SITE ASSESSMENT REPORT
2092 JORDAN AVE BUILDING SUITE 595
NUGGET MALL
JUNEAU, ALASKA

JUNE 2016

Prepared for:

Resource Transition Consultants LLC General Receiver for Loveless-Tollefson,
A Joint Venture, Donde LLC and Nugget Mall LLC
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ACRONYMS AND ABBREVIATIONS

AAC:	Alaska Administrative Code
ADEC:	Alaska Department of Environmental Conservation
AST:	Aboveground Storage Tank
bgs:	Below Ground Surface
CFM:	Cubic Feet per Minute
CSM:	Conceptual Site Model
COC:	Contaminants of Concern
DNAPL:	Dense Non-Aqueous Phase Liquid
DCE:	Dichloroethylene
Sq ft:	Square Feet
mg/kg:	Milligrams per Kilogram
mg/L:	Milligrams per Liter
PCE:	Tetrachloroethylene
PID:	Photoionization Detector
ppb:	Parts Per Billion
ppm:	Parts Per Million
TCE:	Trichloroethylene
$yd^{3:}$	cubic yards
VOC:	Volatile Organic Compounds

1.0 EXECUTIVE SUMMARY

NORTECH was retained to conduct Site Assessment and Indoor Air Quality activities at the former location of Capital City Cleaners, 2092 Building Suite 595 of the Nugget Mall, 8745 Glacier Highway, Juneau, Alaska (the Site). Resource Transition Consultants LLC General Receiver for Loveless-Tollefson, a Joint Venture, Donde LLC and Nugget Mall LLC, contacted ***NORTECH*** Environmental Health and Engineering to perform environmental sampling of air, soil, and water in order to determine the extent of contamination that may be present at the Site due to its historical use as a dry cleaning business. This Site Assessment Report summarizes the findings of the May 2016 soil and groundwater sampling event.

Capital City Cleaners began operations at the Site in 1985, and in 1990 was issued violations for improper storage of spent solvents and still bottoms as well as an improper hazards communication program for its employees. Smith, Bayliss, LeResche (SBL) conducted Phase I Environmental Assessments of the Site in both 1996 and 2004. No Recognized Environmental Concerns (REC) were identified during either assessment and no further investigation was recommended.

Partner conducted a Phase 1 Environmental Site Assessment in December, 2015. Based on information obtained from the 1996 and 2003 SBL reports, Partner considered the historical use of the property as a dry cleaning business a REC. Partner recommended a limited subsurface investigation be conducted to determine the presence or absence of soil or groundwater contamination at the Site.

On January 22, 2016, Partner conducted a Phase II Subsurface Investigation at the Site. PCE was found in all three laboratory samples in concentrations above ADEC cleanup levels. One sample also contained TCE and cis-1,2-Dichloroethylene in concentrations above ADEC cleanup levels. Partner concluded there appeared to be a vapor intrusion risk to occupants of the Site and recommended further investigation to evaluate the extent of contamination.

From April 20th to April 22nd, ***NORTECH*** conducted an Indoor Air Quality (IAQ) assessment of the 2092 Building. A total of eight air samples were submitted to SGS Galson Laboratories for analysis. Results from this assessment show that no contaminants of concern were detected in the air samples. Other volatile organic compounds were present but below OSHA PEL standards. A complete IAQ report is found in Appendix 7.

On May 4, 2016, ***NORTECH*** conducted a Phase II site assessment. Soil samples were collected using Direct Push Technology, with subsequent monitoring wells installion in three boreholes. A total of nine soils samples and Laboratory results of the soil and groundwater show levels of contaminants above ADEC cleanup criteria at the boring location on the east side of the building. PCE concentrations exceeded cleanup criteria in the soils above the groundwater table. Cis-1,2- Dichloroethylene is above ADEC criteria in the groundwater. This location is near the suspect source area.

This site-specific activity report has been prepared in accordance with the ADEC September 2009 *Site Characterization Work Plan and Reporting Guidance for Investigation of Contaminated Sites*.

2.0 BACKGROUND

2.1 Site Location and Description

The Site is located at 2092 Jordan Avenue Building Suite 595 of the Nugget Mall, 8745 Glacier Highway, Juneau Alaska and was built in 1983 (See Appendix 1, Figure 1). The Site is bounded by Glacier Highway to the North, Jordan Avenue to the East, Mallard Street to the South and the main building of the Nugget Mall to the West. The West side of the Nugget Mall complex is bounded by Crest Street. The Site latitude is 58.362344 N and Longitude 134.578981 W. The Site is not currently listed on the Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Database.

The Site is located within a commercial, multi-user, single story building subdivided into four units. The Site is located in the Southern most unit of the 2092 Building associated with the Nugget Mall and is currently occupied by Associated Credit Agency. Capital City Cleaners operated at the Site beginning in 1985 and ceased operations prior to 2003.

2.2 Site Climate

Juneau has a maritime climate (Koppen Cfb) marked by relatively long and cold winters and mild summers. The area receives an average of 230 days and 62.17 inches of precipitation annually. High and low temperatures are ameliorated by the proximity to the Pacific Ocean. The average annual temperature is 43 degrees Fahrenheit.

2.3 Site Geology

The native soils in the area of the Site consist of alluvial deposits of silty sand and gravel from the nearby Mendenhall River.

2.4 Site Groundwater and Surface Water

Groundwater in the area of the Site is present at an average depth of 12 to 14 feet below grade. Groundwater is not utilized as a drinking water source as the area surrounding the Site is serviced by the municipal water system. Surface water is prevalent in the area and includes Jordan Creek, Mendenhall River, and the Mendenhall Wetlands, all within one mile of the Site.

3.0 SITE HISTORY

The Site is currently occupied by Associated Credit Agency Inc. Prior use of the Site includes use as a dry cleaning business, Capital City Cleaners. Capital City Cleaners was issued violations in 1990 for improper storage of spent solvents and still bottoms, and an improper hazards communication program for its employees.

Although no longer operating at the Site, Capital City Cleaners is still listed in the Resource Conservation and Recovery Information System (RCRIS) as a Hazardous Waste Generator. The Site is not listed on the ADEC Contaminated Sites Database.

3.1 Prior Site Activities

3.1.1 Phase I Environmental Studies

Phase I Environmental Site Assessment studies were conducted at the Site in 1996, 2004, and 2015. Smith, Bayliss LeResche (SBL) performed the 1996 and 2004 Phase I studies. Both SBL Phase I Studies reported finding no Recognized Environmental Concern (REC) associated with the Site and did not recommend any further action.

Partner Engineering and Science Inc. performed the 2015 Phase I Environmental Assessment and classified the Site as a REC due to its historic use as a dry cleaner. Partner recommended a limited subsurface investigation be conducted to determine if contamination was present in the soil or groundwater as a result of the historic use of the Site.

3.1.2 Concrete Sampling Activities

In 2003, SBL collected concrete samples from within the building. Laboratory analysis of the samples showed concentrations of Tetrachloroethene (PCE) and Trichlorethene (TCE) above ADEC Method II Cleanup levels for migration to groundwater, but did not exceed ADEC Method II inhalation standards. SBL recommended removal and replacement of the affected concrete floor as well as sealing the rest of the floor within the Site. Table 1 summarizes the laboratory results from this study.

Table 1
Laboratory Results of SBL's 2003 Concrete Sampling

Sample ID	ADEC Method II Cleanup Levels		CZ01	CZ02
	Migration to Groundwater	Inhalation		
	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Tetrachloroethylene (PCE)	0.024	7.3	0.58	0.160
Trichloroethylene (TCE)	0.020	0.42	ND	ND

ND Non Detect for this analyte

3.1.3 Sub Slab Soil Gas Sampling

Based on the recommendations of its 2015 Phase I Environmental Assessment, Partner conducted a Phase II Subsurface investigation at the Site in early 2016. Three sub slab soil gas samples were collected and analyzed for VOCs. Partner reported PCE concentrations exceeding the ADEC Commercial Target Levels for sub slab Soil Gas in all samples. One sample (SG2) contained concentrations of TCE and *cis*-1,2-Dichloroethylene above ADEC Target Levels. The laboratory reporting limit for TCE (270 µg/m^3) was greater than ADEC Commercial Target Levels (88 µg/m^3), therefore there is the possibility that TCE concentrations in samples SG1 and SG3 were also above ADEC Target Levels. Table 2 summarizes results of laboratory analysis of samples taken during this sub slab soil gas study.

Tetrachloroethylene (PCE) was detected in all three samples, ranging from 45,000 µg/m^3 to 86,000 µg/m^3. Trichloroethylene and cis-1,2-dichloroethylene was detected in SG2 at a concentration of 2,200 µg/m^3 and 1,000 µg/m^3 respectively. TCE in SG1 and SG3 were not detected at the laboratory limits of quantitation of 270 µg/m^3, however the ADEC target level for TCE is 88 µg/m^3.

Table 2
Partner 2015 Subsurface Sampling Laboratory Results of Detected Analytes

Sample ID	ADEC Commercial Target Levels for Sub Slab Soil Gas	SG1	SG2	SG3
	µg/m^3	µg/m^3	µg/m^3	µg/m^3
Tetrachloroethylene (PCE)	1,800	**65,000**	**45,000**	**86,000**
Trichloroethylene (TCE)	88	< 270	**2,200**	< 270
Cis-1,2-Dichloroethylene	310	< 200	**1,000**	< 200

4.0 SCOPE OF WORK

NORTECH is contracted to determine if a vapor intrusion risk exists and to identify and delineate contamination present in the soil and groundwater at the Site. ***NORTECH*** used a Geoprobe direct push drill to collect soils samples and install three monitoring wells around the property. During drilling activities, soil was field screened at every two foot interval using a PPB RAE Photoionization detector. Soil samples with the highest field screening were collected for laboratory analysis of VOCs. Water samples were collected from the bottom of each well and submitted for laboratory analysis of VOCs. In addition to soil and groundwater sampling, an indoor air quality survey of the building was performed.

5.0 FIELD ACTIVITIES

NORTECH conducted indoor air monitoring in the building suites currently occupied by Associated Credit and Chez Alaska. For more information on indoor air monitoring activities and results, see Appendix 8.

On May 4, 2016 ***NORTECH*** personnel oversaw the drilling of six soil borings outside building Suite 595 of the Nugget Mall Annex. Weather conditions were mostly sunny, 48^0 F, with winds gusting over 15 mph. The soil borings were drilled using a Geoprobe direct push drill rig equipped with a GH42 hammer. A 2.25 inch diameter, four foot macro-core sample barrel with a 1.5 inch polyethylene sleeve was used for sample collection.

NORTECH personnel collected soil samples at two foot depth intervals from each soil boring, in addition to classifying the soils. Information regarding soil types and boring depths can be found in the Boring Logs in Appendix 2. All soil samples were field screened using a PPB RAE Photoionization Detector capable of detecting organic solvents. ***NORTECH*** personnel recorded the highest field screening reading from the PPB Detector for each sample. The two sample intervals with the highest field screening results from each soil boring that were to be converted to monitoring wells were sent to SGS Laboratories in Anchorage, Alaska for analysis of volatile organic compounds (VOC). A total of nine soil samples (eight samples and one duplicate) were shipped to SGS via Alaska Air Cargo Goldstreak.

NORTECH installed groundwater monitoring wells in three of the soil boring locations. A fourth monitoring well was to be installed, however, the main return hydraulic line of the drill rig failed, ceasing operation of the rig. Repairs could not be made on site. The monitoring wells are in close proximity to old monitoring wells previously installed by SBL in 2003. The previously installed wells were not utilized as they are too shallow for the purpose of this investigation (previously used for soil gas survey). See Appendix 1, Figure 2 for monitoring well and borehole locations. Well depths were determined by PID field screening analysis, placing the screen section to contain the highest PID interval below the groundwater table.

Monitoring wells ranged in depth from 15 to 18 feet below ground surface (bgs). All wells were installed using ¾ inch threaded PVC riser with one five foot pre-pack screen section having 0.010 inch slots. All wells were installed within the parking lot used by patrons of the Nugget Mall and were protected from damage by vehicles and snow plowing activities by installing flush mounts on top of each well casing.

On May 6th, D. Radu returned to site in the afternoon to perform well development, after the wells were allowed to stabilize for 24 hours. Development occurred with the use of a surge block attached to 3/8" tubing. The tubing was put through a peristaltic pump, surging the screen section as water is pumped in order to remove fines from within the screened section and promote groundwater flow to the well. Well depths, water height within each well, and purge volumes during development are reported in Table 3.

Sample collection occurred on May 8th, after the minimum of 24 hours after well development. For each well, ***NORTECH*** personnel purged at least three well volumes prior to sampling. Samples were collected from the bottom of each well, as PCE and the breakdown products are DNAPL compounds, having a density greater than water.

Table 3:
Groundwater Monitoring Well Information

Monitoring Well	Well Depth (ft)	Water Height (ft)	Well Volume (gal)	Purge Volume (gal)
MW-1	14.40	6.92	0.16	2.5
MW-2	17.52	7.08	0.24	3
MW-3	18.0	6.80	0.25	1

NORTECH collected a total of four groundwater samples (three samples and a duplicate) for analysis. All samples were collected into laboratory certified clean containers, and assigned a unique identification number. Sample containers were placed into a cooler with ice, a trip blank, and a temperature blank for transportation under chain-of-custody to SGS in Anchorage for the analysis of VOCs by SW846 Method 8260. All samples were shipped via Alaska Air Cargo Goldstreak to SGS for analysis.

6.0 METHODOLOGY

Environmental field work was completed in general accordance with the *ADEC February 2016 Draft Field Sampling Guidance* (FSG).

6.1 Contaminants of Potential Concern and Pertinent Cleanup Levels

The contaminates of concern (COCs) at the Site include PCE, TCE, and *cis*-1,2-Dichloroethylene. Previous investigations have found concentrations of all three VOCs at the Site which exceed applicable ADEC Cleanup Levels. This section outlines the methodology ***NORTECH*** may use during sampling activities at the Site. Sampling locations, locations and number of monitoring wells, frequency of field screening, and number of laboratory samples that are collected may vary from those proposed in this report based on field conditions encountered at the Site. All sampling will be done in general accordance with the *ADEC February 2016 Draft Field Sampling Guidance* (FSG) and ***NORTECH*** standard methodologies. Table 4 contains pertinent cleanup levels for all COCs.

Table 4:
ADEC Cleanup Levels for Contaminates of Concern

Contaminate	Inhalation	Soils	Shallow Soil Gas	Groundwater
	µg/m^3	mg/kg	µg/m^3	mg/L
Tetrachloroethylene (PCE)	180	0.024	1800	0.005
Trichloroethylene (TCE)	8.8	0.020	88	0.005
cis-1,2-Dichloroethylene	31	0.24	310	0.07
Trans-1,2-Dichloroethylene	260	0.37	2600	0.10
Vinyl Chloride	440	0.0085	280	0.002

6.2 Field Screening Equipment and Methods

NORTECH uses the headspace method of field screening as described in the Draft Field Sampling Guidance, ADEC, May 2010 (FSG). Field screening samples are collected using clean or disposable sampling tools in a sufficient quantity to partially fill (30-50%) a clean zip lock bag (a minimum of 8 ounces of soil). If necessary, the samples are heated to a minimum temperature of 40º F. The sample bags are then sealed, agitated, labeled, and set aside to develop headspace vapors for a minimum of ten minutes prior to screening with a photoionization detector (PID). A PID analyzes vapors for volatile organic compounds (VOCs). After headspace development, the bags are again agitated, and the PID probe is inserted into a small opening in the bag to draw headspace vapors from the center of the space above the soil. ***NORTECH*** records the highest PID reading from each sample in the project field logbook.

6.3 Laboratory Sample Collection

All samples were collected using certified clean containers provided by the laboratory. The laboratory containers and preservative complied with the FSG and the laboratory's standard operating procedures. Samples were collected using disposable sampling devices, such as gloves, and reusable devices such as spoons or trowels. Disposal sampling tools were not re-used and reusable sampling tools were decontaminated prior to being used again to prevent cross contamination of samples.

Sample containers were filled and adequately sealed, with rims cleaned before being tightened. Containers were labeled with unique identifications on laboratory-supplied labels, placed in a laboratory-supplied cooler and immediately cooled to 0-6°C. This temperature was maintained through delivery to the laboratory until samples were analyzed. All applicable laboratory chain of custody requirements were followed. Soil and water samples were sent to SGS Laboratories in Anchorage for analysis of VOCs.

In addition to laboratory samples, the following quality assurance and quality control (QA/QC) samples were collected:

Field Duplicates: One Field Duplicate sample was collected for every 10 primary samples. Duplicate soil samples were collected as close as possible to the same point in space and time. Duplicate water samples were collected at the same water depth within the well. All field duplicates were blind samples and given unique sample numbers.

Trip Blanks: Laboratory supplied Trip Blank(s) accompanied the sample containers to and from the laboratory and remained unopened. One Trip Blank was submitted per 20 volatile samples with a minimum of one Trip Blank per work order.

Matrix Spikes, Method Blanks, and Laboratory Control Samples will be identified, analyzed, and reported in accordance with method specific requirements identified in the analytical laboratory's SOPs.

7.0 SAMPLE RESULTS AND DISCUSSION

A total of 13 samples (three groundwater samples and one duplicate, nine soil samples and one duplicate) were collected and submitted to SGS North America under appropriate chain of custody procedures for the following analysis:

- Volatile Organic Compounds (VOC) by EPA SW846 Method 8260.

The sampling was done in accordance with the ADEC May *2010 Draft Field Sampling Guidance (FSG)*.

PCE is a dense non-aqueous phase liquid (DNAPL), meaning it is not soluble in water and heavier than water, therefore will continue to sink upon reaching groundwater. PCE breaks down under anaerobic conditions (lack of free oxygen as O_2) by reductive dechlorination and naturally by microbiological decomposition of the contaminants, specifically be *dehalococcoides* sp. Reductive dechlorination is the degradation of chlorinated organic compounds, such as PCE, by chemical reduction with the release of chloride ions. TCE, cis-1,2 DCE, and vinyl chloride are the breakdown compounds formed under these conditions, all of which are denser than water.

7.1 Groundwater

A summary of laboratory results for the samples are in Table 5 below. MW-1 exceeds the ADEC cleanup level for cis-1,2-Dichloroethylene in groundwater. Tetrachloroethylene, trichloroethylene, and trans-1,2-Dichloroethylene were detected at concentrations below the ADEC cleanup limit but above the laboratory limit of quantitation (LOQ). MW-2 has cis-1,2-dichloroethylene concentrations below the ADEC cleanup limit with PCE and the other breakdown products not detected at the listed LOQ. Results for MW-3, located on the west side of the building, are non-detect for all VOCs.

Table 5

Groundwater Sample Detectable Laboratory Analytical Results

Sample ID	ADEC	MW-1	MW-2	MW-3	MW-10*
Sample Collection Date		5/8/16	5/8/16	5/8/16	5/8/16
Analyte	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs					
1,1-Dichloroethene	0.007	0.00032 J	0.0005 U	0.0005 U	0.0005 U
Chloromethane	0.066	0.00034 J	0.0005 U	0.0005 U	0.0005 U
cis-1,2-Dichloroethene	0.07	**0.0792**	0.00393	0.0005 U	0.00374
Tetrachloroethene (PCE)	0.005	0.00257	0.0005 U	0.0005 U	0.0005 U
Toluene	1.0	0.00238	0.00063 J	0.00035 J	0.00073 J
trans-1,2-Dichloroethene	0.10	0.00393	0.0005 U	0.0005 U	0.0005 U
Trichloroethene (TCE)	0.005	0.00321	0.0005 U	0.0005 U	0.0005 U
Vinyl Chloride	0.002	0.00074 J	0.0005 U	0.0005 U	0.0005 U

Bold	Analyte detected in concentration above the ADEC Cleanup level
# U	Analyte not detected at the listed limit of quantitation (LOQ)
Shade	Analyte detected in concentration below the ADEC Cleanup level
MW-10*	Duplicate pair to MW-2

7.2 Soils

A total of nine soil samples (eight samples and one duplicate) were submitted to SGS North America for analysis of VOCs by EPA SW846 Method 8260. The two sample intervals with the highest PID reading from each borehole converted to a monitoring well were submitted for analysis. A summary of the laboratory results are in Table 6, located in Appendix 4. Soil classification performed during drilling show fill present in the top 2'-4' under the blacktop in the area around the building. The parking lot slopes away from the building to the south and west, but level in the alley way on the east and drive access on the north. Polyethylene sheeting was found in BH2 at a depth of four feet. This material may have been used as a water vapor barrier during construction of the building.

Soil results are compared to the ADEC Method 2 cleanup criteria for migration to groundwater. BH1 (6-10) has a tetrachloroethene concentration of 0.106 mg/kg, exceeding the ADEC level of 0.024 mg/kg. The breakdown products of PCE were not detected at the laboratory LOQ. BH1 is located on the east side of the building and is near the original area of concern (the source area), used by Capital City Cleaners. All other soil samples do not have detectable levels of VOCs. Tabulated soil sample results can be found in Appendix 4, Table 6.

The BH1/MW1 location has impacted soils and groundwater that are near the source area. Other borings indicate that the contaminants have not migrated downgradient from BH1/MW1. PCE is present within the soils above the water table with the breakdown compounds present in groundwater, with cis-1,2-DCE above ADEC cleanup criteria. This indicates that dechlorination under anaerobic conditions is occurring below the water table. Soils above the water table consist of fine glacial silts, slowing down the migration of PCE to groundwater.

7.3 Quality Control Summary

Data quality objectives for and approved Amendments, which were generally in agreement with the FSG. The goal of the project was to produce data of adequate quality for comparison to 18 AAC 75 cleanup levels. The primary tool used to assess the quality of the data was the ADEC LDRC. A LDRC was completed for each individual laboratory work order and is included in Appendix 6.

BH2 (14-16) and BH2A (14-16) are duplicate pairs for the soil samples. Results for the two were non-detect for all volatile analytes, having an effective Relative Percent Difference (RPD) calculation of 0% RPD. Surrogate recoveries for all samples were within range. A trip blank was submitted with the soils samples. BTEX analytes and trichlorofluoromethane (Freon-11) were detected in trace amounts. As these compounds were not detected in the soils, contamination from another source (i.e. during sample shipment or storage) may be the cause.

MW-2 and MW-10 are the duplicate pairs for the groundwater samples. Cis-1,2-dichloroethylene was the only VOC detected above the LOQ for the pair. The RPD for this analyte is calculated to be 4.95%, below the ADEC recommended 30% RPD for water samples. Surrogate recoveries for all samples were within range.

All Quality control indicators are within acceptable limits and all sample results are deemed valid.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based upon field observations, screening results, and laboratory data, the following conclusions and recommendations have been developed for this site:

- BH-1/MW-1 have soils and groundwater concentrations of PCE and cis-1,2-dichloroethylene concentrations, respectively, above the ADEC cleanup criteria.
- This location is near what is suspected to be the source area under the building.
    - The source area is located under the concrete slab of unit 595, the former dry cleaner, specifically the southeast corner.
- While the horizontal extent of contamination is small, PCE is a DNAPL and will continue to sink deeper into the groundwater table.
- Reductive dechlorination (the chemical degradation of chlorinated organic compounds) of PCE under anaerobic conditions to the breakdown products is evident.
- Indoor Air Quality data show that building occupants are not exposed to VOCs from former site activities.
- Quarterly groundwater sampling of the monitoring wells is recommended.

9.0 LIMITATIONS AND NOTIFICATION

NORTECH provides a level of service that is performed within the standard of care and competence of the environmental engineering profession. However, it must be recognized that limitations exist within any site investigation. This report provides results based on a restricted work scope and from the analysis and observation of a limited number of samples. Therefore, while these limitations are considered reasonable and adequate for the purposes of this report, actual site conditions may differ. Specifically, the unknown nature of exact subsurface physical conditions, sampling locations, the analytical procedures' inherent limitations, as well as financial and time constraints are limiting factors.

10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

The following Environmental Professionals have overseen and performed the QA/QC activities of the Site work.

Sincerely,
NORTECH

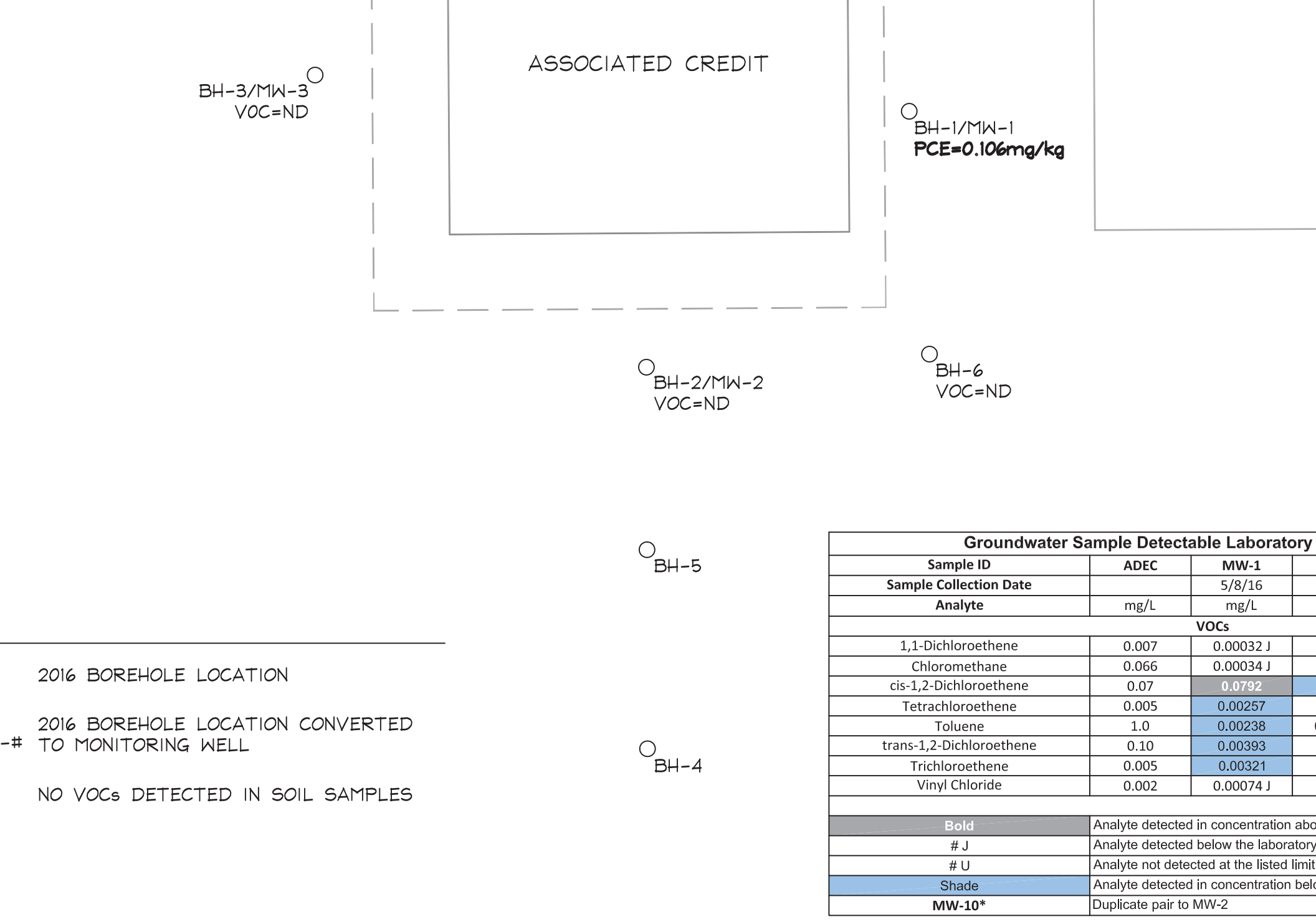
Dumitru Radu
Environmental Scientist

Jason Ginter, PMP, CEA
Principal, Juneau Technical Manager

APPENDIX 1
FIGURES


ECT
TION
TONGASS NATIONAL FOREST
MENDENHALL WETLANDS
STATE GAME REFUGE
GASTINEAU
CHANNEL
MENDENHALL WETLANDS STATE GAME REFUGE
A S ISLAND
G A S S
F O R E S T
TONGASS NATIONAL FOREST
WHITEHORSE YT.
HAINES
JUNEAU
WRANGELL
SCALE IN MILES
0 1 2


GLACIER HIGHWAY
AREA SHOWN
IN FIGURE 2
JORDAN AVENUE
MALLA
TEAL STREE
SCALE IN FEET
0 300 600



Groundwater Sample Detectable Laboratory			
Sample ID	**ADEC**	**MW-1**	
Sample Collection Date		5/8/16	
Analyte	mg/L	mg/L	
VOCs			
1,1-Dichloroethene	0.007	0.00032 J	
Chloromethane	0.066	0.00034 J	
cis-1,2-Dichloroethene	0.07	**0.0792**	
Tetrachloroethene	0.005	0.00257	
Toluene	1.0	0.00238	
trans-1,2-Dichloroethene	0.10	0.00393	
Trichloroethene	0.005	0.00321	
Vinyl Chloride	0.002	0.00074 J	

Bold	Analyte detected in concentration abo
# J	Analyte detected below the laboratory
# U	Analyte not detected at the listed limit
Shade	Analyte detected in concentration belo
MW-10*	Duplicate pair to MW-2

APPENDIX 2
BORING LOGS

NORTECH Environmental and Engineering Consultants Test Boring Log

PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

JOB NO.	16-1035
HOLE NO.	BH-01/MW-1
SHEET	1
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

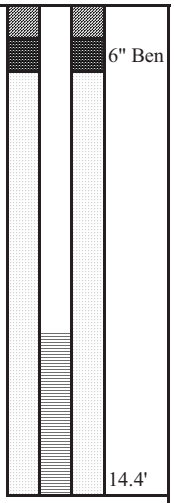
	CASING	SAMPLE	CORE
TYPE	macro-core		
SIZE (ID)	1.5	48	
HAMMER WT			
HAMMER FALL			

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		10-10.5	14.4	18.0

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOV-ERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID (ppb)
0.0					100		
2.0			0"-3" (3"-2')		100	blacktop, then fill -fine to medium silty sand w/ gravels	2 281 at 2.5'
6.0			(2-6)		80	2'-6' fine - med silty sand with gravel	5 0 0
10.0		BH1 (6-10)	(6-10)		30	6'-9.5' fine to med silty sand 9.5'-10' very fine silty sand	0 0
14.0		BH1 (12-14)	Δ GW interface (10-14)		100	10-11.5 fine glacial silt 11.5-12.3 very fine glacial flour 12.3-14 medium to course silty sand with gravels	0 0 0
18.0			(14-18)		75	14-18 med-coarse sand (brown)	0 82
							0
25.0							
30.0							

NOTES:

Well Details



Casing Type

2" Screen 0.10"

Fill Materials

Bentonite

Filter Sand

Native and Concrete

NORTECH Environmental and Engineering Consultants Test Boring Log

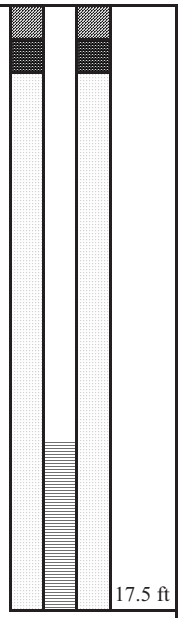
PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

JOB NO.	16-1035
HOLE NO.	BH-02/MW-2
SHEET	2
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

	CASING		SAMPLE	CORE
TYPE	macro-core			
SIZE (ID)	1.5		48"	
HAMMER WT				
HAMMER FALL				

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		10	17.5	18.0

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOVERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID (ppb)
0.0						0"-3" blacktop	
			(0-2)		75	fill (fine-med sand /gravel)	0
2.0							0
						3.25 ft = 2 in black sand layer	403
		BH02-(2-4)	2-6			fine - med silty sand with gravel	145
						5.5 ft = glacial silt layer	80
6.0					70	fine glacier silt / flour	10
						fine, well sorted silty sand	38
			6-10				
							0
10.0						fine silty sand	3
			Δ GW interface			fine glacial silt grading to glacial flour	0
			10-14			med - coarse silty sand with gravel	391
							409
14.0					65	med - coarse silty sand with gravel	519
		BH02(14-16)				well sorted fine sand	675
			14-18			med - coarse silty sand with gravel	379
							227
18.0						med - coarse silty sand with gravel	75
			18-20				118/293
							280
25.0							
30.0							



ft / 19.5 ft

Casing Type

2" Screen 0.10"

Fill Materials

Bentonite

Filter Sand

Native and Concrete

NOTES:

Several layers of polyethylene sheeting found at about 4 ft depth. (Vapor Barrier ?)

NORTECH Environmental and Engineering Consultants Test Boring Log

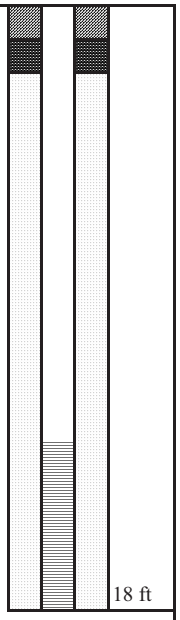
PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

JOB NO.	16-1035
HOLE NO.	BH-03/MW-3
SHEET	3
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

	CASING		SAMPLE	CORE
TYPE	macro-core			
SIZE (ID)	1.5		48"	
HAMMER WT				
HAMMER FALL				

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		10.25	18	22.0

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOVERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID ppb
0.0							
			(0-2)			blacktop 0"-3"	4
2.0					100	3"- 3' - fine to med. silty sand w/gravel	0
		BH03-(2-4)				3"-3"2" - layer of black sand	48
						3'2"-5.5" - fine to med. Sand with gravel	0
			(2-7)				
6.0							0
			(7-11)		80	5.5'-7' - well sorted glacial silty sand	0
						7'-10.25' - fine glacial silt	
10.0							0
			Δ GW interface				
			(11-14)		85	10.25'-14' - med to course sand & gravel	0
14.0							0
							0
			(14-18)		75		
						14'-22' - med-coarse silty sand with gravel	
18.0		BH03-(16-18)					30/54
					80		0
22.0							0
							0
30.0							



Well Details

Casing Type

2" Screen 0.10"

Fill Materials

Bentonite

Filter Sand

Native and Concrete

NOTES:

NORTECH Environmental and Engineering Consultants Test Boring Log

PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

JOB NO.	16-1035
HOLE NO.	BH-04
SHEET	4
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

	CASING		SAMPLE	CORE
TYPE	macro-core			
SIZE (ID)	1.5		48"	
HAMMER WT				
HAMMER FALL				

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		10		18.0

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOV-ERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID	ppb	
0.0									
			(0-2)		85	blacktop 0"-2"		0	
2.0						2"- 1.5' - fill, fine to med silty sand w/gravel			
						1.5'-4'4"- glacial silts w/sand stringers			
								0	
			(2-6)		75	4'4"- 6' - fine silty sand, well sorted			
6.0								0	perched water (6'-7.5')
						6'-7' - fine silty sand		0	
			(6-10)		85	7'-8'10" - very fine glacial flour		0	
			Δ GW interface			8'10"-9.5' - gray fine-med silty sand		0	
10.0						9.5'-10' - medium silty sand (brown)		107	
						10'-12.5' - fine to medium silty sand		0	
			(10-14)		75				
						12.5'-14' - fine to med sitly sand w/gravel		0	
14.0									
								0	
			(14-18)		50	14'-18' - medium to course silty sand w/gravel			
								0	
18.0									
20.0									
25.0									
30.0									

NOTES:

NORTECH Environmental and Engineering Consultants Test Boring Log

PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

JOB NO.	16-1035
HOLE NO.	BH-05
SHEET	5
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

	CASING		SAMPLE	CORE
TYPE	macro-core			
SIZE (ID)	1.5		48"	
HAMMER WT				
HAMMER FALL				

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		9.5		18.0

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOV-ERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID	ppb
0.0								
			(0-2)		90	0"-3" - blacktop		0
2.0						3"-2' - fine to med silty sand w/gravel (fill)		
						2'-3' - fine to med silty sand w/gravel (fill)		0
						3'-3'2" - black sand		0
			(2-6)		90	3'2"-3.75" - fine to med silty sand w/gravel		0
6.0						3.75'-6' glacial silts and silty sands		0
						6'-6.5' - fine glacial silts		0
			(6-10)		85	6.7'-7' - fine glacial silty and sands		0
						7'-8.5' - very fine silty sand		0
10.0			∆ GW interface			8.5'-10' - glacial silts w/ interbedded sands		
						10'-12' - fine silty sand		0
			(10-14)		50			0
						12'-14' - med to course silty sand w/gravel		
14.0								0
						14'-18'-med to course silty sand w/gravel		0
			(14-18)		65			0
18.0								0
20.0								
25.0								
30.0								

NOTES:

NORTECH Environmental and Engineering Consultants Test Boring Log

PROJECT: **Nugget Mall**
LOCATION: **2092 Jordan Ave Building 595, Juneau, AK**

	CASING	SAMPLE	CORE
TYPE	macro-core		
SIZE (ID)	1.5	48"	
HAMMER WT			
HAMMER FALL			

GROUNDWATER		DEPTH TO		
DATE	TIME	WATER	BOTTOM OF CASING	BOTTOM OF HOLE
5/4		10		18.0

JOB NO.	16-1035
HOLE NO.	BH-06
SHEET	6
START DATE	5/4/2016
FINISH DATE	5/4/2016
DRILLER	Cuff
HELPER	
INSPECTOR	D. Radu

DEPTH IN FEET	CASING BLOWS PER FOOT	SAMPLE NO	SAMPLE DEPTH (FT)	SAMPLE BLOWS PER 6 INCHES	RECOV-ERY (%)	SOIL DESCRIPTION AND OTHER DATA	PID	ppb
0.0								
			(0-2)		100	0"-3" - blacktop		0
2.0						3'-2' -fine - med silty sand with gravel (fill)		0
		(2-4)				2'-3' -fine -med silty sand w/ gravel (fill)		24
						3'-3'3" - black sand		146
			(2-6)		85	3'3"-5.5' - fine to med silty sand w/gravel		0
6.0								0
						5'5"-6.75" - fine glacial silt w/organics		63
			(6-10)		80	6.75'-10' - fine glacial silts and sands		0
								0
10.0			∆ GW interface					0
						10'-12' - saturated fine silty sand		0
			(10-14)		65	12'-13' - fine glacial silt		0
						13'-16 - 'grey med-coarse silty sand		0
14.0						w/gravel		0
								0
			(14-18)		65			
		(16-18)				16'-18' - brown med-course silty sand		0
18.0						w/gravel		
20.0								
25.0								
30.0								

NOTES:

APPENDIX 3
SITE PHOTOGRAPHS

Photo 1: *View looking south at the location for BH-01/MW-1. Soil sampling and monitoring well installation was performed with a Geoprobe GH42 direct push truck mounted rig, seen in photo.*

Photo 2: *Borehole BH-02 sample from two to six feet. Note polyethylene sheeting in center of sample sleeve.*

Photo 3: *View looking northwest at sample location BH-03/MW-3. This is located on the west side of the building.*

Photo 4: *A closer look at the poly sheeting. Also, note the black sands encountered at several of the boreholes. These sands were typically found at about three feet bgs.*

Photo 5: *Close up view of a sample sleeve at BH-02, 2'-6' bgs. Note the brown silty sands on left and the fine glacial silts on right. This contact is typically at about 5.5'-6' bgs.*

Photo 6: *Drill rig set up at location BH-4 on south side of the parking lot.*

APPENDIX 4
TABLE 6
SOIL SAMPLE LABORATORY ANALYTICAL RESULTS

Table 6
Soil Sample Laboratory Analytical Results

Sample ID	ADEC	BH1 (6-10)	BH1 (12-14)	BH2 (2-4)	BH2 (14-16)	BH2A (14-16)	BH3 (2-4)	BH3 (16-18)	BH6 (2-4)	BH6 (16-18)
Sample Collection Date		5/5/16	5/5/16	5/5/16	5/5/16	5/5/16	5/5/16	5/5/16	5/5/16	5/5/16
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
VOCs										
1,1-Dichloroethene	0.030	0.0129 U	0.0109 U	00127 U	0.0116 U	0.0119 U	0.0116 U	0.0107 U	0.0119 U	0.0189 U
Chloromethane	0.21	0.0129 U	0.0109 U	00127 U	0.0116 U	0.0119 U	0.0116 U	0.0107 U	0.0119 U	0.0189 U
cis-1,2-Dichloroethene	0.24	0.0129 U	0.0109 U	00127 U	0.0116 U	0.0119 U	0.0116 U	0.0107 U	0.0119 U	0.0189 U
Tetrachloroethene	0.024	**0.106**	0.00545 U	0.00431 U	0.00580 U	0.00595 U	0.00510 J	0.00535 U	0.0109 J	0.00945 U
Toluene	6.5	0.0129 U	0.0109 U	00127 U	0.0116 U	0.0119 U	0.0116 U	0.0107 U	0.0119 U	0.0189 U
trans-1,2-Dichloroethene	0.37	0.0129 U	0.0109 U	00127 U	0.0116 U	0.0119 U	0.0116 U	0.0107 U	0.0119 U	0.0189 U
Trichloroethene	0.020	0.00645 U	0.00545 U	0.00635 U	0.00580 U	0.00595 U	0.00580 U	0.00535 U	0.00595 U	0.00945 U
Vinyl Chloride	0.0085	0.00515U	0.00436 U	0.00505 U	0.00462 U	0.00475 U	0.00464 U	0.00428 U	0.00476 U	0.00755 U

Bold	Analyte detected in concentration above the ADEC Cleanup level
# U	Analyte not detected at the listed limit of quantitation (LOQ)
# J	Analyte detected below the laboratory limit of quantitation (LOQ)
BH2A (14-16)	Duplicate pair to BH2 (14-16)

APPENDIX 5
LABORATORY REPORTS

Laboratory Report of Analysis

To: Nortech
5438 Shaune Drive #B
Juneau, AK 99801
(907)586-6813

Report Number: **1162249**

Client Project: **16-1035 Nugget Mall**

Dear Dumitru Radu,

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 Victoria 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.

SGS North America Inc.
Environmental Services – Alaska Division
Project Manager

Victoria Pennick
2016.05.16
10:44:44 -08'00'

Victoria Pennick Date
Project Manager
Victoria.Pennick@sgs.com

Print Date: 05/16/2016 10:19:54AM

Case Narrative

SGS Client: **Nortech**
SGS Project: **1162249**
Project Name/Site: **16-1035 Nugget Mall**
Project Contact: **Dumitru Radu**

Refer to sample receipt form for information on sample condition.

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

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

Laboratory Qualifiers

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

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

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

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

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

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

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Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
MW-1	1162249001	05/08/2016	05/09/2016	Water (Surface, Eff., Ground)
MW-2	1162249002	05/08/2016	05/09/2016	Water (Surface, Eff., Ground)
MW-3	1162249003	05/08/2016	05/09/2016	Water (Surface, Eff., Ground)
MW-10	1162249004	05/08/2016	05/09/2016	Water (Surface, Eff., Ground)
Trip Blank	1162249005	05/08/2016	05/09/2016	Water (Surface, Eff., Ground)

Method	Method Description
SW8260B	Volatile Organic Compounds (W) FULL

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Detectable Results Summary

Client Sample ID: **MW-1**
Lab Sample ID: 1162249001
Volatile GC/MS

Parameter	Result	Units
1,1-Dichloroethene	0.320J	ug/L
Chloromethane	0.340J	ug/L
cis-1,2-Dichloroethene	79.2	ug/L
Tetrachloroethene	2.57	ug/L
Toluene	2.38	ug/L
trans-1,2-Dichloroethene	3.93	ug/L
Trichloroethene	3.21	ug/L
Vinyl chloride	0.740J	ug/L

Client Sample ID: **MW-2**
Lab Sample ID: 1162249002
Volatile GC/MS

Parameter	Result	Units
cis-1,2-Dichloroethene	3.93	ug/L
Toluene	0.630J	ug/L

Client Sample ID: **MW-3**
Lab Sample ID: 1162249003
Volatile GC/MS

Parameter	Result	Units
Toluene	0.350J	ug/L

Client Sample ID: **MW-10**
Lab Sample ID: 1162249004
Volatile GC/MS

Parameter	Result	Units
cis-1,2-Dichloroethene	3.74	ug/L
Toluene	0.730J	ug/L

Client Sample ID: **Trip Blank**
Lab Sample ID: 1162249005
Volatile GC/MS

Parameter	Result	Units
Chloromethane	0.330J	ug/L
Toluene	0.550J	ug/L

SGS North America Inc.
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Results of **MW-1**

Client Sample ID: **MW-1**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249001
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
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		05/10/16 21:27
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,1-Dichloroethene	0.320	J	1.00	0.310	ug/L	1		05/10/16 21:27
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Benzene	0.200	U	0.400	0.120	ug/L	1		05/10/16 21:27
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Bromomethane	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27

Print Date: 05/16/2016 10:20:01AM

J flagging is activated

Results of **MW-1**

Client Sample ID: **MW-1**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249001
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
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	0.300	ug/L	1		05/10/16 21:27
Chloromethane	0.340	J	1.00	0.310	ug/L	1		05/10/16 21:27
cis-1,2-Dichloroethene	79.2		10.0	3.10	ug/L	10		05/11/16 23:04
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:27
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/10/16 21:27
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Naphthalene	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/10/16 21:27
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Styrene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Tetrachloroethene	2.57		1.00	0.310	ug/L	1		05/10/16 21:27
Toluene	2.38		1.00	0.310	ug/L	1		05/10/16 21:27
trans-1,2-Dichloroethene	3.93		1.00	0.310	ug/L	1		05/10/16 21:27
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Trichloroethene	3.21		1.00	0.310	ug/L	1		05/10/16 21:27
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:27
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:27
Vinyl chloride	0.740	J	1.00	0.310	ug/L	1		05/10/16 21:27
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/10/16 21:27
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		81-118		%	1		05/10/16 21:27
4-Bromofluorobenzene (surr)	95.1		85-114		%	1		05/10/16 21:27
Toluene-d8 (surr)	99.1		89-112		%	1		05/10/16 21:27

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J flagging is activated

Results of **MW-1**

Client Sample ID: **MW-1**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249001
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/10/16 21:27
Container ID: 1162249001-A

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 05/10/16 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Analytical Batch: VMS15772
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/11/16 23:04
Container ID: 1162249001-B

Prep Batch: VXX28789
Prep Method: SW5030B
Prep Date/Time: 05/11/16 06:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249002
Lab Project ID: 1162249

Collection Date: 05/08/16 10:00
Received Date: 05/09/16 08:00
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		05/10/16 21:43
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Benzene	0.200	U	0.400	0.120	ug/L	1		05/10/16 21:43
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Bromomethane	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43

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Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249002
Lab Project ID: 1162249

Collection Date: 05/08/16 10:00
Received Date: 05/09/16 08:00
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	0.300	ug/L	1		05/10/16 21:43
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
cis-1,2-Dichloroethene	3.93		1.00	0.310	ug/L	1		05/10/16 21:43
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 21:43
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/10/16 21:43
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Naphthalene	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/10/16 21:43
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Styrene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Toluene	0.630	J	1.00	0.310	ug/L	1		05/10/16 21:43
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/10/16 21:43
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 21:43
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/10/16 21:43
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		81-118		%	1		05/10/16 21:43
4-Bromofluorobenzene (surr)	95.9		85-114		%	1		05/10/16 21:43
Toluene-d8 (surr)	99.4		89-112		%	1		05/10/16 21:43

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Results of **MW-2**

Client Sample ID: **MW-2**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249002
Lab Project ID: 1162249

Collection Date: 05/08/16 10:00
Received Date: 05/09/16 08:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/10/16 21:43
Container ID: 1162249002-A

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 05/10/16 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 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 **MW-3**

Client Sample ID: **MW-3**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249003
Lab Project ID: 1162249

Collection Date: 05/08/16 10:30
Received Date: 05/09/16 08:00
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		05/10/16 22:00
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Benzene	0.200	U	0.400	0.120	ug/L	1		05/10/16 22:00
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Bromomethane	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00

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Results of **MW-3**

Client Sample ID: **MW-3**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249003
Lab Project ID: 1162249

Collection Date: 05/08/16 10:30
Received Date: 05/09/16 08:00
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	0.300	ug/L	1		05/10/16 22:00
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:00
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/10/16 22:00
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Naphthalene	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/10/16 22:00
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Styrene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Toluene	0.350	J	1.00	0.310	ug/L	1		05/10/16 22:00
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:00
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:00
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/10/16 22:00
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		81-118		%	1		05/10/16 22:00
4-Bromofluorobenzene (surr)	96.3		85-114		%	1		05/10/16 22:00
Toluene-d8 (surr)	98.8		89-112		%	1		05/10/16 22:00

Print Date: 05/16/2016 10:20:01AM

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Results of **MW-3**

Client Sample ID: **MW-3**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249003
Lab Project ID: 1162249

Collection Date: 05/08/16 10:30
Received Date: 05/09/16 08:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/10/16 22:00
Container ID: 1162249003-A

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 05/10/16 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **MW-10**

Client Sample ID: **MW-10**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249004
Lab Project ID: 1162249

Collection Date: 05/08/16 11:00
Received Date: 05/09/16 08:00
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		05/10/16 22:17
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Benzene	0.200	U	0.400	0.120	ug/L	1		05/10/16 22:17
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Bromomethane	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17

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Results of **MW-10**

Client Sample ID: **MW-10**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249004
Lab Project ID: 1162249

Collection Date: 05/08/16 11:00
Received Date: 05/09/16 08:00
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	0.300	ug/L	1		05/10/16 22:17
Chloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
cis-1,2-Dichloroethene	3.74		1.00	0.310	ug/L	1		05/10/16 22:17
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 22:17
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/10/16 22:17
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Naphthalene	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/10/16 22:17
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Styrene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Toluene	0.730	J	1.00	0.310	ug/L	1		05/10/16 22:17
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/10/16 22:17
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 22:17
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/10/16 22:17
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		81-118		%	1		05/10/16 22:17
4-Bromofluorobenzene (surr)	96.3		85-114		%	1		05/10/16 22:17
Toluene-d8 (surr)	98.1		89-112		%	1		05/10/16 22:17

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Results of **MW-10**

Client Sample ID: **MW-10**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249004
Lab Project ID: 1162249

Collection Date: 05/08/16 11:00
Received Date: 05/09/16 08:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/10/16 22:17
Container ID: 1162249004-A

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 05/10/16 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249005
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
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		05/10/16 20:21
1,1,1-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,1,2,2-Tetrachloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
1,1,2-Trichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,1-Dichloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,1-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,1-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2,3-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2,3-Trichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2,4-Trichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2,4-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2-Dibromo-3-chloropropane	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
1,2-Dibromoethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,2-Dichloroethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
1,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,3,5-Trimethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,3-Dichlorobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
1,3-Dichloropropane	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
1,4-Dichlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
2,2-Dichloropropane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
2-Butanone (MEK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
2-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
2-Hexanone	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
4-Chlorotoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
4-Isopropyltoluene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
4-Methyl-2-pentanone (MIBK)	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Benzene	0.200	U	0.400	0.120	ug/L	1		05/10/16 20:21
Bromobenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Bromochloromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Bromodichloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
Bromoform	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Bromomethane	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Carbon disulfide	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Carbon tetrachloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Chlorobenzene	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
Chloroethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249005
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
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	0.300	ug/L	1		05/10/16 20:21
Chloromethane	0.330	J	1.00	0.310	ug/L	1		05/10/16 20:21
cis-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
cis-1,3-Dichloropropene	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
Dibromochloromethane	0.250	U	0.500	0.150	ug/L	1		05/10/16 20:21
Dibromomethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Dichlorodifluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Ethylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Freon-113	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Hexachlorobutadiene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Isopropylbenzene (Cumene)	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Methylene chloride	2.50	U	5.00	1.00	ug/L	1		05/10/16 20:21
Methyl-t-butyl ether	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Naphthalene	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
n-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
n-Propylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
o-Xylene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
P & M -Xylene	1.00	U	2.00	0.620	ug/L	1		05/10/16 20:21
sec-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Styrene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
tert-Butylbenzene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Tetrachloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Toluene	0.550	J	1.00	0.310	ug/L	1		05/10/16 20:21
trans-1,2-Dichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
trans-1,3-Dichloropropene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Trichloroethene	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Trichlorofluoromethane	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Vinyl acetate	5.00	U	10.0	3.10	ug/L	1		05/10/16 20:21
Vinyl chloride	0.500	U	1.00	0.310	ug/L	1		05/10/16 20:21
Xylenes (total)	1.50	U	3.00	1.00	ug/L	1		05/10/16 20:21
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		81-118		%	1		05/10/16 20:21
4-Bromofluorobenzene (surr)	95.3		85-114		%	1		05/10/16 20:21
Toluene-d8 (surr)	101		89-112		%	1		05/10/16 20:21

Print Date: 05/16/2016 10:20:01AM

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162249005
Lab Project ID: 1162249

Collection Date: 05/08/16 09:30
Received Date: 05/09/16 08:00
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Analyst: NRB
Analytical Date/Time: 05/10/16 20:21
Container ID: 1162249005-A

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 05/10/16 00:00
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
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Method Blank

Blank ID: MB for HBN 1733608 [VXX/28784]
Blank Lab ID: 1323685

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

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	0.500U	1.00	0.310	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	0.500U	1.00	0.310	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	5.00U	10.0	3.10	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	0.300	ug/L

Method Blank

Blank ID: MB for HBN 1733608 [VXX/28784]
Blank Lab ID: 1323685

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

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	5.00U	10.0	3.10	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	0.500U	1.00	0.310	ug/L
Xylenes (total)	1.50U	3.00	1.00	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	109	81-118		%
4-Bromofluorobenzene (surr)	96.8	85-114		%
Toluene-d8 (surr)	101	89-112		%

Method Blank

Blank ID: MB for HBN 1733608 [VXX/28784]
Blank Lab ID: 1323685

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS15769
Analytical Method: SW8260B
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 5/10/2016 3:43:00PM

Prep Batch: VXX28784
Prep Method: SW5030B
Prep Date/Time: 5/10/2016 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 1162249 [VXX28784]
Blank Spike Lab ID: 1323686
Date Analyzed: 05/10/2016 16:05

Spike Duplicate ID: LCSD for HBN 1162249 [VXX28784]
Spike Duplicate Lab ID: 1323687
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

	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	30.6	102	30	31.5	105	(78-124)	2.90	(< 20)
1,1,1-Trichloroethane	30	32.2	107	30	31.4	105	(74-131)	2.50	(< 20)
1,1,2,2-Tetrachloroethane	30	25.8	86	30	28.6	95	(71-121)	10.40	(< 20)
1,1,2-Trichloroethane	30	29.3	98	30	30.2	101	(80-119)	3.00	(< 20)
1,1-Dichloroethane	30	32.0	107	30	31.1	104	(77-125)	3.10	(< 20)
1,1-Dichloroethene	30	29.1	97	30	27.8	93	(71-131)	4.60	(< 20)
1,1-Dichloropropene	30	30.5	102	30	30.1	100	(79-125)	1.30	(< 20)
1,2,3-Trichlorobenzene	30	28.3	94	30	30.4	101	(69-129)	7.20	(< 20)
1,2,3-Trichloropropane	30	26.3	88	30	29.8	99	(73-122)	12.50	(< 20)
1,2,4-Trichlorobenzene	30	29.1	97	30	31.2	104	(69-130)	6.90	(< 20)
1,2,4-Trimethylbenzene	30	27.6	92	30	27.7	92	(79-124)	0.43	(< 20)
1,2-Dibromo-3-chloropropane	30	25.1	84	30	29.2	97	(62-128)	14.90	(< 20)
1,2-Dibromoethane	30	30.8	103	30	32.4	108	(77-121)	5.20	(< 20)
1,2-Dichlorobenzene	30	28.9	96	30	29.3	98	(80-119)	1.40	(< 20)
1,2-Dichloroethane	30	32.2	107	30	32.2	107	(73-128)	0.06	(< 20)
1,2-Dichloropropane	30	33.4	111	30	32.9	110	(78-122)	1.40	(< 20)
1,3,5-Trimethylbenzene	30	27.3	91	30	27.3	91	(75-124)	0.04	(< 20)
1,3-Dichlorobenzene	30	29.2	97	30	29.1	97	(80-119)	0.31	(< 20)
1,3-Dichloropropane	30	28.8	96	30	29.4	98	(80-119)	2.00	(< 20)
1,4-Dichlorobenzene	30	29.4	98	30	29.4	98	(79-118)	0.07	(< 20)
2,2-Dichloropropane	30	29.7	99	30	32.1	107	(60-139)	7.70	(< 20)
2-Butanone (MEK)	90	89.9	100	90	108	120	(56-143)	18.40	(< 20)
2-Chlorotoluene	30	28.8	96	30	28.2	94	(79-122)	2.20	(< 20)
2-Hexanone	90	83.4	93	90	98.9	110	(57-139)	16.90	(< 20)
4-Chlorotoluene	30	29.2	97	30	29.3	98	(78-122)	0.38	(< 20)
4-Isopropyltoluene	30	26.5	88	30	27.2	91	(77-127)	2.40	(< 20)
4-Methyl-2-pentanone (MIBK)	90	86.1	96	90	103	114	(67-130)	17.70	(< 20)
Benzene	30	31.1	104	30	30.5	102	(79-120)	1.80	(< 20)
Bromobenzene	30	30.4	101	30	29.9	100	(80-120)	1.40	(< 20)
Bromochloromethane	30	33.3	111	30	32.6	109	(78-123)	1.90	(< 20)
Bromodichloromethane	30	31.5	105	30	31.1	104	(79-125)	1.10	(< 20)
Bromoform	30	30.7	102	30	32.8	109	(66-130)	6.60	(< 20)
Bromomethane	30	27.3	91	30	25.7	86	(53-141)	6.10	(< 20)
Carbon disulfide	45	40.4	90	45	38.8	86	(64-133)	4.20	(< 20)

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162249 [VXX28784]
Blank Spike Lab ID: 1323686
Date Analyzed: 05/10/2016 16:05

Spike Duplicate ID: LCSD for HBN 1162249 [VXX28784]
Spike Duplicate Lab ID: 1323687
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Carbon tetrachloride	30	32.7	109	30	32.2	107	(72-136)	1.50	(< 20)
Chlorobenzene	30	29.9	100	30	30.3	101	(82-118)	1.10	(< 20)
Chloroethane	30	26.6	89	30	22.8	76	(60-138)	15.40	(< 20)
Chloroform	30	29.5	98	30	28.6	95	(79-124)	3.20	(< 20)
Chloromethane	30	24.7	82	30	26.4	88	(50-139)	6.60	(< 20)
cis-1,2-Dichloroethene	30	31.9	106	30	30.7	102	(78-123)	3.90	(< 20)
cis-1,3-Dichloropropene	30	29.8	99	30	30.3	101	(75-124)	1.60	(< 20)
Dibromochloromethane	30	32.1	107	30	32.4	108	(74-126)	1.00	(< 20)
Dibromomethane	30	30.3	101	30	30.5	102	(79-123)	0.59	(< 20)
Dichlorodifluoromethane	30	30.2	101	30	29.3	98	(32-152)	3.20	(< 20)
Ethylbenzene	30	31.5	105	30	31.0	103	(79-121)	1.90	(< 20)
Freon-113	45	42.8	95	45	42.2	94	(70-136)	1.40	(< 20)
Hexachlorobutadiene	30	26.7	89	30	28.9	96	(66-134)	7.60	(< 20)
Isopropylbenzene (Cumene)	30	31.0	103	30	30.3	101	(72-131)	2.20	(< 20)
Methylene chloride	30	28.3	94	30	26.4	88	(74-124)	7.00	(< 20)
Methyl-t-butyl ether	45	47.4	105	45	48.3	107	(71-124)	2.00	(< 20)
Naphthalene	30	25.3	84	30	28.7	96	(61-128)	12.30	(< 20)
n-Butylbenzene	30	25.3	84	30	26.5	88	(75-128)	4.60	(< 20)
n-Propylbenzene	30	29.1	97	30	28.9	96	(76-126)	0.69	(< 20)
o-Xylene	30	32.7	109	30	31.9	106	(78-122)	2.60	(< 20)
P & M -Xylene	60	64.1	107	60	62.7	105	(80-121)	2.10	(< 20)
sec-Butylbenzene	30	28.6	95	30	28.4	95	(77-126)	0.74	(< 20)
Styrene	30	32.4	108	30	31.4	105	(78-123)	3.10	(< 20)
tert-Butylbenzene	30	29.9	100	30	29.4	98	(78-124)	1.90	(< 20)
Tetrachloroethene	30	30.5	102	30	31.8	106	(74-129)	4.30	(< 20)
Toluene	30	27.8	93	30	28.3	94	(80-121)	1.70	(< 20)
trans-1,2-Dichloroethene	30	31.5	105	30	30.7	102	(75-124)	2.60	(< 20)
trans-1,3-Dichloropropene	30	28.0	93	30	28.9	96	(73-127)	3.00	(< 20)
Trichloroethene	30	32.7	109	30	32.3	108	(79-123)	1.30	(< 20)
Trichlorofluoromethane	30	29.8	99	30	28.5	95	(65-141)	4.30	(< 20)
Vinyl acetate	30	31.5	105	30	34.8	116	(54-146)	9.90	(< 20)
Vinyl chloride	30	30.6	102	30	29.5	99	(58-137)	3.70	(< 20)
Xylenes (total)	90	96.8	108	90	94.6	105	(79-121)	2.30	(< 20)

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1162249 [VXX28784]
Blank Spike Lab ID: 1323686
Date Analyzed: 05/10/2016 16:05

Spike Duplicate ID: LCSD for HBN 1162249 [VXX28784]
Spike Duplicate Lab ID: 1323687
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1162249001, 1162249002, 1162249003, 1162249004, 1162249005

Results by **SW8260B**

	Blank Spike (%)			Spike Duplicate (%)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	104	104	30	104	104	(81-118)	0.06	
4-Bromofluorobenzene (surr)	30	98.3	98	30	95.9	96	(85-114)	2.50	
Toluene-d8 (surr)	30	98.3	98	30	101	101	(89-112)	2.80	

Batch Information

Analytical Batch: **VMS15769**
Analytical Method: **SW8260B**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **NRB**

Prep Batch: **VXX28784**
Prep Method: **SW5030B**
Prep Date/Time: **05/10/2016 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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Method Blank

Blank ID: MB for HBN 1733811 [VXX/28789]
Blank Lab ID: 1323959

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1162249001

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units
cis-1,2-Dichloroethene	0.500U	1.00	0.310	ug/L
Surrogates				
1,2-Dichloroethane-D4 (surr)	110	81-118		%
4-Bromofluorobenzene (surr)	96	85-114		%
Toluene-d8 (surr)	98.7	89-112		%

Batch Information

Analytical Batch: VMS15772
Analytical Method: SW8260B
Instrument: VPA 780/5975 GC/MS
Analyst: NRB
Analytical Date/Time: 5/11/2016 2:46:00PM

Prep Batch: VXX28789
Prep Method: SW5030B
Prep Date/Time: 5/11/2016 6:00:00AM
Prep Initial Wt./Vol.: 5 mL
Prep Extract Vol: 5 mL

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1162249 [VXX28789]
Blank Spike Lab ID: 1323960
Date Analyzed: 05/11/2016 15:08

Spike Duplicate ID: LCSD for HBN 1162249 [VXX28789]
Spike Duplicate Lab ID: 1323961
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1162249001

Results by **SW8260B**

	Blank Spike (ug/L)			Spike Duplicate (ug/L)					
Parameter	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
cis-1,2-Dichloroethene	30	33.3	111	30	31.8	106	(78-123)	4.80	(< 20)
Surrogates									
1,2-Dichloroethane-D4 (surr)	30	105	105	30	102	102	(81-118)	2.50	
4-Bromofluorobenzene (surr)	30	94.8	95	30	94.8	95	(85-114)	0.00	
Toluene-d8 (surr)	30	99.2	99	30	101	101	(89-112)	1.30	

Batch Information

Analytical Batch: **VMS15772**
Analytical Method: **SW8260B**
Instrument: **VPA 780/5975 GC/MS**
Analyst: **NRB**

Prep Batch: **VXX28789**
Prep Method: **SW5030B**
Prep Date/Time: **05/11/2016 06:00**
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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SGS Environmental Services Inc.
CHAIN OF CUSTODY RECORD

1162249

Nationwide
Maryland
New York
Ohio

www.us.sgs.com

CLIENT:	***NORTECH***		
CONTACT:	D. RADU	PHONE NO:	907-980-9936
PROJECT:	**Nugget Mall**	SITE/PWSID#:	16-1035
REPORTS TO:	Jen Stoutamore Dumitru Radu	E-MAIL:	jstoutamore@nortechengr.com dradu@nortechengr.com
INVOICE TO:	Fairbanks	QUOTE P.O. #:	16-1035

SGS Reference #:

page _____ of _____

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	Preserv Used / SAMPLE TYPE C = COMP G = GRAB MI = Multi Incremental Samples	HCl / VOC									REMARKS/ LOC ID
(1) AC	MW-1	5/8/2016	930	water	3	GRAB	X									
(2) AC	MW-2	5/8/2016	1000	water	3	GRAB	X									
(3) AC	MW-3	5/8/2016	1030	water	3	GRAB	X									
(4) AC	MW-10	5/8/2016	1100	water	3	GRAB	X									
(5) AC	Trip Blank															
	Trip Blank						X									

Collected/Relinquished By: (1)	Date: 5/8/2016	Time: 1200	Received By:
Relinquished By: (2)	Date:	Time:	Received By:
Relinquished By: (3)	Date:	Time:	Received By:
Relinquished By: (4)	Date: 5/9/16	Time: 08:00	Received For Laboratory By:

DOD Project? YES (NO)

Cooler ID

Special Deliverable Requirements: STANDARD

Requested Turnaround Time and-or Special Instructions: STANDARD

Samples Received Cold? (YES) NO

Cooler TB

Temperature °C: 5.9 # D12

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

IR

P# 3346663

☐ 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

027 JNU 1617 0011 Cooler 027-1617 0011

5F

Shipper's Name and Address Nortech 2400 College Rd Fairbanks, AK 99709 USA Tel: 9074525688	Shipper's Account Number 27442126076 Customer's ID Number 10588
Not Negotiable **Air Waybill** Issued By Alaska. AIR CARGO P.O. BOX 68900 SEATTLE, WA 98168 800-225-2752 ALASKACARGO.COM	
Consignee's Name and Address SGS North America Inc 200 W Potter Drive Anchorage, AK 99518 USA Tel: 9075622343	Consignee's Account Number 27400215947
Also notify 2 Tel:	
Issuing Carrier's Agent and City	
Agent's IATA Code / Account No.	
Accounting Information 10588 Nortech 2400 College Rd Fairbanks, AK 99709 USA SRN/16-1035 GoldStreak	
Airport of Departure (Addr. of First Carrier) and Requested Routing Juneau	

To	By First Carrier	To / By	To / By	Currency	WT/VAL	Other	Declared Value For Carriage	Declared Value For Customs
ANC	Alaska Airlines			USD PX	X	X	NVD	NCV

Airport of Destination	Flight/Date	Flight/Date	Amount of Insurance
Anchorage	AS 065/08		XXX

Handling Information
DANGEROUS GOODS IN EXCEPTED QUANTITIES DGD AND NOTOC NOT REQUIRED
KEEP COOL

SCI

No of Pieces	Gross Weight	kg lb	Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (Incl. Dimensions or Volume)
1	10.0	L		10.0		AS AGREED	WATER SAMPLES Dims: 12 x 9 x11 x 1 REQ GSX PER
1	10.0					AS AGREED	Volume: 0.688

Prepaid	Weight Charge	Collect	Other Charges
AS AGREED			XBC 0.00
Valuation Charge			
Tax			
Total Other Charges Due Agent			
Total Other Charges Due Carrier			
Total Prepaid	Total Collect		
AS AGREED			

Shipper certifies that the particulars on the face hereof are correct and that **insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations. I consent to the inspection of this cargo.**

For: Nortech

Signature of Shipper or his Agent

☐ THIS SHIPMENT DOES NOT CONTAIN DANGEROUS GOODS

☑ THIS SHIPMENT DOES CONTAIN DANGEROUS GOODS

08 May 2016 10:21 — Executed On (Date)
Juneau — at (Place)
Alaska Airlines — Signature of Issuing Carrier or its Agent

027-1617 0011

Alert Expeditors Inc. **#365838**

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5/9/6

From Northern

To 565

Collect ☐	Prepay ☐ Account ☐	Advance Charges ☐
Job #	PO#	

1 Cooler	
1617 0011	95x
Shipped Signature	
Received By:	Total Charge

SGS

1162249

1 1 6 2 2 4 9

SAMPLE RECEIPT FORM

Review Criteria:	Yes	N/A	No	Comments/Action Taken:
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	☑ ☐	☐ ☐	☐ ☐	***Exemption permitted if sampler hand carries/delivers.*** 1F
Temperature blank compliant* (i.e., 0-6°C after CF)? *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID: [1] @ 5.9 w/ Therm.ID: #D12 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 & "**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."	☑ ☐ ☐	☐ ☐ ☐	☐ ☐ ☐	***Exemption permitted if chilled & collected <8 hrs ago.*** ***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.***
Delivery method (specify all that apply): ☐Client (hand carried) ☐USPS ☐Lynden ☐AK Air ☑Alert Courier ☐UPS ☐FedEx ☐RAVN ☐C&D Delivery ☐Carlile ☐Pen Air ☐Warp Speed ☐Other: _____ → *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?*	☐	☐	☐	
	Yes	**N/A**	**No**	
Were samples received within hold time? Do samples **match COC*** (i.e., sample IDs, dates/times collected)? Were analyses requested unambiguous?	☑ ☑ ☑	☐ ☐ ☐	☐ ☐ ☐	***Note: Refer to form F-083 "Sample Guide" for hold times.*** ***Note: If times differ <1hr, record details and login per COC.***
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): ☐Bubble Wrap ☐Separate plastic bags ☐Vermiculite ☐Other:	☑	☐	☐	
Were **proper containers** (type/mass/volume/preservative*) used? Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples? Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)? Were all soil VOAs **field extracted** with MeOH+BFB?	☑ ☑ ☑ ☐	☐ ☐ ☐ ☑	☐ ☐ ☐ ☐	☐***Exemption permitted for metals (e.g., 200.8/6020A).***
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**? If pH was adjusted, were bottles flagged (i.e., stickers)?	☐ ☐	☑ ☑	☐ ☐	
For **special handling** (e.g., "MI" soils, foreign soils, lab filter for dissolved…, lab extract for volatiles, Ref Lab, limited volume), were bottles/paperwork flagged (e.g., sticker)?	☐	☑	☐	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	☐	☑	☐	
For **SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP**, were containers / paperwork flagged accordingly?	☐	☑	☐	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	☐	☑	☐	SRF Completed by: AAL PM notified:
Was **PEER REVIEW** of ***sample numbering/labeling completed?***	☐	☑	☐	Peer Reviewed by:
Additional notes (if applicable):				

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

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1162249001-A	HCL to pH < 2	OK			
1162249001-B	HCL to pH < 2	OK			
1162249001-C	HCL to pH < 2	OK			
1162249002-A	HCL to pH < 2	OK			
1162249002-B	HCL to pH < 2	OK			
1162249002-C	HCL to pH < 2	OK			
1162249003-A	HCL to pH < 2	OK			
1162249003-B	HCL to pH < 2	OK			
1162249003-C	HCL to pH < 2	OK			
1162249004-A	HCL to pH < 2	OK			
1162249004-B	HCL to pH < 2	OK			
1162249004-C	HCL to pH < 2	OK			
1162249005-A	HCL to pH < 2	BU			
1162249005-B	HCL to pH < 2	OK			
1162249005-C	HCL to pH < 2	OK			

Container Condition Glossary

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

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

Laboratory Report of Analysis

To: Nortech
5438 Shaune Drive #B
Juneau, AK 99801
(907)586-6813

Report Number: **1162244**

Client Project: **16-1035 Nugget Mall**

Dear Dumitru Radu,

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 Victoria 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.

SGS North America Inc.
Environmental Services – Alaska Division
Project Manager

Victoria Pennick
2016.05.24
15:38:28 -08'00'

Victoria Pennick Date
Project Manager
Victoria.Pennick@sgs.com

Print Date: 05/23/2016 4:22:03PM

Case Narrative

SGS Client: **Nortech**
SGS Project: **1162244**
Project Name/Site: **16-1035 Nugget Mall**
Project Contact: **Dumitru Radu**

Refer to sample receipt form for information on sample condition.

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

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

Laboratory Qualifiers

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

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

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

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

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

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

Sample Summary

Client Sample ID	Lab Sample ID	Collected	Received	Matrix
BH1 (6-10)	1162244001	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH1 (12-14)	1162244002	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH2 (2-4)	1162244003	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH2 (14-16)	1162244004	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH2A (14-16)	1162244005	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH3 (2-4)	1162244006	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH3 (16-18)	1162244007	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH6 (2-4)	1162244008	05/05/2016	05/06/2016	Soil/Solid (dry weight)
BH6 (16-18)	1162244009	05/05/2016	05/06/2016	Soil/Solid (dry weight)
Trip Blank	1162244010	05/05/2016	05/06/2016	Soil/Solid (dry weight)

Method	Method Description
SM21 2540G	Percent Solids SM2540G
SW8260B	VOC 8260 (S) Field Extracted

SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
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Detectable Results Summary

Client Sample ID: **BH1 (6-10)**
Lab Sample ID: 1162244001
Volatile GC/MS

Parameter	Result	Units
Tetrachloroethene	106	ug/Kg

Client Sample ID: **BH2 (2-4)**
Lab Sample ID: 1162244003
Volatile GC/MS

Parameter	Result	Units
Tetrachloroethene	4.31J	ug/Kg

Client Sample ID: **BH3 (2-4)**
Lab Sample ID: 1162244006
Volatile GC/MS

Parameter	Result	Units
Tetrachloroethene	5.10J	ug/Kg

Client Sample ID: **BH6 (2-4)**
Lab Sample ID: 1162244008
Volatile GC/MS

Parameter	Result	Units
Tetrachloroethene	10.9J	ug/Kg

Client Sample ID: **Trip Blank**
Lab Sample ID: 1162244010
Volatile GC/MS

Parameter	Result	Units
Ethylbenzene	19.8J	ug/Kg
o-Xylene	25.3J	ug/Kg
P & M -Xylene	92.0	ug/Kg
Toluene	167	ug/Kg
Trichlorofluoromethane	149	ug/Kg
Xylenes (total)	117	ug/Kg

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Results of **BH1 (6-10)**

Client Sample ID: **BH1 (6-10)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244001
Lab Project ID: 1162244

Collection Date: 05/05/16 09:05
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):94.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,1,1-Trichloroethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,1,2,2-Tetrachloroethane	6.45	U	12.9	4.03	ug/Kg	1		05/10/16 18:46
1,1,2-Trichloroethane	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
1,1-Dichloroethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,1-Dichloroethene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,1-Dichloropropene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,2,3-Trichlorobenzene	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
1,2,3-Trichloropropane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,2,4-Trichlorobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,2,4-Trimethylbenzene	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
1,2-Dibromo-3-chloropropane	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
1,2-Dibromoethane	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
1,2-Dichlorobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,2-Dichloroethane	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
1,2-Dichloropropane	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
1,3,5-Trimethylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,3-Dichlorobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
1,3-Dichloropropane	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
1,4-Dichlorobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
2,2-Dichloropropane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
2-Butanone (MEK)	129	U	258	80.6	ug/Kg	1		05/10/16 18:46
2-Chlorotoluene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
2-Hexanone	129	U	258	80.6	ug/Kg	1		05/10/16 18:46
4-Chlorotoluene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
4-Isopropyltoluene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
4-Methyl-2-pentanone (MIBK)	129	U	258	80.6	ug/Kg	1		05/10/16 18:46
Benzene	6.45	U	12.9	4.03	ug/Kg	1		05/10/16 18:46
Bromobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Bromochloromethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Bromodichloromethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Bromoform	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Bromomethane	104	U	207	64.1	ug/Kg	1		05/10/16 18:46
Carbon disulfide	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
Carbon tetrachloride	6.45	U	12.9	4.03	ug/Kg	1		05/10/16 18:46
Chlorobenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Chloroethane	104	U	207	64.1	ug/Kg	1		05/10/16 18:46

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH1 (6-10)**

Client Sample ID: **BH1 (6-10)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244001
Lab Project ID: 1162244

Collection Date: 05/05/16 09:05
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):94.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Chloromethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
cis-1,2-Dichloroethene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
cis-1,3-Dichloropropene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Dibromochloromethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Dibromomethane	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Dichlorodifluoromethane	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
Ethylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Freon-113	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
Hexachlorobutadiene	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
Isopropylbenzene (Cumene)	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Methylene chloride	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
Methyl-t-butyl ether	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
Naphthalene	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
n-Butylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
n-Propylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
o-Xylene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
P & M -Xylene	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
sec-Butylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Styrene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
tert-Butylbenzene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Tetrachloroethene	106		12.9	4.03	ug/Kg	1		05/10/16 18:46
Toluene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
trans-1,2-Dichloroethene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
trans-1,3-Dichloropropene	12.9	U	25.8	8.06	ug/Kg	1		05/10/16 18:46
Trichloroethene	6.45	U	12.9	4.03	ug/Kg	1		05/10/16 18:46
Trichlorofluoromethane	25.9	U	51.7	15.5	ug/Kg	1		05/10/16 18:46
Vinyl acetate	51.5	U	103	32.0	ug/Kg	1		05/10/16 18:46
Vinyl chloride	5.15	U	10.3	3.20	ug/Kg	1		05/10/16 18:46
Xylenes (total)	38.8	U	77.5	23.6	ug/Kg	1		05/10/16 18:46
Surrogates								
1,2-Dichloroethane-D4 (surr)	114		71-136		%	1		05/10/16 18:46
4-Bromofluorobenzene (surr)	109		55-151		%	1		05/10/16 18:46
Toluene-d8 (surr)	105		85-116		%	1		05/10/16 18:46

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH1 (6-10)**

Client Sample ID: **BH1 (6-10)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244001
Lab Project ID: 1162244

Collection Date: 05/05/16 09:05
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):94.4
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 18:46
Container ID: 1162244001-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 09:05
Prep Initial Wt./Vol.: 57.926 g
Prep Extract Vol: 28.2542 mL

Results of **BH1 (12-14)**

Client Sample ID: **BH1 (12-14)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244002
Lab Project ID: 1162244

Collection Date: 05/05/16 09:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):90.7
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	6.79	ug/Kg	1		05/10/16 18:30
1,1,1-Trichloroethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,1,2,2-Tetrachloroethane	5.45	U	10.9	3.40	ug/Kg	1		05/10/16 18:30
1,1,2-Trichloroethane	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
1,1-Dichloroethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,1-Dichloroethene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,1-Dichloropropene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,2,3-Trichlorobenzene	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
1,2,3-Trichloropropane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,2,4-Trichlorobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,2,4-Trimethylbenzene	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
1,2-Dibromo-3-chloropropane	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
1,2-Dibromoethane	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
1,2-Dichlorobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,2-Dichloroethane	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
1,2-Dichloropropane	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
1,3,5-Trimethylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,3-Dichlorobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
1,3-Dichloropropane	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
1,4-Dichlorobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
2,2-Dichloropropane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
2-Butanone (MEK)	109	U	218	67.9	ug/Kg	1		05/10/16 18:30
2-Chlorotoluene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
2-Hexanone	109	U	218	67.9	ug/Kg	1		05/10/16 18:30
4-Chlorotoluene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
4-Isopropyltoluene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
4-Methyl-2-pentanone (MIBK)	109	U	218	67.9	ug/Kg	1		05/10/16 18:30
Benzene	5.45	U	10.9	3.40	ug/Kg	1		05/10/16 18:30
Bromobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Bromochloromethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Bromodichloromethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Bromoform	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Bromomethane	87.0	U	174	54.0	ug/Kg	1		05/10/16 18:30
Carbon disulfide	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
Carbon tetrachloride	5.45	U	10.9	3.40	ug/Kg	1		05/10/16 18:30
Chlorobenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Chloroethane	87.0	U	174	54.0	ug/Kg	1		05/10/16 18:30

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J flagging is activated

Results of **BH1 (12-14)**

Client Sample ID: **BH1 (12-14)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244002
Lab Project ID: 1162244

Collection Date: 05/05/16 09:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):90.7
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Chloromethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
cis-1,2-Dichloroethene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
cis-1,3-Dichloropropene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Dibromochloromethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Dibromomethane	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Dichlorodifluoromethane	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
Ethylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Freon-113	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
Hexachlorobutadiene	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
Isopropylbenzene (Cumene)	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Methylene chloride	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
Methyl-t-butyl ether	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
Naphthalene	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
n-Butylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
n-Propylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
o-Xylene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
P & M -Xylene	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
sec-Butylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Styrene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
tert-Butylbenzene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Tetrachloroethene	5.45	U	10.9	3.40	ug/Kg	1		05/10/16 18:30
Toluene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
trans-1,2-Dichloroethene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
trans-1,3-Dichloropropene	10.9	U	21.8	6.79	ug/Kg	1		05/10/16 18:30
Trichloroethene	5.45	U	10.9	3.40	ug/Kg	1		05/10/16 18:30
Trichlorofluoromethane	21.8	U	43.5	13.1	ug/Kg	1		05/10/16 18:30
Vinyl acetate	43.5	U	87.1	27.0	ug/Kg	1		05/10/16 18:30
Vinyl chloride	4.36	U	8.71	2.70	ug/Kg	1		05/10/16 18:30
Xylenes (total)	32.6	U	65.3	19.9	ug/Kg	1		05/10/16 18:30
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		71-136		%	1		05/10/16 18:30
4-Bromofluorobenzene (surr)	113		55-151		%	1		05/10/16 18:30
Toluene-d8 (surr)	105		85-116		%	1		05/10/16 18:30

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J flagging is activated

Results of **BH1 (12-14)**

Client Sample ID: **BH1 (12-14)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244002
Lab Project ID: 1162244

Collection Date: 05/05/16 09:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):90.7
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 18:30
Container ID: 1162244002-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 09:30
Prep Initial Wt./Vol.: 82.748 g
Prep Extract Vol: 32.6841 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 **BH2 (2-4)**

Client Sample ID: **BH2 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244003
Lab Project ID: 1162244

Collection Date: 05/05/16 10:00
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):93.0
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,1,1-Trichloroethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,1,2,2-Tetrachloroethane	6.35	U	12.7	3.95	ug/Kg	1		05/10/16 18:14
1,1,2-Trichloroethane	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
1,1-Dichloroethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,1-Dichloroethene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,1-Dichloropropene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,2,3-Trichlorobenzene	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
1,2,3-Trichloropropane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,2,4-Trichlorobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,2,4-Trimethylbenzene	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
1,2-Dibromo-3-chloropropane	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
1,2-Dibromoethane	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
1,2-Dichlorobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,2-Dichloroethane	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
1,2-Dichloropropane	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
1,3,5-Trimethylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,3-Dichlorobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
1,3-Dichloropropane	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
1,4-Dichlorobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
2,2-Dichloropropane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
2-Butanone (MEK)	127	U	253	79.1	ug/Kg	1		05/10/16 18:14
2-Chlorotoluene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
2-Hexanone	127	U	253	79.1	ug/Kg	1		05/10/16 18:14
4-Chlorotoluene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
4-Isopropyltoluene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
4-Methyl-2-pentanone (MIBK)	127	U	253	79.1	ug/Kg	1		05/10/16 18:14
Benzene	6.35	U	12.7	3.95	ug/Kg	1		05/10/16 18:14
Bromobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Bromochloromethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Bromodichloromethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Bromoform	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Bromomethane	102	U	203	62.8	ug/Kg	1		05/10/16 18:14
Carbon disulfide	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
Carbon tetrachloride	6.35	U	12.7	3.95	ug/Kg	1		05/10/16 18:14
Chlorobenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Chloroethane	102	U	203	62.8	ug/Kg	1		05/10/16 18:14

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Results of **BH2 (2-4)**

Client Sample ID: **BH2 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244003
Lab Project ID: 1162244

Collection Date: 05/05/16 10:00
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):93.0
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Chloromethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
cis-1,2-Dichloroethene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
cis-1,3-Dichloropropene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Dibromochloromethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Dibromomethane	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Dichlorodifluoromethane	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
Ethylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Freon-113	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
Hexachlorobutadiene	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
Isopropylbenzene (Cumene)	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Methylene chloride	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
Methyl-t-butyl ether	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
Naphthalene	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
n-Butylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
n-Propylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
o-Xylene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
P & M -Xylene	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
sec-Butylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Styrene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
tert-Butylbenzene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Tetrachloroethene	4.31	J	12.7	3.95	ug/Kg	1		05/10/16 18:14
Toluene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
trans-1,2-Dichloroethene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
trans-1,3-Dichloropropene	12.7	U	25.3	7.91	ug/Kg	1		05/10/16 18:14
Trichloroethene	6.35	U	12.7	3.95	ug/Kg	1		05/10/16 18:14
Trichlorofluoromethane	25.4	U	50.7	15.2	ug/Kg	1		05/10/16 18:14
Vinyl acetate	50.5	U	101	31.4	ug/Kg	1		05/10/16 18:14
Vinyl chloride	5.05	U	10.1	3.14	ug/Kg	1		05/10/16 18:14
Xylenes (total)	38.0	U	76.0	23.1	ug/Kg	1		05/10/16 18:14
Surrogates								
1,2-Dichloroethane-D4 (surr)	115		71-136		%	1		05/10/16 18:14
4-Bromofluorobenzene (surr)	109		55-151		%	1		05/10/16 18:14
Toluene-d8 (surr)	107		85-116		%	1		05/10/16 18:14

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Results of **BH2 (2-4)**

Client Sample ID: **BH2 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244003
Lab Project ID: 1162244

Collection Date: 05/05/16 10:00
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):93.0
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 18:14
Container ID: 1162244003-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 10:00
Prep Initial Wt./Vol.: 62.273 g
Prep Extract Vol: 29.3512 mL

Results of **BH2 (14-16)**

Client Sample ID: **BH2 (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244004
Lab Project ID: 1162244

Collection Date: 05/05/16 10:20
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,1,1-Trichloroethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,1,2,2-Tetrachloroethane	5.80	U	11.6	3.61	ug/Kg	1		05/10/16 17:58
1,1,2-Trichloroethane	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
1,1-Dichloroethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,1-Dichloroethene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,1-Dichloropropene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,2,3-Trichlorobenzene	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
1,2,3-Trichloropropane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,2,4-Trichlorobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,2,4-Trimethylbenzene	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
1,2-Dibromo-3-chloropropane	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
1,2-Dibromoethane	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
1,2-Dichlorobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,2-Dichloroethane	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
1,2-Dichloropropane	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
1,3,5-Trimethylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,3-Dichlorobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
1,3-Dichloropropane	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
1,4-Dichlorobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
2,2-Dichloropropane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
2-Butanone (MEK)	116	U	231	72.1	ug/Kg	1		05/10/16 17:58
2-Chlorotoluene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
2-Hexanone	116	U	231	72.1	ug/Kg	1		05/10/16 17:58
4-Chlorotoluene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
4-Isopropyltoluene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
4-Methyl-2-pentanone (MIBK)	116	U	231	72.1	ug/Kg	1		05/10/16 17:58
Benzene	5.80	U	11.6	3.61	ug/Kg	1		05/10/16 17:58
Bromobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Bromochloromethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Bromodichloromethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Bromoform	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Bromomethane	92.5	U	185	57.3	ug/Kg	1		05/10/16 17:58
Carbon disulfide	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
Carbon tetrachloride	5.80	U	11.6	3.61	ug/Kg	1		05/10/16 17:58
Chlorobenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Chloroethane	92.5	U	185	57.3	ug/Kg	1		05/10/16 17:58

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH2 (14-16)**

Client Sample ID: **BH2 (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244004
Lab Project ID: 1162244

Collection Date: 05/05/16 10:20
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.1
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Chloromethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
cis-1,2-Dichloroethene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
cis-1,3-Dichloropropene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Dibromochloromethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Dibromomethane	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Dichlorodifluoromethane	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
Ethylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Freon-113	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
Hexachlorobutadiene	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
Isopropylbenzene (Cumene)	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Methylene chloride	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
Methyl-t-butyl ether	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
Naphthalene	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
n-Butylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
n-Propylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
o-Xylene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
P & M -Xylene	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
sec-Butylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Styrene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
tert-Butylbenzene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Tetrachloroethene	5.80	U	11.6	3.61	ug/Kg	1		05/10/16 17:58
Toluene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
trans-1,2-Dichloroethene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
trans-1,3-Dichloropropene	11.6	U	23.1	7.21	ug/Kg	1		05/10/16 17:58
Trichloroethene	5.80	U	11.6	3.61	ug/Kg	1		05/10/16 17:58
Trichlorofluoromethane	23.1	U	46.2	13.9	ug/Kg	1		05/10/16 17:58
Vinyl acetate	46.2	U	92.4	28.7	ug/Kg	1		05/10/16 17:58
Vinyl chloride	4.62	U	9.24	2.87	ug/Kg	1		05/10/16 17:58
Xylenes (total)	34.6	U	69.3	21.1	ug/Kg	1		05/10/16 17:58
Surrogates								
1,2-Dichloroethane-D4 (surr)	112		71-136		%	1		05/10/16 17:58
4-Bromofluorobenzene (surr)	112		55-151		%	1		05/10/16 17:58
Toluene-d8 (surr)	106		85-116		%	1		05/10/16 17:58

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH2 (14-16)**

Client Sample ID: **BH2 (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244004
Lab Project ID: 1162244

Collection Date: 05/05/16 10:20
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.1
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 17:58
Container ID: 1162244004-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 10:20
Prep Initial Wt./Vol.: 75.215 g
Prep Extract Vol: 31.6783 mL

Results of **BH2A (14-16)**

Client Sample ID: **BH2A (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244005
Lab Project ID: 1162244

Collection Date: 05/05/16 10:45
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,1,1-Trichloroethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,1,2,2-Tetrachloroethane	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 17:42
1,1,2-Trichloroethane	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
1,1-Dichloroethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,1-Dichloroethene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,1-Dichloropropene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,2,3-Trichlorobenzene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
1,2,3-Trichloropropane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,2,4-Trichlorobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,2,4-Trimethylbenzene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
1,2-Dibromo-3-chloropropane	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
1,2-Dibromoethane	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
1,2-Dichlorobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,2-Dichloroethane	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
1,2-Dichloropropane	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
1,3,5-Trimethylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,3-Dichlorobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
1,3-Dichloropropane	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
1,4-Dichlorobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
2,2-Dichloropropane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
2-Butanone (MEK)	119	U	238	74.2	ug/Kg	1		05/10/16 17:42
2-Chlorotoluene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
2-Hexanone	119	U	238	74.2	ug/Kg	1		05/10/16 17:42
4-Chlorotoluene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
4-Isopropyltoluene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
4-Methyl-2-pentanone (MIBK)	119	U	238	74.2	ug/Kg	1		05/10/16 17:42
Benzene	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 17:42
Bromobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Bromochloromethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Bromodichloromethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Bromoform	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Bromomethane	95.0	U	190	59.0	ug/Kg	1		05/10/16 17:42
Carbon disulfide	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
Carbon tetrachloride	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 17:42
Chlorobenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Chloroethane	95.0	U	190	59.0	ug/Kg	1		05/10/16 17:42

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH2A (14-16)**

Client Sample ID: **BH2A (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244005
Lab Project ID: 1162244

Collection Date: 05/05/16 10:45
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Chloromethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
cis-1,2-Dichloroethene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
cis-1,3-Dichloropropene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Dibromochloromethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Dibromomethane	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Dichlorodifluoromethane	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
Ethylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Freon-113	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
Hexachlorobutadiene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
Isopropylbenzene (Cumene)	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Methylene chloride	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
Methyl-t-butyl ether	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
Naphthalene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
n-Butylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
n-Propylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
o-Xylene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
P & M -Xylene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
sec-Butylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Styrene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
tert-Butylbenzene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Tetrachloroethene	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 17:42
Toluene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
trans-1,2-Dichloroethene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
trans-1,3-Dichloropropene	11.9	U	23.8	7.42	ug/Kg	1		05/10/16 17:42
Trichloroethene	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 17:42
Trichlorofluoromethane	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 17:42
Vinyl acetate	47.5	U	95.1	29.5	ug/Kg	1		05/10/16 17:42
Vinyl chloride	4.75	U	9.51	2.95	ug/Kg	1		05/10/16 17:42
Xylenes (total)	35.6	U	71.3	21.7	ug/Kg	1		05/10/16 17:42
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		71-136		%	1		05/10/16 17:42
4-Bromofluorobenzene (surr)	109		55-151		%	1		05/10/16 17:42
Toluene-d8 (surr)	102		85-116		%	1		05/10/16 17:42

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J flagging is activated

Results of **BH2A (14-16)**

Client Sample ID: **BH2A (14-16)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244005
Lab Project ID: 1162244

Collection Date: 05/05/16 10:45
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):91.4
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 17:42
Container ID: 1162244005-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 10:45
Prep Initial Wt./Vol.: 71.66 g
Prep Extract Vol: 31.1528 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 **BH3 (2-4)**

Client Sample ID: **BH3 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244006
Lab Project ID: 1162244

Collection Date: 05/05/16 11:10
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,1,1-Trichloroethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,1,2,2-Tetrachloroethane	5.80	U	11.6	3.62	ug/Kg	1		05/10/16 17:26
1,1,2-Trichloroethane	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
1,1-Dichloroethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,1-Dichloroethene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,1-Dichloropropene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,2,3-Trichlorobenzene	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
1,2,3-Trichloropropane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,2,4-Trichlorobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,2,4-Trimethylbenzene	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
1,2-Dibromo-3-chloropropane	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
1,2-Dibromoethane	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
1,2-Dichlorobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,2-Dichloroethane	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
1,2-Dichloropropane	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
1,3,5-Trimethylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,3-Dichlorobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
1,3-Dichloropropane	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
1,4-Dichlorobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
2,2-Dichloropropane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
2-Butanone (MEK)	116	U	232	72.4	ug/Kg	1		05/10/16 17:26
2-Chlorotoluene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
2-Hexanone	116	U	232	72.4	ug/Kg	1		05/10/16 17:26
4-Chlorotoluene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
4-Isopropyltoluene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
4-Methyl-2-pentanone (MIBK)	116	U	232	72.4	ug/Kg	1		05/10/16 17:26
Benzene	5.80	U	11.6	3.62	ug/Kg	1		05/10/16 17:26
Bromobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Bromochloromethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Bromodichloromethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Bromoform	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Bromomethane	93.0	U	186	57.5	ug/Kg	1		05/10/16 17:26
Carbon disulfide	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
Carbon tetrachloride	5.80	U	11.6	3.62	ug/Kg	1		05/10/16 17:26
Chlorobenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Chloroethane	93.0	U	186	57.5	ug/Kg	1		05/10/16 17:26

Print Date: 05/23/2016 4:22:08PM

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Results of **BH3 (2-4)**

Client Sample ID: **BH3 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244006
Lab Project ID: 1162244

Collection Date: 05/05/16 11:10
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.4
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Chloromethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
cis-1,2-Dichloroethene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
cis-1,3-Dichloropropene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Dibromochloromethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Dibromomethane	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Dichlorodifluoromethane	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
Ethylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Freon-113	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
Hexachlorobutadiene	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
Isopropylbenzene (Cumene)	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Methylene chloride	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
Methyl-t-butyl ether	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
Naphthalene	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
n-Butylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
n-Propylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
o-Xylene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
P & M -Xylene	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
sec-Butylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Styrene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
tert-Butylbenzene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Tetrachloroethene	5.10	J	11.6	3.62	ug/Kg	1		05/10/16 17:26
Toluene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
trans-1,2-Dichloroethene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
trans-1,3-Dichloropropene	11.6	U	23.2	7.24	ug/Kg	1		05/10/16 17:26
Trichloroethene	5.80	U	11.6	3.62	ug/Kg	1		05/10/16 17:26
Trichlorofluoromethane	23.2	U	46.4	13.9	ug/Kg	1		05/10/16 17:26
Vinyl acetate	46.4	U	92.8	28.8	ug/Kg	1		05/10/16 17:26
Vinyl chloride	4.64	U	9.28	2.88	ug/Kg	1		05/10/16 17:26
Xylenes (total)	34.8	U	69.6	21.2	ug/Kg	1		05/10/16 17:26
Surrogates								
1,2-Dichloroethane-D4 (surr)	113		71-136		%	1		05/10/16 17:26
4-Bromofluorobenzene (surr)	107		55-151		%	1		05/10/16 17:26
Toluene-d8 (surr)	106		85-116		%	1		05/10/16 17:26

Print Date: 05/23/2016 4:22:08PM

J flagging is activated

Results of **BH3 (2-4)**

Client Sample ID: **BH3 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244006
Lab Project ID: 1162244

Collection Date: 05/05/16 11:10
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.4
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 17:26
Container ID: 1162244006-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 11:10
Prep Initial Wt./Vol.: 62.974 g
Prep Extract Vol: 27.88 mL

Results of **BH3 (16-18)**

Client Sample ID: **BH3 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244007
Lab Project ID: 1162244

Collection Date: 05/05/16 11:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,1,1-Trichloroethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,1,2,2-Tetrachloroethane	5.35	U	10.7	3.34	ug/Kg	1		05/10/16 17:10
1,1,2-Trichloroethane	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
1,1-Dichloroethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,1-Dichloroethene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,1-Dichloropropene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,2,3-Trichlorobenzene	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
1,2,3-Trichloropropane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,2,4-Trichlorobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,2,4-Trimethylbenzene	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
1,2-Dibromo-3-chloropropane	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
1,2-Dibromoethane	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
1,2-Dichlorobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,2-Dichloroethane	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
1,2-Dichloropropane	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
1,3,5-Trimethylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,3-Dichlorobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
1,3-Dichloropropane	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
1,4-Dichlorobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
2,2-Dichloropropane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
2-Butanone (MEK)	107	U	214	66.7	ug/Kg	1		05/10/16 17:10
2-Chlorotoluene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
2-Hexanone	107	U	214	66.7	ug/Kg	1		05/10/16 17:10
4-Chlorotoluene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
4-Isopropyltoluene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
4-Methyl-2-pentanone (MIBK)	107	U	214	66.7	ug/Kg	1		05/10/16 17:10
Benzene	5.35	U	10.7	3.34	ug/Kg	1		05/10/16 17:10
Bromobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Bromochloromethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Bromodichloromethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Bromoform	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Bromomethane	85.5	U	171	53.1	ug/Kg	1		05/10/16 17:10
Carbon disulfide	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
Carbon tetrachloride	5.35	U	10.7	3.34	ug/Kg	1		05/10/16 17:10
Chlorobenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Chloroethane	85.5	U	171	53.1	ug/Kg	1		05/10/16 17:10

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J flagging is activated

Results of **BH3 (16-18)**

Client Sample ID: **BH3 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244007
Lab Project ID: 1162244

Collection Date: 05/05/16 11:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Chloromethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
cis-1,2-Dichloroethene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
cis-1,3-Dichloropropene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Dibromochloromethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Dibromomethane	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Dichlorodifluoromethane	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
Ethylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Freon-113	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
Hexachlorobutadiene	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
Isopropylbenzene (Cumene)	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Methylene chloride	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
Methyl-t-butyl ether	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
Naphthalene	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
n-Butylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
n-Propylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
o-Xylene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
P & M -Xylene	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
sec-Butylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Styrene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
tert-Butylbenzene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Tetrachloroethene	5.35	U	10.7	3.34	ug/Kg	1		05/10/16 17:10
Toluene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
trans-1,2-Dichloroethene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
trans-1,3-Dichloropropene	10.7	U	21.4	6.67	ug/Kg	1		05/10/16 17:10
Trichloroethene	5.35	U	10.7	3.34	ug/Kg	1		05/10/16 17:10
Trichlorofluoromethane	21.4	U	42.8	12.8	ug/Kg	1		05/10/16 17:10
Vinyl acetate	42.8	U	85.6	26.5	ug/Kg	1		05/10/16 17:10
Vinyl chloride	4.28	U	8.56	2.65	ug/Kg	1		05/10/16 17:10
Xylenes (total)	32.1	U	64.2	19.5	ug/Kg	1		05/10/16 17:10
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		71-136		%	1		05/10/16 17:10
4-Bromofluorobenzene (surr)	114		55-151		%	1		05/10/16 17:10
Toluene-d8 (surr)	103		85-116		%	1		05/10/16 17:10

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J flagging is activated

Results of **BH3 (16-18)**

Client Sample ID: **BH3 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244007
Lab Project ID: 1162244

Collection Date: 05/05/16 11:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 17:10
Container ID: 1162244007-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 11:40
Prep Initial Wt./Vol.: 88.558 g
Prep Extract Vol: 34.026 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 **BH6 (2-4)**

Client Sample ID: **BH6 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244008
Lab Project ID: 1162244

Collection Date: 05/05/16 15:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,1,1-Trichloroethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,1,2,2-Tetrachloroethane	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 15:51
1,1,2-Trichloroethane	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
1,1-Dichloroethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,1-Dichloroethene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,1-Dichloropropene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,2,3-Trichlorobenzene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
1,2,3-Trichloropropane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,2,4-Trichlorobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,2,4-Trimethylbenzene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
1,2-Dibromo-3-chloropropane	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
1,2-Dibromoethane	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
1,2-Dichlorobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,2-Dichloroethane	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
1,2-Dichloropropane	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
1,3,5-Trimethylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,3-Dichlorobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
1,3-Dichloropropane	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
1,4-Dichlorobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
2,2-Dichloropropane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
2-Butanone (MEK)	119	U	238	74.3	ug/Kg	1		05/10/16 15:51
2-Chlorotoluene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
2-Hexanone	119	U	238	74.3	ug/Kg	1		05/10/16 15:51
4-Chlorotoluene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
4-Isopropyltoluene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
4-Methyl-2-pentanone (MIBK)	119	U	238	74.3	ug/Kg	1		05/10/16 15:51
Benzene	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 15:51
Bromobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Bromochloromethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Bromodichloromethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Bromoform	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Bromomethane	95.0	U	190	59.0	ug/Kg	1		05/10/16 15:51
Carbon disulfide	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
Carbon tetrachloride	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 15:51
Chlorobenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Chloroethane	95.0	U	190	59.0	ug/Kg	1		05/10/16 15:51

Results of **BH6 (2-4)**

Client Sample ID: **BH6 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244008
Lab Project ID: 1162244

Collection Date: 05/05/16 15:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Chloromethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
cis-1,2-Dichloroethene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
cis-1,3-Dichloropropene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Dibromochloromethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Dibromomethane	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Dichlorodifluoromethane	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
Ethylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Freon-113	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
Hexachlorobutadiene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
Isopropylbenzene (Cumene)	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Methylene chloride	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
Methyl-t-butyl ether	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
Naphthalene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
n-Butylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
n-Propylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
o-Xylene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
P & M -Xylene	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
sec-Butylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Styrene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
tert-Butylbenzene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Tetrachloroethene	10.9	J	11.9	3.71	ug/Kg	1		05/10/16 15:51
Toluene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
trans-1,2-Dichloroethene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
trans-1,3-Dichloropropene	11.9	U	23.8	7.43	ug/Kg	1		05/10/16 15:51
Trichloroethene	5.95	U	11.9	3.71	ug/Kg	1		05/10/16 15:51
Trichlorofluoromethane	23.8	U	47.6	14.3	ug/Kg	1		05/10/16 15:51
Vinyl acetate	47.6	U	95.2	29.5	ug/Kg	1		05/10/16 15:51
Vinyl chloride	4.76	U	9.52	2.95	ug/Kg	1		05/10/16 15:51
Xylenes (total)	35.7	U	71.4	21.7	ug/Kg	1		05/10/16 15:51
Surrogates								
1,2-Dichloroethane-D4 (surr)	114		71-136		%	1		05/10/16 15:51
4-Bromofluorobenzene (surr)	106		55-151		%	1		05/10/16 15:51
Toluene-d8 (surr)	108		85-116		%	1		05/10/16 15:51

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Results of **BH6 (2-4)**

Client Sample ID: **BH6 (2-4)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244008
Lab Project ID: 1162244

Collection Date: 05/05/16 15:30
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):95.9
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 15:51
Container ID: 1162244008-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 15:30
Prep Initial Wt./Vol.: 60.182 g
Prep Extract Vol: 27.4717 mL

Results of **BH6 (16-18)**

Client Sample ID: **BH6 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244009
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):78.5
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
1,1,1,2-Tetrachloroethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,1,1-Trichloroethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,1,2,2-Tetrachloroethane	9.45	U	18.9	5.89	ug/Kg	1		05/10/16 16:55
1,1,2-Trichloroethane	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
1,1-Dichloroethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,1-Dichloroethene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,1-Dichloropropene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,2,3-Trichlorobenzene	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
1,2,3-Trichloropropane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,2,4-Trichlorobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,2,4-Trimethylbenzene	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
1,2-Dibromo-3-chloropropane	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
1,2-Dibromoethane	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
1,2-Dichlorobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,2-Dichloroethane	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
1,2-Dichloropropane	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
1,3,5-Trimethylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,3-Dichlorobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
1,3-Dichloropropane	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
1,4-Dichlorobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
2,2-Dichloropropane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
2-Butanone (MEK)	189	U	377	118	ug/Kg	1		05/10/16 16:55
2-Chlorotoluene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
2-Hexanone	189	U	377	118	ug/Kg	1		05/10/16 16:55
4-Chlorotoluene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
4-Isopropyltoluene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
4-Methyl-2-pentanone (MIBK)	189	U	377	118	ug/Kg	1		05/10/16 16:55
Benzene	9.45	U	18.9	5.89	ug/Kg	1		05/10/16 16:55
Bromobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Bromochloromethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Bromodichloromethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Bromoform	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Bromomethane	151	U	302	93.6	ug/Kg	1		05/10/16 16:55
Carbon disulfide	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
Carbon tetrachloride	9.45	U	18.9	5.89	ug/Kg	1		05/10/16 16:55
Chlorobenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Chloroethane	151	U	302	93.6	ug/Kg	1		05/10/16 16:55

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J flagging is activated

Results of **BH6 (16-18)**

Client Sample ID: **BH6 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244009
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):78.5
Location:

Results by **Volatile GC/MS**

Parameter	Result	Qual	LOQ/CL	DL	Units	DF	Allowable Limits	Date Analyzed
Chloroform	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Chloromethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
cis-1,2-Dichloroethene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
cis-1,3-Dichloropropene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Dibromochloromethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Dibromomethane	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Dichlorodifluoromethane	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
Ethylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Freon-113	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
Hexachlorobutadiene	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
Isopropylbenzene (Cumene)	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Methylene chloride	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
Methyl-t-butyl ether	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
Naphthalene	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
n-Butylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
n-Propylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
o-Xylene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
P & M -Xylene	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
sec-Butylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Styrene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
tert-Butylbenzene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Tetrachloroethene	9.45	U	18.9	5.89	ug/Kg	1		05/10/16 16:55
Toluene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
trans-1,2-Dichloroethene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
trans-1,3-Dichloropropene	18.9	U	37.7	11.8	ug/Kg	1		05/10/16 16:55
Trichloroethene	9.45	U	18.9	5.89	ug/Kg	1		05/10/16 16:55
Trichlorofluoromethane	37.8	U	75.5	22.6	ug/Kg	1		05/10/16 16:55
Vinyl acetate	75.5	U	151	46.8	ug/Kg	1		05/10/16 16:55
Vinyl chloride	7.55	U	15.1	4.68	ug/Kg	1		05/10/16 16:55
Xylenes (total)	56.5	U	113	34.4	ug/Kg	1		05/10/16 16:55
Surrogates								
1,2-Dichloroethane-D4 (surr)	110		71-136		%	1		05/10/16 16:55
4-Bromofluorobenzene (surr)	118		55-151		%	1		05/10/16 16:55
Toluene-d8 (surr)	103		85-116		%	1		05/10/16 16:55

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Results of **BH6 (16-18)**

Client Sample ID: **BH6 (16-18)**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244009
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):78.5
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 16:55
Container ID: 1162244009-B

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 15:40
Prep Initial Wt./Vol.: 66.162 g
Prep Extract Vol: 39.2168 mL

Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244010
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
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	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,1,1-Trichloroethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,1,2,2-Tetrachloroethane	7.20	U	14.4	4.49	ug/Kg	1		05/10/16 15:35
1,1,2-Trichloroethane	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
1,1-Dichloroethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,1-Dichloroethene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,1-Dichloropropene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,2,3-Trichlorobenzene	28.8	U	57.5	17.3	ug/Kg	1		05/10/16 15:35
1,2,3-Trichloropropane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,2,4-Trichlorobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,2,4-Trimethylbenzene	28.8	U	57.5	17.3	ug/Kg	1		05/10/16 15:35
1,2-Dibromo-3-chloropropane	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
1,2-Dibromoethane	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
1,2-Dichlorobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,2-Dichloroethane	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
1,2-Dichloropropane	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
1,3,5-Trimethylbenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,3-Dichlorobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
1,3-Dichloropropane	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
1,4-Dichlorobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
2,2-Dichloropropane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
2-Butanone (MEK)	144	U	288	89.7	ug/Kg	1		05/10/16 15:35
2-Chlorotoluene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
2-Hexanone	144	U	288	89.7	ug/Kg	1		05/10/16 15:35
4-Chlorotoluene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
4-Isopropyltoluene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
4-Methyl-2-pentanone (MIBK)	144	U	288	89.7	ug/Kg	1		05/10/16 15:35
Benzene	7.20	U	14.4	4.49	ug/Kg	1		05/10/16 15:35
Bromobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Bromochloromethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Bromodichloromethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Bromoform	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Bromomethane	115	U	230	71.3	ug/Kg	1		05/10/16 15:35
Carbon disulfide	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
Carbon tetrachloride	7.20	U	14.4	4.49	ug/Kg	1		05/10/16 15:35
Chlorobenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Chloroethane	115	U	230	71.3	ug/Kg	1		05/10/16 15:35

Print Date: 05/23/2016 4:22:08PM

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244010
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
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	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Chloromethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
cis-1,2-Dichloroethene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
cis-1,3-Dichloropropene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Dibromochloromethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Dibromomethane	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Dichlorodifluoromethane	28.8	U	57.5	17.3	ug/Kg	1		05/10/16 15:35
Ethylbenzene	19.8	J	28.8	8.97	ug/Kg	1		05/10/16 15:35
Freon-113	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
Hexachlorobutadiene	28.8	U	57.5	17.3	ug/Kg	1		05/10/16 15:35
Isopropylbenzene (Cumene)	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Methylene chloride	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
Methyl-t-butyl ether	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
Naphthalene	28.8	U	57.5	17.3	ug/Kg	1		05/10/16 15:35
n-Butylbenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
n-Propylbenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
o-Xylene	25.3	J	28.8	8.97	ug/Kg	1		05/10/16 15:35
P & M -Xylene	92.0		57.5	17.3	ug/Kg	1		05/10/16 15:35
sec-Butylbenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Styrene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
tert-Butylbenzene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Tetrachloroethene	7.20	U	14.4	4.49	ug/Kg	1		05/10/16 15:35
Toluene	167		28.8	8.97	ug/Kg	1		05/10/16 15:35
trans-1,2-Dichloroethene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
trans-1,3-Dichloropropene	14.4	U	28.8	8.97	ug/Kg	1		05/10/16 15:35
Trichloroethene	7.20	U	14.4	4.49	ug/Kg	1		05/10/16 15:35
Trichlorofluoromethane	149		57.5	17.3	ug/Kg	1		05/10/16 15:35
Vinyl acetate	57.5	U	115	35.7	ug/Kg	1		05/10/16 15:35
Vinyl chloride	5.75	U	11.5	3.57	ug/Kg	1		05/10/16 15:35
Xylenes (total)	117		86.3	26.2	ug/Kg	1		05/10/16 15:35
Surrogates								
1,2-Dichloroethane-D4 (surr)	111		71-136		%	1		05/10/16 15:35
4-Bromofluorobenzene (surr)	112		55-151		%	1		05/10/16 15:35
Toluene-d8 (surr)	105		85-116		%	1		05/10/16 15:35

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Results of **Trip Blank**

Client Sample ID: **Trip Blank**
Client Project ID: **16-1035 Nugget Mall**
Lab Sample ID: 1162244010
Lab Project ID: 1162244

Collection Date: 05/05/16 15:40
Received Date: 05/06/16 16:56
Matrix: Soil/Solid (dry weight)
Solids (%):
Location:

Results by **Volatile GC/MS**

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Analyst: S.P
Analytical Date/Time: 05/10/16 15:35
Container ID: 1162244010-A

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 05/05/16 15:40
Prep Initial Wt./Vol.: 43.457 g
Prep Extract Vol: 25 mL

Method Blank

Blank ID: MB for HBN 1733487 [SPT/9887]
Blank Lab ID: 1323364

Matrix: Soil/Solid (dry weight)

QC for Samples:
1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009

Results by **SM21 2540G**

Parameter	Results	LOQ/CL	DL	Units
Total Solids	100			%

Batch Information

Analytical Batch: SPT9887
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA
Analytical Date/Time: 5/9/2016 5:53:00PM

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

Duplicate Sample Summary

Original Sample ID: 1162155001
Duplicate Sample ID: 1323365
QC for Samples:

Analysis Date: 05/09/2016 17:53
Matrix: Soil/Solid (dry weight)

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	99.8	99.8	%	0.01	(< 15)

Batch Information

Analytical Batch: SPT9887
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 05/23/2016 4:22:12PM

Duplicate Sample Summary

Original Sample ID: 1162241001
Duplicate Sample ID: 1323366

Analysis Date: 05/09/2016 17:53
Matrix: Soil/Solid (dry weight)

QC for Samples:

1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	86.2	86.1	%	0.14	(< 15)

Batch Information

Analytical Batch: SPT9887
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 05/23/2016 4:22:12PM

Duplicate Sample Summary

Original Sample ID: 1162260001
Duplicate Sample ID: 1323367

Analysis Date: 05/09/2016 17:53
Matrix: Soil/Solid (dry weight)

QC for Samples:

1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009

Results by **SM21 2540G**

NAME	Original	Duplicate	Units	RPD (%)	RPD CL
Total Solids	59.2	59.0	%	0.38	(< 15)

Batch Information

Analytical Batch: SPT9887
Analytical Method: SM21 2540G
Instrument:
Analyst: RJA

Print Date: 05/23/2016 4:22:12PM

Method Blank

Blank ID: MB for HBN 1734474 [VXX/28811]
Blank Lab ID: 1325385

Matrix: Soil/Solid (dry weight)

QC for Samples:
1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units
1,1,1,2-Tetrachloroethane	12.5U	25.0	7.80	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	125U	250	78.0	ug/Kg
4-Chlorotoluene	12.5U	25.0	7.80	ug/Kg
4-Isopropyltoluene	12.5U	25.0	7.80	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

Method Blank

Blank ID: MB for HBN 1734474 [VXX/28811]
Blank Lab ID: 1325385

Matrix: Soil/Solid (dry weight)

QC for Samples:
1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

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	12.5U	25.0	7.80	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	25.0U	50.0	15.0	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	25.0U	50.0	15.0	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	12.5U	25.0	7.80	ug/Kg
Trichloroethene	6.25U	12.5	3.90	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)	111	71-136		%
4-Bromofluorobenzene (surr)	103	55-151		%
Toluene-d8 (surr)	102	85-116		%

Method Blank

Blank ID: MB for HBN 1734474 [VXX/28811]
Blank Lab ID: 1325385

Matrix: Soil/Solid (dry weight)

QC for Samples:
1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

Parameter	Results	LOQ/CL	DL	Units

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: S.P
Analytical Date/Time: 5/10/2016 11:20:00AM

Prep Batch: VXX28811
Prep Method: SW5035A
Prep Date/Time: 5/10/2016 8:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 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 1162244 [VXX28811]
Blank Spike Lab ID: 1325386
Date Analyzed: 05/10/2016 11:36

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
1,1,1,2-Tetrachloroethane	750	805	107	(78-125)
1,1,1-Trichloroethane	750	780	104	(73-130)
1,1,2,2-Tetrachloroethane	750	796	106	(70-124)
1,1,2-Trichloroethane	750	781	104	(78-121)
1,1-Dichloroethane	750	749	100	(76-125)
1,1-Dichloroethene	750	786	105	(70-131)
1,1-Dichloropropene	750	758	101	(76-125)
1,2,3-Trichlorobenzene	750	695	93	(66-130)
1,2,3-Trichloropropane	750	779	104	(73-125)
1,2,4-Trichlorobenzene	750	740	99	(67-129)
1,2,4-Trimethylbenzene	750	759	101	(75-123)
1,2-Dibromo-3-chloropropane	750	756	101	(61-132)
1,2-Dibromoethane	750	780	104	(78-122)
1,2-Dichlorobenzene	750	763	102	(78-121)
1,2-Dichloroethane	750	768	102	(73-128)
1,2-Dichloropropane	750	783	104	(76-123)
1,3,5-Trimethylbenzene	750	767	102	(73-124)
1,3-Dichlorobenzene	750	745	99	(77-121)
1,3-Dichloropropane	750	780	104	(77-121)
1,4-Dichlorobenzene	750	765	102	(75-120)
2,2-Dichloropropane	750	775	103	(67-133)
2-Butanone (MEK)	2250	2180	97	(51-148)
2-Chlorotoluene	750	759	101	(75-122)
2-Hexanone	2250	2170	97	(53-145)
4-Chlorotoluene	750	773	103	(72-124)
4-Isopropyltoluene	750	766	102	(73-127)
4-Methyl-2-pentanone (MIBK)	2250	2290	102	(65-135)
Benzene	750	722	96	(77-121)
Bromobenzene	750	767	102	(78-121)
Bromochloromethane	750	733	98	(78-125)
Bromodichloromethane	750	786	105	(75-127)
Bromoform	750	743	99	(67-132)
Bromomethane	750	744	99	(53-143)
Carbon disulfide	1130	1120	100	(63-132)

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162244 [VXX28811]
Blank Spike Lab ID: 1325386
Date Analyzed: 05/10/2016 11:36

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

Blank Spike (ug/Kg)

Parameter	Spike	Result	Rec (%)	CL
Carbon tetrachloride	750	799	107	(70-135)
Chlorobenzene	750	737	98	(79-120)
Chloroethane	750	741	99	(59-139)
Chloroform	750	716	96	(78-123)
Chloromethane	750	726	97	(50-136)
cis-1,2-Dichloroethene	750	727	97	(77-123)
cis-1,3-Dichloropropene	750	742	99	(74-126)
Dibromochloromethane	750	775	103	(74-126)
Dibromomethane	750	754	101	(78-125)
Dichlorodifluoromethane	750	780	104	(29-149)
Ethylbenzene	750	748	100	(76-122)
Freon-113	1130	1240	110	(66-136)
Hexachlorobutadiene	750	734	98	(61-135)
Isopropylbenzene (Cumene)	750	758	101	(68-134)
Methylene chloride	750	764	102	(70-128)
Methyl-t-butyl ether	1130	1200	107	(73-125)
Naphthalene	750	726	97	(62-129)
n-Butylbenzene	750	770	103	(70-128)
n-Propylbenzene	750	758	101	(73-125)
o-Xylene	750	758	101	(77-123)
P & M -Xylene	1500	1520	102	(77-124)
sec-Butylbenzene	750	773	103	(73-126)
Styrene	750	772	103	(76-124)
tert-Butylbenzene	750	763	102	(73-125)
Tetrachloroethene	750	739	99	(73-128)
Toluene	750	734	98	(77-121)
trans-1,2-Dichloroethene	750	746	100	(74-125)
trans-1,3-Dichloropropene	750	754	101	(71-130)
Trichloroethene	750	751	100	(77-123)
Trichlorofluoromethane	750	808	108	(62-140)
Vinyl acetate	750	760	101	(50-151)
Vinyl chloride	750	746	100	(56-135)
Xylenes (total)	2250	2280	101	(78-124)

Blank Spike Summary

Blank Spike ID: LCS for HBN 1162244 [VXX28811]
Blank Spike Lab ID: 1325386
Date Analyzed: 05/10/2016 11:36

Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

		Blank Spike (%)		
Parameter	Spike	Result	Rec (%)	CL
Surrogates				
1,2-Dichloroethane-D4 (surr)	750	104	104	(71-136)
4-Bromofluorobenzene (surr)	750	100	100	(55-151)
Toluene-d8 (surr)	750	101	101	(85-116)

Batch Information

Analytical Batch: **VMS15784**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **S.P**

Prep Batch: **VXX28811**
Prep Method: **SW5035A**
Prep Date/Time: **05/10/2016 08:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:

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

Matrix Spike Summary

Original Sample ID: 1162244008
MS Sample ID: 1325387 MS
MSD Sample ID: 1325388 MSD

Analysis Date: 05/10/2016 15:51
Analysis Date: 05/10/2016 16:07
Analysis Date: 05/10/2016 16:23
Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

		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	11.9U	650	703	108	650	700	108	78-125	0.37	(< 20)
1,1,1-Trichloroethane	11.9U	650	675	104	650	668	103	73-130	0.97	(< 20)
1,1,2,2-Tetrachloroethane	5.95U	650	670	103	650	659	101	70-124	1.80	(< 20)
1,1,2-Trichloroethane	4.76U	650	680	105	650	689	106	78-121	1.30	(< 20)
1,1-Dichloroethane	11.9U	650	652	100	650	633	98	76-125	2.90	(< 20)
1,1-Dichloroethene	11.9U	650	678	104	650	668	103	70-131	1.50	(< 20)
1,1-Dichloropropene	11.9U	650	663	102	650	657	101	76-125	0.85	(< 20)
1,2,3-Trichlorobenzene	23.8U	650	694	107	650	717	110	66-130	3.30	(< 20)
1,2,3-Trichloropropane	11.9U	650	659	101	650	659	101	73-125	0.07	(< 20)
1,2,4-Trichlorobenzene	11.9U	650	709	109	650	734	113	67-129	3.50	(< 20)
1,2,4-Trimethylbenzene	23.8U	650	681	105	650	700	108	75-123	2.80	(< 20)
1,2-Dibromo-3-chloropropane	47.6U	650	669	103	650	650	100	61-132	3.00	(< 20)
1,2-Dibromoethane	4.76U	650	682	105	650	686	106	78-122	0.60	(< 20)
1,2-Dichlorobenzene	11.9U	650	669	103	650	687	106	78-121	2.70	(< 20)
1,2-Dichloroethane	4.76U	650	670	103	650	661	102	73-128	1.40	(< 20)
1,2-Dichloropropane	4.76U	650	690	106	650	684	105	76-123	1.00	(< 20)
1,3,5-Trimethylbenzene	11.9U	650	676	104	650	691	106	73-124	2.40	(< 20)
1,3-Dichlorobenzene	11.9U	650	655	101	650	680	105	77-121	3.70	(< 20)
1,3-Dichloropropane	4.76U	650	689	106	650	692	107	77-121	0.44	(< 20)
1,4-Dichlorobenzene	11.9U	650	670	103	650	691	106	75-120	3.00	(< 20)
2,2-Dichloropropane	11.9U	650	680	105	650	669	103	67-133	1.60	(< 20)
2-Butanone (MEK)	119U	1950	2044	105	1950	1898	97	51-148	7.40	(< 20)
2-Chlorotoluene	11.9U	650	658	101	650	675	104	75-122	2.60	(< 20)
2-Hexanone	119U	1950	1971	101	1950	1846	95	53-145	6.20	(< 20)
4-Chlorotoluene	11.9U	650	666	103	650	690	106	72-124	3.60	(< 20)
4-Isopropyltoluene	11.9U	650	688	106	650	718	111	73-127	4.40	(< 20)
4-Methyl-2-pentanone (MIBK)	119U	1950	2065	106	1950	1971	101	65-135	4.70	(< 20)
Benzene	5.95U	650	649	100	650	642	99	77-121	1.10	(< 20)
Bromobenzene	11.9U	650	653	101	650	670	103	78-121	2.60	(< 20)
Bromochloromethane	11.9U	650	632	97	650	634	98	78-125	0.27	(< 20)
Bromodichloromethane	11.9U	650	682	105	650	684	105	75-127	0.29	(< 20)
Bromoform	11.9U	650	635	98	650	627	96	67-132	1.40	(< 20)
Bromomethane	95.0U	650	674	104	650	708	109	53-143	4.90	(< 20)
Carbon disulfide	47.6U	975	950	98	975	960	99	63-132	1.10	(< 20)
Carbon tetrachloride	5.95U	650	681	105	650	670	103	70-135	1.40	(< 20)
Chlorobenzene	11.9U	650	653	101	650	648	100	79-120	0.83	(< 20)
Chloroethane	95.0U	650	626	96	650	596	92	59-139	4.90	(< 20)

Print Date: 05/23/2016 4:22:17PM

Matrix Spike Summary

Original Sample ID: 1162244008
MS Sample ID: 1325387 MS
MSD Sample ID: 1325388 MSD

Analysis Date: 05/10/2016 15:51
Analysis Date: 05/10/2016 16:07
Analysis Date: 05/10/2016 16:23
Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

		Matrix Spike (ug/Kg)			Spike Duplicate (ug/Kg)					
Parameter	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL	RPD (%)	RPD CL
Chloroform	11.9U	650	621	96	650	618	95	78-123	0.56	(< 20)
Chloromethane	11.9U	650	637	98	650	624	96	50-136	2.10	(< 20)
cis-1,2-Dichloroethene	11.9U	650	639	98	650	632	97	77-123	1.10	(< 20)
cis-1,3-Dichloropropene	11.9U	650	650	100	650	650	100	74-126	0.07	(< 20)
Dibromochloromethane	11.9U	650	670	103	650	677	104	74-126	0.93	(< 20)
Dibromomethane	11.9U	650	672	103	650	655	101	78-125	2.60	(< 20)
Dichlorodifluoromethane	23.8U	650	682	105	650	666	103	29-149	2.40	(< 20)
Ethylbenzene	11.9U	650	660	102	650	654	101	76-122	1.10	(< 20)
Freon-113	47.6U	975	1074	110	975	1064	109	66-136	0.95	(< 20)
Hexachlorobutadiene	23.8U	650	807	124	650	835	129	61-135	3.50	(< 20)
Isopropylbenzene (Cumene)	11.9U	650	670	103	650	673	104	68-134	0.35	(< 20)
Methylene chloride	47.6U	650	670	103	650	662	102	70-128	1.30	(< 20)
Methyl-t-butyl ether	47.6U	975	1064	109	975	1043	107	73-125	1.70	(< 20)
Naphthalene	23.8U	650	703	108	650	718	111	62-129	2.20	(< 20)
n-Butylbenzene	11.9U	650	705	109	650	749	115	70-128	6.00	(< 20)
n-Propylbenzene	11.9U	650	659	101	650	677	104	73-125	2.70	(< 20)
o-Xylene	11.9U	650	665	102	650	667	103	77-123	0.29	(< 20)
P & M -Xylene	23.8U	1303	1345	103	1303	1345	104	77-124	0.37	(< 20)
sec-Butylbenzene	11.9U	650	687	106	650	718	111	73-126	4.40	(< 20)
Styrene	11.9U	650	685	105	650	688	106	76-124	0.44	(< 20)
tert-Butylbenzene	11.9U	650	667	103	650	692	107	73-125	3.70	(< 20)
Tetrachloroethene	10.9J	650	656	99	650	666	101	73-128	1.60	(< 20)
Toluene	11.9U	650	658	101	650	664	102	77-121	0.88	(< 20)
trans-1,2-Dichloroethene	11.9U	650	657	101	650	644	99	74-125	1.90	(< 20)
trans-1,3-Dichloropropene	11.9U	650	654	101	650	664	102	71-130	1.50	(< 20)
Trichloroethene	5.95U	650	666	103	650	661	102	77-123	0.75	(< 20)
Trichlorofluoromethane	23.8U	650	681	105	650	650	100	62-140	4.60	(< 20)
Vinyl acetate	47.6U	650	701	108	650	692	107	50-151	1.20	(< 20)
Vinyl chloride	4.76U	650	652	100	650	647	100	56-135	0.70	(< 20)
Xylenes (total)	35.7U	1950	2002	103	1950	2013	103	78-124	0.34	(< 20)
Surrogates										
1,2-Dichloroethane-D4 (surr)		650	684	105	650	675	104	71-136	1.30	
4-Bromofluorobenzene (surr)		1731	1627	94	1731	1658	96	55-151	2.20	
Toluene-d8 (surr)		650	673	104	650	682	105	85-116	1.30	

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200 West Potter Drive Anchorage, AK 95518
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Matrix Spike Summary

Original Sample ID: 1162244008
MS Sample ID: 1325387 MS
MSD Sample ID: 1325388 MSD

Analysis Date:
Analysis Date: 05/10/2016 16:07
Analysis Date: 05/10/2016 16:23
Matrix: Soil/Solid (dry weight)

QC for Samples: 1162244001, 1162244002, 1162244003, 1162244004, 1162244005, 1162244006, 1162244007, 1162244008, 1162244009, 1162244010

Results by **SW8260B**

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

Batch Information

Analytical Batch: VMS15784
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: S.P
Analytical Date/Time: 5/10/2016 4:07:00PM

Prep Batch: VXX28811
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/10/2016 8:00:00AM
Prep Initial Wt./Vol.: 60.18g
Prep Extract Vol: 25.00mL

Print Date: 05/23/2016 4:22:17PM

SGS

SGS Environmental S... CHAIN OF CUST...

1162244

Locations Nationwide

Alaska, Maryland, New Jersey, New York, North Carolina, Ohio, West Virgina

www.us.sgs.com

CLIENT:	NORTECH	SGS R...	page ____ of ____
CONTACT:	D. RADU	PHONE NO:	907-980-9936
PROJECT:	Nugget Mall	SITE/PWSID#:	16-1035
REPORTS TO:	Jen Stoutamore Dumitru Radu	E-MAIL:	jstoutamore@nortechengr.com dradu@nortechengr.com
INVOICE TO:	Fairbanks	QUOTE P.O. #:	16-1035

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX/ MATRIX CODE	# CONTAINERS	Preserv Used / SAMPLE TYPE C = COMP G = GRAB MI = Multi Incremental Samples	MeOH / VOC	Dry Weight								REMARKS/ LOC ID
1 A-B	BH1 (6-10)	5/5/2016	905	Soil	2	GRAB	X	X								
2 A-B	BH1 (12-14)	5/5/2016	930	Soil	2	GRAB	X	X								
3 A-B	BH2 (2-4)	5/5/2016	1000	Soil	2	GRAB	X	X								
4 A-B	BH2 (14-16)	5/5/2016	1020	Soil	2	GRAB	X	X								
5 A-B	BH2A (14-16)	5/5/2016	1045	Soil	2	GRAB	X	X								
6 A-B	BH3 (2-4)	5/5/2016	1110	Soil	2	GRAB	X	X								
7 A-B	BH3 (16-18)	5/5/2016	1140	Soil	2	GRAB	X	X								
8 A-B	BH6 (2-4)	5/5/2016	1530	Soil	2	GRA	X	X								
9 A-B	BH6 (16-18)	5/5/2016	1540	Soil	2	GRA	X	X								
10 A	Trip Blank						X									

Collected/Relinquished By: (1)	Date: 5/6/2016	Time: 1000	Received By:
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date: 5-6-16	Time: 1656	Received For Laboratory By:

DOD Project? YES (NO)

Cooler ID

Special Deliverable Requirements: STANDARD

Requested Turnaround Time and-or Special Instructions: STANDARD

Samples Received Cold? YES NO

Cooler TB

Temperature °C: 2.1/205

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

19

☐ 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

C

027 JNU 1616 9230 027-1616 9230

Shipper's Name and Address	Shipper's Account Number / Customer's ID Number	Not Negotiable / Air Waybill / Issued By
Nortech 2400 College Rd Fairbanks, AK 99709 USA Tel: 9074525688	27442126076 10588	Alaska. AIR CARGO P.O. BOX 68900 SEATTLE, WA 98168 800-225-2752 ALASKACARGO.COM
Consignee's Name and Address	**Consignee's Account Number**	**Also notify**
SGS North America Inc 200 W Potter Drive Anchorage, AK 99518 USA Tel: 9075622343	27400215947	96 no contact Tel:
Issuing Carrier's Agent and City	**Accounting Information**	10588
	Nortech 2400 College Rd Fairbanks, AK 99709 USA SRN/16-1035 GoldStreak	1162244
Agent's IATA Code / **Account No.**		
Airport of Departure (Addr. of First Carrier) and Requested Routing		
Juneau		

To	By First Carrier	To / By	To / By	Currency	WT/VAL	Other	Declared Value For Carriage	Declared Value For Customs
ANC	Alaska Airlines			USD PX	X	X	NVD	NCV

Airport of Destination	Flight/Date	Flight/Date	Amount of Insurance
Anchorage	AS 065/06		XXX

Handling Information

DANGEROUS GOODS IN EXCEPTED QUANTITIES DGD AND NOTOC NOT REQUIRED
KEEP COOL

SCI

No of Pieces	Gross Weight	kg lb	Commodity Item No.	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (Incl. Dimensions or Volume)
1	22.0	L		22.0		AS AGREED	SOIL SAMPLES Dims: 17 x 11 x15 x 1 GSX REQ PER
1	22.0					AS AGREED	Volume: 1.623

Prepaid	Weight Charge	Collect	Other Charges
AS AGREED			XBC 0.00
Valuation Charge			
Tax			
Total Other Charges Due Agent			
Total Other Charges Due Carrier			
Total Prepaid	Total Collect		
AS AGREED			

Shipper certifies that the particulars on the face hereof are correct and that **insofar as any part of the consignment contains dangerous goods, such part is properly described by name and is in proper condition for carriage by air according to the applicable Dangerous Goods Regulations. I consent to the inspection of this cargo.**

For: Nortech

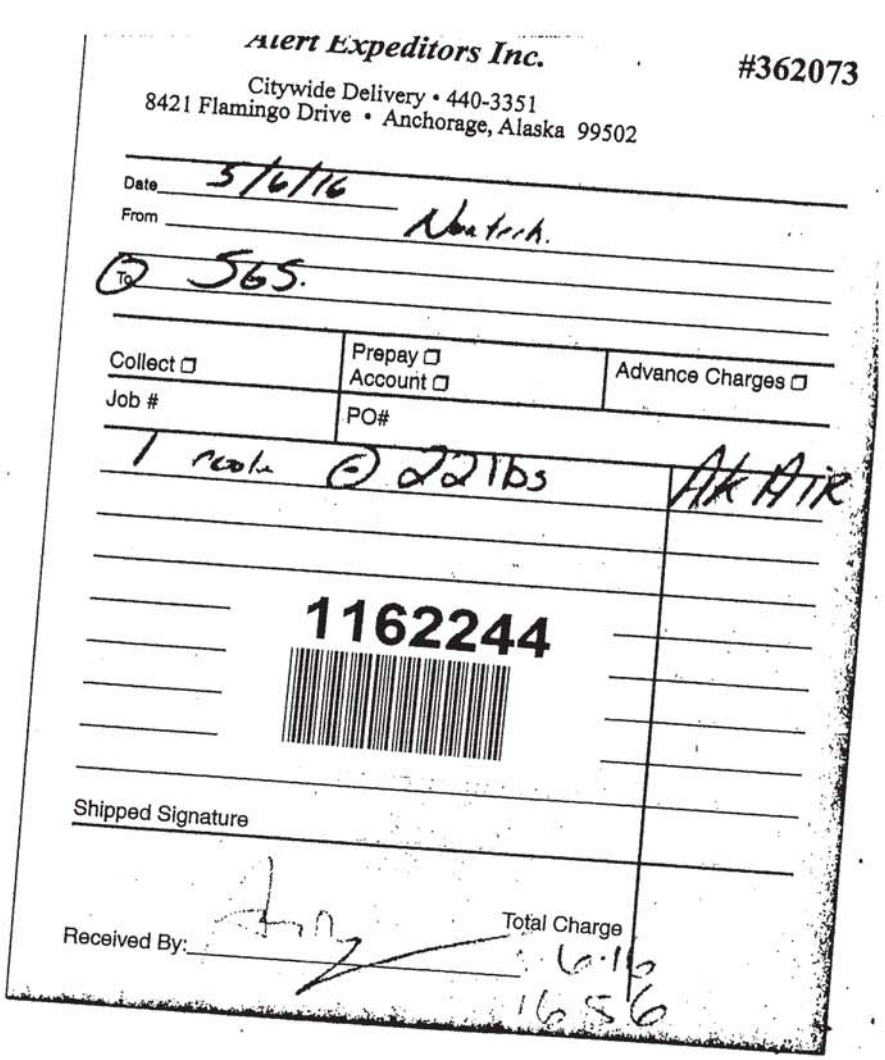
Signature of Shipper or his Agent

☐ THIS SHIPMENT DOES NOT CONTAIN DANGEROUS GOODS

☑ THIS SHIPMENT DOES CONTAIN DANGEROUS GOODS

Executed On (Date)	at (Place)	Signature of Issuing Carrier or its Agent
06 May 2016 09:56	Juneau	Alaska Airlines

027-1616 9230



Alert Expeditors Inc. #362073

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5/6/16

From Nuiqsut.

To 565.

Collect ☐	Prepay ☐ Account ☐	Advance Charges ☐
Job #	PO#	

1 roll @ 22lbs AK Air

1162244

Shipped Signature

Received By:

Total Charge: 60.00

16:56

SGS

1162244

1162244

SAMPLE RECEIPT FORM

Review Criteria:	Yes	N/A	No	Comments/Action Taken:
Were **custody seals** intact? Note # & location, if applicable. COC accompanied samples?	☑ ☑	☐ ☐	☐ ☐	***Exemption permitted if sampler hand carries/delivers.*** 1S
Temperature blank compliant* (i.e., 0-6°C after CF)? *If >6°C, were samples collected <8 hours ago?* *If <0°C, were all sample containers ice free?* Cooler ID: [1] _____ @ 2.1 _____ w/ Therm.ID: 205 _____ 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 & "**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."	☑ ☐ ☐	☐ ☑ ☑	☐ ☐ ☐	***Exemption permitted if chilled & collected <8 hrs ago.*** ***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.***
Delivery method (specify all that apply): ☐Client (hand carried) ☐USPS ☐Lynden ☐AK Air ☑Alert Courier ☐UPS ☐FedEx ☐RAVN ☐C&D Delivery ☐Carlile ☐Pen Air ☐Warp Speed ☐Other: _____ → *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?*	☑	☐	☐	
	Yes	**N/A**	**No**	
Were samples received within hold time? Do samples **match COC*** (i.e., sample IDs, dates/times collected)? Were analyses requested unambiguous?	☑ ☑ ☑	☐ ☐ ☐	☐ ☐ ☐	***Note: Refer to form F-083 "Sample Guide" for hold times.*** ***Note: If times differ <1hr, record details and login per COC.***
Were samples in **good condition** (no leaks/cracks/breakage)? Packing material used (specify all that apply): ☑Bubble Wrap ☐Separate plastic bags ☐Vermiculite ☐Other:	☑	☐	☐	
Were **proper containers** (type/mass/volume/preservative*) used? Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples? Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)? Were all soil VOAs **field extracted** with MeOH+BFB?	☑ ☐ ☐ ☑	☐ ☑ ☑ ☐	☐ ☐ ☐ ☐	☐ ***Exemption permitted for metals (e.g., 200.8/6020A).***
For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**? If pH was adjusted, were bottles flagged (i.e., stickers)?	☐ ☐	☑ ☑	☐ ☐	
For **special handling** (e.g., "MI" soils, foreign soils, lab filter for dissolved…, lab extract for volatiles, Ref Lab, limited volume), were bottles/paperwork flagged (e.g., sticker)?	☐	☑	☐	
For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable?	☐	☑	☐	
For **SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP**, were containers / paperwork flagged accordingly?	☐	☑	☐	
For any question answered "No," has the PM been notified and the problem resolved (or paperwork put in their bin)?	☐	☑	☐	SRF Completed by: CRD PM notified:
Was **PEER REVIEW** of ***sample numbering/labeling completed?***	☐	☑	☐	Peer Reviewed by:
Additional notes (if applicable):				

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

Sample Containers and Preservatives

Container Id	Preservative	Container Condition	Container Id	Preservative	Container Condition
1162244001-A	No Preservative Required	OK			
1162244001-B	Methanol field pres. 4 C	OK			
1162244002-A	No Preservative Required	OK			
1162244002-B	Methanol field pres. 4 C	OK			
1162244003-A	No Preservative Required	OK			
1162244003-B	Methanol field pres. 4 C	OK			
1162244004-A	No Preservative Required	OK			
1162244004-B	Methanol field pres. 4 C	OK			
1162244005-A	No Preservative Required	OK			
1162244005-B	Methanol field pres. 4 C	OK			
1162244006-A	No Preservative Required	OK			
1162244006-B	Methanol field pres. 4 C	OK			
1162244007-A	No Preservative Required	OK			
1162244007-B	Methanol field pres. 4 C	OK			
1162244008-A	No Preservative Required	OK			
1162244008-B	Methanol field pres. 4 C	OK			
1162244009-A	No Preservative Required	OK			
1162244009-B	Methanol field pres. 4 C	OK			
1162244010-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.
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.

APPENDIX 6
LABORATORY DATA REVIEW CHECKLISTS

Laboratory Data Review Checklist

Completed by:	Dumitru Radu		
Title:	Environmental Scientist	Date:	05/19/2016
CS Report Name:	Nugget Mall	Report Date:	05/16/2016
Consultant Firm:	NORTECH		
Laboratory Name:	SGS Alaska	Laboratory Report Number:	1162249
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

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

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

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

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

samples were not transferred to another laboratory.

2. Chain of Custody (COC)

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

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

b. Correct analyses requested?

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

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

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

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

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

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

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

No issues

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

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

No issues

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

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

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

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

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

No issues

c. Were all corrective actions documented?

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

No issues

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

Comments:

Data quality/usability not affected.

5. Samples Results

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

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

b. All applicable holding times met?

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

c. All soils reported on a dry weight basis?

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

Water samples

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

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

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

Comments:

Data quality and usability not affected

6. QC Samples

a. Method Blank

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

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

ii. All method blank results less than PQL?

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

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

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

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

No issues

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

Data quality or usability not affected.

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

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

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

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

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

Analysis not requested

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

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

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

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

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

Comments:

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

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

No issues

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

data quality/usability not affected

c. Surrogates - Organics Only

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

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

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

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

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

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

no issues

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

Comments:

Data quality/usability not affected

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

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

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

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

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

one cooler used

iii. All results less than PQL?

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

iv. If above PQL, what samples are affected?

Comments:

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

Comments:

Data quality/usability not affected.

e. Field Duplicate

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

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

ii. Submitted blind to lab?

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

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

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

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

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

Data quality/usability not affected.

f. Decontamination or Equipment Blank (if applicable)

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

i. All results less than PQL?

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

ii. If above PQL, what samples are affected?

Comments:

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

Comments:

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

a. Defined and appropriate?

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

Reset Form

Laboratory Data Review Checklist

Completed by:	Dumitru Radu		
Title:	Environmental Scientist	Date:	05/27/2016
CS Report Name:	Nugget Mall	Report Date:	05/24/2016
Consultant Firm:	NORTECH		
Laboratory Name:	SGS Alaska	Laboratory Report Number:	1162244
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

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

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

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

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

samples were not transferred to another laboratory.

2. Chain of Custody (COC)

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

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

b. Correct analyses requested?

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

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

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

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

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

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

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

No issues

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

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

No issues

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

Comments:

Data quality or usability not affected

4. Case Narrative

a. Present and understandable?

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

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

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

No issues

c. Were all corrective actions documented?

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

No issues

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

Comments:

Data quality/usability not affected.

5. Samples Results

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

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

b. All applicable holding times met?

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

c. All soils reported on a dry weight basis?

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

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

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

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

Comments:

Data quality and usability not affected

6. QC Samples

a. Method Blank

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

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

ii. All method blank results less than PQL?

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

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

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

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

No issues

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

Data quality or usability not affected.

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

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

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

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

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

Analysis not requested

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

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

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

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

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

Comments:

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

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

No issues

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

data quality/usability not affected

c. Surrogates - Organics Only

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

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

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

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

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

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

no issues

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

Comments:

Data quality/usability not affected

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

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

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

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

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

one cooler used

iii. All results less than PQL?

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

iv. If above PQL, what samples are affected?

Comments:

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

Comments:

Data quality/usability not affected.

e. Field Duplicate

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

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

ii. Submitted blind to lab?

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

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

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

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

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

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

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

Data quality/usability not affected.

f. Decontamination or Equipment Blank (if applicable)

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

i. All results less than PQL?

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

ii. If above PQL, what samples are affected?

Comments:

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

Comments:

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

a. Defined and appropriate?

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

Reset Form

APPENDIX 7
CONCEPTUAL SITE MODEL

Print Form

Human Health Conceptual Site Model
Scoping Form

Site Name: Nugget Mall, 2092 Jordan Ave

File Number:

Completed by: Dumitru Radu

Introduction

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

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

1. General Information:

Sources *(check potential sources at the site)*

- ☐ USTs
- ☐ ASTs
- ☐ Dispensers/fuel loading racks
- ☐ Drums
- ☐ Vehicles
- ☐ Landfills
- ☐ Transformers
- ☒ Other: Dry Cleaning Operation

Release Mechanisms *(check potential release mechanisms at the site)*

- ☒ Spills
- ☒ Leaks
- ☒ Direct discharge
- ☐ Burning
- ☐ Other:

Impacted Media *(check potentially-impacted media at the site)*

- ☒ Surface soil (0-2 feet bgs*)
- ☒ Subsurface soil (>2 feet bgs)
- ☒ Air
- ☐ Sediment
- ☒ Groundwater
- ☐ Surface water
- ☐ Biota
- ☐ Other:

Receptors *(check receptors that could be affected by contamination at the site)*

- ☐ Residents (adult or child)
- ☒ Commercial or industrial worker
- ☒ Construction worker
- ☐ Subsistence harvester (i.e. gathers wild foods)
- ☐ Subsistence consumer (i.e. eats wild foods)
- ☒ Site visitor
- ☐ Trespasser
- ☐ Recreational user
- ☐ Farmer
- ☐ Other:

* bgs - below ground surface

2. Exposure Pathways: *(The answers to the following questions will identify complete exposure pathways at the site. Check each box where the answer to the question is "yes".)*

a) Direct Contact -

1. Incidental Soil Ingestion

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

If the box is checked, label this pathway complete: Complete

Comments:

The area is covered with asphalt and concrete. While the contaminants are present within 15 ft of surface, direct contact is not likely.

2. Dermal Absorption of Contaminants from Soil

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

Can the soil contaminants permeate the skin (see Appendix B in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

The area is covered with asphalt and concrete. While the contaminants are present within 15 ft of surface, direct contact is not likely.

b) Ingestion -

1. Ingestion of Groundwater

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

Could the potentially affected groundwater be used as a current or future drinking water source? Please note, only leave the box unchecked if DEC has determined the groundwater is not a currently or reasonably expected future source of drinking water according to 18 AAC 75.350. ☐

If both boxes are checked, label this pathway complete: Incomplete

Comments:

2. Ingestion of Surface Water

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

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

If both boxes are checked, label this pathway complete: Incomplete

Comments:

Contaminants of concern are Dense Non-Aqueous Phase Liquids. As such, reaching surface waters at this time, considering site conditions, will not be likely.

3. Ingestion of Wild and Farmed Foods

Is the site in an area that is used or reasonably could be used for hunting, fishing, or harvesting of wild or farmed foods? ☐

Do the site contaminants have the potential to bioaccumulate (see Appendix C in the guidance document)? ☐

Are site contaminants located where they would have the potential to be taken up into biota? (i.e. soil within the root zone for plants or burrowing depth for animals, in groundwater that could be connected to surface water, etc.) ☐

If all of the boxes are checked, label this pathway complete:

Comments:

c) Inhalation-

1. Inhalation of Outdoor Air

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

Are the contaminants in soil volatile (see Appendix D in the guidance document)? ☒

If both boxes are checked, label this pathway complete: Complete

Comments:

The area is covered with asphalt and concrete. While the contaminants are present within 15 ft of surface, inhalation of outdoor air is not likely. Also, see IAQ report of Appendix 8 for further results.

2. Inhalation of Indoor Air

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

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

If both boxes are checked, label this pathway complete: Complete

Comments:

An IAQ study has been completed. See Appendix 8 of this report.

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

Dermal Exposure to Contaminants in Groundwater and Surface Water

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

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

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

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

Comments:

Inhalation of Volatile Compounds in Tap Water

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

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

Generally, DEC groundwater cleanup levels in 18 AAC 75, Table C, are assumed to be protective of this pathway.

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

Comments:

The property is on city supplied tap water. The area is industrial/commercial in nature and is reasonably expected to stay as such in the future.

Inhalation of Fugitive Dust

Inhalation of fugitive dust may be a complete pathway if:

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

Generally, DEC direct contact soil cleanup levels in Table B1 of 18 AAC 75 are protective of this pathway because it is assumed most dust particles are incidentally ingested instead of inhaled to the lower lungs. The inhalation pathway only needs to be evaluated when very small dust particles are present (e.g., along a dirt roadway or where dusts are a nuisance). This is not true in the case of chromium. Site specific cleanup levels will need to be calculated in the event that inhalation of dust containing chromium is a complete pathway at a site.

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

Comments:

Direct Contact with Sediment

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

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

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

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

Comments:

4. Other Comments *(Provide other comments as necessary to support the information provided in this form.)*

APPENDIX 8
VAPOR INTRUSION REPORT

NORTECH

SUSTAINABLE ENVIRONMENT, ENERGY,
HEALTH & SAFETY PROFESSIONAL SERVICES

Accounting Office:
2400 College Rd
Fairbanks, AK 99709
907.452.5688
907.452.5694 Fax

♦

3105 Lakeshore Drive
Suite A106
Anchorage, AK 99517
907.222.2445
907.222.0915 Fax

♦

5438 Shaune Drive
Suite B
Juneau, AK 99801
907.586.6813
907.586.6819 Fax

♦

www.nortechengr.com

May 12, 2016

Sent via email to:

Resource Transition Consultants LLC
144 Railroad Ave, Suite 310
Edmonds, WA 98020

ATTN: Robert Nall

RE: Indoor Air Quality Testing
Nugget Mall Annex, Juneau, Alaska

Robert,

NORTECH is pleased to submit this Indoor Air Quality (IAQ) sampling report for the Nugget Mall Annex building in Juneau, Alaska. This report contains a summary of field activities and observations. Site activities included the collection of air samples for laboratory analysis.

Resource Transition Consultants LLC General Receiver for Loveless-Tollefson, a Joint Venture, Donde LLC and Nugget Mall LLC, contacted ***NORTECH*** to perform IAQ sampling at the Nugget Mall Annex located at 2092 Jordan Avenue, Juneau Alaska (Site). The building houses four businesses located in Suites 550, 580, 585, and 595. Associated Credit Agency is currently located in suite 595 but was formally Capital City Cleaners. In 2003, concrete slab samples were analyzed for tetrachloroethylene (PCE) and trichloroethylene (TEC). Results for both compounds were below Alaska Department of Environmental Conservation (ADEC) cleanup levels for inhalants, but exceeded ADEC Method II requirements for soil.

Background and Scope of Work

On January 22, 2016, a subsurface investigation was conducted at the Site by Partner Engineering. Partner collected three sub-slab soil gas samples from inside Suite 595 from the area where the dry cleaning equipment was operated. PCE was found in all three laboratory samples in concentrations above State of Alaska Department of Environmental Conservation (ADEC) cleanup levels. One sample also contained TCE and cis-1,2-Dichloroethylene in concentrations above ADEC cleanup levels. Partner Engineering concluded that there appeared to be a vapor intrusion risk to occupants of the Site and recommended further investigation to evaluate the extent of contamination.

NORTECH was contracted to prepare a Sampling and Analysis Plan for ADEC approval to determine if a vapor intrusion risk exists at the site. Per the ADEC approved plan, ***NORTECH*** accomplished this by collecting indoor air samples from throughout the entire building, as well as a background outdoor air sample. In addition to the air sampling ***NORTECH*** performed pressure differential measurements to determine if the building has positive or negative air flow in addition to a basic building inspection to determine the nature of use, and other possible factors that may affect indoor air quality at the Site.

Methodology
The assessment was limited to sampling of conditions present at the time. All work was performed in accordance with ***NORTECH***'s Indoor Air Quality Standard Methodology, version 4 (Attachment C) and in compliance with applicable ANSI/ASHRAE standards by a qualified and experienced State of Alaska qualified sampling technician, under the guidance and oversight of John Hargesheimer, a Certified Industrial Hygienist (CIH), utilizing standard industrial hygiene practices.

Field Activities
On April 20, 2016 through April 22, 2016, Tim Shaw, with ***NORTECH***, prepared and carried out the scope of work at the Site. The weather was mostly sunny with temperatures in the mid 50's and light winds. On April 20th Mr. Shaw reviewed the available and pertinent documents about the Site and made contact with all the occupants of the building.

Sampling Pre-inspection
The building is divided up into three 2,500 square foot (sf) areas and one 1,250 square foot area for a total area of 8,750 square feet (see Figure 2 in Attachment A). Four businesses occupy the building.

- Suite 595 (2,500 sf) – Associated Credit Agency (suite of the former dry cleaner). This area is used as office space and has a small break room with a sink and refrigerator. There is a copy room with a large copier and individual printers in the offices. The office is open Monday through Friday.
- Suite 585 (1,250-sf) – Chez Alaska. This area is used for chef training and preparing lunches for tour boats during the tourist season. This space is occupied periodically through the day and sometimes at night for special classes. Occupation during the winter months are by appointment. Cooking appliances are propane fueled.
- Suite 580 (2,500 sf) – Checkmate Pawn Shop is an active pawn shop, buying and selling items of value Monday through Saturday. The shop has two offices, two storage areas (one that has a break area with a sink), and sales floor.
- Suite 550 (2,500 sf) – Papa John's Pizza (formerly Boarderline) will be occupying this space after renovation of the area. At the time of the site visit there appeared to be three distinct areas being constructed.

The Site was reviewed for potential sources of interferences during the air sampling event. Potential sources were:

- Smoking – smoking was not observed and was not permitted within the building. People were observed smoking outside and near the building.
- Wood burning – there are no wood burning stoves or fireplaces in the building.
- Storage – minimal quantities of household cleaning chemicals were observed and were properly stored in cabinets. No cleaning activities were noted during the sampling event.
- Openings, doors, and windows – these businesses were in operation during the time of the sampling event with normal door use occurring.
    - Limited front door opening occurred in suite 595
    - Doors were closed in suite 585 during the sampling event
    - Suite 580 had a slow day with few door openings

- Suite 550 doors were open until 3:30 pm and closed until 8:00 am the following day. The doors remained open during the work day due to construction.
- Back doors were not used during the sampling event except suite 550.
- The only windows that open are also on the back (east) side of the building, these windows were not opened during the sampling event.
- Heating, ventilation, and air conditioning (HVAC) units remained on and working normally.
- Construction/renovation work in suite 550 continued. During the time of the sampling event work on the plumbing and electrical wiring was being conducted.

Interviews

An informal interview with the building occupants was conducted to identify possible IAQ issues. Occupants were asked if they had any respiratory complaints and if they had any concerns or complaints regarding the indoor air quality. All the respondents indicated that they had no issues with the indoor air quality and none of them had respiratory complaints. The construction workers in suite 550 were not interviewed.

Air Sampling

Collection of air samples for laboratory analysis was undertaken due to concerns about chemical exposure through inhalation. Air samples for quantitative laboratory analysis of volatile organic compounds (VOCs) by EPA T015 analysis were collected in laboratory supplied summa canisters. The 1 liter stainless steel summa canisters and 24 hour regulators were obtained from Galson Laboratories, a subsidiary of SGS Labs, (SGS). Summa canister locations were selected based on:

- Representation of breathable air space
- Minimal interferences by people or activities
- Sample 595B was placed in the area where the former dry-cleaning machine was located and two of the previous sub-slab samples were collected.

The location of each summa canister is shown in Figure 2 and the photo log in Attachment A.

The layout of the building provided a logical deployment of summa canisters at a rate of one per 1,250 square feet. This pattern put two summa canisters in suites 595, 580, and 550. One summa canister was placed near the center of suite 585 and one was placed outside on the east side of the building near the fresh air intake vents. The outside summa canister was secured to the building with a cable and padlock. Sample identification correlates with the suite number. The background, outside, sample was given the identity of 5xxB.

The summa canister and regulator were connected, placed at the predetermined location, and the sample data recorded on the field sampling data sheet. The regulator gauge was observed for 1 to 2 minutes to determine if the connection was leaking. This data included sample identification, regulator number, flow rate, time on, regulator gauge starting reading, and location descriptions. A copy of this data sheet is with the analytical results in Attachment B. Before leaving the site the gauges of each summa canister was observed for movement. All gauges appeared to be functioning at similar rates. No leaks were detected.

At the conclusion of the 24 hour sampling event the regulator was read and time noted on the field sampling data sheet. The summa canister was placed into the nylon bag, the regulator secured, and prepared for shipping to SGS for analysis.

Pressure Differential
To assist with determining exposure pressure differentials were measured in three locations using a TSI VelociCalc Plus Model 8386 meter. This meter measures the pressure differential between two areas.

- Suite 595 front door, inside pressure compared to outside pressure: positive indoor pressure of 0.007 inches of water.
- Suite 595 utility room (southeast corner of the building) compared to the conference room, pressure in the utility room showed a negative pressure of 0.002 inches of water compared to conference room.
- Suite 550 under the slab compared to the room, the pressure in the room showed a positive pressure of 0.007 inches of water compared to under the slab. Note that the HVAC system was not running and all doors and windows were closed at the time of this test.

Air movement direction is from a high pressure to a low pressure. A building with a positive pressure is unlikely to be impacted by vapor intrusions.

Structure Evaluation
The field work included updating the general layout of the building. Figure 2 is a diagram of the floor plan of the building at the time of the site visit. The building is a one story, flat roof, concrete slab on grade building. Windows are fixed at the ends and front (west) side. Four sliding windows with steel protective grating are on the back (east) side of the building. Renovation work, removal of a riser pipe, in suite 550 allowed for limited visual inspection below the slab. The slab appears to have been poured over a layer of gravel. No vapor barrier was noted between the slab and gravel layer.

The building has three HVAC units located within the plenum. The two original and main heating systems are located at the central, east side of the building. The southern unit serves suites 585. The northern unit serves suites 550 and 580. These two are both forced air systems using diesel fueled boilers to produce the heat. The third unit is an electrical powered unit that solely serves suite 595.

Laboratory Results & Discussion
A total of eight air samples were collected from the Site and submitted to for quantitative laboratory analysis. The samples were analyzed by SGS for VOCs by EPA method T015. The laboratory results are summarized on the table on Figure 2 and the full laboratory report is in Attachment B.

Neither PCE, TCE nor any other chlorinated compunds were detected in any of the samples. No VOCs were detected in the background sample. Six other types of VOCs were detected in the indoor samples; acetone, ethyl acetate, isopropyl alcohol, methyl ethyl ketone, propylene, and toluene. The Sample Evaluation Table compares the range of detected VOCs to Occupational Safety and Health Administration's (OSHA) permissible exposure limits (PELs) for those VOCs. The table also identifies the sample location that yielded the highest result for each VOC.

Sample 580B had the highest level of acetone, isopropyl alcohol, methyl ethyl ketone, and propylene. This sample canister was located in the back storeroom where they process

incoming merchandise, which includes cleaning them. It also serves as a breakroom. The canister was set on a shelf with musical instruments. Pawn shop staff stated that nothing was added to or disturbed on this shelf during the sampling event.

Sample Evaluation Table

VOC	Range Detected (ppb)	ATSDR (in ppbv)	OSHA PEL (in ppb)	Sample ID with Highest Level
Acetone	<25 – 690	10,000	400,000	580B
Ethyl Acetate	<5.0 – 21	**	1,000,000	595A
Isopropyl Alcohol	<25 – 35	**	400,000	580B
Methyl Ethyl Ketone	<5.0 – 1,600	**	200,000	580B
Propylene	<5.0 – 7.0	**	**	580A
Toluene	<5.0 – 8.1	80	200,000	595A

Notes: ATSDR – Agency for Toxic Substance & Disease Registry inhalation minimal risk level for Chronic exposure for periods of 365 days or more), ppb – parts per billion, ppbv – parts per billion per volume, ** - exposure limits for this chemical have not been set.

The design of the HVAC system air exchange allows for air throughout the building to intermix. The VOCs reported are common in office spaces and renovation projects and originate from typical cleaning chemicals and renovation materials. The background sample, 5xxB, had no reportable VOCs which indicates that the VOCs detected in the other samples came from within the building.

Conclusions

Air sampling results from this IAQ survey and sampling indicates there is no immediate threat to the building occupants from vapor intrusion of PCE & TCE impacted soils below the foundation slab. This conclusion is supported by:

- IAQ air sampling showed that PCE and TCE are not present within the building
- Pressure differential testing results indicate the building is positively pressured compared to the outside
- Pressure differential testing between the indoor atmosphere and below the slab showed that the indoor atmosphere is at a higher pressure than below the slab.
- None of the occupants identified any concerns regarding indoor air quality
- The occupants did not have any complaints or exhibited any respiratory distress
- Six VOC constituents were identified in the sampling at levels significantly below OSHA permissible exposure limits
    - No chlorinated compounds were detected in any of the samples analyzed

Recommendations

Laboratory analysis of the indoor air quality at the Nugget Mall Annex provides data that the quality of the air is free of PCE and TCE but does contain other VOCs. It is recommended that the air exchange rate be increased with the added fresh air. Until such time that the subsurface PCE and TCE has naturally attenuated, remediated, or removed, the building should remain as a positive pressure system. Any cracks or penetrations through the slab, especially in suite 595, occur they should be sealed immediately.

No further study or sampling of the indoor air environment is recommended at this time.

We trust this information is adequate for your needs at the present time. If you have any questions, please contact me at your earliest convenience. We thank you for the opportunity to work with you on this project and appreciate your confidence in our Firm.

Sincerely,
NORTECH

Timothy Shaw

Sr. Project Manager

Reviewed by:

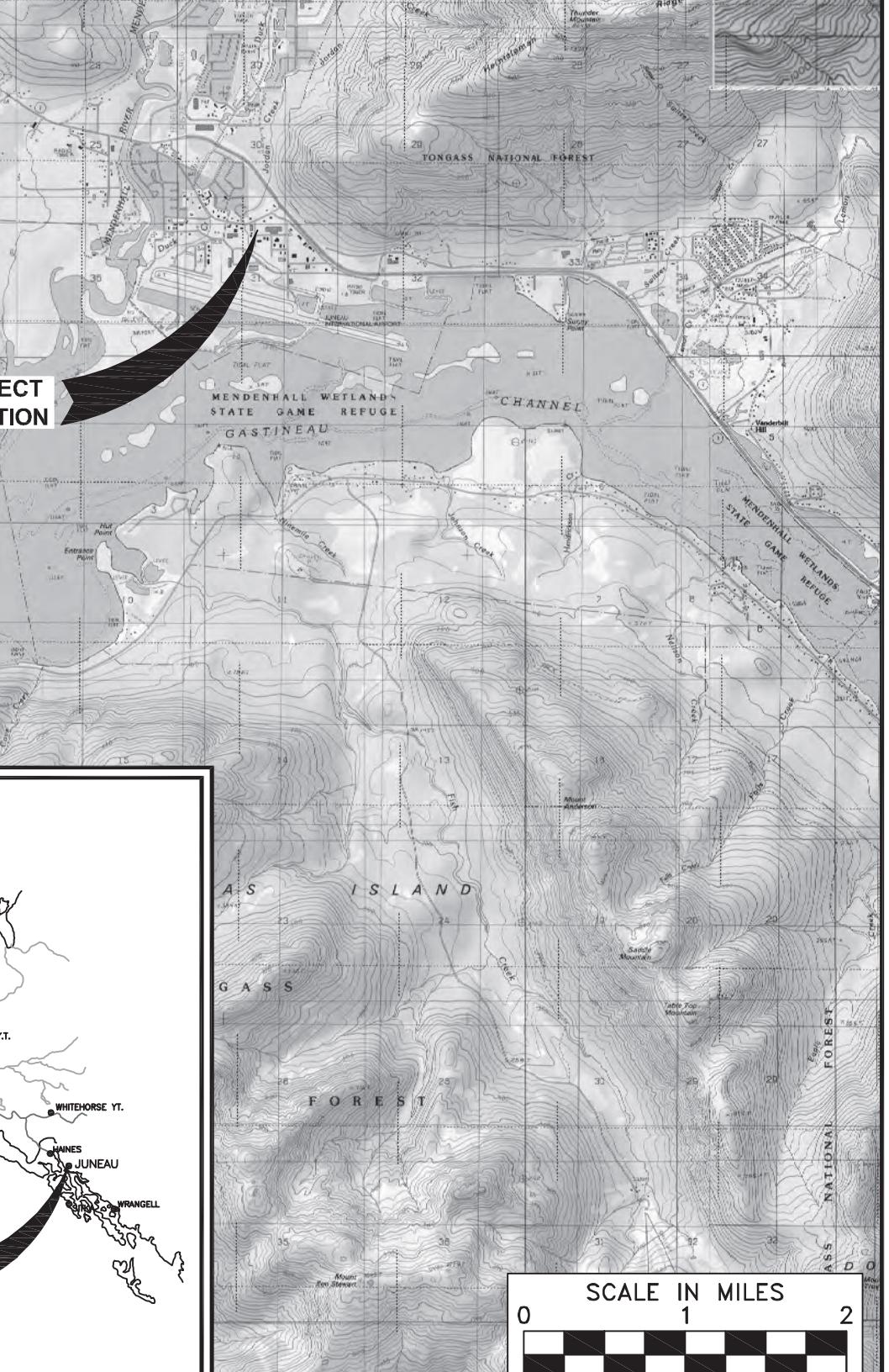
Jason Ginter, PMP

Principal

Attachments: Attachment A – Figures & Photos
Attachment B – Lab Reports
Attachment C – Standard Methods

ATTACHMENT A

FIGURES & PHOTOS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MENDENHALL WETLANDS
STATE GAME REFUGE
GASTINEAU
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JORDAN AVENUE
MALLA
TEAL STREE
SCALE IN FEET
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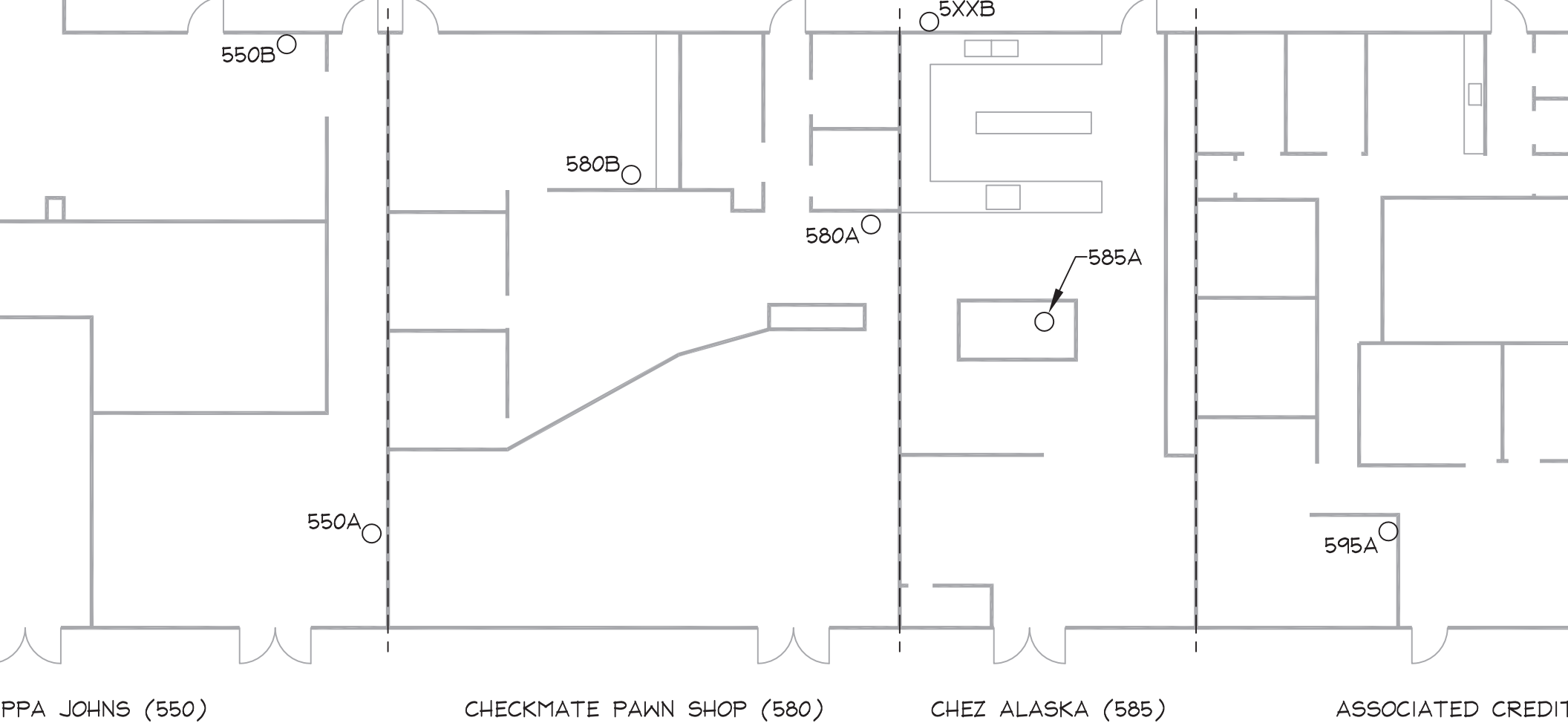

Nugget Mall Annex Summa Canister Analysis Summary Table								
	DETECTABLE ANALYTES (parts per billion volume)							
SAMPLE ID	**550A**	**550B**	**580A**	**580B**	**585A**	**595A**	**595B**	**5XXB**
Acetone	380	380	460	690	54	29	ND(<25)	ND(<25)
Ethyl Acetate	5.8	5.1	10	5.8	ND(<5.0)	21	ND(<5.0)	ND(<5.0)
Isopropyl Alcohol	34	ND(<25)	ND(<25)	35	ND(<25)	ND(<25)	ND(<25)	ND(<25)
Methyl Ethyl Ketone	550	540	1,100	1,600	48	23	21	ND(<5.0)
Propylene	ND(<5.0)	ND(<5.0)	7.0	5.3	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)
Toluene	6.0	ND(<5.0)	ND(<5.0)	ND(<5.0)	ND(<5.0)	8.1	ND(<5.0)	ND(<5.0)
ND(<XX)- Not Detected at the Level of Quantification given (<XX)								

Photo 1: *Looking southwest at the northwest corner of the building (suite 550).*

Photo 2: *One of several fresh air intakes into the plenum of the building.*

Photo 3: *Looking north along east side of the building. Summa canister 5xxB is at the lower left corner of the photo. Upper center edge of the photo shows the two main fresh air intakes, in the wall, for the two diesel fueled HVAC systems.*

Photo 4: *Looking at the southwest corner of suite 550 and the location of summa canister 550A.*

Photo 5: *Looking at the east wall of suite 550 and the location of summa canister 550B.*

Photo 6: *Southeast corner of suite 595 and summa canister 595B. At the right of the picture is the door to the utili-door room with the water main pipes.*

ATTACHMENT B

LAB REPORTS

SGS GALSON

Mr. Tim Shaw
Nortech Environmental Engineering
2400 College Road
Fairbanks, AK 99709

May 04, 2016

DOH ELAP #11626 Account# 18633 Login# L373459
AIHA-LAP #100324

Dear Mr. Shaw:

Enclosed are the analytical results for the samples received by our laboratory on April 27, 2016. All test results meet the quality control requirements of AIHA-LAP and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact Christine Reed at (888) 432-5227, if you would like any additional information regarding this report. Thank you for using SGS Galson Laboratories.

Sincerely,

SGS Galson Laboratories

Lisa Swab
Laboratory Director

Enclosure(s)

Galson Laboratories, Inc. is now a part of SGS, the world's leading inspection, verification, testing, and certification company. As part of our transition to SGS, you will begin to see some formatting changes with reports that will improve the presentation of data and allow for the transition to the new logo.

LABORATORY ANALYSIS REPORT

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Nortech Environmental-Anchorage
Site : Nugget Mall Annex
Project No. : Nugget Mall Annex 16-1035

Date Sampled : 21-APR-16 Account No.: 18633
Date Received : 27-APR-16 Login No. : L373459
Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-1 585A	L373459-2 595A	L373459-3 595B
Propylene	5.0	<5.0	<5.0	<5.0
Freon-12	5.0	<5.0	<5.0	<5.0
Chloromethane	5.0	<5.0	<5.0	<5.0
Freon-114	5.0	<5.0	<5.0	<5.0
Vinyl Chloride	5.0	<5.0	<5.0	<5.0
1,3-Butadiene	5.0	<5.0	<5.0	<5.0
Bromomethane	5.0	<5.0	<5.0	<5.0
Chloroethane	5.0	<5.0	<5.0	<5.0
Vinyl Bromide	5.0	<5.0	<5.0	<5.0
Freon-11	5.0	<5.0	<5.0	<5.0
Isopropyl Alcohol	25	<25	<25	<25
Acetone	25	54	29	<25
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0
Methylene Chloride	5.0	<5.0	<5.0	<5.0
Freon-113	5.0	<5.0	<5.0	<5.0
Allyl Chloride	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
> -Greater Than ug -Micrograms ND -Not Detected ppmv-Parts per Million Volume LOQ -Limit of Quantitation NA -Not Applicable

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Carbon Disulfide	10	<10	<10	<10
Trans-1,2-Dichloroethene	5.0	<5.0	<5.0	<5.0
Methyl Tert-Butyl Ether	5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0
Vinyl Acetate	5.0	<5.0	<5.0	<5.0
Methyl Ethyl Ketone	5.0	48	23	21
cis-1,2-Dichloroethylene	5.0	<5.0	<5.0	<5.0
Hexane	5.0	<5.0	<5.0	<5.0
Ethyl Acetate	5.0	<5.0	21	<5.0
Chloroform	5.0	<5.0	<5.0	<5.0
Tetrahydrofuran	5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5.0	<5.0	<5.0	<5.0
Cyclohexane	5.0	<5.0	<5.0	<5.0
Carbon Tetrachloride	5.0	<5.0	<5.0	<5.0
Benzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
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Galson ID: / Client ID:	LOQ ppbv	L373459-1 585A	L373459-2 595A	L373459-3 595B
1,4-Dioxane	20	<20	<20	<20
2,2,4-Trimethylpentane	5.0	<5.0	<5.0	<5.0
Heptane	5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5.0	<5.0	<5.0	<5.0
Trichloroethylene	5.0	<5.0	<5.0	<5.0
Bromodichloromethane	5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	5.0	<5.0	<5.0	<5.0
Toluene	5.0	<5.0	8.1	<5.0
Dibromochloromethane	5.0	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	20	<20	<20	<20
Methyl Butyl Ketone	20	<20	<20	<20
1,2-Dibromoethane	5.0	<5.0	<5.0	<5.0
Tetrachloroethylene	5.0	<5.0	<5.0	<5.0
Chlorobenzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
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Ethylbenzene	5.0	<5.0	<5.0	<5.0
Bromoform	5.0	<5.0	<5.0	<5.0
m & p-xylene	10	<10	<10	<10
Styrene	5.0	<5.0	<5.0	<5.0
o-Xylene	5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5.0	<5.0	<5.0	<5.0
4-Ethyltoluene	5.0	<5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5.0	<5.0	<5.0	<5.0
Benzyl Chloride	5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
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Galson ID: / Client ID:	LOQ ppbv	L373459-4 580A	L373459-5 580B	L373459-6 550A
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Chloromethane	5.0	<5.0	<5.0	<5.0
Freon-114	5.0	<5.0	<5.0	<5.0
Vinyl Chloride	5.0	<5.0	<5.0	<5.0
1,3-Butadiene	5.0	<5.0	<5.0	<5.0
Bromomethane	5.0	<5.0	<5.0	<5.0
Chloroethane	5.0	<5.0	<5.0	<5.0
Vinyl Bromide	5.0	<5.0	<5.0	<5.0
Freon-11	5.0	<5.0	<5.0	<5.0
Isopropyl Alcohol	25	<25	35	34
Acetone	25	460	690	380
1,1-Dichloroethene	5.0	<5.0	<5.0	<5.0
Methylene Chloride	5.0	<5.0	<5.0	<5.0
Freon-113	5.0	<5.0	<5.0	<5.0
Allyl Chloride	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
> -Greater Than ug -Micrograms ND -Not Detected ppmv-Parts per Million Volume LOQ -Limit of Quantitation NA -Not Applicable

SGS GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Client : Nortech Environmental-Anchorage
Site : Nugget Mall Annex
Project No. : Nugget Mall Annex 16-1035

Date Sampled : 21-APR-16 Account No.: 18633
Date Received : 27-APR-16 Login No. : L373459
Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-4 580A	L373459-5 580B	L373459-6 550A
Carbon Disulfide	10	<10	<10	<10
Trans-1,2-Dichloroethene	5.0	<5.0	<5.0	<5.0
Methyl Tert-Butyl Ether	5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	5.0	<5.0	<5.0	<5.0
Vinyl Acetate	5.0	<5.0	<5.0	<5.0
Methyl Ethyl Ketone	5.0	1100	1600	550
cis-1,2-Dichloroethylene	5.0	<5.0	<5.0	<5.0
Hexane	5.0	<5.0	<5.0	<5.0
Ethyl Acetate	5.0	10	5.8	5.8
Chloroform	5.0	<5.0	<5.0	<5.0
Tetrahydrofuran	5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	5.0	<5.0	<5.0	<5.0
1,1,1-Trichloroethane	5.0	<5.0	<5.0	<5.0
Cyclohexane	5.0	<5.0	<5.0	<5.0
Carbon Tetrachloride	5.0	<5.0	<5.0	<5.0
Benzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

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Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-4 580A	L373459-5 580B	L373459-6 550A
1,4-Dioxane	20	<20	<20	<20
2,2,4-Trimethylpentane	5.0	<5.0	<5.0	<5.0
Heptane	5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5.0	<5.0	<5.0	<5.0
Trichloroethylene	5.0	<5.0	<5.0	<5.0
Bromodichloromethane	5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	5.0	<5.0	<5.0	<5.0
Toluene	5.0	<5.0	<5.0	6.0
Dibromochloromethane	5.0	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	20	<20	<20	<20
Methyl Butyl Ketone	20	<20	<20	<20
1,2-Dibromoethane	5.0	<5.0	<5.0	<5.0
Tetrachloroethylene	5.0	<5.0	<5.0	<5.0
Chlorobenzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
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Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-4 580A	L373459-5 580B	L373459-6 550A
Ethylbenzene	5.0	<5.0	<5.0	<5.0
Bromoform	5.0	<5.0	<5.0	<5.0
m & p-xylene	10	<10	<10	<10
Styrene	5.0	<5.0	<5.0	<5.0
o-Xylene	5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5.0	<5.0	<5.0	<5.0
4-Ethyltoluene	5.0	<5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	5.0	<5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5.0	<5.0	<5.0	<5.0
Benzyl Chloride	5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5.0	<5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
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Project No. : Nugget Mall Annex 16-1035

Date Sampled : 21-APR-16 Account No.: 18633
Date Received : 27-APR-16 Login No. : L373459
Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID:	LOQ	L373459-7	L373459-8
Client ID:	ppbv	550B	5XXB
Propylene	5.0	<5.0	<5.0
Freon-12	5.0	<5.0	<5.0
Chloromethane	5.0	<5.0	<5.0
Freon-114	5.0	<5.0	<5.0
Vinyl Chloride	5.0	<5.0	<5.0
1,3-Butadiene	5.0	<5.0	<5.0
Bromomethane	5.0	<5.0	<5.0
Chloroethane	5.0	<5.0	<5.0
Vinyl Bromide	5.0	<5.0	<5.0
Freon-11	5.0	<5.0	<5.0
Isopropyl Alcohol	25	<25	<25
Acetone	25	380	<25
1,1-Dichloroethene	5.0	<5.0	<5.0
Methylene Chloride	5.0	<5.0	<5.0
Freon-113	5.0	<5.0	<5.0
Allyl Chloride	5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
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Client : Nortech Environmental-Anchorage
Site : Nugget Mall Annex
Project No. : Nugget Mall Annex 16-1035

Date Sampled : 21-APR-16 Account No.: 18633
Date Received : 27-APR-16 Login No. : L373459
Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID:	LOQ	L373459-7	L373459-8
Client ID:	ppbv	550B	5XXB
Carbon Disulfide	10	<10	<10
Trans-1,2-Dichloroethene	5.0	<5.0	<5.0
Methyl Tert-Butyl Ether	5.0	<5.0	<5.0
1,1-Dichloroethane	5.0	<5.0	<5.0
Vinyl Acetate	5.0	<5.0	<5.0
Methyl Ethyl Ketone	5.0	540	<5.0
cis-1,2-Dichloroethylene	5.0	<5.0	<5.0
Hexane	5.0	<5.0	<5.0
Ethyl Acetate	5.0	5.1	<5.0
Chloroform	5.0	<5.0	<5.0
Tetrahydrofuran	5.0	<5.0	<5.0
1,2-Dichloroethane	5.0	<5.0	<5.0
1,1,1-Trichloroethane	5.0	<5.0	<5.0
Cyclohexane	5.0	<5.0	<5.0
Carbon Tetrachloride	5.0	<5.0	<5.0
Benzene	5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

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Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-7 550B	L373459-8 5XXB
1,4-Dioxane	20	<20	<20
2,2,4-Trimethylpentane	5.0	<5.0	<5.0
Heptane	5.0	<5.0	<5.0
1,2-Dichloropropane	5.0	<5.0	<5.0
Trichloroethylene	5.0	<5.0	<5.0
Bromodichloromethane	5.0	<5.0	<5.0
cis-1,3-Dichloropropene	5.0	<5.0	<5.0
trans-1,3-Dichloropropene	5.0	<5.0	<5.0
1,1,2-Trichloroethane	5.0	<5.0	<5.0
Toluene	5.0	<5.0	<5.0
Dibromochloromethane	5.0	<5.0	<5.0
Methyl Isobutyl Ketone	20	<20	<20
Methyl Butyl Ketone	20	<20	<20
1,2-Dibromoethane	5.0	<5.0	<5.0
Tetrachloroethylene	5.0	<5.0	<5.0
Chlorobenzene	5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
Submitted by : BHB Date : 04-MAY-16 NYS DOH # : 11626

< -Less Than mg -Milligrams m3 -Cubic Meters ppbv-Parts per Billion Volume NS -Not Specified L -Liters
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LABORATORY ANALYSIS REPORT

Client : Nortech Environmental-Anchorage
Site : Nugget Mall Annex
Project No. : Nugget Mall Annex 16-1035

Date Sampled : 21-APR-16 Account No.: 18633
Date Received : 27-APR-16 Login No. : L373459
Date Analyzed : 29-APR-16 - 02-MAY-16 Units : ppbv
Report ID : 935123

Galson ID: / Client ID:	LOQ ppbv	L373459-7 550B	L373459-8 5XXB
Ethylbenzene	5.0	<5.0	<5.0
Bromoform	5.0	<5.0	<5.0
m & p-xylene	10	<10	<10
Styrene	5.0	<5.0	<5.0
o-Xylene	5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	5.0	<5.0	<5.0
4-Ethyltoluene	5.0	<5.0	<5.0
1,3,5-Trimethylbenzene	5.0	<5.0	<5.0
1,2,4-Trimethylbenzene	5.0	<5.0	<5.0
1,3-Dichlorobenzene	5.0	<5.0	<5.0
Benzyl Chloride	5.0	<5.0	<5.0
1,4-Dichlorobenzene	5.0	<5.0	<5.0
1,2-Dichlorobenzene	5.0	<5.0	<5.0

Analytical Method: mod. OSHA PV2120/mod. EPA TO15; GC/MS QC by : MLN Supervisor: TLH
Collection Media : Mini Can Approved by : nkp
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Date Sampled : 21-APR-16 Account No.: 18633
Date Received: 27-APR-16 Login No. : L373459
Date Analyzed: 29-APR-16 - 02-MAY-16

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process. The findings herein constitute no warranty of the samples' representativeness of any sampled environment and strictly relate to the samples as they were presented to the laboratory.

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L373459 (Report ID: 935123):
SOPs: in-vocs(28)
The standard run at the detection limit (DLS) was outside the control limits of 60.0 to 140.% at 160.% recovery for Acetone. The reported results above the LOQ may be biased high.

L373459 (Report ID: 935123):
Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated uncertainty applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process.

Parameter	Accuracy	Mean Recovery
1,1,2,2-Tetrachloroethane	+/-17.9%	95.3%
1,1,2-Trichloroethane	+/-15.8%	100%
1,1-Dichloroethane	+/-15.4%	98%
1,1-Dichloroethene	+/-18.8%	97.5%
1,2,4-Trimethylbenzene	+/-21.4%	97.1%

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms ppm -Parts per Million
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1,2-Dibromoethane	+/-16.5%	98.8%
1,2-Dichlorobenzene	+/-21.6%	94.9%
1,2-Dichloroethane	+/-20.6%	99.3%
1,2-Dichloropropane	+/-15.7%	98.5%
1,3,5-Trimethylbenzene	+/-19.8%	97%
1,3-Dichlorobenzene	+/-21.4%	97.2%
1,4-Dichlorobenzene	+/-25.4%	95.5%
2,2,4-Trimethylpentane	+/-18.3%	100%
4-Ethyltoluene	+/-18.8%	95.7%
Allyl Chloride	+/-22.4%	94.3%
Acetone	+/-22.2%	94.1%
Bromodichloromethane	+/-17.4%	102%
Bromoform	+/-24%	101%
1,3-Butadiene	+/-21.6%	99.2%
Benzene	+/-14.8%	97.7%
Benzyl Chloride	+/-29.8%	99.2%
Carbon Disulfide	+/-17.9%	105%
Carbon Tetrachloride	+/-20.6%	105%
cis-1,2-Dichloroethylene	+/-17.2%	98.5%
cis-1,3-Dichloropropene	+/-20.4%	99.4%
Chlorobenzene	+/-15.3%	95.6%
Dibromochloromethane	+/-17.6%	101%
Chloroform	+/-15.3%	98.3%
Cyclohexane	+/-19.1%	97.4%
1,4-Dioxane	+/-18.4%	84%
Ethyl Acetate	+/-21.6%	98.5%
Ethylbenzene	+/-17.5%	97.5%
Chloroethane	+/-16.5%	97.7%
Freon-11	+/-18.4%	101%
Freon-113	+/-14.6%	98.1%
Freon-114	+/-15.3%	89.6%
Freon-12	+/-19.2%	101%
Heptane	+/-23.2%	99.4%
Isopropyl Alcohol	+/-23.6%	92.8%
1,1,1-Trichloroethane	+/-19.7%	98.6%

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms ppm -Parts per Million
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Date Sampled : 21-APR-16 Account No.: 18633
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Date Analyzed: 29-APR-16 - 02-MAY-16

Bromomethane	+/-16.5%	105%
Chloromethane	+/-24%	103%
Methylene Chloride	+/-14.3%	95.2%
Methyl Ethyl Ketone	+/-22.8%	101%
Methyl Isobutyl Ketone	+/-23.2%	99.3%
Methyl Butyl Ketone	+/-24.2%	100%
m & p-xylene	+/-18.4%	97.3%
Methyl Tert-Butyl Ether	+/-17.6%	96.9%
Hexane	+/-17.1%	98.7%
o-Xylene	+/-18.1%	98.3%
Propylene	+/-24.4%	105%
Styrene	+/-20%	97.6%
Trichloroethylene	+/-19%	99.6%
Tetrachloroethylene	+/-16.2%	98.4%
Tetrahydrofuran	+/-23.4%	95.5%
Toluene	+/-15.7%	99.8%
Trans-1,2-Dichloroethene	+/-18%	97.7%
trans-1,3-Dichloropropene	+/-22%	106%
Vinyl Acetate	+/-20.6%	90.8%
Vinyl Bromide	+/-16.6%	101%
Vinyl Chloride	+/-17.2%	97.7%

< -Less Than mg -Milligrams m3 -Cubic Meters kg -Kilograms ppm -Parts per Million
> -Greater Than ug -Micrograms l -Liters NS -Not Specified ND -Not Detected NA -Not Applicable

776176724604
Date:04/27/16
Shipper:FEDEX
Initials:SK

Prep:UNKNOWN
L373459

GALSON CHAIN OF CUSTODY

Wire cart

Turn Around Time (TAT):	(surcharge)
☒ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

☐ Samples submitted using the FreePumpLoan™ Program

☐ Samples submitted using the FreeSamplingBadges™ Program

You may edit and complete this COC electronically by logging in to your Client Portal account at https://portal.galsonlabs.com/

Client Acct No.: 18633

Original Prep No.: PSY378178

CS Rep: JBAILEY

Online COC No.: 106144

Report To: ~~Ms. Hilary Plotta~~ Tim Shaw
Company Name: Nortech Environmental Engineering
Address 1: 2400 College Road
Address 2:
City, State Zip: Fairbanks, AK 99709
Phone No.: 907 - ~~452 - 5688~~ 266 - 4295
Cell No.:
Email reports to: ~~hplotta@nortechengr.com~~
Comments: TSHAW@Nortechengr.com

Invoice To: Accounts Payable
Company Name: Nortech Environmental Engineering
Address 1: 2400 College Road
Address 2:
City, State Zip: Fairbanks, AK 99709
Phone No.: 907 - 452 - 5688
Email Address: ap@nortechengr.com
Comments:
P.O. No.:
Payment info.: ☐ I will call SGS Galson to provide credit card info
☐ Card on File (enter the last five digits on the line below)

Comments:

State Sampled:

Please indicate which OEL(s) this data will be used for:
☐ OSHA PEL ☐ ACGIH TLV ☐ MSHA ☐ Cal OSHA
☐ IAQ: _____ (Specify Limit(s)) ☐ Other: _____ (Specify Other)

Site Name: nugget mall Annex
Project: Nuggett Mall Annex 16-1035
Sampled By: Tim Shaw
List description of industry or Process/interferences present in sampling area: office area

Sample ID * (Maximum of 20 Characters)	Date Sampled *	Collection Medium	Sample Volume / Sample Time / Sample Area *	Liters / Minutes / in², cm², ft² *	Analysis Requested	Method Reference ^	Hexavalent Chromium Process (e.g., welding, plating, painting, etc.)
585A	4/21/16	Minican, 1 L WR 516	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
595A	4/21/16	Minican, 1 L WR 776 2k 4/27	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	

☐ ^ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

Chain of Custody	Print Name / Signature		Date	Time		Print Name / Signature		Date	Time
Relinquished By:	Tim Shaw		4/22/16	1600	Received By:	Zach King		4/27/16	9:43
Relinquished By:					Received By:				

* You must fill in these columns for any samples which you are submitting.

Samples received after 3pm will be considered as next day's business.

Online COC No.: 106144
Prep No.: PSY378178
Account No.: 18633
Draft: 4/15/2016 5:41:48 PM

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SGS GALSON CHAIN OF CUSTODY

Comments :

Sample ID * (Maximum of 20 Characters)	Date Sampled *	Collection Medium	Sample Volume Sample Time Sample Area *	Liters Minutes in², cm², ft² *	Analysis Requested	Method Reference ^	Hexavalent Chromium Process (e.g., welding, plating, painting, etc.)
595 B	4/21/16	Minican, 1 L WR571	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
580 A	4/21/16	Minican, 1 L WR489	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
580 B	4/21/16	Minican, 1 L WR560	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
550 A	4/21/16	Minican, 1 L WR686	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
530 B	4/21/16	Minican, 1 L WR420	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
5xx B	4/21/16	Minican, 1 L WR786	1	L	Volatile Organics Profile (61) (TO15 list)	mod. OSHA PV2120/mod. EPA TO15; GC/MS	
		ZK 4/27					

☐ ^ If the method(s) indicated on the COC are not our routine/preferred method(s), we will substitute our routine/preferred methods. If this is not acceptable, check here to have us contact you.

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SGS GALSON LABORATORIES This should NOT be used as a Chain of Custody

Field Data Sheet

Facility: Nugget Mall Annex Employee: Job Title:

Address: 2092 Jordan Ave ID Number: 16-1035 Date of Sampling: April 21, 2016

Sampled By: Tim Shaw PREP #

Field Sampling Data **Contaminant(s)**

Sample ID	Minican Number (WA or WC)	Regulator Number (WR or RR)	Flowmeter Number (AS)	Flow Rate Setting (Hrs. or Mins.)	Time On	Time Off	Starting Gauge Reading 25-30" Hg	Ending Gauge Reading (0-10" Hg)			
585A		WR489		24hrs	1039	1039	29	8	Center Room table		
595 A		WR420		24 hrs	1044	1044	30	11	conf Room		
595 B		WR688		24 hrs	1048	1048	30	9.25	Front	counter	
580 A		WR580		24 hrs	1058	1058	30	9	Front	Counter	
580 B		WR516		24 hrs	1101	1101	730	19 1/2	Back	breakroom/Storage	
550 A		WR571		24 hrs	1119	1119	30	9	Back window		
550 B		WR766		24 hrs	1124	1124	25	1	Front		
5XX B		WR736		24 hrs	1340	1340	30	9.25	outside rear		

GALSON LABORATORIES INC. IS NOW PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

ATTACHMENT C

STANDARD METHODOLOGIES

Indoor Air Quality
Standardized Methodology
Version 4, December 2014

Objective and Management

NORTECH Indoor Air Quality (IAQ) standardized assessment methodology is developed to comply with currently applicable regulations utilizing standard industrial hygiene practices designed for the anticipation, recognition, evaluation, and control of those factors or stressors arising in or from the workplace that may cause sickness, impaired health and well-being, or significant discomfort among workers or citizens of the community. Qualified personnel with current certifications and experience conduct field assessment inspection and sampling efforts. All work completed is managed, reviewed and signed off on by a board Certified Industrial Hygienist (CIH) or Professional Engineer.

Scope of Work

NORTECH provides a variety of Indoor Air Quality (IAQ) Assessment services as necessary to meet project specific needs cost effectively. ***NORTECH*'s** standard methodology for the assessment of indoor air quality (IAQ) is intended to provide for professional assessment of indoor air quality as outlined and as further detailed in the project specific scope of work. The standard indoor air quality assessment includes a review of background materials and concerns, interviews with mgmt., maintenance and concerned occupants as well as a visual inspection by a qualified and experienced assessor. Based on this information a sampling and analysis plan can be developed to verify the assessment hypothesis. The standard addresses the following indoor air quality methods:

- Visual and Multi-Sensorial Assessment
- HVAC Measurements
- Assessment and Monitoring, including
    - Standard IAQ parameters,
        - Temp, Humidity, Carbon Monoxide (CO), Carbon Dioxide (CO2)
    - Contaminants of Concern
        - Volatile Organic Compounds
        - Lead
        - Odor
        - Allergens
        - Fungal
        - Wastewater
- Identifying Adverse Associated Conditions
- Development and Implementation of a Sampling and Analysis Plan
    - Worst Case
    - Air, Wipe, Bulk, Grab and Real Time
    - Bacterial
- Interpretation of Results

The assessor evaluates and verifies that the assessment has been conducted to fulfill the project specific specified scope of work and thoroughly test the hypothesis. If there are critical data gaps, additional assessments may be conducted. Typically there can be restrictions on the scope of work and other limitations including but not limited to seasonal conditions, prior damage, undisclosed areas, willful non-disclosure, and inaccessible areas. In the case of non-fungal contamination, additional actions outside of the scope of this standard are warranted.

References
General IAQ inspection observations are evaluated in accordance with criteria contained in

- ANSI/ASHRAE Standard 62-2001, Ventilation for Acceptable Indoor Air Quality
- ANSI/ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy
- American Industrial Hygiene Association (AIHA) Guideline 3-2004 for the evaluation of mold in buildings

Methodology
The Indoor Air Quality assessments involve informal interviews with knowledgeable individuals, as well as a site inspection and sampling of conditions present in an effort to determine current conditions that could be a cause of the symptoms reported. The following indoor air quality methods and standard industrial hygiene methods of anticipation, recognition, evaluation, and control of those factors or stressors arising in or from the workplace that may cause sickness, impaired health and well-being, or significant discomfort among workers or citizens of the community can be utilized.

Visual Inspection
The visual inspection is completed of all accessible areas with specific focus on the HVAC systems, potential health impacts related to inadequate outdoor air contribution, presence or potential for bioaerosols (such as visual presence of mold, bugs or nuisance particulates) to be integrated into the HVAC system, and poor air distribution for the HVAC system to the respective areas. This preliminary IAQ evaluation does not typically provide quantitative measurement of HVAC airflows. Instead, the objective is to assess the HVAC system visually in qualitative terms. No destructive testing or inspection of hidden spaces is undertaken. Information collected during the inspections include visible signs of water damage, mold, as well as a general review of building construction and HVAC mechanical systems configuration and operation.

Exposure Sampling
The goal for exposure sampling is to collect samples during the highest or “worst case” exposure periods.

Standard Indoor Air Quality (IAQ) Parameters
Standard IAQ parameters including carbon dioxide (CO2), carbon monoxide (CO), temperature, and relative humidity can be monitored real time and graphed over the sampling period with IAQ monitors. Each meter electronically measures all parameters and has the capability to store data for long term assessments. The preferred sampling period is over 5-7 days in order to monitor diurnal, work week and weekend effects to IAQ. Results are compared to ANSI/ASHRAE Standard 55-2010.

Although there are some differences between IAQ experts and industry references, the general consensus is that ideal indoor conditions for most people include temperatures in the range of 69 to 76◦F and relative humidity between 40% and 60%. Instead of controlling outside air based on mixed air temperature, it is recommended that the system provide an average of 20 cubic feet per minute of fresh air per occupant. Indoor carbon dioxide (CO_2) concentrations of 750 to 850 parts per million (ppm) or less usually indicate an adequate amount of fresh outside air. Indoor carbon monoxide (CO) concentrations should be no greater than outdoor concentrations, which are usually 0-2 ppm in rural locations. The EPA has set a limit for outdoor air of 9 ppm averaged over an 8-hour period for the protection of health-compromised persons. OSHA

standard for occupational CO exposure is 50 ppm with an action level of 30 ppm for 8-hour time weighted average. Monitoring of these IAQ parameters is recommended to verify conditions as well as modifications implemented.

Total Volatile Organic Compounds (TVOC)
A parts per billion (ppb) photoionization gas detector (PID), can be used to monitor IAQ Total Volatile Organic Compound (TVOC) concentrations. The hand held PIDs provide real-time monitoring data for organic vapors in a semi-quantitative way. It cannot distinguish between individual chemical constituents (such as benzene, formaldehyde, isopropyl alcohol, etc.), but it can identify whether organic vapors are present down to approximately 1 part per billion (ppb), and it gives a relative expression of concentration. The PID can be used to identify areas of higher TVOC concentrations and, depending on the levels, a future monitoring site for potential toxin or irritant exposures. The PID is calibrated in accordance with the manufacturer's recommendations with an isobutylene 100 ppm standard gas.

Recommended guidelines for TVOC concentrations is ideally less than 200 ppb with levels between 200-3,000 ppb capable of causing irritation and discomfort. While some references suggest office/work levels should be less than 1300 ppb, other international sources consider TVOC levels above 500 ppb to be poor with higher concentrations creating greater concerns.

Factors such as temperature, dust, relative humidity, smoking habits, and age of individuals have a synergistic effect on individual response (Molhave 1985; 1990). Although individuals will react differently to VOC exposures, concentrations exceeding 3,000 ppb are significant and symptoms are prevalent. There is a potential for sensitization to chemicals with repeat or acute exposure. Reactions can be experienced by sensitized individuals when exposed to even low concentrations of VOC's (Ashford and Miller, 1991). TVOC symptoms and chemical inhalation may include irritation of eyes, nose, and throat, respiratory difficulties, nausea, headaches, fatigue, drowsiness (Hudnell et al., 1990).

Volatile Organic Compounds (VOC)
Lined, evacuated 6-liter canisters commonly referred to as Summa canisters can be used to collect a grab or integrated TVOC sample that the laboratory can analyze with gas chromatography to determine individual constituents. Each summa is equipped with regulators that can be requested to obtain a grab or integrated sample over time as required by the project specific sampling and analysis plan. The laboratory analysis method is typically EPA method TO15 capable of identifying approximately 50-75 primary VOCs down to the parts per billion (bbp) range.

Allergens
Dust mites, cockroaches, cats, and dogs can generate allergens that are known to cause allergic reactions and respiratory diseases in sensitive people. Dust mites are nearly impossible to see with the naked eye. Cockroaches are often hidden in dark places. Allergens from cats and dogs may be carried into buildings by cat and dog owners. Samples collected from visible dust suspected of having target allergens are analyzed by a qualified laboratory using an Enzyme Linked Immunosorbent Assay (ELISA). ELISA is a multiple step quantitation of antigens using antibodies and enzymes which uniquely interact with the allergens.

Fungi/Mold
Being ubiquitous, mold (a type of fungus) is found in outdoor and indoor environments.
Air samples are collected as representative of occupant respiratory exposure levels while wipes, bio swabs or tape lift of visible dust are collected to evaluate visible settled dust and as a

measure of cleanliness. Bulk samples of visible mold amplification sites are collected and analyzed to determine the species and genus of mold observed.

Wipes, bioswabs and/or clear tape can be used to lift visible accumulations of dust off a known area of horizontal surfaces. The bulk and dust samples are microscopically analyzed for fungal spores and fungal structures at the genus level as well as other IAQ particulates present. Fungal/mold spores measured in dust provide an assessment of fungal/mold deposition on work areas over time as well as the fungal/mold cleanliness of the visible dust present. Depending on sampling method, samples collected may be microscopically analyzed and/or cultured on specific media.

NORTECH uses the Air-O-Cell method for non-viable air sample analysis for fungal particulates. The method allows for the rapid collection and analysis of fungal particulates and also a wide range of non-biological aerosols. The method pumps known volumes of air through a slit inertial impactor at high velocity and collects particulates on a 37 mm Air-O-Cell spore trap cassettes sticky slide that is subsequently microscopically examined.

The microscopic analysis of Air-O-Cell cassettes includes identification of mold particulates to genus level and the concentration and rank order of the molds identified. The method does not distinguish viable or non-viable fungal particulate. The microscopic analysis can quantify up to 300 different particulate fractions such as pollen, insect parts, dander (skin cells), hair, debris, dust and (non-asbestos) fibers. Enumeration of non-fungal particulate is often useful for identifying non-fungal concerns as well as housekeeping and maintenance issues.

One or more outdoor or background non-complaint air samples are collected concurrently with complaint area samples for comparative purposes. Counts of airborne fungal parts are evaluated for their ability to affect individuals through the respiratory exposure path. Air and dust samples are evaluated for total fungal structure counts, toxicity of fungal varieties identified, and comparison to background, non-complaint areas. See Standardized Moisture/Fungal Assessment Methodologies for additional information.

Smoke Tubes
Smoke tubes may be used to evaluate the air movement within the facility.

Moisture Content
Moisture content of inspected building materials are measured in % moisture collected with either a contact surface or penetrating pin model of moisture meters. Both meters have adjustments for different material substrate. Concentrations below 5% are considered background or dry. Less than 14% moisture is considered acceptable and incapable of supporting fungal/mold growth. Moisture concentrations above 18% moisture will support mold growth on building material cellulose substrates at suitable temperatures. The in between range of 14-18% moisture is considered the marginal area capable of supporting fungal growth under some high relative humidity conditions.

Other Particulates
Industrial processes can generate a number of particles that impact employee health. These solids can take the form of dusts, metals, aerosols, mold spores, ultrafine particles, or other irritating materials. In order to pinpoint an indoor particulate problem, real-time monitors can be used to measure particulate concentrations.

A real time data logging environmental monitor can be used for measurement of particulates utilizing a light scattering particle counting technology. The instrument is zero calibrated to the

manufacturer's recommendations pre and post the data logging session. Results are reported in milligrams per cubic meter (mg/m3) of particulates While different factions may be monitored based on the field equipment selected the most common size range reported is 10 micrometers to below 1 micrometer in size (diameter).

Air quality can be measured for specific contaminants of concern identified for the project.

Ultrafine Particulates
A TSI P-Trak Ultrafine Particle Counter (P-Trak) can be used to measure the number of ultrafine particles per cubic centimeter. Ultrafine particulates are defined as particles less than 1 micron in size. The ultrafine sub-micron particulate size is representative of combustion engine exhaust and/or photocopier carbon. This technique is used to identify and locate indoor particulate sources or relative particle concentration that would point to a more specific problem. The unit of measure for this instrument is particulates per cubic centimeter. The unit is zero calibrated to the manufacturer's recommendations to prior to use.

Hydrogen Sulfide
Real time field levels of Hydrogen Sulfide can be monitored with a handheld PPB RAE parts per billion electronic H^2S meter for detection of hydrogen sulfide gas.

Lead
Field tests to determine best potential for lead wipe sampling of surface dust conditions are performed in accordance with NIOSH 7702, using a Thermo Fisher NITON XLp-303A (XRF), X-Ray fluorescent spectrum analyzer, providing EPA accepted real-time on-site sample results at detectible levels of lead at mg/cm^2. Laboratory analysis of lead dust wipes are performed by EMSL Laboratory in San Leandro, CA with National Lead Laboratory Accreditation Program (NLLAP) certification through the Environmental Lead Accreditation Program (ELLAP) under the ISO17025 umbrella of AIHA-LAP-LLC. Analysis for lead in wipes were performed by Atomic Absorption Spectroscopy (AAS) Analytical Method(s): USEPA SW 846-7000B: 7420-Pb AAS-FL, RL <10ug/sample).

Area concentration of lead contaminant is considered a mass of lead per unit area of the total sample, sometimes called "loading". This is independent of the volume (or thickness) of the sample analyzed. This unit of quantification is typically encountered in measuring paint by portable X-Ray fluorescence instruments and laboratory techniques. The HUD regulatory level is 1.0 mg/cm^2 or 1 000 ug/cm^2. Area concentration (loading) is also used to describe settled leaded dust levels in ug/ft^2 (micrograms of lead per square foot of surface area). 200 ug/ft^2 equals1.85 mg/m^2 (milligrams of lead per square meter).

One cannot convert from ppm or % by weight to area concentration (mg/cm^2) as measured by an X-Ray fluorescence instrument in any predictable way unless the total mass per unit area of the sample is known. One reason is that the dilution factor of adding more non-leaded paint or dust layers over an existing leaded one will not change the area concentration. However, adding additional layers will change the % by weight. The area concentration is independent of the thickness of the multiple layers. The XRF determines the lead mass per unit area as measured by X-Ray emission from a lead layer (mg/cm^2). The weight percent method measures the percent of lead in the bulk paint films and dusts by determining the weight of lead in the total sample.

For this reasoning, the XRF unit is used solely to determine best potential and least potential surfaces for lead wipe testing, allowing for a best target approach assessment of lead

contaminated surfaces within the area to be wipe sampled and sent to the lab for appropriate method of laboratory analysis.

The lead dust wipe collection is performed using laboratory supplied lead wipe collection medium consisting of a 5”x7-3/4” cloth wipe saturated with water, Polyorbate 20, Methylparaben, Propylparaben and sealed within a 2”x2” sterile packet. NITRILE gloves are worn during removal of sampling medium from each packet and throughout the wipe sampling effort. A disposable 144 sq. inch template is utilized to demark each sample collection location. Each template and NITRILE gloves are disposed and replaced with new prior to each sequential sample collected to assure cross contamination from one sample site to another does not occur. Each wipe is placed within the template and, using palm and fingertip force and wiped in an overlapping manner with strokes from top to bottom and right to left, as well as upper left diagonally to lower right and vice versa in the same manner, and circular strokes both diagonally and horizontally from left to right within the template, top to bottom, to assure all surface within the template are adequately wiped. Following the same procedure each sample is collected by the same sampler and placed in a sterile 3x5 ziplock baggie. Each sample is labeled with area, surface type, and sequential sample numeration that is recorded on a standard chain of custody form that accompanies the samples via overnight delivery to the laboratory performing the analysis.

The results are compared with the following EPA/HUD Dust-Lead Hazard criteria for low income housing:

- 40 micrograms per square foot (ug/ft^2) on uncarpeted floors,
  - may also be applied to table tops and chairs;
- 250 ug/ft^2 on interior window sills (accessible to a child);
- 800 ug/ft^2 for window troughs
  - areas inaccessible to children,
  - may also be applied at ceilings and above ceiling grids, and mechanical spaces

Wastewater
Surface samples of building materials suspected of being contaminated with wastewater are collected with sterile swabs in Butterfield solution of a known area, typically an area of 1 in^2. Coliform bacteria are not typically found on building materials. As a result, no background samples are typically collected and the background level are presumed to be zero.

Surface samples are cultured by the Quantitray method for bacterial growth and included analysis for *Escherichia coli* (*E. coli*), *Enterococcus* spp (any species present in the genus *Enterococcus*) and total coliform (an indicator organism of bacterial contamination present in a sample). The Laboratory analysis is conducted by a laboratoryaccredited by the American Association for Laboratory Accreditation and the American Industrial Hygiene Association. There are no established state or federal standards for coliform bacteria on building materials. Results are analyzed in accordance with accepted industry standards.

Air Sampling
Summa Canisters – (SC - TO-15) *- Primary VOCs and QA Correlation.* EPA method TO-15 is used to analyze for approximately 50-75 primary VOCs down to the parts per billion (ppb) range. Tentatively Identified Compounds are identified with a search of the spectral library of compounds to find a match.

Sorbent Tube - (ST - EPA Method) IP-1B *– Primary and Secondary VOCs. S*orbent tube samples are collected by USEPA IP-1B and ASTM D 6196 for VOC analysis including 4-

phenylcyclohexane (4-PCH) 4-PCH which is screened/analyzed due to suspect carpets and fabrics containing styrene butadiene rubber (1,3-Butadiene and Styrene were indicated in first VOC sample event). For compounds not included in the internal GC/MS calibration database, identification of Tentatively Identified Compounds (TICs) are made by comparison with a National Institute of Standards (NIST) general mass spectral library.

Sorbent Tube - (ST - Non-EPA) Proprietary Method AS002-HS. Sorbent tube samples are collected for analysis by a proprietary non-EPA, method AS002 – HS for VOCs. This method is used for comparison with the EPA IP-1B method and provided detection of 255 secondary compounds by semi quantitative methods.

Aldehydes (ST – EPA) Sorbent tubes are collected for EPA method analysis IP-6A and ASTM D 5197-03, targeting aldehyde compounds.

Tedlar Bag (TB) Samples – Acids and Isocyanates Tedlar bag for analysis by proprietary method TB002-IR for acids and Isocyanates. This method is reported to expand the number of detectable compounds by up to 380 additional compounds by semi quantitative methods.

Odor Threshold
Though not an enforceable legal standard, Odor Thresholds for Chemicals with Established Occupational Health Standards, published by The American Industrial Hygiene Association is referenced for comparison. Many compounds have odors that can be detected by the human nose or cause individual discomfort well below enforceable occupational exposure limits.

HVAC Measurements.
HVAC systems are measured to verify air flows (supply and return) as well as pressure conditions. Duct work air volume flow rates are measured by employing a TSI Accubalance hood velocitometer to determine volumes of supply and return air and to detect if positive pressure is being maintained in individual rooms. Air velocities are are measured with a VelociCalc Plus, Model 8386 Industrial Ventilation velocity meter to determine fresh air make up being provided by the HVAC.

Applicability and Limitations
Current regulatory requirements and common sense necessitates professional management of contaminants in an occupied building in order to properly manage Indoor Air Quality (IAQ) and notify occupants of conditions present. However, it is important to understand that no matter how comprehensive (or expensive) the project assessment effort, it cannot be expected to uncover or identify all concerns in a non-invasive assessment. Hidden hazards and unknown conditions may still exist. The assessment efforts provided are based on information provided and requested. ***NORTECH*** has performed the work, made the findings, and proposed the recommendations in accordance with industrial hygiene practice standard of care. The data should be considered representative of the time of the assessment. Changes in the conditions of the assessed area will occur with the passing of time. In the event that additional concerns are identified, supplementary follow up services and sampling may be required.

NORTECH has based its conclusions and recommendations on our current understanding of regulatory policies. The regulations are constantly changing, including the interpretations by the regulating agencies. The data in this report should be considered representative of the time of the assessment and monitoring. If changes in regulations or their interpretation occur, then ***NORTECH*** reserves the right to amend or revise conclusions and/or recommendations.