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PHASE II ENVIRONMENTAL SITE ASSESSMENT:

SUBSURFACE INVESTIGATION REPORT

King County Parcel #2826059046
11932 124th Avenue NE
Kirkland, WA 98034

December 12, 2019

Prepared for:

LMJ Enterprises
11845 NE 85th Street
Kirkland, WA 98033

Prepared by:

Dixon Environmental Services LLC
4010 N 7th Street
Tacoma, WA 98406

Brian A. Dixon
President/Principal Environmental Scientist

Melissa S. Leone, L.G.
Licensed Geologist #2714

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1.0 Introduction

On behalf of LMJ Enterprises, Dixon Environmental Services (Dixon ES) has prepared this Phase II Environmental Site Assessment (ESA): Subsurface Investigation (SI) Report for the parcel addressed at 11932 124th Avenue NE in Kirkland, Washington (the Property/Subject Property) (Exhibit A: Figure 1). This SI was conducted to evaluate the environmental quality of soil beneath the Property due to the Recognized Environmental Conditions (RECs) identified in Dixon ES' Phase I Environmental Site Assessment (ESA), dated November 11, 2019. These RECs are summarized below:

- The potential presence of undocumented fill material, placed on the Property between at least 1980 and 1985, is considered a REC. The source and environmental quality of this fill material is unknown.
- The historical staging of dozens of automobiles on the Property between at least 1980 and 1985 is considered a REC. Staging of defunct cars can lead to releases of petroleum hydrocarbons and heavy metals onto surface soils. Depending on concentrations and hydrocarbon fractions, contamination associated with this past land use could also present a potential vapor encroachment condition.

This SI Report details site activities and observations, investigation methodology, sample analytical results, and provides conclusions based on the investigation findings.

2.0 Property Location, Description, and Background

The Property consists of a single irregularly-shaped King County Tax Parcel (#2826059046), 3.33 acres in size, addressed at 11932 124th Avenue NE in Kirkland, Washington (Exhibit A: Figures 1 and 2). The Property is accessed from the east side of 124th Avenue NE on the west side of the Property, the south side of NE 120th Street on the northwest side of the Property, and the west side of Slater Avenue NE on the east side of the Property.

The Property is currently developed with a two-story, 13,801 square foot auto dealership. The building is separated into a show room, office space, service garage, and car wash bay. The tenant at the time of this Phase II ESA was Nissan of Kirkland.

The current Property layout is depicted on Figure 2 in Exhibit A.

2.1 Property Land Use History

A brief historical land use summary is provided below, however the supporting documentation is included in Dixon ES' Phase I ESA.

According to archived tax records, the Property was first developed in 1919 with a single-family domestic dwelling on the southeast corner of the Property; this residence reportedly utilized stove heat. A second residence was reportedly added in 1930 on the northeast corner of the Property, which also utilized stove heat.

Very few changes were observed in aerial photographs of the Property between 1944 and 1977, although increased commercial development in the vicinity was apparent after 1965.

In a 1980 aerial photograph, a large amount of fill material is visible on the central portion of the Property and several objects, consistent with that of automobiles, are visible on the eastern portion of the Property. The source of the fill material is unknown.

In a 1985 aerial photograph, more fill material is visible on the central portion of the Property and dozens more objects, likely vehicles, are visible on the eastern portion of the Property. Figure 3 in Exhibit A depicts these historical conditions.

By 1990, it appeared that the accumulation of fill material had ceased, as new vegetation was apparent across the central portion of the Property. The potential vehicles also appear to have been removed by this time.

In 1997, the City of Kirkland issued permits for the demolition of two single-family residences and a shed. A permit was also issued in 1997 for the construction of an 11,000 square foot automobile dealership.

Aerial photographs between 2006 and 2013 depict a slightly different development configuration on the Property, however the land use appears consistent with current activities.

The Property appears in its current configuration in a 2017 aerial photograph.

2.2 Physical Setting

Category	Description	Source
Topographic Characteristics		
Site Elevation	167 feet above mean sea level	Dixon ES Phase I ESA
Topographic Gradient	The primary topographic gradient at the Property is from south to north, with a slight gradient from east to west.	Dixon ES Phase I ESA; Site Visit

Category	Description	Source
Hydrologic Characteristics		
Surface Water Runoff	Runoff at the Property appears to be managed via a network of catch basins installed within the asphalt parking areas.	Dixon ES Phase I ESA; Site Visit
Nearest Water Body	Totem Lake: Approximately 1,100 feet to the north of the Property.	Site Visit; USGS Topographic Map Kirkland, WA (2014)
Flood Zones	Zone X: Areas Determined to be Outside 500-year Flood Plain	FEMA Map Panel 53033C0360F
Wetlands	The Property does not appear to lie within the National Wetland Inventory	USGS Topographic Map Kirkland, WA (2014)
Geologic Characteristics		
Primary Soil Types	Soil encountered during this subsurface investigation generally consisted of loose fill material from ground surface to 3 feet below ground surface (bgs), underlain by dense fine grained sandy silt to approximately 5 feet bgs, then medium grained poorly graded sand with trace amounts of silt to the maximum depth explored of 10 feet bgs.	Drilling Observations (Exhibit D)
Hydrogeologic Characteristics		
Depth to Nearest Groundwater	Approximately 5.5-6 feet bgs.	Drilling Observations (Exhibit D)
Groundwater Flow Direction	Groundwater flow direction is inferred to the north/northwest toward Totem Lake.	USGS Topographic Map Kirkland, WA (2014); Dixon ES Phase I ESA
Nearest Groundwater Supply Wells	There are no active groundwater supply wells listed within 1-mile of the Property.	Washington State Department of Ecology Well Log Search

2.3 Previous Environmental Investigations

Dixon ES is not aware of any previous subsurface investigations that have been conducted on the Property.

3.0 Subsurface Investigation Tasks and Methodology

3.1 Approved Scope of Work

The approved scope of work for this SI included:

- Development of a project work plan;
- Identification of public and private utilities;
- Oversight of direct push drilling activities;
- Collection and laboratory analysis of soil and/or groundwater samples; and,
- Preparation of this report.

3.2 Contaminants of Concern

Based on the research conducted by Dixon ES during the Phase I ESA, the contaminants of concern (COCs) for the Property include:

- Gasoline-range Petroleum Hydrocarbons (GRPH);
- Diesel-range Petroleum Hydrocarbons (DRPH);
- Oil-range Petroleum Hydrocarbons (ORPH);
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX); and,
- Model Toxics Control Act (MTCA) 5 Metals (arsenic, cadmium, chromium, mercury, and lead).

The concentrations of these contaminants in the samples collected during this investigation will be compared to the MTCA Method A Cleanup Levels to determine the need for additional assessment or remedial activities.

3.3 Pre-Field Activities

Prior to subsurface work, Dixon ES contacted the Washington Utility Notification Center to submit a public utility locate request (Ticket #19497374), and contracted with Mountainview Locating Services of Bonney Lake, Washington to perform a private utility sweep and clear any potential drilling conflicts.

Dixon ES also prepared a site-specific health and safety plan which identified physical and chemical hazards associated with the project.

3.4 Field Activities

On November 20, 2019, Dixon ES oversaw the advancement of five borings (B1 through B5) by ESN Northwest of Olympia, Washington, using direct push drilling techniques. Borings B1 through B3

were advanced in the area of historical infilling, while borings B4 and B5 were advanced in the area where historical automobile staging was observed (Exhibit A: Figure 3).

Soil was extracted from each boring using 5-foot long, 2.25-inch MacroCore samplers, with 5-foot interior acetate liners. Soil was continuously screened for the presence of contamination using a photoionization detector (PID), as well as visual and olfactory observations, and was characterized in accordance with the Unified Soil Classification System (USCS) (Exhibit D: Boring Logs). Potential burnt wood debris was observed in boring B2 at a depth of 2 feet bgs, therefore Polycyclic Aromatic Hydrocarbons (PAHs) were added as a potential COC for this sample.

A total of ten (10) soil samples were collected from the five borings at depths between 2 and 7 feet bgs, however not all samples were selected for chemical analysis; certain samples were held at the laboratory for further contamination delineation (if necessary), or were not analyzed due to the lack of field evidence of impacts. The full sample log is summarized in the table below:

Boring ID	Sample ID	Sample Depth (FT)	Selected for Analysis	Contaminants of Concern
B1	B1-2.5	2.5	Yes	DRPH, ORPH, GRPH
B1	B1-6	6	No	
B2	B2-2	2	Yes	DRPH, ORPH, PAHs, Metals
B2	B2-6	6	Yes	DRPH, ORPH, GRPH
B3	B3-3	3	Yes	DRPH, ORPH, GRPH
B3	B3-6	6	No	
B4	B4-3	3	Yes	DRPH, ORPH, GRPH, BTEX, Metals
B4	B4-7	7	Yes	DRPH, ORPH, GRPH
B5	B5-3	3	Yes	DRPH, ORPH, GRPH, BTEX, Metals
B5	B5-7	7	Yes	DRPH, ORPH, GRPH

Soil samples were collected directly from the acetate liners, extracted from the MacroCore samplers, and transferred into clean laboratory provided glassware, including 4oz jars and 40ml volatile organic analysis (VOAs) vials. Samples collected for VOC analysis were done so in accordance with EPA Method 5035 Sampling Techniques.

Shallow perched groundwater was encountered in borings B1-B3 borings at approximately 5.5-6 feet bgs. Groundwater was sampled from B3 in accordance with the Environmental Protection Agency (EPA) 2005 publication *Groundwater Sampling and Monitoring with Direct Push Technologies* (B3-W). This sample was held at the laboratory for possible future analysis should the fill material contain

elevated levels of COCs. No recoverable groundwater was encountered in borings B4 or B5 in the area of the historical auto staging.

Samples were placed in a cooler and kept on ice until delivered to a Washington State Department of Ecology (Ecology) Accredited Laboratory, ESN Northwest under standard chain of custody protocols. Laboratory analytical methods for the site specific COCs are presented below:

- GRPH – Northwest Method NWTPH-Gx or NWTPH-HCID
- DRPH – Northwest Method NWTPH-Dx or NWTPH-HCID
- ORPH – Northwest Method NWTPH-Dx or NWTPH-HCID
- BTEX – EPA Method 8260
- PAHs – EPA Method 8270
- Metals – EPA Method 6010D or 7471B

4.0 Investigation Results

4.1 Soil Analytical Results

- Soil samples B4-3 and B5-3 contained concentrations of GRPH exceeding its MTCA Method A Cleanup Level.
- BTEX compounds were not detected above their laboratory reporting limits in the two soil samples containing GRPH (B4-3 and B5-3).
- DRPH and ORPH were not detected above their laboratory reporting limits in any of the soil samples analyzed for these COCs.
- Soil samples B2-3, B4-3, and B5-3 contained detectable concentrations of one or more of the MTCA 5 Metals, however the concentrations were consistent with natural background levels and were well below their respective MTCA Method A Cleanup Levels.
- PAHs were not detected above their laboratory reporting limits in the soil sample where possible burnt wood debris was noted (B2-2).

Soil sample analytical results are summarized on Tables 1 through 3 in Exhibit B.

4.2 Groundwater Analytical Results

- The groundwater sample collected from boring B3 was not analyzed due to the lack of contamination detected in the fill material on the Property.

5.0 Summary, Conclusions, and Recommendations

On November 20, 2019, Dixon ES collected soil and groundwater samples beneath the Property to evaluate the potential for environmental impacts associated historical infilling and possible defunct automobile staging on the Property.

The results of the investigation indicate that the historical land use practice of staging dozens of automobiles on the eastern portion of the Property has resulted in GRPH impacts to soil at concentrations exceeding its MTCA Method A Cleanup Level.

Based on field observations and analytical results from deeper soil samples, it appears that the contamination is limited to a thickness of approximately 6 inches to 1 foot at a depth of approximately 3 feet bgs and has not migrated to a significant depth. Additionally, the location of the detected GRPH contamination is beyond the standard radius for consideration as a vapor encroachment condition for current on Property structures (>100 feet).

The fill material encountered in 4 of the 5 soil borings between 0 and 3 feet bgs did not contain concentrations of common COCs exceeding natural background concentrations and/or MTCA Method A Cleanup Levels.

Given that the GRPH contamination is capped with asphalt to prevent direct contact, does not appear to have migrated to a depth where groundwater would be impacted, and does not appear to present a current vapor encroachment condition, Dixon ES does not consider the contamination to be an immediate threat to human health and the environment.

Remediation and regulatory closure could be pursued at a time when the Property is redeveloped by virtue of source removal, or, institutional controls could be implemented in the near future to control exposure pathways if an opinion from Ecology or the Pollution Liability Insurance Agency (PLIA) is needed prior to future development activities.

6.0 Statement of Quality Assurance

Dixon ES has performed this Phase II ESA: SI in accordance with current generally accepted environmental practices and procedures. Dixon ES has employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental professionals practicing in this area.

Conclusions presented within this report were based on the analytical results from a limited data set, as such, there remains a possibility that additional areas or sources of contamination exist on the Property that were not identified during this assessment. No warranty, expressed or implied, is made as to the environmental quality of the Property or risk associated with potential contamination.

7.0 References

Dixon Environmental Services. 2019. *Phase I Environmental Site Assessment – King County Parcel # 2826059046*. November 11.

United States Geological Survey (USGS). 2014. *Topographic Map of Kirkland, Washington Quadrangle*.

Exhibit A: Figures

DIXON
ENVIRONMENTAL SERVICES

LEGEND

★ SUBJECT PROPERTY

TOPOGRAPHIC MAP

PROJECT ADDRESS:

11932 124TH AVE NE
KIRKLAND, WA 98034

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Environmental Services

LEGEND

- · — · — Property Boundary

Site Plan

Project Address:

11932 124th Ave NE
Kirkland, WA 98034

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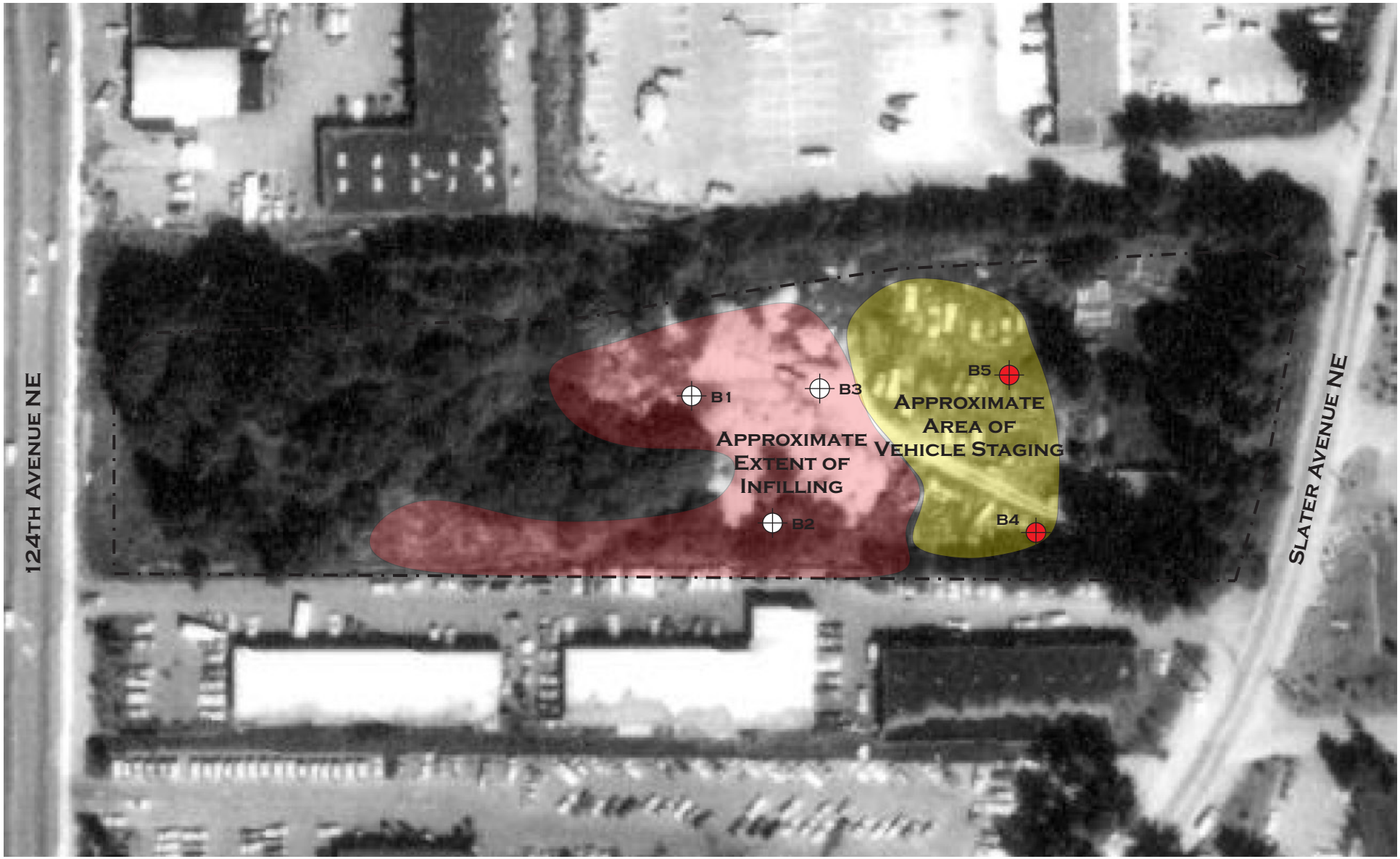

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- Property Boundary
- B1 Approximate Boring Locations
- Contaminant Concentration Exceeds MTCA Method A Cleanup Level

Exploration Locations

Project Address:

11932 124th Ave NE
Kirkland, WA 98034

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Exhibit B: Tables

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
PETROLEUM HYDROCARBONS AND SELECT VOLATILE ORGANIC COMPOUNDS

DIXON ENVIRONMENTAL SERVICES

Soil Sample ID	Sample Depth (ft)	Date Sampled	Petroleum Hydrocarbons (mg/kg)			Select Volatile Organic Compounds (mg/kg)			
			Gasoline-Range	Diesel-Range	Oil-Range	Benzene	Toluene	Ethylbenzene	Total Xylenes
B1-2.5	2.5	11/20/2019	<20	<50	<100	–	–	–	–
B2-2	2	11/20/2019	–	<50	<100	–	–	–	–
B2-6	6	11/20/2019	<20	<50	<100	–	–	–	–
B3-3	3	11/20/2019	<20	<50	<100	–	–	–	–
B4-3	3	11/20/2019	**700**	<50	<100	<0.02	<0.05	<0.05	<0.15
B4-7	7	11/20/2019	<20	<50	<100	–	–	–	–
B5-3	3	11/20/2019	**260**	<50	<100	<0.02	<0.05	<0.05	<0.15
B5-7	7	11/20/2019	<20	<50	<100	–	–	–	–
Ecology MTCA Method A Cleanup Levels Unless Otherwise Specified			100/30[1]	2,000	2,000	0.03	7	6	9

Notes:
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
– = not analyzed for this contaminant
< = not detected above laboratory detection limits
Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels
Bold Red indicates the detected concentration exceeds Ecology MTCA Method A Cleanup Levels
[1] Gasoline mixtures without benzene and the total of ethylbenzene, toluene and xylenes are less than 1% of the gasoline mixture have a cleanup Level of 100 mg/kg. All other gasoline mixtures have a cleanup level of 30 mg/kg.

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
MTCA 5 METALS

DIXON ENVIRONMENTAL SERVICES

SOIL SAMPLE ID	SAMPLE DEPTH (FT)	DATE SAMPLED	MTCA 5 METALS (MG/KG)					
			ARSENIC	CADMIUM	TOTAL CHROMIUM	HEXAVALENT CHROMIUM	LEAD	MERCURY
B2-2	2	11/20/2019	**4.0**	<0.3	**1.0**	--	**37.2**	<0.05
B4-3	3	11/20/2019	<2.5	<0.3	**22.6**	--	**4.4**	<0.05
B5-3	3	11/20/2019	<2.5	<0.3	**24.6**	<0.5	**4.3**	<0.05
ECOLOGY MTCA METHOD A CLEANUP LEVELS UNLESS OTHERWISE SPECIFIED			20	2	2,000[1]	19	250	2

NOTES:
MG/KG = MILLIGRAMS PER KILOGRAM
MTCA = MODEL TOXICS CONTROL ACT
-- = NOT ANALYZED FOR THIS CONTAMINANT
< = NOT DETECTED ABOVE LABORATORY DETECTION LIMITS
BOLD INDICATES A DETECTED CONCENTRATION THAT IS BELOW ECOLOGY MTCA METHOD A CLEANUP LEVELS
BOLD RED INDICATES THE DETECTED CONCENTRATION EXCEEDS ECOLOGY MTCA METHOD A CLEANUP LEVELS
[1] MTCA METHOD A CLEANUP LEVEL FOR CHROMIUM III

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

DIXON ENVIRONMENTAL SERVICES

Soil Sample ID	Sample Depth (ft)	Date Sampled	Polycyclic Aromatic Hydrocarbons (mg/kg)							Total Toxicity Equivalency Concentration[1]
			Benzo(a)-anthracene	Chrysene	Benzo(a)pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Indeno(1,2,3cd)-pyrene	Dibenzo(a,h)-anthracene	
B2-2	2	11/20/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	NA
Ecology MTCA Method A Cleanup Levels Unless Otherwise Specified			–	–	0.1	–	–	–	–	0.1

Notes:
mg/kg = Milligrams per kilogram
MTCA = Model Toxics Control Act
NA = not applicable, no contaminants were detected above laboratory reporting limits
– = No publihsed cleanup level for this contaminant
< = not detected above laboratory detection limits
Bold indicates a detected concentration that is below Ecology MTCA Method A Cleanup Levels
Bold Red indicates the detected concentration exceeds Ecology MTCA Method A Cleanup Levels
[1] Calculated Using Toxicity Equivalency Methodology in WAC 173-340-708(e)

Exhibit C: Laboratory Analytical Reports

ESN NORTHWEST
Environmental
Services Network

December 2, 2019

Brian Dixon
Dixon Environmental Services
4010 N 7th Street
Tacoma, WA 98406

Dear Mr. Dixon:

Please find enclosed the analytical data report for the Nissan of Kirkland Project in Kirkland, Washington. Probe services were conducted on November 20, 2019. Soil samples were analyzed for Hydrocarbon Identification by NWTPH-HCID, Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, BTEX by Method 8260, PAH's by Method 8081, MTCA 5 Metals by Method 6020, and Hexavalent Chromium by Method 7196A on November 21 – December 2, 2019.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided services for this project. If you have any further questions about the data report, please give us a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Michael A Korosec

Michael A. Korosec
President

1210 Eastside Street SE, Suite 200 ■ Olympia, Washington 98501 ■ 360.459.4670 ■ FAX 360.459.3432
Web Site: *www.esnnw.com* E-Mail: *info@esnnw.com*

ESN NORTHWEST CHEMISTRY LABORATORY

Dixon Environmental Services
NISSAN OF KIRKLAND PROJECT
Client Project #0019-03-02
Kirkland, Washington

ESN Northwest
1210 Eastside Street SE Suite 200
Olympia, WA 98501
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lab@esnnw.com

Hydrocarbon Identification Analysis of Soil by Method NWTPH-HCID

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	11/22/2019	11/22/2019	124	nd	nd	nd
LCS	11/22/2019	11/22/2019	135	---	113%	---
B1-2.5	11/20/2019	11/22/2019	129	nd	nd	nd
B2-6	11/20/2019	11/22/2019	129	nd	nd	nd
B3-3	11/20/2019	11/22/2019	137	nd	nd	nd
B4-7	11/20/2019	11/22/2019	144	nd	nd	nd
B5-7	11/20/2019	11/22/2019	150	nd	nd	nd
Reporting Limits				20	50	100

"---" Indicates not tested for component.
"nd" Indicates not detected at listed detection limits.
"D" Indicates detected above the listed detection limit.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

Dixon Environmental Services
NISSAN OF KIRKLAND PROJECT
Client Project #0019-03-02
Kirkland, Washington

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Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	11/22/2019	11/22/2019	124	nd	nd
LCS	11/22/2019	11/22/2019	135	113%	---
B2-2	11/20/2019	11/22/2019	123	nd	nd
B4-3	11/20/2019	11/22/2019	141	nd	nd
B5-3	11/20/2019	11/22/2019	134	nd	nd
B5-3 Duplicate	11/20/2019	11/22/2019	144	nd	nd
Reporting Limits				50	100

"---" Indicates not tested for component.
"nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

ESN NORTHWEST CHEMISTRY LABORATORY

Dixon Environmental Services
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Client Project #0019-03-02
Kirkland, Washington

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Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Gasoline Range Organics (mg/kg)
Method Blank	11/22/2019		108	nd
LCS	11/22/2019		115	101%
B4-3	11/20/419	11/22/2019	100	**700**
B5-3	11/20/2019	11/22/2019	105	**260**
Reporting Limits				10

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE: 65% TO 135%

ESN NORTHWEST CHEMISTRY LABORATORY

Dixon Environmental Services
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Client Project #0019-03-02
Kirkland, Washington

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Analyses of BTEX (EPA Method 8260) in Soil

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Surrogate Recovery (%)
Method Blank	11/22/2019	11/22/2019	nd	nd	nd	nd	110
LCS	11/22/2019	11/22/2019	85%	113%	120%	118%	99
LCSD	11/22/2019	11/22/2019	75%	99%	107%	106%	100
B4-3	11/20/2019	11/22/2019	nd	nd	nd	nd	102
B5-3	11/22/2019	11/22/2019	nd	nd	nd	nd	106
Reporting Limits			0.02	0.05	0.05	0.15	

"nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (4-Bromofluorobenzene) & LCS : 65% TO 135%

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Dixon Environmental Services
NISSAN OF KIRKLAND PROJECT
Client Project #0019-03-02
Kirkland, Washington

Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270

Analytical Results

		MTH BLK	LCS	B2-2
Date extracted	Reporting	11/21/19	11/21/19	11/21/19
Date analyzed	Limits	11/21/19	11/21/19	11/21/19
Moisture, %	(mg/kg)			54%
Naphthalene	0.02	nd	96%	nd
2-Methylnaphthalene	0.02	nd	99%	nd
1-Methylnaphthalene	0.02	nd	ns	nd
Acenaphthylene	0.02	nd	103%	nd
Acenaphthene	0.02	nd	99%	nd
Fluorene	0.02	nd	99%	nd
Phenanthrene	0.02	nd	107%	nd
Anthracene	0.02	nd	109%	nd
Fluoranthene	0.02	nd	107%	nd
Pyrene	0.02	nd	109%	nd
Benzo(a)anthracene*	0.02	nd	113%	nd
Chrysene*	0.02	nd	107%	nd
Benzo(b)fluoranthene*	0.02	nd	87%	nd
Benzo(k)fluoranthene*	0.02	nd	111%	nd
Benzo(a)pyrene*	0.02	nd	90%	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd	108%	nd
Dibenzo(a,h)anthracene*	0.02	nd	85%	nd
Benzo(ghi)perylene	0.02	nd	84%	nd
Total Carcinogens				nd
Surrogate recoveries:				
2-Fluorobiphenyl		100%	103%	104%
p-Terphenyl-d14		109%	117%	123%

Data Qualifiers and Analytical Comments

* - Carcinogenic Analyte
nd - not detected at listed reporting limits
ns - not spiked
Results reported on dry-weight basis
Acceptable Recovery limits: 50% TO 150%
Acceptable RPD limit: 35%

SPECTRA Laboratories ...Where experience matters

2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

12/02/2019

ESN Northwest
1210 Eastside St SE
Suite 200
Olympia, WA 98501
Attn: Julie Woods

Project: Nissan of Kirkland
Sample Matrix: Solid
Date Sampled: 11/20/2019
Date Received: 11/21/2019
Spectra Project: 2019110613
Rush

Client ID	Spectra #	Analyte	Result	Units	Method
B2-2	1	Total Arsenic	4.0	mg/Kg	SW846 6010D
B2-2	1	Total Cadmium	< 0.3	mg/Kg	SW846 6010D
B2-2	1	Total Chromium	1.0	mg/Kg	SW846 6010D
B2-2	1	Total Lead	37.2	mg/Kg	SW846 6010D
B2-2	1	Total Mercury	< 0.05	mg/Kg	SW846 7471B
B4-3	2	Total Arsenic	< 2.5	mg/Kg	SW846 6010D
B4-3	2	Total Cadmium	< 0.3	mg/Kg	SW846 6010D
B4-3	2	Total Chromium	22.6	mg/Kg	SW846 6010D
B4-3	2	Total Lead	4.4	mg/Kg	SW846 6010D
B4-3	2	Total Mercury	< 0.05	mg/Kg	SW846 7471B
B5-3	3	Total Arsenic	< 2.5	mg/Kg	SW846 6010D
B5-3	3	Total Cadmium	< 0.3	mg/Kg	SW846 6010D
B5-3	3	Total Chromium	24.6	mg/Kg	SW846 6010D
B5-3	3	Total Lead	4.3	mg/Kg	SW846 6010D
B5-3	3	Hexavalent Chromium	<0.5	mg/Kg	SW846 7196A
B5-3	3	Total Mercury	< 0.05	mg/Kg	SW846 7471B

SPECTRA LABORATORIES

Jeffrey Cooper, Laboratory Manager

a7/jac

SPECTRA Laboratories ...Where experience matters
2221 Ross Way • Tacoma, WA 98421 • (253) 272-4850 • Fax (253) 572-9838 • www.spectra-lab.com

December 2, 2019

ESN Northwest
1210 Eastside St SE
Suite 200
Olympia, WA 98501

Units: mg/Kg
Spectra Project: 2019110613
Applies to Spectra #'s : 1

QUALITY CONTROL RESULTS

Hexavalent Chromium in Soil/Solid - Method SM 3500 Cr-D/ SW846 7196A

Method Blank

Date Analyzed: 11/27/2019 Date Extracted: 11/27/2019

	Result
Hexavalent Chromium	<0.1

Blank Spike (LCS)

Date Analyzed: 11/27/2019 Date Extracted: 11/27/2019

	Spike Added	LCS Conc.	LCS %Rec
Hexavalent Chromium	0.1	0.103	103

LCS Recovery limits 73-120%

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Date Analyzed: 11/22/2019 Date Extracted: 11/27/2019
Sample Spiked: 2019110613-1

	Sample Conc.	Spike Conc.	MS Conc.	MS %Rec	MSD Conc	MSD %Rec	RPD
Hexavalent Chromium	<0.5	0.50	0.64	128	0.56	112	2.9

RPD Limit 20

SPECTRA LABORATORIES

Lathey Cooper
Laboratory Manager

ESN NORTHWEST Environmental Services Network

CHAIN-OF-CUSTODY RECORD

CLIENT: Dixon Environmental Services
ADDRESS: 4010 N 7th St. Tacoma WA 98406
PHONE: 253-380-4303 EMAIL Brian@DixonES.com
CLIENT PROJECT #: 0019-03-02 PROJECT MANAGER: B. Dixon

DATE: 11-20-19 PAGE 1 OF 1
PROJECT NAME: Nissan of Kirkland
LOCATION: 11932 124th Ave NE
COLLECTOR: Brian Dixon DATE OF COLLECTION: 11-20-19

Sample Number	Depth	Time	Sample Type	Container Type	TPH-HCID	TPH-DIESEL AND OIL	TPH-GASOLINE	BTEX 8260	VOC 8260CL	VOC 8260	SEMIVOC 8270	PAH's 8270	PCB's 8082	CL PESTICIDES 8081	RCRA 8 Metals	MTCA 5 Metals	Pb	ASBESTOS PLM	GRO Suite 830-1	DRO Suite 830-1	WO Suite 830-1
1. B1-2.5	2.5'	1015	S	4 oz & Vials	X																
2. B1-6	6'	1025																			
3. B2-2	2'	1030				X					X				X						
4. B2-6	6'	1035			X																
5. B3-3	3'	1050			X																
6. B3-6	6'	1100																			
7. B4-3	3'	1125				X	X	X							X						
8. B4-7	7'	1135			X																
9. B5-3	3'	1145				X	X	X							X						
10. B5-7	7'	1155	↓	↓	X																
11. B3-W	7'	1110	W	Amber + Vials																	
12.																					
13.																					
14.																					
15.																					
16.																					
17.																					
18.																					

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[signature]	11/20/19		
RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

SAMPLE RECEIPT	
TOTAL NUMBER OF CONTAINERS	
CHAIN OF CUSTODY SEALS Y/N/NA	
SEALS INTACT? Y/N/NA	
RECEIVED GOOD COND./COLD	
NOTES:	

LABORATORY NOTES:

Turn Around Time: 24 HR 48 HR 5 DAY

1210 Eastside Street SE, Suite 200
Olympia, Washington 98501
Phone: 360-459-4670
Fax: 360-459-3432
Website: www.esnnw.com
E-Mail: lab@esnnw.com

Exhibit D: Boring Logs

DIXON
ENVIRONMENTAL SERVICES

Project:	Nissan of Kirkland	**Boring ID:**	**B1**
Location:	11932 124th Avenue NE Kirkland, WA	**Project Number:**	**0019-03-02**
Client:	LMJ Enterprises		

Date Start/Finish:	11/20/2019	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	M. Leone	**Borehole ID/OD:**	2"
Contractor:	ESN Northwest	**Sampler:**	5' MacroCore
Operator:	Don	**Hammer Wt./Fall:**	NA
Boring Location:	See Figure 3	**Ground Elevation:**	~167' bgs
Coordinates:	NA	**Water Depth:**	~5.5' bgs
Weather:	Sunny	**Boring Depth:**	10' bgs

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1					2-3" Asphalt		
2	B1-2.5	10:15	0.0	No HC Odor	Dark brown, fine grained sandy SILT, dense.	ML	
3					Light brown, fine grained sandy SILT, dense.	ML	
4							
5							
6	B1-6	10:25	0.0	No HC Odor	Brown, medium grained, poorly graded SAND with trace silt, wet.	SP	
7							
8							
9							
10							
11					Boring terminated at 10' bgs.		
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Nissan of Kirkland	**Boring ID:**	**B2**
Location:	11932 124th Avenue NE Kirkland, WA	**Project Number:**	**0019-03-02**
Client:	LMJ Enterprises		

Date Start/Finish:	11/20/2019	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	M. Leone	**Borehole ID/OD:**	2"
Contractor:	ESN Northwest	**Sampler:**	5' MacroCore
Operator:	Don	**Hammer Wt./Fall:**	NA
Boring Location:	See Figure 3	**Ground Elevation:**	~167' bgs
Coordinates:	NA	**Water Depth:**	~5' bgs
Weather:	Sunny	**Boring Depth:**	8' bgs

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1					2-3" Asphalt		
2	B2-2	10:30	0.4	No HC Odor	Brown, fine to medium grained silty SAND with gravel, loose. (FILL)	SW	
3					Dark brown, fine to medium grained silty SAND, possible burnt wood debris. (FILL)	SW	
4					Brown, fine grained sandy SILT, dense.	ML	
5							
6	B2-6	10:35	0.0	No HC Odor	Brown, medium grained, poorly graded SAND with trace silt, wet.	SP	
7							
8							
9					Boring terminated at 8' bgs.		
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Nissan of Kirkland
Location:	11932 124th Avenue NE Kirkland, WA
Client:	LMJ Enterprises

Boring ID: B3

Project Number: 0019-03-02

Date Start/Finish:	11/20/2019	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	M. Leone	**Borehole ID/OD:**	2"
Contractor:	ESN Northwest	**Sampler:**	5' MacroCore
Operator:	Don	**Hammer Wt./Fall:**	NA
Boring Location:	See Figure 3	**Ground Elevation:**	~167' bgs
Coordinates:	NA	**Water Depth:**	~5.5' bgs
Weather:	Sunny	**Boring Depth:**	10' bgs

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1					2-3" Asphalt		
2					Gray, fine to medium grained silty SAND with gravel, loose. (FILL)	SW	
3	B3-3	10:50	0.0	No HC Odor			
4					Light brown, fine grained sandy SILT, dense.	ML	
5							
6	B3-6	11:00	0.0	No HC Odor	Brown, medium grained, poorly graded SAND with trace silt, wet.	SP	
7	B3-W	10:10	NA	No HC Sheen or Odor			
8							
9							
10							
11					Boring terminated at 10' bgs.		
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Nissan of Kirkland
Location:	11932 124th Avenue NE Kirkland, WA
Client:	LMJ Enterprises

Boring ID: B4

Project Number: 0019-03-02

Date Start/Finish:	11/20/2019	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	M. Leone	**Borehole ID/OD:**	2"
Contractor:	ESN Northwest	**Sampler:**	5' MacroCore
Operator:	Don	**Hammer Wt./Fall:**	NA
Boring Location:	See Figure 3	**Ground Elevation:**	~167' bgs
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	8' bgs

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1					2-3" Asphalt		
2					Gray/Brown, fine to medium grained silty SAND with gravel, loose. (FILL)	SW	
3	B4-3	11:25	1.8	HC Odor			
4					Light brown, fine grained sandy SILT, dense.	ML	
5							
6					Brown, medium grained, poorly graded SAND with trace silt, moist.	SP	
7	B4-7	11:35	0.0	No HC Odor			
8							
9					Boring terminated at 8' bgs.		
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes:

DIXON
ENVIRONMENTAL SERVICES

Project:	Nissan of Kirkland
Location:	11932 124th Avenue NE Kirkland, WA
Client:	LMJ Enterprises

Boring ID: B5

Project Number: 0019-03-02

Date Start/Finish:	11/20/2019	**Drilling Method:**	Direct Push
Logged By:	B. Dixon	**Auger ID/OD:**	NA
Checked By:	M. Leone	**Borehole ID/OD:**	2"
Contractor:	ESN Northwest	**Sampler:**	5' MacroCore
Operator:	Don	**Hammer Wt./Fall:**	NA
Boring Location:	See Figure 3	**Ground Elevation:**	~167' bgs
Coordinates:	NA	**Water Depth:**	NA
Weather:	Sunny	**Boring Depth:**	8' bgs

Unified Soil Classification System

NON-COHESIVE SOILS	GW	WELL-GRADED GRAVEL, FINE TO COARSE GRAVEL
	GP	POORLY-GRADED GRAVEL
	GM	SILTY GRAVEL
	GC	CLAYEY GRAVEL
	SW	WELL-GRADED SAND, FINE TO COARSE SAND
	SP	POORLY-GRADED SAND
	SM	SILTY SAND
	SC	CLAYEY SAND
COHESIVE SOILS	ML	SILT
	CL	CLAY
	OL	ORGANIC SILT, ORGANIC CLAY
	MH	SILT OF HIGH PLASTICITY, ELASTIC SILT
	CH	CLAY OF HIGH PLASTICITY, FAT CLAY
	OH	ORGANIC CLAY, ORGANIC SILT
	PT	PEAT

Depth (ft bgs)	Sample Number	Time	PID Reading	Remarks	Soil and Rock Description	Unified Classification	Well Construction Detail
1					2-3" Asphalt		
2					Brown, fine to medium grained silty SAND with gravel, loose. (FILL)	SW	
3	B5-3	11:45	1.0	HC Odor			
4					Light brown, fine grained sandy SILT, dense.	ML	
5							
6					Light brown, medium grained, poorly graded SAND with trace silt, moist.	SP	
7	B5-7	11:55	0.0	No HC Odor			
8							
9					Boring terminated at 8' bgs.		
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

Notes: