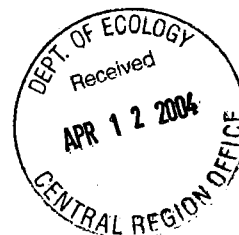


April 8, 2004



Washington Department of Ecology  
Central Regional Office  
15 West Yakima Avenue, Suite 200  
Yakima, Washington 98902

Attn: Toxics Cleanup Program

**RE: COLUMBIA BASIN COLLEGE, RICHLAND, WASHINGTON CAMPUS**

We have been requested by Columbia Basin College (CBC) representatives to notify you of the discovery of contaminated soil on the CBC property located at 1011 Northgate Drive, Richland, Washington. The site location is shown on Figure 1.

### BACKGROUND INFORMATION

Shannon & Wilson performed a geotechnical investigation on December 29, 2003, for the planned construction of a nurse training facility at the site. During the investigation, what appeared to be contaminated soil was encountered in an exploratory boring located near the northwest corner of the property (Figure 2, B-3). The contamination was detected near the groundwater interface approximately 14 to 15 feet below the ground surface. The soil had a petroleum odor and discoloration.

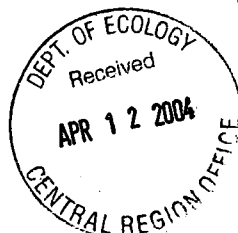
A field test was performed on the soil using a Hanby™ test. The test is a semi-quantitative analytical process that uses a colorimetric method to detect the presence of petroleum hydrocarbons in a sample. The process involves extracting petroleum contaminants from the sample using a solvent, then adding a coloring compound to the solvent and comparing the results with prepared photographs. The sample was positive for petroleum, with a color match closest to gasoline.

### ANALYTICAL TESTING RESULTS

A soil sample from the 14.5-foot depth was submitted to OnSite Environmental Inc. of Redmond, Washington. The sample was analyzed for gasoline range total petroleum hydrocarbons (TPH) by Method NWTPH-Gx and for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B.

The results indicate that gasoline, benzene, and xylenes in the sample exceed Washington State Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for unrestricted land use. The following table summarizes the results and compares them to MTCA Method A values. A copy of the laboratory report is attached.

Washington Department of Ecology  
Attn: Toxics Cleanup Program  
April 6, 2004  
Page 2



SHANNON & WILSON, INC.

PARAMETER	Sample B-3, mg/kg	MTCA Method A Soil Cleanup Level, mg/kg
TPH-Gas	200	30*
Benzene	1.0	0.03
Ethylbenzene	1.8	6
Toluene	<1.2	7
Xylenes	9.2	9

\* Gasoline mixtures without benzene, and the total of ethylbenzene, toluene and xylenes are less than 1% of the gasoline mixture, have a cleanup level of 100 mg/kg.

The owner was provided this information in January 2004. Review of the site history did not reveal past uses that might have lead to the presence of gasoline contamination at the site. The CBC property is east of a former city of Richland maintenance shop. Based on site assessments conducted at the city site, the groundwater flow direction is toward the northeast. Therefore, the northwestern corner of the CBC property is likely downgradient of the city site. CBC representatives have discussed the discovery of contamination at the CBC site with the city of Richland.

Please contact our office if you have any questions regarding this matter.

Sincerely,

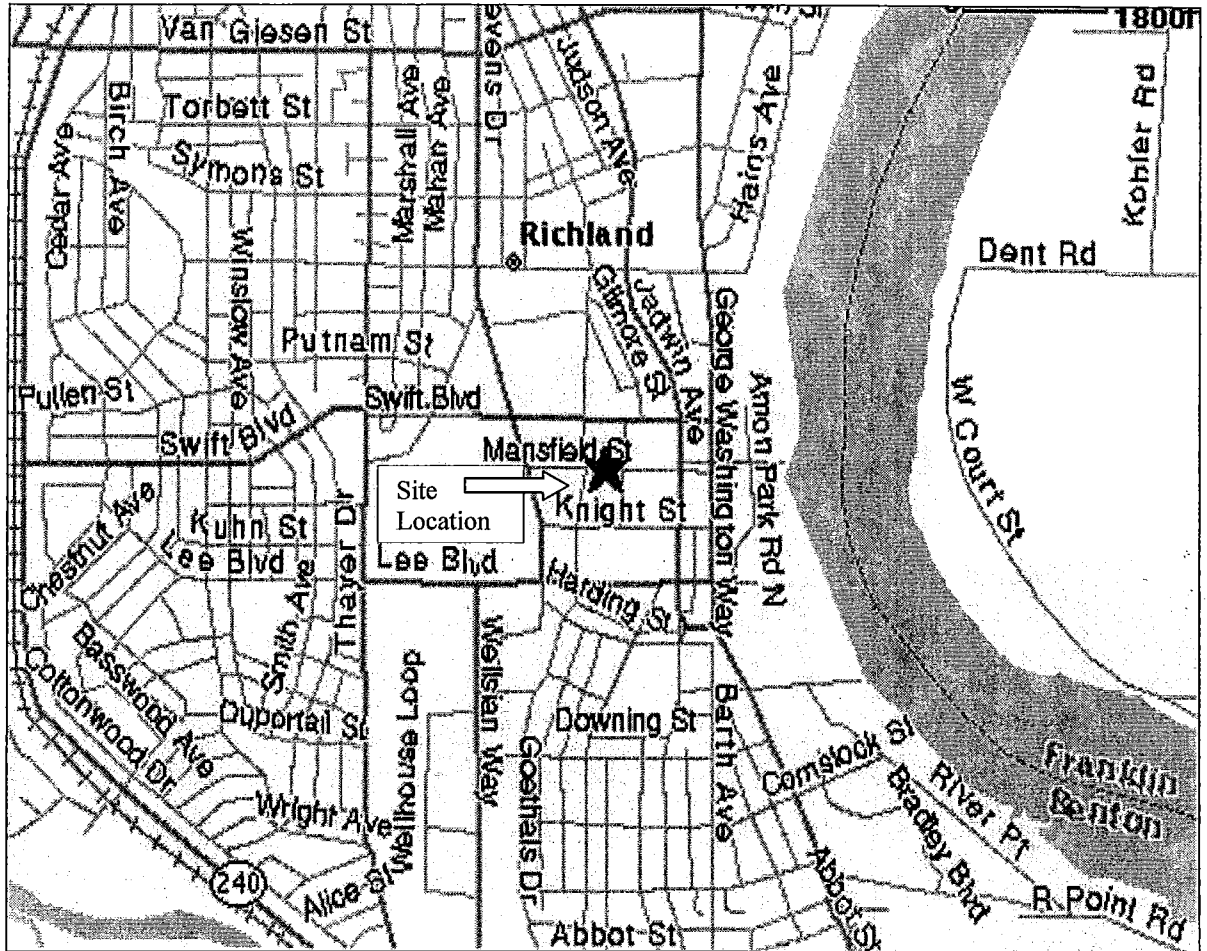
SHANNON & WILSON, INC.

A handwritten signature in cursive script, appearing to read "Donna R. Parkes", written over a horizontal line.

Donna R. Parkes  
Environmental Specialist

cc: Bill Saraceno, Vice President of Administration, CBC, Pasco  
David Combs, Project Manager, CBC, Olympia  
Bruce Schwan, SCM Consultants

Enclosures: Figure 1 – Vicinity Map  
Figure 2 – Site Exploration Plan  
Figure A-3 – Log of Boring B-3  
OnSite Environmental Laboratory Report



CBC-WSU Nurse Training Facility  
Richland, Washington

**VICINITY MAP**

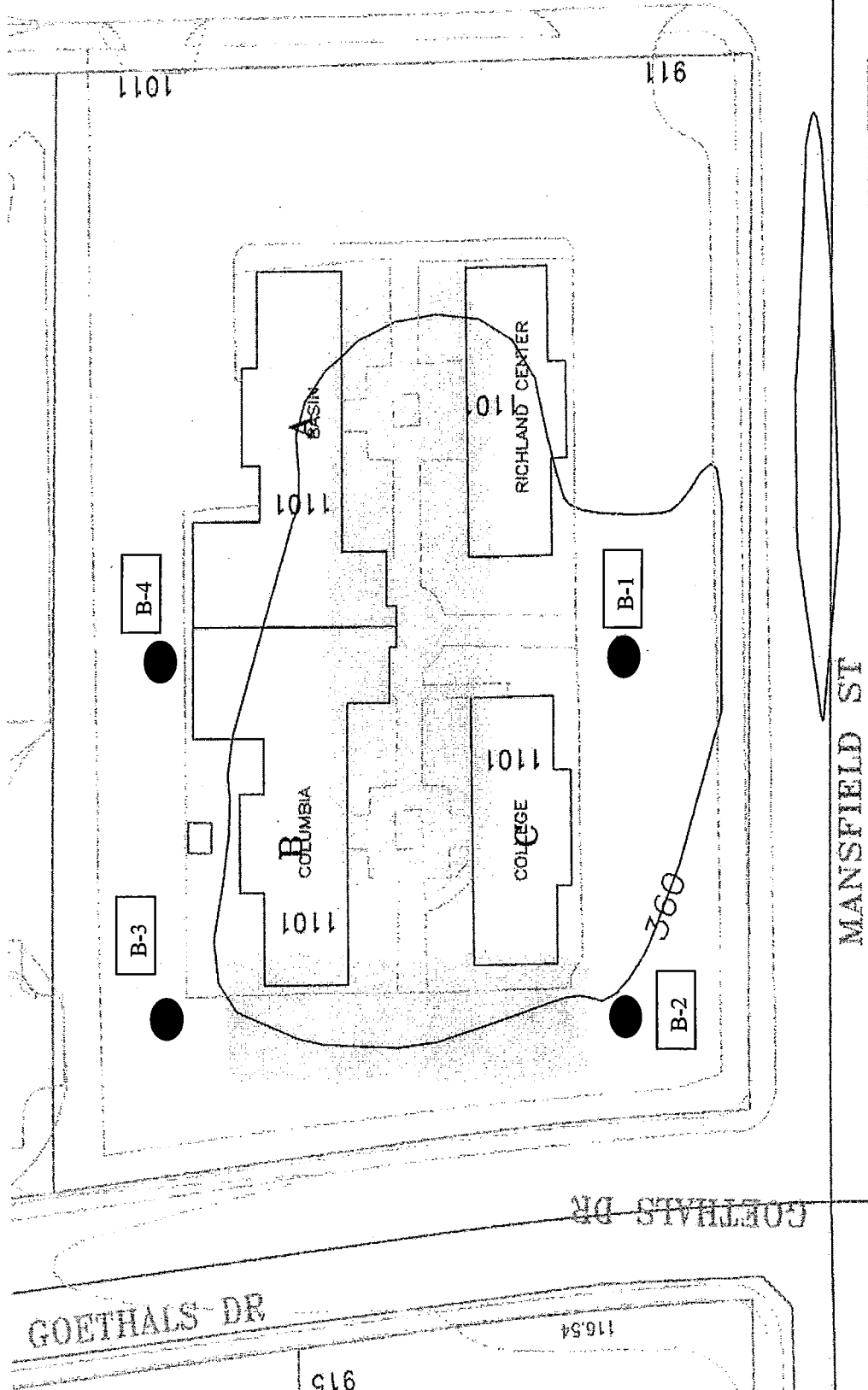
January 2004

22-1-02071-001

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants

**FIG. 1**

E DR



CBC-WSU Nurse Training Facility  
Richland, Washington

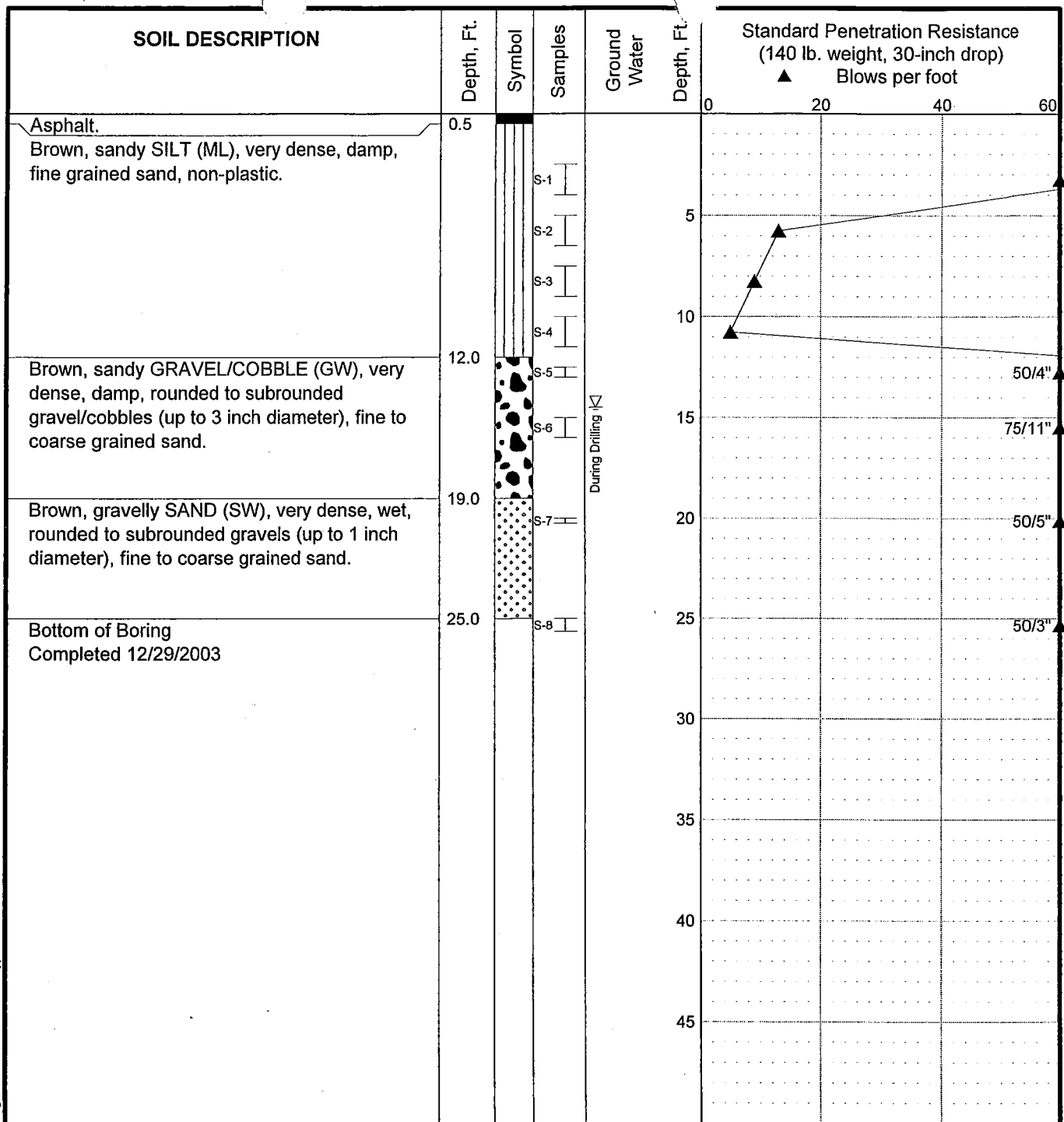
**SITE EXPLORATION PLAN**

January 2004 22-1-02071-001

**SHANNON & WILSON, INC.**  
Geotechnical and Environmental

**FIG. 2**

MASTER LOG2 22-1-02071.GPJ SHAN\_WIL.GDT 1/16/04  
 Log: GSL Rev: LJR Typ: CYM



**LEGEND**

- \* Sample Not Recovered
- ∇ Ground Water Level ATD
- ⊥ Standard Penetration Test
- % Water Content
- Liquid Limit
- Natural Water Content

**NOTES**

1. The boring was performed using hollow stem auger drilling methods.
2. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
3. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface materials.
4. Groundwater level, if indicated above, is for the date specified and may vary.
5. Refer to KEY for explanation of symbols, codes and definitions.
6. USCS designation is based on visual-manual classification and selected lab testing.

CBC-WSU Nurse Training Facility  
Richland, Washington

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**LOG OF BORING B-3**

January 2004
22-1-02071-001

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**SHANNON & WILSON, INC.**  
Geotechnical and Environmental Consultants
**FIG. A-3**



**OnSite  
Environmental Inc.**  
Analytical Testing and Mobile Laboratory Services

January 9, 2004

Donna Parkes  
Shannon & Wilson, Inc.  
303 Wellsian Way  
Richland, WA 99352

Re: Analytical Data for Project 22-1-02071-001  
Laboratory Reference No. 0312-239

Dear Donna:

Enclosed are the analytical results and associated quality control data for samples submitted on December 31, 2003.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

**RECEIVED**  
**JAN 14 2004**

Date of Report: January 9, 2004  
Samples Submitted: December 31, 2003  
Laboratory Reference: 0312-239  
Project: 22-1-02071-001

### Case Narrative

Samples were collected on December 29, 2003, and received by the laboratory on December 31, 2003. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### NWTPH Gx/BTEX Analysis

The relative percent difference (RPD) is outside of control limits for sample 01-002-15 and its duplicate. The sample was re-extracted and re-analyzed with similar results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: January 9, 2004  
Samples Submitted: December 31, 2003  
Laboratory Reference: 0312-239  
Project: 22-1-02071-001

**NWTPH-Gx/BTEX**

Date Extracted: 1-7-04  
Date Analyzed: 1-8-04

Matrix: Soil  
Units: mg/kg (ppm)

Client ID: B-3  
Lab ID: 12-239-01

	<b>Result</b>	<b>Flags</b>	<b>PQL</b>
Benzene	<b>1.0</b>		0.25
Toluene	<b>ND</b>		1.2
Ethyl Benzene	<b>1.8</b>		1.2
m,p-Xylene	<b>6.9</b>		1.2
o-Xylene	<b>2.3</b>		1.2
TPH-Gas	<b>200</b>		120
Surrogate Recovery: Fluorobenzene	<b>86%</b>		



Date of Report: January 9, 2004  
Samples Submitted: December 31, 2003  
Laboratory Reference: 0312-239  
Project: 22-1-02071-001

**NWTPH-Gx/BTEX  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 1-7-04

Date Analyzed: 1-7-04

Matrix: Soil  
Units: mg/kg (ppm)

Lab ID: MB0107S1

	<b>Result</b>	<b>Flags</b>	<b>PQL</b>
Benzene	<b>ND</b>		0.010
Toluene	<b>ND</b>		0.050
Ethyl Benzene	<b>ND</b>		0.050
m,p-Xylene	<b>ND</b>		0.050
o-Xylene	<b>ND</b>		0.050
TPH-Gas	<b>ND</b>		5.0
Surrogate Recovery: Fluorobenzene	<b>89%</b>		

Date of Report: January 9, 2004  
 Samples Submitted: December 31, 2003  
 Laboratory Reference: 0312-239  
 Project: 22-1-02071-001

**NWTPH-Gx/BTEX  
 DUPLICATE QUALITY CONTROL**

Date Extracted: 1-7-04  
 Date Analyzed: 1-7-04

Matrix: Soil  
 Units: mg/kg (ppm)

Lab ID:	01-002-15 Original	01-002-15 Duplicate	RPD	Flags
Benzene	ND	ND	NA	
Toluene	ND	ND	NA	
Ethyl Benzene	0.206	0.140	38	K
m,p-Xylene	0.387	0.265	38	K
o-Xylene	0.0666	ND	NA	K
TPH-Gas	89.0	61.3	37	K
Surrogate Recovery:				
Fluorobenzene	84%	84%		

Date of Report: January 9, 2004  
 Samples Submitted: December 31, 2003  
 Laboratory Reference: 0312-239  
 Project: 22-1-02071-001

**NWTPH-Gx/BTEX  
 MS/MSD QUALITY CONTROL**

Date Extracted: 1-7-04  
 Date Analyzed: 1-7-04

Matrix: Soil  
 Units: mg/kg (ppm)

Spike Level: 1.00 ppm

Lab ID:	1-002-15 MS	Percent Recovery	1-002-15 MSD	Percent Recovery	RPD	Flags
Benzene	0.883	88	0.832	83	6	
Toluene	0.814	81	0.787	79	3	
Ethyl Benzene	0.957	75	0.956	75	0	
m,p-Xylene	1.05	66	1.06	67	1	
o-Xylene	0.865	80	0.841	77	3	
Surrogate Recovery:						
Fluorobenzene	82%		79%			

Date of Report: January 9, 2004  
Samples Submitted: December 31, 2003  
Laboratory Reference: 0312-239  
Project: 22-1-02071-001

**% MOISTURE**

Date Analyzed: 1-7-04

Client ID	Lab ID	% Moisture
B-3	12-239-01	19



#### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- G - Insufficient sample quantity for duplicate analysis.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- O - Hydrocarbons outside the defined gasoline range are present in the sample.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a silica gel cleanup procedure.
- Y - Sample extract treated with an acid cleanup procedure.
- Z -

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference