6	72	50-139	19.00	(< 20)
cis-1,2-Dichloroethene	0.500U	30.0	32.1	107	30.0	30.8	103	78-123	4.00	(< 20)
cis-1,3-Dichloropropene	0.250U	30.0	31.1	104	30.0	31.1	104	75-124	0.10	(< 20)
Dibromochloromethane	0.250U	30.0	31.1	104	30.0	31.3	104	74-126	0.87	(< 20)
Dibromomethane	0.500U	30.0	30.5	102	30.0	30.8	103	79-123	1.10	(< 20)
Dichlorodifluoromethane	0.500U	30.0	31.4	105	30.0	30.8	103	32-152	2.00	(< 20)
Ethylbenzene	0.500U	30.0	29.6	99	30.0	29.4	98	79-121	0.95	(< 20)
Freon-113	5.00U	45.0	49	109	45.0	48.7	108	70-136	0.65	(< 20)
Hexachlorobutadiene	0.500U	30.0	32.6	109	30.0	33.5	112	66-134	2.70	(< 20)
Isopropylbenzene (Cumene)	0.500U	30.0	31.4	105	30.0	31.2	104	72-131	0.77	(< 20)
Methylene chloride	2.50U	30.0	31.6	105	30.0	31.7	106	74-124	0.35	(< 20)
Methyl-t-butyl ether	5.00U	45.0	44.7	99	45.0	45.2	100	71-124	1.10	(< 20)
Naphthalene	0.500U	30.0	32.4	108	30.0	33.6	112	61-128	3.60	(< 20)
n-Butylbenzene	0.500U	30.0	30.6	102	30.0	30.9	103	75-128	0.78	(< 20)
n-Propylbenzene	0.500U	30.0	29.7	99	30.0	29.4	98	76-126	1.10	(< 20)
o-Xylene	0.500U	30.0	29.6	99	30.0	29.4	98	78-122	0.88	(< 20)
P & M -Xylene	1.00U	60.0	58.3	97	60.0	58.4	97	80-121	0.15	(< 20)
sec-Butylbenzene	0.500U	30.0	31.2	104	30.0	31.1	104	77-126	0.55	(< 20)
Styrene	0.500U	30.0	30.7	102	30.0	30.9	103	78-123	0.49	(< 20)
tert-Butylbenzene	0.500U	30.0	31	103	30.0	30.6	102	78-124	1.20	(< 20)
Tetrachloroethene	0.500U	30.0	31.7	106	30.0	31.6	105	74-129	0.25	(< 20)
Toluene	0.500U	30.0	28.6	96	30.0	28.4	95	80-121	0.98	(< 20)
trans-1,2-Dichloroethene	0.500U	30.0	30.6	102	30.0	30.4	101	75-124	0.62	(< 20)
trans-1,3-Dichloropropene	0.500U	30.0	28.9	96	30.0	29.5	98	73-127	2.10	(< 20)
Trichloroethene	0.500U	30.0	31.2	104	30.0	31.2	104	79-123	0.03	(< 20)
Trichlorofluoromethane	0.500U	30.0	32.9	110	30.0	32.3	108	65-141	1.70	(< 20)
Vinyl acetate	5.00U	30.0	23.6	79	30.0	23.4	78	54-146	1.00	(< 20)
Vinyl chloride	0.0750U	30.0	28.6	95	30.0	28.6	96	58-137	0.04	(< 20)
Xylenes (total)	1.50U	90.0	87.9	98	90.0	87.8	98	79-121	0.19	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		30.0	28.3	94	30.0	28.4	95	81-118	0.21	
4-Bromofluorobenzene (surr)		30.0	29.6	99	30.0	29.3	98	85-114	0.92	
Toluene-d8 (surr)		30.0	29.3	98	30.0	29.2	97	89-112	0.34	

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Matrix Spike Summary

Original Sample ID: 1449541
MS Sample ID: 1449542 MS
MSD Sample ID: 1449543 MSD

Analysis Date:
Analysis Date: 05/31/2018 17:36
Analysis Date: 05/31/2018 17:54
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **SW8260C**

		Matrix Spike (%)			Spike Duplicate (%)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL

Batch Information

Analytical Batch: VMS17831
Analytical Method: SW8260C
Instrument: VPA 780/5975 GC/MS
Analyst: FDR
Analytical Date/Time: 5/31/2018 5:36:00PM

Prep Batch: VXX32296
Prep Method: Volatiles Extraction 8240/8260 FULL
Prep Date/Time: 5/31/2018 12:00:00AM
Prep Initial Wt./Vol.: 5.00mL
Prep Extract Vol: 5.00mL

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Method Blank

Blank ID: MB for HBN 1780350 [VXX/32306]
Blank Lab ID: 1449746

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003, 1189328004

Results by **AK101**

Parameter	Results	LOQ/CL	DL	Units
Gasoline Range Organics	0.0500U	0.100	0.0310	mg/L
Surrogates				
4-Bromofluorobenzene (surr)	83.4	50-150		%

Batch Information

Analytical Batch: VFC14162
Analytical Method: AK101
Instrument: Agilent 7890A PID/FID
Analyst: ST
Analytical Date/Time: 6/1/2018 9:41:00AM

Prep Batch: VXX32306
Prep Method: SW5030B
Prep Date/Time: 6/1/2018 8:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32306]
Blank Spike Lab ID: 1449747
Date Analyzed: 06/01/2018 10:18

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32306]
Spike Duplicate Lab ID: 1449748
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003, 1189328004

Results by **AK101**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Gasoline Range Organics	1.00	1.02	102	1.00	1.08	108	(60-120)	4.90	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	0.0500	81.9	82	0.0500	82.8	83	(50-150)	1.10	

Batch Information

Analytical Batch: **VFC14162**
Analytical Method: **AK101**
Instrument: **Agilent 7890A PID/FID**
Analyst: **ST**

Prep Batch: **VXX32306**
Prep Method: **SW5030B**
Prep Date/Time: **06/01/2018 08:00**
Spike Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL
Dupe Init Wt./Vol.: 1.00 mg/L Extract Vol: 5 mL

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Method Blank

Blank ID: MB for HBN 1781084 [VXX/32415]
Blank Lab ID: 1453046

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328003, 1189328004

Results by **SW8260C-SIM**

Parameter	Results	LOQ/CL	DL	Units
1,2-Dibromoethane	0.00250U	0.00500	0.00125	ug/L
Surrogates				
4-Bromofluorobenzene (surr)	101	85-114		%
Toluene-d8 (surr)	99.9	89-112		%

Batch Information

Analytical Batch: VMS17894
Analytical Method: SW8260C-SIM
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRB
Analytical Date/Time: 6/14/2018 7:14:00AM

Prep Batch: VXX32415
Prep Method: SW5030B
Prep Date/Time: 6/14/2018 6:00:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/25/2018 4:00:17PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32415]
Blank Spike Lab ID: 1453047
Date Analyzed: 06/14/2018 12:16

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32415]
Spike Duplicate Lab ID: 1453048
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328003, 1189328004

Results by **SW8260C-SIM**

	Blank Spike (ug/L)				Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)		Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,2-Dibromoethane	0.2	0.181	90		0.2	0.200	100	(77-121)	10.30	(< 20)
Surrogates										
4-Bromofluorobenzene (surr)	30	74.9	75	*	30	97.7	98	(85-114)	26.40	* (< 20)
Toluene-d8 (surr)	30	102	102		30	99.7	100	(89-112)	2.70	(< 20)

Batch Information

Analytical Batch: **VMS17894**
Analytical Method: **SW8260C-SIM**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **NRB**

Prep Batch: **VXX32415**
Prep Method: **SW5030B**
Prep Date/Time: **06/14/2018 06:00**
Spike Init Wt./Vol.: 0.2 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 ug/L Extract Vol: 25 mL

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Method Blank

Blank ID: MB for HBN 1781484 [VXX/32465]
Blank Lab ID: 1454925

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328002

Results by **SW8260C-SIM**

Parameter	Results	LOQ/CL	DL	Units
1,2-Dibromoethane	0.00250U	0.00500	0.00125	ug/L
Surrogates				
4-Bromofluorobenzene (surr)	102	85-114		%
Toluene-d8 (surr)	99.8	89-112		%

Batch Information

Analytical Batch: VMS17928
Analytical Method: SW8260C-SIM
Instrument: VRA Agilent GC/MS 7890B/5977A
Analyst: NRB
Analytical Date/Time: 6/22/2018 11:56:00PM

Prep Batch: VXX32465
Prep Method: SW5030B
Prep Date/Time: 6/22/2018 6:00:00AM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/25/2018 4:00:19PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [VXX32465]
Blank Spike Lab ID: 1454926
Date Analyzed: 06/23/2018 03:05

Spike Duplicate ID: LCSD for HBN 1189328 [VXX32465]
Spike Duplicate Lab ID: 1454927
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328002

Results by **SW8260C-SIM**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1,2-Dibromoethane	0.2	0.200	100	0.2	0.200	100	(77-121)	0.10	(< 20)
Surrogates									
4-Bromofluorobenzene (surr)	30	103	103	30	104	104	(85-114)	0.32	(< 20)
Toluene-d8 (surr)	30	100	100	30	101	101	(89-112)	0.98	(< 20)

Batch Information

Analytical Batch: **VMS17928**
Analytical Method: **SW8260C-SIM**
Instrument: **VRA Agilent GC/MS 7890B/5977A**
Analyst: **NRB**

Prep Batch: **VXX32465**
Prep Method: **SW5030B**
Prep Date/Time: **06/22/2018 06:00**
Spike Init Wt./Vol.: 0.2 ug/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 ug/L Extract Vol: 25 mL

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Method Blank

Blank ID: MB for HBN 1780235 [XXX/39587]
Blank Lab ID: 1449219

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003

Results by **8270D SIM (PAH)**

Parameter	Results	LOQ/CL	DL	Units
1-Methylnaphthalene	0.00625U	0.0125	0.00370	ug/L
2-Methylnaphthalene	0.00625U	0.0125	0.00370	ug/L
Acenaphthene	0.00625U	0.0125	0.00370	ug/L
Acenaphthylene	0.00625U	0.0125	0.00370	ug/L
Anthracene	0.00625U	0.0125	0.00370	ug/L
Benzo(a)Anthracene	0.00625U	0.0125	0.00370	ug/L
Benzo[a]pyrene	0.00250U	0.00500	0.00150	ug/L
Benzo[b]Fluoranthene	0.00625U	0.0125	0.00370	ug/L
Benzo[g,h,i]perylene	0.00625U	0.0125	0.00370	ug/L
Benzo[k]fluoranthene	0.00625U	0.0125	0.00370	ug/L
Chrysene	0.00625U	0.0125	0.00370	ug/L
Dibenzo[a,h]anthracene	0.00250U	0.00500	0.00150	ug/L
Fluoranthene	0.00625U	0.0125	0.00370	ug/L
Fluorene	0.00625U	0.0125	0.00370	ug/L
Indeno[1,2,3-c,d] pyrene	0.00625U	0.0125	0.00370	ug/L
Naphthalene	0.0125U	0.0250	0.00780	ug/L
Phenanthrene	0.0250U	0.0500	0.00370	ug/L
Pyrene	0.0250U	0.0500	0.00370	ug/L
Surrogates				
2-Methylnaphthalene-d10 (surr)	77.4	47-106		%
Fluoranthene-d10 (surr)	79.6	24-116		%

Batch Information

Analytical Batch: XMS10796
Analytical Method: 8270D SIM (PAH)
Instrument: Agilent GC 7890B/5977A SWA
Analyst: DSD
Analytical Date/Time: 6/2/2018 2:22:00PM

Prep Batch: XXX39587
Prep Method: SW3520C
Prep Date/Time: 5/31/2018 8:30:47AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [XXX39587]
Blank Spike Lab ID: 1449220
Date Analyzed: 06/02/2018 14:42

Spike Duplicate ID: LCSD for HBN 1189328 [XXX39587]
Spike Duplicate Lab ID: 1449221
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **8270D SIM (PAH)**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
1-Methylnaphthalene	0.5	0.429	86	0.5	0.411	82	(41-115)	4.30	(< 20)
2-Methylnaphthalene	0.5	0.389	78	0.5	0.380	76	(39-114)	2.40	(< 20)
Acenaphthene	0.5	0.462	93	0.5	0.444	89	(48-114)	4.10	(< 20)
Acenaphthylene	0.5	0.429	86	0.5	0.412	82	(35-121)	4.00	(< 20)
Anthracene	0.5	0.430	86	0.5	0.409	82	(53-119)	5.00	(< 20)
Benzo(a)Anthracene	0.5	0.425	85	0.5	0.394	79	(59-120)	7.70	(< 20)
Benzo[a]pyrene	0.5	0.367	74	0.5	0.361	72	(53-120)	1.80	(< 20)
Benzo[b]Fluoranthene	0.5	0.415	83	0.5	0.390	78	(53-126)	6.10	(< 20)
Benzo[g,h,i]perylene	0.5	0.371	74	0.5	0.359	72	(44-128)	3.40	(< 20)
Benzo[k]fluoranthene	0.5	0.427	85	0.5	0.400	80	(54-125)	6.50	(< 20)
Chrysene	0.5	0.450	90	0.5	0.420	84	(57-120)	6.70	(< 20)
Dibenzo[a,h]anthracene	0.5	0.342	68	0.5	0.325	65	(44-131)	5.10	(< 20)
Fluoranthene	0.5	0.428	86	0.5	0.401	80	(58-120)	6.70	(< 20)
Fluorene	0.5	0.428	86	0.5	0.409	82	(50-118)	4.60	(< 20)
Indeno[1,2,3-c,d] pyrene	0.5	0.382	76	0.5	0.363	73	(48-130)	5.10	(< 20)
Naphthalene	0.5	0.416	83	0.5	0.398	80	(43-114)	4.40	(< 20)
Phenanthrene	0.5	0.414	83	0.5	0.401	80	(53-115)	3.00	(< 20)
Pyrene	0.5	0.441	88	0.5	0.417	83	(53-121)	5.60	(< 20)
Surrogates									
2-Methylnaphthalene-d10 (surr)	0.5	75.3	75	0.5	73.2	73	(47-106)	2.80	
Fluoranthene-d10 (surr)	0.5	76.7	77	0.5	75.4	75	(24-116)	1.60	

Batch Information

Analytical Batch: **XMS10796**
Analytical Method: **8270D SIM (PAH)**
Instrument: **Agilent GC 7890B/5977A SWA**
Analyst: **DSD**

Prep Batch: **XXX39587**
Prep Method: **SW3520C**
Prep Date/Time: **05/31/2018 08:30**
Spike Init Wt./Vol.: 0.5 ug/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 0.5 ug/L Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:23PM

Method Blank

Blank ID: MB for HBN 1780239 [XXX/39590]
Blank Lab ID: 1449237

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003

Results by **AK102**

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

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK102
Instrument: Agilent 7890B R
Analyst: VDL
Analytical Date/Time: 6/1/2018 10:02:00AM

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 5/31/2018 9:09:43AM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:24PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [XXX39590]
Blank Spike Lab ID: 1449238
Date Analyzed: 06/01/2018 10:12

Spike Duplicate ID: LCSD for HBN 1189328 [XXX39590]
Spike Duplicate Lab ID: 1449239
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **AK102**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Diesel Range Organics	20	17.8	89	20	17.1	86	(75-125)	4.10	(< 20)
Surrogates									
5a Androstane (surr)	0.4	98.2	98	0.4	91.4	91	(60-120)	7.20	

Batch Information

Analytical Batch: **XFC14247**
Analytical Method: **AK102**
Instrument: **Agilent 7890B R**
Analyst: **VDL**

Prep Batch: **XXX39590**
Prep Method: **SW3520C**
Prep Date/Time: **05/31/2018 09:09**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL

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Method Blank

Blank ID: MB for HBN 1780239 [XXX/39590]
Blank Lab ID: 1449237

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003

Results by **AK103**

Parameter	Results	LOQ/CL	DL	Units
Residual Range Organics	0.250U	0.500	0.150	mg/L
Surrogates				
n-Triacontane-d62 (surr)	90.1	60-120		%

Batch Information

Analytical Batch: XFC14247
Analytical Method: AK103
Instrument: Agilent 7890B R
Analyst: VDL
Analytical Date/Time: 6/1/2018 10:02:00AM

Prep Batch: XXX39590
Prep Method: SW3520C
Prep Date/Time: 5/31/2018 9:09:43AM
Prep Initial Wt./Vol.: 250 mL
Prep Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [XXX39590]
Blank Spike Lab ID: 1449238
Date Analyzed: 06/01/2018 10:12

Spike Duplicate ID: LCSD for HBN 1189328 [XXX39590]
Spike Duplicate Lab ID: 1449239
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **AK103**

	Blank Spike (mg/L)			Spike Duplicate (mg/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Residual Range Organics	20	18.5	92	20	17.9	89	(60-120)	3.50	(< 20)
Surrogates									
n-Triacontane-d62 (surr)	0.4	88.8	89	0.4	90.8	91	(60-120)	2.20	

Batch Information

Analytical Batch: **XFC14247**
Analytical Method: **AK103**
Instrument: **Agilent 7890B R**
Analyst: **VDL**

Prep Batch: **XXX39590**
Prep Method: **SW3520C**
Prep Date/Time: **05/31/2018 09:09**
Spike Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 20 mg/L Extract Vol: 1 mL

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Method Blank

Blank ID: MB for HBN 1780516 [XXX/39633]
Blank Lab ID: 1450434

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1189328001, 1189328002, 1189328003

Results by **SW8082A**

Parameter	Results	LOQ/CL	DL	Units
Aroclor-1016	0.0500U	0.100	0.0310	ug/L
Aroclor-1221	0.500U	1.00	0.310	ug/L
Aroclor-1232	0.0500U	0.100	0.0310	ug/L
Aroclor-1242	0.0500U	0.100	0.0310	ug/L
Aroclor-1248	0.0500U	0.100	0.0310	ug/L
Aroclor-1254	0.0500U	0.100	0.0310	ug/L
Aroclor-1260	0.0500U	0.100	0.0310	ug/L
Surrogates				
Decachlorobiphenyl (surr)	91.5	40-135		%

Batch Information

Analytical Batch: XGC10112
Analytical Method: SW8082A
Instrument: Agilent 7890B GC ECD SW F
Analyst: CMC
Analytical Date/Time: 6/7/2018 9:09:00PM

Prep Batch: XXX39633
Prep Method: SW3520C
Prep Date/Time: 6/6/2018 8:36:52AM
Prep Initial Wt./Vol.: 1000 mL
Prep Extract Vol: 1 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
t 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Blank Spike Summary

Blank Spike ID: LCS for HBN 1189328 [XXX39633]
Blank Spike Lab ID: 1450435
Date Analyzed: 06/07/2018 21:19

Spike Duplicate ID: LCSD for HBN 1189328 [XXX39633]
Spike Duplicate Lab ID: 1450436
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1189328001, 1189328002, 1189328003

Results by **SW8082A**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Aroclor-1016	1	0.680	68	1	0.704	70	(46-129)	3.47	(< 30)
Aroclor-1260	1	0.859	86	1	0.874	87	(45-134)	1.73	(< 30)
Surrogates									
Decachlorobiphenyl (surr)	1.00	89.8	90	1.00	92	92	(40-135)	2.42	

Batch Information

Analytical Batch: **XGC10112**
Analytical Method: **SW8082A**
Instrument: **Agilent 7890B GC ECD SW F**
Analyst: **CMC**

Prep Batch: **XXX39633**
Prep Method: **SW3520C**
Prep Date/Time: **06/06/2018 08:36**
Spike Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL
Dupe Init Wt./Vol.: 1 ug/L Extract Vol: 1 mL

Print Date: 06/25/2018 4:00:32PM

SGS

SGS CHAIN OF CUSTODY

1189328

Locations Nationwide

Alaska	Maryland
New Jersey	New York
North Carolina	Indiana
West Virgina	Kentucky

www.us.sgs.com

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

Page 1 of 1

Section 1

CLIENT: AECOM

CONTACT: Paul ~~Marshall~~ Myerchin — PHONE #: (907) 351-9934 cell, (907) ~~351~~ 561-6785 office

PROJECT NAME: Albertsons Fairbanks UST — Project/ PWSID/ PERMIT#: 60543830

REPORTS TO: Paul ~~Marshall~~ Myerchin — E-MAIL: paul.myerchin@aecom.com

INVOICE TO: AECOM — QUOTE #: 355176 — P.O. #:

Section 2

RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	# CONTAINERS	Pres: Type: Comp Grab MI (Multi-incremental)	VOC 8260	GRO/BTEX 8021		PCBs	DRO	RCRA Metals	RRD	PAHs			REMARKS/ LOC ID
						Preservative	HCl	HCl			HCl	HNO3	HCl				
(4) A-F	TB-1	5/25/18	0800	water	2	—	X	X									
	Temp BLANK	5/25/18	—	water	1	—											
(1) A-K	SB-3	5/25/18	1215	water	11	G	X	X		X	X	X	X	X			Hold PAHs
(2) A-K	SB-2	5/25/18	1545	water	11	G	X	X		X	X	X	X	X			Hold PAHs
(3) A-K	SB-2A	5/25/18	1555	water	11	G	X	X		X	X	X	X	X			Hold PAHs

Section 5

	Date	Time	
Relinquished By: (1)	5/25/18	16:20	Received By:
Relinquished By: (2)	5-29-18	1500	Received By:
Relinquished By: (3)			Received By:
Relinquished By: (4)	5/30/18	0915	Received For Laboratory By: Amanda Tabor

Section 4

DOD Project? Yes No

Cooler ID:

Data Deliverable Requirements:

Requested Turnaround Time and/or Special Instructions:
Analyses to include 1,2 DCA & EDB, Hold PAHs.

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

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

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

ANC: 1.5012

CS = 1-F, 1-B

Dawkins, Jennifer A (Anchorage)

From: Dawkins, Jennifer A (Anchorage)
Sent: Tuesday, May 29, 2018 2:20 PM
To: Dawkins, Jennifer A (Anchorage)
Subject: 1189328 Change Order

1189328

From: Myerchin, Paul [mailto:paul.myerchin@aecom.com]
Sent: Tuesday, May 29, 2018 11:34 AM
To: Ede, Stephen (Anchorage) <Stephen.Ede@sgs.com>
Cc: Burrus, Marianne <marianne.burrus@aecom.com>
Subject: Modification to COC Lab Work Order

Stephen,

On Thursday and Friday of last week, I submitted several water and soil samples for which the corresponding COC's indicated "Hold PAH analyses". Please proceed with PAH analyses for the samples listed on the COCs for Lab Work Order Numbers #1189325 (samples SB-2, SB-2A, SB-3, and SB-3A), and 1189328 (samples SB-3, SB-2, and SB-2A). Also, there may be some available volume issues associated with the soil samples. Please let me know if this will be an issue.

Thanks,

Paul Myerchin

SGS

1189328

FAIRBANKS SAMPLE RECEIPT FORM

Note: This form is to be completed by Fairbanks Receiving Staff for all samples

Review Criteria:	Condition:	Comments/Actions Taken
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	Yes No N/A Yes No N/A	□*Exemption permitted if sampler hand carries/delivers.*
Temperature blank compliant* (i.e., 0-6°C) *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ Cooler ID:_____@_____w/Therm. ID:_____ If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank and "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note ambient ( ) or chilled ( ). Please check one.	Yes No Yes No N/A Yes No N/A	□*Exemption permitted if chilled & collected <8hrs ago* *Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.*
Delivery Method: Client (hand carried) Other:_____	Tracking/AB# : Or see attached Or N/A	
→For samples received with payment, note amount ($) and whether cash / check / CC (**circle one**) was received.		
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): Bubble Wrap Separate plastic bags Vermiculite Other:_____	Yes No N/A	*Note: some samples are sent to Anchorage without inspection by SGS Fairbanks personnel.*
Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?	Yes No N/A	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	Yes No N/A Yes No N/A	PAH break hold: 6-1-18

Additional notes (if applicable):

Profile #:

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

SGS

Returned Bottles Inventory

Name of individual returning bottles: AECOM

Date Received: 5/30/18

Client Name: Paul Myerchin

Received by: ACT

Project Name: Albertsons Fairbanks UST

SGS PM: Chuck Homestead

HDPE/Nalgene:	1-L						
	500-ml						
	250-ml or 8-oz	(1) Returned bottle @ $4 ea.					
	125-ml or 4-oz						
	60-ml or 2-oz						
	other						
amber glass:	1-L	(1) Returned bottle @ $4 ea.					
	500-ml						
	250-ml or 8-oz	(2) Returned bottles @ $4 ea.					
	125-ml or 4-oz with or without septa						
	40-ml VOA vial	(16) Returned bottles @ $4 ea.					
	other						
Subtotal:							

Note: Returned bottles (regardless of size/pres.) are billed back at $4/bottle ***unless otherwise quoted*** *.*

Amount to Invoice Client $: _____ **WO#:** _____

e-Sample Receipt Form

SGS Workorder #: **1189328**

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
Chain of Custody / Temperature Requirements		n/a Exemption permitted if sampler hand carries/delivers.
Were Custody Seals intact? Note # & location	yes	1-Front, 1-Back
COC accompanied samples?	yes	
n/a **Exemption permitted if chilled & collected <8 hours ago, or for samples where chilling is not required		
Temperature blank compliant* (i.e., 0-6 °C after CF)?	yes	Cooler ID: 1 @ 1.5 °C Therm. ID: D12
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
	n/a	Cooler ID: @ °C Therm. ID:
If >6°C, were samples collected <8 hours ago?	n/a	
If <0°C, were sample containers ice free?	n/a	
If samples received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled".		
Note: Identify containers received at non-compliant temperature . Use form FS-0029 if more space is needed.		
Holding Time / Documentation / Sample Condition Requirements		Note: Refer to form F-083 "Sample Guide" for specific holding times.
Were samples received within holding time?	yes	
Do samples **match COC**** (i.e.,sample IDs,dates/times collected)?	yes	
**Note: If times differ <1hr, record details & login per COC.		
Were analyses requested unambiguous? (i.e., method is specified for analyses with >1 option for analysis)	yes	**Client requested GRO/BTEX 8021 on COC but not running BTEX per Justin's approval.**
	yes	***Exemption permitted for metals (e.g,200.8/6020A).
Were proper containers (type/mass/volume/preservative***)used?	yes	
Volatile / LL-Hg Requirements		
Were Trip Blanks (i.e., VOAs, LL-Hg) in cooler with samples?	yes	
Were all water VOA vials free of headspace (i.e., bubbles ≤ 6mm)?	yes	
Were all soil VOAs field extracted with MeOH+BFB?	n/a	

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

Additional notes (if applicable):

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1189328001-A	No Preservative Required	OK			
1189328001-B	No Preservative Required	OK			
1189328001-C	HCL to pH < 2	OK			
1189328001-D	HCL to pH < 2	OK			
1189328001-E	HNO3 to pH < 2	OK			
1189328001-F	HCL to pH < 2	OK			
1189328001-G	HCL to pH < 2	OK			
1189328001-H	HCL to pH < 2	OK			
1189328001-I	HCL to pH < 2	OK			
1189328001-J	HCL to pH < 2	OK			
1189328001-K	HCL to pH < 2	OK			
1189328002-A	No Preservative Required	OK			
1189328002-B	No Preservative Required	OK			
1189328002-C	HCL to pH < 2	OK			
1189328002-D	HCL to pH < 2	OK			
1189328002-E	HNO3 to pH < 2	OK			
1189328002-F	HCL to pH < 2	OK			
1189328002-G	HCL to pH < 2	OK			
1189328002-H	HCL to pH < 2	OK			
1189328002-I	HCL to pH < 2	OK			
1189328002-J	HCL to pH < 2	OK			
1189328002-K	HCL to pH < 2	OK			
1189328003-A	No Preservative Required	OK			
1189328003-B	No Preservative Required	OK			
1189328003-C	HCL to pH < 2	OK			
1189328003-D	HCL to pH < 2	OK			
1189328003-E	HNO3 to pH < 2	OK			
1189328003-F	HCL to pH < 2	OK			
1189328003-G	HCL to pH < 2	OK			
1189328003-H	HCL to pH < 2	OK			
1189328003-I	HCL to pH < 2	OK			
1189328003-J	HCL to pH < 2	OK			
1189328003-K	HCL to pH < 2	OK			
1189328004-A	HCL to pH < 2	OK			
1189328004-B	HCL to pH < 2	OK			
1189328004-C	HCL to pH < 2	OK			
1189328004-D	HCL to pH < 2	OK			
1189328004-E	HCL to pH < 2	OK			
1189328004-F	HCL to pH < 2	OK			

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition

Container Condition Glossary

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

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