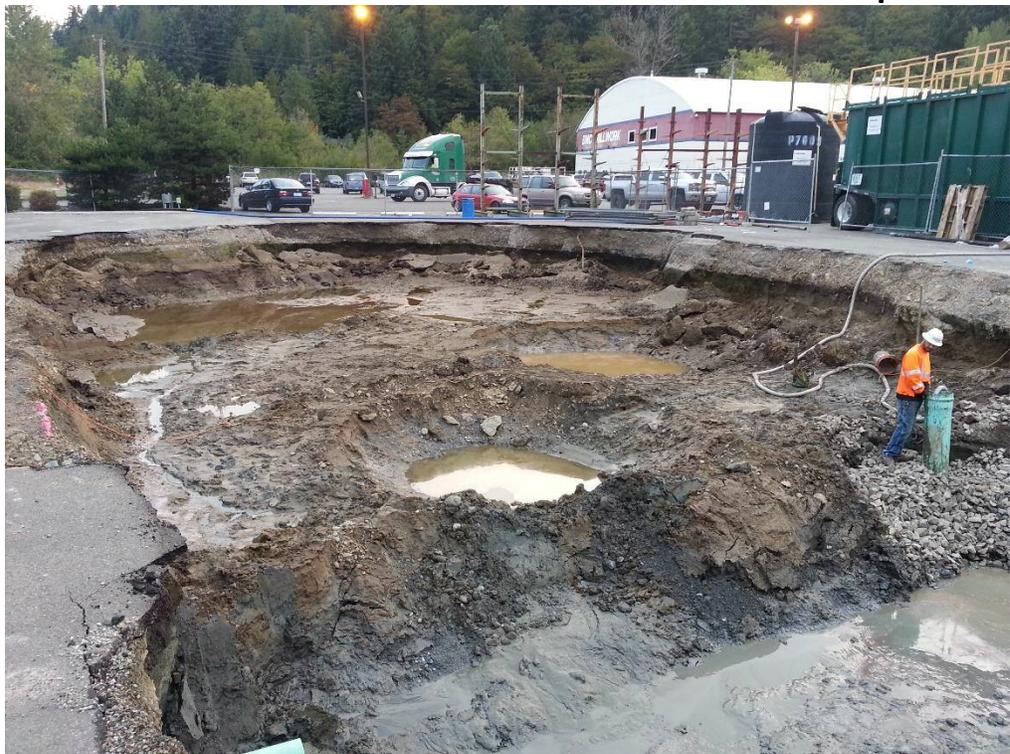


REVISED REMEDIAL INVESTIGATION/FEASIBILITY STUDY AND REMEDIAL ACTION REPORT

BMC ISSAQUAH FACILITY
5210 EAST LAKE SAMMAMISH PARKWAY SOUTHEAST
ISSAQUAH, KING COUNTY, WASHINGTON
Facility Site ID #8428648
Cleanup Site ID #7791

Project No. 1099.25
February 26, 2018

Prepared for:
BMC West Corporation



Prepared by:

ZipperGeo
Geoprofessional Consultants

February 26, 2018

BMC West Corporation
720 Park Boulevard, #200
Boise, Idaho 83712

Attn: Mr. Paul S. Street

RE: Revised RI/FS and Remedial Action Report
BMC Issaquah Facility
5210 East Lake Sammamish Parkway Southeast
Issaquah, King County, Washington
ZGA Project No. 1099.25
Facility Site ID #8428648
Cleanup Site ID #7791

Dear Mr. Street:

Zipper Geo Associates, LLC (ZGA) appreciates the opportunity to submit this combined Remedial Investigation/Feasibility Study and Remedial Action Report related to a historical release of gasoline at the BMC facility in Issaquah, Washington. Based on the results of post-remedial action soil sampling and four quarters of groundwater sampling, we are requesting a No Further Action determination on behalf of the owner. This report has been revised to acknowledge comments made by the Washington State Department of Ecology in their letter dated January 30, 2018.

If you have questions, or if we may be of further service in any way, please contact us. Thank you for working with us on this project, we look forward to the opportunity of working with you again in the future.

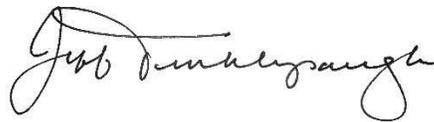
Sincerely,
Zipper Geo Associates, LLC



Jon Einarsen, LG
Principal



Jon Marion Einarsen



Jeff Tinklepaugh, GIT
Staff Geologist

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1.0 INTRODUCTION

This Remedial Investigation/Feasibility (RI/FS) and Remedial Action report describes investigations and remedial actions completed and documented by Zipper Geo Associates (ZGA) at the BMC millworks and lumber yard located at 5210 East Lake Sammamish Parkway SE in Issaquah, King County, Washington (the Property). This work was completed in response to a release from underground storage tanks that were removed in 1989.

The purpose of the Remedial Investigation is to collect, develop and evaluate sufficient soil and groundwater data to determine what cleanup actions at the Property are necessary pursuant to the Model Toxics Control Act (MTCA) WAC 173-340-350(1) - (7).

The purpose of the Feasibility Study (FS) is to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site. In accordance with WAC 173-340-350(8), this FS includes “cleanup action alternatives that are protective of human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route”.

The purpose of the Remedial Action is to remove the gasoline contaminated soil that was acting as a source area for groundwater contamination.

2.0 REMEDIAL INVESTIGATION

2.1 SITE IDENTIFICATION AND LOCATION

The Property is located at 5210 East Lake Sammamish Parkway Southeast, Issaquah, King County, Washington and comprises 15.15 acres. The Property is located in the southwestern quarter of the northeastern quarter of Township 24 N, Range 06 E, Section 21. The Property is identified as King County Tax Parcel #009500-0030 and is currently occupied by the BMC Issaquah Facility. A topographic map and 2016 air photo indicating the location of the Property is presented in Figure 1 and Figure 2, respectively.

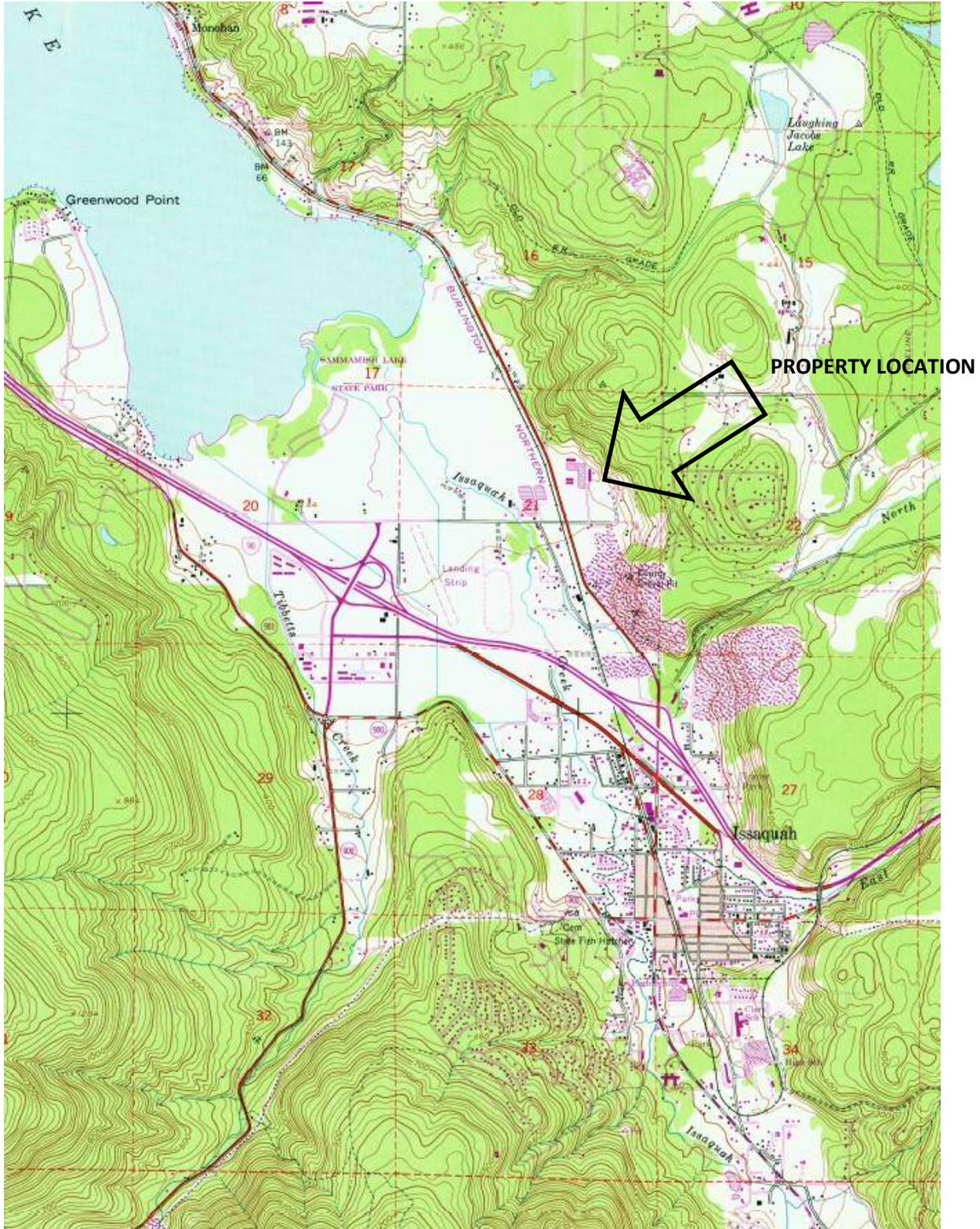


Figure 1. Approximate location of the Property depicted on the Issaquah, Washington Quadrangle (U.S. Geological Survey, 1950, photo-revised 1968 and 1973).



Figure 2 – 2016 Aerial Photograph (Google Earth). The property boundary is indicated by the black dashed line. The Site as defined by WAC 173-340-200 can be seen as the trapezoidal-shaped patch of fresh asphalt.

WAC 173-340-200 defines the Site as “any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, vessel, or aircraft; or any site or area where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located”. In accordance with this definition, the Site is located within the west central part of King County tax parcel #009500-0030. The approximate location of the Site as defined by WAC 173-340-200 is indicated on Figure 2.

The Property lies at an elevation of approximately 60 feet above Mean Sea Level. The Property and nearby areas lying south and west are relatively level and lie only a few feet higher than Lake Sammamish, which is located about 4,000 feet to the northwest. The property is bounded by uplands to the north and east. The immediate vicinity of the Property consists of mixed developed and undeveloped land. A storm water detention pond bounds the north side of the Property, beyond which lies a church and undeveloped forested land. The Property is bounded to the east by a residential housing development and undeveloped forested land, beyond which lies moderate density residential housing. The Property is bounded to the south by a McDonald’s restaurant and a commercial building formerly occupied by an Albertson’s grocery store and currently occupied by a Value Village, beyond which lie commercial businesses adjacent to East Lake Sammamish Parkway Southeast. The Property is bounded to the west by East Lake Sammamish Parkway Southeast, beyond which lie several multi-story office buildings.

2.2 Property Development and History

The Property was utilized for agricultural purposes from at least 1936 until the existing warehouse buildings were constructed in 1966. Since that time the Property has been used for light manufacturing of lumber products, lumber warehousing, and wholesale and retail lumber sales. The Property contains one large warehouse used for retail showroom space, offices, training, lumber storage, manufacturing of lumber products, and storage of finished products. The Property also contains two open-sided lumber sheds, a smaller building utilized for lumber storage and for pre-finishing manufactured lumber products, and a smaller building formerly utilized as a maintenance shop and currently utilized for storage. Several smaller buildings and open-sided lumber sheds have been constructed since 1966. Some of these have subsequently been demolished.

2.2.1 Current and Future Site Use and Facilities

It is our understanding that the future use of the Property will be consistent with its current use.

2.2.2 Zoning and Comprehensive Plan Designation

The City of Issaquah Zoning Map (dated July 14, 2015) and Comprehensive Plan Land Designation Map (dated June 30, 2015) indicate that the Property is designated as MU (Mixed Use).

2.2.3 Transportation and Roads

The Property is bounded to the west by East Lake Sammamish Parkway Southeast. No other roads are proximal.

2.2.4 Utilities

The property is served by the City of Issaquah for potable water, sanitary sewer, and storm sewer. Puget Sound Energy serves the area for natural gas and electricity. According to an as-built plan provided by the owner, a 24-inch storm water pipe is located along the west side of the Site. This storm water pipe was identified along the west side of the Site during remedial action activities. No other utilities were identified

in the Site.

2.2.5 Potential Sources of Contamination

The source of contamination was leaking USTs, leaking distribution piping or pipe fittings, improper fuel handling by employees or the fuel distributor (i.e., over-fills and other spills), or some combination of these when the UST system was active prior to its decommissioning in 1989.

2.3 Site Discovery

ZGA reviewed the following report and letters prepared by others for the Property describing the discovery of contamination and subsequent actions:

1. “Environmental Investigation Results” dated April 6, 1998 prepared by TRC Corporation, hereafter referred to as the TRC report.
2. Letter from the Washington State Department of Ecology to BMC West Building Materials dated April 22, 2003.
3. Letter from Building Materials Holding Corporation to the Washington State Department of Ecology dated May 13, 2003.

A copy of each of these documents is included in Appendix A.

The TRC report describes two subsurface investigations that were completed near the main entrance to the Property in 1996 and 1997. The purpose of the investigations was to evaluate the nature and extent of petroleum contamination on the west side of the facility suspected to be related to the former presence of three gasoline underground storage tanks (USTs) formerly located in this area. The USTs were reportedly removed in 1989 by Chempro Environmental Services. A single soil sample collected at that time contained 31 mg/kg total petroleum hydrocarbons and 22 mg/kg toluene. Benzene, ethylbenzene, and xylenes were not detected. The analytical methods are not described. The location of this sample is described as “collected from excavated soil while removing the tanks”.

TRCs initial investigation consisted of advancing ten hollow-stem auger borings in the vicinity of the former USTs. Groundwater samples were collected from the hollow-stem auger (monitoring wells were not constructed). Four composite soil samples and three groundwater samples were submitted for laboratory analysis. Each sample was analyzed for BTEX (benzene, toluene, ethyl benzene, and total xylenes) using EPA Method 8020 and for total petroleum hydrocarbons using EPA Method 418.1. The second investigation consisted of advancing six direct-push explorations in the vicinity of the former USTs. Groundwater samples were collected using well points. Four discrete soil samples and six groundwater samples were submitted for laboratory analysis. Each sample was analyzed for BTEX and volatile petroleum hydrocarbons (gasoline) using EPA Method 8021B and 8015B, respectively. The analytical results for both investigations are summarized below.

Table 1. Summarized Analytical Results from TRC 1998 Report

Sample #	Media	Units	TPH or VPH	B	T	E	X
1989 Chempro Sample	Soil	mg/kg	31	ND	22.0	ND	ND
BH-1			99	0.010	0.004	0.0069	0.0065
BH-2			ND ¹	ND	ND	ND	ND
BH-5			ND	0.076	0.022	0.100	0.790
BH-6			44	0.028	0.0022	0.008	0.031
BH-A, 2-4'			2,200	11	5.2	24	280
BH-B, 2-4'			2,100	15	8.8	15	110
BH-E, 2-4'			160	1.0	0.29	1.4	4.1
BH-F, 2-4'			0.650	0.0047	0.0019	0.0035	0.0064
Current Cleanup Standard			30/100²	0.03	7	6	9
BH-1	Groundwater	ug/L	2,100	3.0	2.3	2.9	3.8
BH-3			280	ND	ND	ND	6.7
BH-5			3,000	7.3	1.5	10	110
BH-A			5,100	62	96	130	1,300
BH-B			13,000	170	110	350	1,600
BH-C			ND	ND	ND	ND	ND
BH-D			ND	ND	1.0	ND	ND
BH-E			870	25	4.6	26	8.2
BH-F			1,500	73	6.0	75	59
Current Cleanup Standard			800/1000²	5	1,000	700	1,000

TPH, total petroleum hydrocarbons; VPH, volatile petroleum hydrocarbons; B, benzene; T, toluene; E, ethyl benzene; X, xylenes. ¹ Not detected; ² the lower cleanup level applies if benzene is present. The shaded values exceed current cleanup levels defined in the Model Toxics Control Act (WAC 173-340).

The analytical results for 11 of 17 of the soil and groundwater samples described in the TRC report exceed current cleanup levels defined in the Model Toxics Control Act (WAC 173-340). A copy of the TRC report was provided to the Washington State Department of Ecology (Ecology) and the Property was placed on the Leaking Underground Storage Tank list.

The 2003 letter from Ecology to BMC was a letter requesting more information based on Ecology’s review of its files relating to leaking underground storage tanks. The 2003 BMC letter to Ecology stated that “TRC’s recommendation that no further cleanup action was needed at the site and BMC WEST complied with this recommendation”.

2.4 Supplemental Subsurface Investigation

BMC engaged ZGA in 2013 to complete additional subsurface investigation to further assess the nature and extent of soil and groundwater impacts near the former UST cavity. Activities associated with this task included completion of the following tasks:

1. Performance of a geophysical investigation in an effort to locate the former UST cavity on the west part of the Property.
2. Subsurface exploration using direct-push methods in the vicinity of the former UST cavity.
3. Installation of four groundwater monitoring wells near the former UST cavity.
4. Soil and groundwater sampling.
5. Analytical laboratory testing.

Each of these investigation activities is summarized below.

2.4.1 Geophysical Investigation

Underground Detection Services, Inc. (UDS) performed the geophysical investigation under subcontract to ZGA on April 17, 2013. A copy of their report is included in Appendix B. UDS utilized a ground penetrating radar device to locate the former UST cavity. The search was focused in the area of the former UST cavity as identified by TRC Corporation in their 1998 report. UDS identified an approximately 625 square-foot area that appears to have, in their opinion, been excavated and backfilled with soil that contrasts with surrounding soil. No other large anomalies were identified.

2.4.2 Subsurface Exploration

Direct-push field activities were conducted on April 29 and April 30, 2013 by Mr. James Georgis, a licensed geologist with ZGA.

Figures indicating the approximate locations of the soil explorations and groundwater monitoring wells in relation to the pertinent structures and general site boundaries is attached as Figure 3 and Figure 4 (Appendix C and Appendix N).

Nine direct push soil borings (GP-1 to GP-9) were advanced in the vicinity of the former UST cavity. A direct-push sampling device was supplied and operated by Cascade Drilling. The device utilized a direct-push sampler equipped with disposable PVC sample sleeves. Throughout the drilling operation, soil samples were obtained continuously (to the extent practical) from four-foot long pushes driven into the ground using 550 foot-pound, percussion hammer. The steel sampling tube was extracted from the hole and the liners were removed and split open. All of the direct-push explorations were advanced to depths of approximately 15 feet below the ground surface (bgs). An effort was made to sample soil continuously from the ground surface to the total depth of each exploration, but sample recovery varied in each exploration.

A field log of each exploration was maintained, including the thickness and depth of each soil unit encountered and the depth to the uppermost water table. Soil samples were observed to document soil lithology, color, and moisture content. Soils were logged in general accordance with American Society for Testing and Materials (ASTM) Practice Designation D-2488, *Standard Practice for Description of Soils (Visual-Manual Procedure)*. Exploration logs are included in Appendix D of this report.

2.4.3 Groundwater Monitoring Well Installation

Dedicated groundwater monitoring wells were completed in GP-1, GP-6, GP-7, and GP-8. These wells are designated as MW-1 through MW-4 (Figure 4, Appendix C and Appendix N). All four wells are screened from 5 feet to 15 feet bgs. The monitoring wells consist of 2-inch inside diameter, schedule 40, flush-threaded PVC. A ten-foot section of 0.010-inch slotted screen was mated to an appropriate length section of blank riser, which extended to approximately 0.25 feet below the ground surface. The annular space between the well casing and the borehole wall was filled with #10-20 silica sand extending approximately

two feet above the screened interval. A hydrated bentonite seal was placed above this, and the wells were completed at the ground surface with lockable, flush-mount monuments that were cemented in place. The monitoring wells were constructed in accordance with the Washington State *Minimum Standards for Construction and Maintenance of Wells* (WAC 173-160). Monitoring well construction details are provided along with the exploration logs in Appendix D.

The monitoring wells were subsequently developed by purging with a bailer on May 8, 2013. Approximately 22 gallons of development water was generated during well development activities. Soil cuttings, development groundwater, and equipment cleaning water generated during the field activities were placed in Department of Transportation (DOT) approved, 55-gallon steel drums, closed and appropriately labeled with project-specific information and initial accumulation date. This investigation-derived waste was properly disposed along the impacted soil and groundwater during remedial action activities (see Section 4 of this report).

2.4.4 Soil and Groundwater Sampling

Two soil samples were retained for analysis from each exploration, except that three were retained from GP-1. Soil samples retained for chemical analysis from the direct-push explorations were collected at depths ranging from approximately 4 feet to 12 feet bgs. The shallow direct-push samples were collected in an effort to identify the lateral extent of contamination; the deeper samples were collected in an effort to quantify the vertical distribution of contamination.

All soil samples were extracted by hand from the direct-push sample liner using disposable gloves and placed directly into laboratory supplied glassware and preserved in accordance with EPA Method 5035B.

One groundwater sample was collected and analyzed from MW-1 to MW-4 on May 24, 2013. Prior to sample collection, each monitoring well was purged until consistent values (i.e., less than 10% variance between consecutive readings) were obtained for pH, turbidity, temperature and conductivity using a Horiba U-22 multi-parameter water quality meter equipped with a flow through cell.

Groundwater was collected with a peristaltic pump utilizing low flow techniques. The intake of the pump was set approximately one foot below the top of the screened interval in each well. Dedicated polyethylene tubing was used for each monitoring well. Discharge from the pump was directed into sample containers supplied by the laboratory, and preserved as appropriate for specific analyses.

Each sample container was labeled with the site name, date, time, exploration number, sample number, and sampling personnel. Sample containers were placed in a chilled cooler immediately after sampling, and subsequently transported to the analytical laboratory by ZGA under chain-of-custody procedures.

2.4.5 Analytical Laboratory Testing

Nineteen soil samples and four groundwater samples were submitted for chemical analysis. All samples were analyzed by ALS Laboratories of Everett, a Washington State accredited laboratory, as described below:

- Total petroleum hydrocarbons (TPH) in the gasoline, diesel and oil range using Northwest Methods NWTPH-GX and NWTPH-DX.
- BTEX (benzene, ethylbenzene, toluene, and xylenes) and MTBE (methyl tertiary-butyl ether) using EPA Method 8021.

- Lead using EPA Method 6020 (soil) and 200.8 (groundwater).

The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix E. All analyses were completed using standard turnaround times. Data packages were checked for completeness immediately upon receipt from the laboratory to ensure that data and QA/QC information requested were present. Data quality was assessed by considering holding times, surrogate recovery, method blanks, matrix spike and matrix spike duplicate recovery, and detection limits.

2.4.6 Subsurface Conditions

Detailed lithologic descriptions are presented on the soil boring logs included in Appendix D. In general, subsurface conditions were consistent in each direct-push exploration and generally consisted of about two to four inches of asphalt pavement underlain by about two to four feet of gravelly sand and sandy gravel fill soils, in turn underlain by native silty sand to gravelly sand interbedded with silt and clay.

Groundwater was encountered in each of the direct-push borings at depths ranging from about four to six feet at the time of drilling. The relative location and elevation of the PVC casing for each of the four groundwater monitoring wells were surveyed by PLS, Inc. of Issaquah using an arbitrary datum. Static groundwater levels were subsequently measured in these monitoring wells on May 24, 2013 as summarized in Table 2.

Table 2. Groundwater Elevations (May 24, 2013)

Monitoring Well	Relative Casing Elevation (Feet)	Depth to Groundwater (Feet)	Relative Groundwater Elevation (Feet)
MW-1	99.99	2.19	97.80
MW-2	99.45	1.84	97.61
MW-3	99.73	2.59	97.14
MW-4	99.96	2.12	97.84

A groundwater contour map is presented in Figure 4 (Appendix C). Based on these results, groundwater in the immediate vicinity of the former UST cavity was estimated to flow in a west-southwesterly direction with a gradient of approximately 0.0235 ft./ft. at that time. It should be noted that the depth to groundwater and groundwater flow directions will likely vary depending upon seasonal variations in rainfall and other factors.

2.4.7 Analytical Laboratory Results

Soil and groundwater quality summary results are presented in Table 3 and Table 4, respectively. Analytical results that exceed applicable cleanup levels are highlighted. Complete laboratory reports and chains-of-custody are included in Appendix E. Additional discussion and interpretation of analytical results relative to applicable cleanup levels is included in Section 2.8. Summarized analytical results are also presented in Figure 3 (soil) and Figure 4 (groundwater, Appendix C).

Soil Quality

Nineteen soil samples were collected from GP-1 to GP-9 in the assumed vicinity of the former UST cavity. Diesel-range organics (DRO), oil-range organics (ORO) and lead were not detected above laboratory reporting limits, or were detected in concentrations below applicable cleanup levels in all 19 samples.

Gasoline-range organics (GRO) and BTEX were not detected above laboratory reporting limits, or were detected in concentrations below applicable cleanup levels in GP-2, GP-3, GP-6, GP-7 and GP-9.

GRO was detected in concentrations above cleanup levels at depths of about five feet in GP-1, GP-4, GP-5, and GP-8. Certain BTEX components also exceeded cleanup levels in GP-1 and GP-5 at a depth of about five feet. GRO and BTEX were not detected above laboratory reporting limits, or were detected in concentrations below applicable cleanup levels in deeper samples collected in these four borings, indicating that the soil contamination is limited to shallow soil, and is likely influenced by historical groundwater elevation fluctuations. Based on this information (and additional information attained during the remedial excavation, see Section 4), the extent of the Site as defined by soil contaminated above cleanup levels is indicated on Figure 3 (Appendix C and Appendix N).

Table 3. Summarized Analytical Results (Soil)

Sample	Depth (ft.)	Total Petroleum Hydrocarbons (mg/Kg)			Volatile Organic Compounds (mg/Kg)				Metals (mg/Kg)
		GRO	DRO	ORO	B	T	E	X	Pb
GP1-1	5	530	200	<50	0.20	<0.25	4.4	6.3	7.9
GP1-2	7	39	<25	<50	<0.03	<0.05	0.40	0.83	3.9
GP1-3	12	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.6
GP2-1	5	36	<25	<50	<0.03	<0.50	0.11	<0.20	5.4
GP2-2	8	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.8
GP3-1	5	<3.0	29	50	<0.03	<0.05	<0.05	<0.20	2.2
GP3-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.7
GP4-1	5	1,100	70	<50	<0.30	<0.50	<0.50	<2.0	6.6
GP4-2	9	4.5	<25	<50	<0.03	<0.05	<0.05	<0.20	4.3
GP5-1	5	2,800	320	<50	2.0	<2.0	41	240	8.7
GP5-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.7
GP6-1	5	<3.0	43	250	<0.03	<0.05	<0.05	<0.20	2.0
GP6-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.3
GP7-1	4	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.4
GP7-2	9	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	4.0
GP8-1	5	1,900	85	<50	<0.60	<1.0	<1.0	<4.0	6.7
GP8-2	8	3.8	<25	<50	0.030	<0.05	<0.05	<0.20	2.4
GP9-1	4	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	3.1
GP9-2	10	<3.0	<25	<50	<0.03	<0.05	<0.05	<0.20	2.5
Method A Cleanup Level		100/30*	2,000	2,000	0.03	7	6	9	250

mg/Kg: milligrams per kilogram (parts-per-million); <: Not detected above indicated laboratory minimum reporting limit. Shaded values exceed MTCA Method A cleanup levels (see Section 4). B, benzene; T, toluene; E, ethylbenzene; X, total xylenes. Please refer to Appendix D for the complete set of analytes and analytical results for VOC. *The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.

Groundwater Quality

Groundwater samples were collected from four wells installed near the assumed location of the former UST cavity (MW-1 to MW-4, see Figure 4). TPH, BTEX, and lead were not detected above laboratory reporting limits in MW-2 and MW-3. The reported concentration of GRO and MW-1 equals the cleanup level, and the reported concentration in MW-4 exceeds the cleanup level. BTEX components were also detected in MW-1 and MW-4, but in concentrations below cleanup levels.

Table 4. Summarized Analytical Results (Groundwater)

Monitoring Well	Total Petroleum Hydrocarbons (ug/L)			Volatile Organic Compounds (ug/L)					Metals (ug/L)	
	GRO	DRO	ORO	B	T	E	X	MTBE	Pb (Total)	Pb (Dissolved)
MW-1	1,000	<130	<250	<1.0	<1.0	24	38	<3.0	<1.0	<1.0
MW-2	<50	<130	<250	<1.0	<1.0	<1.0	<3.0	<3.0	<1.0	<1.0
MW-3	<50	<130	<250	<1.0	<1.0	<1.0	<3.0	<3.0	<1.0	<1.0
MW-4	2,400	<130	<250	<1.0	1.1	69	200	<3.0	<1.0	<1.0
Method A Cleanup Level	1,000/ 800*	500	500	5	1,000	700	1,000	20	15	15

ug/L, micrograms per liter (parts-per-billion); GRO, gasoline-range organics; DRO, diesel-range organics; ORO, oil-range organics; B, benzene; T, toluene; E, ethylbenzene; X, total xylenes; MTBE, methyl T-butyl ether; Pb, lead. *The higher value applies if benzene is not present.

Groundwater Geochemistry

An evaluation of groundwater geochemistry was completed in an effort to characterize the oxidation state of groundwater in the vicinity of the former UST cavity. The oxidation state can be estimated by measurement with oxidation–reduction potential (ORP) and dissolved oxygen (DO) field instruments.

DO and ORP were measured with a Horiba U-22 multi-meter equipped with a flow cell. DO ranged from 9.61 to 9.99 mg/L and ORP ranged from 226 to 287 millivolts. We interpret these results to indicate the uppermost aquifer underlying in the Site is in an aerobic condition.

2.4.8 Constituents of Concern

Soil and groundwater samples at the Site were analyzed for TPH, lead, and BTEX. Constituents of concern for the Site consist of GRO, benzene, ethylbenzene, and xylenes.

2.4.9 Potential Receptors

Direct Contact

Impacted soil and groundwater are located less than 5 feet beneath the ground surface, and therefore construction workers could be at risk of direct contact.

Surface Water and Sediment

Issaquah Creek is the nearest waterbody to the property and meanders to within approximately 1,100 feet southwest of the down gradient end of the Site. Based on distance and the lack of detections in one down gradient well (MW-3) it is unlikely that Issaquah Creek has been impacted by the groundwater plume on the Site. Therefore, surface water and sediment in Issaquah Creek have not been sampled.

Air/Soil Vapor

Indoor air and soil vapor sampling has not been completed at the Site. Based on the available soil and groundwater quality data, contaminated soil and groundwater is not present beneath or proximal to buildings at the property. The reported concentration of BTEX in groundwater do not exceed groundwater screening levels defined in the 2015 revisions to Ecology (2009).

Natural Resources and Wildlife

The Site is fully developed and covered with asphalt pavement and is not likely to support natural resources or wildlife. The property is bounded by commercial development to the west and south and by residential neighborhoods to the east. A wooded slope bounds the north and northeastern edge of the property and could act as a wildlife corridor. Additionally, there is a detention pond in the northwestern corner of the Property, which covers approximately 20,000 square feet, that may support wildlife. However, these areas are not located within the Site.

2.5 Natural Conditions

2.5.1 Physiographic Setting and Topography

The Property lies at an elevation of approximately 60 feet above Mean Sea Level. The Property and nearby areas lying south and west are relatively level and lie only a few feet higher than Lake Sammamish, located about 4,000 feet to the northwest. The nearest downgradient water body is Issaquah Creek, which meanders to within 1,100 feet southwest of the property and flows to the northwest into Lake Sammamish. The property is bounded by uplands to the north and east.

2.5.2 Geology

Geologic conditions in the vicinity of the Property have been mapped by Booth and Minard (1992). According to this geologic map, the Property is underlain by young Quaternary alluvial sediments (unit Qyal, Figure 5), which extend south and west to Interstate 90 and northwest to Lake Sammamish. These soils consist of beach and lacustrine (lake) deposits.

Site specific lithologic descriptions are presented on the soil boring logs included in Appendix D. Fill soils were observed at depths of up to 4 feet. Fill soils varied greatly in grain size distribution and included silty sand, gravelly sand, sandy gravel, and gravel. Native soils were encountered at depths of 2 feet or greater and appeared as gray to brown deposits of silty clay, clayey silt, fine sandy silt, silty fine sand, silty sand, sand, gravelly sand, and sandy gravel. We interpret a unit of brown, wet, clayey silt, observed at 3 to 5 feet below ground surface in seven boreholes, to be a possible relic topsoil. We also interpret a unit of light-gray silt with a trace to some wood fragments, observed at 13 to 15 feet below ground surface in five boreholes, to be a possible volcanic ash deposit.

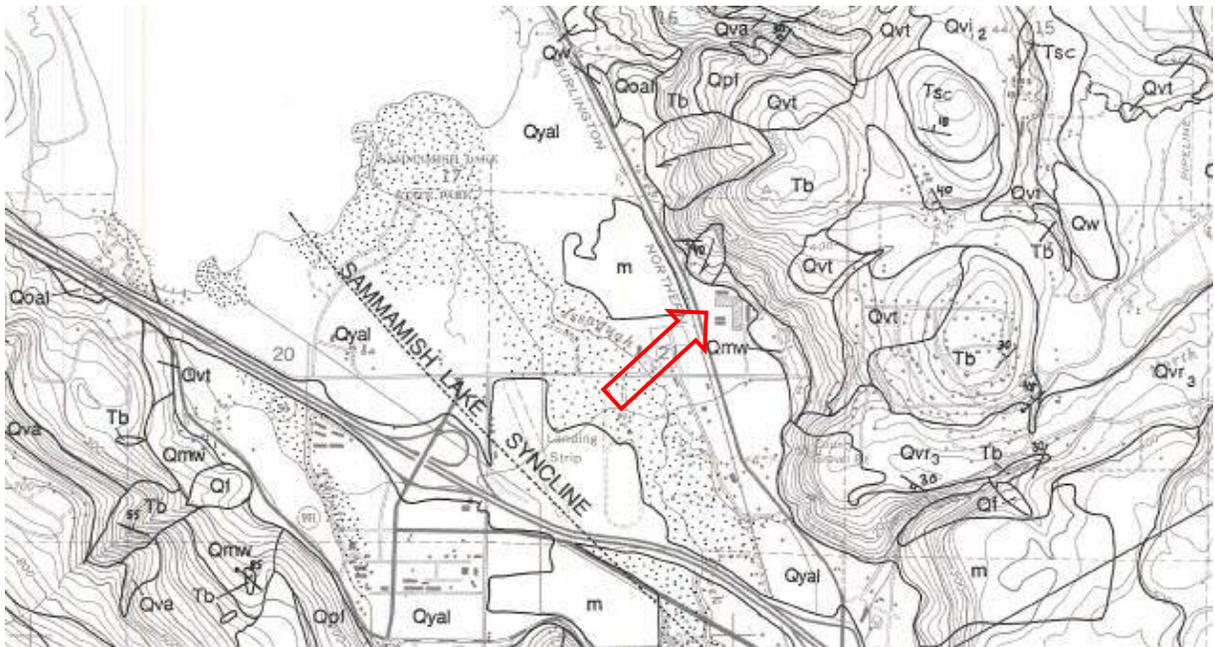


Figure 5. A portion of the Geologic Map of the Issaquah Quadrangle (Booth and Minard, 1992). The approximate location of the Site is indicated by the red arrow.

2.5.3 Surface Water

The Site and the Property are paved and developed. Surface water runoff at the Property drains to catch basins, which in turn drain to a retention pond located immediately north of the northwest part of the Property.

2.5.4 Groundwater

Based on a groundwater contour map on the King County Water and Land Services web site, produced by Golder Associates in 1993, shallow groundwater in the vicinity of the Site flows in a north-northwesterly direction (Figure 6). Groundwater was observed between about 2 to 3 feet below the ground surface during our post-remedial action groundwater sampling (see Section 5 of this report). Depth to groundwater and groundwater flow directions will likely vary seasonally.

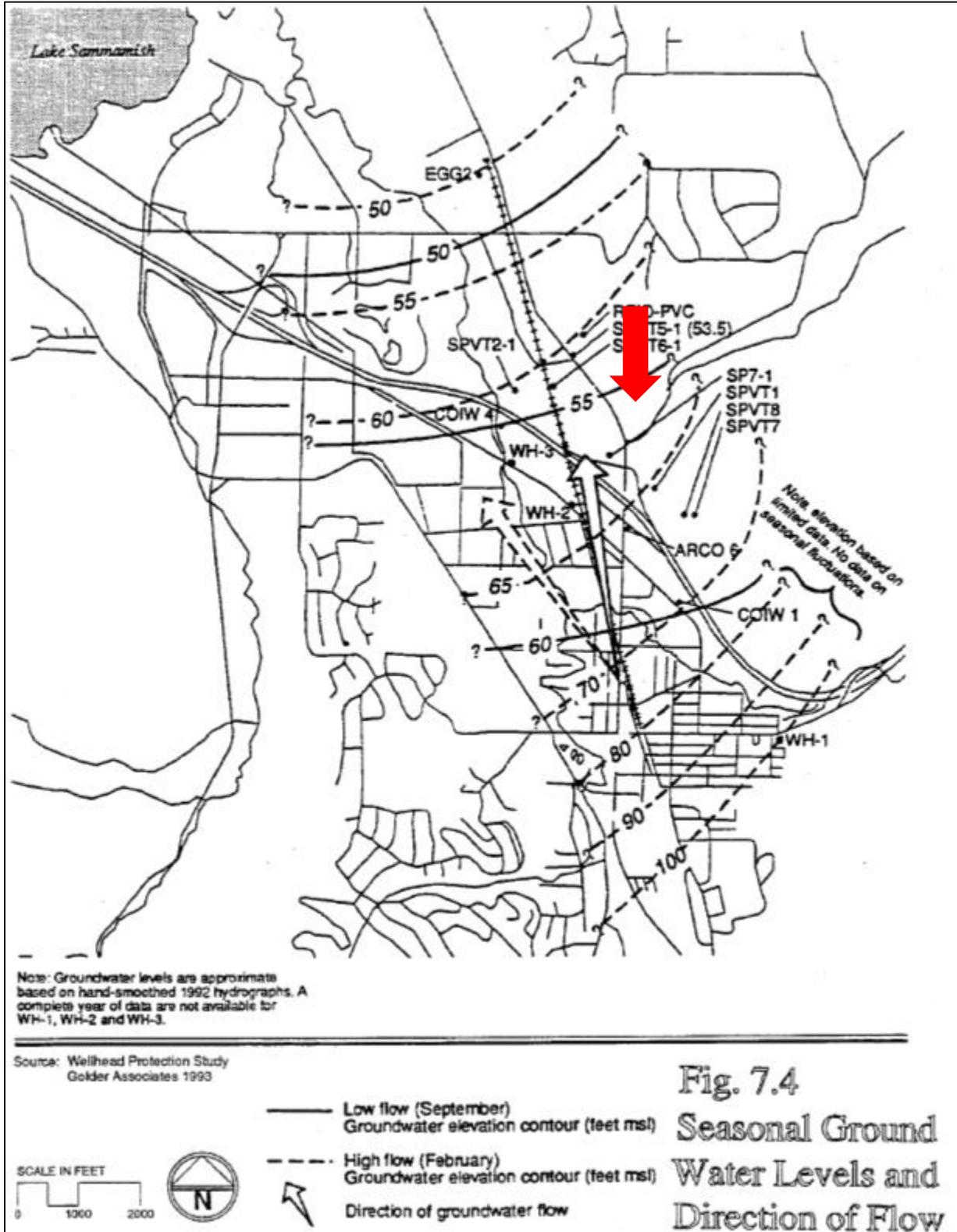


Figure 6. Groundwater contours. The approximate location of the property is indicated by the red arrow.

Based on our review of a well log database maintained by the Washington State Department of Ecology (<http://apps.ecy.wa.gov/welllog/index.asp>), one water supply well installed in 1966 was identified on the Property. The well was 62 feet deep and penetrated a confined aquifer at a depth of 61½ feet. The well was artesian with three feet of water measured above the casing. The drillers well log indicates that native soils consisted of about 6 feet of peat and clay, underlain by sand and gravel to the total depth of the boring. The well was decommissioned by filling with cement-bentonite slurry in 1990.

2.5.5 Terrestrial Ecological Evaluation (TEE)

In accordance with WAC 173-340-7492(2)(c), the TEE can be ended because no hazardous substance listed in Table 749-2 will be present in soil following the completion of the remedial action. See Section 4 of this report. The only contaminant of concern listed in Table 749-2 is gasoline, which has a target cleanup level of 200 mg/kg for unrestricted land use and 12,000 mg/kg for commercial sites. The highest residual concentration of gasoline in soil is 120 mg/kg (see Table 9 of this report). The completed TEE form is attached in Appendix F.

2.5.6 Conceptual Model

Gasoline and BTEX were released to soil and groundwater sometime during or before 1989. Documentation regarding the condition of the USTs and fuel distribution system at the time of removal in 1989 has not been identified. Based on the results of soil and groundwater sampling and analysis as described herein, it is reasonable to assume that the source of the release was leaking USTs or associated distribution piping.

The source area is the former location of the USTs. A smear zone exists between about 2 feet and 5 feet, within the historical and seasonal fluctuation of groundwater at the Site. Groundwater at the site is assumed to flow in a generally westerly direction, towards Lake Sammamish. Given the length of time since the release, this conceptual model assumes that the groundwater plume is stable or shrinking.

Based on water quality results, the soil to groundwater pathway is complete. The Site is completely covered with asphalt pavement, therefore the soil exposure route (ingestion and dermal contact) for humans and wildlife is incomplete. Groundwater is not being extracted from the Site for beneficial use and therefore the groundwater exposure route for ingestion and dermal contact is incomplete, but could become complete in the future. Contaminated soil and groundwater is not present beneath or proximal to buildings, therefore the soil and groundwater to indoor air route for inhalation are incomplete. Construction workers are potential receptors and the direct exposure route to soil and groundwater could be complete during potential future subsurface improvements.

Issaquah Creek is the nearest waterbody to the property and meanders to within approximately 1100 feet southwest of the down gradient end of the Site. Based on distance it is unlikely that Issaquah Creek has been impacted by the groundwater plume on the Site.

2.7 Cleanup Standards

Soil and groundwater at the Site are confirmed to be impacted with gasoline, benzene, ethylbenzene, and xylenes. Method A cleanup standards are used for the purposes of this RI based on the potential for future use of groundwater on or near the Site and based on the potential for direct exposure to construction workers. Method A cleanup levels for COC are defined in Table 5.

Table 5. Cleanup Standards

Media	Gasoline	Benzene	Ethylbenzene	Xylenes
Soil	100/30* mg/kg	0.03 mg/kg	6 mg/kg	9 mg/kg
Groundwater	1,000/800** ug/L	5 ug/L	700 ug/L	1,000 ug/L

*The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.

**The higher value applies if there is no detectable benzene in groundwater.

2.7.1 Points of Compliance

The points of compliance are the locations at which cleanup levels for COC must be attained. The points of compliance are established in accordance with WAC 173-340-740(6)(b) for soil and WAC 173-340-720(8)(b) for groundwater.

Soil

The point of compliance is based on groundwater protection and protection from vapors and is thus established as all soil throughout the Site.

Groundwater

The point of compliance for groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected. For the purposes of this RI the point of compliance for groundwater is established from the ground surface to a depth of 15 feet.

Vapor

The vapor intrusion pathway will be considered incomplete when the cleanup action objectives have been achieved at the points of compliance for soil and groundwater on the Property.

2.8 Areas Requiring Cleanup

2.8.1 Constituents of Concern

Soil and groundwater samples at the Site have been analyzed for TPH, lead, and BTEX. Constituents of concern for this site include GRO, benzene, ethylbenzene, and xylene.

The concentration of gasoline in soil samples GP1-1 (530 mg/Kg), GP4-1 (1,100 mg/Kg), GP5-1 (2,800 mg/Kg) and GP8-1 (1,900 mg/Kg) exceeds the Method A cleanup level (100 mg/Kg or 30 mg/Kg in the presence of benzene). The concentration of benzene in GP1-1 (0.20 mg/Kg) and GP5-1 (2.0 mg/Kg) exceeds the Method A cleanup level (0.03 mg/Kg) and equals the cleanup level in GP8-2.

The concentration of gasoline exceeds the cleanup level in MW-4 and equals the cleanup level in MW-1.

2.8.2 Soil – Vertical and Lateral

Soil is impacted above cleanup levels near the source area (the former UST cavity), and to a lesser degree in a smear zone north and west of the source area. Soil contaminated above cleanup levels was observed in samples taken at depths of approximately 5 feet. Assuming that a smear zone exists within the historic and seasonal groundwater levels, contaminated soils likely exist between approximately 2 and 6 feet below ground surface. The estimated extent of the area that includes soil contaminated above cleanup

levels is indicated on Figure 3 (Appendix C).

2.8.3 Groundwater – Vertical and Lateral

Groundwater in MW-4 has exceeded cleanup levels for gasoline but not BTEX. Gasoline and BTEX have not been detected, or have been detected in concentrations below cleanup levels in the other three wells. The estimated extent of the area that includes or has included groundwater contaminated above cleanup levels is indicated on Figure 4 (Appendix C). The vertical extent of groundwater contamination is assumed to coincide with the smear zone, from about 2 feet to about 6 feet deep.

2.8.4 Surface Water and Sediment

Impacts to surface water and sediment in Issaquah Creek are not likely given groundwater quality results in the down gradient well.

2.8.5 Indoor Air and Soil Vapor

It is unknown if the soil to indoor air and groundwater to indoor pathways are complete. Remedial action associated with the cleanup of soil and groundwater at the Site should effectively mitigate this risk.

3.0 FEASIBILITY STUDY

The purpose of this Feasibility Study (FS) is to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site. In accordance with WAC 173-340-350, this FS includes “cleanup action alternatives that are protective of human health and the environment by eliminating, reducing, or otherwise controlling risks posed through each exposure pathway and migration route”.

Ten remedial action alternatives were evaluated for this FS. Alternatives were initially screened based on an assessment of effectiveness and implementability. Alternatives deemed to be not protective, feasible, or appropriate for the subject site were eliminated from further evaluation, except that certain alternatives were retained as a component of other technologies. Those alternatives that were deemed effective, could be implemented with minimal impacts to the community, workers, and the environment and that had a lower cost were retained for further evaluation. Methods selected for further evaluation included “Monitored Natural Attenuation”, “Excavation and Offsite Disposal”, and “Enhanced Bioremediation”.

The recommended remedy utilizes excavation and offsite disposal combined with enhanced bioremediation. This approach optimizes achieving the Remedial Action Objectives at the best overall cost.

3.1 Remedial Action Objectives

The objectives of this FS were to identify a range of remedial action alternatives that are appropriate for the Site and to document and develop the information necessary to select an appropriate remedial action alternative consistent with WAC 173-340-360. The Remedial Action Objectives (RAOs) are media specific goals for protecting human health and the environment. Soil and groundwater comprise the media of concern at the Site. The Remedial Investigation as described in Section 2 of this report did not identify any ecological risk at the Site. Thus, the RAOs focus on the protection of human health due to potential contact with gasoline-range TPH and BTEX. The human health RAOs are as follows:

1. Achieve the MTCA Method A cleanup levels for gasoline-range TPH and BTEX in soil and groundwater at the Site.

3.2 Screening of Remedial Action Alternatives

An initial screening of remedial action alternatives was completed to reduce the number alternatives retained for detailed analysis. In accordance with WAC 173-340-360, the following elements were qualitatively evaluated for each alternative:

Protectiveness. Overall protectiveness of human health and the environment, including the degree to which existing risks are reduced, time required to reduce risk at the facility and attain cleanup standards, on-site and off-site risks resulting from implementing the alternative, and improvement of the overall environmental quality.

Permanence. The degree to which the alternative permanently reduces the toxicity, mobility or volume of hazardous substances, including the adequacy of the alternative in destroying the hazardous substances, the reduction or elimination of hazardous substance releases and sources of releases, the degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated.

Cost. The cost to implement the alternative, including the cost of construction, the net present value of any long-term costs, and agency oversight costs that are cost recoverable. Long term costs include operation and maintenance costs, monitoring costs, equipment replacement costs, and the cost of maintaining institutional controls. Cost estimates for treatment technologies shall describe pretreatment, analytical, labor, and waste management costs. The design life of the cleanup action shall be estimated and the cost of replacement or repair of major elements shall be included in the cost estimate.

Effectiveness. Long term effectiveness includes the degree of certainty that the alternative will be successful, the reliability of the alternative during the period of time hazardous substances are expected to remain on site at concentrations that exceed cleanup levels, the magnitude of residual risk with the alternative in place, and the effectiveness of controls required to manage treatment residues or remaining wastes. The following types of cleanup action components may be used as a guide, in descending order, when assessing the relative degree of long-term effectiveness: Reuse or recycling; destruction or detoxification; immobilization or solidification; on-site or off-site disposal in an engineered, lined and monitored facility; on-site isolation or containment with attendant engineering controls; and institutional controls and monitoring.

Risk. The risk to human health and the environment associated with the alternative during construction and implementation, and the effectiveness of measures that will be taken to manage such risks.

Implementability. Ability to be implemented including consideration of whether the alternative is technically possible, availability of necessary off-site facilities, services and materials, administrative and regulatory requirements, scheduling, size, complexity, monitoring requirements, access for construction operations and monitoring, and integration with existing facility operations and other current or potential remedial actions.

Ten remedial action alternatives were evaluated for this FS. These are tabulated on Table 6, which summarizes the effectiveness, implementability, implantation risk, and relative cost. Alternatives deemed to be not effective or implementable were eliminated from further evaluation, except that the “Monitored Natural Attenuation” alternative was retained as a baseline and the “Groundwater Monitoring” alternative was retained as a component of other technologies. Remedial methods retained for further evaluation included “Excavation and Offsite Disposal” and “Enhanced Bioremediation”.

Table 6. Remedial Action Alternatives Screening

Alternative	Technology	Media	Description	Effectiveness	Screening Criteria			Screening Comments	Retained?
					Implementability	Implementation Risk	Cost		
No Action	None	GW/S	No Action	Not effective	Easy	None	None	Does not prevent potential exposures. Does not monitor groundwater quality or plume dynamics.	No
Institutional Controls	Groundwater Monitoring	GW	Groundwater sampling and analysis.	Effective for documenting groundwater quality conditions and plume dynamics.	Easy	Low	Low	Retained to document groundwater quality and effectiveness of other technologies.	Yes
	Deed Restrictions	GW/S	Restrict access to soil and groundwater.	Effective at preventing direct contact with soil and groundwater.	Easy to Difficult	Low	Low	If necessary, a deed restriction would be practical for Site.	No
In – Situ Treatment	Monitored Natural Attenuation	GW	Passive treatment of groundwater using natural processes.	The continued presence of TPH exceeding cleanup levels in soil and groundwater suggest that MNA is not effective.	Easy	Low	Low	Retained as a baseline for comparison to other technologies.	Yes
	Chemical Oxidation	GW/S	Chemically oxidizes and destroys the contaminant.	Can be effective for treatment of contaminated groundwater and soil below the water table.	Moderate-Difficult	Moderate	Moderate	High reliability for GRO and BTEX, but the oxidant must come into direct contact with the contaminant. Very effective in groundwater and saturated soils but less effective in the vadose zone. May require multiple rounds of injections.	No
	Soil Vapor Extraction	S	Apply a vacuum to the vadose zone to extract volatile organic compounds	Can be an effective method of removing GRO and BTEX from the vadose zone.	Moderate	Low	Moderate	Requires multiple extraction wells with a radius of influence sufficient to reach contaminated soil within the Site. Not effective for remediation of contaminated groundwater. Soil vapor effluent may need to be treated prior to release to the atmosphere.	No
	In-Situ Air Stripping	GW	Uses a double screened well and injected air to strip volatile components.	Can be an effective method of removing GRO and BTEX in groundwater.	Moderate	Low	Moderate	Cost is high due to need for multiple treatment wells. Exhaust air may require treatment.	No
	Enhanced Bioremediation	GW/S	Encourages the biodegradation of contaminants by native microbes.	Can be effective for treatment of contaminated groundwater and soil below the water table	Easy	Low	Moderate	Cost, implementation risk, and implementability vary with method of application. Injection wells are easy to install but may not adequately disperse the product. Applying an enhanced bioremediation product in the base of an excavation will optimize dispersal, provided that the product is applied beneath the water table.	Yes
Ex-Situ Treatment	Dual Phase Extraction	GW	A high vacuum is applied to simultaneously remove contaminated ground water and volatile components from the vadose zone.	Can be effective in treating contaminated groundwater and soil in the vadose zone.	Moderate	Low	Moderate	Can hydraulically contain offsite migration of contaminants. Can mitigate the potential for vapor intrusion. Extracted groundwater and soil gas may need to be treated prior to disposal. Multiple treatment wells needed.	No
	Pump & Treat	GW	Pump contaminated groundwater and treat at the surface.	Ineffective for vadose zone soils.	Easy	Low	High	Pump & Treat does not have a history of high reliability. Requires construction of a water treatment system or disposal option.	No
Excavation / Off-Site Disposal Without Treatment	Excavation and Off-Site Disposal	S	Excavate contaminated soil and dispose at licensed landfill.	Highly effective for removal of GRO and BTEX in the vadose and smear zones.	Easy	Low	Moderate	When the extent of soil contamination is well defined, excavation and off-site disposal is a straightforward method of removing contaminated soil from the site.	Yes

3.3 Site Specific Remedial Action Alternatives

Based on the preliminary screening of the Remedial Action Alternatives, three alternatives were retained for further evaluation. The alternatives retained are:

Alternative A: Monitored Natural Attenuation (MNA)

Alternative B: Excavation and Offsite Disposal

Alternative C: Enhanced Bioremediation

The Monitored Natural Attenuation alternative is retained to provide a baseline for costs and risks at the Site. Groundwater monitoring was also retained as a method of documenting groundwater quality and effectiveness of remedial efforts. Excavation and offsite disposal of contaminated soil was retained as the primary method of remediation. Enhanced bioremediation was retained as a supplement to excavation and offsite disposal.

3.3.1 Monitored Natural Attenuation

“Monitored natural attenuation” (MNA) refers to the reliance on natural attenuation processes to achieve the RAOs. Natural attenuation includes a variety of physical, chemical, and biological processes that, under favorable conditions, reduce the mass, toxicity, mobility, volume, and/or concentration of contaminants in soil and/or groundwater. Natural attenuation includes “nondestructive” processes such as dispersion, adsorption, dilution and volatilization, and “destructive” processes such as biodegradation. Biodegradation is the preferred attenuation mechanism, because it results in actual reduction of contaminant mass. However, the measured concentrations of GRO and BTEX components in soil and groundwater at the site suggest that, despite a period of approximately 27 years since the removal of the USTs, the rate of natural attenuation is not likely to achieve the RAOs in a reasonable time span.

3.3.2 Excavation and Offsite Disposal

Excavation and Offsite Disposal consists of manually removing contaminated soil and exporting it to a licensed disposal facility. The effectiveness of this alternative depends on the accuracy of the estimated area of contamination and the thoroughness of the excavation. The process can be monitored and adjusted based on field testing for contaminants. A technician can field screen soil samples for TPH using “sheen tests” and a Photoionization Detector (PID). After the contaminated soil is removed, the resulting excavation is backfilled with suitable clean fill material. Groundwater monitoring can be implemented in the area after the excavation and disposal is complete to analyze the effectiveness of the remediation. This process can expose construction workers and field technicians to the discussed contaminants and requires a health and safety plan to be completed before work can begin.

3.3.3 Enhanced Bioremediation

Enhanced Bioremediation is a broad term for encouraging the consumption of contaminants by native organisms. In this case, Enhanced Bioremediation refers to the application of an oxygen releasing compound (ORC) to saturated soil. Oxygen is utilized by native microbes during the consumption of petroleum hydrocarbons. Therefore, increasing the oxygen available to the native microbes increases their capacity to consume TPH. Application methods and ORC products can be tailored to achieve the RAOs while taking into consideration site-specific geological and financial constraints. ORC compounds activate upon contact with water, which limits their effectiveness in the subsurface to saturated soils.

3.4 Evaluation of Remedial Action Alternatives

A detailed analysis of Alternatives A, B, and C with respect to the requirements of WAC 173-340-360 (Selection of Cleanup Actions) is presented in Table 7. Estimated costs to implement the alternatives are presented in Section 3.5.

Table 7. Selected Alternatives Evaluation

	Protectiveness <ul style="list-style-type: none"> Degree to which existing risks are reduced Time required to reduce the risk and attain cleanup standards On-site and off-site risks resulting from implementing the alternative Improvement of the overall environmental quality 	Permanence <ul style="list-style-type: none"> Degree of permanent reduction of contaminant toxicity, mobility, and volume Adequacy of destruction of hazardous substances Reduction or elimination of substance release, and source of release Degree of irreversibility of waste treatment processes Characteristics and quantity of generated treatment residuals 	Long Term Effectiveness <ul style="list-style-type: none"> Degree of certainty of that the alternative will be successful Reliability while contaminants remain on-site greater than cleanup levels Magnitude of residual risk Effectiveness of controls implemented to manage residual risk 	Management of Short Term Risks <ul style="list-style-type: none"> Risk to human health and the environment associated with the alternative during construction and implementation The effectiveness of measures taken manage short-term risks 	Technical and Administrative Implementability <ul style="list-style-type: none"> Technical possibility Availability of off-site facilities, services, and materials Administrative and regulatory requirements Schedule, size, and complexity of construction Monitoring requirements Site access for construction, operations, and monitoring Integration with existing site operations or other current and potential future remedial action 	Cost <ul style="list-style-type: none"> Cost of construction Long-term monitoring, and operations and maintenance costs Cost to maintain institutional controls Agency oversight costs
<p style="text-align: center;">Alternative A Monitored Natural Attenuation</p>	<p>This alternative provides some reduction to existing risk in groundwater, given continued advection, dispersion, sorption, and volatilization. Time required to reduce risks and attain cleanup standards is not within a reasonable time frame, and may not be achievable (particularly for soil). No on- or off-site risks result from implementing MNA as no actions are required for implementation. On- and off-site risks remain the same as currently exist. MNA provides no improvement in overall environmental quality when implemented as a standalone technology because no actions are conducted as part of implementation. Remedial action objectives are not achieved.</p>	<p>This alternative does not provide a reduction of contaminant toxicity, mobility, or volume. The destruction of contaminants does not appear to be occurring at the Site. Decreasing concentrations appear to be related to advection, dispersion, sorption, and volatilization. This alternative does not reduce, eliminate, or control sources as MNA does not address contaminated soil that appears to be the source of groundwater impacts. Off-site migration of contaminated groundwater remains active. Except for investigation derived waste (IDW) associated with groundwater sampling, no treatment residuals are generated by implementation of an MNA alternative</p>	<p>This alternative provides a low degree of success within a reasonable time frame. It is not expected to achieve cleanup goals for soil. This alternative is not reliable because contaminant destruction does not appear to be occurring at a high enough rate to achieve the RAOs in a reasonable time frame. The magnitude of residual risk with this alternative is unchanged from the existing conditions. The controls in place to manage risk include surface capping, which adequately manages direct-contact risk; however, there are no controls to manage ongoing migration of PCE from soil to groundwater.</p>	<p>Except for managing IDW, no short-term risk is associated with construction of this alternative because no construction activities will be conducted. Existing risk remains consistent with the current site risks.</p>	<p>This alternative is technically possible to implement and involves no construction. No facilities, services, or materials are needed for alternative implementation because no construction will be performed. However, this alternative is not administratively implementable because it does not meet the regulatory requirements for a cleanup action. Monitoring requirements are expected to be longer term than for other alternatives because risks will not be reduced with this alternative. There are no concerns with site access because no construction is associated with this alternative. This alternative does not impact existing site operations.</p>	<p>This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included and are expected to be consistent for all proposed alternatives. The cost associated with an MNA alternative is expected to be low.</p>

Table 7. Selected Alternatives Evaluation

	Protectiveness	Permanence	Long Term Effectiveness	Management of Short Term Risks	Technical and Administrative Implementability	Cost
	<ul style="list-style-type: none"> Degree to which existing risks are reduced Time required to reduce the risk and attain cleanup standards On-site and off-site risks resulting from implementing the alternative Improvement of the overall environmental quality 	<ul style="list-style-type: none"> Degree of permanent reduction of contaminant toxicity, mobility, and volume Adequacy of destruction of hazardous substances Reduction or elimination of substance release, and source of release Degree of irreversibility of waste treatment processes Characteristics and quantity of generated treatment residuals 	<ul style="list-style-type: none"> Degree of certainty that the alternative will be successful Reliability while contaminants remain on-site greater than cleanup levels Magnitude of residual risk Effectiveness of controls implemented to manage residual risk 	<ul style="list-style-type: none"> Risk to human health and the environment associated with the alternative during construction and implementation The effectiveness of measures taken manage short-term risks 	<ul style="list-style-type: none"> Technical possibility Availability of off-site facilities, services, and materials Administrative and regulatory requirements Schedule, size, and complexity of construction Monitoring requirements Site access for construction, operations, and monitoring Integration with existing site operations or other current and potential future remedial action 	<ul style="list-style-type: none"> Cost of construction Long-term monitoring, and operations and maintenance costs Cost to maintain institutional controls Agency oversight costs
<p>Alternative B Excavation and Offsite Disposal of Contaminated Soil</p>	<p>This alternative provides a high degree of reduction of existing risk through removal of contaminant mass in soil. The time required to reduce risk and achieve cleanup is the same as the time it takes to dig and backfill the excavation, which we estimate will take one to three weeks to complete. It is anticipated that the majority of contaminants are sorbed to the soil. Extracted soil will be considered hazardous and will be disposed of at a licensed off-site facility. This alternative provides a high degree of improvement in overall environmental quality through mass reduction in soil and some groundwater.</p>	<p>This alternative provides a high degree of permanent reduction of contaminant toxicity, mobility, and volume reduction. Removal of contaminated soils if done diligently effectively removes the contaminant from the system. However, the process does not destroy the contaminant and generated waste, including stockpiled soil, will require management during implementation over the short term. Contaminated soils will be disposed of at a licensed facility.</p>	<p>This alternative provides high degree of certainty of success because has been implemented successfully at similar sites. Excavation and offsite disposal is very reliable if the extent of the contaminated soil is well known. Monitoring can be conducted in the long term to confirm performance. The magnitude of residual risk associated with this alternative is small because the contaminant is removed from the system.</p>	<p>This alternative will generate a potential direct contact risks to workers during excavation, stockpiling, transport, and disposal. Stockpiled contaminated soil should be protected from precipitation to reduce the chance of the contaminants being reintroduced to the excavation. Site activities will require appropriate PPE, BMPs, and appropriate training requirements for management of risk. These controls are highly effective and anticipated to adequately manage short-term risk.</p>	<p>This alternative is simple to implement assuming the extent of the contaminated soils has been determined. All necessary off-site facilities, materials, and services are available within the region. This alternative meets administrative and regulatory requirements. This alternative is anticipated to require 1-3 weeks to complete the excavation. Short term monitoring will include sampling of sidewall soil and separation of contaminated from clean excavation soils through sheen tests, PID tests, and laboratory analyses. Long term groundwater monitoring will be in place after construction. Site access for construction is moderately complex because of active site uses, and will halt site operations in the excavation area.</p>	<p>This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included, and are expected to be consistent for all proposed alternatives. The overall cost associated with this alternative is expected to be low as the overall time span for remediation is relatively short and long term monitoring will be performed in stretched intervals.</p>

Table 7. Selected Alternatives Evaluation

	Protectiveness <ul style="list-style-type: none"> • Degree to which existing risks are reduced • Time required to reduce the risk and attain cleanup standards • On-site and off-site risks resulting from implementing the alternative • Improvement of the overall environmental quality 	Permanence <ul style="list-style-type: none"> • Degree of permanent reduction of contaminant toxicity, mobility, and volume • Adequacy of destruction of hazardous substances • Reduction or elimination of substance release, and source of release • Degree of irreversibility of waste treatment processes • Characteristics and quantity of generated treatment residuals 	Long Term Effectiveness <ul style="list-style-type: none"> • Degree of certainty that the alternative will be successful • Reliability while contaminants remain on-site greater than cleanup levels • Magnitude of residual risk • Effectiveness of controls implemented to manage residual risk 	Management of Short Term Risks <ul style="list-style-type: none"> • Risk to human health and the environment associated with the alternative during construction and implementation • The effectiveness of measures taken manage short-term risks 	Technical and Administrative Implementability <ul style="list-style-type: none"> • Technical possibility • Availability of off-site facilities, services, and materials • Administrative and regulatory requirements • Schedule, size, and complexity of construction • Monitoring requirements • Site access for construction, operations, and monitoring • Integration with existing site operations or other current and potential future remedial action 	Cost <ul style="list-style-type: none"> • Cost of construction • Long-term monitoring, and operations and maintenance costs • Cost to maintain institutional controls • Agency oversight costs
Alternative C Enhanced Aerobic Bioremediation	This alternative provides a high degree of reduction of existing risk through the destruction of contaminant mass in saturated soil given accurate application and receptive microbes. The time required to reduce risk and achieve cleanup is anticipated to take one year or less. ORCs by their nature as oxidizers can damage the respiratory system of humans who inhale them. A health and safety plan will have to be implemented. This alternative provides a high degree of improvement in overall environmental quality through mass reduction in saturated soil.	This alternative provides a high degree of permanent reduction of contaminant toxicity, mobility, and volume reduction. If applied accurately within saturated soil, ORCs can promote the destruction of contaminants via biodegradation.	This alternative provides a high degree of certainty when accurately applied. We anticipate that the method of application will entail an excavation to the bottom of the smear zone, thus combining the effects of Alternatives B and C. Monitoring can be conducted in the long term to confirm performance. The magnitude of residual risk associated with this alternative is small because the contaminant is removed from the system.	This alternative will generate potential direct contact risk to workers during implementation. Site activities will require appropriate PPE, BMPs, and appropriate training requirements for management of risk. These controls are highly effective and anticipated to adequately manage short-term risk.	This alternative is simple to implement assuming the extent of the contamination has been determined. All necessary off-site facilities, materials, and services are available within the region. This alternative meets administrative and regulatory requirements. Long term monitoring should not influence site operations but will require coordination with the client.	This criterion includes construction cost and contingency, and includes estimated long-term maintenance and monitoring. Agency oversight costs are not included, and are expected to be consistent for all proposed alternatives. The overall cost associated with this alternative is expected to be low as the overall time span for remediation is relatively short and long term monitoring will be performed in stretched intervals.

3.5 Recommended Remedial Alternative

Estimated costs for the primary alternatives are summarized below:

<u>Primary Alternative</u>	<u>Estimated Cost</u>
Alternative A. Monitored Natural Attenuation	\$42,000
Alternatives B and C. Excavation and offsite disposal supplemented with enhanced aerobic bioremediation and groundwater monitoring	\$254,000

Alternative A is not likely to meet the remedial action objectives and has been retained as a baseline for comparison. A combination of Alternatives B and C, excavation and offsite disposal and enhanced bioremediation with post-remediation groundwater monitoring, is the recommended alternative. This approach optimizes achieving the RAOs and compliance with MTCA at the best overall cost. Key elements of the recommended alternative are described below.

1. Enroll the site in the Washington State Department of Ecology’s Voluntary Cleanup Program and arrange for subcontractors. Prepare a Remedial Action Work Plan and a Site-Specific Health and Safety Plan.
2. Excavate and dispose of contaminated soil at a facility licensed to accept the material. Collect and analyze soil samples during and upon completion of the remedial activities to distinguish clean and contaminated soil and to document the soil cleanup.
3. Dose the base of the excavation with an oxygen-releasing compound in an effort to enhance the natural bioremediation of residual TPH in soil and groundwater.
4. Backfill, compact, and resurface the excavation.
5. We anticipate that one to two existing groundwater monitoring wells may need to be replaced following the completion of the remedial excavation.
6. Complete subsequent groundwater sampling and analysis to evaluate the effectiveness of the remedial actions in regard to dissolved phase hydrocarbons in groundwater.

4.0 REMEDIAL ACTION

BMC retained Clearcreek Contractors of Marysville, Washington to complete the remedial excavation. Clearcreek mobilized a Hitachi 200 LC excavator to the Site, and the work was initiated on July 20, 2015. The asphalt over the estimated extent of the Site, as determined during the RI, was removed and disposed. Clean overburden fill soils were removed to a depth of about two feet, stockpiled, and covered. Four discreet samples of stockpiled soil were collected and analyzed for gasoline and BTEX, which were not detected above laboratory reporting limits (Table 9). The clean overburden soil was returned to the excavation following the removal of impacted soil.

Excavated soil was field screened using the sheen test, a photo-ionization detector, and/or odor. Gasoline impacted soils were identified at depths ranging from about 2 feet to 6 feet below grade, except for on the south part of the excavation where three likely historical UST cavities were found. The cavities were identified by the presence of rectangular areas that contained several feet of pea gravel. Gasoline impacted soil in these areas extended to depths ranging from about 8 to 11 feet.

A 24-inch PVC storm water pipe was encountered along the west side of the remedial excavation on July 21, 2015. Although the pipe was not damaged by the excavator, water leaked into the remedial excavation from what appeared to be a faulty pipe join (see photos in Appendix G). We determined that the storm

water pipe discharged to the retention pond that is located immediately north of the northwest part of the Property (about 250 feet north of the Site).

A series of soil berms were constructed to block the water, and the removal of impacted soil continued through July 23, 2015. At that time work was stopped for a period of about 6 weeks to make arrangements to pump, treat, and dispose of the excavation pit water and to lower the water elevation in the north adjoining storm water retention pond such that the storm water would stop draining into the remedial excavation.

The remedial excavation work was re-initiated and completed on September 10 through September 15, 2015. Dewatering effluent was pumped into a series of four 17,640-gallon Baker Tanks. The effluent was treated by being pumped through a sand filter (to reduce turbidity) and an activated carbon filter (to adsorb TPH and BTEX). The treated dewatering effluent was disposed into the King County sanitary sewer system under a King County permit acquired by BMC. A copy of the permit is included in Appendix H.

Pre-treatment dewatering effluent samples were collected on July 22 and July 24, 2015. Post-treatment dewatering effluent samples were collected on August 5, 2015 and September 8, 2015. Gasoline and BTEX were not detected in the post-treatment samples. Dewatering effluent analytical results are presented in Table 8. Laboratory reports are presented in Appendix I.

A site plan depicting the location of soil samples collected during the remedial excavation is presented in Figure 7 (Appendix I and Appendix N). A total of 1,395.87 tons of gasoline-contaminated and suspect gasoline-contaminated soil was removed and trucked to the Regional Disposal Company transfer station in Seattle. Copies of the scale tickets are included in Appendix J. Twenty-four soil samples were collected to monitor the effectiveness of the remedial excavation (Table 9). TPH and BTEX were not detected above laboratory reporting limits, or were detected in concentrations below the Method A cleanup level in all residual soil samples except one. This sample (1099-21A), collected at a depth of about 6 feet on the north part of the west sidewall (Figure 7, Appendix N), contained gasoline and benzene at reported concentrations of 120 mg/kg and 0.12 mg/kg.

Upon completion of the over-excavation activities, eleven hundred pounds of the Regenes product ORC Advanced pellets were placed at the base of the excavation and kneaded into the smear zone using an excavator. The purpose of the ORC Advanced pellets was to promote the biodegradation of any remaining TPH. The remedial excavation was backfilled with quarry spalls (at the base of the excavation, beneath the water table), clean overburden previously stockpiled on the Property, and clean imported pit run fill soil and subsequently covered with asphalt pavement.

ZGA returned to the Property on February 4, 2016 and advanced four hand auger explorations (HA-1 to HA-4) in the East Lake Sammamish Parkway Southeast right-of-way, immediately west of the Site (see Figure 7, Appendix N). A soil sample was collected from each exploration at the top of the water table (about 3 feet bgs) and analyzed for gasoline and BTEX. Gasoline and BTEX were not detected above laboratory reporting limits in any of the samples.

Table 8. Dewatering Effluent Analyses

SAMPLE #	DATE	LOCATION	TOTAL PETROLEUM HYDROCARBONS (ug/L)			VOLATILE ORGANIC COMPOUNDS (ug/L)				FATE
			GRO	DRO	ORO	B	T	E	X	
1099-BT1	7-22-15	Baker Tank (Pre-Treatment)	420	790	470	ND<1.0	2.8	11	20	Subsequently treated
1099-BT2	7-24-15		1,100	3,100	490	ND<1.0	1.1	11	16	
TW-1	8-5-15	Poly Tank (Post-Treatment)	ND<50	ND<130	ND<258	ND<1.0	ND<1.0	ND<1.0	ND<3.0	Transmitted to sanitary sewer
TW-2	9-8-15		NA	NA	NA	ND<1.0	ND<1.0	ND<1.0	ND<3.0	

ug/L, micrograms per liter (parts-per-billion); GRO, gasoline-range organics; DRO, diesel-range organics; ORO, oil-range organics; B, benzene; T, toluene; E, ethylbenzene; X, total xylenes; NA, not analyzed.

Table 9. Remedial Excavation Analytical Results

SAMPLE #	DATE	DEPTH	LOCATION	TOTAL PETROLEUM HYDROCARBONS (mg/kg)			VOLATILE ORGANIC COMPOUNDS (mg/kg)				Pb	FATE
				GRO	DRO	ORO	B	T	E	X		
SP-1	7-20-15	NA	Stockpiled Overburden Soil	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		Clean fill soil returned to excavation
SP-2				ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
SP-3				ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
SP-4	7-21-15			ND<3.0	ND<25	58	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-1	7-20-15	5	Floor West	310	ND<25	ND<50	ND<0.30	1.2	1.6	ND<2.0	6.0	Removed
1099-2	7-21-15	6	Floor North	5.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		Residual
1099-3		6	Sidewall North	4.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-4		6	Floor Central	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-5		6	Floor Southwest	6.5	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-6		6	Floor Northeast	4.8	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-7		8.25	Floor Beneath UST Cavity #1	7.1	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-8		8	Floor Beneath UST Cavity #2	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-9	5.75	Sidewall Southeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2			
1099-10	7-22-15	6	Sidewall East	5.6	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		Residual
1099-11		6	Sidewall Northeast	7.8	ND<25	ND<50	0.031	ND<0.05	0.18	ND<0.2		
1099-12		6	Sidewall Northwest	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-13		6	Sidewall Northeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-14		6	Floor Northeast	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-15		6	Sidewall Northeast	6.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-16	7-24-15	11	Floor Beneath UST Cavity #3	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		Residual
1099-17		11	Floor Beneath UST Cavity #3	12	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2		
1099-18	9-10-15	8	Sidewall South	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	5	Residual
1099-19		8		ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	2.3	
1099-20		8		ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	3.9	
1099-21	9-15-15	6	Sidewall West	ND<3.0	ND<25	ND<50	ND<0.03	ND<0.05	ND<0.05	ND<0.2	2.9	Residual
1099-21A		6		120	ND<25	ND<50	0.12	0.29	1.0	0.69	3.4	
1099-22		6		11	ND<25	ND<50	ND<0.03	ND<0.05	0.10	ND<0.2	3.0	
1099-23		6		30	ND<25	ND<50	ND<0.03	ND<0.05	0.076	ND<0.20	3.5	
HA-1	2-4-16	3	Immediately West of the Remedial Excavation in the City of Issaquah Right-Of-Way	ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		Residual
HA-2		3		ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
HA-3		3		ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
HA-4		3		ND<3.0			ND<0.03	ND<0.05	ND<0.05	ND<0.2		
Method A Cleanup Level				30/100*	2,000	2,000	0.03	7	6	9	250	

mg/Kg: milligrams per kilogram (parts-per-million); <: Not detected above indicated laboratory minimum reporting limit. Shaded values exceed MTCA Method A cleanup levels. B, benzene; T, toluene; E, ethylbenzene; X, total xylenes. *The higher value applies for gasoline mixtures without benzene and the total of toluene, ethylbenzene, and xylenes are less than 1% of the gasoline mixture.

5.0 CONFIRMATION GROUNDWATER SAMPLING

After the completion of the remedial actions described in Section 4, quarterly groundwater samples were collected from five wells in the vicinity of the remedial excavation for a period of one year to evaluate the effectiveness of the remedial efforts.

5.1 Monitoring Well Installations

In 2013, as a part of the Phase II ESA, ZGA observed the installation of four groundwater monitoring wells in the vicinity of the TPH and BTEX impacted soil (MW-1 to MW-4). MW-1 and MW-4 were decommissioned during the remedial excavation described in Section 4. In November of 2015, ZGA observed the installation of three groundwater monitoring wells within the footprint of the remedial excavation (MW-1A, MW-4A, and MW-5). Well installation was performed by Environmental Drilling Inc. who operated a truck-mounted hollow stem auger drill rig. MW-1A and MW-4A were located near the former locations of the decommissioned wells for which they were named. MW-5 was located near the center of the remedial excavation footprint. MW-1A, MW-4A, and MW-5 were installed to a depth of approximately 10 feet bgs. These 2015 wells were developed with 2-inch PVC casings screened from approximately 4 to 10 feet bgs with a sand pack from approximately 3 to 10 feet bgs. The well heads were set into approximately 1½ feet of concrete at the surface with bentonite between the concrete and the sand pack. Groundwater was observed at a depth of approximately 2.5 to 3 feet bgs at the time of drilling.

A field log of each exploration was maintained, including the thickness and depth of each soil unit encountered and the depth to the uppermost water table recorded. Soil samples were observed to document soil lithology, color, and moisture content. Soils were recorded in general accordance with American Society for Testing and Materials (ASTM) Practice Designation D-2488, *Standard Practice for Description of Soils (Visual-Manual Procedure)*. Exploration logs are included in Appendix J of this report. Approximate locations of monitoring wells are presented in Appendix L and Appendix N.

5.2 Sampling Methodology

Groundwater was sampled quarterly over a one-year period since the completion of the remedial excavation. Wells sampled post-remediation include MW-1A, MW-2, MW-3, MW-4A, and MW-5.

Prior to sampling, the depth to groundwater in each well was measured with an electronic water level indicator. Top of casing elevations were surveyed by PLS, Inc. Elevations were recorded in feet relative to an arbitrary datum of 100 feet defined by a survey pin located to the northwest of the remedial excavation. Depth to groundwater was measured from the north rim of all PVC well casings. Depth to groundwater and corresponding groundwater elevations are presented in Table 10. Groundwater contour maps are presented in Appendix N. Groundwater elevations indicate a generally westward direction of groundwater flow, except for the final event in September of 2016, where groundwater mounding appeared to occur near MW-5.

Groundwater was collected with a peristaltic pump utilizing low flow techniques with a discharge rate of approximately 100 ml/minute. Dedicated polyethylene and silicon tubing were utilized for each well. The intake of the polyethylene tubing was set approximately one foot below the top of the screened interval in each well, at a depth of approximately four feet. Discharge from the peristaltic pump was directed through a Horiba U-50 multi-parameter water quality meter with a flow-through cell. Each well was developed until consistent values (Less than 10% variance) were obtained for pH, turbidity, temperature, conductivity, and dissolved oxygen content. After these conditions were met, groundwater was collected in laboratory supplied glassware.

Table 10. Post-Remediation Groundwater Elevations

Monitoring Well	Date of Measurement	Top of Casing Elevation (ft.)	Depth to Water (ft. bgs)	Groundwater Elevation (ft. MSL)
MW-1A	12/10/2015	98.82	1.00	97.82
	3/16/2016		1.26	97.56
	6/10/2016		1.51	97.31
	9/07/2016		2.50	96.32
MW-2	5/24/2013	99.45	1.84	97.61
	12/10/2015	99.01	1.18	97.83
	3/16/2016		1.43	97.58
	6/10/2016		2.69	96.32
	9/07/16		3.13	95.88
MW-3	5/24/2013	99.73	2.59	97.14
	12/10/2015	99.24	2.05	97.19
	3/16/2016		2.22	97.02
	6/10/2016		2.50	96.74
	9/07/2016		2.88	96.36
MW-4A	12/10/2015	99.40	1.68	97.72
	3/16/2016		1.89	97.51
	6/10/2016		2.00	97.40
	9/07/2016		2.69	96.71
MW-5	12/10/2015	98.95	1.40	97.55
	3/16/2016		1.50	97.45
	6/10/2016		1.78	97.40
	9/07/2016		2.18	96.77

ft. bgs, Feet below ground surface.

Each sample container was labeled with our company name, the project number, the date and time of collection, and the monitoring well number. Sample containers were placed in a chilled cooler immediately after sampling, and subsequently transported to the ALS Environmental laboratory in Everett by ZGA personnel under chain-of-custody procedures.

5.3 Groundwater Quality Results

A total of 20 groundwater samples were submitted for chemical analysis. All samples were analyzed by ALS Laboratory Group, a Washington State accredited laboratory. Each groundwater sample was analyzed for gasoline using Northwest Method NWTPH-GX and for BTEX using EPA Method 8021. Gasoline and BTEX were not detected in any of the samples. Analytical results are summarized in Table 11. The executed chain-of-custody forms and laboratory analytical certificates are provided in Appendix M. Gasoline and BTEX were not reported above laboratory reporting limits in any of the samples.

Table 11. Post-Remediation Groundwater Quality Results

Monitoring Well	Date of Sampling	Gasoline-Range TPH (ug/L)	BTEX (ug/L)			
			Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1A	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	6/10/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
MW-2	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
MW-3	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
MW-4A	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	6/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
MW-5	12/10/2015	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	3/16/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	6/10/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
	9/7/2016	ND <50	ND <1.0	ND <1.0	ND <1.0	ND <3.0
MTCA Method A Cleanup Level:		100	5 ug/L	1,000 ug/L	700 ug/L	1,000 ug/L

ug/L, micrograms per liter (parts-per-billion)

6.0 SUMMARY AND CONCLUSIONS

ZGA has completed a RI/FS and independent remedial action at the BMC facility in Issaquah, King County, Washington. Based on the results of the RI/FS the approximate extent of soil and groundwater contaminated with gasoline, benzene, ethylbenzene, and xylenes was defined and excavation and offsite disposal of impacted soil supplemented with post-excavation enhanced aerobic bioremediation was selected as the most effective remedial action alternative.

A total of 1,395.87 tons of gasoline-contaminated and suspect gasoline-contaminated soil was removed, and 26 residual soil samples were collected and analyzed for gasoline and BTEX. Gasoline and BTEX were not detected, or were detected in concentrations below MTCA Method A cleanup levels in 25 samples. One sample collected at a depth of about 6 feet on the west sidewall of the excavation contained 120 mg/kg gasoline and 0.12 mg/kg benzene, which slightly exceed the Method A cleanup levels. However, gasoline and BTEX were not detected in four samples collected in the immediately west adjoining Lake Sammamish Parkway Southeast right-of-way.

Upon completion of the over-excavation activities, eleven hundred pounds of the Regenesi product ORC Advanced pellets were placed at the base of the excavation and kneaded into the smear zone using an excavator.

Five groundwater monitoring wells installed in and immediately adjoining the Site were sampled for gasoline and BTEX quarterly for a period of one year. Gasoline and BTEX were not detected during any of the sampling events.

Based on these results, we request a No Further Action Determination from Ecology.

7.0 CLOSURE

ZGA's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. ZGA makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that ZGA does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. This report is intended to reduce, but not eliminate, uncertainty regarding the extent of contaminated soil and groundwater at the Property. Our findings are based upon information derived from soil and groundwater sampling at the indicated locations; such information is subject to change over time. Subsurface conditions may vary from those described herein during future investigations. If different conditions from those described herein are discovered, ZGA must be notified so that we can review these conditions and modify our conclusions and recommendations where necessary. This report has been prepared for the exclusive use of BMC West Corporation and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of BMC West Corporation and ZGA.

7.0 REFERERCES

Booth, D.B and Minard, J.P., 1992 Geologic map of the Issaquah 7.5' Quadrangle, King County, Washington U.S. Geological Survey Miscellaneous Field Studies Map 2206.

Washington State Department of Ecology, 2009, Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action.

Appendix A – Previous Reports



April 6, 1998

13945

Mr. Joe Hickey
Washington Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, WA 98008

Re: Environmental Investigation Results
5210 East Lake Sammamish Parkway Southeast,
Issaquah, Washington

Dear Mr. Hickey:

On behalf of BMC West Corporation (BMC West), TRC Environmental Corporation (TRC) conducted an environmental investigation at the BMC West facility at 5210 East Lake Sammamish Parkway Southeast, Issaquah, Washington (Figure 1). The objective of the investigation was to determine the nature and extent of petroleum contamination on the west side of the facility from an unknown source. During construction of a storm water catchment basin, petroleum contamination was observed in the subsurface soil and groundwater. The contamination may be from three gasoline underground storage tanks (USTs), which were removed in 1989, but initial testing of the tank area showed minimal contamination. BMC West requested TRC to conduct an investigation of the area to determine the source and extent of the petroleum contamination.

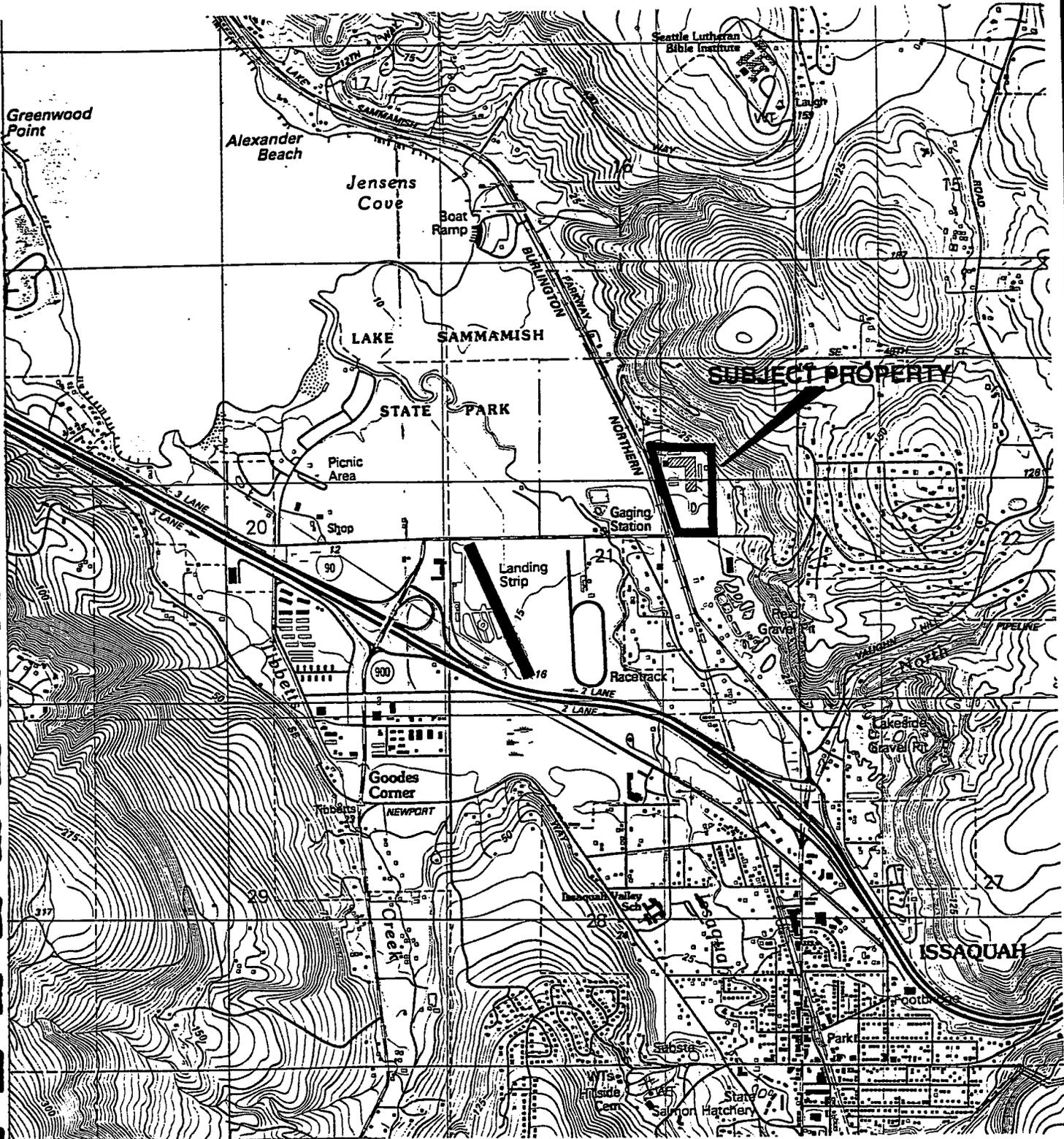
The TRC investigation was conducted in two phases. The first phase consisted of a subsurface investigation conducted on June 25, 1996. Results of the investigation were submitted to the Washington Department of Ecology in a letter report dated July 8, 1996. This investigation was designed with three goals; 1) to determine if soil and groundwater petroleum contamination was present, 2) to characterize potential contamination near the storm water basin, and 3) to assess if the petroleum contamination was flowing onto the site from adjacent properties.

The second phase was conducted on December 4, 1997 and consisted of a subsurface investigation to; 1) further evaluate the on-site extent of soil and groundwater petroleum contamination and 2) monitor potential changes in petroleum concentrations.

SITE DESCRIPTION

The BMC West facility is currently operated as a retail lumber facility. The site occupies approximately 16 acres, the majority which consists of paved parking lots, paved yard areas, lumber storage, millwork, and office buildings. Asphalt paving or concrete aprons cover the entire yard area. There is one large structure on the site which houses the offices, store, and millworks located on the east side of the site. There are also several storage sheds and a maintenance shop located at the facility.

TRC Environmental Corporation
11 Inverness Drive East • Englewood, Colorado 80112
Telephone 303-792-5555 • Fax 303-792-0122



SCALE 1 Inch = 250,000 FEET

Bellevue South 1:250,000 Map



FIGURE 1
GENERAL SITE LOCATION MAP

BMC WEST
ISSAQUAH, WASHINGTON

TRC	DATE :	PROJECT	FILE ID	REV # :
	1/8/98	13945		1

The St. Regis Corporation constructed the lumber facility in 1966. Henry Bacon Building Materials purchased the facility in 1986 and constructed improvements at the facility. BMC West has been leasing and operating the facility since 1994.

Site Location

The BMC facility is located in the city of Issaquah, King County, Washington, approximately 15 miles east of Seattle, Washington.

Adjacent Properties

The immediate area consists of mixed industrial and commercial uses. Albertson's Grocery Store and McDonald's restaurant are located adjacent to the south side of the property. Immediately north of the subject site are private residences, a church, and a bible institute. Immediately east of the subject property is a farmhouse. The facility abuts the base of the steep hill to the east. Residential developments are present upslope. West of the subject site is East Lake Sammamish Parkway Southeast, Burlington Northern Railroad track, and then some light industrial development. Lake Sammamish State Park is located approximately ¼ mile west of the site.

Hydrology

The facility is 15 feet above mean sea level. Surface water drainage is to the west. Lake Sammamish is located approximately ½ mile northwest of the site. The Issaquah River, which drains into Lake Sammamish, flows from the southeast to the northwest and is located about 1/3-mile southwest of the subject site.

Based on the local topography and location of surface water bodies, the anticipated direction of groundwater flow is to the west-northwest. The depth to groundwater at the site ranges from 4.5 to 6 feet below ground surface (bgs). Subsurface soil types at the site range from clayey sand to sandy clay.

To evaluate if existing water supply wells are located down gradient of the site, TRC contacted the Washington Department of Ecology to obtain a list of permitted water wells. One well was registered in the northwest ¼ of section 21, Township 24 north, range 6 east, which is approximately 1,500 feet northwest of the site. The well is completed in bedrock at a depth of 200 feet. The well is completed with a 20-foot surface seal.

Based on the construction details of the well, it is not completed in the shallow surface aquifer; therefore, it would not be impacted by the site. Well construction records are included as Attachment 2.

DISCOVERY OF PETROLEUM CONTAMINATION

The area of concern is at the storage yard bordering East Lake Sammamish Parkway Southeast. The area is paved with asphalt and surface water runoff is to the west toward a drainage ditch that borders the west side of the site. In this area, BMC West installed a storm

water catchment basin in 1996. During construction of the basin, petroleum contamination was observed in the subsurface soil and groundwater.

POTENTIAL SOURCE OF PETROLEUM CONTAMINATION

A site plan previously provided to TRC by BMC West indicated that a former gasoline pump station was located approximately where BMC West installed the storm water catchment basin. In addition, a Phase I Environmental Site Assessment performed for the property by TRC in September 1994 indicated that three USTs and associated dispensers and piping were removed from this area. These tanks were removed by Chempro Environmental Services (Chempro) in January 1989. A soil sample was collected by Chempro from the excavated soil while removing the tanks. The results were below state cleanup standards (Table 1). Chempro received a closure permit (# M-F88-0721) for removing the USTs from King County.

Table 1
Soil Sampled During Tank Removal
by Chempro Environmental Services
January 1989

Constituent	Concentration (mg/kg)	State Standard (mg/kg)
Total Petroleum Hydrocarbons	31	100
Benzene	< 0.05	0.5
Toluene	22.0	40
Ethylbenzene	< 0.05	20
Xylenes	< 0.05	20

INITIAL TRC SITE INVESTIGATION

At the request of BMC West, TRC conducted a subsurface investigation in response to the petroleum contamination observed while excavating the storm water basin. The investigation was conducted on June 25, 1996 and consisted of soil and groundwater sampling. The investigation was designed with three goals; 1) to determine if soil and groundwater petroleum contamination was present, 2) to characterize potential contamination near the storm water basin, and 3) to assess if the petroleum contamination was flowing onto the site from adjacent properties.

TRC focused the subsurface investigation in the area of the catchment basin and the approximate location of the former USTs. Ten boreholes were drilled using a hollow-stem auger drilling rig operated by Environmental West Exploration. Split spoon soil samples were collected at five-foot depth intervals, logged and then composited for laboratory analysis. Groundwater samples were collected from four of the boreholes. Groundwater samples were collected from each borehole with the augers in place. No monitoring wells were constructed. Hnu Photoionization measurements were collected for each soil sample. The Hnu detects volatile organic vapors and is useful in determining the potential and scale of petroleum

contamination in a sample. Table 2 summarizes the Hnu results for the collected samples. Values greater than zero were encountered in six boreholes 1, 2, 3, 5, 6, and 9.

The highest concentrations were detected in boreholes 1, 5, 6, and 9. These four boreholes are located near the former UST and pumping station. Generally, concentrations were the highest in the 5 to 6.5-foot depth interval and concentrations decreased with depth.

Samples with the highest Hnu readings were submitted. Three groundwater and four soil samples were submitted to Analytica, Inc. and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), by EPA Method 8020 and total petroleum hydrocarbons (TPH) using EPA Method 418.1. Water and soil results are summarized in Tables 3 and 4, respectively. Also included in the tables are the state's cleanup criteria for each of the constituents. Benzene and TPH groundwater concentrations are graphically presented in Figure 2. Laboratory data sheets are included in Attachment 1.

Table 3 shows that BH-5, located near the removed USTs, exceeded the groundwater standards for benzene, xylenes, and TPH. BH-1, located near the storm water catchment basin, exceeded the standard for TPH. All other constituent concentrations in groundwater were below the state standards. Table 4 shows that none of the soil standards were exceeded.

Table 2
Hnu Photoionization Measurements
Initial TRC Site Investigation

Borehole Number	Depth Interval (ft)	Reading (ppm)
BH-1	5 - 6.5	20
BH-1	10 - 11.5	3.5
BH-2	5 - 6.5	0.5
BH-2	10 - 11.5	0.5
BH-3	5 - 6.5	0.5
BH-3	10 - 11.5	0
BH-3	15 - 16.5	1.0
BH-4	5 - 6.5	0
BH-4	10 - 11.5	0
BH-5	5 - 6.5	9
BH-5	10 - 11.5	4
BH-5	15 - 16.5	9
BH-6	5 - 6.5	9
BH-6	10 - 11.5	12
BH-7	5 - 6.5	0
BH-7	10 - 11.5	0
BH-8	5 - 6.5	0
BH-8	10 - 11.5	0
BH-9	5 - 6.5	12
BH-9	10 - 11.5	3
BH-10	5 - 6.5	0
BH-10	10 - 11.5	0

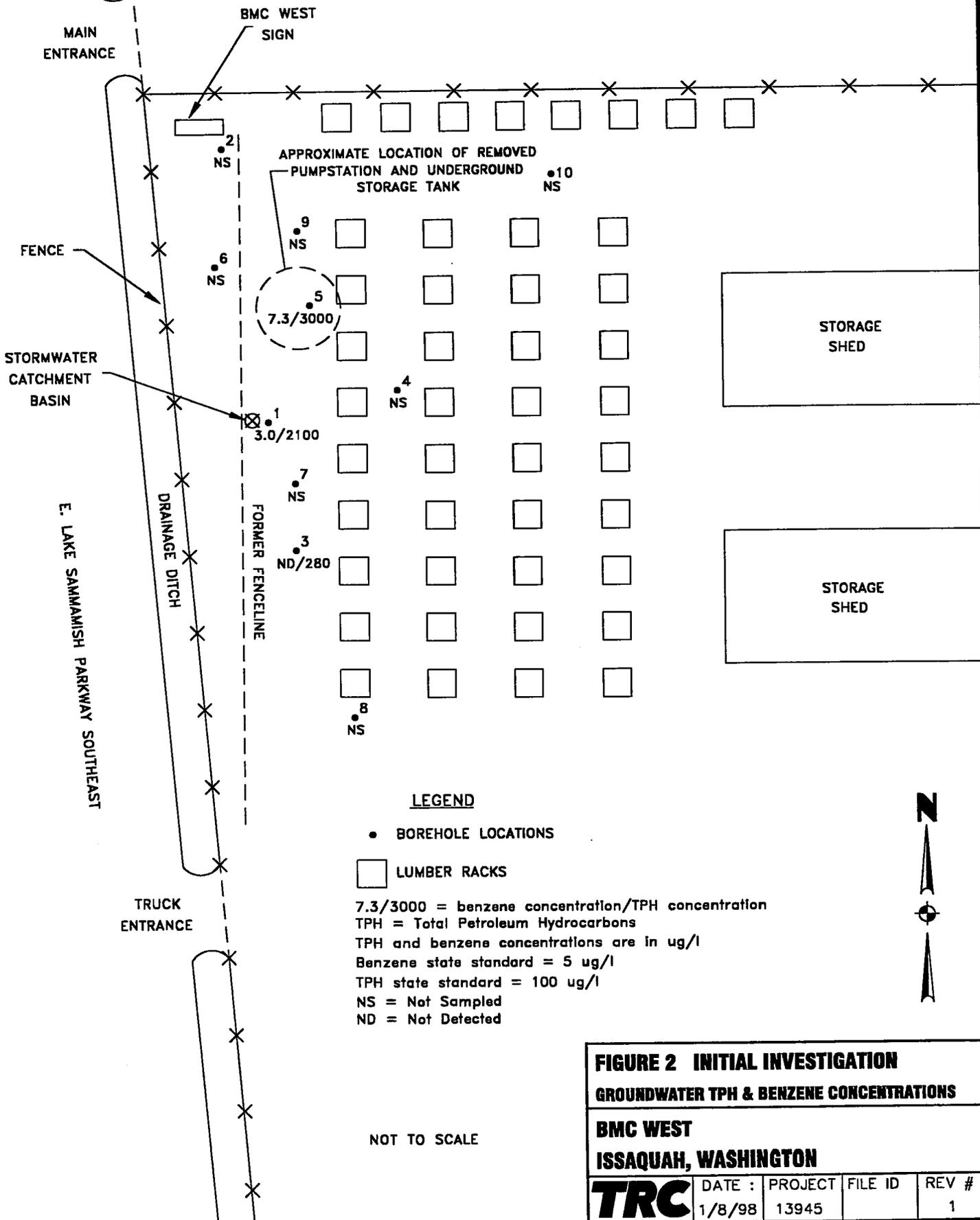


FIGURE 2 INITIAL INVESTIGATION
GROUNDWATER TPH & BENZENE CONCENTRATIONS
BMC WEST
ISSAQUAH, WASHINGTON

TRC	DATE : 1/8/98	PROJECT 13945	FILE ID	REV # : 1
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Table 3
Groundwater Analytical Results (units: ug/l)
Initial TRC Site Investigation

Constituent	State Standard	BH-1	BH-3	BH-5
Benzene	5	3.0	ND ⁽¹⁾	7.3
Toluene	40	2.3	ND ⁽¹⁾	1.5
Ethylbenzene	30	2.9	ND ⁽¹⁾	10
Total Xylenes	20	3.8	6.7	110
TPH	1000	2100	280	3000

TPH = total petroleum hydrocarbons
 ND⁽¹⁾ = not detected above method detection limit of 1 ug/l.

Table 4
Soil Analytical Results (units: mg/kg)
Initial TRC Site Investigation

Constituent	State Standard	BH-1	BH-2	BH-5	BH-6
Benzene	0.5	0.010	ND	0.076	0.028
Toluene	40	0.004	ND	0.022	0.0022
Ethylbenzene	20	0.0069	ND	0.100	0.008
Total Xylenes	20	0.0065	ND	0.790	0.031
TPH	100/200 ⁽¹⁾	99	31	ND	44

(1) Two standards depending on source, gasoline/diesel.
 TPH = total petroleum hydrocarbons.
 ND = not detected above the method detection limit.

Based on the results, TRC concluded that groundwater at the site had been impacted by petroleum hydrocarbons but the concentrations were relatively low and the extent of contamination is generally limited to the area near the removed USTs. The results did not indicate a potential off-site source of the petroleum contamination.

Results of the investigation were submitted to Mr. Joe Hickey of the Washington Department of Ecology, in a letter-report dated July 8, 1996. TRC contacted Mr. Hickey in October 1997 to

discuss the status of the site and to determine what, if anything, needed to be done at the site. Mr. Hickey said he had no record of the site or the report in his database.

SECOND INVESTIGATION

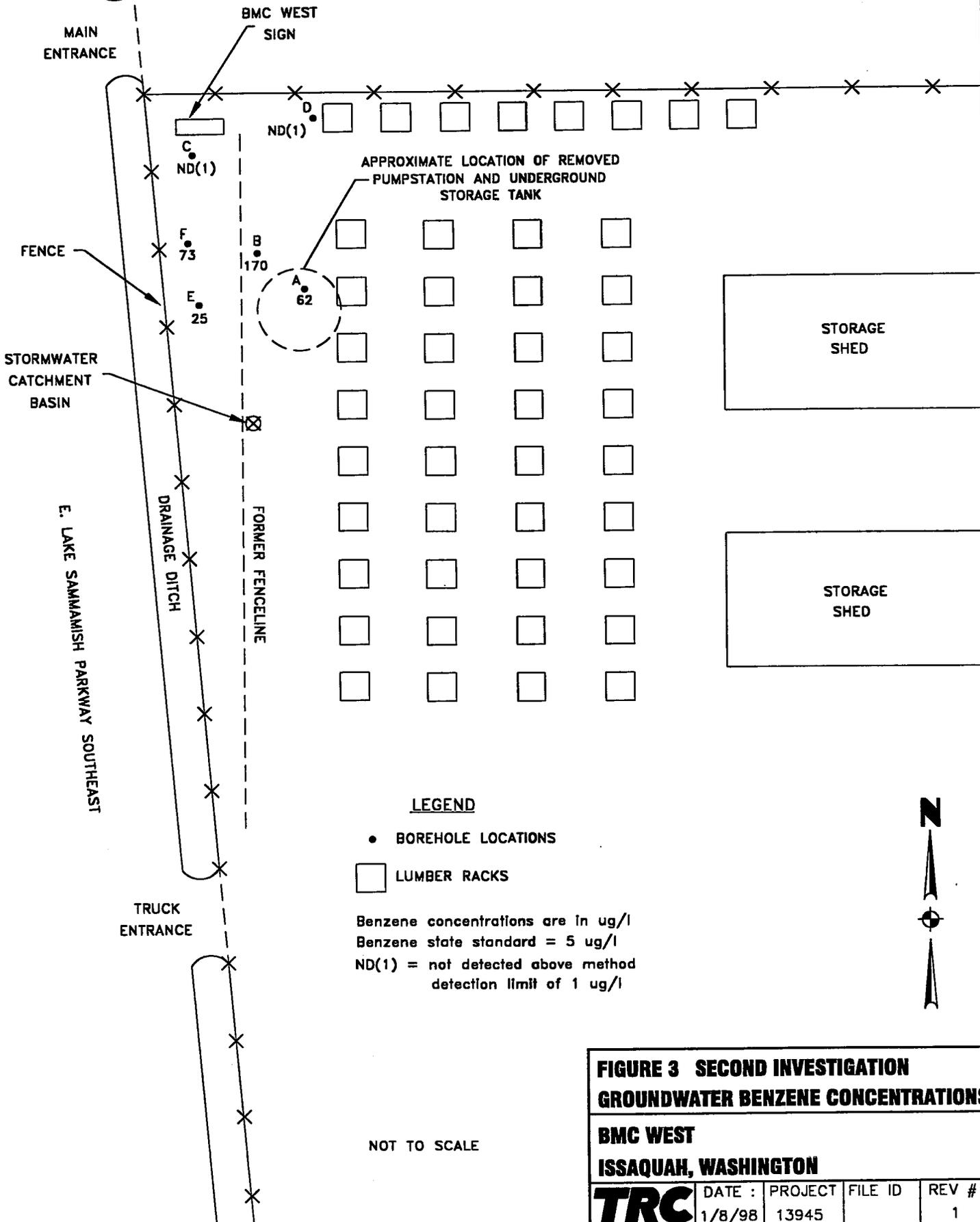
An second subsurface investigation was performed on December 4, 1997 by Geo-Tech Exploration Company of Portland, Oregon at the direction of TRC. The objective of the investigation was to; 1) further evaluate the on-site extent of soil and groundwater petroleum contamination and 2) monitor potential changes in petroleum concentrations.

The investigation consisted of using a Geoprobe drill rig to obtain soil and groundwater samples. The drill rig uses direct push technology to obtain soil and groundwater samples. With this technology, a steel drive probe is mechanically driven into the ground using a hydraulic, truck-mounted drilling rig. A soil sample is obtained using a sampler attached to the end of the probe. After the sample is obtained, the probe is extracted from the ground and the sample retrieved. To obtain a groundwater sample, the probe is driven to the desired depth using a dedicated drive tip. A 4-foot long, steel screened section is then installed inside of the probe rod and the outer rod extracted. Small diameter tubing is lowered inside of the screen and a water sample obtained using an inertia pump.

Six boreholes, labeled A through F and shown on Figure 3, were drilled to obtain soil and groundwater samples. Borehole locations were selected based on the location of the removed USTs and the anticipated direction of groundwater flow (predicted to be westerly). Borehole BH-A is located near the original location of the USTs and the other boreholes are located hydraulically down gradient and cross gradient to evaluate the extent of petroleum contamination. Results of groundwater sampling indicated the depth to groundwater ranged from 4.5 to 6 feet bgs.

Soil samples were obtained approximately every 4 feet from the boreholes. Discrete soil samples were obtained generally from the 2-4 foot and 6-8 foot depth zones. The total depth of the boreholes was approximately 8 feet. Soil types ranged from clayey sand to sandy clay. Soil samples were split with a portion of each sample stored on ice and the remainder put in a plastic bag to perform a headspace analysis. Headspace analyses were performed using an Hnu photoionization detector to estimate volatile petroleum concentrations in the samples. The bag samples were left in the sun for approximately 20 minutes to promote volatilization of the hydrocarbons and then the headspace measured with the Hnu. Concentrations ranged from 0.2 ppm to 340 ppm as shown in Table 5. Laboratory data sheets are included in Attachment 1. The highest concentrations were detected in boreholes BH-A (340 ppm), BH-B (260 ppm), BH-E (100 ppm), and BH-F (30 ppm) all from the 2 to 4 foot depth range.

The four soil samples with the highest headspace concentrations were submitted to Analytica, Inc. in Broomfield, Colorado for laboratory analysis. The samples were analyzed for BTEX by EPA method 8021B and Volatile Petroleum Hydrocarbons (VPH) by EPA Method 8015B/API. The laboratory results and state cleanup standards are summarized in Table 6 and VPH concentrations are graphically presented on Figure 3. Laboratory data sheets are included in Attachment 1. Soil constituent concentrations in boreholes BH-A, BH-B, and BH-E exceeded the state standards. Boreholes BH-A and BH-B generally had the highest concentrations. BH-A is near the previous UST location and BH-B is located to the northwest (down gradient).



LEGEND

● BOREHOLE LOCATIONS

□ LUMBER RACKS

Benzene concentrations are in ug/l
 Benzene state standard = 5 ug/l
 ND(1) = not detected above method detection limit of 1 ug/l



**FIGURE 3 SECOND INVESTIGATION
 GROUNDWATER BENZENE CONCENTRATIONS**

**BMC WEST
 ISSAQUAH, WASHINGTON**

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NOT TO SCALE

Groundwater samples were obtained from all six boreholes and submitted for laboratory analysis of BTEX and VPH. Groundwater concentrations and state standards are listed in Table 7 and benzene concentrations are graphically presented in Figure 4. Groundwater petroleum concentrations exceeded the state standards in boreholes BH-A, BH-B, BH-E, and BH-F. Borehole BH-B generally had the highest petroleum concentrations. The benzene concentration was 170 ug/l; the state standard is 5 ug/l. Borehole BH-A generally had the next highest concentrations.

Table 5
Hnu Photolization Measurements
Second TRC Site Investigation

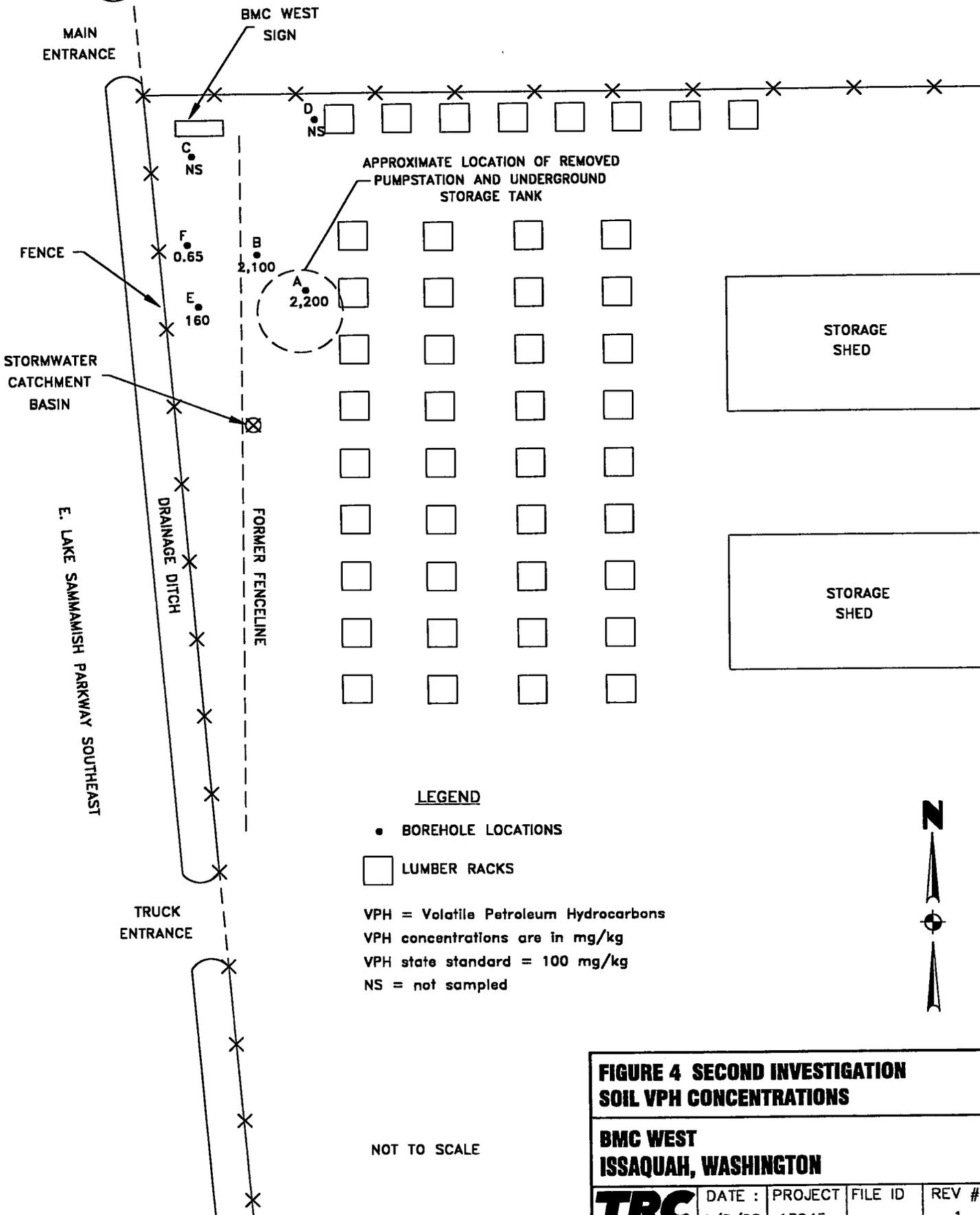
Borehole	Depth Interval (ft)	Reading (ppm)
BH-A	2-4	340
	6-8	3.6
BH-B	2-4	260
BH-C	2-4	0.6
	6-8	0.5
BH-D	2-4	0.2
BH-E	2-4	100
BH-F	2-4	30

ppm = parts per million

Table 6
Soil Analytical Results
Second TRC Site Investigation

	State Standard	BH-A, 2-4'	BH-B, 2-4'	BH-E, 2-4'	BH-F, 2-4'
Benzene	0.5	11	15	1.0	0.0047
Toluene	40	5.2	8.8	0.29	0.0019
Ethylbenzene	20	24	15	1.4	0.0035
Total Xylenes	20	280	110	4.1	0.0064
VPH	100	2200	2100	160	0.650

Units are mg/kg
 VPH = volatile petroleum hydrocarbons



LEGEND

● BOREHOLE LOCATIONS

□ LUMBER RACKS

VPH = Volatile Petroleum Hydrocarbons

VPH concentrations are in mg/kg

VPH state standard = 100 mg/kg

NS = not sampled



NOT TO SCALE

**FIGURE 4 SECOND INVESTIGATION
SOIL VPH CONCENTRATIONS**

**BMC WEST
ISSAQUAH, WASHINGTON**

TRC	DATE :	PROJECT	FILE ID	REV # :
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Table 7
Groundwater Analytical Results
Second TRC Site Investigation

Constituent	State Standard	BH-A	BH-B	BH-C	BH-D	BH-E	BH-F
Benzene	5	62	170	ND ₍₁₎	ND ₍₁₎	25	73
Toluene	40	96	110	ND ₍₁₎	1.0	4.6	6.0
Ethylbenzene	30	130	350	ND ₍₁₎	ND ₍₁₎	26	75
Total Xylenes	20	1300	1600	ND ₍₂₎	ND ₍₂₎	8.2	59
VPH	1000	5100	13000	ND ₍₁₀₀₎	ND ₍₁₀₀₎	870	1500

Units are ug/l

VPH = volatile petroleum hydrocarbons

ND₍₁₎ = not detected above method detection limit shown in parentheses, e.g., 1 ug/l.

Discussion of Results

Concentrations detected during the second investigation (December 1997) were generally higher than concentrations detected during the June 1996 investigation. A possible explanation of why the current results show higher concentrations is likely due to different sampling methods. The 1996 investigation was intended to "screen" the site to evaluate if there was a potential release whereas the current investigation was intended more to quantify any petroleum contamination.

During the 1996 investigation, 2-foot long soil samples were obtained at 5 foot intervals (e.g., 5-7 feet bgs and 10-12 feet bgs) and composite samples submitted for analysis. During the recent investigation, discrete soil samples were collected from just above the water table and analyzed. This is where soil petroleum concentrations are expected to be the highest.

Groundwater samples during the 1996 investigation were obtained directly from inside hollow-stem augers drilled to the total depth of the boreholes (up to 16.5 feet bgs). This may have averaged the groundwater petroleum concentrations across the borehole intervals. Groundwater samples obtained during the current investigation were obtained from a discrete interval near the top of the groundwater table.

Conclusions

Investigation results indicate petroleum concentrations in the soil and groundwater above state standards are present at the site. However, petroleum contamination appears to be limited to an area near the former tank locations and concentrations are relatively low. There are no down gradient residences or water supply wells that may be impacted. The nearest surface water is the Issaquah River located approximately 1/3 mile away, a relatively large distance. In addition, the clayey soil at the site is expected to restrict the migration of contaminants.

Mr. Joe Hickey
April 6, 1998
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Recommendations

Based on the site conditions, TRC believes that no further action is warranted at the site based on the following:

- The source of the petroleum contamination (i.e., the USTs) has been removed,
- The extent of soil and groundwater contamination appears to be limited,
- Detected petroleum concentrations are relatively low,
- The on-site soil consists of low permeability sandy clay and clayey sand which is expected to restrict the migration of petroleum contamination, and
- There are no registered water well users downgradient of the site which might be impacted.

If you have any questions or need additional information, please do not hesitate to contact Greg Groene or me at (303) 792-5555.

Sincerely,

TRC ENVIRONMENTAL CORPORATION



Matt Burrows, P.E.
Principal Design Engineer

cc: P. Street
E. Goebel

Attachments

ATTACHMENT 1
LABORATORY RESULTS

Sample: 02A BH5

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		7.3		1.0	ug/L	06/27/96
Toluene		1.5		1.0	ug/L	06/27/96
Ethylbenzene		10		1.0	ug/L	06/27/96
Xylenes, Total		110		2.0	ug/L	06/27/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		96.7		Min: 80	Max: 120	

Sample: 02C BH5

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Petroleum Hydrocarbons, T/R	EPA 418.1	3.0		0.10	mg/L	06/28/96

Sample: 03A BH1

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		3.0		1.0	ug/L	06/28/96
Toluene		2.3		1.0	ug/L	06/28/96
Ethylbenzene		2.9		1.0	ug/L	06/28/96
Xylenes, Total		3.8		2.0	ug/L	06/28/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min: 80	Max: 120	

Sample: 03C BH1

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Petroleum Hydrocarbons, T/R	EPA 418.1	2.1		0.10	mg/L	06/28/96

Sample: 04A BH3

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		ND		1.0	ug/L	06/28/96
Toluene		ND		1.0	ug/L	06/28/96
Ethylbenzene		ND		1.0	ug/L	06/28/96
Xylenes, Total		6.7		2.0	ug/L	06/28/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min: 80	Max: 120	

Sample: 04C BH3

Collected: 06/25/96 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
Petroleum Hydrocarbons, T/R	EPA 418.1	0.28		0.10	mg/L	06/28/96

Sample: 05A BH1

Collected: 06/25/96 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		10		1.3	ug/Kg-DRY	06/27/96
Toluene		4.0		1.3	ug/Kg-DRY	06/27/96
Ethylbenzene		6.9		1.3	ug/Kg-DRY	06/27/96
Xylenes, Total		6.5		2.5	ug/Kg-DRY	06/27/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		92.1		Min: 70	Max: 130	
Percent Moisture	ASTM D2216	20.5		0.1	WT%	07/01/96
Petroleum Hydrocarbons, T/R	EPA 418.1M	99		4.2	mg/Kg-DRY	06/28/96

Sample: 06A BH2

Collected: 06/25/96

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		ND		1.3	ug/Kg-DRY	06/27/96
Toluene		ND		1.3	ug/Kg-DRY	06/27/96
Ethylbenzene		ND		1.3	ug/Kg-DRY	06/27/96
Xylenes, Total		ND		2.6	ug/Kg-DRY	06/27/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min:	70	Max: 130
Percent Moisture	ASTM D2216	22.4		0.1	WT%	07/01/96
Petroleum Hydrocarbons, T/R	EPA 418.1M	31		4.3	mg/Kg-DRY	06/28/96

Order # 96-06-138
ANALYTICA, INC.

TRC Environmental Corporation
TEST RESULTS by SAMPLE

Sample: 09A BH5

Collected: 06/25/96

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		76	D	6.2	ug/Kg-DRY	06/28/96
Toluene		22	D	6.2	ug/Kg-DRY	06/28/96
Ethylbenzene		100	D	6.2	ug/Kg-DRY	06/28/96
Xylenes, Total		790	D	12	ug/Kg-DRY	06/28/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		89.5		Min: 70	Max: 130	
Percent Moisture	ASTM D2216	19.5		0.1	WT%	07/01/96
Petroleum Hydrocarbons, T/R	EPA 418.1M	ND		4.1	mg/Kg-DRY	06/28/96

Order # 96-06-138
ANALYTICA, INC.

TRC Environmental Corporation
TEST RESULTS by SAMPLE

Sample: 10A BH6

Collected: 06/25/96

Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8020					
Benzene		28		1.3	ug/Kg-DRY	06/28/96
Toluene		2.2		1.3	ug/Kg-DRY	06/28/96
Ethylbenzene		8.0		1.3	ug/Kg-DRY	06/28/96
Xylenes, Total		31		2.6	ug/Kg-DRY	06/28/96
SURROGATES, % Recovery						
p-Bromofluorobenzene		92.3		Min: 70	Max: 130	
Percent Moisture	ASTM D2216	22.2		0.1	WT%	07/01/96
Petroleum Hydrocarbons, T/R	EPA 418.1M	44		4.2	mg/Kg-DRY	06/28/96



RECEIVED
DEC 23 1997
TRC

325 Interlocken Parkway
Suite 200
Broomfield, CO 80021
(303) 469-8868
(800) 873-8707
FAX: (303) 469-5254

an Analytica Group company

TRC Environmental Corporation
11 Inverness Drive East
Englewood, CO 80112

Attn: Matt Burrows

Order #: 97-12-052
Date: 12/18/97 20:00
Work ID: BMC WEST - Issaquah, WA
Date Received: 12/05/97
Date Completed: 12/18/97

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Client Description</u>	<u>Sample Number</u>	<u>Client Description</u>
01	BH-A	07	BH-A, 4'
02	BH-B	08	BH-B, 4'
03	BH-C	09	BH-E, 4'
04	BH-D	10	BH-F, 4'
05	BH-E	11	TRIP BLANK
06	BH-F		

Enclosed are the analytical results for the submitted sample(s). Please review the CASE NARRATIVE for a discussion of any data and/or quality control issues. A listing of data qualifiers and analytical codes is located on the TEST METHODOLOGIES page at the end of the report.

If you have any questions regarding the analyses, please feel free to call.

Sincerely,

Claire Toon
Project Manager

Samples were prepared and analyzed according to methods outlined in the following references:

- o Test Methods for Evaluating Solid Waste, USEPA SW-846, Third Edition, Revision 3, January 1995.

Problems encountered with the analyses are discussed in the following narrative.

The BTEX analysis on soil samples BH-A,4' and BH-B,4' showed surrogate compound recovery that was above quality control limits. The recovery was biased high due to the presence of late eluting hydrocarbons which interfered with the quantitation of the surrogate. Secondary analyses confirmed this result.

The VPH analysis of soil sample BH-E,4' showed a similarly biased surrogate recovery for the reasons listed above. This result was also confirmed by secondary analysis.

Sample: 01A BH-A

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		62 D	10	ug/L	12/15/97
Toluene		96 D	10	ug/L	12/15/97
Ethylbenzene		130 D	10	ug/L	12/15/97
Xylenes, Total		1300 D	20	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		107	Min: 76	Max: 112	
Volatile Pet Hydrocarbons	8015B/API				
VPH		5100 D	1000	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		93.3	Min: 70	Max: 130	

Sample: 02A BH-B

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		170 D	10	ug/L	12/15/97
Toluene		110 D	10	ug/L	12/15/97
Ethylbenzene		350 D	10	ug/L	12/15/97
Xylenes, Total		1600 D	20	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		96.7	Min: 76	Max: 112	
Volatile Pet Hydrocarbons	8015B/API				
VPH		13000 D	1000	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		117	Min: 70	Max: 130	

Sample: 03A BH-C

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		ND	1.0	ug/L	12/15/97
Toluene		ND	1.0	ug/L	12/15/97
Ethylbenzene		ND	1.0	ug/L	12/15/97
Xylenes, Total		ND	2.0	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		107	Min: 76	Max: 112	
Volatile Pet Hydrocarbons	8015B/API				
VPH		ND	100	ug/L	12/15/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		100	Min: 70	Max: 130	

Sample: 04A BH-D

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B					
Benzene		ND		1.0	ug/L	12/15/97
Toluene		1.0		1.0	ug/L	12/15/97
Ethylbenzene		ND		1.0	ug/L	12/15/97
Xylenes, Total		ND		2.0	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		103		Min:	76	Max: 112
Volatile Pet Hydrocarbons	8015B/API					
VPH		ND		100	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min:	70	Max: 130

Sample: 05A BH-E

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B					
Benzene		25		1.0	ug/L	12/15/97
Toluene		4.6		1.0	ug/L	12/15/97
Ethylbenzene		26		1.0	ug/L	12/15/97
Xylenes, Total		8.2		2.0	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		93.3		Min:	76	Max: 112
Volatile Pet Hydrocarbons	8015B/API					
VPH		870		100	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min:	70	Max: 130

Sample: 06A BH-F

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B					
Benzene		73		1.0	ug/L	12/15/97
Toluene		6.0		1.0	ug/L	12/15/97
Ethylbenzene		75		1.0	ug/L	12/15/97
Xylenes, Total		59		2.0	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		90.0		Min:	76	Max: 112
Volatile Pet Hydrocarbons	8015B/API					
VPH		1500		100	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		103		Min:	70	Max: 130

Sample: 07A BH-A,4'

Collected: 12/04/97 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		11000 D	1600	ug/Kg-DRY	12/16/97
Toluene		5200 D	1600	ug/Kg-DRY	12/16/97
Ethylbenzene		24000 D	1600	ug/Kg-DRY	12/16/97
Xylenes, Total		280000 D	3200	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		123 *	Min: 61	Max: 114	
Percent Moisture	ASTM D2216	21.9	0.1	WT%	12/10/97
Volatile Pet Hydrocarbons	8015B/API				
VPH		2200000 D	160000	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		104	Min: 50	Max: 150	

Sample: 08A BH-B,4'

Collected: 12/04/97 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		15000 D	1600	ug/Kg-DRY	12/16/97
Toluene		8800 D	1600	ug/Kg-DRY	12/16/97
Ethylbenzene		15000 D	1600	ug/Kg-DRY	12/16/97
Xylenes, Total		110000 D	3200	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		117 *	Min: 61	Max: 114	
Percent Moisture	ASTM D2216	22.0	0.1	WT%	12/10/97
Volatile Pet Hydrocarbons	8015B/API				
VPH		2100000 D	160000	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		104	Min: 50	Max: 150	

Sample: 09A BH-E,4'

Collected: 12/04/97 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u> <u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B				
Benzene		1000 D	130	ug/Kg-DRY	12/16/97
Toluene		290 D	130	ug/Kg-DRY	12/16/97
Ethylbenzene		1400 D	130	ug/Kg-DRY	12/16/97
Xylenes, Total		4100 D	270	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		97.5	Min: 61	Max: 114	
Percent Moisture	ASTM D2216	6.60	0.1	WT%	12/10/97
Volatile Pet Hydrocarbons	8015B/API				
VPH		160000 D	13000	ug/Kg-DRY	12/16/97
SURROGATES, % Recovery					
p-Bromofluorobenzene		175 *	Min: 50	Max: 150	

Sample: 10A BH-F,4'

Collected: 12/04/97 Matrix: SOIL

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B					
Benzene		4.7		1.3	ug/Kg-DRY	12/17/97
Toluene		1.9		1.3	ug/Kg-DRY	12/17/97
Ethylbenzene		3.5		1.3	ug/Kg-DRY	12/17/97
Xylenes, Total		6.4		2.6	ug/Kg-DRY	12/17/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		110		Min: 61	Max: 114	
Percent Moisture	ASTM D2216	24.2		0.1	WT%	12/10/97
Volatile Pet Hydrocarbons	8015B/API					
VPH		650		130	ug/Kg-DRY	12/17/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		113		Min: 50	Max: 150	

Sample: 11A TRIP BLANK

Collected: 12/04/97 Matrix: WATER

<u>Test Description</u>	<u>Method</u>	<u>Result</u>	<u>Q</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
BTEX	EPA 8021B					
Benzene		ND		1.0	ug/L	12/15/97
Toluene		ND		1.0	ug/L	12/15/97
Ethylbenzene		ND		1.0	ug/L	12/15/97
Xylenes, Total		ND		2.0	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		103		Min: 76	Max: 112	
Volatile Pet Hydrocarbons	8015B/API					
VPH		ND		100	ug/L	12/15/97
SURROGATES, % Recovery						
p-Bromofluorobenzene		100		Min: 70	Max: 130	

THE FOLLOWING CODES APPLY TO THE ANALYTICAL REPORT

RESULT field...

- ND = not detected at the reported limit
- NA = analyte not applicable (see case narrative/methods for discussion)

Q (qualifier) field...

GENERAL:

- * = Recovery or %RPD outside method specifications
- H = value is estimated due to analysis run outside EPA holding times
- E = reported concentration is above the instrument calibration range
- D = analyte was diluted to bring within instrument calibration range or to remove matrix interferences

ORGANIC ANALYSIS DATA QUALIFIERS:

- B = analyte was detected in the laboratory method blank
- J = analyte was detected above the instrument detection limit (IDL) but below the analytical reporting limit (CRDL)

INORGANIC ANALYSIS DATA QUALIFIERS:

- B = analyte was detected above the instrument detection limit (IDL) but below the analytical reporting limit (CRDL)
- W = post digestion spike did not meet criteria (80-120%)
- S = reported value determined by the Method of Standard Additions

BTEX_S: BTEX (GCPID) METHOD: 8020

BTEX_W: BTEX (GCPID) METHOD: 8020

VPH_S: VOLATILE PETROLEUM HYDROCARBONS METHOD: mod 8015/API gasoline
Analysis of volatile gasoline components. 5 grams of sample are
sparged per method 5030A and analyzed by GC-FID using chromatographic
conditions outlined in the American Petroleum Institute method for
gasoline and SW846 8015 modified for gasoline. The sample is
quantitated against known concentrations of gasoline standards.

VPH_W: VOLATILE PETROLEUM HYDROCARBONS METHOD: mod 8015/API gasoline
Analysis of volatile gasoline components. 5 mLs of sample are sparged
per method 5030A and analyzed by GC-FID using chromatographic
conditions outlined in the American Petroleum Institute method for
gasoline and SW846 8015 modified for gasoline. The sample is
quantitated against known concentrations of gasoline standards.

PMOIST: PERCENT MOISTURE METHOD: ASTM D2216

Sample: 01A BH-A

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 02A BH-B

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 03A BH-C

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 04A BH-D

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 05A BH-E

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 06A BH-F

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

Sample: 07A BH-A, 4'

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/16/97
Percent Moisture	ASTM D2216	12/04/97	12/05/97	NA		12/10/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/16/97

Sample: 08A BH-B, 4'

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/16/97
Percent Moisture	ASTM D2216	12/04/97	12/05/97	NA		12/10/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/16/97

Sample: 09A BH-E,4'

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/16/97
Percent Moisture	ASTM D2216	12/04/97	12/05/97	NA		12/10/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/16/97

Sample: 10A BH-F,4'

Matrix: SOIL

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/17/97
Percent Moisture	ASTM D2216	12/04/97	12/05/97	NA		12/10/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/17/97

Sample: 11A TRIP BLANK

Matrix: WATER

<u>Analysis</u>	<u>Method</u>	<u>Collected</u>	<u>Received</u>	<u>TCLP date</u>	<u>Extracted</u>	<u>Analyzed</u>
BTEX	EPA 8021B	12/04/97	12/05/97	NA		12/15/97
Volatile Pet Hydrocarbons	8015B/API	12/04/97	12/05/97	NA		12/15/97

**ATTACHMENT 2
CORRESPONDENCE**

Building Materials Holding Corporation

720 Park Boulevard, Suite 200
P O. Box 70006 (83707-0106)
Boise, Idaho 83712-7714
Telephone: (208) 331-4300 • Fax: (208) 387-4367

BMC West Corporation,
BMCW SouthCentral, L.P. and
BMC Construction, Inc. are
wholly-owned subsidiaries of
Building Materials Holding Corporation

Paul S. Street
Sr. Vice President, Chief Administrative Officer,
General Counsel and Corporate Secretary
Direct Dial: (208) 331-4381
E-Mail: street@bmmc.com

May 13, 2003

State of Washington
Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re : 5210 E. Lake Sammamish Parkway SE, Issaquah
Underground Storage Tank #10246

This letter is in reference to your request for additional information relating to site cleanup activities on the above referenced property. BMC West Corporation hired TRC Environmental Corporation to conduct an Environmental Investigation of this property. You were provided a copy of the results of this investigation on April 6, 1998.

TRC's recommendation was that no further cleanup action was needed at the site and the BMC West complied with this recommendation.

If you require additional information on this property, please contact me.

Sincerely,



Paul S. Street, Senior Vice President,
Chief Administrative Officer,
General Counsel and Corporate Secretary

cc: Stan Wilson
Jim Lee



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

April 22, 2003

BMC West Building Materials
720 Park Boulevard, Suite 200
Boise, ID 83712-7764

To Whom It May Concern:

Re: Former Henry Bacon Building, 5210 E. Lake Sammamish Parkway SE, Issaquah
Underground Storage Tank #10246
Requesting additional information relating to site cleanup activities

The Department of Ecology (Ecology) is currently reviewing site files related to leaking underground storage tank sites. Because some of the cleanup levels for petroleum products have changed due to recent amendments to the Model Toxics Control Act, Washington Administrative Code Chapter 173-340, this site may qualify for a change in cleanup status. Currently the status of this site is "Cleanup Started". If you have completed this cleanup and can provide Ecology with additional information, we may be able to change the status of this site to "Reported Cleaned Up". Listed below is information Ecology maintains in the file:

- Environmental Investigation Results, prepared by TRC Environmental Corporation / April 6, 1998.
- Site Assessment Report, prepared by TRC Environmental Corporation / July 8, 1996.
- Underground Storage Tank Notice of Confirmed Release / April 9, 1998.
- Environmental Report Tracking System (ERTS) report / N29424 / April 9, 1998.

This release was reported to Ecology on April 9, 1998 during construction of a storm water catchment basin. Three gasoline underground storage tanks and pump station were removed in 1989. Soil and groundwater petroleum contamination remains in the area of the former pump station which exceeds the Model Toxic Control Act (MTCA) Method A cleanup levels for gasoline and BTEX. Ecology would like to know if there are soil and groundwater reports available for review.



BMC West Building Materials

April 22, 2003

Page 2

Ecology is requesting any updated information you may have on the cleanup activities at this site by May 22, 2003. Please submit the documents to John Bails at the Department of Ecology, Northwest Regional Office-Toxic Cleanup Program, 3190 160th Avenue SE, Bellevue, WA 98008-5452. Ecology's objective is to facilitate the cleanup process at the site, with the goal of moving the site into a "Reported Cleaned Up" or "No Further Action" status with regard to the above mentioned petroleum release.

Your site is eligible for the Voluntary Cleanup Program. The Voluntary Cleanup Program is a fee-based service that Ecology offers to parties who want a detailed review of independent cleanup activities conducted at their site, and who want a determination documented by a letter. The Voluntary Cleanup Program offers a range of opportunities for assistance on completing the cleanup of your site, including the review of plans and proposals. Eventually, after the successful review of a completed cleanup, the result is a "No Further Action" letter. The "No Further Action" letter may be useful in the future to a buyer, seller, or financial institution in the event of a property transaction.

A "Reported Cleaned Up" status is not the same as a "No Further Action" status. It does not involve a detailed review by Ecology. The "Reported Cleaned Up" status may be based on the opinion of the site owner, consultant, or contractor as stated in the reports submitted to Ecology.

Your reports will be kept in the Central Files of the Northwest Regional Office of Ecology for public review by appointment only. Appointments can be made to review files by calling the Northwest Regional Office Records Center at (425) 649-7190.

If you have questions about any of the information presented in this letter, please contact John Bails at (425) 649-7099.

Sincerely,



Carrie McDougal
Toxics Cleanup Program
Department of Ecology

CM:cm
Enclosure

cc: John Bails, State of Washington Department of Ecology, NWRO-TCP

Appendix B – Geophysical Report



**Underground Detection
Services, Inc.**

8809 North 56th Ave.
Glendale, AZ 85301

623/939-4690, tel
602/955-3146, fax
888/822-4999, toll-free

April 19, 2013

**James Georgis
Zipper Geo Associates, LLC
19023 36th Ave W, Suite D
Lynnwood, WA 98036**

Dear James:

This is a report on the equipment, procedures, and results of the geophysical survey performed at BMC Lumber, 5210 East Lake Sammamish Pkwy SE, Issaquah, WA. The survey was performed on April 17, 2013.

There were several areas that were to have soil borings and one area of a former UST to be surveyed with the GPR.

The equipment that was used for the survey included, but was not limited GSSI Sir 3000 System ground penetrating radar (GPR) with 270 MHz antenna and pipe/cable locators.

The GPR utilizes high frequency radio waves to probe the subsurface. A radio wave is emitted from the antenna and travels through the soil, if there is an anomaly below the antenna; the radio wave is reflected back. The data that is collected is displayed in real time, through a color display.

The data that is produced is a cross section of the geology directly below the antenna. The top of the data represents the ground surface while the bottom of the page is a reading depth of the equipment. The data is collected and displayed from left to right, with left being the beginning and right being the end of the particular survey line. Anomalies typically appear white on a color screen.

The depth of the signal penetration is dependent upon geological factors beyond the control of the surveyor. Conductive soils, clays, and saturated soils, do not allow the GPR signal to penetrate as deeply as less resistive sandy soil.

The pipe/cable locators were used around each proposed soil boring. Utility lines that were found were marked on the surface with marking paint. A Public gas meter was observed on an east building. The utility company should be informed that the line had not been marked and should be marked before any drilling occurs on site.

The GPR survey was setup on the west side of the lumber yard where the reported UST had been removed. The antenna was pushed across the top of the surface where the soil borings were marked. Data was collected continually and examined on site. The data did show an area approximately 25' X 25' that appears to have been excavated. The area was marked on the surface with marking pain. An area directly north of the excavation was surveyed with the GPR. An unknown anomaly appears in the data. The anomaly could be a pipe associated with the drainage system. The anomaly was marked on the surface with marking paint.

UST's, excavations, and pipes/cables in the survey area may not have been located due to material, depth of pipe, the UST's collapsed and filled with native soil, reinforced concrete, and UST's that were not within the geophysical survey area.

Respectfully,

A handwritten signature in black ink, appearing to read "Richard A. Lund". The signature is written in a cursive, flowing style.

Richard A. Lund



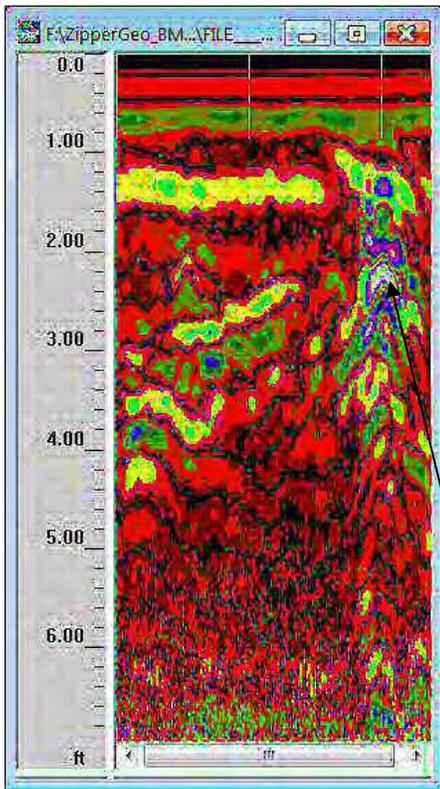
Possible UST pit



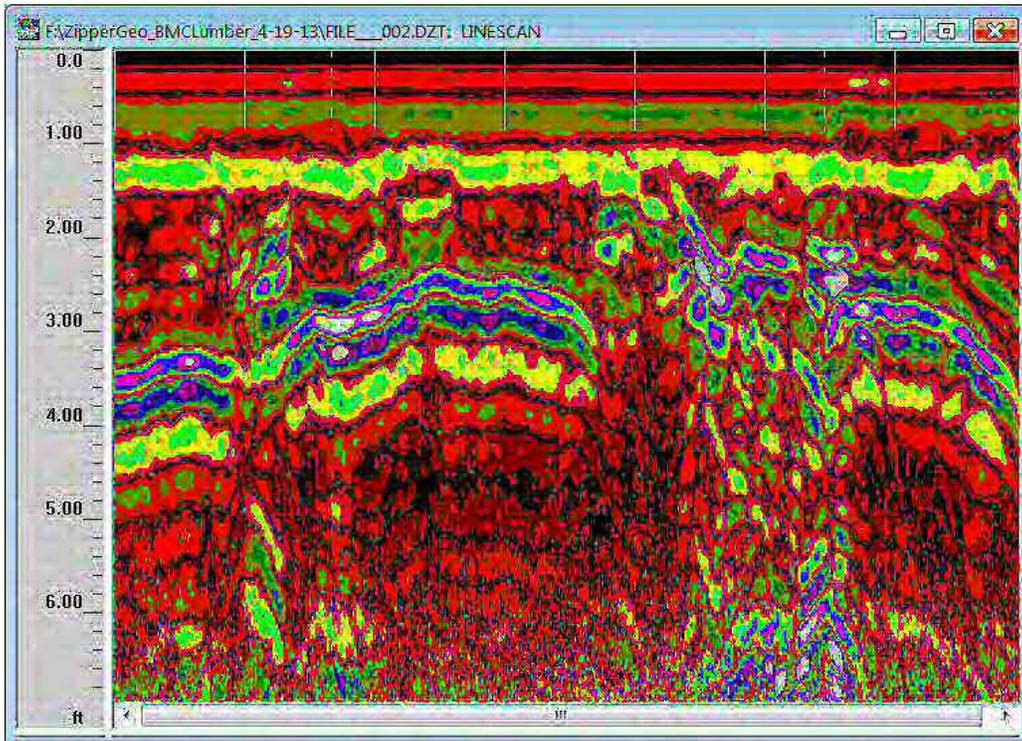
Unknown anomaly north of UST pit



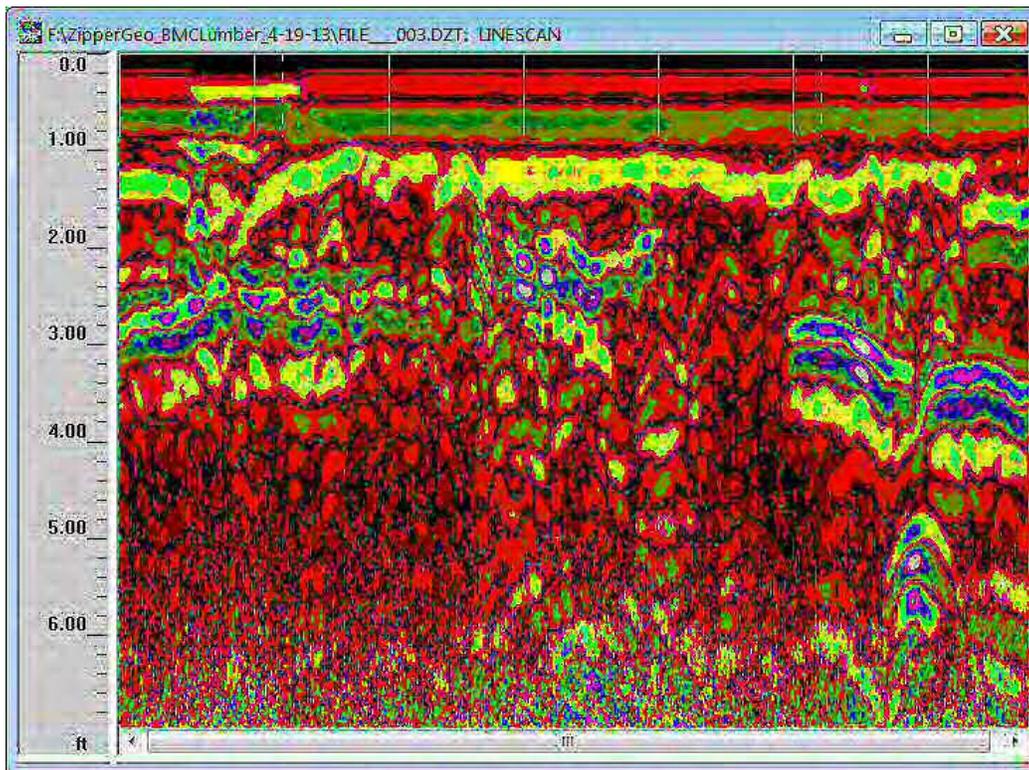
Electrical lines along perimeter fence



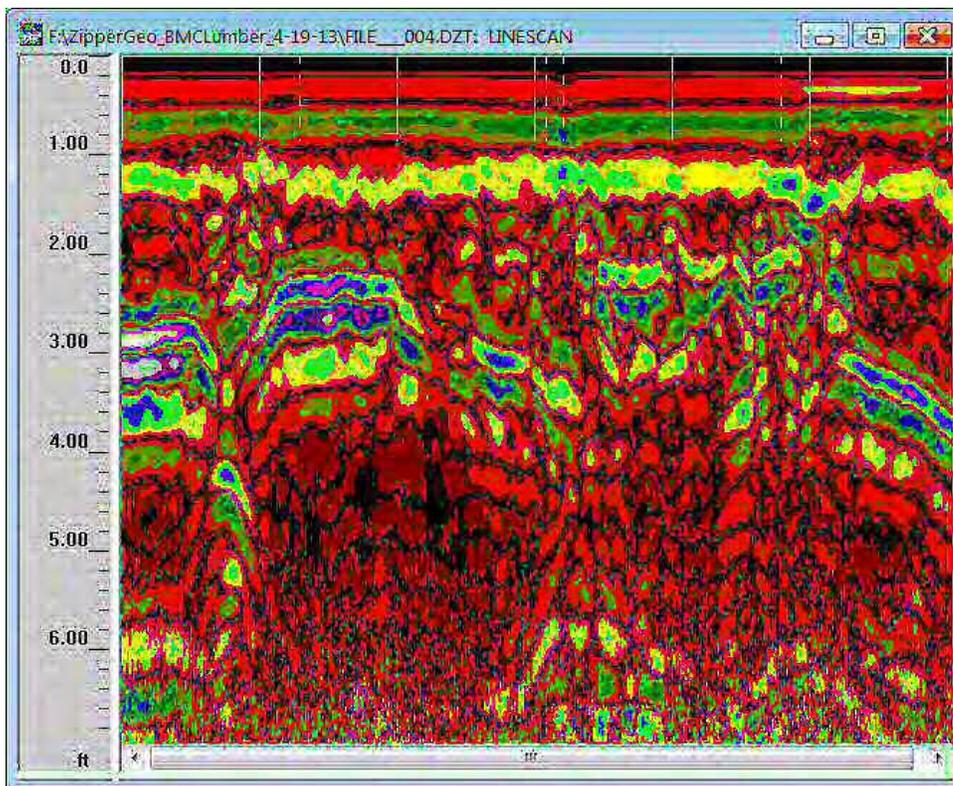
GPR Data; Catch basin, South to North, drain line



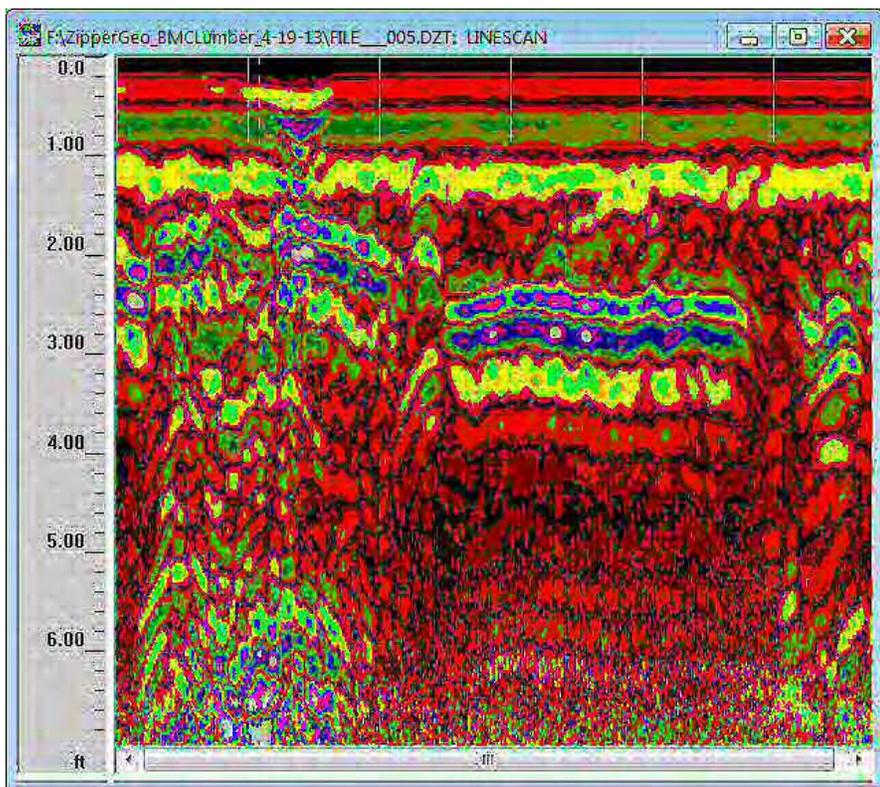
GPR Data; UST oit, East to West



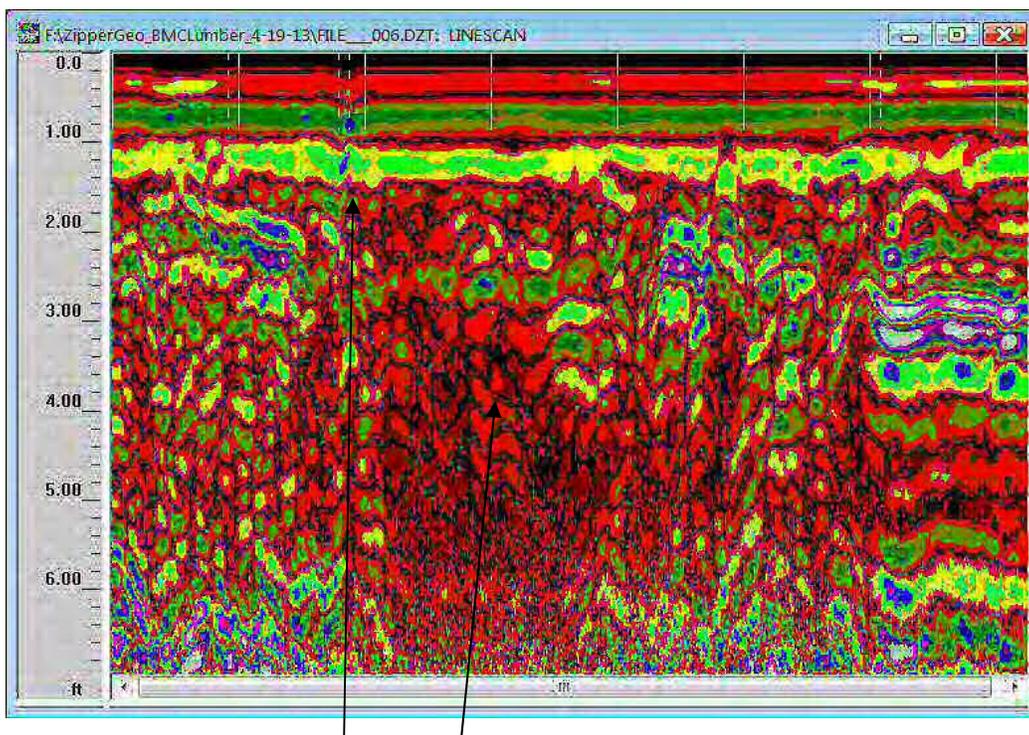
GPR Data; UST pit, W-E



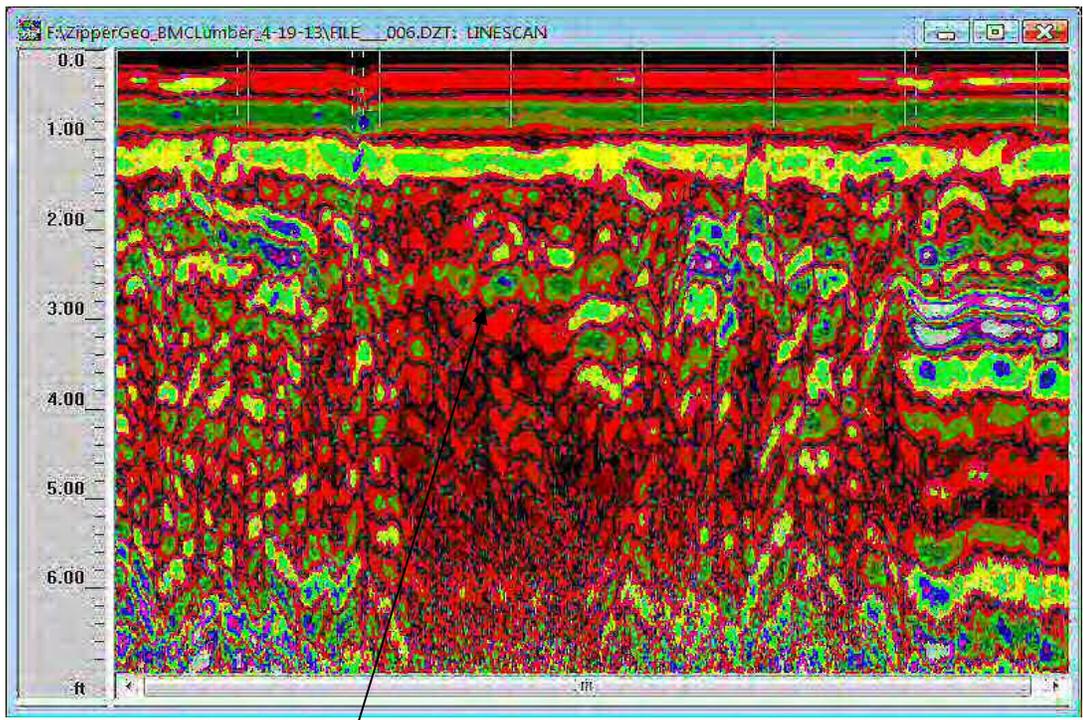
GPR Data; UST pit, S-N



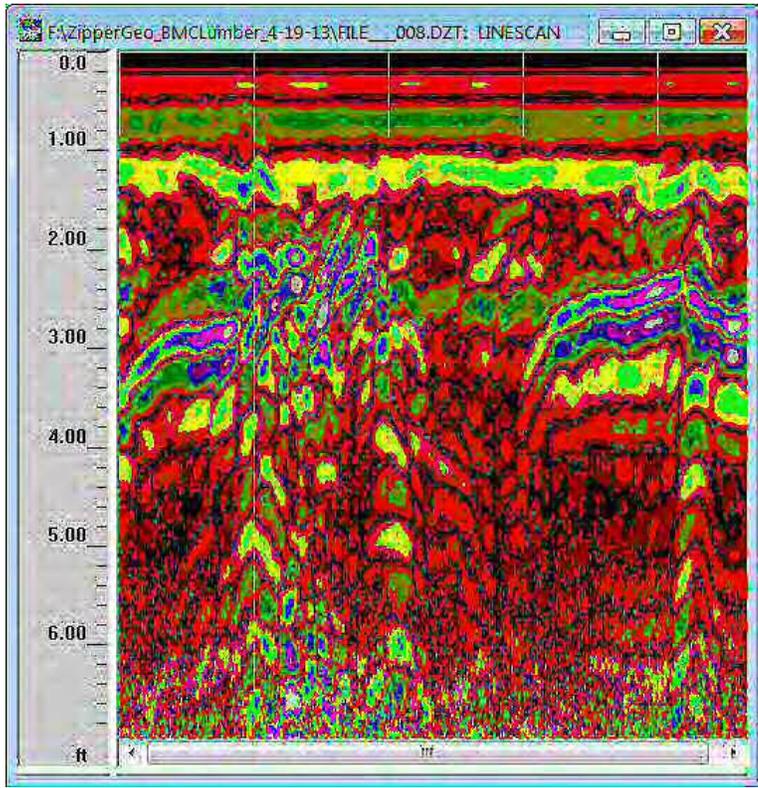
GPR Data; UST pit, N-S



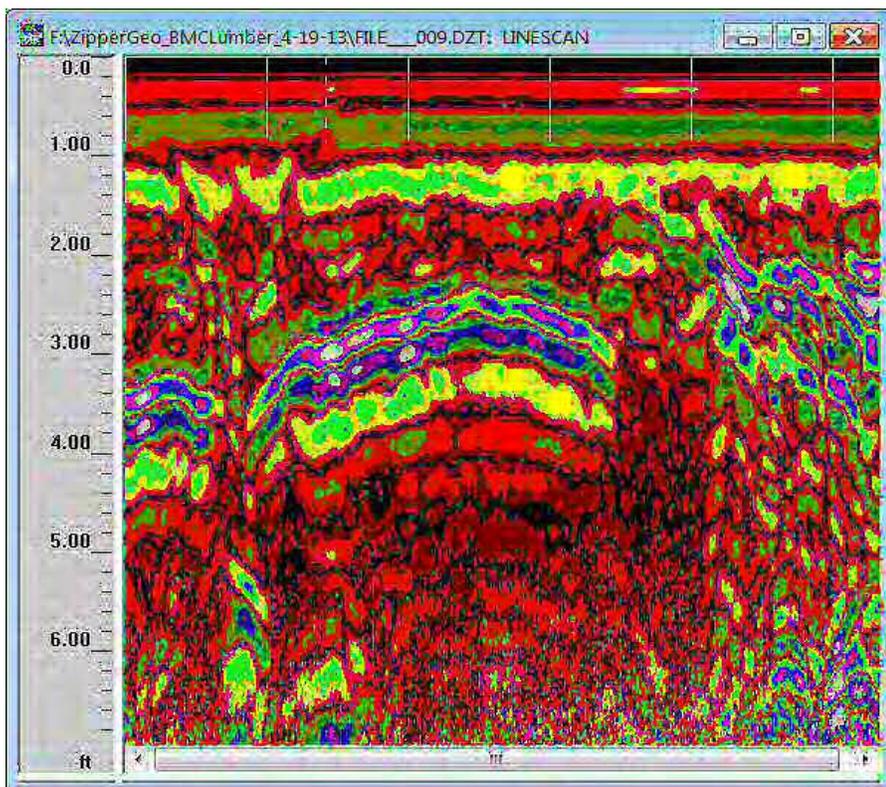
GPR Data; UST pit, S-N, soil boring, excavation



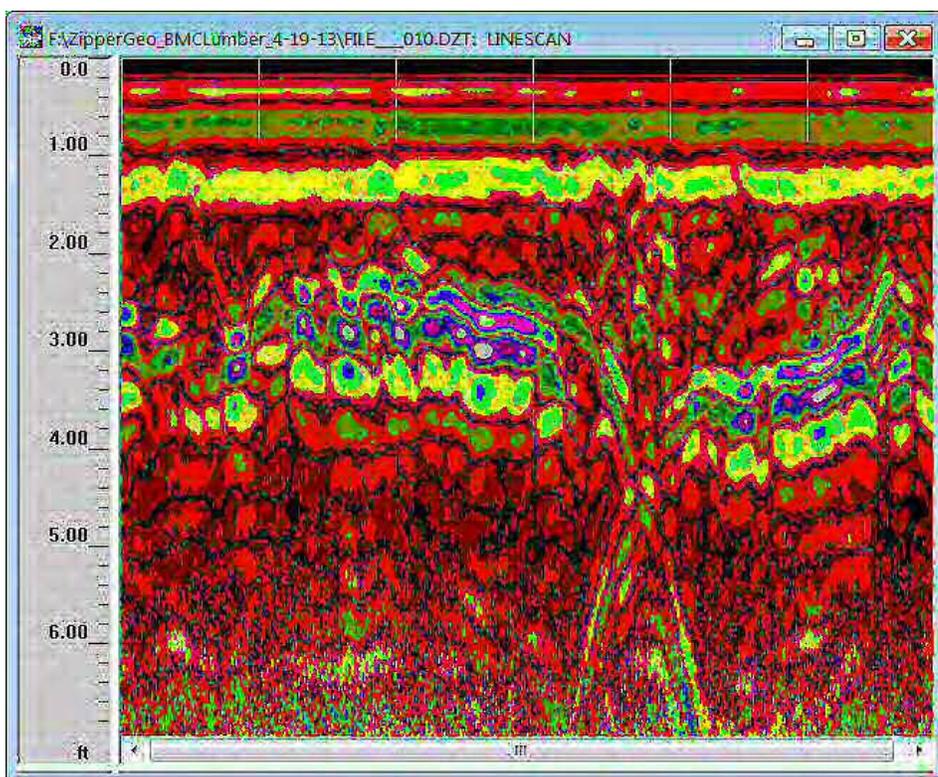
GPR Data; UST pit, S-N, excavation



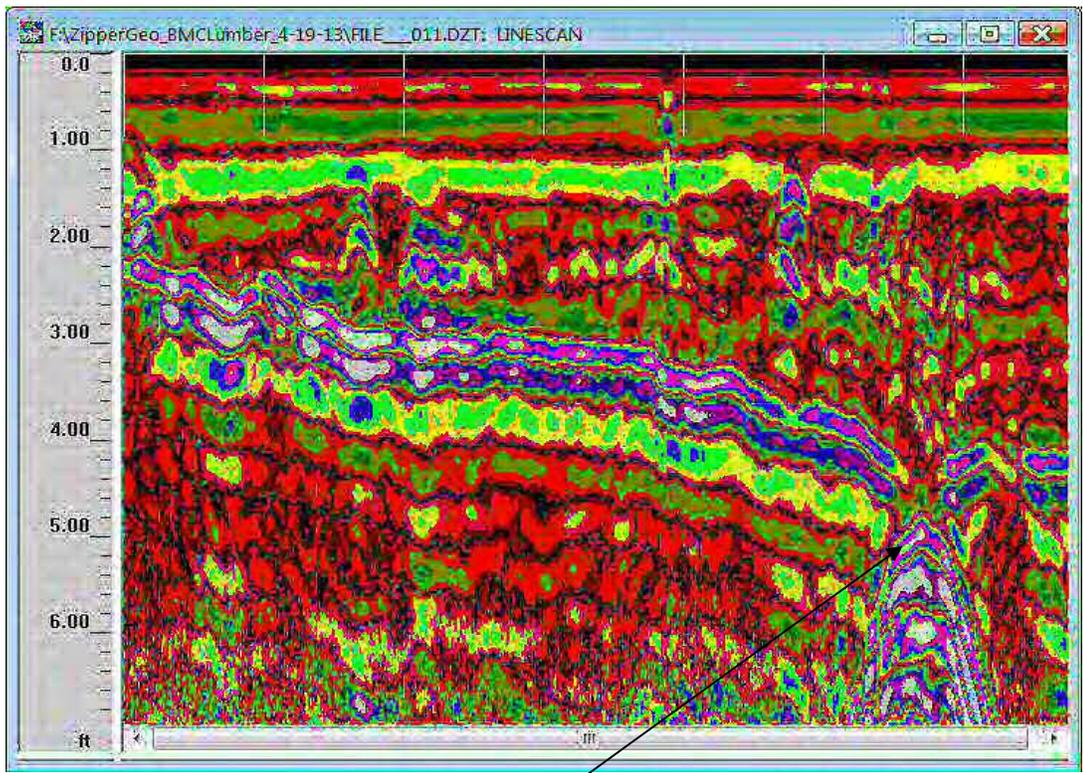
GPR Data; UST pit, W-E



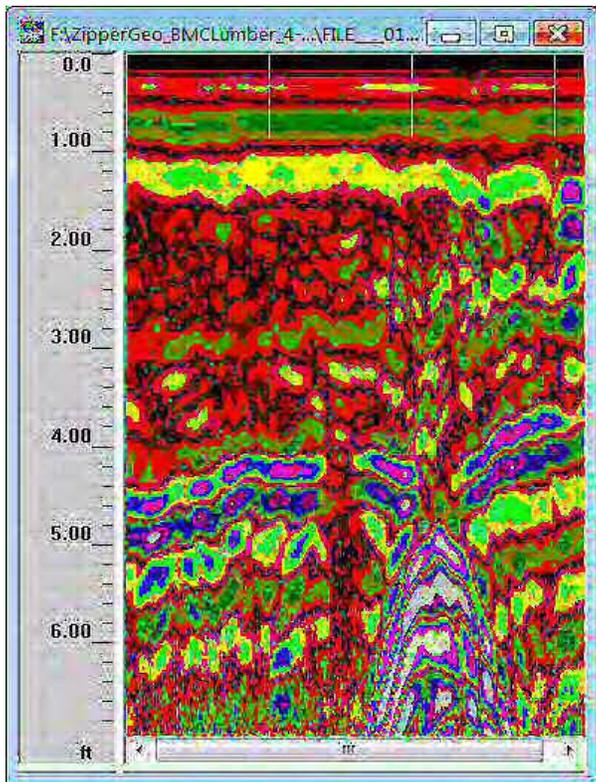
GPR Data; UST pit, E-W



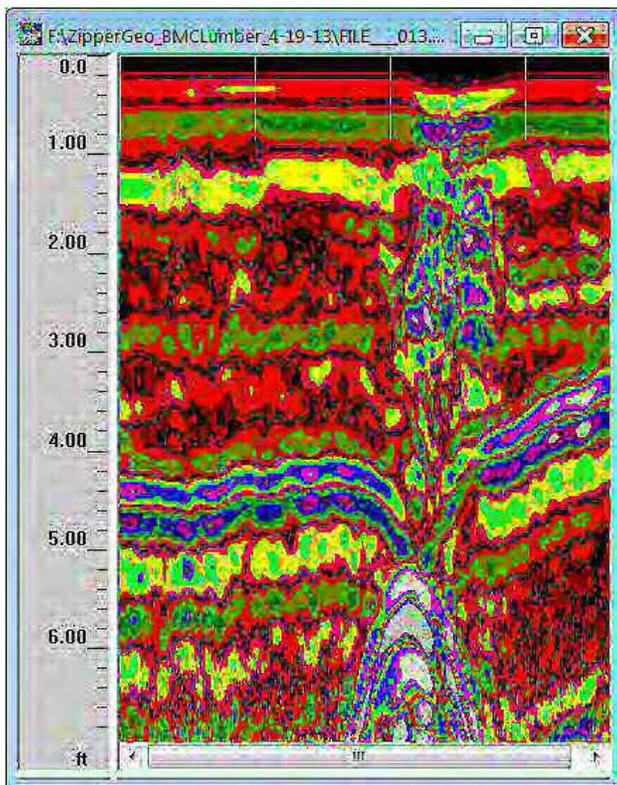
GPR Data; South of UST pit, W-E



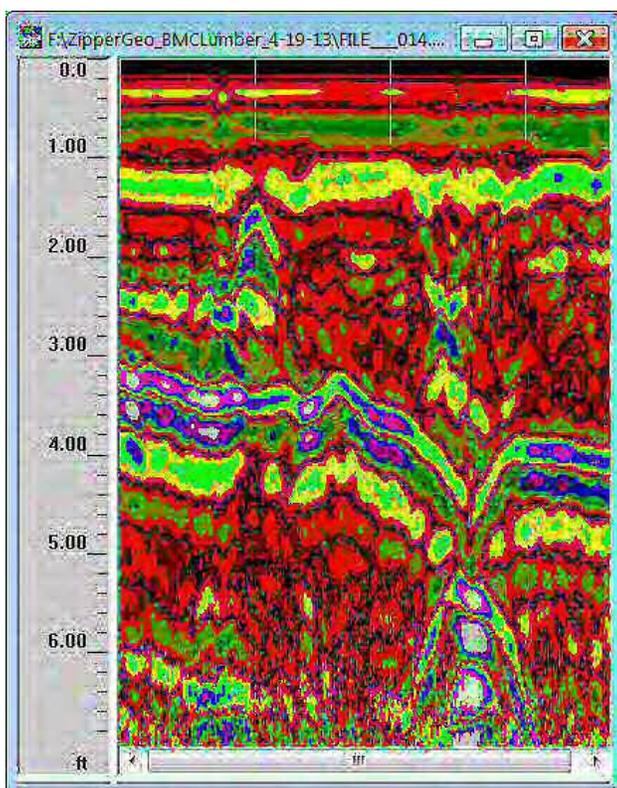
GPR Data; North of UST pit, W-E, unknown anomaly



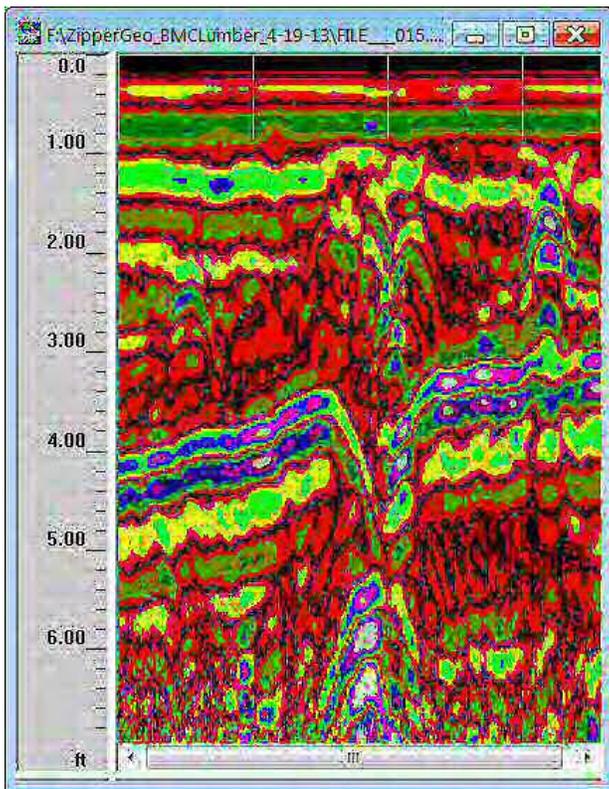
GPR Data; North of UST pit, E-W



GPR Data; North of UST pit, W-E



GPR Data; North of UST pit, E-W



GPR Data; North of UST pit, W-E

Appendix C – Supplemental Subsurface Investigation Figures

BH-2			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-2	2-4	ND	ND

GP-9			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP9-1	4	<3.0	<0.03
GP9-2	10	<3.0	<0.03

GP-7/MW-3 (RIM = 99.73ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP7-1	4	<3.0	<0.03
GP7-2	9	<3.0	<0.03

BH-F			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-F, 2-4'	2-4	0.650	0.0047

BH-6			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-6	2-4	44	0.028

BH-B			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-B, 2-4'	2-4	2,100	15

BH-E			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-E, 2-4'	2-4	160	1.0

GP-4			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP4-1	5	1,100	<0.30
GP4-2	9	4.5	<0.03

GP-8/MW-4 (RIM = 99.96 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP8-1	5	1,900	<0.060
GP8-2	8	3.8	0.030

GP-5			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP5-1	5	2,800	2.0
GP5-2	10	<3.0	<0.03

BH-A			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-A, 2-4'	2-4	2,200	11

GP-1/MW-1 (RIM = 99.99 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP1-1	5	530	0.20
GP1-2	7	39	<0.03
GP1-3	12	<3.0	<0.03

GP-2			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP2-1	5	36	<0.03
GP2-2	8	<3.0	<0.03

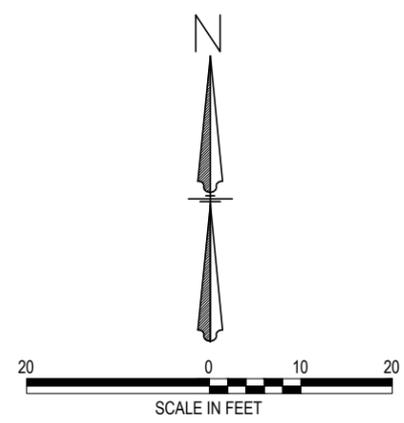
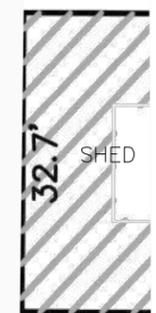
BH-5			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-5	2-4	ND	0.076

GP-3			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP3-1	5	<3.0	<0.03
GP3-2	10	<3.0	<0.03

BH-1			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-1	2-4	99	3.0

GP-6/MW-2 (RIM = 99.45 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP6-1	5	<3.0	<0.03
GP6-2	10	<3.0	<0.03

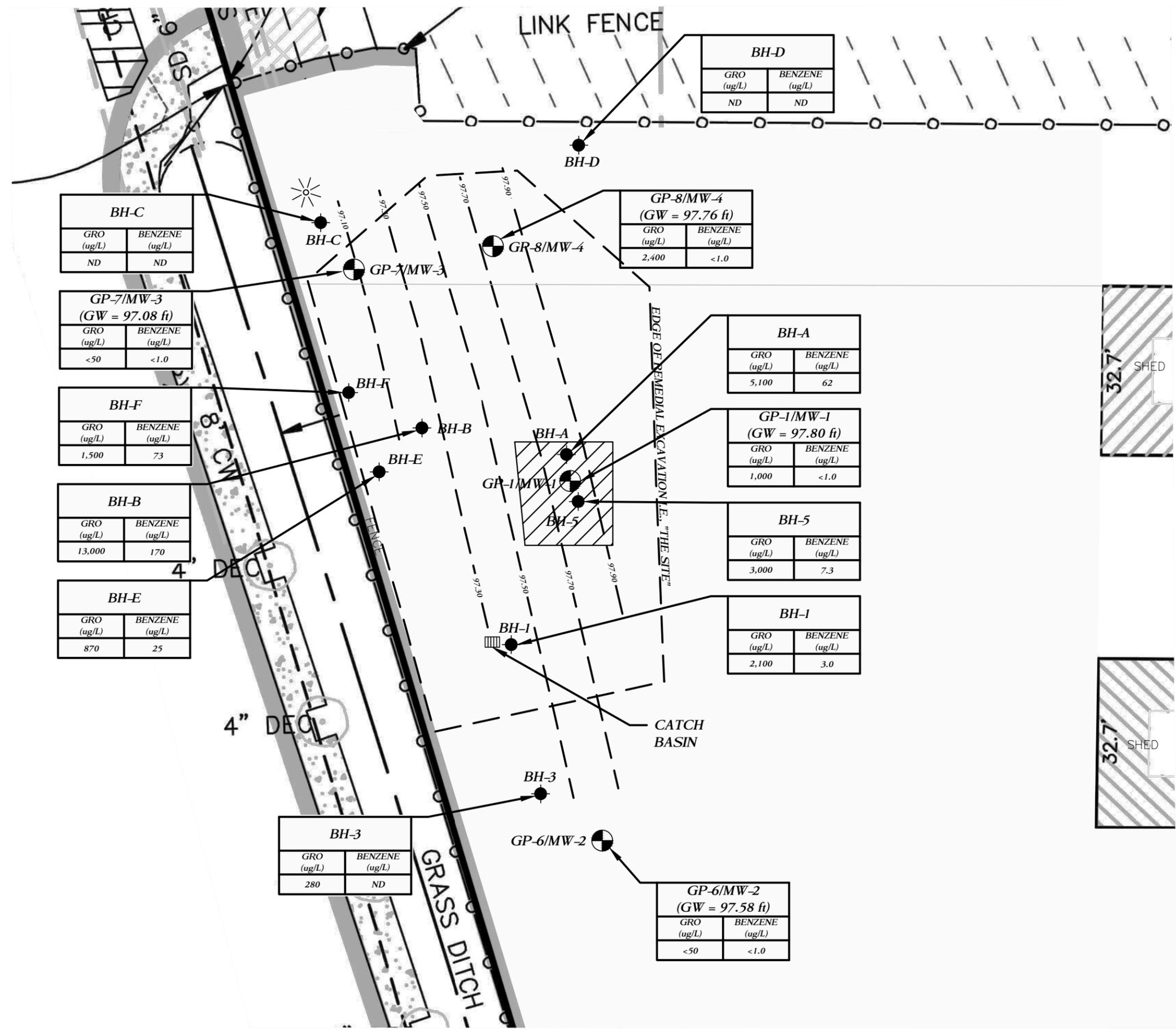
- LEGEND**
- GP-1/MW-1 ZGA DIRECT PUSH BORING/ GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION. GROUNDWATER MONITORING WELL MONUMENT RIM ELEVATION IN FEET.
 - BH-1 BORING ADVANCED DURING 1998 TRC INVESTIGATION. ALL LOCATIONS ARE APPROXIMATE, REFERENCE FIGURE NOT TO SCALE.
 - SITE SPECIFIC BENCHMARK PINK NAIL WITH WASHER ASSUMED ELEVATION = 100 FEET
 - APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK CAVITY IDENTIFIED BY GROUND PENETRATING RADAR SURVEY, AND APPROXIMATE LOCATION OF FORMER USTs AND PUMP ISLAND AS DEFINED BY TRC (1998)
 - "THE SITE" PER WAC 173-340-200



BMC WEST
5210 East Lake Sammamish Parkway SE
Issaquah, Washington

**SUMMARY OF REMEDIAL INVESTIGATION
SOIL ANALYTICAL RESULTS**

DATE: FEBRUARY 2018 Job No. 1099.25
Zipper Geo Associates, LLC FIGURE 3
19023 36th Ave. W., Suite D SHT. 1 of 1
Lynnwood, WA



BH-C	
GRO (ug/L)	BENZENE (ug/L)
ND	ND

GP-7/MW-3 (GW = 97.08 ft)	
GRO (ug/L)	BENZENE (ug/L)
<50	<1.0

BH-F	
GRO (ug/L)	BENZENE (ug/L)
1,500	73

BH-B	
GRO (ug/L)	BENZENE (ug/L)
13,000	170

BH-E	
GRO (ug/L)	BENZENE (ug/L)
870	25

BH-3	
GRO (ug/L)	BENZENE (ug/L)
280	ND

BH-D	
GRO (ug/L)	BENZENE (ug/L)
ND	ND

GP-8/MW-4 (GW = 97.76 ft)	
GRO (ug/L)	BENZENE (ug/L)
2,400	<1.0

BH-A	
GRO (ug/L)	BENZENE (ug/L)
5,100	62

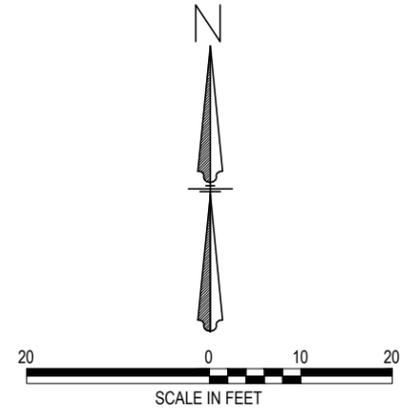
GP-1/MW-1 (GW = 97.80 ft)	
GRO (ug/L)	BENZENE (ug/L)
1,000	<1.0

BH-5	
GRO (ug/L)	BENZENE (ug/L)
3,000	7.3

BH-1	
GRO (ug/L)	BENZENE (ug/L)
2,100	3.0

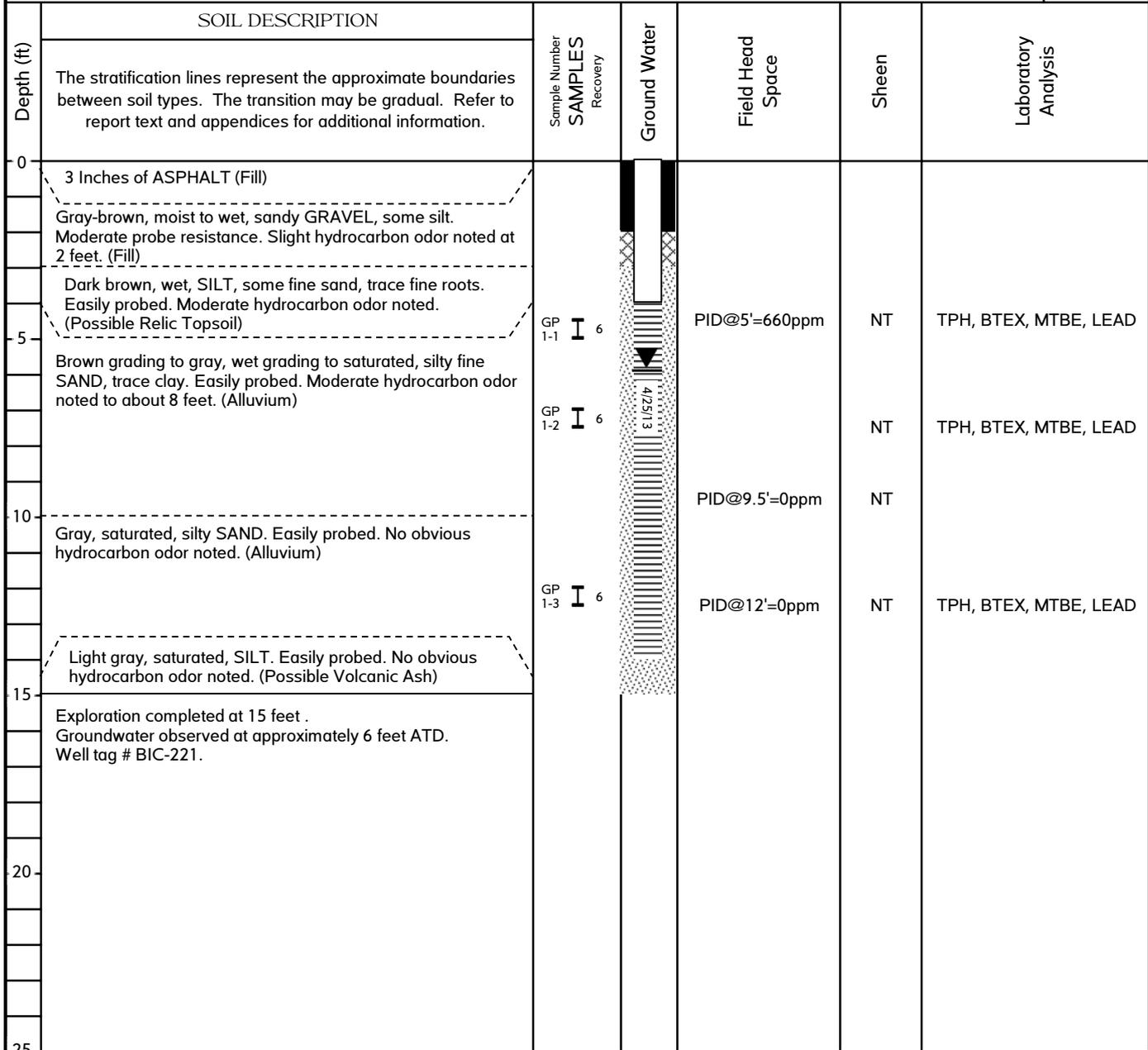
GP-6/MW-2 (GW = 97.58 ft)	
GRO (ug/L)	BENZENE (ug/L)
<50	<1.0

- LEGEND**
- GP-1/MW-1 (GW = 97.80 ft) DIRECT PUSH/GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION. GROUNDWATER ELEVATION ON 5/8/2013 IN FEET.
 - BH-1 BORING ADVANCED DURING 1998 TRC INVESTIGATION. ALL LOCATIONS ARE APPROXIMATE, REFERENCE FIGURE NOT TO SCALE.
 - SITE SPECIFIC BENCHMARK PK NAIL WITH WASHER ASSUMED ELEVATION = 100 FEET
 - 97.60 ESTIMATED GROUNDWATER SURFACE CONTOUR WITH ELEVATION IN FEET
 - APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK CAVITY IDENTIFIED BY GROUND PENETRATING RADAR SURVEY
 - "THE SITE" PER WAC 173-340-200



**Appendix D – Supplemental Subsurface Investigation
Exploration Logs**

<u>Boring Location:</u> See Figure 2, Site and Exploration Plan	<u>Drilling Company:</u> Cascade Drilling	<u>Bore Hole Dia.:</u> 2-1/4"	GP1
<u>Top Elevation:</u> -	<u>Drilling Method:</u> Direct Push	<u>Hammer Type:</u> NA	
<u>Date Drilled:</u> 4/25/2013	<u>Drill Rig:</u> Track	<u>Logged by:</u> JPG	



SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP1 Page 1 of 1

Boring Location: See Figure 2, Site and Exploration Plan Drilling Company: Cascade Drilling Bore Hole Dia.: 2-1/4"
 Top Elevation: - Drilling Method: Direct Push Hammer Type: NA **GP2**
 Date Drilled: 4/25/2013 Drill Rig: Track Logged by: JPG

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, moist to wet, sandy GRAVEL, some silt. Moderate probe resistance. Slight hydrocarbon odor noted at 2 feet. (Fill)					
	Dark brown, wet, SILT, some fine sand, trace fine roots. Easily probed. Slight hydrocarbon odor noted. (Possible Relic Topsoil)	GP 2-1 I 6	▼ 4/25/13	PID@5'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, silty fine SAND, trace clay to sand, some silt, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 2-2 I 6		PID@7'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
10	Gray, saturated, SAND, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@12'=0ppm	NT	
	Light gray, saturated, SILT, some wood. Easily probed. No obvious hydrocarbon odor noted. (Possible Volcanic Ash)					
15	Exploration completed at 15 feet . Groundwater observed at approximately 6 feet ATD.					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West	
2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP2
Page 1 of 1	

Boring Location: See Figure 2, Site and Exploration Plan
 Top Elevation: -
 Date Drilled: 4/25/2013
 Drilling Company: Cascade Drilling
 Drilling Method: Direct Push
 Drill Rig: Track
 Bore Hole Dia.: 2-1/4"
 Hammer Type: NA
 Logged by: JPG

GP3

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, wet to saturated, GRAVEL, some sand. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
-5	Gray, saturated, gravely SAND, some silt. Easily probed. Slight hydrocarbon odor noted to about 6 feet. (Alluvium)	GP 3-1 I 6	▼ 4/25/13	PID@5'=0ppm	NT	TPH, BTEX, MTBE, LEAD
-10		GP 3-2 I 6		PID@8'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, fine, sandy SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
	Gray-brown, saturated, SILT, trace fine sand & wood. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@13'=0ppm	NT	
15	Exploration completed at 15 feet . Groundwater observed at approximately 4 feet ATD.					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP3 Page 1 of 1

Boring Location: See Figure 2, Site and Exploration Plan **Drilling Company:** Cascade Drilling **Bore Hole Dia.:** 2-1/4"
Top Elevation: - **Drilling Method:** Direct Push **Hammer Type:** NA **GP4**
Date Drilled: 4/25/2013 **Drill Rig:** Track **Logged by:** JPG

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	2-1/2 Inches of ASPHALT (Fill)					
	Gray-brown, moist, gravelly SAND, some silt to silty, gravelly SAND. Moderate probe resistance. Slight hydrocarbon odor noted. (Fill)					
	Gray-brown, wet, SILT, some fine sand, trace fine roots. Easily probed. Moderate hydrocarbon odor noted. (Possible Relic Topsoil)		▼ 4/25/13			
5	Gray, wet grading to saturated, fine sandy SILT. Easily probed. Moderate hydrocarbon odor noted. (Alluvium)	GP 4-1 I 6		PID@5'=310ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
10	Gray, saturated, silty SAND. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 4-2 I 6		PID@9'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Wood. No obvious hydrocarbon odor noted. (Alluvium)					
	Light gray, saturated, SILT, trace wood. Easily probed. No obvious hydrocarbon odor noted. (Possible Volcanic Ash)			PID@12'=0ppm	NT	
15	Exploration completed at 15 feet . Groundwater observed at approximately 5 feet ATD.					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP4 Page 1 of 1

Boring Location: See Figure 2, Site and Exploration Plan Drilling Company: Cascade Drilling Bore Hole Dia.: 2-1/4"
 Top Elevation: - Drilling Method: Direct Push Hammer Type: NA **GP5**
 Date Drilled: 4/25/2013 Drill Rig: Track Logged by: JPG

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, moist, silty, gravelly SAND. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
5	Gray-brown, wet, SILT, some fine sand, trace fine roots. Easily probed. Moderate hydrocarbon odor noted. (Possible Relic Topsoil)	GP 5-1 I 6	▼ 4/25/13	PID@5'=720ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, fine sandy SILT to silty fine SAND. Easily probed. Moderate hydrocarbon odor noted. (Alluvium)			PID@7'=95ppm	NT	
	Gray, saturated, clayey SILT to silty CLAY. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
10	Gray, saturated, SAND, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 5-2 I 6		PID@12'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Light gray, saturated, SILT, some wood. Easily probed. No obvious hydrocarbon odor noted. (Possible Volcanic Ash)					
15	Exploration completed at 15 feet. Groundwater observed at approximately 5 feet ATD					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West	
2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP5
Page 1 of 1	

<u>Boring Location:</u> See Figure 2, Site and Exploration Plan	<u>Drilling Company:</u> Cascade Drilling	<u>Bore Hole Dia.:</u> 2-1/4"	GP6
<u>Top Elevation:</u> -	<u>Drilling Method:</u> Direct Push	<u>Hammer Type:</u> NA	
<u>Date Drilled:</u> 4/25/2013	<u>Drill Rig:</u> Track	<u>Logged by:</u> JPG	

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
0	4 Inches of ASPHALT (Fill)					
	Gray-brown, moist, gravelly SAND, some silt. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
	Gray-brown, wet, clayey SILT, trace fine sand and roots. Easily probed. No obvious hydrocarbon odor noted. (Possible Relic Topsoil)		4/25/13	PID@4'=0ppm	NT	TPH, BTEX, MTBE, LEAD
5	Gray, saturated, silty SAND. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 6-1 I 6			NT	
	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					TPH, BTEX, MTBE, LEAD
	Gray, saturated, clayey SILT. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@10'=0ppm	NT	
	Light gray, saturated, SILT. Easily probed. No obvious hydrocarbon odor noted. (Possible Volcanic Ash)	GP 6-2 I 6				
	Gray, saturated, well graded SAND, trace silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
15	Exploration completed at 15 feet. Groundwater observed at approximately 4.5 feet ATD. Well tag 3 BIC-222.					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP6
Page 1 of 1	

Boring Location: See Figure 2, Site and Exploration Plan
Drilling Company: Cascade Drilling
Bore Hole Dia.: 2-1/4"
Top Elevation: -
Drilling Method: Direct Push
Hammer Type: NA
GP7
Date Drilled: 4/25/2013
Drill Rig: Track
Logged by: JPG

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, moist, gravelly SAND to sandy GRAVEL, some silt. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
	Gray-brown, wet, clayey SILT, trace fine sand and roots. Easily probed. No obvious hydrocarbon odor noted. (Possible Relic Topsoil)	GP 7-1 I 6	4/25/13	PID@4'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, silty SAND. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@6'=0ppm	NT	
	Gray, saturated, SILT, some sand and clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@7.5'=0ppm	NT	
	Gray, saturated, sand, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
	Gray, saturated, clayey SILT to silty CLAY. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 7-2 I 6		PID@9'=0ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, silty SAND. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
	Interbedded, gray, saturated, silty SAND and fine to medium SAND, some silt. No obvious hydrocarbon odor noted. (Alluvium)			PID@12'=0ppm	NT	
15	Exploration completed at 15 feet. Groundwater observed at approximately 4.5 feet ATD. Well tag 3 BIC-223.					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West 2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP7 Page 1 of 1

Boring Location: See Figure 2, Site and Exploration Plan	Drilling Company: Cascade Drilling	Bore Hole Dia.: 2-1/4"	GP8
Top Elevation: -	Drilling Method: Direct Push	Hammer Type: NA	
Date Drilled: 4/26/2013	Drill Rig: Track	Logged by: JPG	

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, moist, gravelly SAND to sandy GRAVEL, some silt. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
-5	Brown, wet, clayey SILT, trace fine sand and roots. Easily probed. Moderate hydrocarbon odor noted. (Possible Relic Topsoil)	GP 8-1 I 6	▼ 4/26/13	PID@4.5'=950ppm	NT	TPH, BTEX, MTBE, LEAD
	Gray, saturated, silty SAND to SAND, with silt. Easily probed. Slight hydrocarbon odor noted to depth of about 8 feet. (Alluvium)	GP 8-2 I 6		PID@7.5'=80ppm	NT	TPH, BTEX, MTBE, LEAD
-10	Gray, saturated, fine sandy SILT, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@10'=0ppm	NT	
	Gray, saturated, SAND, some silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@13'=0ppm	NT	
15	Exploration completed at 15 feet. Groundwater observed at approximately 4.5 feet ATD. Well tag # BIC-224					
20						
25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West	
2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP8
Page 1 of 1	

Boring Location: See Figure 2, Site and Exploration Plan Drilling Company: Cascade Drilling Bore Hole Dia.: 2-1/4"
 Top Elevation: - Drilling Method: Direct Push Hammer Type: NA **GP9**
 Date Drilled: 4/26/2013 Drill Rig: Track Logged by: JPG

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	Field Head Space	Sheen	Laboratory Analysis
	The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.					
0	3 Inches of ASPHALT (Fill)					
	Gray-brown, moist, gravelly SAND, some silt. Moderate probe resistance. No obvious hydrocarbon odor noted. (Fill)					
	Gray-brown, wet, SILT, some clay, trace fine roots. Easily probed. No obvious hydrocarbon odor noted. (Possible Relic Topsoil)	GP 9-1 I 6	▼ 4/26/13	PID@4'=0ppm	NT	TPH, BTEX, MTBE, LEAD
-5	Gray, saturated, silty fine SAND, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)			PID@6'=0ppm	NT	
	Gray, saturated, SILT, some fine sand, trace clay. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)					
	Gray, saturated, SAND, with silt. Easily probed. No obvious hydrocarbon odor noted. (Alluvium)	GP 9-2 I 6		PID@10'=0ppm	NT	TPH, BTEX, MTBE, LEAD
-10				PID@12'=0ppm	NT	
-15	Exploration completed at 15 feet. Groundwater observed at approximately 4 feet ATD.					
-20						
-25						

SAMPLE LEGEND

I Retained portion of 2-inch direct push sample

NOTES

PID = Photoionization detector readings in parts/million
 NT = Not tested

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

BMC West	
2510 East Lake Samammish Parkway SE Issaquah, WA	
Date: 4/29/2013	Project No.: 1099.22
Zipper Geo Associates 19023 36th Ave. W, Suite D Lynnwood, WA	BORING LOG: GP9
Page 1 of 1	

**Appendix E – Supplemental Subsurface Investigation
Analytical Results**



May 6, 2013

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036-

Dear Mr. Einarsen,

On April 26th, 21 samples were received by our laboratory and assigned our laboratory project number EV13040174. The project was identified as your BMC. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-01
CLIENT SAMPLE ID	GP 1-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	530	30	10	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	0.20	0.15	5	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.25	5	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	4.4	0.25	5	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	6.3	1.0	5	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	200	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	7.9	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 10X Dilution	NWTPH-GX	8.77 GS2	04/30/2013	DLC
TFT 5X Dilution	EPA-8021	107	04/30/2013	DLC
C25	NWTPH-DX	92.8	04/29/2013	EBS

GS2 - Surrogate outside of control limits due to dilution.

U - Analyte analyzed for but not detected at level above reporting limit.

Chromatogram indicates that it is likely that sample contains highly weathered gasoline and weathered diesel.

Gasoline range product results biased high due to semivolatile range product overlap.

Diesel range product results biased high due to gasoline range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-02
CLIENT SAMPLE ID	GP 1-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS	ANALYSIS
						DATE	BY
TPH-Volatile Range	NWTPH-GX	39	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	0.40	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	0.83	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.9	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS	ANALYSIS
			DATE	BY
TFT	NWTPH-GX	98.1	04/29/2013	DLC
TFT	EPA-8021	98.8	04/29/2013	DLC
C25	NWTPH-DX	76.6	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-03
CLIENT SAMPLE ID	GP 1-3	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.6	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	80.5	04/29/2013	DLC
TFT	EPA-8021	79.7	04/29/2013	DLC
C25	NWTPH-DX	86.2	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-04
CLIENT SAMPLE ID	GP 2-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	36	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	0.11	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	5.4	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	85.1	04/29/2013	DLC
TFT	EPA-8021	86.1	04/29/2013	DLC
C25	NWTPH-DX	87.3	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains an unidentified gasoline range product.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-05
CLIENT SAMPLE ID	GP 2-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.8	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	83.1	04/29/2013	DLC
TFT	EPA-8021	89.1	04/29/2013	DLC
C25	NWTPH-DX	80.2	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-06
CLIENT SAMPLE ID	GP 3-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	29	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	50	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.2	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	74.0	04/29/2013	DLC
TFT	EPA-8021	79.5	04/29/2013	DLC
C25	NWTPH-DX	92.6	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-07
CLIENT SAMPLE ID	GP 3-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/29/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/29/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/29/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/29/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.7	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	80.4	04/29/2013	DLC
TFT	EPA-8021	79.8	04/29/2013	DLC
C25	NWTPH-DX	83.9	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-08
CLIENT SAMPLE ID	GP 4-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	1100	60	20	MG/KG	05/01/2013	DLC
Benzene	EPA-8021	U	0.30	10	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.50	10	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	7.7	0.50	10	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	8.2	2.0	10	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	70	45	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	6.6	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 20X Dilution	NWTPH-GX	23.9 GS2	05/01/2013	DLC
TFT 10X Dilution	EPA-8021	40.7 GS2	04/30/2013	DLC
C25	NWTPH-DX	86.3	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 GS2 - Surrogate outside of control limits due to dilution.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline.
 Diesel range product reporting limits raised due to volatile range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-09
CLIENT SAMPLE ID	GP 4-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	4.5	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	4.3	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	82.9	04/30/2013	DLC
TFT	EPA-8021	83.2	04/30/2013	DLC
C25	NWTPH-DX	64.9	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-10
CLIENT SAMPLE ID	GP 5-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	2800	120	40	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	2.0	1.2	40	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	2.0	40	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	41	2.0	40	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	240	8.0	40	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	320	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	8.7	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 40X Dilution	NWTPH-GX	12.2 GS2	04/30/2013	DLC
TFT 40X Dilution	EPA-8021	14.0 GS2	04/30/2013	DLC
C25	NWTPH-DX	79.6	04/29/2013	EBS

GS2 - Surrogate outside of control limits due to dilution.
 U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline and diesel.
 Diesel range product results biased high due to gasoline range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-11
CLIENT SAMPLE ID	GP 5-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.7	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	73.9	04/30/2013	DLC
TFT	EPA-8021	76.8	04/30/2013	DLC
C25	NWTPH-DX	82.7	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-12
CLIENT SAMPLE ID	GP 6-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	43	25	1	MG/KG	05/01/2013	EBS
TPH-Oil Range	NWTPH-DX	250	50	1	MG/KG	05/01/2013	EBS
Lead	EPA-6020	2.0	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	75.0	04/30/2013	DLC
TFT	EPA-8021	76.6	04/30/2013	DLC
C25	NWTPH-DX	85.2	05/01/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains weathered diesel and lube oil.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-13
CLIENT SAMPLE ID	GP 6-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.3	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	80.8	04/30/2013	DLC
TFT	EPA-8021	85.3	04/30/2013	DLC
C25	NWTPH-DX	84.7	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-14
CLIENT SAMPLE ID	GP 7-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.4	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	81.0	04/30/2013	DLC
TFT	EPA-8021	81.0	04/30/2013	DLC
C25	NWTPH-DX	91.4	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-15
CLIENT SAMPLE ID	GP 7-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/25/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	4.0	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	73.3	04/30/2013	DLC
TFT	EPA-8021	72.8	04/30/2013	DLC
C25	NWTPH-DX	86.7	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-16
CLIENT SAMPLE ID	GP 8-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/26/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	1900	60	20	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.60	20	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	1.0	20	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	19	1.0	20	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	72	4.0	20	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	85	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	6.7	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 20X Dilution	NWTPH-GX	24.0	04/30/2013	DLC
TFT 20X Dilution	EPA-8021	25.4	04/30/2013	DLC
C25	NWTPH-DX	85.4	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline and diesel.
 Diesel range product results biased high due to gasoline range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-17
CLIENT SAMPLE ID	GP 8-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/26/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	3.8	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	0.030	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.4	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.4	04/30/2013	DLC
TFT	EPA-8021	93.3	04/30/2013	DLC
C25	NWTPH-DX	84.0	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-18
CLIENT SAMPLE ID	GP 9-1	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/26/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	3.1	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	73.7	04/30/2013	DLC
TFT	EPA-8021	76.7	04/30/2013	DLC
C25	NWTPH-DX	89.2	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036-	DATE:	5/6/2013
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV13040174
CLIENT PROJECT:	BMC	ALS SAMPLE#:	-19
CLIENT SAMPLE ID	GP 9-2	DATE RECEIVED:	4/26/2013
		COLLECTION DATE:	4/26/2013 8:00:00 AM
		WDOE ACCREDITATION:	C601

DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	04/30/2013	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	04/30/2013	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	04/30/2013	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	04/30/2013	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	04/29/2013	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	04/29/2013	EBS
Lead	EPA-6020	2.5	0.50	5	MG/KG	04/30/2013	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	76.4	04/30/2013	DLC
TFT	EPA-8021	78.5	04/30/2013	DLC
C25	NWTPH-DX	81.0	04/29/2013	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

Appendix F – Terrestrial Ecological Evaluation



Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE

Please identify below the hazardous waste site for which you are documenting an evaluation.

Facility/Site Name: Henry Bacon Building Materials

Facility/Site Address: 5210 East Lake Sammamish Parkway SE

Facility/Site No:

VCP Project No.: NW3149

Step 2: IDENTIFY EVALUATOR

Please identify below the person who conducted the evaluation and their contact information.

Name: Jon Einarsen

Title: Principal

Organization: Zipper Geo Associates, LLC

Mailing address: 19019 36th Avenue West, Suite E

City: Lynnwood

State: WA

Zip code: 98036

Phone: 425-582-9928

Fax: 425-582-9930

E-mail: jeinarsen@zippergeo.com

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

- Yes *If you answered "YES," then answer Question 2.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to Step 3B of this form.*

2. What is the basis for the exclusion? Check all that apply. Then skip to Step 4 of this form.

Point of Compliance: WAC 173-340-7491(1)(a)

- All soil contamination is, or will be,* at least 15 feet below the surface.
- All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

- All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

- There is less than 0.25 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.
- For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous# undeveloped± land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

- Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

± "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

"Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 2** below.*
- No or Unknown *If you answered "NO" or "UNKNOWN," then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

- Yes *If you answered "YES," then answer **Question 3** below.*
- No *If you answered "NO," then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

- Yes *If you answered "YES," then answer **Question 4** below.*
- No *If you answered "NO," then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

- Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*
- Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? Check all that apply. Then skip to **Step 4 of this form.**

Exposure Analysis: WAC 173-340-7492(2)(a)

- Area of soil contamination at the Site is not more than 350 square feet.
- Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

- No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.
- No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. See WAC 173-340-7493(1)(c).

1. Was there a problem? See WAC 173-340-7493(2).

- Yes *If you answered "YES," then answer **Question 2** below.*
- No *If you answered "NO," then identify the reason here and then skip to **Question 5** below:*
- No issues were identified during the problem formulation step.
 - While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? See WAC 173-340-7493(3).

- Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?

Check all that apply. See WAC 173-340-7493(3).

- Literature surveys.
- Soil bioassays.
- Wildlife exposure model.
- Biomarkers.
- Site-specific field studies.
- Weight of evidence.
- Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- Confirmed there was no problem.
- Confirmed there was a problem and established site-specific cleanup levels.

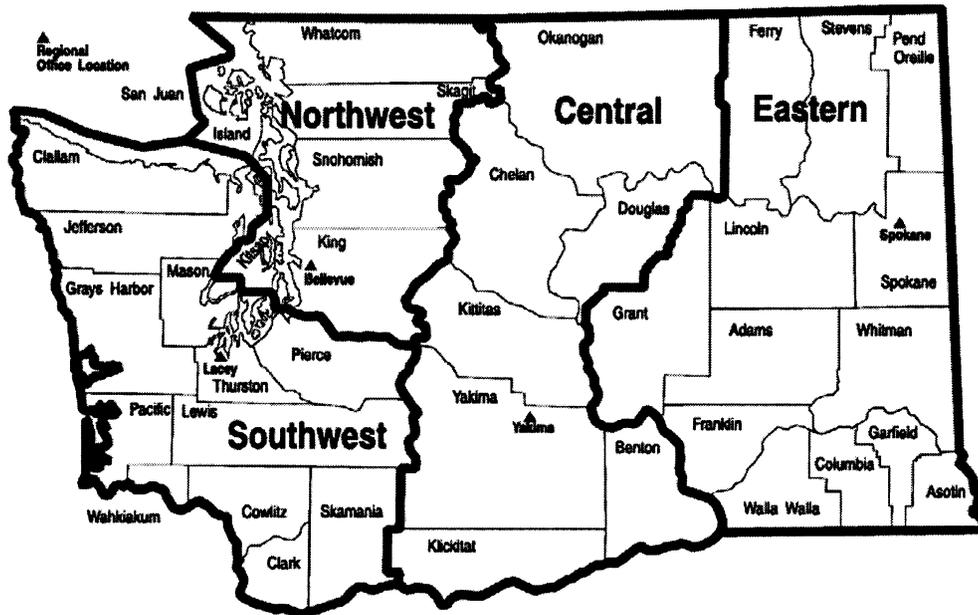
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

- Yes *If so, please identify the Ecology staff who approved those steps:*
- No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

<p>Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452</p>	<p>Central Region: Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009</p>
<p>Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775</p>	<p>Eastern Region: Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295</p>



Appendix G – Remedial Action Photographs

Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report

Project No. 1099.25



Photo #1. Asphalt removed and preparing to excavate contaminated soil.



Photo #2. Removal of clean overburden fill soils.



Photo #3. The stockpiled clean overburden soil was returned to the excavation following the remedial action.

Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report

Project No. 1099.25



Photo #4. A 24-inch PVC storm water pipe was encountered along the west side of the remedial excavation. The pipe was not damaged by the excavator, instead water appeared to be leaking from a faulty pipe join.



Photo #5. The leaking storm water pipe flooded the remedial excavation.



Photo #6. Impacted soil continued to be removed using temporary soil berms to retain the storm water pipe water.

Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report

Project No. 1099.25



Photo #7. A sump was installed in the remedial excavation to extract water for treatment and subsequent permitted disposal to the King County sanitary sewer system.



Photo #8. Dewatering effluent was stored in a series of four Baker tanks.



Photo #9. Dewatering effluent was treated with a sand filter and activated carbon, sampled and analyzed for TPH and BTEX, and discharged to the sanitary sewer under a King County permit.

Zipper Geo Associates, LLC

BMC Issaquah – Remedial Investigation/Feasibility Study and Remedial Action Report

Project No. 1099.25



Photo #10. Rectangular-shaped areas that had been backfilled with pea gravel are assumed to be the former location of the three USTs removed in 1989.



Photo #11. The final extent of excavation.



Photo #12. Backfilled excavation.

Appendix H – Remedial Action Permits

CITY OF ISSAQUAH
MITIGATED DETERMINATION OF NONSIGNIFICANCE (MDNS)

Description of Proposal: Proposal to remediate contaminated soil resulting from former underground storage tanks. The proposal includes excavating and disposing of an estimated 800 cubic yards of contaminated soil in a 3,600 SF area, collecting and analyzing soil samples during and after completion of remedial excavation, adding an oxygen-releasing compound to aid natural remediation, backfilling and resurfacing the excavation area, and subsequent groundwater sampling to evaluate the effectiveness of the remedial actions. Contaminated soil would be disposed of in a facility licensed to accept such material and replaced with clean fill.

The site is currently developed for commercial use. The contaminated soil area that would be excavated is presently asphalt paved and flat topography.

Proponent: Zipper Geo Associates
19023 36th Ave W, Suite D
Lynnwood, WA. 98036
Attn: Jon Einarsen

Permit Number: SW14-00057

Location of Proposal: 5210 East Lake Sammamish Parkway

Lead Agency: City of Issaquah

Determination: The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

Comment/Appeal Period: This MDNS is issued under WAC 197-11-340(2) and 197-11-680(3)(a)vii. There is a 21-day combined comment/appeal period for this determination, between **September 17, 2014 and October 8, 2014**. Anyone wishing to comment may submit written comments to the Responsible Official. The Responsible Official will reconsider the determination based on timely comments. Any person aggrieved by this determination may appeal by filing a Notice of Appeal with the City of Issaquah Permit Center. Appellants should prepare specific factual objections. Copies of the environmental determination and other project application materials are available from the Issaquah Development Services Department, 1775 12th Avenue NW.

Appeals of this SEPA determination must be consolidated with appeal of the underlying permit, per IMC 18.04.250.

Notes:

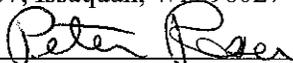
- 1) This threshold determination is based on review of the Remedial Investigation Report (Zipper Geo Associates) dated July 1, 2013; Phase 1 Environmental Site Assessment (Zipper Geo Associates) dated March 27, 2013; environmental checklist received August 20, 2014; and other documents in the file.
- 2) Issuance of this threshold determination does not constitute approval of the permit. The proposal will be reviewed for compliance with all applicable City of Issaquah codes, which regulate development activities, including the Land Use Code, Critical Area Regulations, Building Codes, Clearing and Grading Ordinance, and Surface Water Design Manual.

Findings:

1. The site is currently developed for commercial use; BMC West, a building materials and construction services company. The contaminated soil and remediation area is located in the asphalt paved parking area, approximately 50 feet east of East Lake Sammamish Parkway. The proposed remedial action would not affect current land uses on the subject site or impact adjacent properties.
2. The soil remediation area would be located approximately 350 feet south of Park Hill Creek, a Class 2 stream with salmonids. A Temporary Erosion Sedimentation Control (TESC) Report is required to ensure Best Management Practices (BMPs) are employed to prevent potential erosion, and to include provisions for stockpiling and transport of contaminated soils.
3. Soil contamination shall be removed consistent with the Washington State Model Toxic Control Act (MTCA) requirements. The applicant shall enroll in the State Department of Ecology (DOE) Voluntary Cleanup Program and pursue a No Further Action determination from DOE. A copy of the cleanup reports and subsequent monitoring reports shall be provided to the City of Issaquah.

Mitigation Measures: The Mitigated Determination of Nonsignificance is based on the checklist received August 20, 2014 and supplemental information in the application. The following SEPA mitigation measures shall be deemed conditions of the approval of the licensing decision pursuant to Chapter 18.10 of the Issaquah Land Use Code. All conditions are based on policies adopted by reference in the Land Use Code.

1. A Temporary Erosion Sedimentation Control (TESC) Report is required to ensure Best Management Practices (BMPs) are employed to prevent potential erosion, and to include provisions for stockpiling and transport of contaminated soils. The report shall be approved by the City of Issaquah prior to issuing construction permits.
2. Soil contamination shall be removed consistent with the Washington State Model Toxic Control Act (MTCA) requirements. The applicant shall enroll in the State Department of Ecology (DOE) Voluntary Cleanup Program and pursue a No Further Action determination from DOE. A copy of the cleanup reports and subsequent monitoring reports shall be provided to the City of Issaquah.

Responsible Official: Peter Rosen
Position/Title: Environmental Planner
Address/Phone: P.O. Box 1307, Issaquah, WA 98027-1307 (425) 837-3094
Date: 9/17/2014
Signature:  _____

cc: Washington State Department of Ecology
Washington State Department of Ecology, Toxics Cleanup Program, attn: Donna Musa
Muckleshoot Indian Tribe
U.S. Army Corps of Engineers
Washington State Department of Fish and Wildlife
Issaquah Development Services Department
Issaquah Public Works Engineering and Parks and Recreation Departments

August 27, 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Alex Fraser
BMC Issaquah
5210 E. Lake Sammamish Parkway
Issaquah, WA 98029

Issuance of Wastewater Discharge Authorization No. 996-01 to BMC Issaquah – PCS
Excavation Construction Project

Dear Mr. Fraser:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge construction dewatering to the sewer system from the BMC Issaquah – PCS Excavation Construction Project located at 5210 East Lake Sammamish Parkway SE, Issaquah, Washington, and has issued the enclosed Minor Discharge Authorization No. 996-01.

This authorization permits you to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making these changes.

King County Code 28.84 authorizes a fee for each Minor Discharge Authorization issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a Minor Discharge Authorization is \$1,200. King County will send you an invoice for this amount.

environment.

Sincerely,

A handwritten signature in blue ink that reads "Dana Heinz". The signature is written in a cursive style with a large initial "D" and "H".

Dana Heinz
Compliance Investigator

Enclosures

cc: Bob Brock, City of Issaquah
Kristin Painter, King County

for
BMC Issaquah – PCS Excavation Construction Project

Site address: 5210 E Lake Sammamish Parkway SE
Issaquah, WA 98029

Mailing address: 5210 E Lake Sammamish Parkway
Issaquah, WA 98029

Phone: 425-391-8000

Emergency (24-hour) phone: 206-423-6516

Industry type: Construction dewatering

Discharge to: South Treatment Plant

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by construction dewatering operation

Pretreatment process: Gravity settling, bag filters, GAC

Maximum discharge volume: 36,000 gallons per day

Maximum discharge rate: 25 gallons per minute

Effective date: August 27, 2015

Expiration date: November 30, 2015

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization please call Industrial Waste Compliance Investigator Dana Heinz at 206-477-5457.

24-HOUR EMERGENCY NOTIFICATION

South Treatment Plant: 206-263-1760

Washington State Department of Ecology: 425-649-7000

- B. In accordance with the City of Issaquah requirements the discharge point is the side sewer manhole located at 5210 East Lake Sammamish Parkway SE or as otherwise designated by City of Issaquah representatives.
- C. No later than **September 4, 2015**, the permittee must submit a list of BMC Issaquah – PCS Excavation Construction Project and contractor personnel responsible for dewatering activities, including operation and maintenance of the wastewater treatment system and monitoring of the discharge to the sanitary sewer. The list shall include the site contacts' name, title, company, and phone numbers (office and cell).
- D. All persons responsible for monitoring the discharge to the sanitary sewer shall review a copy of this authorization.
- E. A copy of this authorization shall be on site at all times for review and reference.
- F. This authorization grants the discharge of limited amounts of wastewater from the following waste streams:
1. Contaminated stormwater runoff
 2. Excavation dewatering
 3. Well(s) dewatering

Wastes or contaminants from sources other than permitted herein shall not be discharged to the sanitary sewer without prior approval from KCIW.

- G. The discharge shall not cause hydraulic overloading conditions of the sewerage conveyance system. During periods of peak hydraulic loading KCIW and City Of Issaquah representatives reserve the authority to request that discharge to the sewer be stopped.
- H. This discharge authorization is being issued with the understanding that no known soil or groundwater contamination is present on site. The authorization holder is responsible for contacting KCIW should site conditions indicate potential for contamination.
- I. All wastewater shall be collected and treated in accordance with treatment methods approved by KCIW. Wastewater shall not bypass treatment systems. Modifications to wastewater treatment systems shall not occur without prior approval from KCIW.
- J. Totalizing and non-resettable flow meters must be installed on all permitted discharge pipes to the sewer.

amount of solids discharged to the sanitary sewer system. As a minimum precaution, the wastewater must be pumped to an appropriately sized settling tank(s) prior to entering the sewer system.

- M. The permittee shall properly operate and maintain all wastewater treatment units to ensure compliance with established discharge limits. Solids accumulation in tanks used for solids settling shall not exceed 25 percent of the tank's working hydraulic capacity. Each tank's working hydraulic capacity is based on the water column height as measured from the bottom of the tank to either the invert elevation of the tank's outlet pipe (gravity discharges) or discharge pump intake (pumped discharges).
- N. Results of all required self-monitoring sampling must be recorded daily. Recorded information for each discharge site must include:
1. Sample date
 2. Sample time
 3. Sample results
 4. Operator name
 5. Comments (if applicable)

These records shall be maintained on site and shall be available for review by KCIW personnel during normal business hours.

- O. The permittee must establish a sewer account with City of Issaquah and provide necessary reports to ensure accurate assessment of sewer charges for all construction dewatering discharge sites associated with this project.

Discharge rate	Daily	In-line flow meter
Settleable solids	Daily	Grab by Imhoff cone
pH	Daily	Hand-held meter
Nonpolar FOG	Weekly	3 Grabs
BTEX	Weekly	Grab
Lead, total	Weekly	Grab

B. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill cone to one-liter mark with well-mixed sample
2. Allow 45 minutes to settle
3. Gently stir sides of cone with a rod or by spinning; settle 15 minutes longer
4. Record volume of settleable matter in the cone as ml/L

C. The three nonpolar fats, oils, and grease (FOG) grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as Total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

D. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

E. You shall submit an end-of project self-monitoring report (form enclosed) within 15 days from completion of all construction dewatering activities to the sewer or by **December 15, 2015**, whichever comes first. The report must contain results of required self-monitoring and total volume discharged to the sewer.

F. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

G. All sampling data collected by the permittee and analyzed using procedures approved by 40 CFR 136, or approved alternatives, shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:
 - a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
 - b. Can ensure that the necessary systems are established or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements
 - c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures
3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively
4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency
5. The individuals described in one through four above may designate an authorized representative if:
 - a. The authorization is submitted to King County in writing
 - b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency

limits are exceeded, you must stop discharging and notify KCIW at 206-477-5300.

Corrosive substances

Limits

Maximum: pH 12.0 (s.u.)
Instantaneous minimum: pH 5.0 (s.u.)
Daily minimum: pH 5.5 (s.u.)

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0. The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of more than 50 gallons per day of caustic solutions equivalent to more than 5 percent NaOH by weight or greater than pH 12.0 are prohibited unless authorized by KCIW and subject to special conditions to protect worker safety, the collection system, and treatment works.

Fats, oils, and grease

Discharge of FOG shall not result in significant accumulations that either alone or in combination with other wastes are capable of obstructing flow or interfere with the operation or performance of sewer works or treatment facilities.

Dischargers of polar FOG (oil and grease from animal and/or vegetable origin) shall minimize free-floating polar FOG. Dischargers may not add emulsifying agents exclusively for the purpose of emulsifying free-floating FOG.

Nonpolar FOG limit: 100 mg/L

The limit for nonpolar FOG is violated when the arithmetic mean of the concentration of three grab samples, taken no more frequently than at five minute intervals, or when the results of a composite sample exceed the limitation.

Flammable or explosive materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

Petroleum Compounds	Maximum Concentration ppm (mg/L)
Benzene	0.07
Ethylbenzene	1.7
Toluene	1.4
Total xylenes	2.2

Heavy metals/cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L)¹	Daily Average ppm (mg/L)²
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

¹ The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

² The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber, and analyzed as a single sample.

Atmospheric hydrogen sulfide: 10.0 ppm
(As measured at a monitoring manhole designated by KCIW)

Soluble sulfide limits may be established on a case-by-case basis depending upon volume of discharge and conditions in the receiving sewer, including oxygen content and existing sulfide concentrations.

Organic compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause worker health and safety problems.

Organic pollutants subject to this restriction include, but are not limited to: Any organic pollutant compound listed in 40 CFR Section 433.11 (e) (total toxic organics [TTO] definition), acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), and xylenes.

Settleable solids

Settleable solids concentrations: 7.0 ml/L

limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

- C. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any changes that will cause the violation of the effluent limitations specified herein will not be allowed.
- D. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:
 - 1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
 - 2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
 - 3. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.
- E. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of the discharge authorization or the resulting liability for failure to comply.
- F. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.
- G. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.
- H. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

Compliance Investigator: _____


Dana Heinz

Date: August 27, 2015

State ID/Reg No:	State Approval/Waste Code:	NAICS #:
Generator Mailing Address (if different): <input checked="" type="checkbox"/> 720 Park Boulevard #200		
City: Boise	County:	State: Idaho
Generator Contact Name: Mike Da Daito	Email: Michael.DaDaito@BuildwithBMC	
Phone Number: (425) 657-4013	Ext:	Fax Number: (425) 557-0066

II. Billing Information

Bill To: Clearcreek Contractors	Contact Name: Kim Curnett
Billing Address: 3919 88th St NE	Email: Kim@clearcreekcon.com
City: Marysville	State: WA
	Zip: 98270
	Phone: (360) 659-2459

III. Waste Stream Information

Name of Waste: Petroleum contaminated soil

Process Generating Waste:
Leaking underground storage tanks

Type of Waste: INDUSTRIAL PROCESS WASTE POLLUTION CONTROL WASTE

Physical State: SOLID SEMI-SOLID POWDER LIQUID

Method of Shipment: BULK DRUM BAGGED OTHER:

Estimated Annual Volume: 1,000 Tons

Frequency: ONE TIME ONGOING

Disposal Consideration: LANDFILL SOLIDIFICATION BIOREMEDIATION

IV. Representative Sample Certification

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent rules? YES or NO

Type of Sample: COMPOSITE SAMPLE GRAB SAMPLE

Sample Date: 04/29/13

26 soil samples were collected as part of a remedial investigation

Color	Odor (describe)	Does Waste Contain Free Liquids?	% Solids	pH:	Flash Point
Gray	Slight hydrocarbon	<input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO	100	NA	NA °F
Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Chain of Custody and Required Parameters Provided for this Profile					
Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm)[reference 40 CFR 261.23(a)(5)]?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCDD), or any other dioxin as defined in 40 CFR 261.31?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Is this waste a reactive or heat generating waste?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Does the waste contain sulfur or sulfur by-products?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Is this waste generated at a Federal Superfund Clean Up Site?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					
Is this waste from a TSD facility, TSD like facility or consolidator?					
<input type="checkbox"/> Yes or <input checked="" type="checkbox"/> No					

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services Inc.

PAUL S. STREET
Chief Administrative Officer

BMC West Corporation

Company Name

Authorized Representative Name And Title (Type or Print)



Authorized Representative Signature



Date

Certification of UST Corrective Action

The waste described on the attached profile sheet is subject to the UST corrective action regulations under 40 CFR Part 280. Furthermore, 40 CFR 261.4(b)(10) states that petroleum contaminated media and debris that fails the tests for TLCp (D018 through D043) and is subject to UST corrective action regulations under 40 CFR 280 are not considered hazardous waste.

5210 EAST LAKE SAMMAMISH PARKWAY SE

SITE ADDRESS

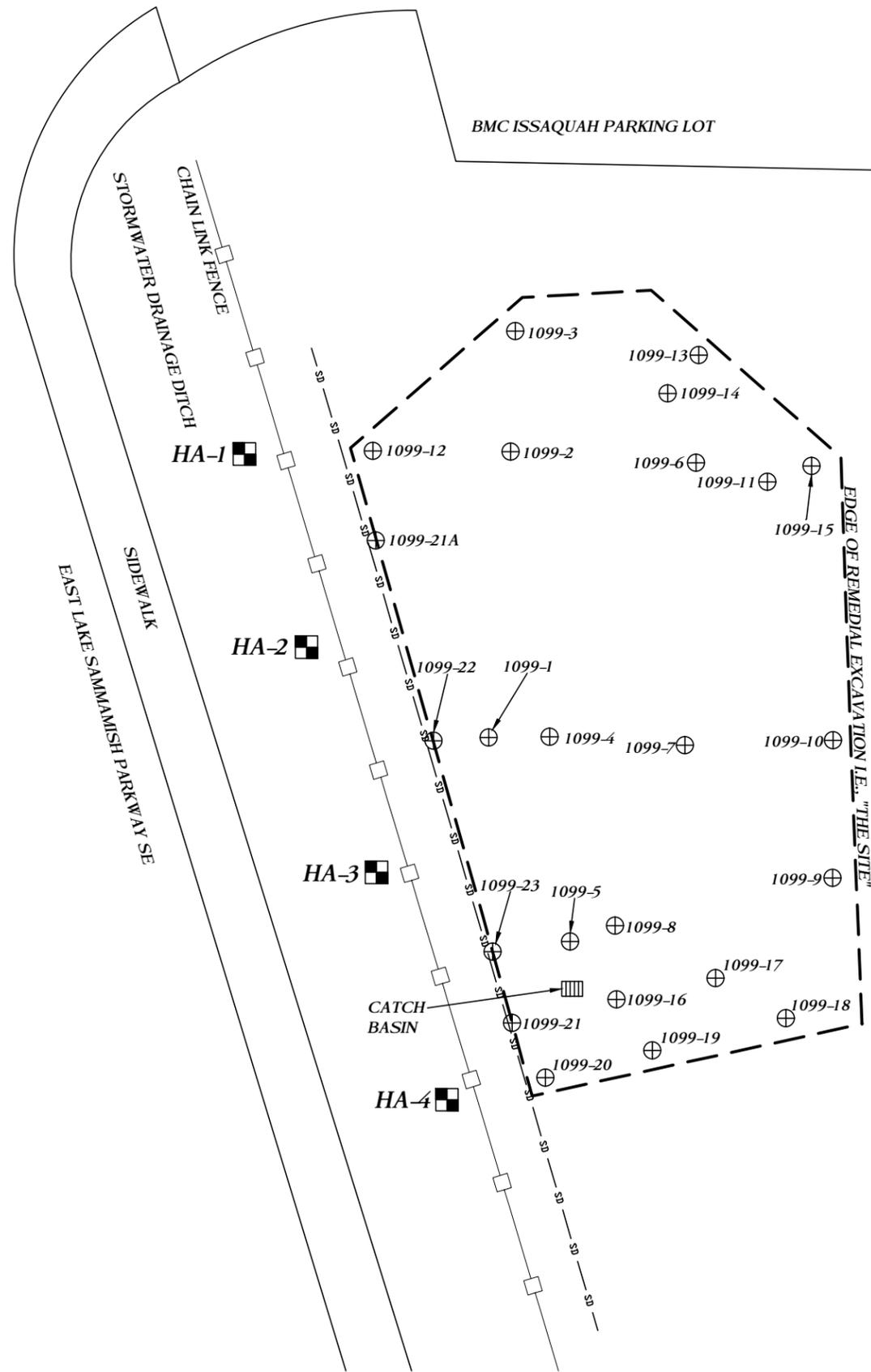


Generator Signature, Title

7-8-15

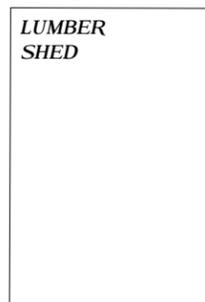
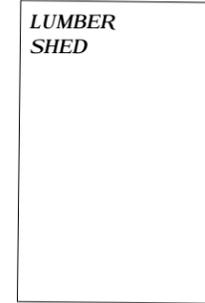
Date

Appendix I – Remedial Action Analytical Results

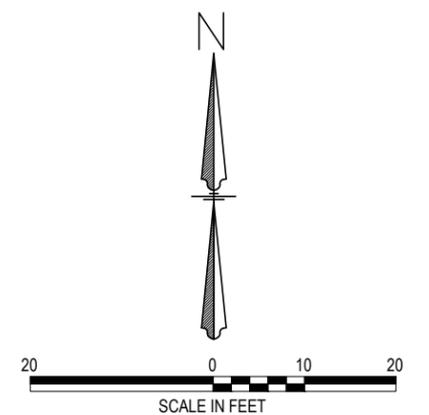


LEGEND

- HA-1 APPROXIMATE LOCATION OF HAND AUGER EXPLORATION WITH ID
- 1099-1 APPROXIMATE LOCATION OF REMEDIAL EXCAVATION SOIL SAMPLE WITH ID
- SD — SD — APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION
- — — "THE SITE" PER WAC 173-340-200



LUMBER YARD



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington		
REMEDIAL EXCAVATION SOIL SAMPLE LOCATIONS		
DATE: JANUARY 2017	Job No.	1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE	7
		SHT. 1 of 1

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 20th, 4 samples were received by our laboratory and assigned our laboratory project number EV15070089. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group



Rick Bagan
Laboratory Director

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	101	07/20/2015	PAB
TFT	EPA-8021	110	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	97.4	07/20/2015	PAB
TFT	EPA-8021	107	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.1	07/20/2015	PAB
TFT	EPA-8021	103	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	310	30	10	MG/KG	07/21/2015	PAB
Benzene	EPA-8021	U	0.30	10	MG/KG	07/21/2015	PAB
Toluene	EPA-8021	1.2	0.50	10	MG/KG	07/21/2015	PAB
Ethylbenzene	EPA-8021	1.6	0.50	10	MG/KG	07/21/2015	PAB
Xylenes	EPA-8021	U	2.0	10	MG/KG	07/21/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/20/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/20/2015	EBS
Lead	EPA-6020	6.0	0.50	5	MG/KG	07/21/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 10X Dilution	NWTPH-GX	172 GS2	07/21/2015	PAB
TFT 10X Dilution	EPA-8021	158 GS2	07/21/2015	PAB
C25	NWTPH-DX	86.9	07/20/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

GS2 - Surrogate outside of control limits due to dilution.

Chromatogram indicates that it is likely that sample contains highly weathered gasoline.

MBG-072015S - Batch 95401 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072015S - Batch 95401 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115S - Batch 95446 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U	0.10	1	MG/KG	07/21/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.

ALS Test Batch ID: 95401 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	92.8			07/20/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	92.1	1		07/20/2015	PAB

ALS Test Batch ID: 95401 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	91.9			07/20/2015	PAB
Benzene - BSD	EPA-8021	92.4	1		07/20/2015	PAB
Toluene - BS	EPA-8021	93.7			07/20/2015	PAB
Toluene - BSD	EPA-8021	94.0	0		07/20/2015	PAB
Ethylbenzene - BS	EPA-8021	95.7			07/20/2015	PAB
Ethylbenzene - BSD	EPA-8021	95.9	0		07/20/2015	PAB
Xylenes - BS	EPA-8021	97.8			07/20/2015	PAB
Xylenes - BSD	EPA-8021	98.5	1		07/20/2015	PAB

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS

ALS Test Batch ID: 95446 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.4			07/21/2015	RAL
Lead - BSD	EPA-6020	97.4	1		07/21/2015	RAL

APPROVED BY



Laboratory Director



July 22, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 21st, 9 samples were received by our laboratory and assigned our laboratory project number EV15070096. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-01
CLIENT SAMPLE ID	1099-2	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 7:20:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	5.8	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	121	07/22/2015	PAB
TFT	EPA-8021	119	07/22/2015	PAB
C25	NWTPH-DX	77.6	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-02
CLIENT SAMPLE ID	1099-3	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 7:30:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	4.5	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	116	07/22/2015	PAB
TFT	EPA-8021	118	07/22/2015	PAB
C25	NWTPH-DX	89.3	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-03
CLIENT SAMPLE ID	1099-4	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 8:50:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	122	07/22/2015	PAB
TFT	EPA-8021	124	07/22/2015	PAB
C25	NWTPH-DX	90.5	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-04
CLIENT SAMPLE ID	1099-5	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 10:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	6.5	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	118	07/22/2015	PAB
TFT	EPA-8021	120	07/22/2015	PAB
C25	NWTPH-DX	79.7	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-05
CLIENT SAMPLE ID	1099-6	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 11:10:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	4.8	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	129	07/22/2015	PAB
TFT	EPA-8021	132	07/22/2015	PAB
C25	NWTPH-DX	68.6	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-06
CLIENT SAMPLE ID	1099-7	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 1:05:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	7.1	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	108	07/22/2015	PAB
TFT	EPA-8021	108	07/22/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-07
CLIENT SAMPLE ID	1099-8	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 2:40:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	115	07/22/2015	PAB
TFT	EPA-8021	115	07/22/2015	PAB
C25	NWTPH-DX	87.2	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-08
CLIENT SAMPLE ID	1099-9	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 3:50:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	26	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	52	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	84.6	07/22/2015	PAB
TFT	EPA-8021	93.7	07/22/2015	PAB
C25	NWTPH-DX	91.2	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/22/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070096
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070096-09
CLIENT SAMPLE ID	SP-4	DATE RECEIVED:	07/21/2015
		COLLECTION DATE:	7/21/2015 3:35:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/22/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/22/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/22/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/22/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	58	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	99.7	07/22/2015	PAB
TFT	EPA-8021	110	07/22/2015	PAB
C25	NWTPH-DX	92.8	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains lube oil.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/22/2015
 ALS SDG#: EV15070096
 WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-072015S - Batch 95401 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072015S - Batch 95401 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/20/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/20/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/20/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/22/2015
 ALS SDG#: EV15070096
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95401 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	92.8			07/20/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	92.1	1		07/20/2015	PAB

ALS Test Batch ID: 95401 - Soil by EPA-8021

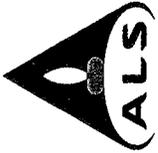
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	91.9			07/20/2015	PAB
Benzene - BSD	EPA-8021	92.4	1		07/20/2015	PAB
Toluene - BS	EPA-8021	93.7			07/20/2015	PAB
Toluene - BSD	EPA-8021	94.0	0		07/20/2015	PAB
Ethylbenzene - BS	EPA-8021	95.7			07/20/2015	PAB
Ethylbenzene - BSD	EPA-8021	95.9	0		07/20/2015	PAB
Xylenes - BS	EPA-8021	97.8			07/20/2015	PAB
Xylenes - BSD	EPA-8021	98.5	1		07/20/2015	PAB

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV 15070096

Date 7/21/15 Page 1 Of 1

PROJECT ID:	ANALYSIS REQUESTED										OTHER (Specify)	RECEIVED IN GOOD CONDITION?								
	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	P.O. #:	INVOICE TO COMPANY:	ATTENTION:	ADDRESS:	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260 <input type="checkbox"/>			Volatile Organic Compounds by EPA 8260 <input type="checkbox"/>	EDB / EDC by EPA 8260 SIM (water) <input type="checkbox"/>	EDB / EDC by EPA 8260 (soil) <input type="checkbox"/>	Semivolatile Organic Compounds by EPA 8270 <input type="checkbox"/>	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082 <input type="checkbox"/>	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Ph Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NMTPH-HCID	NMTPH-DX	NMTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260 <input type="checkbox"/>	Volatile Organic Compounds by EPA 8260 <input type="checkbox"/>	EDB / EDC by EPA 8260 SIM (water) <input type="checkbox"/>	EDB / EDC by EPA 8260 (soil) <input type="checkbox"/>	Semivolatile Organic Compounds by EPA 8270 <input type="checkbox"/>	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082 <input type="checkbox"/>	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Ph Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	
1. 1099-2	7/21	0720	soil	1	X	X	X	X												
2. 1099-3		0730		2																
3. 1099-4		0850		3																
4. 1099-5		1010		4																
5. 1099-6		1110		5																
6. 1099-7		1305		6																
7. 1099-8		1440		7																
8. 1099-9		1550		8																
9. SP-4		1535		9																
10.																				

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):
 1. Relinquished By: Jon Einarsen, ZGA, 7/21/15, 1650
 Received By: Mallo Kurt, ALS, 7/21/15, 1650
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____
 Specify: _____
 Organic, Metals & Inorganic Analysis: 10 Standard 5 3 2 1 SAME DAY
 Fuels & Hydrocarbon Analysis: 3 2 1 SAME DAY

*Turnaround request less than standard may incur Rush Charges



July 23, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 22nd, 7 samples were received by our laboratory and assigned our laboratory project number EV15070104. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-01
CLIENT SAMPLE ID	1099-10	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 8:00:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	5.6	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	110	07/23/2015	PAB
TFT	EPA-8021	108	07/23/2015	PAB
C25	NWTPH-DX	86.0	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-02
CLIENT SAMPLE ID	1099-11	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 8:05:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	7.8	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	0.031	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	0.18	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	103	07/23/2015	PAB
TFT	EPA-8021	102	07/23/2015	PAB
C25	NWTPH-DX	94.4	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-03
CLIENT SAMPLE ID	1099-12	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 10:55:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	112	07/23/2015	PAB
TFT	EPA-8021	112	07/23/2015	PAB
C25	NWTPH-DX	96.2	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-04
CLIENT SAMPLE ID	1099-13	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 11:35:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	106	07/23/2015	PAB
TFT	EPA-8021	106	07/23/2015	PAB
C25	NWTPH-DX	96.7	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-05
CLIENT SAMPLE ID	1099-14	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 11:40:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/23/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/23/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	113	07/23/2015	PAB
TFT	EPA-8021	112	07/23/2015	PAB
C25	NWTPH-DX	96.2	07/23/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-06
CLIENT SAMPLE ID	1099-15	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 12:40:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	6.0	3.0	1	MG/KG	07/23/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	103	07/23/2015	PAB
TFT	EPA-8021	102	07/23/2015	PAB
C25	NWTPH-DX	92.6	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/23/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070104
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070104-07
CLIENT SAMPLE ID	1099-BT1	DATE RECEIVED:	07/22/2015
		COLLECTION DATE:	7/22/2015 12:05:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	420	50	1	UG/L	07/23/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	07/23/2015	PAB
Toluene	EPA-8021	2.8	1.0	1	UG/L	07/23/2015	PAB
Ethylbenzene	EPA-8021	11	1.0	1	UG/L	07/23/2015	PAB
Xylenes	EPA-8021	20	3.0	1	UG/L	07/23/2015	PAB
TPH-Diesel Range	NWTPH-DX	790	130	1	UG/L	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	470	250	1	UG/L	07/22/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	94.3	07/23/2015	PAB
TFT	EPA-8021	104	07/23/2015	PAB
C25	NWTPH-DX	77.1	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline, weathered diesel and lube oil.
 Diesel range product results biased high due to gasoline range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/23/2015
 ALS SDG#: EV15070104
 WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-072315S - Batch 95525 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/23/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MBG-072115W - Batch 95497 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/21/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072315S - Batch 95525 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/23/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/23/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/23/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115W - Batch 95497 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	07/21/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	07/21/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072215S - Batch 95534 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/22/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/22/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072115W - Batch 95457 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/21/2015	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 7/23/2015
ALS SDG#: EV15070104
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-072115W - Batch 95457 - Water by NWTPH-DX

TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/21/2015	EBS
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U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/23/2015
 ALS SDG#: EV15070104
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95525 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	82.2			07/23/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	83.2	1		07/23/2015	PAB

ALS Test Batch ID: 95497 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	79.8			07/21/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	83.5	5		07/21/2015	PAB

ALS Test Batch ID: 95525 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	90.2			07/23/2015	PAB
Benzene - BSD	EPA-8021	89.4	1		07/23/2015	PAB
Toluene - BS	EPA-8021	92.1			07/23/2015	PAB
Toluene - BSD	EPA-8021	89.4	3		07/23/2015	PAB
Ethylbenzene - BS	EPA-8021	90.4			07/23/2015	PAB
Ethylbenzene - BSD	EPA-8021	89.7	1		07/23/2015	PAB
Xylenes - BS	EPA-8021	92.3			07/23/2015	PAB
Xylenes - BSD	EPA-8021	91.7	1		07/23/2015	PAB

ALS Test Batch ID: 95497 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	95.2			07/21/2015	PAB
Benzene - BSD	EPA-8021	97.8	3		07/21/2015	PAB
Toluene - BS	EPA-8021	96.2			07/21/2015	PAB
Toluene - BSD	EPA-8021	98.1	2		07/21/2015	PAB
Ethylbenzene - BS	EPA-8021	96.6			07/21/2015	PAB
Ethylbenzene - BSD	EPA-8021	99.7	3		07/21/2015	PAB
Xylenes - BS	EPA-8021	98.1			07/21/2015	PAB
Xylenes - BSD	EPA-8021	102	4		07/21/2015	PAB

ALS Test Batch ID: 95534 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	112			07/23/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	104	8		07/23/2015	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 7/23/2015
ALS SDG#: EV15070104
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95457 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	93.4			07/21/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	93.3	0		07/21/2015	EBS

APPROVED BY

Laboratory Director



July 29, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On July 24th, 3 samples were received by our laboratory and assigned our laboratory project number EV15070121. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/29/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070121
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070121-01
CLIENT SAMPLE ID	1099-16	DATE RECEIVED:	07/24/2015
		COLLECTION DATE:	7/24/2015 10:15:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/27/2015	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	07/27/2015	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	07/27/2015	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/27/2015	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/27/2015	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/24/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/24/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	105	07/27/2015	DLC
TFT	EPA-8021	99.0	07/27/2015	DLC
C25	NWTPH-DX	95.7	07/24/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/29/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070121
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070121-02
CLIENT SAMPLE ID	1099-17	DATE RECEIVED:	07/24/2015
		COLLECTION DATE:	7/24/2015 11:20:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	12	3.0	1	MG/KG	07/28/2015	DLC
Benzene	EPA-8021	U	0.030	1	MG/KG	07/28/2015	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	07/28/2015	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/28/2015	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/28/2015	DLC
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/24/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/24/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	75.2	07/28/2015	DLC
TFT	EPA-8021	66.1	07/28/2015	DLC
C25	NWTPH-DX	99.2	07/24/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	7/29/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15070121
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15070121-03
CLIENT SAMPLE ID	1099-BT2	DATE RECEIVED:	07/24/2015
		COLLECTION DATE:	7/24/2015 11:40:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	1100	50	1	UG/L	07/26/2015	DLC
Benzene	EPA-8021	U	1.0	1	UG/L	07/26/2015	DLC
Toluene	EPA-8021	1.1	1.0	1	UG/L	07/26/2015	DLC
Ethylbenzene	EPA-8021	11	1.0	1	UG/L	07/26/2015	DLC
Xylenes	EPA-8021	16	3.0	1	UG/L	07/26/2015	DLC
TPH-Diesel Range	NWTPH-DX	3100	130	1	UG/L	07/24/2015	EBS
TPH-Oil Range	NWTPH-DX	490	250	1	UG/L	07/24/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	103	07/26/2015	DLC
TFT	EPA-8021	112	07/26/2015	DLC
C25	NWTPH-DX	75.4	07/24/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 Chromatogram indicates that it is likely that sample contains highly weathered gasoline, highly weathered diesel and lube oil.
 Diesel range product results biased high due to gasoline range product overlap.
 Oil range product results biased high due to diesel range product overlap.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/29/2015
 ALS SDG#: EV15070121
 WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-072515S - Batch 95652 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MBG-072515W - Batch 95638 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072515S - Batch 95652 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	0.030	1	MG/KG	07/25/2015	DLC
Toluene	EPA-8021	U	0.050	1	MG/KG	07/25/2015	DLC
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	07/25/2015	DLC
Xylenes	EPA-8021	U	0.20	1	MG/KG	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072515W - Batch 95638 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Toluene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	07/25/2015	DLC
Xylenes	EPA-8021	U	3.0	1	UG/L	07/25/2015	DLC

U - Analyte analyzed for but not detected at level above reporting limit.

MB-071715S - Batch 95411 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	07/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	07/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-072415W2 - Batch 95608 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	07/25/2015	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
DATE: 7/29/2015
ALS SDG#: EV15070121
WDOE ACCREDITATION: C601
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

LABORATORY BLANK RESULTS

MB-072415W2 - Batch 95608 - Water by NWTPH-DX

TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	07/25/2015	EBS
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U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 7/29/2015
 ALS SDG#: EV15070121
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95652 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	95.1			07/25/2015	DLC
TPH-Volatile Range - BSD	NWTPH-GX	95.7	1		07/25/2015	DLC

ALS Test Batch ID: 95638 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	78.7			07/25/2015	DLC
TPH-Volatile Range - BSD	NWTPH-GX	85.2	8		07/25/2015	DLC

ALS Test Batch ID: 95652 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	101			07/25/2015	DLC
Benzene - BSD	EPA-8021	99.5	2		07/25/2015	DLC
Toluene - BS	EPA-8021	102			07/25/2015	DLC
Toluene - BSD	EPA-8021	102	0		07/25/2015	DLC
Ethylbenzene - BS	EPA-8021	104			07/25/2015	DLC
Ethylbenzene - BSD	EPA-8021	104	0		07/25/2015	DLC
Xylenes - BS	EPA-8021	104			07/25/2015	DLC
Xylenes - BSD	EPA-8021	104	0		07/25/2015	DLC

ALS Test Batch ID: 95638 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	98.6			07/25/2015	DLC
Benzene - BSD	EPA-8021	99.6	1		07/25/2015	DLC
Toluene - BS	EPA-8021	97.5			07/25/2015	DLC
Toluene - BSD	EPA-8021	99.0	2		07/25/2015	DLC
Ethylbenzene - BS	EPA-8021	97.6			07/25/2015	DLC
Ethylbenzene - BSD	EPA-8021	98.2	1		07/25/2015	DLC
Xylenes - BS	EPA-8021	101			07/25/2015	DLC
Xylenes - BSD	EPA-8021	102	1		07/25/2015	DLC

ALS Test Batch ID: 95411 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	91.9			07/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	9		07/17/2015	EBS



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 7/29/2015
ALS SDG#: EV15070121
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95608 - Water by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	100			07/24/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	101	1		07/24/2015	EBS

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV15070121

Date 2/24/15 Page 1 of 1

PROJECT INFORMATION				ANALYSIS REQUESTED										OTHER (Specify)						
PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	BTEX by EPA-8021	NMTPH-HCID	NMTPH-DX	NMTPH-GX	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 (water)	EDB / EDC by EPA 8260 (soil)	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8092	Metals-MTCA-5 <input type="checkbox"/> RCFA-8 <input type="checkbox"/> Pb <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?	
1. 1099-16	1099.25	ZGA	Jon Einarsen	<input type="checkbox"/>	X	X	X	X										2		
2. 1099-17	↓	↓	↓	<input type="checkbox"/>	X	X	X	X										2		
3.				<input type="checkbox"/>																
4. 1099-BTZ	2/24/15	1140	H ₂ O	<input type="checkbox"/>	X	X	X	X										3		
5.				<input type="checkbox"/>																
6.				<input type="checkbox"/>																
7.				<input type="checkbox"/>																
8.				<input type="checkbox"/>																
9.				<input type="checkbox"/>																
10.				<input type="checkbox"/>																

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):
 1. Relinquished By: *Jon Einarsen* ZGA 2/24/15 1505
 Received By: *Jon Einarsen* ALS 2/24/15 1505
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____
 Specify: _____

Organic, Metals & Inorganic Analysis
 10 5 3 2 1 1
Standard 1 DAY 1 DAY 1 DAY 1 DAY 1 DAY

Fuels & Hydrocarbon Analysis
 5 1 1 1 1
Standard 1 DAY 1 DAY 1 DAY 1 DAY

*Turnaround request less than standard may incur Rush Charges



September 11, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 10th, 4 samples were received by our laboratory and assigned our laboratory project number EV15090062. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/11/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090062
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090062-01
CLIENT SAMPLE ID	1099-18	DATE RECEIVED:	09/10/2015
		COLLECTION DATE:	9/10/2015 9:15:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	5.0	0.50	5	MG/KG	09/11/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	98.4	09/10/2015	PAB
TFT	EPA-8021	95.1	09/10/2015	PAB
C25	NWTPH-DX	103	09/10/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/11/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090062
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090062-02
CLIENT SAMPLE ID	1099-19	DATE RECEIVED:	09/10/2015
		COLLECTION DATE:	9/10/2015 9:20:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	2.3	0.50	5	MG/KG	09/11/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	105	09/10/2015	PAB
TFT	EPA-8021	103	09/10/2015	PAB
C25	NWTPH-DX	127	09/10/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/11/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090062
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090062-03
CLIENT SAMPLE ID	1099-20	DATE RECEIVED:	09/10/2015
		COLLECTION DATE:	9/10/2015 9:30:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	3.9	0.50	5	MG/KG	09/11/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	109	09/10/2015	PAB
TFT	EPA-8021	107	09/10/2015	PAB
C25	NWTPH-DX	93.6	09/10/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/11/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090062
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090062-04
CLIENT SAMPLE ID	1099-21	DATE RECEIVED:	09/10/2015
		COLLECTION DATE:	9/10/2015 9:35:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	09/10/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/10/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	09/10/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/10/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/10/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/10/2015	EBS
Lead	EPA-6020	2.9	0.50	5	MG/KG	09/11/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	107	09/10/2015	PAB
TFT	EPA-8021	106	09/10/2015	PAB
C25	NWTPH-DX	99.6	09/10/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 9/11/2015
 ALS SDG#: EV15090062
 WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-090815S2 - Batch 96952 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U		MG/KG	3.0	09/08/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-090815S2 - Batch 96952 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	09/08/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	09/08/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	09/08/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	09/08/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-090815S2 - Batch 96947 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U		MG/KG	25	09/09/2015	EBS
TPH-Oil Range	NWTPH-DX	U		MG/KG	50	09/09/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091115S - Batch 97033 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	09/11/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 9/11/2015
 ALS SDG#: EV15090062
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 96952 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	90.6			09/08/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	91.9	1		09/08/2015	PAB

ALS Test Batch ID: 96952 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	87.1			09/08/2015	PAB
Benzene - BSD	EPA-8021	89.1	2		09/08/2015	PAB
Toluene - BS	EPA-8021	89.8			09/08/2015	PAB
Toluene - BSD	EPA-8021	91.5	2		09/08/2015	PAB
Ethylbenzene - BS	EPA-8021	90.2			09/08/2015	PAB
Ethylbenzene - BSD	EPA-8021	91.8	2		09/08/2015	PAB
Xylenes - BS	EPA-8021	90.2			09/08/2015	PAB
Xylenes - BSD	EPA-8021	91.9	2		09/08/2015	PAB

ALS Test Batch ID: 96947 - Soil by NWTPH-DX

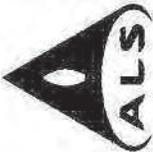
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	94.8			09/08/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	98.2	3		09/08/2015	EBS

ALS Test Batch ID: 97033 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.7			09/11/2015	RAL
Lead - BSD	EPA-6020	97.4	1		09/11/2015	RAL

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV15090062

Date **9-10-15** Page **1** of **1**

PROJECT INFORMATION				ANALYSIS REQUESTED												OTHER (Specify)																		
PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	MTBE by EPA-8021	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5	RCRA-8	Pb	TAL	Metals Other (Specify)	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?											
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NMTPH-HCID	NMTPH-DX	NMTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM	PCB Pesticides by EPA 8081/8082	Metals-MTCA-5	RCRA-8	Pb	TAL	Metals Other (Specify)	TCLP-Metals	VOA	Semi-Vol	Pest	Herbs	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?						
1. 1099-18	9/10/15	0915	Soil	1	X	X	X	X											X									2						
2. 1099-19		0920		2																														
3. 1099-20		0930		3																														
4. 1099-21		0935		4																														
5.																																		
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9.																																		
10.																																		

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):
 1. Relinquished By: [Signature] ZGA / 9-10-15 / 10:20
 Received By: [Signature] ALS 9/10/15 10:20
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED IN BUSINESS DAYS*
 Organic, Metals & Inorganic Analysis
 10 5 3 2 1 SAVE DATE
 Fuels & Hydrocarbon Analysis
 5 3 2 1 SAVE DATE

OTHER: _____
 Specify: _____

*Turnaround request less than standard may incur Rush Charges



September 17, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 16th, 3 samples were received by our laboratory and assigned our laboratory project number EV15090097. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/17/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090097
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090097-01
CLIENT SAMPLE ID	1099-21	DATE RECEIVED:	09/16/2015
		COLLECTION DATE:	9/15/2015 3:15:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	120	15	5	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	0.12	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	0.29	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	1.0	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	0.69	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.4	0.50	5	MG/KG	09/17/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT 5X Dilution	NWTPH-GX	136	09/17/2015	PAB
TFT	EPA-8021	145 GS3	09/17/2015	PAB
C25	NWTPH-DX	88.3	09/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
 GS3 - Surrogate outside of control limits due to coeluting compounds.
 Chromatogram indicates that it is likely that sample contains weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/17/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090097
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090097-02
CLIENT SAMPLE ID	1099-22	DATE RECEIVED:	09/16/2015
		COLLECTION DATE:	9/15/2015 3:18:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	11	3.0	1	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	0.10	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.0	0.50	5	MG/KG	09/17/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.3	09/17/2015	PAB
TFT	EPA-8021	88.2	09/17/2015	PAB
C25	NWTPH-DX	87.8	09/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/17/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090097
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090097-03
CLIENT SAMPLE ID	1099-23	DATE RECEIVED:	09/16/2015
		COLLECTION DATE:	9/15/2015 3:20:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	30	3.0	1	MG/KG	09/17/2015	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	09/17/2015	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	09/17/2015	PAB
Ethylbenzene	EPA-8021	0.076	0.050	1	MG/KG	09/17/2015	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	09/17/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	25	1	MG/KG	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U	50	1	MG/KG	09/17/2015	EBS
Lead	EPA-6020	3.5	0.50	5	MG/KG	09/17/2015	RAL

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	72.4	09/17/2015	PAB
TFT	EPA-8021	70.1	09/17/2015	PAB
C25	NWTPH-DX	87.5	09/17/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.
Chromatogram indicates that it is likely that sample contains highly weathered gasoline.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 9/17/2015
 ALS SDG#: EV15090097
 WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-091015S - Batch 97071 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U		MG/KG	3.0	09/11/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091015S - Batch 97071 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		MG/KG	0.030	09/11/2015	PAB
Toluene	EPA-8021	U		MG/KG	0.050	09/11/2015	PAB
Ethylbenzene	EPA-8021	U		MG/KG	0.050	09/11/2015	PAB
Xylenes	EPA-8021	U		MG/KG	0.20	09/11/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091715S - Batch 97179 - Soil by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U		MG/KG	25	09/17/2015	EBS
TPH-Oil Range	NWTPH-DX	U		MG/KG	50		

U - Analyte analyzed for but not detected at level above reporting limit.

MB-091715S - Batch 97167 - Soil by EPA-6020

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Lead	EPA-6020	U		MG/KG	0.10	09/17/2015	RAL

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 9/17/2015
 ALS SDG#: EV15090097
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 97071 - Soil by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	88.8			09/11/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	90.4	2		09/11/2015	PAB

ALS Test Batch ID: 97071 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	85.1			09/11/2015	PAB
Benzene - BSD	EPA-8021	85.9	1		09/11/2015	PAB
Toluene - BS	EPA-8021	87.9			09/11/2015	PAB
Toluene - BSD	EPA-8021	88.7	1		09/11/2015	PAB
Ethylbenzene - BS	EPA-8021	88.5			09/11/2015	PAB
Ethylbenzene - BSD	EPA-8021	88.8	0		09/11/2015	PAB
Xylenes - BS	EPA-8021	87.7			09/11/2015	PAB
Xylenes - BSD	EPA-8021	89.3	2		09/11/2015	PAB

ALS Test Batch ID: 97179 - Soil by NWTPH-DX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - BS	NWTPH-DX	106			09/17/2015	EBS
TPH-Diesel Range - BSD	NWTPH-DX	96.2	10		09/17/2015	EBS

ALS Test Batch ID: 97167 - Soil by EPA-6020

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Lead - BS	EPA-6020	98.1			09/17/2015	RAL
Lead - BSD	EPA-6020	101	3		09/17/2015	RAL



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

DATE: 9/17/2015
ALS SDG#: EV15090097
WDOE ACCREDITATION: C601

CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

MATRIX SPIKE RESULTS

ALS Test Batch ID: 97179 - Soil
Parent Sample: 1099-22

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range - MS	NWTPH-DX	96.9			09/17/2015	EBS

APPROVED BY

Laboratory Director



February 9, 2016

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On February 4th, 4 samples were received by our laboratory and assigned our laboratory project number EV16020037. The project was identified as your 1099.25 BMC Issaquah. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	2/9/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16020037
CLIENT PROJECT:	1099.25 BMC Issaquah	ALS SAMPLE#:	EV16020037-01
CLIENT SAMPLE ID	HA-1	DATE RECEIVED:	02/04/2016
		COLLECTION DATE:	2/4/2016 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/08/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/08/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/08/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/08/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/08/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	63.2	02/08/2016	PAB
TFT	EPA-8021	62.2	02/08/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	2/9/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16020037
CLIENT PROJECT:	1099.25 BMC Issaquah	ALS SAMPLE#:	EV16020037-02
CLIENT SAMPLE ID	HA-2	DATE RECEIVED:	02/04/2016
		COLLECTION DATE:	2/4/2016 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	76.6	02/05/2016	PAB
TFT	EPA-8021	82.6	02/05/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	2/9/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16020037
CLIENT PROJECT:	1099.25 BMC Issaquah	ALS SAMPLE#:	EV16020037-03
CLIENT SAMPLE ID	HA-3	DATE RECEIVED:	02/04/2016
		COLLECTION DATE:	2/4/2016 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	68.0	02/05/2016	PAB
TFT	EPA-8021	73.7	02/05/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	2/9/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16020037
CLIENT PROJECT:	1099.25 BMC Issaquah	ALS SAMPLE#:	EV16020037-04
CLIENT SAMPLE ID	HA-4	DATE RECEIVED:	02/04/2016
		COLLECTION DATE:	2/4/2016 10:45:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	3.0	1	MG/KG	02/05/2016	PAB
Benzene	EPA-8021	U	0.030	1	MG/KG	02/05/2016	PAB
Toluene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Ethylbenzene	EPA-8021	U	0.050	1	MG/KG	02/05/2016	PAB
Xylenes	EPA-8021	U	0.20	1	MG/KG	02/05/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	72.7	02/05/2016	PAB
TFT	EPA-8021	78.0	02/05/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	2/9/2016
CLIENT CONTACT:	Jon Einarsen	ALS SDG#:	EV16020037
CLIENT PROJECT:	1099.25 BMC Issaquah	WDOE ACCREDITATION:	C601

LABORATORY BLANK RESULTS

MBG-020416S - Batch 101216 - Soil by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	MG/KG PAB	3.0		

U - Analyte analyzed for but not detected at level above reporting limit.

MB-020416S - Batch 101216 - Soil by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	MG/KGPAB	0.030		
Toluene	EPA-8021	U	MG/KGPAB	0.050		
Ethylbenzene	EPA-8021	U	MG/KGPAB	0.050		
Xylenes	EPA-8021	U	MG/KGPAB	0.20		

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25 BMC Issaquah

DATE: 2/9/2016
 ALS SDG#: EV16020037
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 101216 - Soil by NWTPH-GX

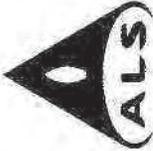
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	96.9			02/04/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	98.2	1		02/04/2016	PAB

ALS Test Batch ID: 101216 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	88.0			02/04/2016	PAB
Benzene - BSD	EPA-8021	84.8	4		02/04/2016	PAB
Toluene - BS	EPA-8021	95.1			02/04/2016	PAB
Toluene - BSD	EPA-8021	91.2	4		02/04/2016	PAB
Ethylbenzene - BS	EPA-8021	90.6			02/04/2016	PAB
Ethylbenzene - BSD	EPA-8021	88.5	2		02/04/2016	PAB
Xylenes - BS	EPA-8021	92.0			02/04/2016	PAB
Xylenes - BSD	EPA-8021	89.3	3		02/04/2016	PAB

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
 http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job#

(Laboratory Use Only)

EV16020037

Date _____ Page _____ Of _____

ANALYSIS REQUESTED				OTHER (Specify)																							
PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	PHONE:	P.O. #:	INVOICE TO COMPANY:	ATTENTION:	ADDRESS:	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	BTEX by EPA-8021 <input type="checkbox"/>	NWTPH-HCID	NWTPH-DX	NWTPH-GX	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Pb <input type="checkbox"/> Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.																		
1099-25 BMC Squah	Zipper Geo Associates	Jon Inarson	19023 36th Ave. W, Suite D Lynnwood, WA 98036	(425) 582-9978		Zipper Geo	2AME																				
HAH	2/4	10:45	S	1																							
HA-2	2/4	10:45	S	2																							
HA-3	2/4	10:45	S	3																							
HA-4	2/4	10:45	S	4																							

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Jeff Finkley Zipper Geo, ZGA 2/4, 12:30
 Received By: Shawn Robinson ALS 2/4/16 12:30

2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____

Organic, Metals & Inorganic Analysis
 Specify: _____

Fuels & Hydrocarbon Analysis
 Standard 10 5 3 2 1 1

*Turnaround request less than standard may incur Rush Charges



August 6, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On August 5th, 1 sample was received by our laboratory and assigned our laboratory project number EV15080015. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	8/6/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15080015
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15080015-01
CLIENT SAMPLE ID	TW-1	DATE RECEIVED:	08/05/2015
		COLLECTION DATE:	8/4/2015 12:45:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	08/05/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	08/05/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	08/05/2015	PAB
TPH-Diesel Range	NWTPH-DX	U	130	1	UG/L	08/05/2015	EBS
TPH-Oil Range	NWTPH-DX	U	250	1	UG/L	08/05/2015	EBS

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	78.7	08/05/2015	PAB
TFT	EPA-8021	89.8	08/05/2015	PAB
C25	NWTPH-DX	82.4	08/05/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	8/6/2015
CLIENT CONTACT:	Jon Einarsen	ALS SDG#:	EV15080015
CLIENT PROJECT:	1099.25	WDOE ACCREDITATION:	C601

LABORATORY BLANK RESULTS

MBG-080515W - Batch 95904 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U		UG/L	50	08/05/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-080515W - Batch 95904 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		UG/L	1.0	08/05/2015	PAB
Toluene	EPA-8021	U		UG/L	1.0	08/05/2015	PAB
Ethylbenzene	EPA-8021	U		UG/L	1.0	08/05/2015	PAB
Xylenes	EPA-8021	U		UG/L	3.0	08/05/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-080415W - Batch 95873 - Water by NWTPH-DX

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	U		UG/L	130	08/04/2015	EBS
TPH-Oil Range	NWTPH-DX	U		UG/L	250	08/04/2015	EBS

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 8/6/2015
ALS SDG#: EV15080015
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 95904 - Water by NWTPH-GX

Table with 6 columns: SPIKED COMPOUND, METHOD, %REC, RPD, QUAL, ANALYSIS DATE, ANALYSIS BY. Rows include TPH-Volatile Range - BS and TPH-Volatile Range - BSD.

ALS Test Batch ID: 95904 - Water by EPA-8021

Table with 6 columns: SPIKED COMPOUND, METHOD, %REC, RPD, QUAL, ANALYSIS DATE, ANALYSIS BY. Rows include Benzene - BS, Benzene - BSD, Toluene - BS, Toluene - BSD, Ethylbenzene - BS, Ethylbenzene - BSD, Xylenes - BS, and Xylenes - BSD.

ALS Test Batch ID: 95873 - Water by NWTPH-DX

Table with 6 columns: SPIKED COMPOUND, METHOD, %REC, RPD, QUAL, ANALYSIS DATE, ANALYSIS BY. Rows include TPH-Diesel Range - BS and TPH-Diesel Range - BSD.

APPROVED BY

Handwritten signature of Paul Baggett

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EVI5080015

Date **8/5/15** Page **1** Of **1**

PROJECT ID:	ANALYSIS REQUESTED				LAB#
	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	OTHER (Specify)	
1099.25	ZGA	Jon Emansen			
PHONE:	FAX:				
P.O. #:	E-MAIL:				
1099.25	ZGA				
ATTENTION:					
ADDRESS:					
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	
1. TW-1	8/4/15	1245	H ₂ O	1	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

ANALYSIS REQUESTED	OTHER (Specify)
<input type="checkbox"/> MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/> BTEX by EPA-8021 <input type="checkbox"/> Halogenated Volatiles by EPA 8260 <input type="checkbox"/> Volatile Organic Compounds by EPA 8260 <input type="checkbox"/> EDB / EDC by EPA 8260 SIM (water) <input type="checkbox"/> EDB / EDC by EPA 8260 (soil) <input type="checkbox"/> Semivolatile Organic Compounds by EPA 8270 <input type="checkbox"/> Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/> PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082 <input type="checkbox"/> Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> P4 Pol <input type="checkbox"/> TAL <input type="checkbox"/> <input type="checkbox"/> Metals Other (Specify) <input type="checkbox"/> TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs	
RECEIVED IN GOOD CONDITION?	3
NUMBER OF CONTAINERS	3

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):
 1. Relinquished By: *[Signature]* / 26A / 8-5-15 / 0835
 Received By: *[Signature]* ALS 8/5/15 0835
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 Organic, Metals & Inorganic Analysis
 10 Standard 5 3 2 1 SAME DAY
 Fuels & Hydrocarbon Analysis
 5 Standard 3 1 SAME DAY

Specify: _____
 OTHER: _____
 *Turnaround request less than standard may incur Rush Charges



September 11, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 8th, 1 sample was received by our laboratory and assigned our laboratory project number EV15090054. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/11/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15090054
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15090054-01
CLIENT SAMPLE ID	TW-2	DATE RECEIVED:	09/08/2015
		COLLECTION DATE:	9/8/2015 12:40:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/09/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/09/2015	PAB
Fats/Oils/Grease (Total)	EPA-1664	U	5.0	1	MG/L	09/10/2015	DNT

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	EPA-8021	95.6	09/09/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 9/11/2015
ALS SDG#: EV15090054
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MB-090315W2 - Batch 96965 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	QUAL	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Toluene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Ethylbenzene	EPA-8021	U		UG/L	1.0	09/03/2015	PAB
Xylenes	EPA-8021	U		UG/L	3.0	09/03/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 9/11/2015
ALS SDG#: EV15090054
WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

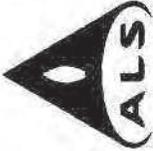
ALS Test Batch ID: 96965 - Water by EPA-8021

Table with 6 columns: SPIKED COMPOUND, METHOD, %REC, RPD, QUAL, ANALYSIS DATE, ANALYSIS BY. Rows include Benzene - BS, Benzene - BSD, Toluene - BS, Toluene - BSD, Ethylbenzene - BS, Ethylbenzene - BSD, Xylenes - BS, Xylenes - BSD.

APPROVED BY

Handwritten signature of Paul Baggett

Laboratory Director



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 8620 Holly Drive, Suite 100
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<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV15090054

Date 9/8/15 Page 1 of 1

ANALYSIS REQUESTED				OTHER (Specify)																
PROJECT ID:	REPORT TO COMPANY:	PROJECT MANAGER:	ADDRESS:	NMTPH-HCID	NMTPH-DX	NMTPH-GX	RECEIVED IN GOOD CONDITION?													
1099.25	ZGA	<i>Jon Einarson</i>																		
PHONE:	FAX:																			
P.O. #:	E-MAIL:																			
1099.25	ZGA																			
INVOICE TO COMPANY:																				
ATTENTION:																				
ADDRESS:																				
SAMPLE I.D.	DATE	TIME	TYPE	LAB#	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260 <input type="checkbox"/>	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>	Pesticides <input type="checkbox"/> by EPA 8081/8082	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Pri Pol <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?			
1. TW-2	9-8-15	1240	H ₂ O	1	X												3			
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: *[Signature]* / 26A / 9-8-15 / 1720
 Received By: *[Signature]* ALS 9/8/15 1220
 2. Relinquished By: *[Signature]* ALS 9/8/15 1220
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____

Organic, Metals & Inorganic Analysis
 10 STANDARD 5 3 2 1 SAVE DAY

Fuels & Hydrocarbon Analysis
 5 3 1 SAVE DAY

Specify: Added on one Day
 Due 9-11-15

*Turnaround request less than standard may incur Rush Charges

Appendix J – Remedial Action Scale Tickets

Clearcreek



CONTRACTORS

Environmental/Civil

Document ID	Job #	Date	Facility	Material Type	Scale Ticket #	Trucking Co.	Truck #	BOL #	Tons
81674	214058	9/22/2015	Lakeside Industries	Asphalt	318190	Lakeside	46	318190	15.15
81675	214058	9/22/2015	Lakeside Industries	Asphalt	318191	Lakeside	30	318191	17.19
81677	214058	9/22/2015	Lakeside Industries	Asphalt	318199	Lakeside	30	318199	16.95
81678	214058	9/22/2015	Lakeside Industries	Asphalt	318206	Lakeside	46	318206	15.11
81679	214058	9/22/2015	Lakeside Industries	Asphalt	318208	Lakeside	30	318208	16.91
81680	214058	9/22/2015	Lakeside Industries	Asphalt	318210	Lakeside	46	318210	15.25
81676	214058	9/22/2015	Lakeside Industries	Asphalt	319198	Lakeside	46	318198	15.02
Asphalt Total									111.58
80828	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926063	Clearcreek	44	8288	32.50
80833	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926065	Clearcreek	43	7183	33.63
80838	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926068	Winter Trucking	10	5318	32.20
80853	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926070	Springbrook	25	105795	33.17
80843	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926071	Springbrook	10	108578	28.92
80829	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926075	Clearcreek	44	8288	33.31
80834	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926076	Clearcreek	43	7183	28.07
80839	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926078	Winter Trucking	10	5318	29.99
80854	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926081	Springbrook	25	105795	31.67
80844	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926082	Springbrook	10	108578	31.55
80830	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926084	Clearcreek	44	8288	34.15
80836	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926085	Clearcreek	43	7183	29.35
80840	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926090	Winter Trucking	10	5318	30.02
80856	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926091	Springbrook	25	105795	29.35
80845	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926093	Springbrook	10	108578	29.73
80831	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926095	Clearcreek	44	8288	33.34
80835	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926099	Clearcreek	43	7183	30.31
80841	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926105	Winter Trucking	10	5318	43.19
80846	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926109	Springbrook	10	108578	33.09
80855	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926115	Springbrook	25	105795	32.35
80832	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926116	Clearcreek	44	8288	34.12
80889	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926117	Clearcreek	43	7183	33.20
81132	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926118	Winter Trucking	10	28.78	
81133	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926119	Springbrook	10	108578	31.08
80890	214058	7/21/2015	Regional Disposal	Class III/IV Soil	926120	Springbrook	25	105795	28.97
80917	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926124	Springbrook	25	105796	26.04
80922	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926125	Springbrook	26	108885	23.28
80912	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926128	Clearcreek	43	7184	23.85
80911	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926131	Clearcreek	43	7184	26.06
80915	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926132	Springbrook	25	105796	22.39
80923	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926133	Springbrook	26	108885	25.45
80913	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926138	Clearcreek	43	7184	34.29
80916	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926139	Springbrook	25	105796	25.88
80921	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926142	Springbrook	26	108885	26.40
81055	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926145	Clearcreek	43/50	7184	36.40
80918	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926147	Springbrook	25	105796	32.48
80920	214058	7/22/2015	Regional Disposal	Class III/IV Soil	926150	Springbrook	26	108885	32.52
80896	214058	7/23/2015	Regional Disposal	Class III/IV Soil	926173	Springbrook	25	105797	43.33
80897	214058	7/23/2015	Regional Disposal	Class III/IV Soil	926176	Springbrook	26	108886	37.23
81134	214058	7/23/2015	Regional Disposal	Class III/IV Soil	926211	Springbrook	25	105797	23.50
81135	214058	7/23/2015	Regional Disposal	Class III/IV Soil	926212	Springbrook	26	108886	26.65
80892	214058	7/24/2015	Regional Disposal	Class III/IV Soil	926256	Clearcreek	44	8292	25.18
81136	214058	7/24/2015	Regional Disposal	Class III/IV Soil	926274	Springbrook	25	104664	26.22
81578	214058	9/10/2015	Regional Disposal	Class III/IV Soil	928912	Clearcreek	43/50	7200	33.65
81579	214058	9/10/2015	Regional Disposal	Class III/IV Soil	928926	Clearcreek	43/50	7200	28.56
81587	214058	9/16/2015	Regional Disposal	Class III/IV Soil	929111	Springbrook	25	108240	9.96
81668	214058	9/18/2015	Regional Disposal	Class III/IV Soil	929237	Clearcreek	43		9.61
Class III/IV Soil Total									1,395.87
81615	214058	9/17/2015	Cadman	CSTC	3825281	Springbrook	25	108241	29.84
81616	214058	9/17/2015	Cadman	CSTC	3825283	Springbrook	25	108241	30.33
81617	214058	9/17/2015	Cadman	CSTC	3825286	Springbrook	25	108241	29.84
81618	214058	9/17/2015	Cadman	CSTC	3825288	Springbrook	25	108241	29.77
CSTC Total									119.78
81430	214058	9/9/2015	Cadman	Quarry Spalls	3825078	Clearcreek	43	7199	16.83
81435	214058	9/14/2015	Cadman	Quarry Spalls	3825140	Clearcreek	43/50	8602	32.49
81436	214058	9/14/2015	Cadman	Quarry Spalls	3825142	Clearcreek	43/50	8602	32.35
81437	214058	9/14/2015	Cadman	Quarry Spalls	3825143	Clearcreek	43/50	8602	32.57
81438	214058	9/14/2015	Cadman	Quarry Spalls	3825145	Clearcreek	43/50	8602	32.09

81439	214058	9/14/2015	Cadman	Quarry Spalls	3825147	Clearcreek	43/50	8602	31.70
81440	214058	9/14/2015	Cadman	Quarry Spalls	3825150	Clearcreek	43/50	8602	31.71
81441	214058	9/14/2015	Cadman	Quarry Spalls	3825152	Clearcreek	43/50	8602	32.16
81442	214058	9/14/2015	Cadman	Quarry Spalls	3825153	Clearcreek	43/50	8602	31.84
81443	214058	9/14/2015	Cadman	Quarry Spalls	3825157	Clearcreek	43/50	8602	31.28
81444	214058	9/14/2015	Cadman	Quarry Spalls	3825159	Clearcreek	43/50	8602	31.42
81445	214058	9/14/2015	Cadman	Quarry Spalls	3825160	Clearcreek	43/50	8602	31.93
81446	214058	9/14/2015	Cadman	Quarry Spalls	3825162	Clearcreek	43/50	8602	32.12
Quarry Spalls Total									400.49
81600	214058	9/15/2015	Cadman	Type 17	3825198	Springbrook			22.14
81601	214058	9/15/2015	Cadman	Type 17	3825199	Springbrook			22.84
81602	214058	9/15/2015	Cadman	Type 17	3825200	Springbrook			23.16
81603	214058	9/15/2015	Cadman	Type 17	3825204	Springbrook			23.28
81604	214058	9/15/2015	Cadman	Type 17	3825206	Springbrook			22.86
81605	214058	9/15/2015	Cadman	Type 17	3825208	Springbrook			22.06
81606	214058	9/15/2015	Cadman	Type 17	3825210	Springbrook			22.62
81607	214058	9/15/2015	Cadman	Type 17	3825213	Springbrook			22.50
81608	214058	9/15/2015	Cadman	Type 17	3825215	Springbrook	949	3825215	22.35
81588	214058	9/16/2015	Cadman	Type 17	3825220	Springbrook	25	108240	29.56
81589	214058	9/16/2015	Cadman	Type 17	3825225	Springbrook	25	108240	29.32
81590	214058	9/16/2015	Cadman	Type 17	3825226	Springbrook	25	108240	29.42
81591	214058	9/16/2015	Cadman	Type 17	3825227	Springbrook	25	108240	29.86
81592	214058	9/16/2015	Cadman	Type 17	3825228	Springbrook	25	108240	29.74
81593	214058	9/16/2015	Cadman	Type 17	3825229	Springbrook	25	108240	29.26
81594	214058	9/16/2015	Cadman	Type 17	3825230	Springbrook	25	108240	28.67
81595	214058	9/16/2015	Cadman	Type 17	3825231	Springbrook	25	108240	29.49
81596	214058	9/16/2015	Cadman	Type 17	3825232	Springbrook	25	108240	29.59
81597	214058	9/16/2015	Cadman	Type 17	3825236	Springbrook	25	108240	29.49
81598	214058	9/16/2015	Cadman	Type 17	3825239	Springbrook	25	108240	29.92
81599	214058	9/16/2015	Cadman	Type 17	3825241	Springbrook	25	108240	29.40
81619	214058	9/17/2015	Cadman	Type 17	3825245	Springbrook	25	108241	28.79
81620	214058	9/17/2015	Cadman	Type 17	3825252	Springbrook	25	108241	29.30
81621	214058	9/17/2015	Cadman	Type 17	3825257	Springbrook	25	108241	29.49
81622	214058	9/17/2015	Cadman	Type 17	3825261	Springbrook	25	108241	29.09
81623	214058	9/17/2015	Cadman	Type 17	3825265	Springbrook	25	108241	28.47
81624	214058	9/17/2015	Cadman	Type 17	3825269	Springbrook	25	108241	28.87
81625	214058	9/17/2015	Cadman	Type 17	3825272	Springbrook	25	108241	28.75
81626	214058	9/17/2015	Cadman	Type 17	3825274	Springbrook	25	108241	28.53
81627	214058	9/17/2015	Cadman	Type 17	3825276	Springbrook	25	108241	29.62
81628	214058	9/17/2015	Cadman	Type 17	3825279	Springbrook	25	108241	29.43
Type 17 Total									847.87
80847	214058	7/20/2015	Lakeside Industries	Waste Asphalt	310975	Clearcreek	44	8247	13.57
80848	214058	7/20/2015	Lakeside Industries	Waste Asphalt	310987	Clearcreek	44	8247	15.00
80849	214058	7/20/2015	Lakeside Industries	Waste Asphalt	310995	Clearcreek	44	8247	13.83
80850	214058	7/20/2015	Lakeside Industries	Waste Asphalt	311016	Clearcreek	44	8247	14.70
80851	214058	7/20/2015	Lakeside Industries	Waste Asphalt	311024	Clearcreek	44	8247	10.61
81669	214058	9/18/2015	Lakeside Industries	Waste Asphalt	317901	Clearcreek	43		16.40
81670	214058	9/18/2015	Lakeside Industries	Waste Asphalt	317913	Clearcreek	43		23.76
Waste Asphalt Total									107.87

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01 **TICKET #** 926139 **CELL**

WEIGHMASTER
Drinda L.

DATE/TIME IN 07-22-2015 12:57 pm **DATE/TIME OUT** 07-22-2015 1:17 pm

VEHICLE 25 SPRINGBROOK **CONTAINER**

REFERENCE INVOICE

BILL OF LADING

SCALE IN	GROSS WEIGHT	93,100	NET TONS	25.88	
SCALE OUT	TARE WEIGHT	41,340	NET WEIGHT	51,760	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
25.88	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

The undersigned individual signing this document on behalf of Customer acknowledges that he or she has read and understands the terms and conditions on the reverse side and that he or she has the authority to sign this document on behalf of the customer.

RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926124	CELL
WEIGHMASTER JAMIE R.		
DATE/TIME IN 07-22-2015 8:35 am		DATE/TIME OUT 07-22-2015 8:57 am
VEHICLE 25 SPRINGBROOK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	93,440	NET TONS	26.04	
SCALE OUT	TARE WEIGHT	41,360	NET WEIGHT	52,080	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
26.04	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01 **TICKET #** 926147 **CELL**

WEIGHMASTER
IN - JAMIE B. OUT - Raylene W.

DATE/TIME IN 07-22-2015 2:31 pm **DATE/TIME OUT** 07-22-2015 2:43 pm

VEHICLE 25 SPRINGBROOK **CONTAINER**

REFERENCE INVOICE

BILL OF LADING

SCALE IN	GROSS WEIGHT	106,180	NET TONS	32.48	
SCALE OUT	TARE WEIGHT	41,220	NET WEIGHT	64,960	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
32.48	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926150	CELL
WEIGHMASTER IN - JAMIE B. OUT - Raylene W.		
DATE/TIME IN 07-22-2015 2:53 pm		DATE/TIME OUT 07-22-2015 3:09 pm
VEHICLE 26 SPRINGBROOK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	106,540	NET TONS	32.52	
SCALE OUT	TARE WEIGHT	41,500	NET WEIGHT	65,040	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
32.52	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

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RS-F042UPR (07/12)

SIGNATURE _____

NET AMOUNT
TENDERED
CHANGE
CHECK#

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926142	CELL
WEIGHMASTER IN - Drinda L. OUT - Raylene W.		
DATE/TIME IN 07-22-2015 1:05 pm		DATE/TIME OUT 07-22-2015 1:24 pm
VEHICLE 26 SPRINGBROOK		CONTAINER
REFERENCE INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	94,560	NET TONS	26.40	
SCALE OUT	TARE WEIGHT	41,760	NET WEIGHT	52,800	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
26.40	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926125	CELL
WEIGHMASTER IN - JAMIE B. OUT - Drinda L.		
DATE/TIME IN 07-22-2015 8:37 am		DATE/TIME OUT 07-22-2015 8:58 am
VEHICLE 26 SPRINGBROOK		CONTAINER
REFERENCE INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	88,480	NET TONS	23.28	
SCALE OUT	TARE WEIGHT	41,920	NET WEIGHT	46,560	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
23.28	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01 **TICKET #** 926133 **CELL**

WEIGHMASTER
 IN - JAMIE B. OUT - Kim L.

DATE/TIME IN 07-22-2015 10:45 am **DATE/TIME OUT** 07-22-2015 11:41 am

VEHICLE 26 SPRINGBROOK **CONTAINER**

REFERENCE INVOICE

BILL OF LADING

SCALE IN	GROSS WEIGHT	93,240	NET TONS	25.45	
SCALE OUT	TARE WEIGHT	42,340	NET WEIGHT	50,900	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
25.45	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

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RS-F042UPR (07/12)

SIGNATURE _____

NET AMOUNT
TENDERED
CHANGE
CHECK#

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01 TICKET # 926145 CELL
WEIGHMASTER
IN - JAMIE B. OUT - Raylene W.
DATE/TIME IN 07-22-2015 2:03 pm DATE/TIME OUT 07-22-2015 2:19 pm
VEHICLE 43 CLEARCREEK CONTAINER
REFERENCE INVOICE
BILL OF LADING

SCALE IN	GROSS WEIGHT	112,300	NET TONS	36.40	
SCALE OUT	TARE WEIGHT	39,500	NET WEIGHT	72,800	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
36.40	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

SITE 01	TICKET # 928926	CELL
WEIGHMASTER IN - JAMIE B. OUT - Drinda L.		
DATE/TIME IN 09-10-2015 8:49 am	DATE/TIME OUT 09-10-2015 9:06 am	
VEHICLE 43 CLEARCREEK	CONTAINER	
REFERENCE		INVOICE
BILL OF LADING		

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SCALE IN	GROSS WEIGHT	97,340	NET TONS	28.56	
SCALE OUT	TARE WEIGHT	40,220	NET WEIGHT	57,120	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
28.56	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 928912	CELL
WEIGHMASTER IN - LARRY C. OUT - Drinda L.		
DATE/TIME IN 09-10-2015 6:53 am	DATE/TIME OUT 09-10-2015 7:13 am	
VEHICLE 43 CLEARCREEK	CONTAINER	
REFERENCE INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	107,520	NET TONS	33.65	
SCALE OUT	TARE WEIGHT	40,220	NET WEIGHT	67,300	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.65	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE	TICKET #	CELL
01	929111	
WEIGHMASTER		
IN	Drinda L.	OUT Kim J.
DATE/TIME IN		DATE/TIME OUT
09-16-2015	8:23 am	09-16-2015 8:35 am
VEHICLE		CONTAINER
25 SPRINGBROOK		
REFERENCE		
BILL OF LADING		INVOICE

SCALE IN	GROSS WEIGHT	46,640	NET TONS	9.96	
SCALE OUT	TARE WEIGHT	26,720	NET WEIGHT	19,920	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
9.96	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

SITE	TICKET #	CELL
01	929237	214058
WEIGHMASTER Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
09-18-2015 10:52 am	09-18-2015 11:10 am	
VEHICLE	CONTAINER	
43 CLEARCREEK		
REFERENCE	INVOICE	
BILL OF LADING		

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SCALE IN	GROSS WEIGHT	61,360	NET TONS	9.61	
SCALE OUT	TARE WEIGHT	42,140	NET WEIGHT	19,220	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
9.61	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926063	215092.1D.3D
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 7:39 am	07-21-2015 7:48 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		
44 CLEARCREEK		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	105,460	NET TONS	32.50	
SCALE OUT	TARE WEIGHT	40,460	NET WEIGHT	65,000	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
32.50	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE	TICKET #	CELL
01	926075	
WEIGHMASTER		
IN - Drinda L.	OUT - JAMIE B.	
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 9:25 am	07-21-2015 9:32 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE	INVOICE	
44 CLEARCREEK		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	106,660	NET TONS	33.31	
SCALE OUT	TARE WEIGHT	40,040	NET WEIGHT	66,620	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.31	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926084	
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 10:53 am	07-21-2015 11:02 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		INVOICE
44 CLEARCREEK		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	108,400	NET TONS	34.15	
SCALE OUT	TARE WEIGHT	40,100	NET WEIGHT	68,300	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
34.15	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926095	
WEIGHMASTER		
IN - Kim L. OUT - Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 12:18 pm	07-21-2015 12:27 pm	
VEHICLE	CONTAINER	
44 CLEAR CREEK		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	106,940	NET TONS	33.34	
SCALE OUT	TARE WEIGHT	40,260	NET WEIGHT	66,680	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.34	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926116	CELL
WEIGHMASTER IN - Raylene W. OUT - Drinda L.		
DATE/TIME IN 07-21-2015 1:43 pm		DATE/TIME OUT 07-21-2015 2:19 pm
VEHICLE 44 CLEAR CREEK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	108,500	NET TONS	34.12	
SCALE OUT	TARE WEIGHT	40,260	NET WEIGHT	68,240	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
34.12	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

215092.10.30

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

SITE 01 TICKET # 926065 CELL
WEIGHMASTER
IN - Drinda L. OUT - JAMIE B.
DATE/TIME IN 07-21-2015 7:56 am DATE/TIME OUT 07-21-2015 8:01 am
VEHICLE SOIL CONTAINER
REFERENCE 43 CLEARCREEK INVOICE
BILL OF LADING

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SCALE IN GROSS WEIGHT 107,000 NET TONS 33.63
SCALE OUT TARE WEIGHT 39,740 NET WEIGHT 67,260 INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.63	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE	TICKET #	CELL
01	926076	
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 9:40 am	07-21-2015 9:45 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE	INVOICE	
43 CLEARCREEK		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	95,780	NET TONS	28.07	
SCALE OUT	TARE WEIGHT	39,640	NET WEIGHT	56,140	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
28.07	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926099	
WEIGHMASTER		
IN - Kim L. OUT - Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 12:31 pm	07-21-2015 12:48 pm	
VEHICLE	CONTAINER	
43 CLEARCREEK		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	100,300	NET TONS	30.31	
SCALE OUT	TARE WEIGHT	39,680	NET WEIGHT	60,620	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
30.31	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926085	
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 11:04 am	07-21-2015 11:11 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		INVOICE
43 CLEARCREEK		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	98,440	NET TONS	29.35	
SCALE OUT	TARE WEIGHT	39,740	NET WEIGHT	58,700	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
29.35	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926068	
WEIGHMASTER		
IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 8:07 am	07-21-2015 8:19 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		
10 WINTER		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	104,840	NET TONS	32.20	
SCALE OUT	TARE WEIGHT	40,440	NET WEIGHT	64,400	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
32.20	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926078	CELL
WEIGHMASTER IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN 07-21-2015 10:02 am		DATE/TIME OUT 07-21-2015 10:12 am
VEHICLE SOIL		CONTAINER
REFERENCE 10 WINTER INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	100,200	NET TONS	29.99	
SCALE OUT	TARE WEIGHT	40,220	NET WEIGHT	59,980	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
29.99	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926090	
WEIGHMASTER		
IN - Kim L. OUT - Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 11:47 am	07-21-2015 11:59 am	
VEHICLE	CONTAINER	
10 BUD WINTER		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	101,300	NET TONS	30.02	
SCALE OUT	TARE WEIGHT	41,260	NET WEIGHT	60,040	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
30.02	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SIGNATURE _____

SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926105	
WEIGHMASTER		
IN - Raylene W. OUT - Drinda L.		
DATE/TIME IN		DATE/TIME OUT
07-21-2015 1:16 pm		07-21-2015 1:30 pm
VEHICLE	CONTAINER	
SOIL		
REFERENCE		
10 WINTER TRUCKING		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	127,100	NET TONS	43.19	
SCALE OUT	TARE WEIGHT	40,720	NET WEIGHT	86,380	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
43.19	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926071	CELL
WEIGHMASTER IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN 07-21-2015 8:40 am	DATE/TIME OUT 07-21-2015 8:52 am	
VEHICLE SOIL	CONTAINER	
REFERENCE 10 SPRINGBROOK		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	99,980	NET TONS	28.92	
SCALE OUT	TARE WEIGHT	42,140	NET WEIGHT	57,840	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
28.92	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926082	
WEIGHMASTER		
IN - Drinda L.		OUT - JAMIE B.
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 10:35 am	07-21-2015 10:44 am	
VEHICLE	CONTAINER	
SOIL		
REFERENCE		
10 SPRINGBROOK		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	104,240	NET TONS	31.55	
SCALE OUT	TARE WEIGHT	41,140	NET WEIGHT	63,100	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
31.55	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

SITE	TICKET #	CELL
01	926093	
WEIGHMASTER		
IN - Kim L. OUT - Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 12:04 pm	07-21-2015 12:09 pm	
VEHICLE	CONTAINER	
10 SPRINGBROOK		
REFERENCE	INVOICE	
BILL OF LADING		

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SCALE IN	GROSS WEIGHT	100,680	NET TONS	29.73	
SCALE OUT	TARE WEIGHT	41,220	NET WEIGHT	59,460	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
29.73	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926109	
WEIGHMASTER		
IN - Raylene W. OUT - Drinda I.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 1:25 pm	07-21-2015 1:52 pm	
VEHICLE	CONTAINER	
10 SPRINGBROOK		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	109,040	NET TONS	33.99	
SCALE OUT	TARE WEIGHT	41,060	NET WEIGHT	67,980	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.99	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926070	CELL
WEIGHMASTER IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN 07-21-2015 8:35 am	DATE/TIME OUT 07-21-2015 8:47 am	
VEHICLE SOIL	CONTAINER	
REFERENCE 25 SPRINGBROOK INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	107,480	NET TONS	33.17	
SCALE OUT	TARE WEIGHT	41,140	NET WEIGHT	66,340	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.17	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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RS-F042UPR (07/12)

SIGNATURE _____

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926081	CELL
WEIGHMASTER IN - Drinda L. OUT - JAMIE B.		
DATE/TIME IN 07-21-2015 10:26 am	DATE/TIME OUT 07-21-2015 10:38 am	
VEHICLE SOIL	CONTAINER	
REFERENCE 25 SPRINGBROOK INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	104,480	NET TONS	31.67	
SCALE OUT	TARE WEIGHT	41,140	NET WEIGHT	63,340	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
31.67	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
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SITE	REGIONAL DISPOSAL INTERMODAL 3rd and lander Seattle, WA --
CUSTOMER	014755 Clearcreek Contractors 3919 88th ST NE Marysville, WA 98270 LW-15171

SITE	TICKET #	CELL
01	926115	
WEIGHMASTER		
IN - Raylene W. OUT - Drinda L.		
DATE/TIME IN	DATE/TIME OUT	
07-21-2015 1:40 pm	07-21-2015 2:17 pm	
VEHICLE	CONTAINER	
25 SPRINGBROOK		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	105,880	NET TONS	32.35	
SCALE OUT	TARE WEIGHT	41,180	NET WEIGHT	64,700	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
32.35	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
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SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926091	CELL
WEIGHMASTER IN - Kim L. OUT - Drinda L.		
DATE/TIME IN 07-21-2015 11:54 am		DATE/TIME OUT 07-21-2015 12:05 pm
VEHICLE 25 SPRINGBROOK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	100,300	NET TONS	29.35	
SCALE OUT	TARE WEIGHT	41,600	NET WEIGHT	58,700	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
29.35	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
CHANGE
CHECK#

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RS-F042UPR (07/12)

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926117	CELL
WEIGHMASTER IN - Raylene W. OUT - Drinda L.		
DATE/TIME IN 07-21-2015 1:58 pm		DATE/TIME OUT 07-21-2015 2:21 pm
VEHICLE 43 CLEARCREEK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	105,800	NET TONS	33.20	
SCALE OUT	TARE WEIGHT	39,400	NET WEIGHT	66,400	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
33.20	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926120	CELL
WEIGHMASTER Raylene W.		
DATE/TIME IN 07-21-2015 3:27 pm	DATE/TIME OUT 07-21-2015 4:22 pm	
VEHICLE 25 SPRINGBROOK	CONTAINER	
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	98,720	NET TONS	28.97	
SCALE OUT	TARE WEIGHT	40,780	NET WEIGHT	57,940	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
28.97	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

NET AMOUNT
TENDERED
CHANGE
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2/21

RS-F042UPR (07/12)

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE	TICKET #	CELL
01	926256	
WEIGHMASTER		
IN - Kim L. OUT - Drinda L.		
DATE/TIME IN		DATE/TIME OUT
07-24-2015 8:55 am		07-24-2015 9:52 am
VEHICLE		CONTAINER
44 CLEAR CREEK		
REFERENCE	INVOICE	
BILL OF LADING		

SCALE IN	GROSS WEIGHT	90,440	NET TONS	25.18	
SCALE OUT	TARE WEIGHT	40,080	NET WEIGHT	50,360	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
25.18	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

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SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926173	CELL
WEIGHMASTER		
IN - JAMIE B. OUT - Drinda L.		
DATE/TIME IN 07-23-2015 8:50 am	DATE/TIME OUT 07-23-2015 9:40 am	
VEHICLE 25 SPRINGBROOK	CONTAINER	
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	128,000	NET TONS	43.33	
SCALE OUT	TARE WEIGHT	41,340	NET WEIGHT	86,660	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
43.33	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

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NET AMOUNT
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CHANGE
CHECK#

SITE REGIONAL DISPOSAL INTERMODAL
3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926176	CELL
WEIGHMASTER		
IN - JAMIE B. OUT - Drinda L.		
DATE/TIME IN 07-23-2015 8:59 am	DATE/TIME OUT 07-23-2015 9:45 am	
VEHICLE 26 SPRINGBROOK	CONTAINER	
REFERENCE INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	116,500	NET TONS	37.23	
SCALE OUT	TARE WEIGHT	42,040	NET WEIGHT	74,460	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
37.23	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

21405B.30

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NET AMOUNT
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CHANGE
CHECK#

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926131	CELL
WEIGHMASTER		
IN - JAMIE B. OUT - Kim J.		
DATE/TIME IN 07-22-2015 11:22 am	DATE/TIME OUT 07-22-2015 11:31 am	
VEHICLE 43 CLEARCREEK	CONTAINER	
REFERENCE INVOICE		
BILL OF LADING		

SCALE IN	GROSS WEIGHT	92,280	NET TONS	26.06	
SCALE OUT	TARE WEIGHT	40,160	NET WEIGHT	52,120	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
26.06	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.36

NET AMOUNT
TENDERED
CHANGE
CHECK#

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SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01	TICKET # 926128	CELL
WEIGHMASTER		
IN - JAMIE B. OUT - Drinda L.		
DATE/TIME IN 07-22-2015 9:58 am		DATE/TIME OUT 07-22-2015 10:08 am
VEHICLE 43 CLEARCREEK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	87,980	NET TONS	23.85	
SCALE OUT	TARE WEIGHT	40,280	NET WEIGHT	47,700	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
23.85	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

NET AMOUNT
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3rd and lander
Seattle, WA --

CUSTOMER
014755
Clearcreek Contractors
3919 88th ST NE
Marysville, WA 98270
LW-15171

SITE 01	TICKET # 926138	CELL
WEIGHMASTER IN - Drinda L. OUT - Kim L.		
DATE/TIME IN 07-22-2015 12:39 pm		DATE/TIME OUT 07-22-2015 12:54 pm
VEHICLE 43 CLEARCREEK		CONTAINER
REFERENCE		INVOICE
BILL OF LADING		

SCALE IN	GROSS WEIGHT	108,260	NET TONS	34.29	
SCALE OUT	TARE WEIGHT	39,680	NET WEIGHT	68,580	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
34.29	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

214058.30

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SIGNATURE _____

NET AMOUNT
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CHANGE
CHECK#

SITE
 REGIONAL DISPOSAL INTERMODAL
 3rd and lander
 Seattle, WA --

CUSTOMER
 014755
 Clearcreek Contractors
 3919 88th ST NE
 Marysville, WA 98270
 LW-15171

SITE 01 **TICKET #** 926132 **CELL**

WEIGHMASTER
 IN - JAMIE B. OUT - Kim L.

DATE/TIME IN 07-22-2015 10:26 am **DATE/TIME OUT** 07-22-2015 11:40 am

VEHICLE 25 SPRINGBROOK **CONTAINER**

REFERENCE INVOICE

BILL OF LADING

SCALE IN	GROSS WEIGHT	87,040	NET TONS	22.39	
SCALE OUT	TARE WEIGHT	42,260	NET WEIGHT	44,780	INBOUND

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
0.00	YD	TRACKING QTY				
22.39	TN	SW-CONT SOIL W/FUEL ISSAQUAH/KING				

NET AMOUNT
TENDERED
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RS-F042UPR (07/12)

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Appendix K – Post-Remedial Action Well Logs

Boring Location: - Drilling Company: Environmental Bore Hole Dia.: 6"
 Top Elevation: - Drilling Method: Hollow Stem Auger Hammer Type:
 Date Drilled: 11/20/2015 Drill Rig: Truck Mounted Logged by: JST

MW-1A

Depth (ft)	SOIL DESCRIPTION	Sample Number SAMPLES Recovery	Ground Water	PENETRATION RESISTANCE (blows/foot)				Blow Counts	Testing
				▲ Standard Penetration Test △ Hammer Weight and Drop:					
0	<p>The stratification lines represent the approximate boundaries between soil types. The transition may be gradual. Refer to report text and appendices for additional information.</p> <p>3 to 4 inches of asphalt</p> <p>Loose, moist, tan, sandy GRAVEL (Fill). No obvious hydrocarbon odor noted.</p> <p>Soft, very moist, blue-gray, SILT with trace fine sand. No obvious hydrocarbon odor noted.</p> <p>Soft, very moist, mottled green and light brown, SILT with trace fine sand. No obvious hydrocarbon odor noted.</p> <p>Soft, wet, gray, SILT with some fine-medium sand. No obvious hydrocarbon odor noted.</p>	S3		0	20	40	60	0	
10	<p>Exploration completed at 10 feet. Groundwater observed at approximately 3 feet ATD.</p>								
15									
20									
25									

SAMPLE LEGEND

- 2-inch O.D. split spoon sample
- 3-inch I.D. Shelby tube sample

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

◇ % Fines (<0.075 mm)

○ % Water (Moisture) Content

Plastic Limit Liquid Limit
 Natural Water Content

TESTING KEY

- GSA = Grain Size Analysis
- 200W = 200 Wash Analysis
- Consol. = Consolidation Test
- Att. = Atterberg Limits

BMC Issaquah
 5210 E Lake Sammamish Pkwy SE
 Issaquah, WA

Date: - Project No.: 1099.25

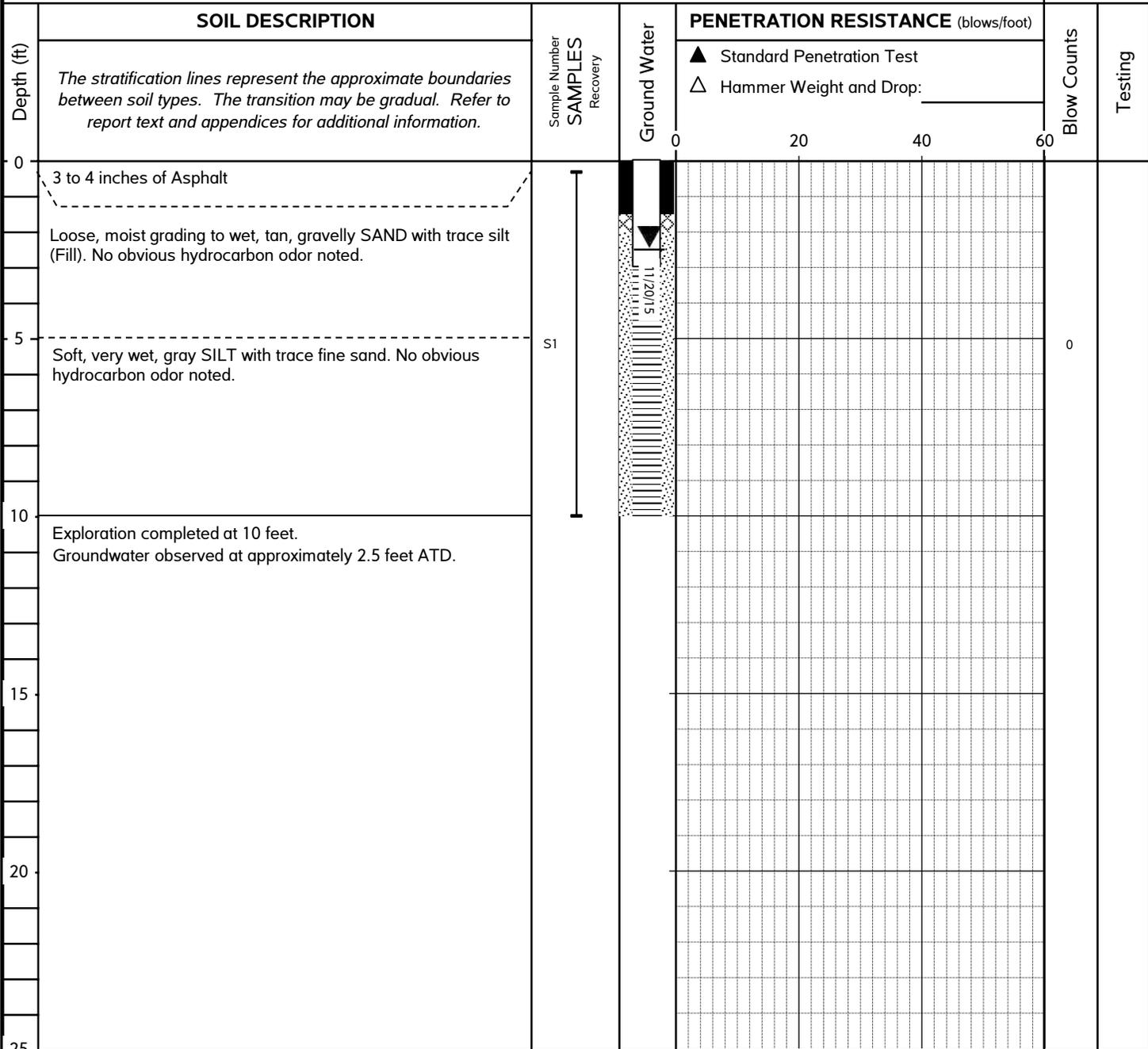
Zipper Geo Associates
 19023 36th Ave. W, Suite D
 Lynnwood, WA

BORING MW-1A
LOG:

Page 1 of 1

Boring Location: - Drilling Company: Environmental Bore Hole Dia.: 6"
 Top Elevation: - Drilling Method: Hollow Stem Auger Hammer Type:
 Date Drilled: 11/20/2015 Drill Rig: Truck Mounted Logged by: JST

MW-4A



SAMPLE LEGEND

- 2-inch O.D. split spoon sample
- 3-inch I.D. Shelby tube sample

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

◇ % Fines (<0.075 mm)

○ % Water (Moisture) Content

Plastic Limit ———— ⊕ ———— Liquid Limit

Natural Water Content

TESTING KEY

- GSA = Grain Size Analysis
- 200W = 200 Wash Analysis
- Consol. = Consolidation Test
- Att. = Atterberg Limits

BMC Issaquah
 5210 E Lake Sammamish Pkwy SE
 Issaquah, WA

Date: - Project No.: 1099.25

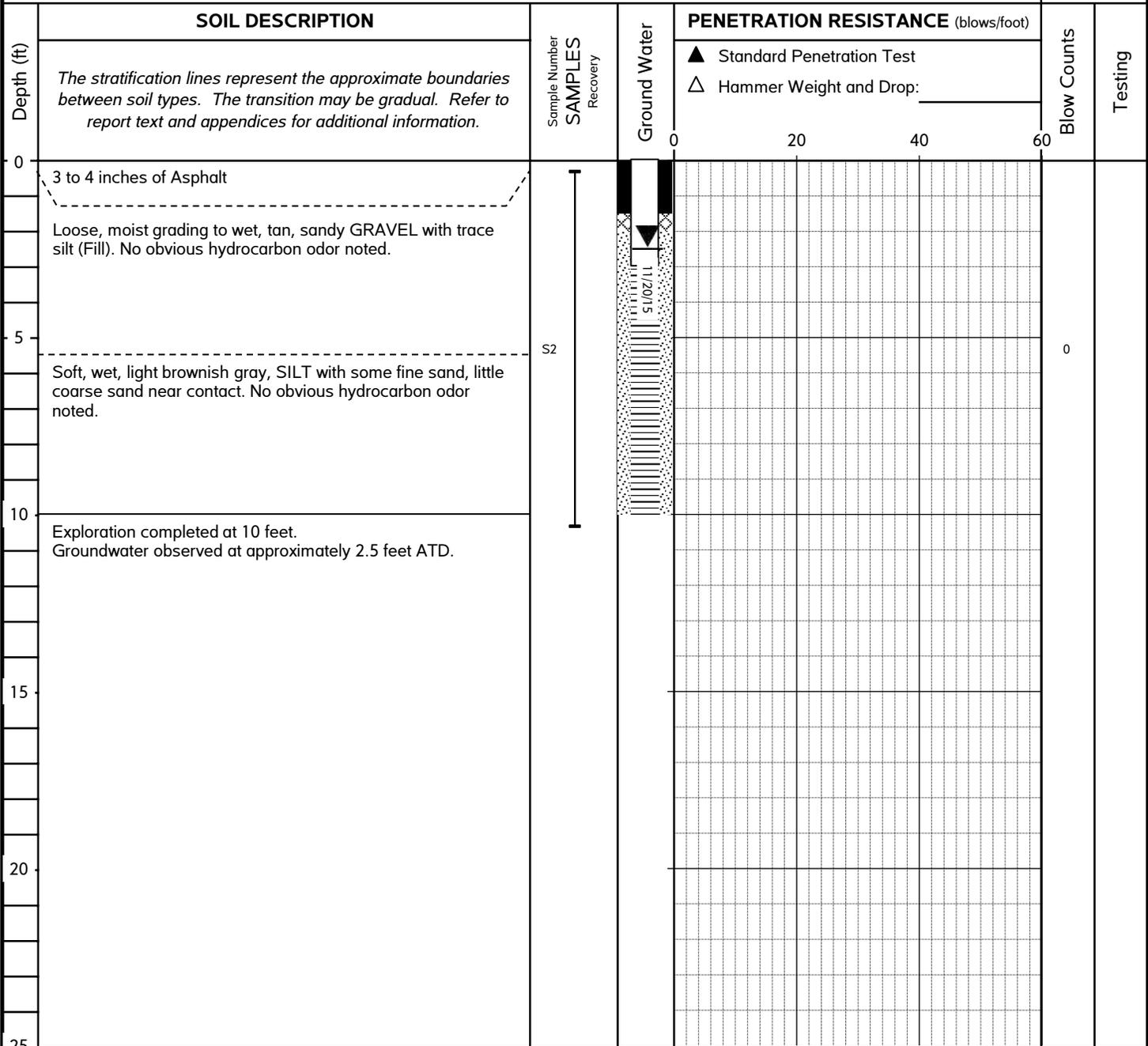
Zipper Geo Associates
 19023 36th Ave. W, Suite D
 Lynnwood, WA

BORING LOG: MW-4A

Page 1 of 1

Boring Location: - Drilling Company: Environmental Bore Hole Dia.: 6"
 Top Elevation: - Drilling Method: Hollow Stem Auger Hammer Type:
 Date Drilled: 11/20/2015 Drill Rig: Truck Mounted Logged by: JST

MW-5



SAMPLE LEGEND

- 2-inch O.D. split spoon sample
- 3-inch I.D. Shelby tube sample

GROUNDWATER LEGEND

- Clean Sand
- Bentonite
- Grout/Concrete
- Screened Casing
- Blank Casing
- Groundwater level at time of drilling (ATD) or on date of measurement.

◇ % Fines (<0.075 mm)

○ % Water (Moisture) Content

Plastic Limit Liquid Limit

Natural Water Content

TESTING KEY

- GSA = Grain Size Analysis
- 200W = 200 Wash Analysis
- Consol. = Consolidation Test
- Att. = Atterberg Limits

BMC Issaquah
 5210 E Lake Sammamish Pkwy SE
 Issaquah, WA

Date: - Project No.: 1099.25

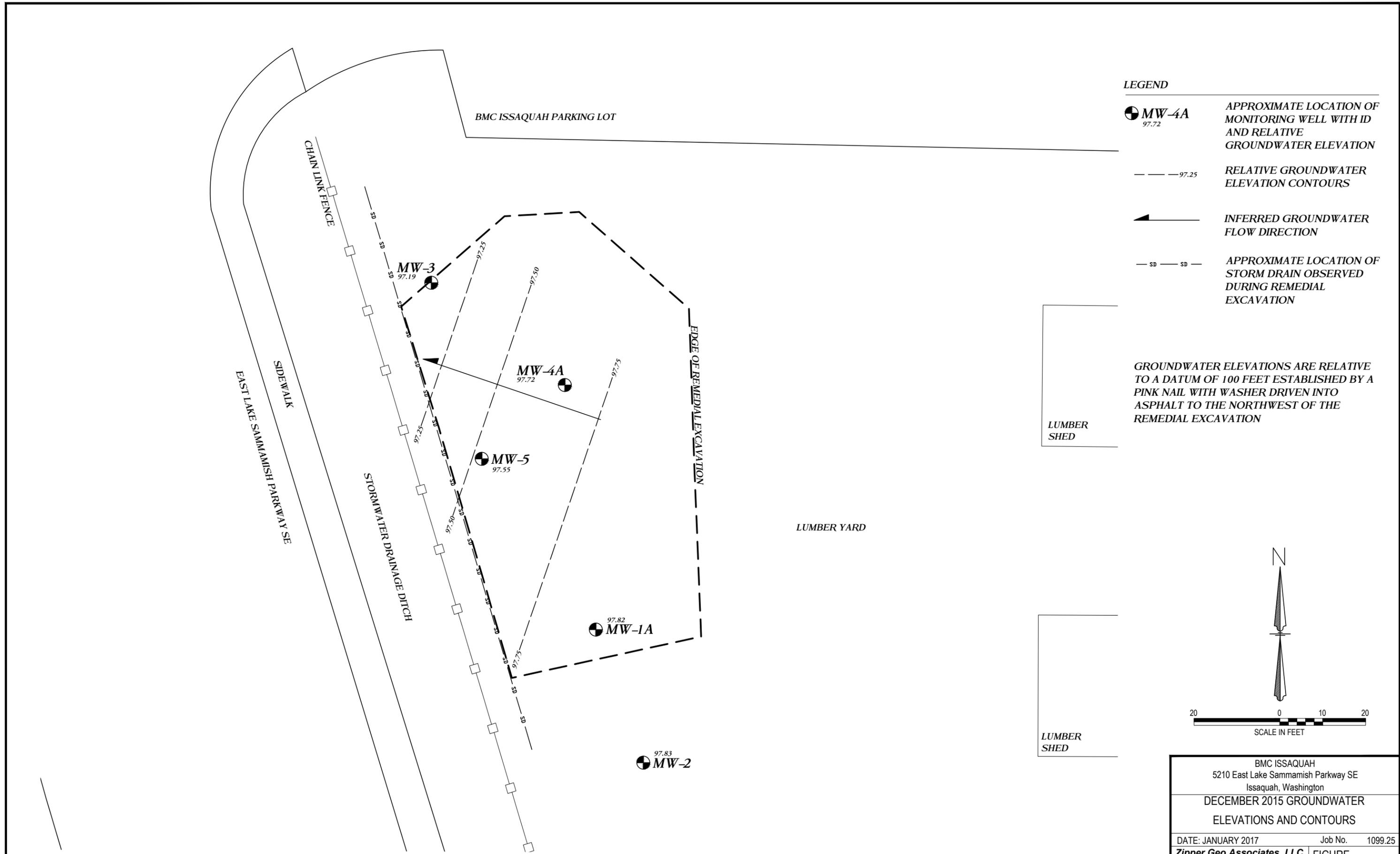
Zipper Geo Associates
 19023 36th Ave. W, Suite D
 Lynnwood, WA

BORING LOG: MW-5

Page 1 of 1

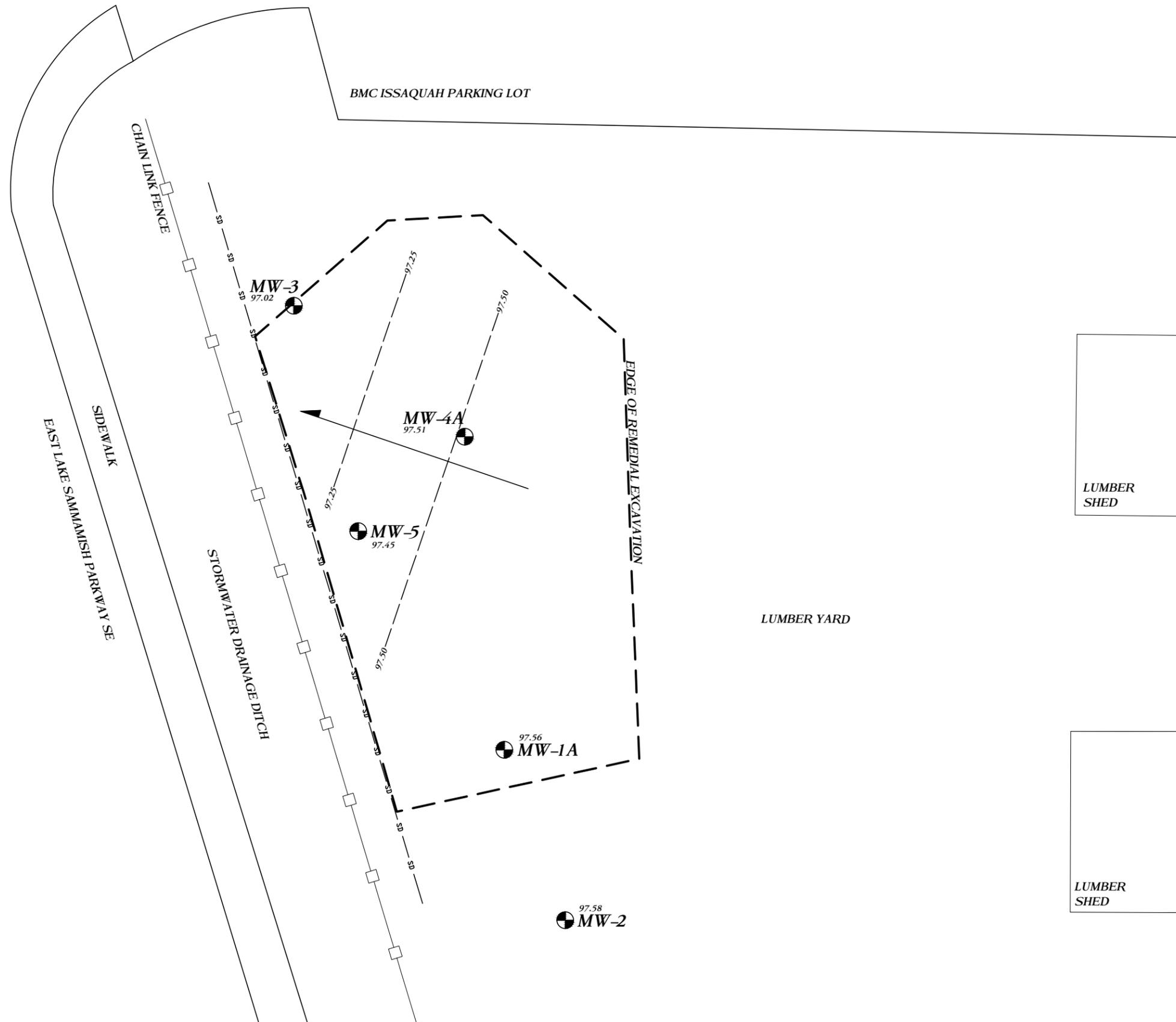
Appendix L – Post-Remediation Groundwater Contour Maps

Appendix M – Post-Remediation Groundwater Quality Results



REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.

BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
DECEMBER 2015 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1



LEGEND

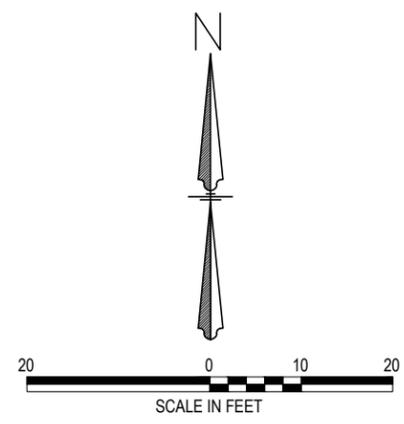
-  **MW-4A**
97.72 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
-  97.25 RELATIVE GROUNDWATER ELEVATION CONTOURS
-  INFERRED GROUNDWATER FLOW DIRECTION
-  SD SD APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION

LUMBER SHED

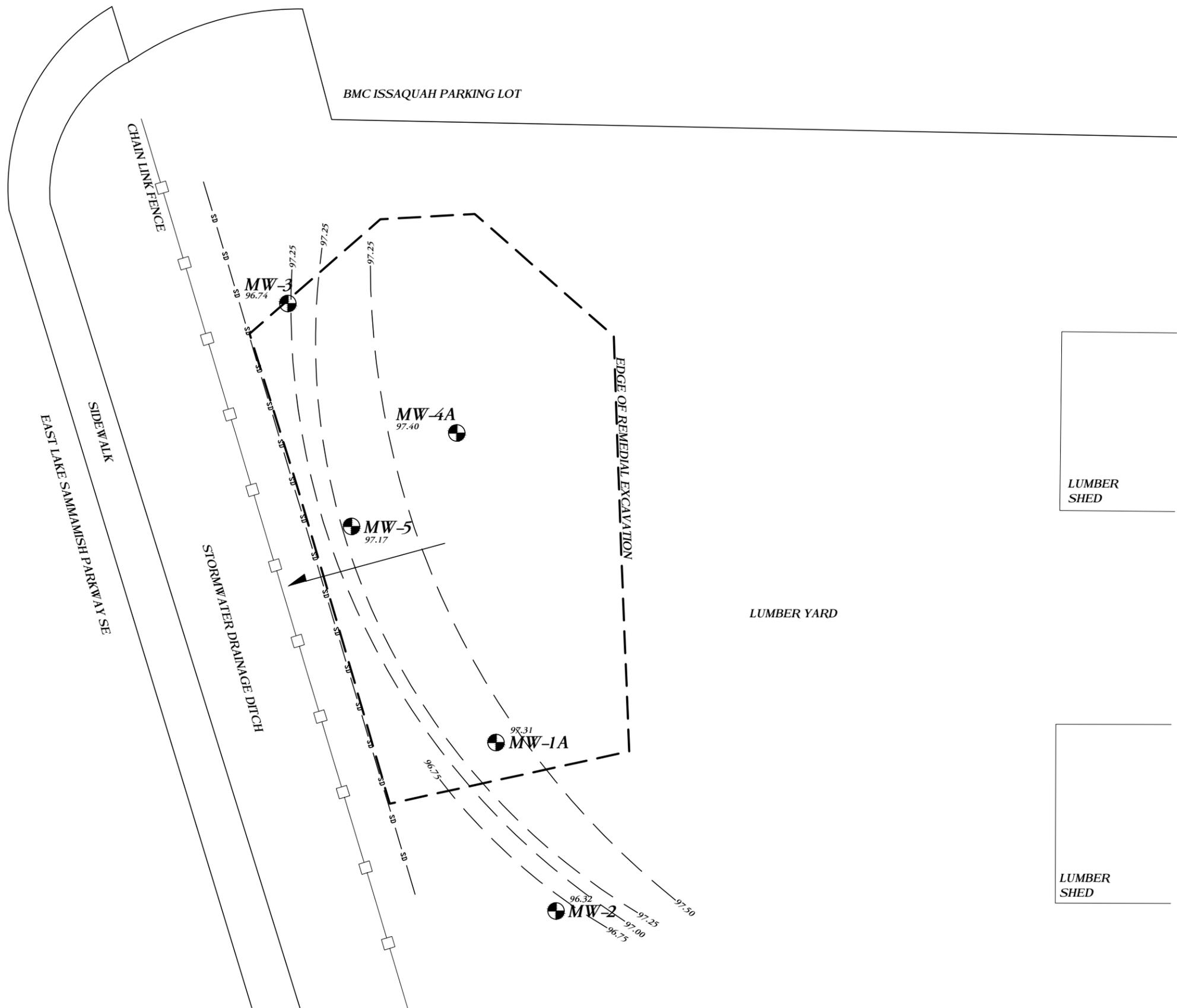
LUMBER YARD

LUMBER SHED



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
MARCH 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

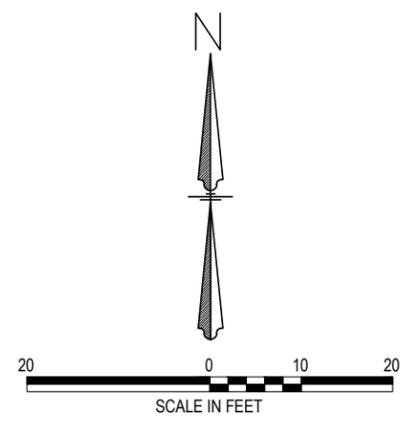
REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.



LEGEND

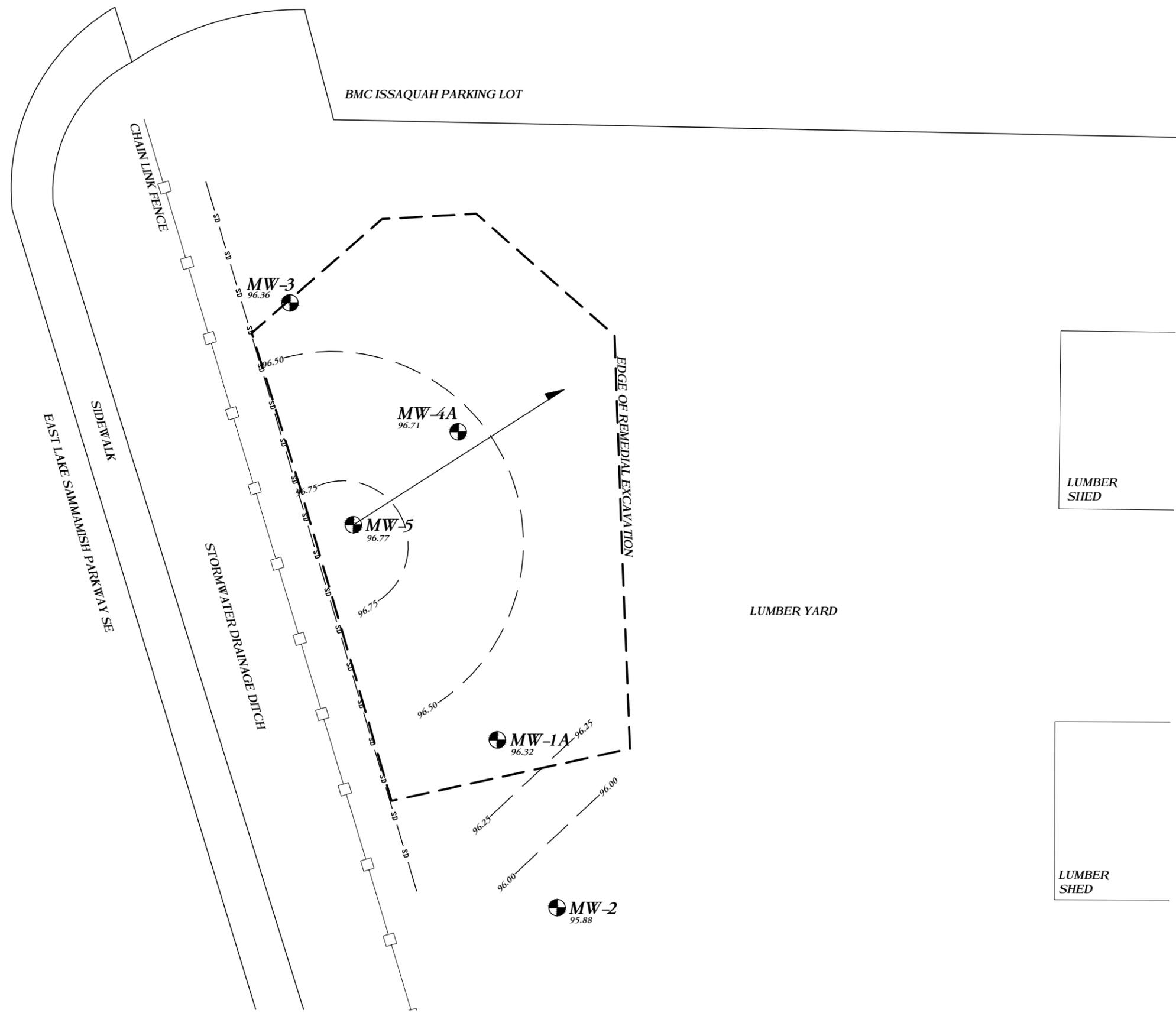
- MW-4A**
97.40 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
- 97.25 RELATIVE GROUNDWATER ELEVATION CONTOURS
- INFERRED GROUNDWATER FLOW DIRECTION
- SD SD APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
JUNE 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.



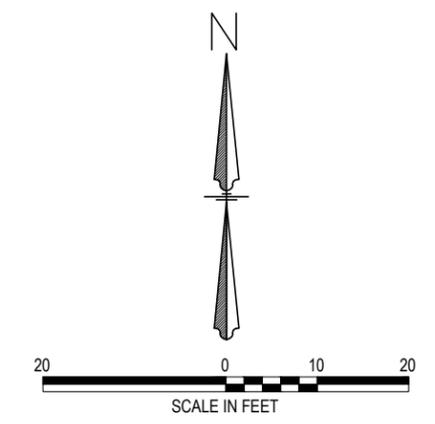
- LEGEND**
- MW-4A**
97.40 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
 - 97.25 — RELATIVE GROUNDWATER ELEVATION CONTOURS
 - INFERRED GROUNDWATER FLOW DIRECTION
 - SD — SD — APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION

LUMBER SHED

LUMBER YARD

LUMBER SHED



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
SEPTEMBER 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.



December 16, 2015

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On December 11th, 5 samples were received by our laboratory and assigned our laboratory project number EV15120103. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	12/16/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15120103
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15120103-01
CLIENT SAMPLE ID	MW-2	DATE RECEIVED:	12/11/2015
		COLLECTION DATE:	12/10/2015 2:06:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	90.6	12/14/2015	PAB
TFT	EPA-8021	82.3	12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	12/16/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15120103
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15120103-02
CLIENT SAMPLE ID	MW-1A	DATE RECEIVED:	12/11/2015
		COLLECTION DATE:	12/10/2015 2:46:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	87.7	12/14/2015	PAB
TFT	EPA-8021	84.0	12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	12/16/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15120103
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15120103-03
CLIENT SAMPLE ID	MW-5	DATE RECEIVED:	12/11/2015
		COLLECTION DATE:	12/10/2015 3:12:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	88.6	12/14/2015	PAB
TFT	EPA-8021	85.5	12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	12/16/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15120103
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15120103-04
CLIENT SAMPLE ID	MW-4A	DATE RECEIVED:	12/11/2015
		COLLECTION DATE:	12/10/2015 3:37:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	90.6	12/14/2015	PAB
TFT	EPA-8021	86.7	12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	12/16/2015
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV15120103
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV15120103-05
CLIENT SAMPLE ID	MW-3	DATE RECEIVED:	12/11/2015
		COLLECTION DATE:	12/10/2015 4:00:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	12/14/2015	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	12/14/2015	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	12/14/2015	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	85.7	12/14/2015	PAB
TFT	EPA-8021	86.6	12/14/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

DATE: 12/16/2015
ALS SDG#: EV15120103
WDOE ACCREDITATION: C601

LABORATORY BLANK RESULTS

MBG-121315W - Batch 99838 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	12/13/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-121315W - Batch 99838 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Toluene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Ethylbenzene	EPA-8021	U	UG/L	1.0	12/13/2015	PAB
Xylenes	EPA-8021	U	UG/L	3.0	12/13/2015	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 12/16/2015
 ALS SDG#: EV15120103
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 99838 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range - BS	NWTPH-GX	85.5			12/13/2015	PAB
TPH-Volatile Range - BSD	NWTPH-GX	90.5	6		12/14/2015	PAB

ALS Test Batch ID: 99838 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
Benzene - BS	EPA-8021	95.5			12/13/2015	PAB
Benzene - BSD	EPA-8021	95.7	0		12/13/2015	PAB
Toluene - BS	EPA-8021	94.1			12/13/2015	PAB
Toluene - BSD	EPA-8021	94.0	0		12/13/2015	PAB
Ethylbenzene - BS	EPA-8021	93.1			12/13/2015	PAB
Ethylbenzene - BSD	EPA-8021	94.5	2		12/13/2015	PAB
Xylenes - BS	EPA-8021	95.4			12/13/2015	PAB
Xylenes - BSD	EPA-8021	96.2	1		12/13/2015	PAB

APPROVED BY

Laboratory Director



Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV15120103

Date 12/11/15 Page 1 of 1

OTHER (Specify)

ANALYSIS REQUESTED

PROJECT ID: 1099.25

REPORT TO COMPANY: Zipper Geo Associates
 PROJECT MANAGER: Jon Einarsson
 ADDRESS: 19023 36th Ave. W., Suite D
 Lynnwood, WA 98036
 PHONE: (425) 582-9928 FAX:
 PO. #: E-MAIL: einarssen@zippergeo.com
 INVOICE TO COMPANY: Zipper Geo Associates
 ATTENTION: Jon Einarsson
 ADDRESS: 19023 36th Ave. W., Suite D
 Lynnwood, WA 98036

SAMPLE ID. /

LAB#	DATE	TIME	TYPE
1	12/10	2:06	H ₂ O
2	12/10	2:46	H ₂ O
3	12/10	3:12	H ₂ O
4	12/10	3:37	H ₂ O
5	12/10	4:00	H ₂ O

NWTPH-HO/D
 NWTPH-DX
 NWTPH-GX
 BTEX by EPA-8021 EPA-8260
 MTBE by EPA-8021 EPA-8260
 Halogenated Volatiles by EPA 8260
 Volatile Organic Compounds by EPA 8260
 EDB / EDC by EPA 8260 (water)
 EDB / EDC by EPA 8260 (soil)
 Semi-volatile Organic Compounds by EPA 8270
 Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM
 PCB Pesticides by EPA 8081/8082
 Metals-MTCA-5 RCRA-8 P+P TAL
 Metals Other (Specify)
 TCLP-Metals VOA Semi-Vol Pest Herbs

NUMBER OF CONTAINERS

RECEIVED IN GOOD CONDITION?

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Jeff Time Upmough, 26th, 12/11, 11:47
 Received By: *[Signature]* 12/11/15 11:47
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis

Standard 10 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis

Standard 3 1 SAME DAY

Specify:

OTHER:

*Turnaround request less than standard may incur Rush Charges



March 17, 2016

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On March 16th, 5 samples were received by our laboratory and assigned our laboratory project number EV16030125. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	3/17/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16030125
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16030125-02
CLIENT SAMPLE ID	MW-1A	DATE RECEIVED:	03/16/2016
		COLLECTION DATE:	3/16/2016 12:40:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	88.8	03/17/2016	PAB
TFT	EPA-8021	104	03/17/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	3/17/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16030125
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16030125-03
CLIENT SAMPLE ID	MW-5	DATE RECEIVED:	03/16/2016
		COLLECTION DATE:	3/16/2016 1:15:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.6	03/17/2016	PAB
TFT	EPA-8021	109	03/17/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	3/17/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16030125
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16030125-04
CLIENT SAMPLE ID	MW-4A	DATE RECEIVED:	03/16/2016
		COLLECTION DATE:	3/16/2016 1:35:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	92.0	03/17/2016	PAB
TFT	EPA-8021	110	03/17/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	3/17/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16030125
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16030125-05
CLIENT SAMPLE ID	MW-3	DATE RECEIVED:	03/16/2016
		COLLECTION DATE:	3/16/2016 1:55:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	03/17/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	03/17/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	03/17/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.5	03/17/2016	PAB
TFT	EPA-8021	103	03/17/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	3/17/2016
CLIENT CONTACT:	Jon Einarsen	ALS SDG#:	EV16030125
CLIENT PROJECT:	1099.25	WDOE ACCREDITATION:	C601

LABORATORY BLANK RESULTS

MBG-031616W2 - Batch 102321 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	03/16/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-031616W2 - Batch 102321 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	03/16/2016	PAB
Toluene	EPA-8021	U	UG/L	1.0	03/16/2016	PAB
Ethylbenzene	EPA-8021	U	UG/L	1.0	03/16/2016	PAB
Xylenes	EPA-8021	U	UG/L	3.0	03/16/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 3/17/2016
 ALS SDG#: EV16030125
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 102321 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	78.1			66.5	122.7	03/16/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	79.5	2		66.5	122.7	03/16/2016	PAB

ALS Test Batch ID: 102321 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Benzene - BS	EPA-8021	100			83	120	03/16/2016	PAB
Benzene - BSD	EPA-8021	102	2		83	120	03/16/2016	PAB
Toluene - BS	EPA-8021	104			85	115	03/16/2016	PAB
Toluene - BSD	EPA-8021	105	2		85	115	03/16/2016	PAB
Ethylbenzene - BS	EPA-8021	103			85	113	03/16/2016	PAB
Ethylbenzene - BSD	EPA-8021	104	1		85	113	03/16/2016	PAB
Xylenes - BS	EPA-8021	103			85	116	03/16/2016	PAB
Xylenes - BSD	EPA-8021	105	2		85	116	03/16/2016	PAB

APPROVED BY

Laboratory Director



ALS Environmental
 8620 Holly Drive, Suite 100
 Everett, WA 98208
 Phone (425) 356-2600
 Fax (425) 356-2626
<http://www.alsglobal.com>

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

CV16030125

Date 3-16-16 Page 1 Of 1

PROJECT ID: 1099.25		ANALYSIS REQUESTED		
REPORT TO COMPANY: ZGA	OTHER (Specify)	RECEIVED IN GOOD CONDITION?		
PROJECT MANAGER: Jan Emerson	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS		
ADDRESS: 19023 36th Ave. W, Suite D Lynnwood WA	Metals Other (Specify)			
PHONE: 425 882 9978	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> P1 Pol <input type="checkbox"/> TAL <input type="checkbox"/>			
P.O. #: _____	PCB <input type="checkbox"/> Pesticides <input type="checkbox"/> by EPA 8081/8082			
INVOICE TO COMPANY: ZGA	Polyyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM <input type="checkbox"/>			
ATTENTION: _____	Semi-volatile Organic Compounds by EPA 8270			
ADDRESS: _____	EDB / EDC by EPA 8260 (soil)			
	EDB / EDC by EPA 8260 SIM (water)			
	Volatile Organic Compounds by EPA 8260			
	Halogenated Volatiles by EPA 8260			
	MTBE by EPA-8021 <input type="checkbox"/> EPA-8260 <input type="checkbox"/>			
	BTEX by EPA-8021			
	NWTPH-GX			
	NWTPH-DX			
	NWTPH-HCID			
SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1. MW-2	3/16/16	12:15pm	W	1
2. MW-1A		12:40pm		2
3. MW-5		1:15pm		3
4. MW-4A		1:35pm		4
5. MW-3		1:55pm		5
6.				
7.				
8.				
9.				
10.				

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Jim R. [Signature] ZGA / 3/16/16 / 4:00pm
 Received By: [Signature] ALS 3/16/16 4:00
 2. Relinquished By: _____
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____
 Specify: _____
 Organic, Metals & Inorganic Analysis
 10 Standard 5 3 2 1 SAME DAY
 Fuels & Hydrocarbon Analysis
 Standard 3 1 SAME DAY

*Turnaround request less than standard may incur Rush Charges



June 15, 2016

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On June 10th, 6 samples were received by our laboratory and assigned our laboratory project number EV16060078. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	6/15/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16060078
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16060078-02
CLIENT SAMPLE ID	MW3-6/10	DATE RECEIVED:	06/10/2016
		COLLECTION DATE:	6/10/2016 11:15:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	85.7	06/13/2016	PAB
TFT	EPA-8021	85.4	06/13/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	6/15/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16060078
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16060078-03
CLIENT SAMPLE ID	MW2-6/10	DATE RECEIVED:	06/10/2016
		COLLECTION DATE:	6/10/2016 1:30:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	88.6	06/13/2016	PAB
TFT	EPA-8021	86.1	06/13/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	6/15/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16060078
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16060078-04
CLIENT SAMPLE ID	MW1A-6/10	DATE RECEIVED:	06/10/2016
		COLLECTION DATE:	6/10/2016 1:10:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.1	06/13/2016	PAB
TFT	EPA-8021	83.2	06/13/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	6/15/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16060078
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16060078-05
CLIENT SAMPLE ID	MW5-6/10	DATE RECEIVED:	06/10/2016
		COLLECTION DATE:	6/10/2016 12:23:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.6	06/13/2016	PAB
TFT	EPA-8021	84.4	06/13/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	6/15/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16060078
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16060078-06
CLIENT SAMPLE ID	MW4A-6/10	DATE RECEIVED:	06/10/2016
		COLLECTION DATE:	6/10/2016 11:50:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	06/13/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	06/13/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	06/13/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	86.6	06/13/2016	PAB
TFT	EPA-8021	85.4	06/13/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
DATE: 6/15/2016
ALS SDG#: EV16060078
WDOE ACCREDITATION: C601
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

LABORATORY BLANK RESULTS

MBG-061016W - Batch 105302 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	06/10/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-061016W - Batch 105302 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	06/10/2016	PAB
Toluene	EPA-8021	U	UG/L	1.0	06/10/2016	PAB
Ethylbenzene	EPA-8021	U	UG/L	1.0	06/10/2016	PAB
Xylenes	EPA-8021	U	UG/L	3.0	06/10/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 6/15/2016
 ALS SDG#: EV16060078
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 105302 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	94.7			66.5	122.7	06/10/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	96.5	2		66.5	122.7	06/15/2016	PAB

ALS Test Batch ID: 105302 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Benzene - BS	EPA-8021	91.1			83	120	06/10/2016	PAB
Benzene - BSD	EPA-8021	92.3	1		83	120	06/10/2016	PAB
Toluene - BS	EPA-8021	94.1			85	115	06/10/2016	PAB
Toluene - BSD	EPA-8021	92.7	2		85	115	06/10/2016	PAB
Ethylbenzene - BS	EPA-8021	95.7			85	113	06/10/2016	PAB
Ethylbenzene - BSD	EPA-8021	96.9	1		85	113	06/10/2016	PAB
Xylenes - BS	EPA-8021	99.1			85	116	06/10/2016	PAB
Xylenes - BSD	EPA-8021	100	1		85	116	06/10/2016	PAB

APPROVED BY

Laboratory Director



September 8, 2016

Mr. Jon Einarsen
Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036

Dear Mr. Einarsen,

On September 7th, 5 samples were received by our laboratory and assigned our laboratory project number EV16090032. The project was identified as your 1099.25. The sample identification and requested analyses are outlined on the attached chain of custody record.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely,

ALS Laboratory Group

Rick Bagan
Laboratory Director



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/8/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16090032
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16090032-01
CLIENT SAMPLE ID	MW3-090716	DATE RECEIVED:	09/07/2016
		COLLECTION DATE:	9/7/2016 9:24:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	89.0	09/07/2016	PAB
TFT	EPA-8021	88.1	09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/8/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16090032
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16090032-02
CLIENT SAMPLE ID	MW4A-090716	DATE RECEIVED:	09/07/2016
		COLLECTION DATE:	9/7/2016 10:26:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	95.9	09/07/2016	PAB
TFT	EPA-8021	95.0	09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/8/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16090032
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16090032-03
CLIENT SAMPLE ID	MW5-090716	DATE RECEIVED:	09/07/2016
		COLLECTION DATE:	9/7/2016 11:08:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	94.8	09/07/2016	PAB
TFT	EPA-8021	90.6	09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/8/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16090032
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16090032-04
CLIENT SAMPLE ID	MW1A-090716	DATE RECEIVED:	09/07/2016
		COLLECTION DATE:	9/7/2016 11:52:00 AM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	91.6	09/07/2016	PAB
TFT	EPA-8021	89.9	09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT:	Zipper Geo Associates 19023 - 36th Ave W., Suite D Lynnwood, WA 98036	DATE:	9/8/2016
CLIENT CONTACT:	Jon Einarsen	ALS JOB#:	EV16090032
CLIENT PROJECT:	1099.25	ALS SAMPLE#:	EV16090032-05
CLIENT SAMPLE ID	MW2-090716	DATE RECEIVED:	09/07/2016
		COLLECTION DATE:	9/7/2016 12:36:00 PM
		WDOE ACCREDITATION:	C601

SAMPLE DATA RESULTS

ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	50	1	UG/L	09/07/2016	PAB
Benzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Toluene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Ethylbenzene	EPA-8021	U	1.0	1	UG/L	09/07/2016	PAB
Xylenes	EPA-8021	U	3.0	1	UG/L	09/07/2016	PAB

SURROGATE	METHOD	%REC	ANALYSIS DATE	ANALYSIS BY
TFT	NWTPH-GX	93.6	09/07/2016	PAB
TFT	EPA-8021	91.4	09/07/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
19023 - 36th Ave W., Suite D
Lynnwood, WA 98036
DATE: 9/8/2016
ALS SDG#: EV16090032
WDOE ACCREDITATION: C601
CLIENT CONTACT: Jon Einarsen
CLIENT PROJECT: 1099.25

LABORATORY BLANK RESULTS

MBG-083116W2 - Batch 107649 - Water by NWTPH-GX

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
TPH-Volatile Range	NWTPH-GX	U	UG/L	50	08/31/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.

MB-083116W2 - Batch 107649 - Water by EPA-8021

ANALYTE	METHOD	RESULTS	UNITS	REPORTING LIMITS	ANALYSIS DATE	ANALYSIS BY
Benzene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB
Toluene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB
Ethylbenzene	EPA-8021	U	UG/L	1.0	08/31/2016	PAB
Xylenes	EPA-8021	U	UG/L	3.0	08/31/2016	PAB

U - Analyte analyzed for but not detected at level above reporting limit.



CERTIFICATE OF ANALYSIS

CLIENT: Zipper Geo Associates
 19023 - 36th Ave W., Suite D
 Lynnwood, WA 98036

CLIENT CONTACT: Jon Einarsen
 CLIENT PROJECT: 1099.25

DATE: 9/8/2016
 ALS SDG#: EV16090032
 WDOE ACCREDITATION: C601

LABORATORY CONTROL SAMPLE RESULTS

ALS Test Batch ID: 107649 - Water by NWTPH-GX

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
TPH-Volatile Range - BS	NWTPH-GX	88.3			66.5	122.7	08/31/2016	PAB
TPH-Volatile Range - BSD	NWTPH-GX	82.2	7		66.5	122.7	08/31/2016	PAB

ALS Test Batch ID: 107649 - Water by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	LIMITS		ANALYSIS DATE	ANALYSIS BY
					MIN	MAX		
Benzene - BS	EPA-8021	101			83	120	08/31/2016	PAB
Benzene - BSD	EPA-8021	100	0		83	120	08/31/2016	PAB
Toluene - BS	EPA-8021	96.4			85	115	08/31/2016	PAB
Toluene - BSD	EPA-8021	95.5	1		85	115	08/31/2016	PAB
Ethylbenzene - BS	EPA-8021	95.4			85	113	08/31/2016	PAB
Ethylbenzene - BSD	EPA-8021	96.5	1		85	113	08/31/2016	PAB
Xylenes - BS	EPA-8021	97.3			85	116	08/31/2016	PAB
Xylenes - BSD	EPA-8021	98.1	1		85	116	08/31/2016	PAB

APPROVED BY

Laboratory Director



ALS Environmental
8620 Holly Drive, Suite 100
Everett, WA 98208
Phone (425) 356-2600
Fax (425) 356-2626
http://www.alsglobal.com

Chain Of Custody/ Laboratory Analysis Request

ALS Job# (Laboratory Use Only)

EV16090032

Date 9/7/16 Page 1 Of 1

PROJECT ID: REPORT TO COMPANY: PROJECT MANAGER: ADDRESS: PHONE: P.O. #: INVOICE TO COMPANY: ATTENTION: ADDRESS:	ANALYSIS REQUESTED				OTHER (Specify)												
	NMTPH-HCID	NMTPH-DX	NMTPH-GX	BTEX by EPA 8021 <input checked="" type="checkbox"/>	MTBE by EPA 8021 <input type="checkbox"/>	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	EDB / EDC by EPA 8260 SIM (water)	EDB / EDC by EPA 8260 (soil)	Semi-volatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA 8270 SIM	Pesticides by EPA 8081 <input type="checkbox"/>	Metals-MTCA-5 <input type="checkbox"/> RCRA-8 <input type="checkbox"/> Pb <input type="checkbox"/> TAL <input type="checkbox"/>	Metals Other (Specify)	TCLP-Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi-Vol <input type="checkbox"/> Pest <input type="checkbox"/> Herbs <input type="checkbox"/>	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
PROJECT ID: 1099.25 REPORT TO COMPANY: ZGA PROJECT MANAGER: Jon Einarsen ADDRESS: 19023 36th Ave. W, Suite D Lynden, WA PHONE: (425) 582-9928 P.O. #: E-MAIL: jeinarsen@zippergo.com INVOICE TO COMPANY: ATTENTION: SAME ADDRESS:																	
1. MW3-090716	9/7	09:24	H ₂ O	1												2	
2. MW4A-090716		10:26		2												2	
3. MW5-090716		11:08		3												2	
4. MW1A-090716		11:52		4												2	
5. MW2-090716		12:36		5												2	
6.																	
7.																	
8.																	
9.																	
10.																	

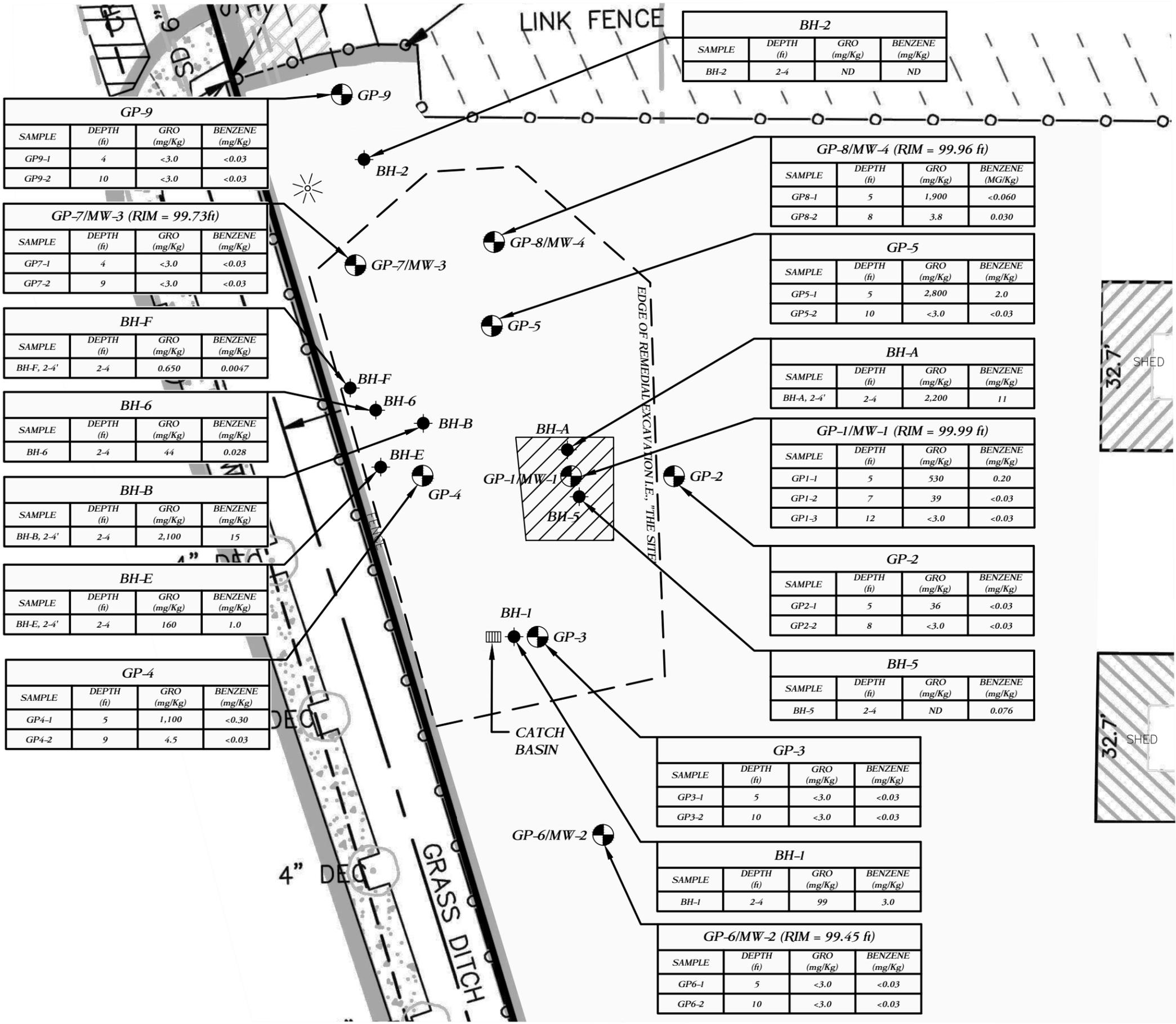
SPECIAL INSTRUCTIONS CC Jeff and Evelyn

SIGNATURES (Name, Company, Date, Time):
 1. Relinquished By: Jeff ZGA 9/7 14:53
 Received By: [Signature]
 2. Relinquished By: [Signature] 9/7/16 14:53
 Received By: _____

TURNAROUND REQUESTED in Business Days*
 OTHER: _____
 Specify: _____
 Organic, Metals & Inorganic Analysis
 10 Standard 5 3 2 1 SOME DAY
 Fuels & Hydrocarbon Analysis
 Standard 3 1 SOME DAY

*Turnaround request less than standard may incur Rush Charges

Appendix N – Compiled Analytical Results Figures



GP-9			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP9-1	4	<3.0	<0.03
GP9-2	10	<3.0	<0.03

GP-7/MW-3 (RIM = 99.73ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP7-1	4	<3.0	<0.03
GP7-2	9	<3.0	<0.03

BH-F			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-F, 2-4'	2-4	0.650	0.0047

BH-6			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-6	2-4	44	0.028

BH-B			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-B, 2-4'	2-4	2,100	15

BH-E			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-E, 2-4'	2-4	160	1.0

GP-4			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP4-1	5	1,100	<0.30
GP4-2	9	4.5	<0.03

BH-2			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-2	2-4	ND	ND

GP-8/MW-4 (RIM = 99.96 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP8-1	5	1,900	<0.060
GP8-2	8	3.8	0.030

GP-5			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP5-1	5	2,800	2.0
GP5-2	10	<3.0	<0.03

BH-A			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-A, 2-4'	2-4	2,200	11

GP-1/MW-1 (RIM = 99.99 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP1-1	5	530	0.20
GP1-2	7	39	<0.03
GP1-3	12	<3.0	<0.03

GP-2			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP2-1	5	36	<0.03
GP2-2	8	<3.0	<0.03

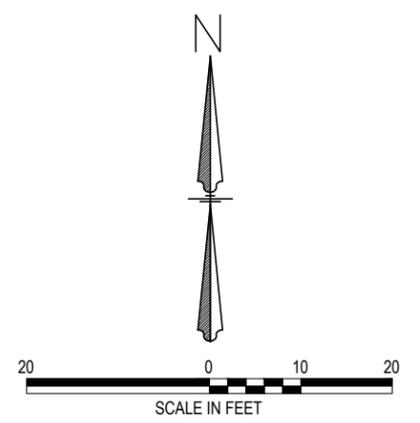
BH-5			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-5	2-4	ND	0.076

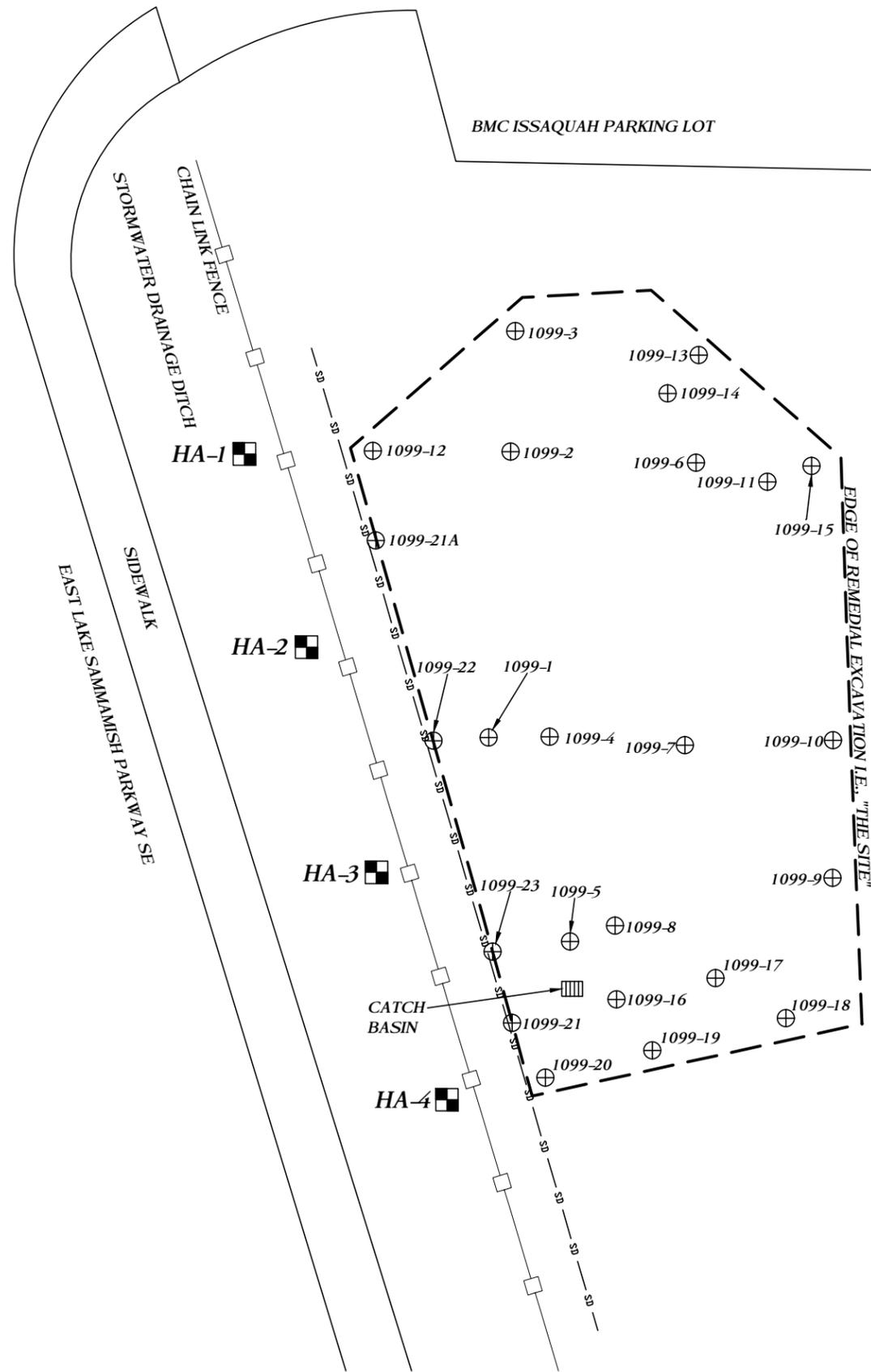
GP-3			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP3-1	5	<3.0	<0.03
GP3-2	10	<3.0	<0.03

BH-1			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
BH-1	2-4	99	3.0

GP-6/MW-2 (RIM = 99.45 ft)			
SAMPLE	DEPTH (ft)	GRO (mg/Kg)	BENZENE (mg/Kg)
GP6-1	5	<3.0	<0.03
GP6-2	10	<3.0	<0.03

- LEGEND**
- GP-1/MW-1 (RIM = 99.99 ft)**
 ZGA DIRECT PUSH BORING/ GROUNDWATER MONITORING WELL NUMBER AND APPROXIMATE LOCATION. GROUNDWATER MONITORING WELL MONUMENT RIM ELEVATION IN FEET.
 - BH-1**
 BORING ADVANCED DURING 1998 TRC INVESTIGATION. ALL LOCATIONS ARE APPROXIMATE, REFERENCE FIGURE NOT TO SCALE.
 - SITE SPECIFIC BENCHMARK**
 PINK NAIL WITH WASHER
 ASSUMED ELEVATION = 100 FEET
 - APPROXIMATE LOCATION OF UNDERGROUND STORAGE TANK CAVITY IDENTIFIED BY GROUND PENETRATING RADAR SURVEY, AND APPROXIMATE LOCATION OF FORMER USTs AND PUMP ISLAND AS DEFINED BY TRC (1998)**
 - "THE SITE" PER WAC 173-340-200**





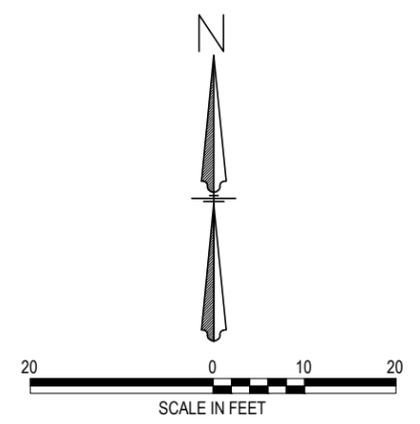
LEGEND

- HA-1 APPROXIMATE LOCATION OF HAND AUGER EXPLORATION WITH ID
- 1099-1 APPROXIMATE LOCATION OF REMEDIAL EXCAVATION SOIL SAMPLE WITH ID
- SD — SD — APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION
- — — "THE SITE" PER WAC 173-340-200

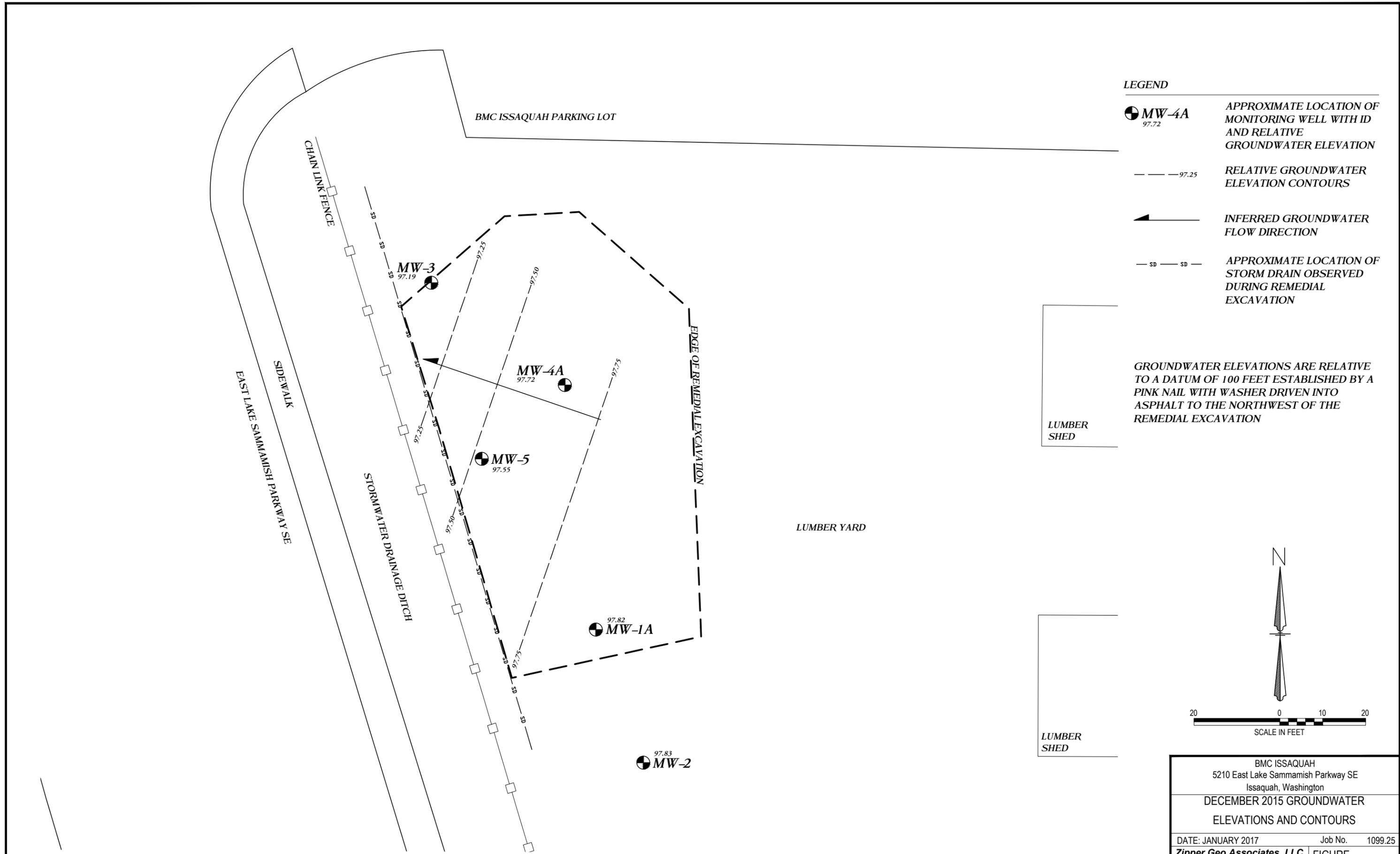
LUMBER SHED

LUMBER SHED

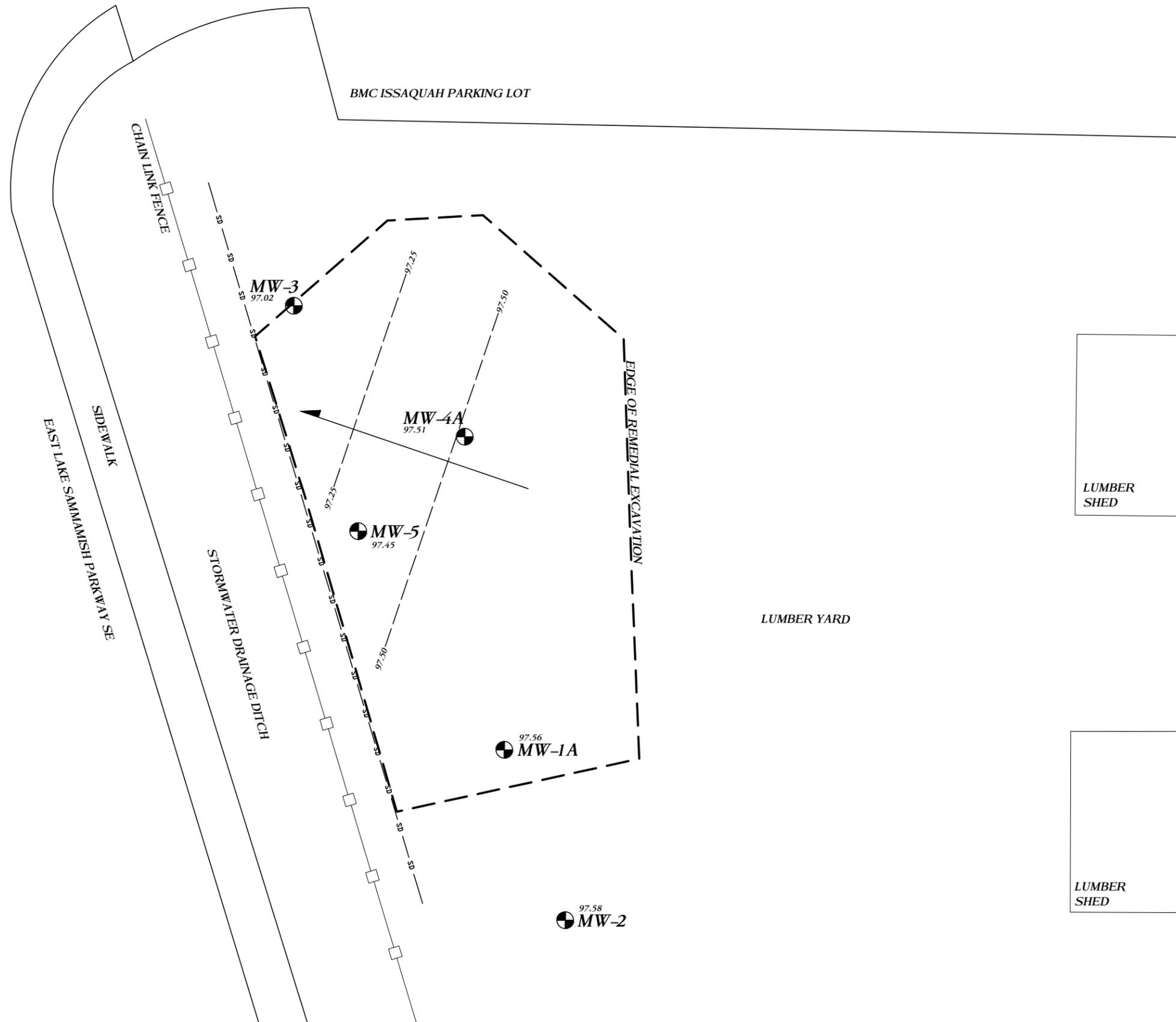
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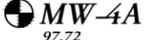
BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington		
REMEDIAL EXCAVATION SOIL SAMPLE LOCATIONS		
DATE: JANUARY 2017	Job No.	1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE	7
		SHT. 1 of 1



REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.



LEGEND

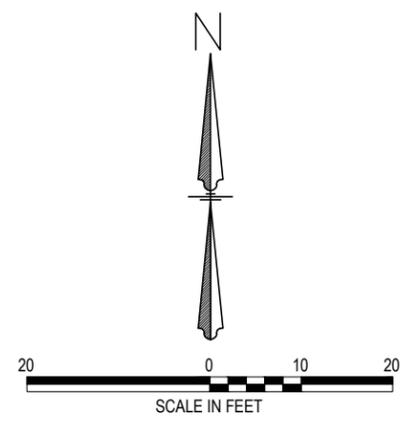
-  **MW-4A**
97.72 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
-  — 97.25 RELATIVE GROUNDWATER ELEVATION CONTOURS
-  INFERRED GROUNDWATER FLOW DIRECTION
-  — SD — SD — APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION

LUMBER SHED

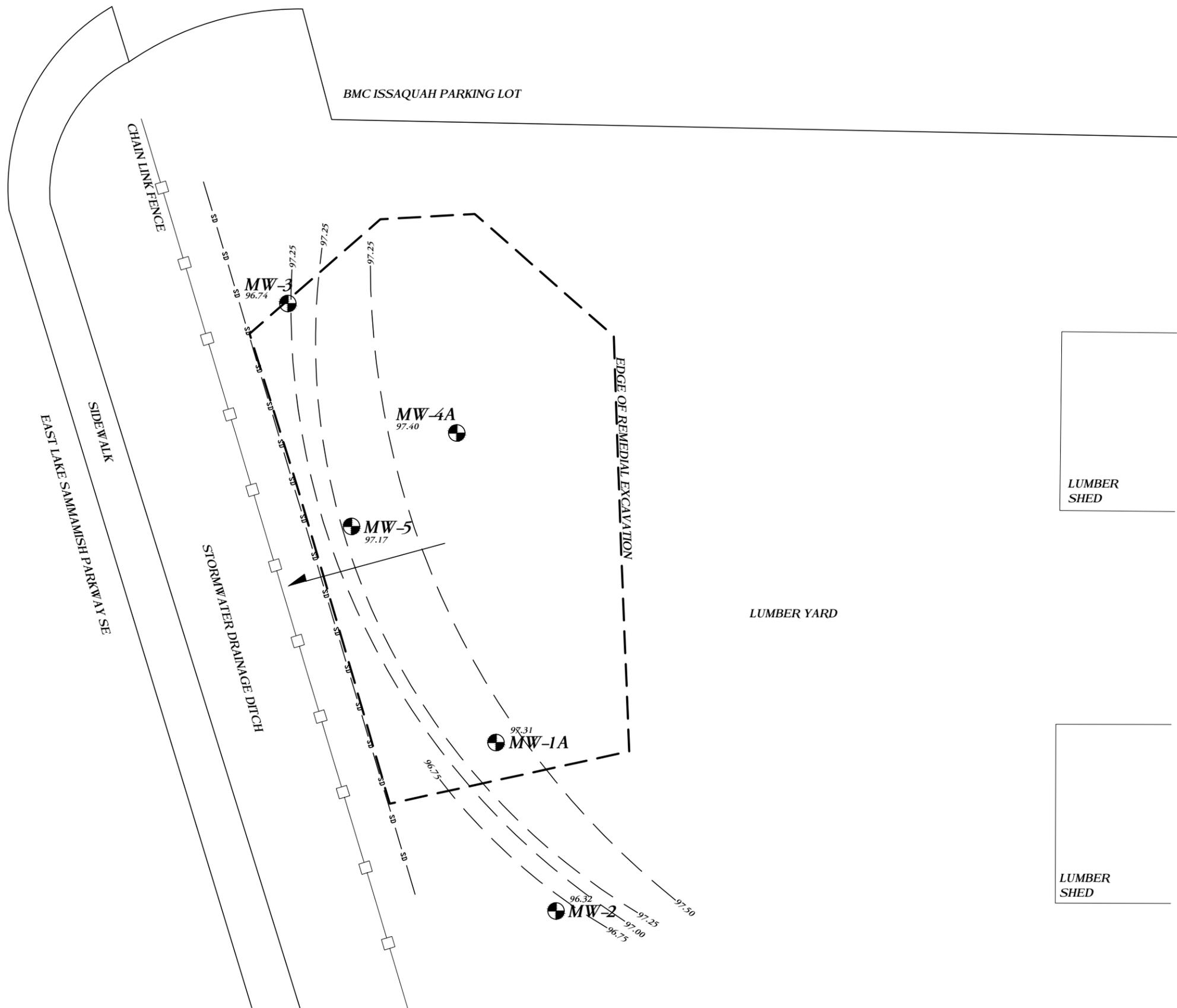
LUMBER YARD

LUMBER SHED



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
MARCH 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

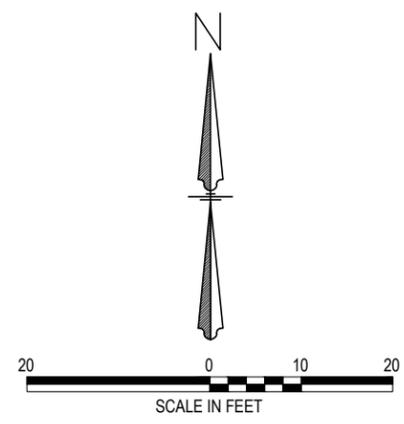
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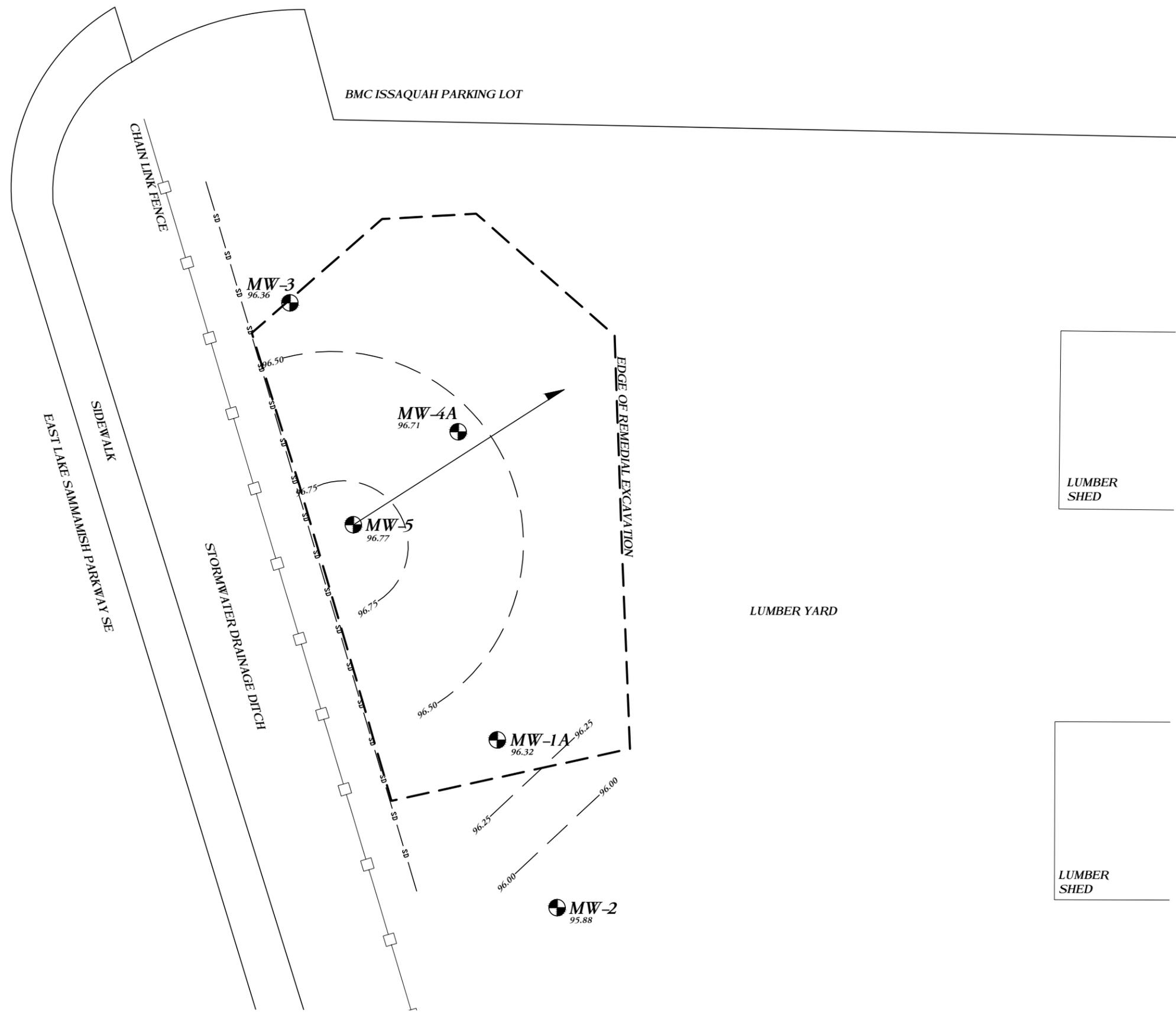
- MW-4A**
97.40 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
- 97.25 RELATIVE GROUNDWATER ELEVATION CONTOURS
- INFERRED GROUNDWATER FLOW DIRECTION
- SD SD APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
JUNE 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.



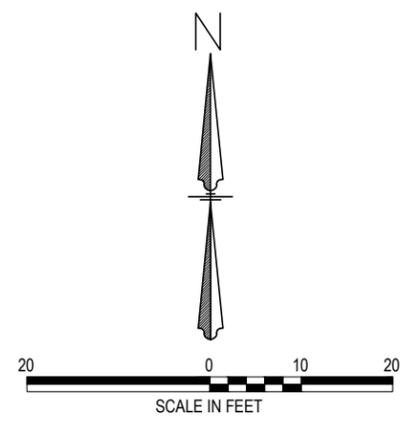
- LEGEND**
- MW-4A**
97.40 APPROXIMATE LOCATION OF MONITORING WELL WITH ID AND RELATIVE GROUNDWATER ELEVATION
 - — — 97.25 RELATIVE GROUNDWATER ELEVATION CONTOURS
 - INFERRED GROUNDWATER FLOW DIRECTION
 - SD — SD — APPROXIMATE LOCATION OF STORM DRAIN OBSERVED DURING REMEDIAL EXCAVATION

GROUNDWATER ELEVATIONS ARE RELATIVE TO A DATUM OF 100 FEET ESTABLISHED BY A PINK NAIL WITH WASHER DRIVEN INTO ASPHALT TO THE NORTHWEST OF THE REMEDIAL EXCAVATION

LUMBER SHED

LUMBER YARD

LUMBER SHED



BMC ISSAQUAH 5210 East Lake Sammamish Parkway SE Issaquah, Washington	
SEPTEMBER 2016 GROUNDWATER ELEVATIONS AND CONTOURS	
DATE: JANUARY 2017	Job No. 1099.25
Zipper Geo Associates, LLC 19023 36th Ave. W., Suite D Lynnwood, WA	FIGURE SHT. 1 of 1

REFERENCE: SURVEY PERFORMED BY PLS, INC. ON JAN. 13, 2016; GOOGLE EARTH SATELLITE IMAGE DATED JUNE, 2016.