BB&A ENVIRONMENTAL

EUGENE
32986 Roberts Court, Coburg, OR 97408
P.O. Box 71158, Eugene, OR 97401
(541) 484-9484

PORTLAND
25195 SW Parkway Ave, Suite 207
Wilsonville, OR 97070
(503) 570-9484

November 1, 2011

Guy Barrett, LHG
Southwest Regional Office,
Toxics Cleanup Program
P.O. Box 47775, Olympia, WA 98504-7775

RE: *Groundwater Monitoring Update Report*

FOR: L&C Deli (Former Vista Mart)
Facility ID #1035
13908 NE 20th Avenue; Vancouver, WA 98686

Dear Mr. Barrett:

The purpose of this update letter report is to document monitoring well sampling and decommissioning activities conducted at the *subject property*, identified as L&C Deli (Former Vista Mart), Facility ID #1035, located at 13908 NE 20th Avenue, in Vancouver, Washington (See **Attachment A** for Site Location Map and Site Plan).

1.0 Monitoring Well MW3 Sampling and Decommissioning

1.1 Monitoring Well MW3 Sampling and Analytical Results

As part of the Washington State Department of Transportation (WSDOT) Salmon Creek Interchange Project a new storm sewer line was proposed to be installed in August 2011, in the location of monitoring well MW3, located in the right-of-way of intersecting NE 20th Avenue and NE 139th Street. Prior to removal of monitoring well MW3, the groundwater sampling schedule and proposed monitoring well decommissioning were discussed with Mr. Guy Barrett, project manager for the Washington Department of Ecology (Ecology). Mr. Barrett approved the early quarterly sampling event conducted at monitoring well MW3 (the previous sampling event had been conducted on June 21st, 2011).

On August 3, 2011, prior to its scheduled decommissioning, monitoring well MW3 was sampled. Prior to sampling groundwater, BB&A collected depth to groundwater measurements from monitoring well MW3 using an electronic water level probe, accurate to 0.01 feet. On August 3, 2011, groundwater was measured at 6.84 feet below the top of the monitoring well casing. Prior to sampling groundwater, well over three (3) well casing volumes were purged. On August 3, 2011, the necessary well casing purge volume was calculated at 1.58 gallons[1]. Approximately three (3) gallons of groundwater was purged prior to sampling.

Purging and sampling of groundwater was conducted using a peristaltic pump with new polyethylene tubing at each well. During sampling, the peristaltic pump was set at its lowest flow setting (approximately 0.1 to 0.4 liters per minute), and groundwater pumped directly into laboratory-supplied glassware with appropriate sample preservatives. Each groundwater sample was given a unique identification, logged onto a formal chain-of-custody form, placed on ice in a cooler, and delivered to Test America Analytical Laboratory in Beaverton, Oregon, for laboratory analysis of gasoline-range total petroleum hydrocarbons (TPH) per Northwest Method NWTPH-Gx; and benzene, toluene, ethylbenzene, and xylene (BTEX) compounds per EPA Method 8021B. Groundwater analytical results from monitoring well MW3, during sampling events conducted in 2011, are provided on **Table 1**.

Laboratory analytical results of groundwater from monitoring well MW3 did not detect gasoline-range TPH or BTEX compounds above laboratory method-reporting limits (MRLs) during each of the three (3) sampling events conducted in 2011. As such, monitoring well MW3 is in compliance with Model Toxics Control Act (MTCA) Method A cleanup levels for unrestricted land use. The complete laboratory report for August 3, 2011, is provided as **Attachment B**.

Table 1: Groundwater Analytical Results

UNITS: Groundwater Concentrations in micrograms per liter (µg/L), or parts per billion (ppb).
ND: Not Detected above laboratory method-reporting limits (MRLs).
B: MTCA Method A Cleanup Level for gasoline-range TPH in groundwater is 800 ppb when benzene is detected, and 1,000 ppb when benzene is not detected.

CONTAMINANTS OF CONCERN	MONITORING WELL MW3			MTCA Method A Cleanup Level for Unrestricted Land Use
	2/07/11	6/21/11	8/03/11	
Gasoline-Range TPH	ND (<80)	ND (<80)	ND (<80)	800 / 1,000[B]
Benzene	ND (<0.5)	ND (<0.5)	ND (<0.5)	5.0
Toluene	ND (<0.5)	ND (<0.5)	ND (<0.5)	1,000
Ethylbenzene	ND (<0.5)	ND (<0.5)	ND (<0.5)	700
Xylenes	ND (<1.0)	ND (<1.0)	ND (<1.0)	1,000

1 Purge Volume (three well casing volumes) = Area of well casing ($p\ r^2$) x Height of Water Column (ft) x 7.48 gal/ft^3 x 3 = $p\ (0.083)^2$ x 3.26 ft (H) x 7.48 gal /ft^3 x 3 = 1.58 gallons; where radius (r) = 0.083 ft (1 inch), and Height of Water Column = Total Well Depth (10.1 ft) - Depth to Water (6.84 ft).

1.2 Monitoring Well MW3 Decommissioning

On August 8, 2011, as part of the WSDOT Salmon Creek Interchange Project, monitoring well MW3 was decommissioned by excavation during installation of a new storm sewer line. Notification and approval was received by the Ecology project manager prior to decommissioning monitoring well MW3. The decommissioning (by excavation) was witnessed by a Washington licensed water well driller. The entire monitoring well, sand pack and bentonite / concrete well seal was removed during the excavation. Upon removal, a monitoring well abandonment report was submitted to the Washington Department of Water Resources.

2.0 Groundwater Monitoring Well MW5A Sampling and Analytical Results

As required by Washington Department of Ecology (Ecology) Enforcement Order #DE 92TC-S112, the *205 Group* (a consortium) and *Vancouver Oil* were required to install a groundwater monitoring well east of the *subject property*, as close as possible to the former location of monitoring well MW5. The intersection has been widened as part of the WSDOT Salmon Creek Interchange Project, and on July 12, 2011, replacement groundwater monitoring well MW5A was installed downgradient of the former L&C Deli / Vista Mart, in the sidewalk at the northeast corner of intersecting NE 20th Avenue and NE 139th Street.

Replacement monitoring well MW5A was initially sampled on the day of installation (July 12, 2011). Laboratory analysis of groundwater from monitoring well MW5A on July 12, 2011, did not detect gasoline-range TPH or BTEX compounds above laboratory MRLs (see **Table 2** below).

On October 17, 2011, replacement groundwater monitoring well MW5A was purged and sampled for the second time. Prior to sampling groundwater, over three (3) well casing volumes were purged. On October 17, 2011, the necessary well casing purge volume was calculated at 2.46 gallons. Approximately 2.5 gallons of groundwater was purged prior to sampling. Groundwater was noted to be clear during purging. Purging and sampling of groundwater was conducted using a peristaltic pump with new polyethylene tubing. During sampling, the peristaltic pump was set at its lowest flow setting (approximately 0.1 to 0.4 liters per minute), and groundwater pumped directly into laboratory-supplied glassware with appropriate sample preservatives. The groundwater sample was given a unique identification, logged onto a formal chain-of-custody form, placed on ice in a cooler, and delivered to Test America Analytical Laboratory in Beaverton, Oregon, for laboratory analysis of gasoline-range TPH per Northwest Method NWTPH-Gx; and BTEX compounds per EPA Method 8260B. Laboratory analytical results of groundwater from monitoring well MW5A did not detect gasoline-range TPH or BTEX compounds above laboratory MRLs (see **Table 2** below). The complete laboratory report is provided in **Attachment B**.

Table 2: Groundwater Analytical Results – Monitoring Well MW5A

UNITS: Groundwater Concentrations in micrograms per liter (µg/L), or parts per billion (ppb).
ND: Not Detected above laboratory method-reporting limits (MRLs).
B: MTCA Method A Cleanup Level for gasoline-range TPH in groundwater is 800 ppb when benzene is detected, and 1,000 ppb when benzene is not detected.

CONTAMINANTS OF CONCERN	MONITORING WELL MW5A		MTCA Method A Cleanup Level for Unrestricted Land Use
	7/12/11	10/17/11	
Gasoline-Range TPH	ND (<80)	ND (<0.2)	800 / 1,000[B]
Benzene	ND (<0.5)	ND (<0.5)	5.0
Toluene	ND (<0.5)	ND (<0.5)	1,000
Ethylbenzene	ND (<0.5)	ND (<0.5)	700
Xylenes	ND (<1.0)	ND (<1.0)	1,000

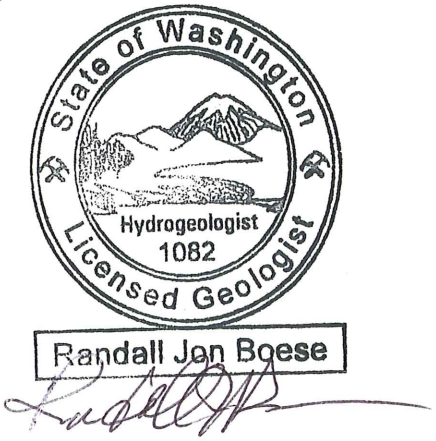
3.0 Future Groundwater Sampling

As required by the Enforcement Order, three (3) quarterly groundwater sampling events are required from monitoring well MW3 and replacement monitoring well MW5A. Groundwater samples are to be analyzed for gasoline-range TPH and BTEX compounds. Three (3) quarterly groundwater monitoring events have been completed at monitoring well MW3; and two (2) sampling events have been completed at replacement monitoring well MW5A. Gasoline-range TPH and BTEX compounds have not been detected during any of these groundwater monitoring events. The final quarterly groundwater monitoring event for monitoring well MW5A is scheduled for January 2012. If all contaminants are at or below MTCA Method A cleanup levels for unrestricted land use, then the monitoring well can be decommissioned (i.e., removed), and the sidewalk repaired to meet surrounding sidewalk slope, elevation, and texture.

Should you have any questions regarding this update letter, please do not hesitate to contact us.

Sincerely,
BB&A Environmental

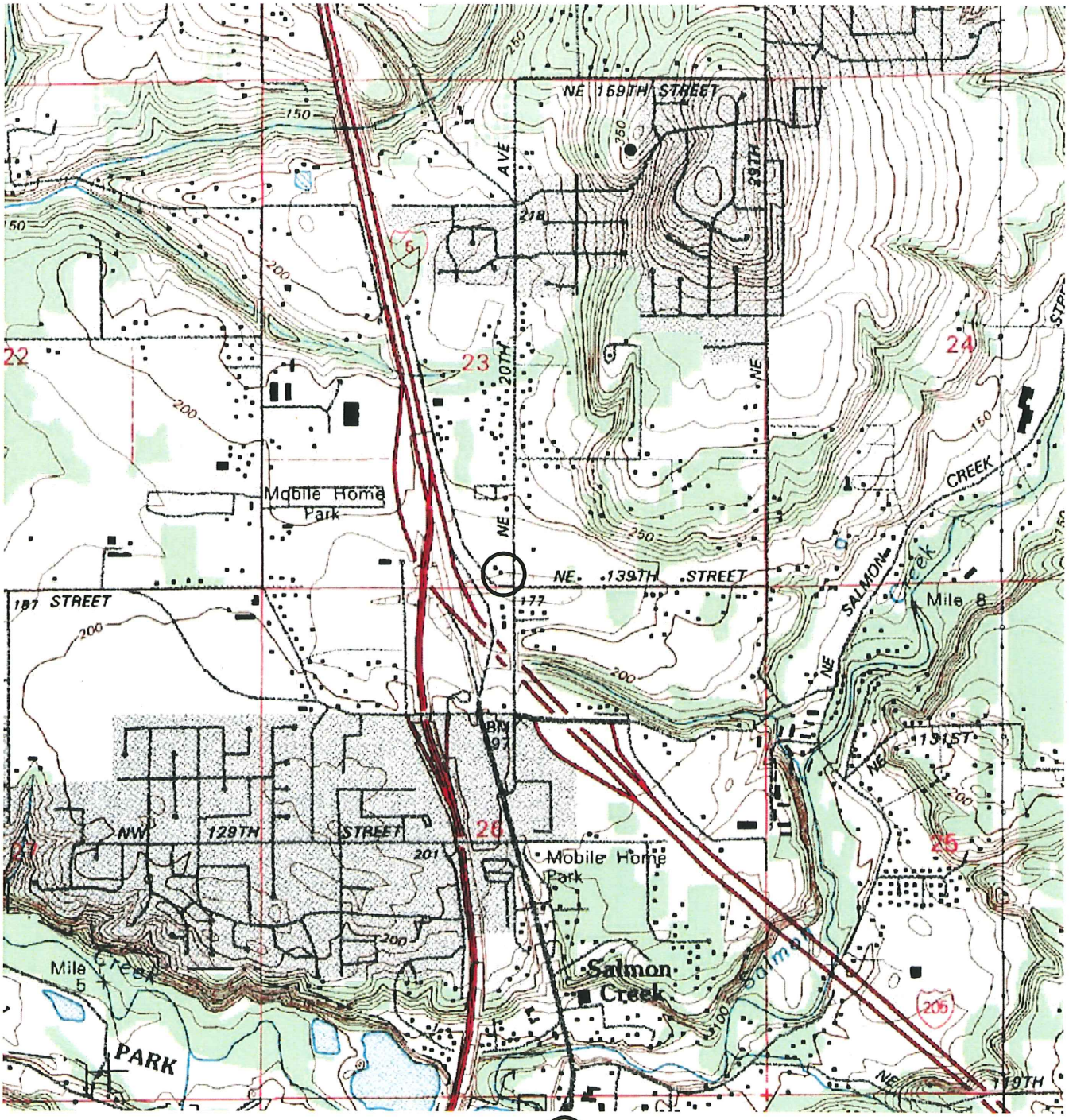
Stephen Omo, RG
Project Manager



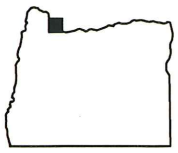
Randall J. Boese, RG
President / Principal

ATTACHMENT A

Figures



SITE LOCATION



OREGON

FIGURE 1

SOURCE: USGS TOPOGRAPHIC QUADRANGLE
SERIES: 7.5 MINUTES, SALMON CREEK, OR

FORMER L & C DELI/VISTA MART, 13908 NE 20th Avenue, Vancouver, WA

SITE VICINITY MAP

BB&A ENVIRONMENTAL

EUGENE OFFICE
32986 Roberts Ct.
Coburg, OR
ph: 541.484.9484

PORTLAND OFFICE
25195 SW Parkway Ave.,#207
Wilsonville, OR
ph: 503.570.9484

www.BBAENV.COM

Job Code:	VOC02ISC.11UC
CADD File:	VOC02ISC.11UC
Scale:	AS SHOWN
Drawn:	KATHRYN DAVIS DESIGNS
Checked:	STEVE OMO
Date:	02/10/11

N

SITE LOCATION

BB&A ENVIRONMENTAL

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32986 Roberts Ct.
Coburg, OR
ph: 541.484.9484

PORTLAND OFFICE
25195 SW Parkway Ave.,#207
Wilsonville, OR
ph: 503.570.9484

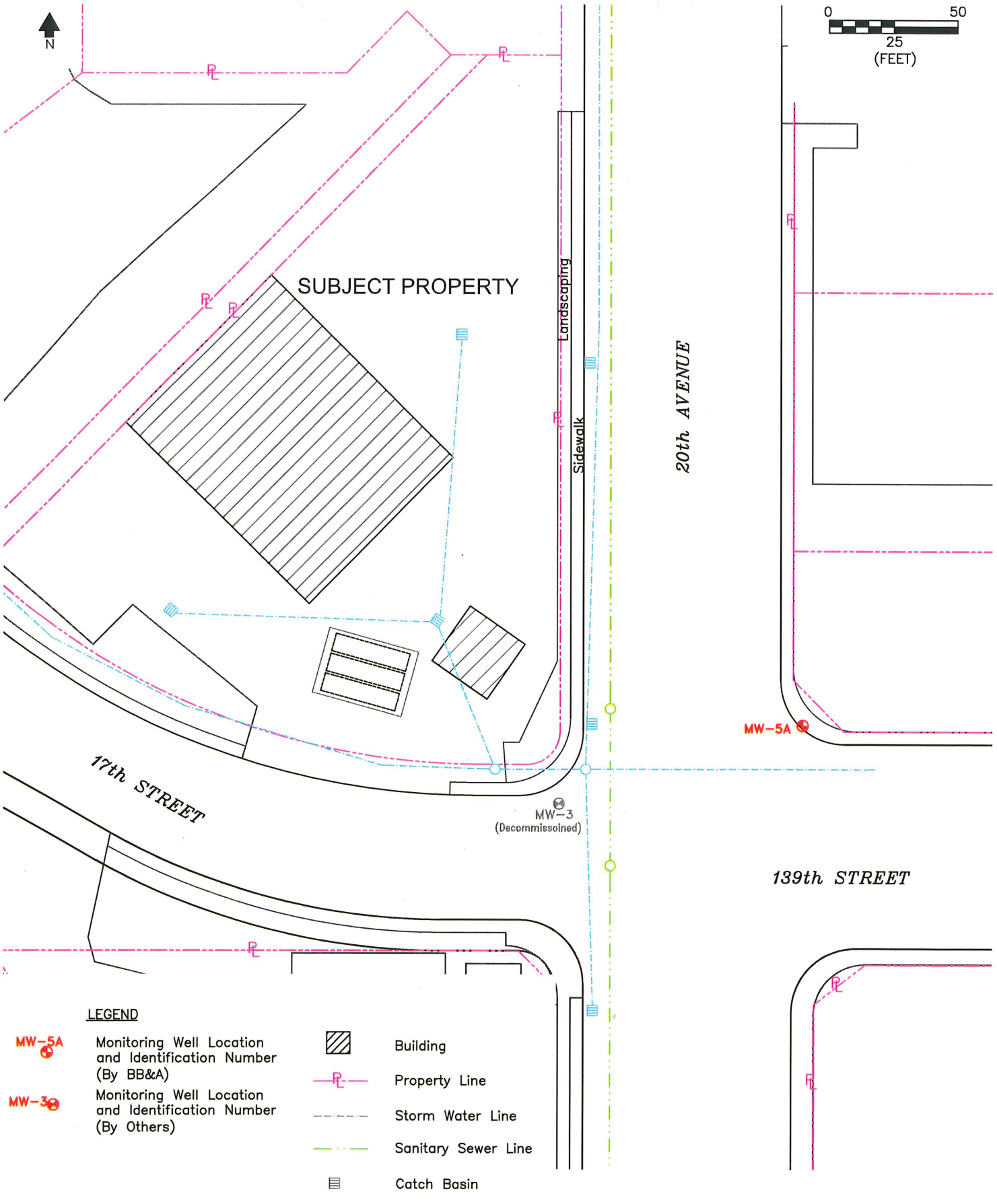
www.BBAENV.COM

COMMERCIAL PROPERTY
AERIAL

13908 NE 20th AVENUE, VANCOUVER, WA

PROJECT CODE:	DATE:	SCALE:	DRAWN:	CHECKED:
VOC01ISC.11UC	02/10/11	AS SHOWN	K.D.DESIGNS	STEVE OMO

FIGURE #: 2



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www.BBAENV.COM

FORMER L & C DELI/VISTA MART
SITE PLAN
13908 NE 20th AVENUE, VANCOUVER, WA

FIGURE #: 3

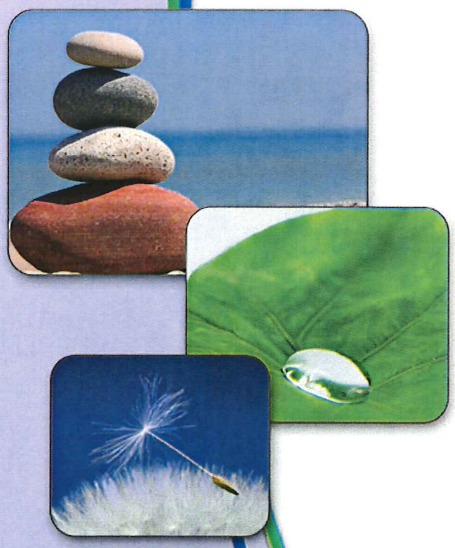
PROJECT CODE:	DATE:	SCALE:	DRAWN:	CHECKED:
VOC02ISC.11UC	11/01/11	1"=50'	K.D.DESIGNS	STEVE OMO

ATTACHMENT B

Laboratory Reports and Chain-of-Custody Documents

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Portland
9405 SW Nimbus Ave.
Beaverton, OR 97008
Tel: (503) 906-9200

TestAmerica Job ID: PUH0095
Client Project/Site: VOC02ISC.11UC
Client Project Description: Vancouver Oil

For:
BB & A Environmental - Wilsonville
25195 SW Parkway Ave Suite 207
Wilsonville, OR 97070

Attn: Steve Omo

Authorized for release by:
08/10/2011 03:41:35 PM

Darrell Auvil
Project Manager
darrell.auvil@testamericainc.com

Table of Contents

Sample Summary

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUH0095

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
PUH0095-01	VOC02-MW-3	Water	08/03/11 09:03	08/03/11 10:00

Qualifiers

GC Volatiles

Qualifier	Qualifier Description
QP	Hydrocarbon result partly due to individual peak(s) in quantitation range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUH0095

Client Sample ID: VOC02-MW-3
Date Collected: 08/03/11 09:03
Date Received: 08/03/11 10:00

Lab Sample ID: PUH0095-01
Matrix: Water

Method: NW-G, 8021B - Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.500		ug/l		08/04/11 09:00	08/05/11 01:50	1.00
Toluene	ND		0.500		ug/l		08/04/11 09:00	08/05/11 01:50	1.00
Ethylbenzene	ND		0.500		ug/l		08/04/11 09:00	08/05/11 01:50	1.00
Xylenes (total)	ND		1.00		ug/l		08/04/11 09:00	08/05/11 01:50	1.00
Gasoline Range Hydrocarbons	ND		80.0		ug/l		08/04/11 09:00	08/05/11 01:50	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*89.4*		*50 - 150*	*08/04/11 09:00*	*08/05/11 01:50*	*1.00*
4-BFB (PID)	*85.4*		*70 - 130*	*08/04/11 09:00*	*08/05/11 01:50*	*1.00*

Method: NW-G, 8021B - Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B

Lab Sample ID: 11H0134-BLK1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11H0134_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.500		ug/l		08/04/11 09:00	08/04/11 11:50	1.00
Toluene	ND		0.500		ug/l		08/04/11 09:00	08/04/11 11:50	1.00
Ethylbenzene	ND		0.500		ug/l		08/04/11 09:00	08/04/11 11:50	1.00
Xylenes (total)	ND		1.00		ug/l		08/04/11 09:00	08/04/11 11:50	1.00
Gasoline Range Hydrocarbons	ND		80.0		ug/l		08/04/11 09:00	08/04/11 11:50	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*90.5*		*50 - 150*	*08/04/11 09:00*	*08/04/11 11:50*	*1.00*
4-BFB (PID)	*86.9*		*70 - 130*	*08/04/11 09:00*	*08/04/11 11:50*	*1.00*

Lab Sample ID: 11H0134-BS1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11H0134_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			20.0	22.4		ug/l		112	70 - 130		
Toluene			20.0	21.2		ug/l		106	76 - 129		
Ethylbenzene			20.0	20.6		ug/l		103	77 - 130		
Xylenes (total)			60.0	60.9		ug/l		102	76 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (PID)	*90.8*		*70 - 130*

Lab Sample ID: 11H0134-BS2
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11H0134_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Hydrocarbons			500	531		ug/l		106	70 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*97.5*		*50 - 150*

Lab Sample ID: 11H0134-BSD1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11H0134_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	22.6		ug/l		113	70 - 130	1.17	20
Toluene			20.0	21.1		ug/l		105	76 - 129	0.279	20
Ethylbenzene			20.0	20.6		ug/l		103	77 - 130	0.111	20
Xylenes (total)			60.0	60.8		ug/l		101	76 - 130	0.174	20

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (PID)	*88.2*		*70 - 130*

Method: NW-G, 8021B - Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B (Continued)

Lab Sample ID: 11H0134-BSD2
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11H0134_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			500	538		ug/l		108	70 - 130	1.40	40

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*96.7*		*50 - 150*

Lab Sample ID: 11H0134-MS1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 11H0134_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene	31600		4000	34900		ug/l		83.1	65 - 144		
Toluene	12000		4000	15400		ug/l		84.9	68 - 139		
Ethylbenzene	604		4000	4620		ug/l		100	69 - 144		
Xylenes (total)	4170		12000	15900		ug/l		97.5	60 - 144		

Surrogate	*Matrix Spike % Recovery*	*Matrix Spike Qualifier*	*Limits*
4-BFB (PID)	*89.4*		*70 - 130*

Lab Sample ID: 11H0134-MSD1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 11H0134_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	31600		4000	34900		ug/l		82.5	65 - 144	0.0670	20
Toluene	12000		4000	15400		ug/l		84.8	68 - 139	0.040 3	20
Ethylbenzene	604		4000	4560		ug/l		98.9	69 - 144	1.34	20
Xylenes (total)	4170		12000	15700		ug/l		96.3	60 - 144	0.924	20

Surrogate	*Matrix Spike Dup % Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
4-BFB (PID)	*88.1*		*70 - 130*

Lab Sample ID: 11H0134-DUP1
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 11H0134_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	49500			48900	QP	ug/l				1.21	40

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*93.0*		*50 - 150*

Method: NW-G, 8021B - Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B (Continued)

Lab Sample ID: 11H0134-DUP2
Matrix: Water
Analysis Batch: U002338

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 11H0134_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	48900			49500	QP	ug/l				1.24	40

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*93.5*		*50 - 150*

Certification Summary

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUH0095

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210 [X]
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: PUH0095

CLIENT: BB&A Environmental
REPORT TO: Attn: rsbergeson@bbaenv.com
ADDRESS: CC: Steve Orro
P.O. Box 71158, Eugene, OR 97401
PHONE: 541-484-9484 FAX: 541-484-4188
PROJECT NAME: Vancouver Oil
PROJECT NUMBER: VOC02ISC.11WC
SAMPLED BY: RLB

INVOICE TO:
BB&A Environmental
P.O. Box 71158
Eugene, OR 97401
P.O. NUMBER:

TURNAROUND REQUEST
In Business Days*
Organic & Inorganic Analyses: 10 (STD.) 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 (STD.) 4 3 2 1 <1
OTHER Specify:
*Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE

REQUESTED ANALYSES: BTEX + GX (8021B)

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	BTEX + GX (8021B)												MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	VOC02-MW-3	8-3-11/0903	✓												W	6		
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

RELEASED BY: [signature]
PRINT NAME: Robert L. Bozo FIRM: BB&A DATE: 8-3-11 TIME: 1000
RECEIVED BY: [signature]
PRINT NAME: KAREN WILSON FIRM: TA-P DATE: 8-3-11 TIME: 1000
RELEASED BY:
PRINT NAME: FIRM: DATE: TIME:
RECEIVED BY:
PRINT NAME: FIRM: DATE: TIME:
ADDITIONAL REMARKS:
TEMP: 17.0°C
PAGE OF

COC REV 09/2004

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Portland Sample Control Checklist

Work Order #: PVH0095 **Date/Time Received:** 8-3-11 1000
Client Name: BBA
Project Name:
Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐HI ☐OTHER

Unpacking Checks:
Cooler (s): 1
Temperature (s): 17.1 °C
Digi #1 ☐ **Digi #2** ☐ **IR Gun** ☒ (☐Plastic ☒Glass)
Raytek ☐ (☐Plastic ☐Glass)
Ice used: (circle one) GEL LOOSE BLUE NONE OTHER: _____ **Initials:** _____

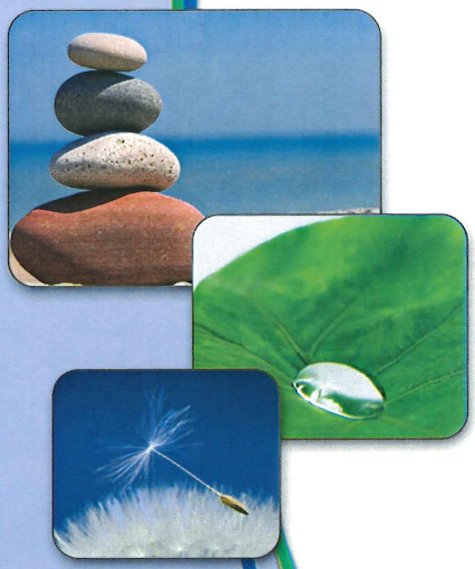
Temperature out of Range:
__Not enough or No Ice
__Ice Melted
☒W/in 4 Hrs of collection
__Ice Not Needed
__ Other:_____

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no and ESI client, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD. Along with "received by" & "relinquished by" signatures with date & time?
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Sampler name/signature documented on COC?
	☒	☐	7. Proper Container and preservatives used? If no, document on NOD.
☒	☐	☐	8. pH for HN03/ESI samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	9. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	10. HF Dilution required?
	☒	☐	11. Sufficient volume provided for all analysis and requested MS/MSD? If no, document on NOD and consult PM before proceeding.
	☒	☐	12. Did chain of custody agree with samples received? If no, document on NOD.
☐	☒	☐	13. Were VOA samples received without headspace?
	☐	☒	14. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	15. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	16. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	17. Are analyses with short holding times received in hold?
	☒	☐	18. Were special log- in instructions read and followed?

Checklist Reviewed: **Log-in initials:** PSS **Labeler initials:** PSS

TestAmerica Wilso

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Portland
9405 SW Nimbus Ave.
Beaverton, OR 97008
Tel: (503) 906-9200

TestAmerica Job ID: PUJ0684
Client Project/Site: VOC02ISC.11UC
Client Project Description: Vancouver Oil

For:
BB & A Environmental - Wilsonville
25195 SW Parkway Ave Suite 207
Wilsonville, OR 97070

Attn: Steve Omo

Authorized for release by:
10/31/2011 03:41:03 PM

Darrell Auvil
Project Manager
darrell.auvil@testamericainc.com

Table of Contents

Sample Summary

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUJ0684

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
PUJ0684-01	VOC02-MW-5A	Water	10/17/11 09:16	10/19/11 10:35

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUJ0684

Client Sample ID: VOC02-MW-5A
Date Collected: 10/17/11 09:16
Date Received: 10/19/11 10:35

Lab Sample ID: PUJ0684-01
Matrix: Water

Method: EPA 8260B - BTEX Compounds per EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200		ug/l		10/19/11 09:31	10/19/11 18:19	1.00
Toluene	ND		0.500		ug/l		10/19/11 09:31	10/19/11 18:19	1.00
Ethylbenzene	ND		0.500		ug/l		10/19/11 09:31	10/19/11 18:19	1.00
Xylenes (total)	ND		1.00		ug/l		10/19/11 09:31	10/19/11 18:19	1.00
o-Xylene	ND		1.00		ug/l		10/19/11 09:31	10/19/11 18:19	1.00
m,p-Xylene	ND		2.00		ug/l		10/19/11 09:31	10/19/11 18:19	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*101*		*80 - 120*	*10/19/11 09:31*	*10/19/11 18:19*	*1.00*
1,2-DCA-d4	*98.1*		*80 - 120*	*10/19/11 09:31*	*10/19/11 18:19*	*1.00*
Toluene-d8	*104*		*80 - 120*	*10/19/11 09:31*	*10/19/11 18:19*	*1.00*
4-BFB	*102*		*80 - 120*	*10/19/11 09:31*	*10/19/11 18:19*	*1.00*

Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		80.0		ug/l		10/24/11 08:58	10/24/11 16:37	1.00

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*108*		*50 - 150*	*10/24/11 08:58*	*10/24/11 16:37*	*1.00*

Method: EPA 8260B - BTEX Compounds per EPA Method 8260B

Lab Sample ID: 11J0580-BLK1
Matrix: Water
Analysis Batch: 11J0580

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11J0580_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200		ug/l		10/19/11 09:00	10/19/11 12:51	1.00
Toluene	ND		0.500		ug/l		10/19/11 09:00	10/19/11 12:51	1.00
Ethylbenzene	ND		0.500		ug/l		10/19/11 09:00	10/19/11 12:51	1.00
Xylenes (total)	ND		1.00		ug/l		10/19/11 09:00	10/19/11 12:51	1.00
o-Xylene	ND		1.00		ug/l		10/19/11 09:00	10/19/11 12:51	1.00
m,p-Xylene	ND		2.00		ug/l		10/19/11 09:00	10/19/11 12:51	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane	*91.2*		*80 - 120*	*10/19/11 09:00*	*10/19/11 12:51*	*1.00*
1,2-DCA-d4	*93.4*		*80 - 120*	*10/19/11 09:00*	*10/19/11 12:51*	*1.00*
Toluene-d8	*98.6*		*80 - 120*	*10/19/11 09:00*	*10/19/11 12:51*	*1.00*
4-BFB	*98.2*		*80 - 120*	*10/19/11 09:00*	*10/19/11 12:51*	*1.00*

Lab Sample ID: 11J0580-BS1
Matrix: Water
Analysis Batch: 11J0580

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11J0580_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Benzene			20.0	19.0		ug/l		95.0	80 - 120		
Toluene			20.0	19.5		ug/l		97.6	80 - 125		
Ethylbenzene			20.0	19.4		ug/l		96.8	80 - 130		
Xylenes (total)			60.0	58.1		ug/l		96.8	80 - 135		
o-Xylene			20.0	19.5		ug/l		97.4	80 - 130		
m,p-Xylene			40.0	38.6		ug/l		96.4	80 - 135		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane	*98.2*		*80 - 120*
1,2-DCA-d4	*97.2*		*80 - 120*
Toluene-d8	*102*		*80 - 120*
4-BFB	*99.0*		*80 - 120*

Lab Sample ID: 11J0580-BSD1
Matrix: Water
Analysis Batch: 11J0580

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11J0580_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene			20.0	17.5		ug/l		87.6	80 - 120	8.11	25
Toluene			20.0	17.6		ug/l		87.9	80 - 125	10.5	25
Ethylbenzene			20.0	17.8		ug/l		89.2	80 - 130	8.22	25
Xylenes (total)			60.0	52.7		ug/l		87.9	80 - 135	9.62	25
o-Xylene			20.0	17.8		ug/l		88.8	80 - 130	9.29	25
m,p-Xylene			40.0	35.0		ug/l		87.4	80 - 135	9.79	25

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
Dibromofluoromethane	*98.3*		*80 - 120*
1,2-DCA-d4	*97.2*		*80 - 120*
Toluene-d8	*97.8*		*80 - 120*
4-BFB	*97.9*		*80 - 120*

Method: NW TPH-Gx - Gasoline Hydrocarbons per NW TPH-Gx Method

Lab Sample ID: 11J0710-BLK1
Matrix: Water
Analysis Batch: 11J0710

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 11J0710_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		80.0		ug/l		10/24/11 08:58	10/24/11 11:28	1.00

Surrogate	*Blank % Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-BFB (FID)	*105*		*50 - 150*	*10/24/11 08:58*	*10/24/11 11:28*	*1.00*

Lab Sample ID: 11J0710-BS1
Matrix: Water
Analysis Batch: 11J0710

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 11J0710_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Gasoline Range Hydrocarbons			500	589		ug/l		118	70 - 130		

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-BFB (FID)	*108*		*50 - 150*

Lab Sample ID: 11J0710-BSD1
Matrix: Water
Analysis Batch: 11J0710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 11J0710_P

Analyte			Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			500	601		ug/l		120	70 - 130	2.11	35

Surrogate	*LCS Dup % Recovery*	*LCS Dup Qualifier*	*Limits*
4-BFB (FID)	*113*		*50 - 150*

Lab Sample ID: 11J0710-DUP1
Matrix: Water
Analysis Batch: 11J0710

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 11J0710_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	240			227		ug/l				5.33	35

Surrogate	*Duplicate % Recovery*	*Duplicate Qualifier*	*Limits*
4-BFB (FID)	*109*		*50 - 150*

Certification Summary

Client: BB & A Environmental - Wilsonville
Project/Site: VOC02ISC.11UC

TestAmerica Job ID: PUJ0684

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Portland	Alaska	Alaska UST	10	UST-012
TestAmerica Portland	Alaska	State Program	10	OR00040
TestAmerica Portland	California	State Program	9	2597
TestAmerica Portland	Oregon	NELAC	10	OR100021
TestAmerica Portland	USDA	USDA		P330-11-00092
TestAmerica Portland	Washington	State Program	10	C586

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica
ANALYTICAL TESTING CORPORATION

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210
11922 E. First Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290
9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210 ☒
2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

CHAIN OF CUSTODY REPORT

Work Order #: PUJ0684

CLIENT: BB&A Environmental
REPORT TO: Attn: rsbergeson@bbaenv.com
ADDRESS: CC: Steve Dmo
P.O. Box 71158, Eugene, OR 97401
PHONE: 541-484-9484 FAX: 541-484-4188
PROJECT NAME: Vancouver Oil Co.
PROJECT NUMBER: VOC02ISC.11LC
SAMPLED BY: RLB

INVOICE TO:
BB&A Environmental
P.O. Box 71158
Eugene, OR 97401
P.O. NUMBER:

TURNAROUND REQUEST
In Business Days *
Organic & Inorganic Analyses: 10 (STD.) 7 5 4 3 2 1 <1
Petroleum Hydrocarbon Analyses: 5 (STD.) 4 3 2 1 <1
OTHER Specify:
* Turnaround Requests less than standard may incur Rush Charges.

PRESERVATIVE
REQUESTED ANALYSES

	CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	BTEX 8260	NWTPH-GX												MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1	VOC02-MW-5A	10-17-11 / 0916	✓	✓												W	5		
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

RELEASED BY: [signature] PRINT NAME: [signature] FIRM: BB&A	DATE: 10-17-11 TIME: 1415	RECEIVED BY: [signature] PRINT NAME: BOB F FIRM: TAP	DATE: 10/18/11 TIME: 10:15
RELEASED BY: [signature] PRINT NAME: BOB F FIRM: TAP	DATE: 10/19/11 TIME: 10:35	RECEIVED BY: PRINT NAME: KAREN WILSON FIRM: TA-P	DATE: 10-19-11 TIME: 10:35

ADDITIONAL REMARKS:

TEMP: 0.2°C PAGE OF

COC REV 09/2004

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Portland Sample Control Checklist

Work Order #: PVJ0684 **Date/Time Received:** 10-19-11 10:35
Client Name: BBA
Project Name: Vacouver Oil
Time Zone:
☐EDT/EST ☐CDT/CST ☐MDT/MST ☒PDT/PST ☐AK ☐HI ☐OTHER

Unpacking Checks:
Cooler (s): 1
Temperature (s): 0.2°C
Digi #1 ☐ Digi #2 ☐ IR Gun ☒ (☐Plastic ☒Glass)
Raytek ☐ (☐Plastic ☐Glass)
Ice used: (circle one) GEL LOOSE BLUE NONE OTHER: _____ Initials:

Temperature out of Range:
__Not enough or No Ice
__Ice Melted
__W/in 4 Hrs of collection
__Ice Not Needed
__ Other:

N/A	Yes	No	
☒	☐	☐	1. If ESI client, were temp blanks received? If no, document on NOD.
☒	☐	☐	2. Cooler Seals intact? (N/A if hand delivered) if no and ESI client, document on NOD.
	☒	☐	3. Chain of Custody present? If no, document on NOD. Along with "received by" & "relinquished by" signatures with date & time?
	☒	☐	4. Bottles received intact? If no, document on NOD.
	☒	☐	5. Sample is not multiphasic? If no, document on NOD.
	☒	☐	6. Sampler name/signature documented on COC?
	☒	☐	7. Proper Container and preservatives used? If no, document on NOD.
☒	☐	☐	8. pH for HN03/ESI samples checked and meet requirements? If no, document on NOD.
☒	☐	☐	9. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
☒	☐	☐	10. HF Dilution required?
	☒	☐	11. Sufficient volume provided for all analysis and requested MS/MSD? If no, document on NOD and consult PM before proceeding.
	☒	☐	12. Did chain of custody agree with samples received? If no, document on NOD.
☐	☒	☐	13. Were VOA samples received without headspace?
	☐	☒	14. Did samples require preservation with sodium thiosulfate?
☒	☐	☐	15. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
☒	☐	☐	16. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
☒	☐	☐	17. Are analyses with short holding times received in hold?
	☒	☐	18. Were special log- in instructions read and followed?

Checklist Reviewed: **Log-in initials:** **Labeler initials:**