ROBINSON
NOBLE

November 2, 2011

Mr. Eugene Radcliff
Toxics Cleanup Program
Washington State Department of Ecology, SWRO
PO Box 47775
Olympia, Washington 98504-7775

Subject: Mizukami/GENSCO Project, 4525 20th Street East, Fife, Washington
Opinion Letter Request

Dear Mr. Radcliff:

Enclosed is our report documenting the third groundwater monitoring event of the year at the noted location. As you will note in your review of the report, the concentrations of contaminants of concern are all below laboratory detection limits. This continues the previously reported trend of concentrations below Model Toxics Control Act Method A cleanup levels.

Submission of this report completes the additional requested activities detailed in previous Department of Ecology (Ecology) opinion letters except for the filing of an environmental covenant and the implementation of a long-term groundwater monitoring plan. In order to complete this final step we are requesting Ecology's input on the following:

1) Are there any additional requirements to be included in the environmental covenant in addition to the current standard boilerplate?

2) Is groundwater sampling at 18-month intervals, with Ecology review at five-year intervals, adequate for the long-term groundwater monitoring?

3) Will Ecology issue a determination that no further action is needed after recording of an environmental covenant that includes the long-term groundwater monitoring plan? We understand that notification of the local political subdivision (City of Fife) is required.

Our client is anxious to bring final resolution to this site. If you have any questions during your review of the file and preparation of your comments, please do not hesitate to contact me at your convenience at (253) 475-7711.

Sincerely,
Robinson Noble, Inc.

John F. Hildenbrand
Associate Environmental Scientist
Environmental Services Manager

cc: Tom Langseth
Gensco
Laura Fox

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MIZUKAMI PROJECT SITE (VCP SW1137)
4524 20TH STREET EAST
FIFE, WASHINGTON
SEPTEMBER 2011 GROUNDWATER MONITORING REPORT

OCTOBER 2011

by

John F. Hildenbrand
Associate Environmental Scientist
Environmental Services Manager

State of Washington
Hydrogeologist
306
Licensed Geologist
Joseph E. Becker

MIZUKAMI PROJECT SITE (VCP SW1137)
4524 20th Street East, Fife, Washington
September 2011 Groundwater Monitoring Report
October 2011

MIZUKAMI PROJECT SITE (VCP SW1137)
4524 20th Street East, Fife, Washington
September 2011 Groundwater Monitoring Report
October 2011

1.0 Introduction

1.1 Purpose and Site Identification

This report presents the results of the September 2011 groundwater monitoring event at the Mizukami project site located in Fife, Washington. The site is located at 4524 20th Street East, Fife, Pierce County, Washington. The parcel is bordered by 20th Street to the north and Frank Albert Road to the east. Across Frank Albert Road is a commercial business park. The subject site is bordered on the south and west by property under the same ownership, CMKM, LLC, as the subject site. Pierce County Assessor-Treasurer records indicate the subject property is identified as tax parcel number 0320126023.

1.2 Regional Geology/Hydrogeology

The subject property is mapped by the *Geological Map of the Puyallup 7.5 Minute Quadrangle, Washington* (Troost, in review) as being Quaternary alluvium (Qal). This alluvium is composed of over-bank deposits associated with the Puyallup River consisting of generally fine to very fine sand, silts, and clay. The soils in the area of the subject have been classified by the United States Department of Agriculture, as published in the *Soil Survey for the Pierce County Washington Area,* 1977, as Puyallup fine sandy loam. Previous site activities found groundwater occurring within the alluvial sediments at a depth of approximately six to seven feet below ground surface.

2.0 Background

The site is currently developed as a commercial warehouse. The current owner, CMKM, LLC, purchased the (then) residential property in July 2003. At that time, a heating-oil underground storage tank (UST) was excavated for removal. An aboveground, heating-oil storage tank was also in close proximity to this excavation. Fuel-oil service lines associated with this aboveground tank failed during the winter of 2003 and resulted in a leakage of over 150 gallons of diesel fuel into the subsurface.

Previous efforts have established that groundwater concentrations of diesel and diesel-range organics do not exceed MTCA Method A groundwater levels. However, some soil contamination has been shown to remain underneath the sidewalk and utility right-of-ways.

Based on previous opinions provided by the Department of Ecology (Ecology), we have identified five final closure tasks which we anticipate are necessary for a no-further-action (NFA) determination. They are:

1. Replace the damaged monitoring well MW4 and obtain three additional quarters of groundwater monitoring data to supplement the previously collected data.

2. Complete a remedial action feasibility study with a disproportionate cost analysis assessing the costs of removal of the previously documented residual contamination versus leaving it in place.
3. Prepare a draft environmental covenant for Ecology's approval. Once it is approved, it will be recorded against the property.
4. Prepare a long-term groundwater monitoring plan, which will need to be submitted to, and approved by, Ecology.
5. Complete Environmental Information Management (EIM) data entry of all project data. This will need to be completed prior to the time the environmental covenant is filed.

3.0 Quarterly Monitoring

Robinson Noble personnel collected water samples from six monitoring wells on September 16. Originally, the site had seven monitoring wells; however, after the current development of the site, one of the monitoring wells was removed. Prior to sampling and before water levels were sounded, the wells were opened and allowed to stabilize. The observed flow direction from the remaining six wells was determined to be toward the northeast. Table 1 displays the depth to water measured in each well.

Table 1. September 16, 2011 Water Levels (in feet)

Well No.	Top of Casing Elevation*	Depth to Groundwater	Groundwater Elevation*
MW1	95.36	4.65	90.71
MW-2	100.26	8.71	91.55
MW-3	93.01	1.57	91.44
MW-4B	94.81	3.77	91.04
MW-6	98.07	6.80	91.27
MW-7	99.19	7.78	91.41

* Elevations are relative to an arbitrary site benchmark of 100 feet.

A peristaltic pump and dedicated tubing were used to sample each well. Samples were collected after at least three volumes of water were purged from the wells and field measurements of temperature, conductivity, total dissolved solids, and dissolved oxygen had stabilized (within measurement error limits). The groundwater monitoring field sampling notes are attached in Appendix C.

Water samples were collected from the six wells and placed into laboratory-supplied, precleaned containers with the proper preservatives for delivery to an accredited laboratory. The samples were placed in a laboratory-supplied, thick-walled cooler containing blue ice. The samples were delivered to Libby Environmental, Inc. of Olympia, Washington. The samples were submitted for analysis using Ecology NWTPH-GX, Ecology NWTPH-Dx/Dx Extended, EPA Method 8021B, and EPA Method 8270C.

3.1 Analytical Results

As indicated by the analytical results and summarized in Table 2, below (complete results attached in Appendix B), no detection of target analytes were reported above laboratory detection limits for any of the groundwater samples submitted for analysis.

Table 2. September 16, 2011 Sampling Event Analytical Results (µg/L)

Analyte/ Sample ID	MW-1	MW-2	MW-3	MW-4B	MW-6	MW-7	MTCA Method A
Gasoline	nd	nd	nd	nd	nd	nd	800
Diesel	nd	nd	nd	nd	nd	nd	500
Oil	nd	nd	nd	nd	nd	nd	500
cPAH	nd	nd	nd	nd	nd	nd	0.1
Benzene	nd	nd	nd	nd	nd	nd	5
Toluene	nd	nd	nd	nd	nd	nd	1,000
Ethylbenzene	nd	nd	nd	nd	nd	nd	700
Xylenes	nd	nd	nd	nd	nd	nd	1,000
1,2-Dichloroethane (EDC)*	nd	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)*	nd	nd	nd	nd	nd	nd	nd
Naphthalene	nd	nd	nd	nd	nd	nd	160

nd = analyte concentration is below the laboratory detection limit
*= Analyte added at the request of the Washington State Department of Ecology

4.0 Quality Assurance/Quality Control (QA/QC)

4.1 Daily Field QA/QC

The project manager reviewed all documentation including sample logs, custody forms, and field logs prior to samples being delivered to the laboratory. Review was done for completeness, accuracy, and consistency.

4.2 Sample Packaging and Shipping

The groundwater samples collected for chemical analysis were kept out of direct sunlight and were checked for label completeness and cap tightness. All samples submitted to the laboratory were thermally preserved in the field (four degrees Celsius) immediately after sample collection by placing them upright in a pre-cooled, insulated ice chest containing uncontaminated blue ice. The cooler is constructed of plastic or fiberglass standard to those provided by environmental analytic laboratories. The cooler does not have a drain.

4.3 Chain-of-Custody

A chain-of-custody form accompanied samples submitted to the laboratory. Chain-of-custody forms were in order as noted in the analytical narrative from the contractor laboratory.

4.4 Laboratory QA/QC

A narrative regarding quality assurance and quality control is provided with the laboratory analysis reports. This narrative indicated quality control was within acceptable limits.

6.0 Conclusions

The results of this monitoring event indicate the previously established trend of the absence of target compounds above MTCA Method A limits is continuing. The data generated during this monitoring event does not show any detection of target compounds above laboratory detection

limits. This indicates the residual soil contamination located within the right-of-way does not appear to be impacting groundwater at the well locations. Additionally, previous concentrations of target compound concentrations present but below MTCA Method A limits in MW-7 are no longer present. This indicates groundwater in that area is not significantly impacted if at all. A summary of the groundwater data collected for this site is located in Appendix D.

Based on our understanding of the most recent Ecology opinion letter, we have completed all of the items, as presented in Section 2.0 of this report, Ecology has requested except for preparation and filing of the environmental covenant and implementation of a long-term groundwater monitoring program.

8.0 Recommendations

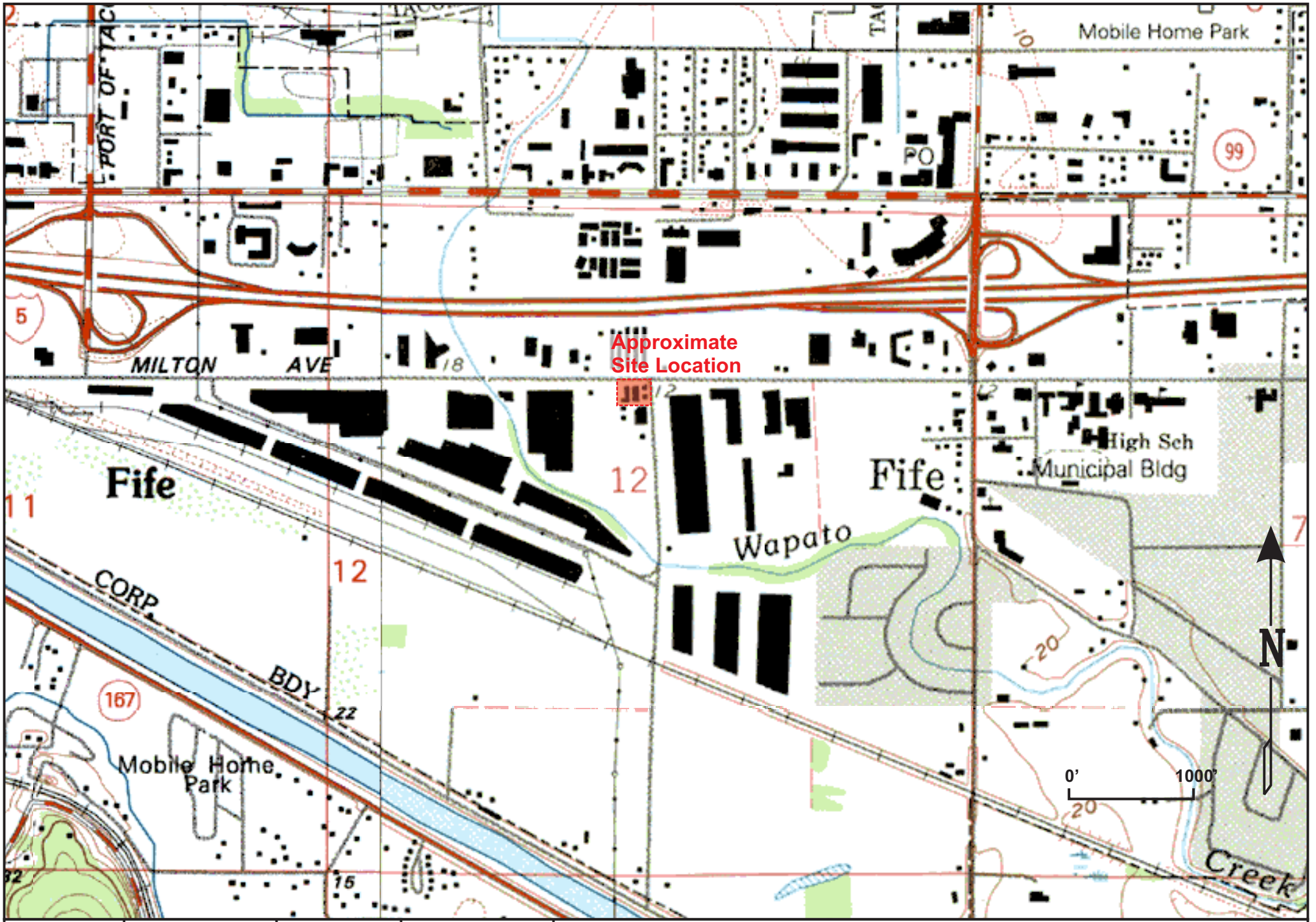
This report will be submitted to the Washington State Department of Ecology with a request for a no-further-action determination. Ecology will be asked to provide input on the content of an environmental covenant specifying the institutional controls and requisite long-term groundwater monitoring program should they determine one is still needed. Once Ecology input is received the appropriate documents will be prepared and recorded with the Pierce County Auditor.

9.0 Limitations

The services described in this report were performed consistently with generally accepted environmental consulting principles and practices. No other warranty, expressed or implied, is made. These services were consistent with the Robinson Noble, Inc. agreement with the client. This report is solely for the use and information of the client unless otherwise noted. Any reliance on this report by a third party is at the party's sole risk.

Opinions and recommendations contained in this report apply to existing conditions when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. Since site conditions and regulations beyond our control could change at any time after the completion of our site visit, we are not responsible for the impacts of any changes in environmental conditions, standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor do we warrant the use of segregated portions of this report.

APPENDIX A



ROBINSON NOBLE	Note: Image taken from USGS Puyallup Quad.	PM: JFH October 2011 2203-001B	Pierce County T 20 N/R 03 E - 12 Scale 1" = 1000'	Figure 1 Vicinity Map Mizukami Project: 20th Street/Remedial Investigation

ROBINSON NOBLE	Note: Image taken from USGS Terra Server Website	PM: JFH October 2011 2203-001B	Pierce County T 20 N/R 03 E - 12 Scale 1" = ~40'	Figure 2 Potentiometric Surface Contour Map Mizukami Project: 20th Street/Remedial Investigation

APPENDIX B

Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

October 7, 2011

John Hildenbrand
Robinson Noble
3011 Huson Street South
Suite A
Tacoma, WA 98409

Dear Mr. Hildenbrand:

Please find enclosed the analytical data report for the Gensco-Langseth Project located in Fife, Washington. Water samples were analyzed for Gasoline by NWTPH-Gx and BTEX by EPA Method 8260C, Diesel & Oil by NWTPH-Dx/Dx Extended, Specific Halogenated and Aromatic Hydrocarbons by EPA Method 8260C and Polyaromatic Hydrocarbons (cPAH) by EPA Method 8270 on September 19, 20 & 23, 2011.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is enclosed.

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

Sincerely,

Jamie L. Hart
President
Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@aol.com

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

GENSCO-LANGSETH PROJECT
Fife, Washington
Robinson Noble, Inc.
Libby Project No. L110916-3

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (ug/l)	Mineral Oil (ug/l)	Oil (ug/l)
Method Blank	9/19/11	98	nd	nd	nd
MW-1	9/19/11	129	nd	nd	nd
MW-2	9/19/11	92	nd	nd	nd
MW-3	9/19/11	102	nd	nd	nd
MW-4B	9/19/11	94	nd	nd	nd
MW-6	9/19/11	110	nd	nd	nd
MW-6 Dup	9/19/11	87	nd	nd	nd
MW-7	9/19/11	126	nd	nd	nd
Practical Quantitation Limit			200	400	400

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

GENSCO-LANGSETH PROJECT
Fife, Washington
Robinson Noble, Inc.
Libby Project No. L110916-3

Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

Sample Description		Method Blank	MW-1	MW-2	MW-3	MW-4B	MW-6
Date Sampled		n/a	9/16/11	9/16/11	9/16/11	9/16/11	9/16/11
Date Analyzed		9/20/11	9/20/11	9/20/11	9/20/11	9/20/11	9/20/11
	PQL (ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
Benzene	1.0	nd	nd	nd	nd	nd	nd
Toluene	1.0	nd	nd	nd	nd	nd	nd
Ethylbenzene	1.0	nd	nd	nd	nd	nd	nd
Total Xylenes	1.0	nd	nd	nd	nd	nd	nd
Gasoline	100	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)	0.01	nd	nd	nd	nd	nd	nd
Total Naphthalenes	5.0	nd	nd	nd	nd	nd	nd
MTBE	5.0	nd	nd	nd	nd	nd	nd
Surrogate Recovery							
Dibromofluoromethane		111	107	116	93	90	107
1,2-Dichloroethane-d4		121	100	117	98	105	112
Toluene-d8		83	82	108	90	93	95
4-Bromofluorobenzene		103	98	96	94	92	97

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

GENSCO-LANGSETH PROJECT
Fife, Washington
Robinson Noble, Inc.
Libby Project No. L110916-3

Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

Sample Description		MW-6 Dup	MW-7
Date Sampled		9/16/11	9/16/11
Date Analyzed		9/20/11	9/20/11
	PQL (ug/l)	(ug/l)	(ug/l)
Benzene	1.0	nd	nd
Toluene	1.0	nd	nd
Ethylbenzene	1.0	nd	nd
Total Xylenes	1.0	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd
1,2-Dibromoethane (EDB)	0.01	nd	nd
Total Naphthalenes	5.0	nd	nd
MTBE	5.0	nd	nd
Surrogate Recovery			
Dibromofluoromethane		111	102
1,2-Dichloroethane-d4		127	106
Toluene-d8		90	92
4-Bromofluorobenzene		102	88

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

LIBBY ENVIRONMENTAL CHEMISTRY LABORATORY

GENSCO-LANGSETH PROJECT
Fife, Washington
Robinson Noble, Inc.
Libby Project No. L110916-3

QA/QC Data - EPA 8260C Analyses

Sample Identification: MW-2							
	Matrix Spike			Matrix Spike Dup			
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)	RPD (%)
Benzene	10	9.6	96	10	7.5	75	24.6
Toluene	10	10.6	106	10	7.5	75	34.3
Surrogate Recovery							
Dibromofluoromethane			112			99	
1,2-Dichloroethane-d4			114			96	
Toluene-d8			116			90	
4-Bromofluorobenzene			93			104	

Laboratory Control Sample			
	Spiked Conc. (ug/l)	Measured Conc. (ug/l)	Spike Recovery (%)
Benzene	10	7.4	74
Toluene	10	7.6	76
Surrogate Recovery			
Dibromofluoromethane			110
1,2-Dichloroethane-d4			117
Toluene-d8			90
4-Bromofluorobenzene			104

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135%
ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

1311 N. 35th St.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Libby Environmental
Jaime Hart
4139 Libby Rd. NE
Olympia, Washington 98506

RE: Gensco-Langseth
Lab ID: 1109079

September 26, 2011

Attention Jaime Hart:

Fremont Analytical, Inc. received 6 sample(s) on 9/20/2011 for the analyses presented in the following report.

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

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,

Michael Dee
Sr. Chemist / Principal

Fremont Analytical

Date: *09/26/2011*

CLIENT: Libby Environmental
Project: Gensco-Langseth
Lab Order: 1109079

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1109079-001	MW-1	09/16/2011 10:25 AM	09/20/2011 10:34 AM
1109079-002	MW-2	09/16/2011 2:15 PM	09/20/2011 10:34 AM
1109079-003	MW-3	09/16/2011 12:55 PM	09/20/2011 10:34 AM
1109079-004	MW-4B	09/16/2011 11:40 AM	09/20/2011 10:34 AM
1109079-005	MW-6	09/16/2011 3:15 PM	09/20/2011 10:34 AM
1109079-006	MW-7	09/16/2011 4:20 PM	09/20/2011 10:34 AM

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

Case Narrative

WO#: **1109079**
Date: **9/26/2011**

CLIENT: Libby Environmental
Project: Gensco-Langseth

I. SAMPLE RECEIPT:
All samples were received intact.

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.

Fremont Analytical

Analytical Report

WO#: **1109079**

Date Reported: **9/26/2011**

Client: Libby Environmental

Collection Date: 9/16/2011 10:25:00 AM

Project: Gensco-Langseth

Lab ID: 1109079-001

Matrix: Water

Client Sample ID: MW-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 12:22:00 AM
Surr: 2-Fluorobiphenyl	98.0	65-135		%REC	1	9/23/2011 12:22:00 AM
Surr: Terphenyl-o	119	65-135		%REC	1	9/23/2011 12:22:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1109079**
Date Reported: **9/26/2011**

Client: Libby Environmental
Project: Gensco-Langseth
Lab ID: 1109079-002
Client Sample ID: MW-2

Collection Date: 9/16/2011 2:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 12:47:00 AM
Surr: 2-Fluorobiphenyl	122	65-135		%REC	1	9/23/2011 12:47:00 AM
Surr: Terphenyl-o	116	65-135		%REC	1	9/23/2011 12:47:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1109079**
Date Reported: **9/26/2011**

Client: Libby Environmental
Project: Gensco-Langseth
Lab ID: 1109079-003
Client Sample ID: MW-3

Collection Date: 9/16/2011 12:55:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 1:38:00 AM
Surr: 2-Fluorobiphenyl	107	65-135		%REC	1	9/23/2011 1:38:00 AM
Surr: Terphenyl-o	120	65-135		%REC	1	9/23/2011 1:38:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Fremont Analytical

Analytical Report

WO#: **1109079**
Date Reported: **9/26/2011**

Client: Libby Environmental
Project: Gensco-Langseth
Lab ID: 1109079-004
Client Sample ID: MW-4B

Collection Date: 9/16/2011 11:40:00 AM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 2:03:00 AM
Surr: 2-Fluorobiphenyl	128	65-135		%REC	1	9/23/2011 2:03:00 AM
Surr: Terphenyl-o	126	65-135		%REC	1	9/23/2011 2:03:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Client: Libby Environmental
Project: Gensco-Langseth
Lab ID: 1109079-005
Client Sample ID: MW-6

Collection Date: 9/16/2011 3:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 2:28:00 AM
Surr: 2-Fluorobiphenyl	102	65-135		%REC	1	9/23/2011 2:28:00 AM
Surr: Terphenyl-o	122	65-135		%REC	1	9/23/2011 2:28:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Analytical Report

WO#: **1109079**
Date Reported: **9/26/2011**

Client: Libby Environmental
Project: Gensco-Langseth
Lab ID: 1109079-006
Client Sample ID: MW-7

Collection Date: 9/16/2011 4:20:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch ID: 1173		Analyst: SG
Benz(a)anthracene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Chrysene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Benzo(b)fluoranthene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Benzo(k)fluoranthene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Benzo(a)pyrene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Indeno(1,2,3-cd)pyrene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Dibenz(a,h)anthracene	ND	0.102		µg/L	1	9/23/2011 3:18:00 AM
Surr: 2-Fluorobiphenyl	109	65-135		%REC	1	9/23/2011 3:18:00 AM
Surr: Terphenyl-o	122	65-135		%REC	1	9/23/2011 3:18:00 AM

Qualifiers:

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
J	Analyte detected below quantitation limits	ND	Not detected at the Reporting Limit
RL	Reporting Limit	S	Spike recovery outside accepted recovery limits

Fremont Analytical

Date: *9/26/2011*

Work Order: 1109079
CLIENT: Libby Environmental
Project: Gensco-Langseth

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: **1109079-002AMS** SampType: **MS** Units: **µg/L** Prep Date: **9/22/2011** RunNo: **1925**
Client ID: **MW-2** Batch ID: **1173** Analysis Date: **9/23/2011** SeqNo: **34215**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.64	0.104	2.083	0	78.8	65	135				
Pyrene	2.38	0.104	2.083	0	114	65	135				
Surr: 2-Fluorobiphenyl	2.47		2.083		119	65	135				
Surr: Terphenyl-o	2.52		2.083		121	65	135				

Sample ID: **1109079-005ADUP** SampType: **DUP** Units: **µg/L** Prep Date: **9/22/2011** RunNo: **1925**
Client ID: **MW-6** Batch ID: **1173** Analysis Date: **9/23/2011** SeqNo: **34219**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.105						0	0	30	
Chrysene	ND	0.105						0	0	30	
Benzo(b)fluoranthene	ND	0.105						0	0	30	
Benzo(k)fluoranthene	ND	0.105						0	0	30	
Benzo(a)pyrene	ND	0.105						0	0	30	
Indeno(1,2,3-cd)pyrene	ND	0.105						0	0	30	
Dibenz(a,h)anthracene	ND	0.105						0	0	30	
Surr: 2-Fluorobiphenyl	2.53		2.105		120	65	135		0		
Surr: Terphenyl-o	2.53		2.105		120	65	135		0		

Sample ID: **LCS-1173** SampType: **LCS** Units: **µg/L** Prep Date: **9/22/2011** RunNo: **1925**
Client ID: **LCSW** Batch ID: **1173** Analysis Date: **9/22/2011** SeqNo: **34223**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.43	0.100	2.000	0	71.7	65	135				
Pyrene	1.96	0.100	2.000	0	98.1	65	135				
Surr: 2-Fluorobiphenyl	2.08		2.000		104	65	135				

Qualifiers:
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits
ND Not detected at the Reporting Limit
R RPD outside accepted recovery limits
RL Reporting Limit
S Spike recovery outside accepted recovery limits

Fremont Analytical

Date: *9/26/2011*

Work Order: 1109079
CLIENT: Libby Environmental
Project: Gensco-Langseth

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: **LCS-1173**	SampType: **LCS**			Units: **µg/L**		Prep Date: **9/22/2011**		RunNo: **1925**			
Client ID: **LCSW**	Batch ID: **1173**					Analysis Date: **9/22/2011**		SeqNo: **34223**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Terphenyl-o	2.15		2.000		108	65	135				

Sample ID: **MB-1173**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **9/22/2011**		RunNo: **1925**			
Client ID: **MBLKW**	Batch ID: **1173**					Analysis Date: **9/22/2011**		SeqNo: **34224**			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.100									
Chrysene	ND	0.100									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.100									
Benzo(a)pyrene	ND	0.100									
Indeno(1,2,3-cd)pyrene	ND	0.100									
Dibenz(a,h)anthracene	ND	0.100									
Surr: 2-Fluorobiphenyl	2.35		2.000		117	65	135				
Surr: Terphenyl-o	2.18		2.000		109	65	135				

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not detected at the Reporting Limit	R	RPD outside accepted recovery limits	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits				

1109079

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9-19-11 Page: 1 of 1

Client: Libby Environmental, Inc
Address: (See above)
Phone: Fax:
Client Project #

Project Manager: Jamie Hart
Project Name: Grenco - Langseth
Location: City: Fife, WA
Collector Date of Collection: 9-16-11

	Sample Number	Depth	Time	Sample Type	Container Type	pH	Turbidity	Oil & Grease	Zinc	Zn, Cu, Pb	TSS	Dis. Oxygen	BOD 5	N+N, Total P	COD	TPH	cPAH by GC/MS		Field Notes
1	MW-1		10:25	H2O	Amber											X			
2	MW-2		14:15													X			
3	MW-3		12:55													X			
4	MW-4B		11:40													X			
5	MW-6		15:15													X			
6	MW-7		16:20	↓	↓											X			(2 Ambers 1 for QAQC)
7																			
8																			
9																			

Relinquished by:	Date / Time	Received by:	Date / Time
[signature]	9-19-11 noon	[signature]	9/20/11 10:34
Relinquished by:	Date / Time	Received by:	Date / Time
Relinquished by:	Date / Time	Received by:	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:
Record pH here:
Standard
due 9-27-11

Distribution: White - Lab; Yellow - File Copy; Originator

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 9-16-2011 Page: 1 of 1

Client: Robinson Noble
Project Manager: JFH

Address: 3011 South Huson ST suite A Tac WA
Project Name: Gensco - Langseth 20th ST

Phone: 253.475-7711 Fax:
Location: Fife WA

Client Project #
Collector: ACY Date of Collection: 9-16-11

Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270 cPAH	PCB's 8082	MTCA 5 Metals	MTCA VOC		Field Note/# Containers
1 MW-1		10:25	H2O	3-VOA	X				X		X	X			X			
2 MW-2		14:15		& 2 Amber	X				X		X	X			X			
3 MW-3		12:55			X				X		X	X			X			
4 MW-4B		11:40			X				X		X	X			X			
5 MW-6		15:15			X				X		X	X			X			
6 MW-7		16:20			X				X		X	X			X			
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		
18																		

Relinquished by:	Date / Time	Received by	Date / Time
Aaron Jones	9-16-11 16:47	[illegible]	9/16/11 16:47
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

Sample Receipt:

Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR (5-Day)

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

APPENDIX C

Friday September 16th 2011 MW-1 Gensiq-Langseth

Total well depth 9.59
DTW 4.65
water column 4.94
X 0.163 = 0.80
3 well volumes 2.41
screened Interval 5-10
Purging method: peristaltic pump
purging measurement method: grad bucket
sampled at ~~2:5~~ 10:25
sample depth 7.5
Appearance/odor water yellow
containers 3-40 mL VOA & 2 1L Amber
Preserved N/A
cooled by blue ice in cooler

9:45 start pump
10 01 pumping air lowered tube to 6
1003 pumping air lowered tube 6"
1007 pumping air lowered tube 6" reduced flow
1016 pumping air lowered tube 6" and sampled

Time	Time min	flow rate	cum volume	Temp	cond	spec cond	TDS	Dis oxygen	PH	Eh ORP
9 48	3	0.03	0.1	18.16	0.710	0.816	0.530	0.84	8.16	287.5
9 51	6	0.1	0.4	18.38	0.709	0.812	0.528	0.20	7.42	285.9
9 54	9	0.1	0.7	18.15	0.709	0.816	0.531	0.18	7.00	286.7
9 57	12	0.1	1.0	18.16	0.718	0.826	0.537	0.17	6.78	287.9
10 00	15	0.1	1.3	18.06	0.716	0.825	0.536	0.16	6.63	286.5
10 04	19	0.1	1.7	17.80	0.681	0.789	0.513	3.11	6.45	270.8
10 07	22	0.1	2.0	17.61	0.658	0.787	0.498	3.03	6.35	241.4
10 11	26	0.05	2.2	17.59	0.645	0.751	0.488	1.46	6.28	195.3
10 14	29	0.06	2.4	17.55	0.635	0.741	0.481	1.02	6.27	165.3
10 16	31	0.05	2.5	17.49	0.613	0.734	0.477	0.87	6.26	137.2

scale: 1 square=

scale: 1 square=

Friday september 16th 2011 MW-4B Genesco-Langsenh

Total well depth 10.05
DTW 3.77
water column 6.28
x 0.163 = 1.02
3 well volumes 3.07
screened Interval
purging method: peristaltic pump
purging measurement method: grad bucket
sampled at 11:40
sample depth 8'
Appearance/odor turbid at start up & slight yellow color
containers 3-40mL voa 2-1L Amber
Preserved
cooled by blue ice in cooler

1058 start pump
1107 pumping air at 6' lowered tube 1'
1111 pumping air lowered tube 1' and reduced flow
1131 pumping air reduced flow & sampled

Time	Time min	flow rate	cum volume	Temp	cond	spec cond	TDS	Dis oxygen	pH	Eh ORP
1101	3	0.03	0.1	18.05	0.720	0.830	0.539	1.15	6.27	45.3
1104	6	0.1	0.4	17.95	0.722	0.835	0.543	1.36	6.24	41.1
1107	9	0.1	0.7	17.55	0.728	0.849	0.552	4.38	6.22	40.0
1110	12	0.1	1.0	17.22	0.723	0.849	0.552	0.84	6.20	39.2
1113	15	0.06	1.2	17.04	0.711	0.838	0.545	2.56	6.18	38.1
1116	18	0.06	1.4	17.11	0.709	0.835	0.543	2.03	6.19	35.4
1119	21	0.1	1.7	17.12	0.703	0.828	0.538	1.58	6.20	31.5
1122	24	0.1	2.0	17.10	0.699	0.823	0.535	1.34	6.21	28.7
1125	27	0.06	2.2	17.06	0.696	0.820	0.533	1.16	6.23	25.9
1128	30	0.06	2.4	17.03	0.693	0.818	0.531	0.83	6.23	23.4
1131	33	0.06	2.6	17.02	0.694	0.819	0.532	0.94	6.23	21.4

scale: 1 square=

scale: 1 square=_____

Friday September 16th 2011 MW-3 Gensco - Langseth

Total well depth 9.85
DTW 1.57
water column 8.28
K 0.163 1.34
3 well volumes 4.04
Screen Interval 5-10
Purging method: peristaltic pump
Purging measurement method: grad bucket
sampled at 12:55
Sample depth 5.5'
Appearance/odor water slight yellow
containers 3 40 ml voa 2 1L Amber
Preserved N/A
cooled by blue ice in cooler

1211 Start pump
1247 pumping a little air
1247 reduced flow and sampled

scale: 1 square=_____

Time	Time min	flow rate	cum volume	Temp	cond	spec cond	TDS	Dis oxygen	pH	Eh ORP
1214	3	0.03	0.1	16.17	0.510	0.612	0.398	0.49	6.32	21.4
1217	6	0.1	0.4	16.29	0.470	0.563	0.365	0.41	6.27	21.1
1220	9	0.1	0.7	16.35	0.452	0.541	0.352	0.63	6.26	20.7
1223	12	0.1	1.0	16.36	0.457	0.547	0.356	0.59	6.25	20.2
1226	15	0.1	1.3	16.37	0.462	0.553	0.359	0.46	6.25	18.5
1229	18	0.1	1.6	16.37	0.462	0.553	0.306	0.38	6.26	16.6
1232	21	0.1	1.9	16.33	0.460	0.552	0.359	0.31	6.27	14.1
1235	24	0.1	2.2	16.3	0.458	0.549	0.357	0.27	6.29	11.7
1238	27	0.06	2.4	16.21	0.452	0.542	0.352	0.25	6.29	9.3
1241	30	0.06	2.6	16.12	0.445	0.535	0.348	0.23	6.30	7.7
1244	33	0.06	2.8	16.0	0.440	0.531	0.345	0.26	6.31	5.7
1247	36	0.06	3.0	15.98	0.436	0.526	0.341	0.31	6.30	4.0

Friday September 16th 2011 MW-2 Gensco-Langseth

Total well depth 19.88
DTW 8.71
water column 11.17
X 0.163 = 1.82
3 well volumes 5.46
Screen interval 9-19
Purging method: peristaltic pump
Purging measurement method: grad bucket
Sample at ~~1415~~ 14:15
Sample depth 10.5
Appearance / odor water slight yellow
containers 3 - 40mL VOA + 2 1L Amber
Preserved N/A
cooled by blue ice in cooler

1331 start pump
1340 pumping air lowered tube 1 and reduced flow.
1408 reduced flow

Time	Time min	flow rate	cum volume	temp	cond	spec cond	TDS	Dis oxygen	pH	Eh ORP
1335	4	—	—	18.78	1.373	1.560	1.015	1.52	6.01	19.5
1338	7	0.05	0.5	18.29	1.423	1.630	1.064	0.81	6.03	13.6
1341	10	0.11	0.5	18.15	1.492	1.718	1.118	2.57	6.09	8.8
1344	13	0.08	0.75	17.96	1.513	1.748	1.137	1.17	6.12	7.9
1347	16	0.08	1.0	18.03	1.541	1.778	1.156	0.62	6.15	6.5
1350	19	0.06	1.2	18.09	1.552	1.787	1.162	0.51	6.18	4.4
1353	22	0.06	1.4	18.21	1.559	1.791	1.164	0.49	6.21	2.3
1356	25	0.06	1.6	18.35	1.570	1.798	1.169	0.45	6.24	0.6
1359	28	0.06	1.8	18.27	1.573	1.805	1.174	0.44	6.26	-1.0
1402	31	0.06	2.0	18.12	1.570	1.808	1.175	0.44	6.25	-1.3
1405	34	0.06	2.2	18.03	1.567	1.809	1.176	0.44	6.25	-2.0
1408	37	0.06	2.4	18.03	1.569	1.810	1.176	0.43	6.26	-2.9

scale: 1 square=_____

scale: 1 square=_____

scale: 1 square=

Friday September 16th 2011 MW-6 Gensco-Langseth

Total well depth 19.0
DTW 6.80
water column 12.2
x 0.163 = 1.98
3 well volumes 5.96
screen Interval 9-19
Purging method: peristaltic pump
Purging measurement method: grad bucket
Sample at 15:15
Sample depth 11.5
Appearance/odor water yellow
containers 3-40mL vom 2 1L Amber
Preserved N/A
Cooled by blue ice in cooler

14 39 start pump
14 47 pumping air lowered tube 1'
14 55 pumping air lowered tube 1' & reduced flow
15 10 reduced flow

Time	Time min	flow rate	cum volume	Temp	cond	spec cond	TDS	DO oxygen	PH	Eh ORP
1442	3	0.03	0.1	17.12	0.555	0.656	0.426	0.62	7.11	-19.4
1445	6	0.06	0.3	16.90	0.550	0.651	0.423	0.48	6.92	-4.1
1448	9	0.06	0.5	16.45	0.555	0.664	0.432	2.43	6.78	4.5
1451	12	0.06	0.7	15.93	0.553	0.669	0.434	1.08	6.69	8.6
1454	15	0.10	1.0	15.82	0.552	0.670	0.435	0.63	6.61	10.9
1457	18	0.05	1.15	15.61	0.548	0.668	0.434	3.55	6.56	11.7
1501	22	0.05	1.35	15.52	0.553	0.676	0.440	2.27	6.48	12.4
1504	25	0.08	1.6	15.58	0.560	0.683	0.444	0.27	6.46	11.8
1507	28	0.06	1.8	15.68	0.563	0.685	0.445	0.27	6.44	11.2
1510	31	0.06	2.0	15.68	0.564	0.686	0.446	0.26	6.44	10.4

scale: 1 square=

scale: 1 square=____

Friday September 16th 2011 MW-7 Genesco-Longseth

Total well depth 19.03
DTW 7.78
water column 11.25
X 0.163 1.83
3 well volumes 5.50
Screen Interval 9-19
Purging method: peristaltic pump
Purge measurement method: grad bucket
Sample at 16:20
Sample depth 10'
Appearance/odor water slight yellow color & slight petroleum odor
container 3- 40 ml Voa 2 1L Amber
Preserved N/A
Cooled by blue ice in cooler

1543 pump on
1613 reduced flow

scale: 1 square=____

Time	Time min	flow rate	cum volume	Temp	cond	spec cond	TDS	Dis oxygen	pH	Eh ORP
1546	3	0.03	0.1	16.22	0.440	0.529	0.344	0.57	6.56	14.0
1549	6	0.05	0.25	15.73	0.431	0.524	0.341	0.39	6.42	19.3
1552	9	0.08	0.5	15.36	0.425	0.521	0.339	0.29	6.33	21.0
1555	12	0.1	0.8	15.17	0.422	0.520	0.338	0.29	6.30	21.0
1558	15	0.1	1.1	15.14	0.422	0.520	0.338	0.25	6.27	19.5
1601	18	0.06	1.3	15.09	0.423	0.521	0.339	0.23	6.25	17.4
1604	21	0.06	1.5	14.99	0.424	0.525	0.341	0.24	6.23	15.2
1607	24	0.1	1.8	15.01	0.427	0.528	0.343	0.24	6.22	12.7
1610	27	0.1	2.1	14.88	0.428	0.531	0.345	0.23	6.22	10.0
1613	30	0.06	2.3	14.89	0.430	0.533	0.346	0.22	6.21	7.7

APPENDIX D

ROBINSON NOBLE

Gensco/Mizukami Historical Groundwater Quality Data Summary

Well ID and Date	Gasoline	Diesel	Mineral Oil	Oil	Benzene	Toluene	Ethyl benzene	Xylenes	EDB*	EDC*	Napthalene	MTBE	Benz(a) anthra-cene	Chrysene	Benzo(b) fluoran-thene	Benzo(K) fluoran-thene	Benzo(a) pyrene	Ideno(1,2,3-cd) pyrene	Dibenz(a,h) anthracene	Benzo(ghi) perylene
MW1																				
11/16/05	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/12/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/30/11	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW2																				
11/16/05	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/12/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/30/11	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW3																				
11/16/05	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	**2µg/L**	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/12/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/30/11	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW4/MW4B (MW-4) was damaged and replaced by MW-4B in March 2011																				
11/16/05	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	Well MW-4 was dry in March, 2008. During the June 2008 monitoring event -- it was discovered that the well was broken and it was not sampled.																			
6/12/08																				
3/30/11	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW5/6 (MW-5 was relocated and replaced by MW-6 in April 2007)																				
11/16/05	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/12/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/30/11	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MW7																				
11/14/07	nd	nd	nd	nd	nd	nd	nd	nd	--	--	**3µg/L**	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/6/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/12/08	nd	nd	nd	nd	nd	nd	nd	nd	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
3/30/11	**550µg/L**	nd	nd	nd	nd	nd	nd	**9.1µg/L**	--	--	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
6/14/11	**170µg/L**	nd	nd	nd	nd	nd	nd	**4.5µg/L**	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
9/16/11	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MTCA Method A CUL	1000†	500	500	500	5	1000	700	1600	0.01	5	160	20	0.1 -TEF relative to benzo (a) pyrene sum of all cPAH concentrations							

Additional Notes: * EDB and EDC were added to the target compound list in June 2011 at the request of Ecology.
† Denotes value for TPH-G with an absence of Benzene **Bold denotes compound detected above laboratory detection limits but below MTCA CULs**