August 8, 2019

Mr. Munaf Khan

NVL Field Services Division
4708 Aurora Ave. N.
Seattle, 98103

Re: **NVL Batch 1916722.00**

Project Name/Number: 2012-494

Project location: 3100 Airport Way South Seattle, WA 98134

Dear Mr. Khan,

Enclosed please find test results for samples submitted to our laboratory for analysis. Preparation and analysis of these samples were conducted in accordance with published industry standards and methods specified on the attached analytical report.

The content of this package consists of the following:

-Case Narrative & Definition of Data Qualifiers
-Analytical Test Results
-Applicable QC Summary
-Client Chain-of-Custody (CoC)
-NVL Receiving Record

The report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client will be discarded after two weeks.

Thank you for using our laboratory services. If you need further assistance, please contact us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,

Nick Ly, Technical Director

Enclosure: Sample Results

Case Narrative:

The following summarizes samples received on date as shown on the accompanied Chain of custody by NVL Laboratories, Inc. from NVL Field Services Division for Project Number: 2012-494. Samples were logged in for PCB analysis per client request using both customer sample ID's and laboratory assigned ID's as listed on the Chain-of-Custody (CoC). All samples as received were processed and analyzed within specified turnaround time without any abnormalities and deviations that may affect the analytical results. All quality control requirements were acceptable unless stated otherwise. The conditions of all samples were acceptable at time of receipt and all samples submitted with this batch were analyzed unless stated otherwise on the CoC.

Test Results are reported based on dry weight in milligrams per kilograms (mg/kg) for PCB samples as shown on the analytical reports.

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Definition Appendix

Terms

% Rec	Percent recovery.
<	Below Reporting Limit(RL) or Limit of Quantitation(LoQ) of the instrument.
B	Blank contamination. The recorded results is associated with a contaminated blank.
DF	Dilution Factor
J	The reported concentration is an estimated value because something may be present in the sample that interfered with the analysis.
J1	The reported concentration is an estimated value because the laboratory control sample (LCS) is out of control limits.
J2	The reported concentration is an estimated value because the percent recovery for matrix spike is out of control limits.
J3	The reported concentration is an estimated value because the relative percent difference(RPD) for duplicate analysis is out of control limits.
J4	Percent recovery is outside of established control limits.
LCS	Laboratory Control Sample.
LFS	Laboratory Fortified Spike
Limits	The upper and lower control limits for spike recoveries.
LN	Quality control sample is outside of control limits. This analyte was not detected in the sample.
LOQ	Limit of quantitation(same as RL)
mg/kg	Milligrams per kilogram.
ND	Analyte not detected or below the reporting limit of the instrument or methodology

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Definition Appendix

Terms

PPM	Parts per Million.
QC Batch Group	Quality Control Batch Group. The entity that links analytical results and supporting quality control results.
R	The data are not reliable due to possible contamination or loss of material during preparation or analysis. Re-sampling and reanalysis are necessary for verification.
RL	Reporting Limit. The minimum concentration that can be quantified under routine operating conditions.
RPD	Relative Percent Difference. The relative difference between duplicate results(matrix spike, blank spike, or samples duplicate) expressed as a percentage.
RPD Limit	The maximum RPD allowed for a set of duplicate measurements(see RPD).
SMI	Surrogate has matrix interference.
Spike Conc.	The measured concentration, in sample basis units, of a spiked sample.
SURR-ND	Surrogate was not detected due to matrix interference or dilution.
ug/m3	Micrograms per cubic meter.
ug/mL	Micrograms per milliliter
mg/Kg	milligram per kilogram

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ANALYSIS REPORT

Polychlorinated Biphenyls by Gas Chromatography

Client	**NVL Field Services Division**	Samples Received*	**3**
SDG Number	**1916722.00**	Analyzed By	**Aaron Brown**
Date Reported	**08/08/2019**	Samples Analyzed*	**3**
Project Number	**2012-494**	Analysis Method	**8082A**
Location	**3100 Airport Way South Seattle, WA 98134**	Preparation Method	**3546PR (PCB)**

* for this test only

Sample Number	**080619-155-22-S1**	Received	08/07/2019
Lab Sample ID	19091055	Matrix	Material
Initial Sample Size	2.2001 gm	Units of Result	mg/Kg, as received

Analyte	RL	Final Result	Analysis Date
Aroclor-1016	0.91	< 0.91	08/07/2019
Aroclor-1221	0.91	< 0.91	08/07/2019
Aroclor-1232	0.91	< 0.91	08/07/2019
Aroclor-1242	0.91	< 0.91	08/07/2019
Aroclor-1248	0.91	< 0.91	08/07/2019
Aroclor-1254	0.91	< 0.91	08/07/2019
Aroclor-1260	0.91	< 0.91	08/07/2019
PCBs, Total	**0.91**	**<0.91**	

Sample Number	**080619-155-08-DUP1**	Received	08/07/2019
Lab Sample ID	19091056	Matrix	Material
Initial Sample Size	2.101 gm	Units of Result	mg/Kg, as received

Analyte	RL	Final Result	Analysis Date
Aroclor-1016	0.95	< 0.95	08/07/2019
Aroclor-1221	0.95	< 0.95	08/07/2019
Aroclor-1232	0.95	< 0.95	08/07/2019
Aroclor-1242	0.95	< 0.95	08/07/2019
Aroclor-1248	0.95	< 0.95	08/07/2019
Aroclor-1254	0.95	< 0.95	08/07/2019
Aroclor-1260	0.95	< 0.95	08/07/2019
PCBs, Total	**0.95**	**<0.95**	

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ANALYSIS REPORT

Polychlorinated Biphenyls by Gas Chromatography

Sample Number	**080619-155-08-DUP2**	Received	08/07/2019
Lab Sample ID	19091057	Matrix	Material
Initial Sample Size	2.2285 gm	Units of Result	mg/Kg, as received

Analyte	RL	Final Result	Analysis Date
Aroclor-1016	0.90	< 0.90	08/07/2019
Aroclor-1221	0.90	< 0.90	08/07/2019
Aroclor-1232	0.90	< 0.90	08/07/2019
Aroclor-1242	0.90	< 0.90	08/07/2019
Aroclor-1248	0.90	< 0.90	08/07/2019
Aroclor-1254	0.90	< 0.90	08/07/2019
Aroclor-1260	0.90	< 0.90	08/07/2019
PCBs, Total	**0.90**	**<0.9**	

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Quality Control Results

Project Number:	**2012-494**	**SDG Number:**	**1916722**
		Project Manager:	**Munaf Khan**

QC Batch(es):	**Q1025**	Analysis Method:	**8082A**
QC Batch Method:	3546PR (PCB)	Analysis Description:	Polychlorinated Biphenyls by Gas Chromatography
Preparation Date:	08/07/2019		

Blank: MBLK-1916722

Analyte	Blank Result	Units	DF	RL	% Rec	Control Limit	Qualifiers
Aroclor-1016	ND	mg/Kg	1	1.0		1	
Aroclor-1221	ND	mg/Kg	1	1.0		1	
Aroclor-1232	ND	mg/Kg	1	1.0		1	
Aroclor-1242	ND	mg/Kg	1	1.0		1	
Aroclor-1248	ND	mg/Kg	1	1.0		1	
Aroclor-1254	ND	mg/Kg	1	1.0		1	
Aroclor-1260	ND	mg/Kg	1	1.0		1	
PCBs, Total	ND	mg/Kg	1	1.0		1	
Surrogates:					% Rec		
Tetrachloro-m-xylene			1		83	40-140	
Decachlorobiphenyl			1		121	40-140	

Lab Control Sample: LCS-1254-1916722

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	% Rec Limits	Qualifiers
Aroclor-1254	21.9	mg/Kg	1	20.0	109	40-140	
Surrogates:							
Tetrachloro-m-xylene			1		77	40-140	
Decachlorobiphenyl			1		101	40-140	

Lab Control Sample: LCS-1016-1260-1916722
Lab Control Sample Duplicate: LCSD-1016-1260-1916722

Analyte	Blank Spike Result	Units	DF	Spike Conc.	% Rec	Limits	RPD	RPD Limit	Qualifiers
Aroclor-1016	14.8	mg/Kg	1	20.0	74	40-140			
	17			20.0	85	40-140	14	50	
Aroclor-1260	21	mg/Kg	1	20.0	105	40-140			
	24.3			20.0	121	40-140	14	50	
Surrogates:									
Tetrachloro-m-xylene			1		71	40-140			
					87	40-140			
Decachlorobiphenyl			1		107	40-140			
					116	40-140			

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Surrogate Recovery Summary Report

Client NVL Field Services Division **SDG Number** 1916722

Project 2012-494

Customer Sample ID	Lab Sample ID	Analyte	Recovery	Limits
080619-155-22-S1	19091055	Decachlorobiphenyl	137%	40-140
080619-155-22-S1	19091055	Tetrachloro-m-xylene	86%	40-140
080619-155-08-DUP1	19091056	Decachlorobiphenyl	122%	40-140
080619-155-08-DUP1	19091056	Tetrachloro-m-xylene	89%	40-140
080619-155-08-DUP2	19091057	Decachlorobiphenyl	117%	40-140
080619-155-08-DUP2	19091057	Tetrachloro-m-xylene	91%	40-140
LCS-1016-1260-1916722	LCS-1016-1260-1916722	Decachlorobiphenyl	107%	40-140
LCS-1016-1260-1916722	LCS-1016-1260-1916722	Tetrachloro-m-xylene	71%	40-140
LCS-1254-1916722	LCS-1254-1916722	Decachlorobiphenyl	101%	40-140
LCS-1254-1916722	LCS-1254-1916722	Tetrachloro-m-xylene	77%	40-140
LCSD-1016-1260-1916722	LCSD-1016-1260-1916722	Decachlorobiphenyl	116%	40-140
LCSD-1016-1260-1916722	LCSD-1016-1260-1916722	Tetrachloro-m-xylene	87%	40-140
MBLK-1916722	MBLK-1916722	Decachlorobiphenyl	121%	40-140
MBLK-1916722	MBLK-1916722	Tetrachloro-m-xylene	83%	40-140

* Recovery outside limits

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

SDG No: **1916722** Contract:

Determination: **8082 PCB Aroclors <Material>**

Run	Sample	Source	Analyzed	Analyte	True	Found	Unit	% Rec	Limits
R001018	CCV1-1016-1260	PCB_2019-1-2	08/07/2019	Aroclor-1016	5	5	ug/mL	100	80-120
		PCB_2019-1-2	08/07/2019	Aroclor-1260	5	5	ug/mL	100	80-120
	CCV1-1254	PCB_2019-1-3	08/07/2019	Aroclor-1254	5	5	ug/mL	100	80-120
	ICV 1016-1254-1260	PCB_2019-1-4	08/07/2019	Aroclor-1016	5	4.851	ug/mL	97	85-115
		PCB_2019-1-4	08/07/2019	Aroclor-1254	5	5.652	ug/mL	113	85-115
		PCB_2019-1-4	08/07/2019	Aroclor-1260	5	5.738	ug/mL	115	85-115
	CCV2-1016-1260	PCB_2019-1-2	08/07/2019	Aroclor-1016	5	5.907	ug/mL	118	80-120
		PCB_2019-1-2	08/07/2019	Aroclor-1260	5	5.976	ug/mL	120	80-120
	CCV2-1254	PCB_2019-1-3	08/07/2019	Aroclor-1254	5	5.842	ug/mL	117	80-120

% Rec = Percent recovery

* = Percent recovery not within control limits

ORGANICS LABORATORY SERVICES

NVL

Company NVL Field Services Division
Address 4708 Aurora Ave. N.
Seattle, WA 98103
Project Manager Mr. Munaf Khan
Phone (206) 547-0100
Cell: (206) 914-4646

NVL Batch Number **1916722.00**
TAT 2 Days **AH** No
Rush TAT
Due Date 8/9/2019 **Time** 9:20 AM
Email munaf.k@nvllabs.com
Fax (206) 634-1936

Project Name/Number: 2012-494 **Project Location:** 3100 Airport Way South Seattle, WA 98134

Subcategory Quantitative analysis
Item Code ORG-05 **Method** 8082 PCB Aroclors <Bulk>

Total Number of Samples 3 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	19091055	080619-155-22-S1		A
2	19091056	080619-155-08-DUP1		A
3	19091057	080619-155-08-DUP2		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kenny Tran		NVL	8/7/19	0920
Analyzed by	Ann Bm		NVL	8/7/19	13:15
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Entered By: Kenny Tran Date: 8/7/2019 Time: 9:23 AM

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CHAIN of CUSTODY SAMPLE LOG

1916722

INDUSTRIAL HYGIENE SERVICES
LABORATORY • MANAGEMENT • TRAINING

Client NVL Laboratories Inc
Street 4708 Aurora Ave N
Seattle, WA 98103
Project Manager Munaf Khan
Project Location 3100 Airport Way South
Seattle, WA 98134

NVL Batch Number
Client Job Number 2012-494
Total Samples 3
Turn Around Time ☐ 1 Hr ☐ 6 Hrs ☐ 3 Days ☐ 10 Days ☐ 2 Hrs ☐ 1 Day ☐ 4 Days ☐ 4 Hrs ☒ 2 Days ☐ 5 Days
Please call for TAT less than 24 Hrs
Email address

Phone: (206) 447-0263 **Fax:** (206) 447-0299

☐ **Asbestos Air** ☐ PCM (NIOSH 7400) ☐ TEM (NIOSH 7402) ☐ TEM (AHERA) ☐ TEM (EPA Level II) ☐ Other

☐ **Asbestos Bulk** ☐ PLM (EPA/600/R-93/116) ☐ PLM (EPA Point Count) ☐ PLM (EPA Gravimetry) ☐ TEM BULK

☐ **Mold/Fungus** ☐ Mold Air ☐ Mold Bulk ☐ **Rotometer Calibration**

METALS	**Det. Limit**	**Matrix**		**RCRA Metals**		**Other Metals**
☐ Total Metals	☐ FAA (ppm)	☐ Air Filter	☐ Soil	☐ Arsenic (As)	☐ All 8	☐ All 3
☐ TCLP	☐ ICP (ppm)	☐ Drinking water	☐ Paint Chips in %	☐ Barium (Ba)	☐ Chromium (Cr	☐ Copper (Cu)
☐ Cr 6	☐ GFAA (ppb)	☐ Dust/wipe (Area)	☐ Paint Chips in cm	☐ Cadmium (Cd)	☐ Lead (Pb)	☐ Nickel (Ni)
					☐ Mercury (Hg)	☐ Zinc (Zn)

☒ **Other Types of Analysis** ☐ Fiberglass ☐ Nuisance Dust ☐ Other (Specify) EPA 8082A - PCB BULK REQUEST RL <1.0 PPM
☐ Silica ☐ Respirable Dust

Condition of Package: ☐ Good ☐ Damaged (no spillage) ☐ Severe damage (spillage)

Seq. #	Lab ID	Client Sample Number	Comments	A/R
1		080619-155-22-S1		
2		" - " -08-DUP1		
3		" - " -08-DUP2		
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

	Print Below	Sign Below	Company	Date	Time
Sampled by	DAVE LEONARD	[signature]	NVL	8-6-19	12:20
Relinquished by	DAVE LEONARD	[signature]	NVL	8-7-19	0915
Received by	Kenny Tm	[signature]	NVL	8/7/19	0920
Analyzed by	Ann Bm	[signature]	NVL	~~8/8/19~~ 8/7/19	13:15
Results Called by					
Results Faxed by					

Special Instructions: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.
Results report to CONCRETE REQUEST RL <1.0 PPM

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

NVL Labs, Inc.
Marcus Gladden
4708 Aurora Ave. N.
Seattle, WA 98103

RE: Rainier Commons
Work Order Number: 1908085

August 09, 2019

Attention Marcus Gladden:

Fremont Analytical, Inc. received 1 sample(s) on 8/7/2019 for the analyses presented in the following report.

Polychlorinated Biphenyls (PCB) by EPA 8082

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

Date: *08/09/2019*

CLIENT: NVL Labs, Inc.
Project: Rainier Commons
Work Order: 1908085

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1908085-001	080619-15S-22-S2	08/06/2019 12:20 PM	08/07/2019 9:35 AM

Case Narrative

WO#: **1908085**

Date: **8/9/2019**

CLIENT: NVL Labs, Inc.

Project: Rainier Commons

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1908085**
Date Reported: **8/9/2019**

Client: NVL Labs, Inc.
Project: Rainier Commons
Lab ID: 1908085-001
Client Sample ID: **080619-15S-22-S2**

Collection Date: 8/6/2019 12:20:00 PM
Matrix: Solid

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 25417		Analyst: SB
Aroclor 1016	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1221	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1232	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1242	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1248	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1254	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1260	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1262	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Aroclor 1268	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Total PCBs	ND	0.0925		mg/Kg	1	8/8/2019 10:20:40 AM
Surr: Decachlorobiphenyl	50.6	8.21 - 173		%Rec	1	8/8/2019 10:20:40 AM
Surr: Tetrachloro-m-xylene	57.7	20.2 - 168		%Rec	1	8/8/2019 10:20:40 AM

Work Order: 1908085
CLIENT: NVL Labs, Inc.
Project: Rainier Commons

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **MB-25417** SampType: **MBLK** Units: **mg/Kg** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **MBLKS** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049850**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100									
Aroclor 1221	ND	0.100									
Aroclor 1232	ND	0.100									
Aroclor 1242	ND	0.100									
Aroclor 1248	ND	0.100									
Aroclor 1254	ND	0.100									
Aroclor 1260	ND	0.100									
Aroclor 1262	ND	0.100									
Aroclor 1268	ND	0.100									
Total PCBs	ND	0.100									
Surr: Decachlorobiphenyl	51.6		50.00		103	8.21	173				
Surr: Tetrachloro-m-xylene	44.7		50.00		89.5	20.2	168				

Sample ID: **LCS1-25417** SampType: **LCS** Units: **mg/Kg** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **LCSS** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049851**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.957	0.100	1.000	0	95.7	49.1	163				
Aroclor 1260	1.08	0.100	1.000	0	108	40.5	163				
Surr: Decachlorobiphenyl	54.2		50.00		108	8.21	173				
Surr: Tetrachloro-m-xylene	43.9		50.00		87.8	20.2	168				

Sample ID: **LCS2-25417** SampType: **LCS** Units: **mg/Kg** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **LCSS** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049852**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	1.05	0.100	1.000	0	105	54.2	150				
Surr: Decachlorobiphenyl	61.7		50.00		123	8.21	173				
Surr: Tetrachloro-m-xylene	56.6		50.00		113	20.2	168				

Date: *8/9/2019*

Work Order: 1908085
CLIENT: NVL Labs, Inc.
Project: Rainier Commons

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: **1908024-001ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **BATCH** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049854**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0914						0		30	
Aroclor 1221	ND	0.0914						0		30	
Aroclor 1232	ND	0.0914						0		30	
Aroclor 1242	ND	0.0914						0		30	
Aroclor 1248	ND	0.0914						0		30	
Aroclor 1254	ND	0.0914						0		30	
Aroclor 1260	ND	0.0914						0		30	
Aroclor 1262	ND	0.0914						0		30	
Aroclor 1268	ND	0.0914						0		30	
Total PCBs	ND	0.0914						0		30	
Surr: Decachlorobiphenyl	45.7		45.68		100	8.21	173		0		
Surr: Tetrachloro-m-xylene	39.1		45.68		85.5	20.2	168		0		

Sample ID: **1908024-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **BATCH** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049855**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.781	0.0854	0.8539	0	91.5	51.1	159				
Aroclor 1260	0.829	0.0854	0.8539	0	97.1	44.2	155				
Surr: Decachlorobiphenyl	40.2		42.70		94.1	8.21	173				
Surr: Tetrachloro-m-xylene	40.5		42.70		94.9	20.2	168				

Sample ID: **1908024-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **8/7/2019** RunNo: **53124**
Client ID: **BATCH** Batch ID: **25417** Analysis Date: **8/8/2019** SeqNo: **1049856**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.849	0.0947	0.9472	0	89.6	51.1	159	0.7814	8.26	30	
Aroclor 1260	0.873	0.0947	0.9472	0	92.1	44.2	155	0.8290	5.15	30	
Surr: Decachlorobiphenyl	45.3		47.36		95.7	8.21	173		0		
Surr: Tetrachloro-m-xylene	44.1		47.36		93.2	20.2	168		0		

Date: *8/9/2019*

Work Order: 1908085
CLIENT: NVL Labs, Inc.
Project: Rainier Commons

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID:	**1908024-001AMSD**	SampType:	**MSD**			Units:	**mg/Kg-dry**	Prep Date:	**8/7/2019**		RunNo:	**53124**	
Client ID:	**BATCH**	Batch ID:	**25417**					Analysis Date:	**8/8/2019**		SeqNo:	**1049856**	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample Log-In Check List

Client Name:	**NVL**	Work Order Number:	**1908085**
Logged by:	**Clare Griggs**	Date Received:	**8/7/2019 9:35:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☐	No ☑	NA ☐
		Bulk materials.		
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Sample	22.4

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

RCLLC 0010217

Fremont Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 8-7-2019 Page: 1 of: 1

Laboratory Project No (internal): 1908085

Project Name: RANIER COMMONS

Project No: 2012-494

Collected by: DAVE LEONARD

Location: 3100 AIRPORT WAYS SEATTLE WA

Report To (PM): MARCUS GLADDEN

PM Email: MARCUS.G@NVLLABS.COM

Client: NVL LABS

Address: 4708 AURORA AVE N

City, State, Zip: SEATTLE WA

Telephone: 206-805-6412

Fax:

Special Remarks: RL of <1.0 PPM NEEDED

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)					Comments
1	080619-155-22-S2	8-6-19	12:20	SL CONCRETE									X									
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above and that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x [signature]	8-7-19 0935	x [signature]	8/7/19 0935
Relinquished	Date/Time	Received	Date/Time
x		x	

Turn-around Time:

- ☐ Standard
- ☐ 3 Day
- ☒ 2 Day
- ☐ Next Day
- Same Day _____ (specify)

NVL LABS
INDUSTRIAL HYGIENE SERVICES
MANAGEMENT | TRAINING | LAB SERVICES
www.NVLLABS.com

January 19, 2017

Shimon Mizrahi
Rainier Commons LLC
918 S. Horton Street, Suite 1018
Seattle, WA 98134

Subject: Polychlorinated Biphenyl (PCB) Substrate Sampling
IPWP2 Segment A, South Wall Building 15
Rainier Commons, LLC

Site Address: 3100 Airport Way S, Seattle, WA

NVL Project#: 2012-494

Dear Mr. Mizrahi:

Rainier Commons, LLC retained NVL Laboratories to conduct substrate sampling at the Old Rainier Brewery site located at 3100 Airport Way South, Seattle, Washington and this letter has been prepared to convey the results.

The purpose for collecting the sample from the concrete substrate material on the building was to test for the potential presence of residual PCB's following the work that removed the PCB-containing paint coatings.

The sample was collected on October 13, 2016 from the concrete material on the west corner of the south side of building 15 pursuant to Condition 8 of the EPA's Risk Based Work Plan Approval for Rainier Commons and pursuant to NVL's Substrate Sampling Plan (Exhibit 8 to Phase I IPWP) with all sampling protocols and procedures referenced therein.

The following table presents the result of the substrate test results and compares the results against the substrate screening limit established in the Substrate Sampling Plan of 1 part per million (ppm).

Stormwater samples were also collected on the same date that the concrete substrate sample was collected. Those results are addressed and reported in a separate catch basin sampling report. The stormwater samples are not related to the substrate sampling addressed here.

Sampling Date	Sample Number	Sampling Location	Substrate Type	Sample Results (PPM)	Result More Than 1 PPM?
10/13/16	101316-Bulk	Building 15 South Wall	Concrete	0.522	NO
PPM = Parts per million or milligrams per kilogram (mg/kg)					

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Prepared By

Marcus Gladden
Industrial Hygienist
NVL Laboratories

Reviewed By

Munaf Khan
Project Manager
Laboratory Director / President

Attachment: Laboratory Testing Report, Fremont Analytical Batch No. 1610258

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

NVL Labs, Inc.
Marcus Gladden
4708 Aurora Ave. N.
Seattle, WA 98103

RE: 2012-494
Work Order Number: 1610258

October 21, 2016

Attention Marcus Gladden:

Fremont Analytical, Inc. received 3 sample(s) on 10/14/2016 for the analyses presented in the following report.

Polychlorinated Biphenyls (PCB) by EPA 8082
Sample Moisture (Percent Moisture)
Total Metals by EPA Method 200.8

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Mike Ridgeway
Laboratory Director

DoD/ELAP Certification #L2371, ISO/IEC 17025:2005
ORELAP Certification: WA 100009-007 (NELAP Recognized)

Date: *10/21/2016*

CLIENT: NVL Labs, Inc.
Project: 2012-494
Work Order: 1610258

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1610258-001	101316-MHG-PCB	10/13/2016 10:30 AM	10/14/2016 8:55 AM
1610258-002	101316-MHG-M	10/13/2016 10:30 AM	10/14/2016 8:55 AM
1610258-003	101316-BULK	10/13/2016 10:30 AM	10/14/2016 8:55 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

RCLLC 0010221

Case Narrative

WO#: **1610258**

Date: **10/21/2016**

CLIENT: NVL Labs, Inc.

Project: 2012-494

WorkOrder Narrative:
I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (1610258-003A) required Acid Cleanup Procedure (Using Method No 3665A).
Prep Comments for METHOD (PREP-PCB-S), SAMPLE (1610258-003A) required Florisil Cleanup Procedure (Using Method No 3620C).

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1610258**

Date Reported: **10/21/2016**

Client: NVL Labs, Inc.

Collection Date: 10/13/2016 10:30:00 AM

Project: 2012-494

Lab ID: 1610258-001

Matrix: Stormwater

Client Sample ID: 101316-MHG-PCB

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 15174		Analyst: WC
Aroclor 1016	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1221	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1232	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1242	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1248	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1254	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1260	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1262	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Aroclor 1268	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Total PCBs	ND	0.00995		µg/L	1	10/20/2016 9:19:00 PM
Surr: Decachlorobiphenyl	84.0	40.8-168		%Rec	1	10/20/2016 9:19:00 PM
Surr: Tetrachloro-m-xylene	102	10-119		%Rec	1	10/20/2016 9:19:00 PM

Analytical Report

Work Order: **1610258**

Date Reported: **10/21/2016**

Client: NVL Labs, Inc.

Collection Date: 10/13/2016 10:30:00 AM

Project: 2012-494

Lab ID: 1610258-002

Matrix: Stormwater

Client Sample ID: 101316-MHG-M

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Method 200.8				Batch ID: 15184		Analyst: TN
Chromium	2.28	0.500		µg/L	1	10/20/2016 2:22:15 PM
Copper	10.3	0.500		µg/L	1	10/20/2016 2:22:15 PM
Lead	3.91	0.500		µg/L	1	10/20/2016 2:22:15 PM
Nickel	6.90	0.500		µg/L	1	10/20/2016 2:22:15 PM
Zinc	64.8	1.50		µg/L	1	10/20/2016 2:22:15 PM

Analytical Report

Work Order: **1610258**

Date Reported: **10/21/2016**

Client: NVL Labs, Inc.

Collection Date: 10/13/2016 10:30:00 AM

Project: 2012-494

Lab ID: 1610258-003

Matrix: Solid

Client Sample ID: 101316-BULK

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polychlorinated Biphenyls (PCB) by EPA 8082				Batch ID: 15189		Analyst: WC
Aroclor 1016	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1221	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1232	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1242	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1248	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1254	0.522	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1260	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1262	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Aroclor 1268	ND	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Total PCBs	0.522	0.180		mg/Kg-dry	1	10/21/2016 3:15:00 PM
Surr: Decachlorobiphenyl	106	30.8-168		%Rec	1	10/21/2016 3:15:00 PM
Surr: Tetrachloro-m-xylene	101	30.1-143		%Rec	1	10/21/2016 3:15:00 PM
Sample Moisture (Percent Moisture)				Batch ID: R32336		Analyst: WF
Percent Moisture	5.39	0.500		wt%	1	10/17/2016 9:05:34 AM

Date: *10/21/2016*

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	MB-15189	SampType:	MBLK	Units:	mg/Kg	Prep Date:	10/20/2016	RunNo:	32480
Client ID:	MBLKS	Batch ID:	15189			Analysis Date:	10/21/2016	SeqNo:	614906

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.100									
Aroclor 1221	ND	0.100									
Aroclor 1232	ND	0.100									
Aroclor 1242	ND	0.100									
Aroclor 1248	ND	0.100									
Aroclor 1254	ND	0.100									
Aroclor 1260	ND	0.100									
Aroclor 1262	ND	0.100									
Aroclor 1268	ND	0.100									
Total PCBs	ND	0.100									
Surr: Decachlorobiphenyl	50.2		50.00		100	30.8	168				
Surr: Tetrachloro-m-xylene	52.4		50.00		105	30.1	143				

Sample ID	LCS1-15189	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/20/2016	RunNo:	32480
Client ID:	LCSS	Batch ID:	15189			Analysis Date:	10/21/2016	SeqNo:	614904

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.02	0.100	1.000	0	102	21.7	138				
Aroclor 1260	0.989	0.100	1.000	0	98.9	20.8	137				
Surr: Decachlorobiphenyl	50.9		50.00		102	30.8	168				
Surr: Tetrachloro-m-xylene	53.4		50.00		107	30.1	143				

Sample ID	LCS2-15189	SampType:	LCS	Units:	mg/Kg	Prep Date:	10/20/2016	RunNo:	32480
Client ID:	LCSS	Batch ID:	15189			Analysis Date:	10/21/2016	SeqNo:	614905

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	0.931	0.100	1.000	0	93.1	32.8	151				
Surr: Decachlorobiphenyl	53.6		50.00		107	30.8	168				
Surr: Tetrachloro-m-xylene	49.4		50.00		98.8	30.1	143				

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID **1610312-001ADUP** SampType: **DUP** Units: **mg/Kg-dry** Prep Date: **10/20/2016** RunNo: **32480**
Client ID: **BATCH** Batch ID: **15189** Analysis Date: **10/21/2016** SeqNo: **614895**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.102						0		30	
Aroclor 1221	ND	0.102						0		30	
Aroclor 1232	ND	0.102						0		30	
Aroclor 1242	ND	0.102						0		30	
Aroclor 1248	ND	0.102						0		30	
Aroclor 1254	ND	0.102						0		30	
Aroclor 1260	ND	0.102						0		30	
Aroclor 1262	ND	0.102						0		30	
Aroclor 1268	ND	0.102						0		30	
Total PCBs	ND	0.102						0		30	
Surr: Decachlorobiphenyl	52.0		51.11		102	30.8	168		0		
Surr: Tetrachloro-m-xylene	52.9		51.11		104	30.1	143		0		

Sample ID **1610312-001AMS** SampType: **MS** Units: **mg/Kg-dry** Prep Date: **10/20/2016** RunNo: **32480**
Client ID: **BATCH** Batch ID: **15189** Analysis Date: **10/21/2016** SeqNo: **614896**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.36	0.101	1.011	0	135	27.1	166				
Aroclor 1260	1.18	0.101	1.011	0	116	20.6	168				
Surr: Decachlorobiphenyl	65.3		50.57		129	30.8	168				
Surr: Tetrachloro-m-xylene	65.4		50.57		129	30.1	143				

Sample ID **1610312-001AMSD** SampType: **MSD** Units: **mg/Kg-dry** Prep Date: **10/20/2016** RunNo: **32480**
Client ID: **BATCH** Batch ID: **15189** Analysis Date: **10/21/2016** SeqNo: **614897**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.06	0.100	1.005	0	106	27.1	166	1.363	24.8	30	
Aroclor 1260	1.23	0.100	1.005	0	123	20.6	168	1.175	4.86	30	
Surr: Decachlorobiphenyl	54.7		50.23		109	30.8	168		0		
Surr: Tetrachloro-m-xylene	54.4		50.23		108	30.1	143		0		

Date: *10/21/2016*

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	**1610312-001AMSD**	SampType:	**MSD**				Units:	**mg/Kg-dry**		Prep Date:	**10/20/2016**		RunNo:	**32480**	
Client ID:	**BATCH**	Batch ID:	**15189**							Analysis Date:	**10/21/2016**		SeqNo:	**614897**	
Analyte			Result	RL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val		%RPD	RPDLimit	Qual

Date: *10/21/2016*

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID	**MB-15174**	SampType:	**MBLK**	Units:	**µg/L**	Prep Date:	**10/19/2016**	RunNo:	**32459**
Client ID:	**MBLKW**	Batch ID:	**15174**			Analysis Date:	**10/20/2016**	SeqNo:	**614419**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0101									
Aroclor 1221	ND	0.0101									
Aroclor 1232	ND	0.0101									
Aroclor 1242	ND	0.0101									
Aroclor 1248	ND	0.0101									
Aroclor 1254	ND	0.0101									
Aroclor 1260	ND	0.0101									
Aroclor 1262	ND	0.0101									
Aroclor 1268	ND	0.0101									
Total PCBs	ND	0.0101									
Surr: Decachlorobiphenyl	102		100.8		101	40.8	168				
Surr: Tetrachloro-m-xylene	75.8		100.8		75.2	10	119				

Sample ID	**LCS1-15174**	SampType:	**LCS**	Units:	**µg/L**	Prep Date:	**10/19/2016**	RunNo:	**32459**
Client ID:	**LCSW**	Batch ID:	**15174**			Analysis Date:	**10/20/2016**	SeqNo:	**614416**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.355	0.0101	1.006	0	35.3	34.9	134				
Aroclor 1260	0.423	0.0101	1.006	0	42.0	33.5	147				
Surr: Decachlorobiphenyl	86.5		100.6		85.9	40.8	168				
Surr: Tetrachloro-m-xylene	42.1		100.6		41.8	10	119				

Sample ID	**LCS2-15174**	SampType:	**LCS**	Units:	**µg/L**	Prep Date:	**10/19/2016**	RunNo:	**32459**
Client ID:	**LCSW**	Batch ID:	**15174**			Analysis Date:	**10/20/2016**	SeqNo:	**614418**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	0.424	0.00993	0.9930	0	42.7	34	121				
Surr: Decachlorobiphenyl	92.2		99.30		92.8	40.8	168				
Surr: Tetrachloro-m-xylene	59.0		99.30		59.4	10	119				

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID **LCS1D-15174** SampType: **LCSD** Units: **µg/L** Prep Date: **10/19/2016** RunNo: **32459**
Client ID: **LCSW02** Batch ID: **15174** Analysis Date: **10/20/2016** SeqNo: **614417**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	0.570	0.00996	0.9960	0	57.2	34.9	134	0.3548	46.5	30	R
Aroclor 1260	0.599	0.00996	0.9960	0	60.1	33.5	147	0.4230	34.4	30	R
Surr: Decachlorobiphenyl	115		99.60		116	40.8	168		0		
Surr: Tetrachloro-m-xylene	80.0		99.60		80.4	10	119		0		

NOTES:
R - High RPD observed, spike recoveries are within range.

Sample ID **1610258-001ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **10/19/2016** RunNo: **32459**
Client ID: **101316-MHG-PCB** Batch ID: **15174** Analysis Date: **10/20/2016** SeqNo: **614413**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0101						0		30	
Aroclor 1221	ND	0.0101						0		30	
Aroclor 1232	ND	0.0101						0		30	
Aroclor 1242	ND	0.0101						0		30	
Aroclor 1248	ND	0.0101						0		30	
Aroclor 1254	ND	0.0101						0		30	
Aroclor 1260	ND	0.0101						0		30	
Aroclor 1262	ND	0.0101						0		30	
Aroclor 1268	ND	0.0101						0		30	
Total PCBs	ND	0.0101						0		30	
Surr: Decachlorobiphenyl	173		100.7		172	40.8	168		0		S
Surr: Tetrachloro-m-xylene	196		100.7		195	10	119		0		S

NOTES:
S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; no further action required.

Date: *10/21/2016*

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Sample Moisture (Percent Moisture)

Sample ID	**1610194-001ADUP**	SampType:	**DUP**		Units:	**wt%**	Prep Date:	**10/17/2016**		RunNo:	**32336**
Client ID:	**BATCH**	Batch ID:	**R32336**				Analysis Date:	**10/17/2016**		SeqNo:	**611704**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	8.78	0.500						8.500	3.27	20	

Date: *10/21/2016*

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID	**MB-15184**	SampType:	**MBLK**	Units:	**µg/L**	Prep Date:	**10/20/2016**	RunNo:	**32445**
Client ID:	**MBLKW**	Batch ID:	**15184**			Analysis Date:	**10/20/2016**	SeqNo:	**614098**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	0.500									
Copper	ND	0.500									
Lead	ND	0.500									
Nickel	ND	0.500									
Zinc	ND	1.50									

Sample ID	**LCS-15184**	SampType:	**LCS**	Units:	**µg/L**	Prep Date:	**10/20/2016**	RunNo:	**32445**
Client ID:	**LCSW**	Batch ID:	**15184**			Analysis Date:	**10/20/2016**	SeqNo:	**614099**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	104	0.500	100.0	0	104	85	115				
Copper	100	0.500	100.0	0	100	85	115				
Lead	48.1	0.500	50.00	0	96.2	85	115				
Nickel	103	0.500	100.0	0	103	85	115				
Zinc	94.5	1.50	100.0	0	94.5	85	115				

Sample ID	**1610255-001ADUP**	SampType:	**DUP**	Units:	**µg/L**	Prep Date:	**10/20/2016**	RunNo:	**32445**
Client ID:	**BATCH**	Batch ID:	**15184**			Analysis Date:	**10/20/2016**	SeqNo:	**614101**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.546	0.500						0.8560	44.1	30	
Copper	3.10	0.500						3.074	0.713	30	
Lead	1.12	0.500						1.154	2.59	30	
Nickel	ND	0.500						0.5495	28.5	30	
Zinc	17.2	1.50						18.80	9.02	30	

Work Order: 1610258
CLIENT: NVL Labs, Inc.
Project: 2012-494

QC SUMMARY REPORT

Total Metals by EPA Method 200.8

Sample ID **1610255-001AMS** SampType: **MS** Units: **µg/L** Prep Date: **10/20/2016** RunNo: **32445**
Client ID: **BATCH** Batch ID: **15184** Analysis Date: **10/20/2016** SeqNo: **614102**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	524	0.500	500.0	0.8560	105	70	130				
Copper	504	0.500	500.0	3.074	100	70	130				
Lead	235	0.500	250.0	1.154	93.4	70	130				
Nickel	499	0.500	500.0	0.5495	99.7	70	130				
Zinc	493	1.50	500.0	18.80	94.8	70	130				

Sample ID **1610255-001AMSD** SampType: **MSD** Units: **µg/L** Prep Date: **10/20/2016** RunNo: **32445**
Client ID: **BATCH** Batch ID: **15184** Analysis Date: **10/20/2016** SeqNo: **614103**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	523	0.500	500.0	0.8560	104	70	130	523.6	0.155	30	
Copper	503	0.500	500.0	3.074	100	70	130	504.4	0.297	30	
Lead	238	0.500	250.0	1.154	94.7	70	130	234.6	1.39	30	
Nickel	502	0.500	500.0	0.5495	100	70	130	499.2	0.642	30	
Zinc	513	1.50	500.0	18.80	98.9	70	130	492.9	4.05	30	

Sample Log-In Check List

Client Name:	**NVL**	Work Order Number:	**1610258**
Logged by:	**Erica Silva**	Date Received:	**10/14/2016 8:55:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	1.5
Sample	2.1

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 10/13/16
Laboratory Project No (internal): 1610258
Page: 1 of 1

Client: NVL LABS
Address: 4708 AURORA AVE N
City, State, Zip: SEATTLE, WA, 98103
Telephone: 206-547-0100 Fax:

Project Name:
Project No: 2012-494
Collected by: MARCUS GLADDEN
Location: 3100 AIRPORT WAY S SEATTLE WA
Report To (PM): MARCUS GLADDEN
PM Email: MARCUS.G@NVLLABS.COM

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

	Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)				Comments
1	101316-MH6-PCB	10/13/16	10:30	SW									X								2x 1L BOTTLES
2	101316-MH6-M	10/13/16	10:30	SW										X	T						5 METALS
3	101316-BULK	10/13/16	10:30	SL									X								
4																					
5																					RL of 0.05 µg/L NEEDED
6																					
7																					
8																					
9																					
10																					

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks: RL of 0.05 µg/L NEEDED for AQUEOUS PCB SAMPLE

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x	10/14/16 8:55	x	10/14/16 0855
Relinquished	Date/Time	Received	Date/Time
x		x	

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

^Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

www.fremontanalytical.com

COC 1.1 - 4.5.16 - 1 of 2

RCLLC 0010236