

RECEIVED

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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



February 27, 2012

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 summarize monitoring well sampling 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 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 Washington Department of Transportation (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 20<sup>th</sup> Avenue and NE 139<sup>th</sup> Street.

Per the requirements of Enforcement Order #DE 92TC-S112, replacement monitoring well MW5A was initially sampled on the day of installation (July 12, 2011) for gasoline-range total petroleum hydrocarbons (TPH) per Northwest Method NWTPH-Gx, and benzene, toluene, ethylbenzene and xylene (BTEX) compounds per EPA Method 8260B. Laboratory analysis of groundwater from

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monitoring well MW5A on July 12, 2011, did not detect gasoline-range TPH or BTEX compounds above laboratory MRLs (see **Table 2**). On October 17, 2011, replacement monitoring well MW5A was purged and sampled for the second time. Laboratory analysis of groundwater from monitoring well MW5A on October 17, 2011, did not detect gasoline-range TPH or BTEX compounds above laboratory MRLs (see **Table 2**).

On January 4, 2012, replacement groundwater monitoring well MW5A was purged and sampled for the third and final time. Prior to sampling groundwater, over three (3) well casing volumes were purged. On January 4, 2012, the necessary well casing purge volume was calculated at 2.49 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	01/04/12	
Gasoline-Range TPH	ND (<80)	ND (<0.2)	ND (<0.2)	800 / 1,000 <sup>B</sup>
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

## 2.0 Enforcement Order Compliance

Enforcement Order #DE 92TC-S112 required three (3) quarterly groundwater sampling events from monitoring well MW3 and replacement monitoring well MW5A, with laboratory analysis for gasoline-range TPH and BTEX compounds. Three (3) quarterly groundwater monitoring events have been completed at monitoring well MW3 and replacement monitoring well MW5A. Gasoline-range TPH and BTEX compounds were not detected in groundwater from either monitoring well during any of

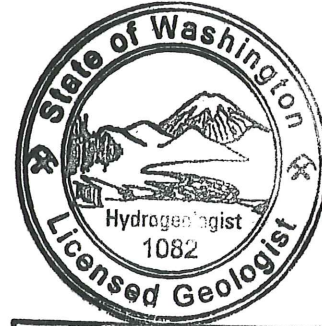
the three (3) groundwater monitoring events. As such, groundwater from monitoring wells MW3 and MW5A meets MTCA Method A cleanup levels for unrestricted land use. It is recommended that monitoring well MW5A be decommissioned (i.e., removed), and the sidewalk repaired to meet surrounding sidewalk slope, elevation, and texture. A no further action (NFA) determination is requested for groundwater at this site.

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



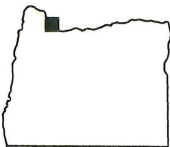
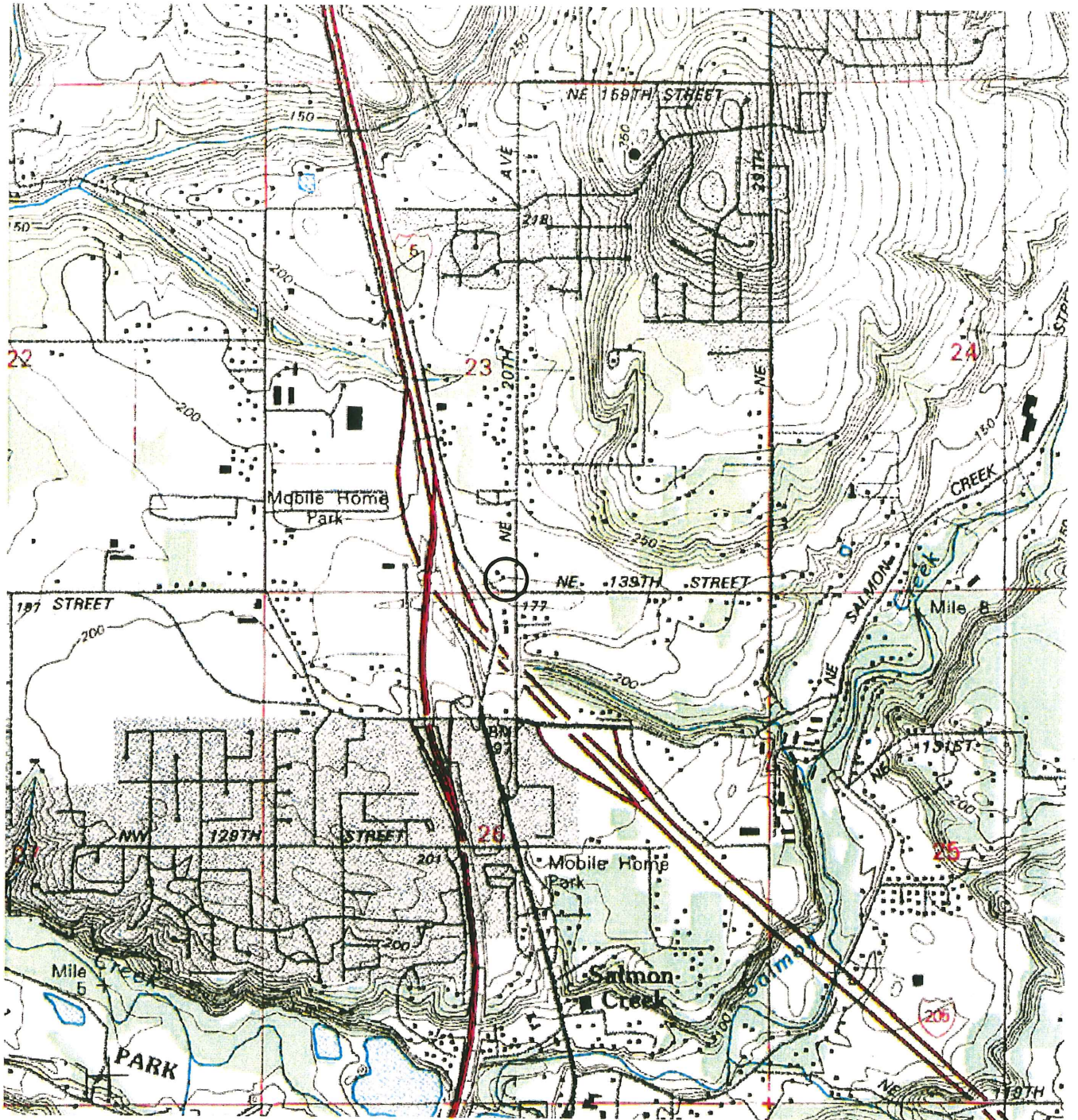
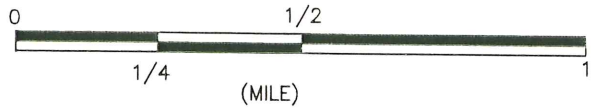
**Randall Jon Boese**

*Randall J. Boese*  
Randall J. Boese, RG  
President / Principal

cc: Bruce Holmstrom, Vancouver Oil  
Don Holsinger, The 205 Group

# ATTACHMENT A

*Figures*



OREGON

 SITE LOCATION

FIGURE 1

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

SITE VICINITY MAP

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

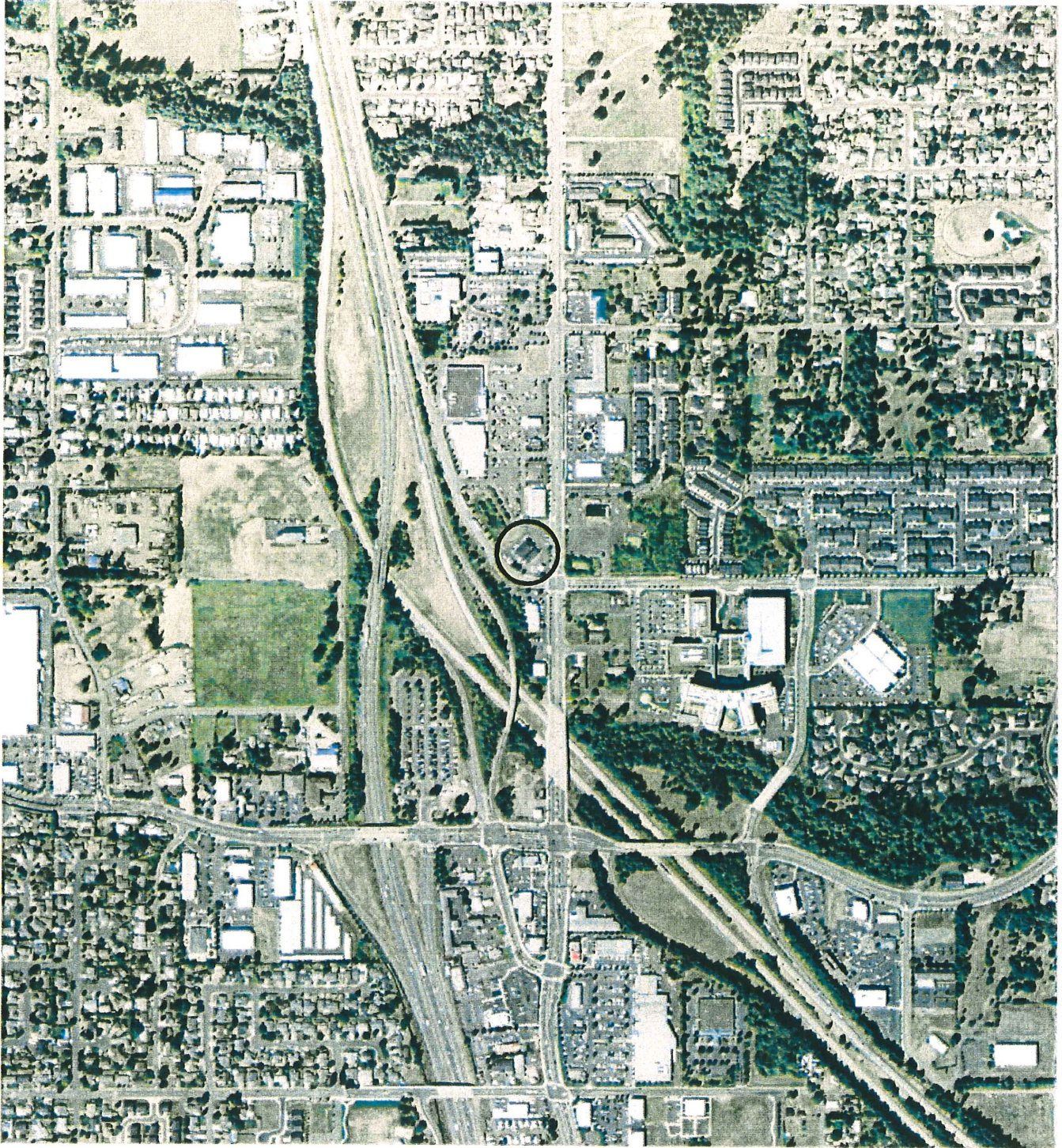


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ph: 503.570.9484

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



○ SITE LOCATION



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COMMERCIAL PROPERTY  
AERIAL

13908 NE 20th AVENUE, VANCOUVER, WA

PROJECT CODE:  
VOC01ISC.11UC

DATE:  
02/10/11

SCALE:  
AS SHOWN

DRAWN:  
K.D.DESIGNS

CHECKED:  
STEVE OMO

FIGURE #:

2



SUBJECT PROPERTY

20th AVENUE



17th STREET

139th STREET

MW-3  
(Decommissioned)

MW-5A

**LEGEND**

-  Monitoring Well Location and Identification Number (By BB&A)
-  Monitoring Well Location and Identification Number (By Others)

-  Building
-  Property Line
-  Storm Water Line
-  Sanitary Sewer Line
-  Catch Basin



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www.BBAENV.COM

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

PROJECT CODE:  
VOC02ISC.11UC

DATE:  
11/01/11

SCALE:  
1"=50'

DRAWN:  
K.D.DESIGNS

CHECKED:  
STEVE OMO

FIGURE #:

3

# 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: PVA0083

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:  
1/13/2012 5:06:34 PM

Darrell Auvil  
Project Manager  
[darrell.auvil@testamericainc.com](mailto:darrell.auvil@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

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

TestAmerica Job ID: PVA0083

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
PVA0083-01	VOC02-MW-5A	Water	01/04/12 09:10	01/04/12 13:10

---

## Definitions/Glossary

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

TestAmerica Job ID: PVA0083

### 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
QC	Quality Control
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: PVA0083

**Client Sample ID: VOC02-MW-5A**

**Lab Sample ID: PVA0083-01**

Date Collected: 01/04/12 09:10

Matrix: Water

Date Received: 01/04/12 13:10

**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		01/05/12 09:21	01/05/12 16:36	1.00
Toluene	ND		0.500		ug/l		01/05/12 09:21	01/05/12 16:36	1.00
Ethylbenzene	ND		0.500		ug/l		01/05/12 09:21	01/05/12 16:36	1.00
Xylenes (total)	ND		1.00		ug/l		01/05/12 09:21	01/05/12 16:36	1.00
o-Xylene	ND		1.00		ug/l		01/05/12 09:21	01/05/12 16:36	1.00
m,p-Xylene	ND		2.00		ug/l		01/05/12 09:21	01/05/12 16:36	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	92.8		80 - 120	01/05/12 09:21	01/05/12 16:36	1.00
1,2-DCA-d4	95.0		80 - 120	01/05/12 09:21	01/05/12 16:36	1.00
Toluene-d8	98.1		80 - 120	01/05/12 09:21	01/05/12 16:36	1.00
4-BFB	99.6		80 - 120	01/05/12 09:21	01/05/12 16:36	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		01/06/12 09:25	01/06/12 14:12	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-BFB (FID)	82.4		50 - 150	01/06/12 09:25	01/06/12 14:12	1.00

# QC Sample Results

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

TestAmerica Job ID: PVA0083

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

**Lab Sample ID: 12A0084-BLK1**

**Matrix: Water**

**Analysis Batch: 12A0084**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12A0084\_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.200		ug/l		01/05/12 09:21	01/05/12 11:12	1.00
Toluene	ND		0.500		ug/l		01/05/12 09:21	01/05/12 11:12	1.00
Ethylbenzene	ND		0.500		ug/l		01/05/12 09:21	01/05/12 11:12	1.00
Xylenes (total)	ND		1.00		ug/l		01/05/12 09:21	01/05/12 11:12	1.00
o-Xylene	ND		1.00		ug/l		01/05/12 09:21	01/05/12 11:12	1.00
m,p-Xylene	ND		2.00		ug/l		01/05/12 09:21	01/05/12 11:12	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	97.0		80 - 120	01/05/12 09:21	01/05/12 11:12	1.00
1,2-DCA-d4	98.6		80 - 120	01/05/12 09:21	01/05/12 11:12	1.00
Toluene-d8	99.2		80 - 120	01/05/12 09:21	01/05/12 11:12	1.00
4-BFB	100		80 - 120	01/05/12 09:21	01/05/12 11:12	1.00

**Lab Sample ID: 12A0084-BS1**

**Matrix: Water**

**Analysis Batch: 12A0084**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12A0084\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	20.0	17.2		ug/l		86.2	80 - 120
Toluene	20.0	17.5		ug/l		87.3	80 - 125
Ethylbenzene	20.0	17.3		ug/l		86.6	80 - 130
Xylenes (total)	60.0	53.6		ug/l		89.3	80 - 135
o-Xylene	20.0	18.2		ug/l		90.8	80 - 130
m,p-Xylene	40.0	35.4		ug/l		88.6	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane	97.8		80 - 120
1,2-DCA-d4	96.0		80 - 120
Toluene-d8	100		80 - 120
4-BFB	106		80 - 120

**Lab Sample ID: 12A0084-BSD1**

**Matrix: Water**

**Analysis Batch: 12A0084**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12A0084\_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Benzene	20.0	19.0		ug/l		95.1	80 - 120	9.88	25
Toluene	20.0	19.2		ug/l		95.9	80 - 125	9.39	25
Ethylbenzene	20.0	19.3		ug/l		96.4	80 - 130	10.7	25
Xylenes (total)	60.0	58.8		ug/l		98.1	80 - 135	9.39	25
o-Xylene	20.0	19.8		ug/l		99.0	80 - 130	8.65	25
m,p-Xylene	40.0	39.1		ug/l		97.6	80 - 135	9.77	25

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
Dibromofluoromethane	97.4		80 - 120
1,2-DCA-d4	95.0		80 - 120
Toluene-d8	101		80 - 120
4-BFB	107		80 - 120

# QC Sample Results

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

TestAmerica Job ID: PVA0083

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

**Lab Sample ID: 12A0121-BLK1**

**Matrix: Water**

**Analysis Batch: 12A0121**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12A0121\_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		80.0		ug/l		01/06/12 09:25	01/06/12 13:11	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-BFB (FID)	81.8		50 - 150				01/06/12 09:25	01/06/12 13:11	1.00

**Lab Sample ID: 12A0121-BS1**

**Matrix: Water**

**Analysis Batch: 12A0121**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12A0121\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	500	573		ug/l		115	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-BFB (FID)	84.1		50 - 150				

**Lab Sample ID: 12A0121-BSD1**

**Matrix: Water**

**Analysis Batch: 12A0121**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12A0121\_P**

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons	500	578		ug/l		116	70 - 130	0.963	35
Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits						
4-BFB (FID)	83.4		50 - 150						

**Lab Sample ID: 12A0121-DUP1**

**Matrix: Water**

**Analysis Batch: 12A0121**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12A0121\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gasoline Range Hydrocarbons	27400		26300		ug/l		4.09	35
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
4-BFB (FID)	85.6		50 - 150					

**Lab Sample ID: 12A0121-DUP2**

**Matrix: Water**

**Analysis Batch: 12A0121**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12A0121\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gasoline Range Hydrocarbons	19500		19000		ug/l		2.14	35
Surrogate	Duplicate %Recovery	Duplicate Qualifier	Limits					
4-BFB (FID)	84.4		50 - 150					

## Certification Summary

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

TestAmerica Job ID: PVA0083

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

THE LEADER IN ENVIRONMENTAL TESTING

## Portland Sample Control Checklist

Work Order #: PVA0083 Date/Time Received: 1/4/12 @ 1310  
Client Name: BBA  
Project Name: VANCOUVER OIL  
Time Zone:  EDT/EST  CDT/CST  MDT/MST  PDT/PST  AK  HI  OTHER

### Unpacking Checks:

Cooler (s): \_\_\_\_\_  
Temperature (s): 30 \_\_\_\_\_  
Digi #1  Digi #2  IR Gun   Plastic  Glass  
IR Gun - Degree   Plastic

### Temperature out of Range:

Not enough or No Ice  
 Ice Melted  
 W/in 4 Hrs of collection  
 Ice Not Needed  
 Other: \_\_\_\_\_

Ice used: (circle one) GEL LOOSE BLUE NONE OTHER: \_\_\_\_\_ Initials: PS

N/A Yes No

- 1. If ESI client, were temp blanks received? If no, document on NOD.
- 2. Custody seals intact? If ESI client and no is checked, 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 ESI samples checked and meets requirements? If no, document on NOD.
- 9. Cyanide samples checked for sulfides and meets 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 vial 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?
- 19. Were lab sample labels verified against the client sample labels?

Checklist Reviewed: \_\_\_\_\_ Log-in initials: PS Labeler initials: PS