

release 471259

~~Tosco~~ Tosco #6380

Bellingham

NW1487

**QUARTERLY GROUNDWATER  
MONITORING REPORT FOR**

**CONOCOPHILLIPS  
COMPANY**

**RM&R #1571**

**200 South 36th Street**

**Bellingham, Washington**

entered  
CP  
7-28-08



**Stantec**

**Stantec Consulting Corporation**

3017 Kilgore Road Suite 100

Rancho Cordova CA 95670

Tel: (916) 861-0400

Fax: (916) 861-0430

DATE: July 25, 2008

**GROUNDWATER MONITORING REPORT**

Facility No.: 256380 Address: 200 South 36th Street, Bellingham, Washington  
 ConocoPhillips Site Manager: Michael Noll (RM&R 1571)  
 Consultant / Contact Person: Stantec Consulting Corporation / Amanda Magee  
 Primary Agency/Regulatory ID No.: Washington State Department of Ecology / Site ID No. 8394  
 Stantec Project No: 01CP.01571.40

**WORK PERFORMED THIS QUARTER(S) [1<sup>st</sup> - 2008]:**

- On March 5, 2008, Stantec Consulting Corporation (Stantec) personnel monitored, purged, and sampled eight wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, and MW-8) of the existing network of eight groundwater monitoring wells (MW-1 through MW-8).
- Groundwater samples were collected using a low flow peristaltic pump, with dedicated polyethylene tubing in the well casing and a new section of silicon tubing in the pump head. Complete groundwater monitoring, purging, and sampling procedures are provided in Attachment A.
- Samples were submitted to Lancaster Laboratories for analysis of gasoline range hydrocarbons (TPH-G) per Northwest Method NWTPH-Gx; diesel range (TPH-D) and heavy oil range (TPH-O) hydrocarbons per Northwest Method NWTPH-Dx, modified with an acid/silica gel cleanup; and benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tert butyl ether (MTBE) per United States Environmental Protection Agency (USEPA) Method 8260B. The laboratory analytical report is presented in Attachment B.

**DATA SUMMARY THIS QUARTER:**

Frequency of Sampling Events:	<u>Quarterly</u>	<u>(06/07,09/07,12/07, 03/08)</u>
Depth to Groundwater:	minimum	<u>4.36 ft. (MW-5)</u>
	maximum	<u>8.05 ft. (MW-2)</u>
Groundwater Gradient:	<u>Southwest and Northeast</u>	<u>(Flow Direction)</u>
	<u>approximately 0.04</u>	<u>(Magnitude, feet per foot)</u>
Maximum TPH-G Concentrations:	<u>240 µg/L (MW-7)</u>	<u>(ppb / well ID)</u>
Maximum TPH-D Concentrations:	<u>930 µg/L (MW-7)</u>	<u>(ppb / well ID)</u>
Maximum TPH-O Concentrations:	<u>860 µg/L (MW-8)</u>	<u>(ppb / well ID)</u>
Maximum Benzene Concentration:	<u>11 µg/L (MW-1)</u>	<u>(ppb / well ID)</u>
Maximum Dissolved Lead Concentration:	<u>Not Analyzed</u>	<u>(ppb / well ID)</u>
Measurable Free Product Detected:	<u>No</u>	<u>(Yes - ID well(s)/No)</u>
Free Product Recovered This Quarter:	<u>None</u>	<u>(Gallons)</u>
Cumulative Free Product Recovered to Date:	<u>None</u>	<u>(Gallons)</u>
Water Wells or	<u>One Water Well</u>	<u>(Type)</u>
Surface Waters w/in 2,000 ft:	<u>Connelly Creek</u>	
Radius and Respective Direction From Site:	<u>1,600 ft. West</u>	<u>(Respective Distance</u>
	<u>1,000 ft. Southwest</u>	<u>&amp; Direction)</u>

Current Remedial Action:  
Permits for Discharge:

NA	(SVE/AS/P&T/NA etc.)
None	(NPDES, POTW, etc.)

## DISCUSSION:

- The groundwater samples were received by Lancaster Laboratories on March 6, 2008. Based on a review of the laboratory reports, it appears that the submitted water samples were analyzed within the specified holding times and that Lancaster followed their appropriate quality assurance/quality control (QA/QC) procedures during analysis.
- TPH-G was detected at a concentration greater than the laboratory reporting limit (RL), but less than the Model Toxics Control Act (MTCA) Method A cleanup level, in the groundwater sample collected from well MW-7 (240 micrograms per liter [ $\mu\text{g/L}$ ]). TPH-G was not detected at concentrations greater than the RLs in the remaining groundwater samples collected this quarter. It should be noted that the laboratory report flagged the TPH-G analysis for the sample collected from well MW-1 with the following comment: "Preservation requirements were not met. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this samples was pH = 6."
- TPH-D was detected at a concentration greater than the MTCA Method A cleanup level in the groundwater sample collected from well MW-7 (930  $\mu\text{g/L}$ ). TPH-D was not detected at concentrations greater than the RLs in the remaining groundwater samples collected this quarter. It should be noted that the TPH-D RLs for the samples collected from wells MW-1 and MW-2 are above the MTCA Method A cleanup levels. The laboratory flagged these analyses with the following comment: "Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly."
- TPH-O was detected at a concentration greater than the MTCA Method A cleanup level, in the groundwater sample collected from well MW-8 (860  $\mu\text{g/L}$ ). TPH-O was detected at a concentration greater than the RL, but less than the MTCA Method A cleanup level, in the groundwater sample collected from well MW-7 (100  $\mu\text{g/L}$ ). TPH-O was not detected at concentrations greater than the RLs in the remaining groundwater samples collected this quarter. . It should be noted that the TPH-O RLs for the samples collected from wells MW-1 and MW-2 are above the MTCA Method A cleanup levels. The laboratory flagged these analyses with the following comment: "Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly."
- Benzene was detected at a concentration greater than the MTCA Method A cleanup level in the groundwater sample collected from well MW-1 (11  $\mu\text{g/L}$ ). BTEX constituents were not detected at concentrations greater than their respective RLs in the remaining groundwater samples collected this quarter.
- MTBE was detected at a concentration greater than the RL, but less than MTCA Method A cleanup level, in the groundwater sample collected from well MW-1 (1  $\mu\text{g/L}$ ). MTBE was not detected at concentrations greater than the RLs in the remaining groundwater samples collected this quarter.
- No drums were left on site.

## WORK PROPOSED FOR NEXT QUARTER [2nd - 2008]:

- Measure depth to water, purge, and sample eight groundwater monitoring wells (MW-1 through MW-8). Submit groundwater samples for analysis for NWTPH-Gx, NWTPH-Dx, BTEX, and MTBE.

**ATTACHMENTS:**

Figure 1: Site Location Map

Figure 2: Site Plan with Groundwater Elevations (3/5/08)

Figure 3: Site Plan with Groundwater Analytical Results (3/5/08)

Table 1: Summary of Groundwater Elevations and Sample Analytical Results

Table 2: Cumulative Summary of Groundwater Elevations and Sample Analytical Results

Attachment A: Stantec Monitoring Well Gauging, Purging and Sampling Procedures; Groundwater Monitoring Field Data Records

Attachment B: Laboratory Analytical Report and Chain-of-Custody Record

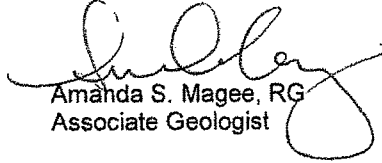
Attachment C: Limitations and Certifications for Non-Phase I Reports

Prepared By:



Lee Ignatowicz  
Associate Geologist

Reviewed By:

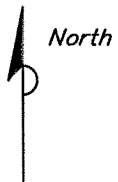
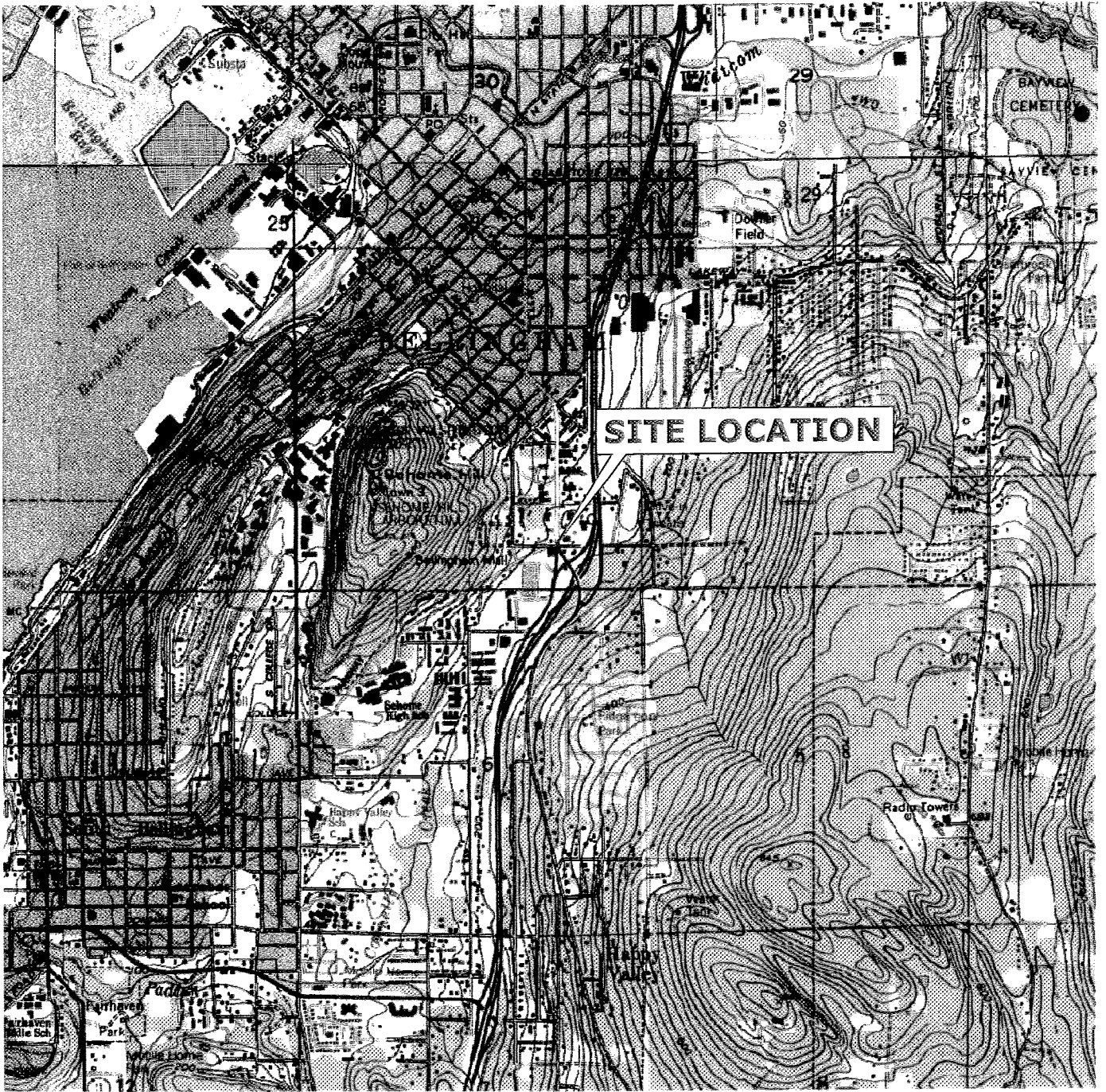


Amanda S. Magee, RG  
Associate Geologist

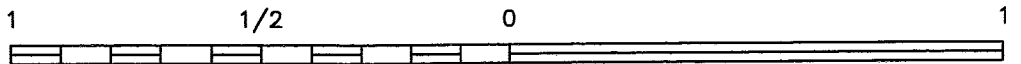
LI/AM:po

cc: LUST Coordinator, Washington State Department of Ecology - Bellevue, WA  
Mr. Victor Boulos, Keith Oil Corporation

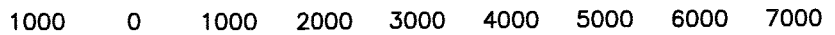
## FIGURES



WASHINGTON



SCALE (MILES)



SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE; BELLINGHAM SOUTH, WASHINGTON; 1972



**SECOR**

12034 134th COURT, SUITE 102  
 REDMOND, WASHINGTON  
 PHONE: (425) 372-1600 FAX: (425) 372-1650

FOR:

**ConocoPhillips**

FACILITY NO 256380 (RM & R 1571)  
 200 SOUTH 36th STREET  
 BELLINGHAM, WASHINGTON

**SITE LOCATION MAP**

FIGURE:

**1**

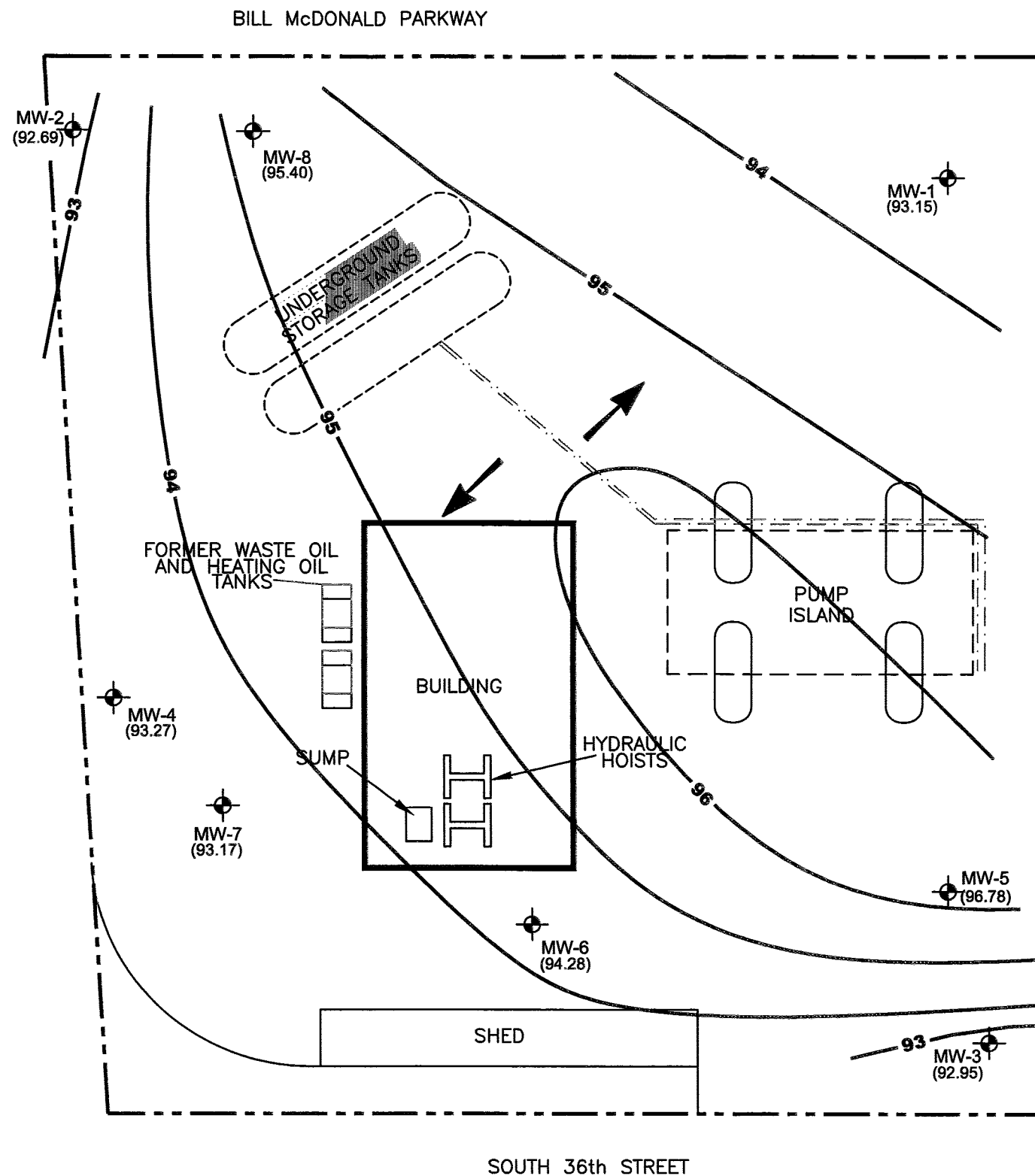
JOB NUMBER:  
01CP.01571.07

DRAWN BY:  
JCR





CHECKED BY:

APPROVED BY:

DATE:  
9/24/07

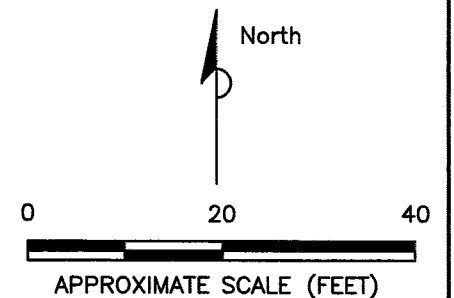


**LEGEND**

-  MONITORING WELL LOCATION
-  SITE BOUNDARY
- GROUNDWATER**
- (70.60) GROUNDWATER ELEVATION (FEET)
-  INFERRED GROUNDWATER FLOW DIRECTION
- 94  GROUNDWATER ELEVATION CONTOUR (FEET)

**NOTES:**

- 1). ALL LOCATIONS ARE APPROXIMATE.



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SOURCE:  
 BASE MAP FROM; ENVIRONMENTAL RESOLUTIONS, INC.  
 (ERI) TITLED GROUNDWATER SAMPLE ANALYSIS MAP-  
 06/10/03, PLATE 1, DATED 07/08/03, PROJECT  
 NO. 31065. CADD FILE 31065.13.DWG



**Stantec**

FOR:  
**ConocoPhillips**  
 FACILITY NO. 256380 (RM & R 1571)  
 200 SOUTH 36th STREET  
 BELLINGHAM, WASHINGTON

**SITE PLAN WITH  
 GROUNDWATER ELEVATIONS  
 (03/05/08)**

FIGURE:  
**2**

JOB NUMBER: 01CP.01571.41	DRAWN BY: MDR	CHECKED BY: LI	APPROVED BY: DB	DATE: 04/08/08
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MW-8	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	<76	<150
TPH-O	--	<95	290	860
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	<0.5	<0.5	<0.5	<0.5

MW-2	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	<75	<800
TPH-O	--	<95	<94	<1,000
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	<0.5	<0.5	<0.5	<0.5

MW-1	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	<400	<800
TPH-O	--	<95	<500	<1,000
B	<0.5	<0.5	<0.5	11
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	1	0.5	0.6	1

MW-4	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	170	<76	<77
TPH-O	--	<95	<95	<96
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	<0.5	0.6	<0.5	<0.5

MW-7	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	210	250	400	240
TPH-D	--	1,000	970	930
TPH-O	--	160	140	100
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	0.8	0.8	0.8	<0.5

MW-6	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	<76	<76
TPH-O	--	<95	<95	<95
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	<0.5	<0.5	<0.5	<0.5

MW-5	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	99	<76
TPH-O	--	<95	<95	<95
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	0.6	<0.5	<0.5	<0.5

MW-3	6/1/07	9/6/07	12/03/07	03/05/08
TPH-G	<50	<50	<50	<50
TPH-D	--	<76	<75	<76
TPH-O	--	<95	<94	<95
B	<0.5	<0.5	<0.5	<0.5
T	<0.7	<0.7	<0.7	<0.7
E	<0.8	<0.8	<0.8	<0.8
X	<0.8	<0.8	<0.8	<0.8
MTBE	<0.5	<0.5	<0.5	<0.5

**LEGEND**

- MONITORING WELL LOCATION
- SITE BOUNDARY
- INFERRED GROUNDWATER FLOW DIRECTION

**ANALYTES**

WELL ID	ANALYTES
TPH-G	GASOLINE RANGE HYDROCARBONS
TPH-D	DIESEL RANGE HYDROCARBONS
TPH-O	HEAVY OIL RANGE HYDROCARBONS
B	BENZENE
T	TOLUENE
E	ETHYL BENZENE
X	TOTAL XYLENES
MTBE	METHYL TERT-BUTYL ETHER

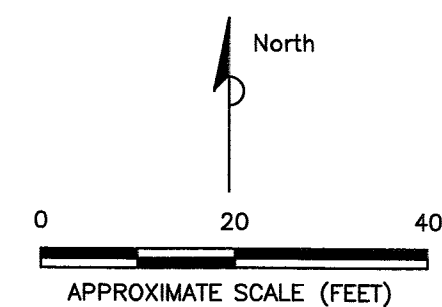
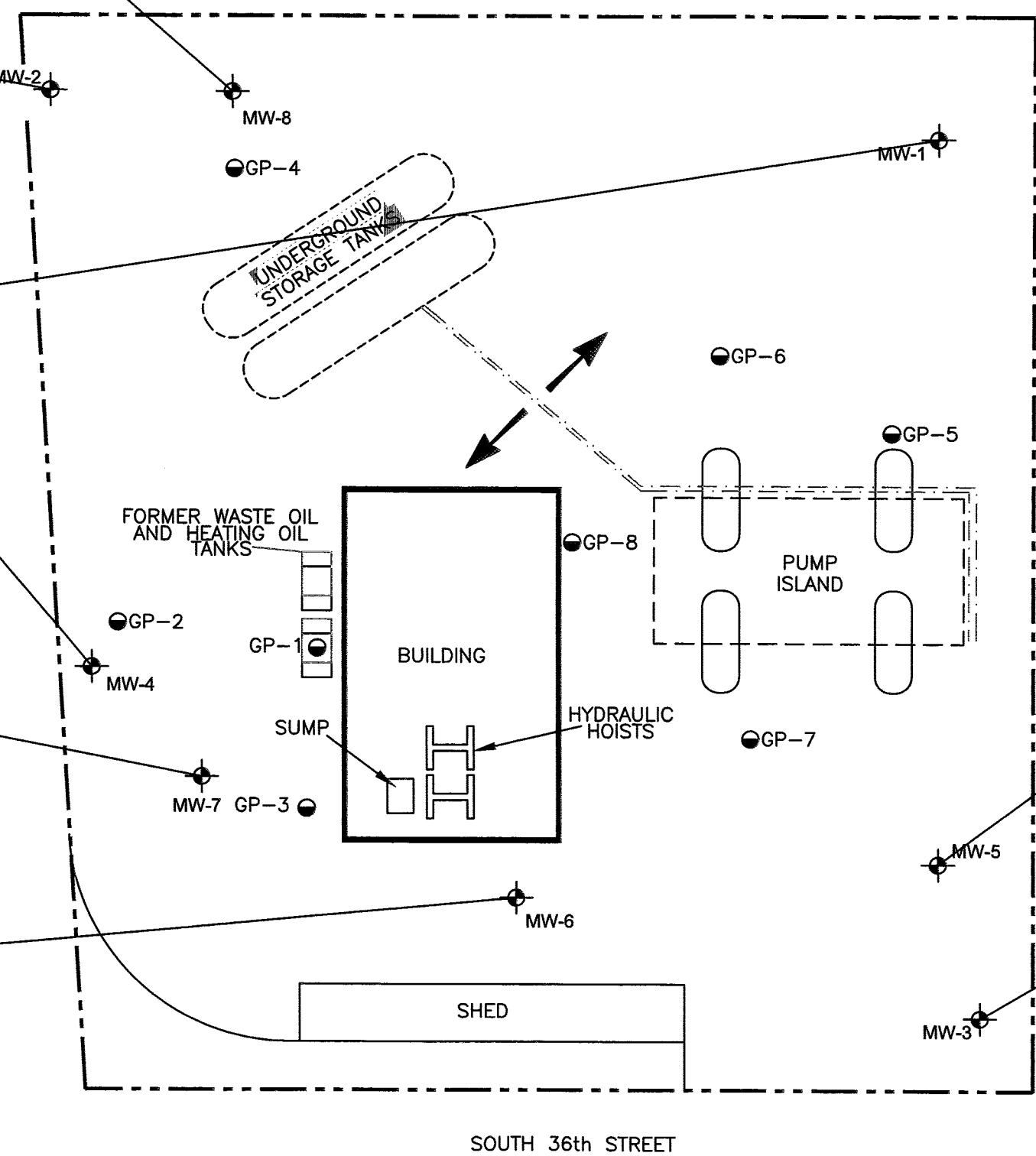
UNITS IN MICROGRAMS PER LITER (µg/L)

< LESS THAN LABORATORY REPORTING LIMITS

-- NOT ANALYZED OR NOT APPLICABLE

**NOTES:**

- 1). ALL LOCATIONS ARE APPROXIMATE



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 (ERI) TITLED GROUNDWATER SAMPLE ANALYSIS MAP-  
 06/10/03, PLATE 1, DATED 07/08/03, PROJECT  
 NO. 31065. CADD FILE 31065.13.DWG



FOR:  
**ConocoPhillips**  
 FACILITY NO. 256380 (RM & R 1571)  
 200 SOUTH 36th STREET  
 BELLINGHAM, WASHINGTON

JOB NUMBER:  
 01CP.01571.41

DRAWN BY:  
 MDR

**SITE PLAN WITH GROUNDWATER ANALYTICAL RESULTS (03/05/08)**

FIGURE:  
**3**

CHECKED BY:  
 LI

APPROVED BY:  
 DB

DATE:  
 04/08/08

## **TABLES**

**TABLE 1  
SUMMARY OF GROUNDWATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS**

ConocoPhillips Facility No. 256380 (RM&R 1571)  
200 South 36th Street  
Bellingham, Washington

Well Name	Sample Date	Elevation Data		Total Petroleum Hydrocarbons			Aromatic Hydrocarbons					Lead
		Depth to Water	GW Elevation	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE	Total Pb
MW-1	06/01/07	5.47	93.02	<50	--	--	<0.5	<0.7	<0.8	<0.8	1	--
98.49	09/06/07	6.01	92.48	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	0.5	--
	12/03/07	6.63	91.86	<50	<400*	<500*	<0.5	<0.7	<0.8	<0.8	0.6	--
	03/05/08	5.34	93.15	<50**	<800*	<1,000*	11	<0.7	<0.8	<0.8	1	--
MW-2	06/01/07	8.38	92.36	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--
100.74	09/06/07	9.06	91.68	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	12/03/07	6.69	94.05	<50	<75	<94	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	8.05	92.69	<50	<800*	<1,000*	<0.5	<0.7	<0.8	<0.8	<0.5	--
MW-3	06/01/07	4.94	92.90	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--
97.84	09/06/07	5.43	92.41	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	12/03/07	4.70	93.14	<50	<75	<94	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	4.89	92.95	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
MW-4	06/01/07	6.60	92.84	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--
99.44	09/06/07	7.12	92.32	<50	170	<95	<0.5	<0.7	<0.8	<0.8	0.6	--
	12/03/07	6.00	93.44	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	6.17	93.27	<50	<77	<96	<0.5	<0.7	<0.8	<0.8	<0.5	--
MW-5	06/01/07	4.10	97.04	<50	--	--	<0.5	<0.7	<0.8	<0.8	0.6	--
101.14	09/06/07	4.43	96.71	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	12/03/07	4.64	96.50	<50	99	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	4.36	96.78	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--

**TABLE 1**  
**SUMMARY OF GROUNDWATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS**

ConocoPhillips Facility No. 256380 (RM&R 1571)  
 200 South 36th Street  
 Bellingham, Washington

Well Name	Sample Date	Elevation Data		Total Petroleum Hydrocarbons			Aromatic Hydrocarbons					Lead
		Depth to Water	GW Elevation	TPH-G	TPH-D	TPH-O	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	MTBE	Total Pb
MW-6	06/10/07	5.73	94.01	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--
99.74	09/06/07	6.22	93.52	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	12/03/07	5.46	94.28	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	5.46	94.28	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
MW-7	06/01/07	6.99	92.65	210	--	--	<0.5	<0.7	<0.8	<0.8	0.8	--
99.64	09/06/07	7.47	92.17	250	<b>1,000</b>	160	<0.5	<0.7	<0.8	<0.8	0.8	--
	12/03/07	4.97	94.67	400	<b>970</b>	140	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	6.47	93.17	240	<b>930</b>	100	<0.5	<0.7	<0.8	<0.8	<0.5	--
MW-8	06/01/07	7.77	94.93	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--
102.7	09/06/07	8.45	94.25	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--
	12/03/07	7.51	95.19	<50	<76	290	<0.5	<0.7	<0.8	<0.8	<0.5	--
	03/05/08	7.30	95.40	<50	<150	<b>860</b>	<0.5	<0.7	<0.8	<0.8	<0.5	--
<b>MTCA Method A Cleanup Levels:</b>				<b>1000/800<sup>a</sup></b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>	<b>20</b>	<b>15</b>

**NOTES:**

Concentrations are in micrograms per liter (µg/L).

DTW = Depth to water in feet below top of casing.

GW Elev. = Groundwater elevation relative to top of casing elevation.

TPH-G = Gasoline range hydrocarbons by Northwest Method NWTPH-Gx.

TPH-D and TPH-O = Diesel and heavy oil range hydrocarbons, respectively, by Northwest Method NWTPH-Dx.

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes by EPA Method 5030/8260B.

Total lead by ICP-US EPA Method 6010.

-- = Not Analyzed or Sampled.

< = Less than the stated laboratory reporting limit.

**Bolded** values equal or exceed MTCA Method A Cleanup Levels.

<sup>a</sup> Cleanup levels stated by MTCA Method A for TPH-G are 1000 µg/L when no benzene is present and 800 µg/L when benzene is present.

\* Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.

\*\* Preservation requirements were not met. The vial submitted for volatile analysis did not have a pH < 2 at the time of analyses. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH=6.

**TABLE 2**  
**CUMULATIVE SUMMARY OF GROUNDWATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS**  
 ConocoPhillips Facility No. 256380 (RM&R 1571)  
 200 South 36th Street  
 Bellingham, Washington

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	MTBE	Total Pb	Diss Pb
MW1	6/9/2005	6.10	92.39	<100	<236	<472	<1	<1	<1	<3	1.26	--	<15
TOC Elevation	09/15/05	6.60	91.89	<48	<160	<200	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
98.49	12/15/05	5.94	92.55	<48	170	110	<0.2	<0.2	<0.2	<0.6	--	--	--
	03/10/06	5.82	92.67	<48	<76	<95	0.6	<0.2	<0.2	<0.6	--	--	--
	06/30/06	8.88	89.61	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	1.3	--	--
	03/07/07	Unable to sample, Public Works truck parked over well.											
	06/01/07	5.47	93.02	<50	--	--	<0.5	<0.7	<0.8	<0.8	1.0	--	--
	09/06/07	6.01	92.48	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	0.5	--	--
	12/03/07	6.63	91.86	<50	<400 <sup>p</sup>	<500 <sup>c</sup>	<0.5	<0.7	<0.8	<0.8	0.6	--	--
	03/05/08	5.34	93.15	<50 <sup>d</sup>	<800 <sup>e</sup>	<1,000 <sup>f</sup>	11	<0.7	<0.8	<0.8	1	--	--
MW2	06/09/05	8.66	92.08	<100	<238	<475	<1	<1	<1	<3	<1	--	<15
TOC Elevation	09/15/05	5.40	95.34	<48	<75	<94	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
100.74	12/15/05	8.44	92.30	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	03/10/06	8.28	92.46	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	--	--
	06/30/06	8.71	92.03	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
	03/07/07	7.80	92.94	<48	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/01/07	8.38	92.36	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	09/06/07	9.06	91.68	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	12/03/07	6.69	94.05	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	8.05	92.69	<50	<800 <sup>e</sup>	<1,000 <sup>f</sup>	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
MW3	06/09/05	5.25	92.59	<100	<238	<475	<1	<1	<1	<3	<1	--	<15
TOC Elevation	09/15/05	7.20	90.64	<48	<75	<93	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
97.84	12/15/05	5.09	92.75	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	03/10/06	4.75	93.09	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	06/30/06	5.40	92.44	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
	03/07/07	4.42	93.42	<48	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/01/07	4.94	92.9	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	09/06/07	5.43	92.41	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	12/03/07	4.70	93.14	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	4.89	92.95	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
MW4	06/09/05	6.91	92.53	<100	<237	<473	<1	<1	<1	<3	<1	--	<15
TOC Elevation	09/15/05	6.10	93.34	<48	150	<93	<0.5	<0.5	<0.5	<1.5	--	--	<0.87
99.44	12/15/05	6.73	92.71	<48	180	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	03/10/06	6.28	93.16	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
	06/03/06	6.80	92.64	<48	130	<95	<0.2	<0.2	<0.2	<0.6	0.8	--	--
	03/07/07	5.81	93.63	<48	83	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/01/07	6.60	92.84	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	09/06/07	7.12	92.32	<50	170	<95	<0.5	<0.7	<0.8	<0.8	0.6	--	--
	12/03/07	6.00	93.44	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	6.17	93.27	<50	<77	<96	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
MW-5	01/11/06	4.04	NE	<48	<75	<94	1.7	<0.2	<0.2	<0.6	--	<8.4	--
TOC Elevation	03/10/06	3.81	97.33	65	<75	<94	13	0.2	<0.2	<0.6	--	--	--
101.14	06/30/06	4.46	96.68	57	<76	<95	8.6	<0.2	<0.2	<0.6	<5.0	--	--
	03/07/07	3.48	97.66	<48	<76	<94	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/01/07	4.10	97.04	<50	--	--	<0.5	<0.7	<0.8	<0.8	0.6	--	--
	09/06/07	4.43	96.71	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	12/03/07	4.64	96.50	<50	99	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	4.36	96.78	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--

**TABLE 2  
CUMULATIVE SUMMARY OF GROUNDWATER ELEVATIONS AND SAMPLE ANALYTICAL RESULTS**

ConocoPhillips Facility No. 256380 (RM&R 1571)  
200 South 36th Street  
Bellingham, Washington

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	MTBE	Total Pb	Diss Pb
MW-6	01/11/06	4.89	NE	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	<8.4	--
TOC Elevation	03/10/06	5.47	94.27	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	--	--
99.74	06/30/06	6.50	93.24	<48	<80	<100	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
	03/07/07	5.08	94.66	<48	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/10/07	5.73	94.01	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	09/06/07	6.22	93.52	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	12/03/07	5.46	94.28	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	5.46	94.28	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
MW-7	01/11/06	6.07	NE	160	<b>780<sup>b</sup></b>	<94 <sup>b</sup>	<0.2	<0.2	<0.2	<0.6	2.5	<8.4	--
TOC Elevation	03/10/06	6.71	92.93	140	<b>540</b>	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
99.64	06/30/06	7.31	92.33	190	<b>1,000</b>	<480	0.2	<0.2	<0.2	<0.6	2	--	--
	03/07/07	6.00	93.64	340	<b>870</b>	<94	<0.5	<0.7	<0.8	<0.8	0.7	--	--
	06/01/07	6.99	92.65	210	--	--	<0.5	<0.7	<0.8	<0.8	0.8	--	--
	09/06/07	7.47	92.17	250	<b>1,000</b>	160	<0.5	<0.7	<0.8	<0.8	0.8	--	--
	12/03/07	4.97	94.67	400	<b>970</b>	140	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	6.47	93.17	240	<b>930</b>	100	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
MW-8	01/11/06	7.00	NE	<48	<76	<95	<0.2	<0.2	<0.2	<0.6	--	<8.4	--
TOC Elevation	03/10/06	7.50	95.20	<48	<75	<94	<0.2	<0.2	<0.2	<0.6	--	--	--
102.7	06/30/06	7.97	94.73	<48	<77	<96	<0.2	<0.2	<0.2	<0.6	<0.3	--	--
	03/07/07	6.93	95.77	<48	<75	<94	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	06/01/07	7.77	94.93	<50	--	--	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	09/06/07	8.45	94.25	<50	<76	<95	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	12/03/07	7.51	95.19	<50	<76	290	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
	03/05/08	7.30	95.40	<50	<150	<b>860</b>	<0.5	<0.7	<0.8	<0.8	<0.5	--	--
<b>MTCA Method A Cleanup Levels:</b>				<b>1000/800<sup>a</sup></b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>	<b>20</b>	<b>15</b>	<b>15</b>

**EXPLANATION:**

TOC = Top of Casing

Concentrations are in micrograms per liter (ug/L).

Wellhead elevations were taken from prior consultants reports.

DTW = Depth to water in feet below top of casing

GW Elev. = Groundwater elevation relative to top of casing elevation

TPH-G = Gasoline range hydrocarbons by Ecology Method NWTPH-Gx

TPH-D and TPH-O = Diesel and heavy oil range hydrocarbons, respectively, by Ecology Method NWTPH-Dx

B = Benzene; T = Toluene; E = Ethylbenzene; X = Total Xylenes

BTEX = Aromatic compounds by EPA Method 8020, 8021B or 8260B, refer to laboratory reports.

Total Pb = Total lead by ICP-USEPA Method 6010; Diss Pb = Dissolved lead by ICP-USEPA Method 6010

-- = Not Analyzed or Sampled

< = Less than the stated laboratory reporting limit

Bold values equal or exceed MTCA Method A Cleanup Levels.

<sup>a</sup> Concentration levels stated by MTCA Method A for TPH-G are 1000 ug/L when no benzene is present and 800 ug/L when benzene is present.

<sup>b</sup> = The recovery for the laboratory control sample (LCS) with this sample is below quality control limits. Since no sample remained for a reextraction the data is reported. The observed sample pattern includes #2 fuel/diesel and individual peaks eluting in the diesel organic range.

<sup>c</sup> Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.

<sup>d</sup> Preservation requirements were not met. The vial submitted for volatile analysis did not have a pH < 2 at the time of analyses. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH=6.

**ATTACHMENT A**  
**STANTEC MONITORING WELL GAUGING, PURGING AND**  
**SAMPLING PROCEDURES;**  
**GROUNDWATER MONITORING FIELD DATA RECORDS**

## STANTEC MONITORING WELL GAUGING, PURGING AND SAMPLING PROCEDURES

Monitoring well purging and sampling was conducted based on USEPA approved (Puls and Barcelona, 1996) low-flow sampling techniques whenever possible.

### **Purging Procedures**

- A. Using a decontaminated instrument (i.e., tape measure, continuity meter, or interface probe) measure the depth to groundwater in reference to the measuring point at the top of the casing. Measure the total depth of the well and diameter of the well casing to calculate the volume of water in the well casing.
- B. Based on previously obtained data, if a monitoring well is suspected of containing LPH concentrations, lower a transparent bailer into the well to evaluate the presence of a hydrocarbon sheen on the water table.
- C. Decontaminate the purge pump and/or PVC bailers by scrubbing in Alconox detergent solution, followed by a tap water rinse and then a de-ionized water rinse.
- D. Purge by low-flow pumping (less than 0.5 liters per minute) for approximately five minutes. Monitor the static water level in the well using a decontaminated instrument and adjust the pumping rate to maintain a minimal drawdown. If low-flow purging is not possible and bailing is used to purge the well, then a minimum of three well volumes will be removed. When purging 3 well volumes, parameters should be measured after each casing volume is removed. If the well goes dry, the procedure listed in step E2 (below) should be followed.
- E. Conduct field measurements (i.e., pH, specific conductivity, temperature, and oxidation-reduction potential) note clarity, color, turbidity, and odor of purge water, and measure depth to groundwater.
  1. If the well has not been purged dry and drawdown is minimal, continue to pump and conduct field measurements (including depth to water) again every three to five minutes during purging.
    - a) If the first through third series of measurements vary by less than 10 percent, the well has been adequately purged. If bailers are used to purge the well, then the water level is allowed to recover to 80 percent of its static condition, or for two hours, whichever comes first prior to beginning the sampling procedure.
    - b) If the measurements vary by 10 percent or greater, repeat Step E1 above.
    - c) If a minimum of three parameters cannot be measured during purging and or drawdown cannot be controlled to minimal, remove three well volumes with a bailer prior to sampling.
  2. If the well has been purged dry, measure the water level and allow the well to recharge to 80 percent, or for two hours, whichever occurs first. Calculate the percent recovery, and begin the sampling procedure.

### **Sampling Procedures**

- Use the pump and a clean, dedicated section of tubing to collect the groundwater sample from the screened interval of the water column. If the pump cannot be used, collect the water sample with a clean, dedicated polyethylene disposable bailer.
- Transfer the groundwater sample into the appropriate container(s). Where applicable, some containers are completely filled to achieve zero headspace. Label the samples according to location and date of collection.
- Enter the samples into Chain-of-Custody and preserve on ice until delivery to the analytical laboratory. Complete the Well Development or Purging/Sampling Log to be stored in the project file.

### **Reference:**

Puls, R.W., and Barcelona M.J., 1996. EPA Ground Water Issue Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures, EPA/540/S-95/504.

# SECOR

## DAILY FIELD LOG

Page: 1 of 1

Date: 3-5-08

Client: **ConocoPhillips** Site No: **256380** Project No: **01CP.01571.0140**

Scope of Work:  Quarter Monitoring/Sampling

Describe Daily Activities:

Gauged 8 monitoring wells.  
Purged      monitoring wells.  
Sampled 8 monitoring wells.

Number of drums left on site: 0

Field Notes:

10:50 on-site  
check in with Tammy  
set up equipment

2:58 Finish Sampling  
clean up equipment

11:10 - Begin gauging wells.

3:10 off-site

12:00 - Finish gauging.  
Begin sampling wells

MW-1 @ 12:20  
MW-2 @ 12:43  
MW-3 @ 1:00  
MW-4 @ 1:21  
MW-5 @ 1:37  
MW-6 @ 2:00  
MW-7 @ 2:23  
MW-8 @ 2:45

Arrived on Site: 10:50

Departed Site: 3:10

Decontamination Procedures: **3-Stage (Alconox Wash, Tap Water Rinse, & Distilled Water Rinse)**

Daily Health and Safety Log Completed?: YES

Utility Locations Checked?:

Important Conversations:

store manager

Important Changes in Scope of Work:

NO

Weather Conditions: Clear

Subcontractors On Site: NO

SECOR Personnel On Site: Travis Dickson

Signed: [Signature]

Date: 3-5-08

**SECOR**  
**GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. MW-1

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 5.34 FT. or IN.
- B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.
- E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water =	PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water =	PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water =	PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>ST</sup> Volume:	<u>12:03</u>	<u>C</u>	<u>-6</u>	<u>-200</u>	<u>7.33</u>		<u>20.10</u>	<u>0.721</u>	<u>5.35</u>
2 <sup>ND</sup> Volume:	<u>12:07</u>	<u>C</u>	<u>-7</u>	<u>-198</u>	<u>7.22</u>		<u>20.29</u>	<u>0.703</u>	<u>5.38</u>
3 <sup>RD</sup> Volume:	<u>12:20</u>	<u>C</u>	<u>-9</u>	<u>-190</u>	<u>7.18</u>		<u>20.36</u>	<u>0.694</u>	
4 <sup>TH</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: 5.38

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-1</u>	<u>12:20</u>	<u>6 vials</u>	
		<u>1 amber</u>	

**COMMENTS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Casing Capacities:  
2-inch hole.....0.16 gal/in ft.  
4-inch hole.....0.65 gal/in ft.  
6.5-inch hole.....1.70 gal/in ft.  
8-inch hole.....2.60 gal/in ft.  
10-inch hole.....4.10 gal/in ft.

**Recharge Calculation at Time of Sample Collection**

Total Depth of Well:  
Original Water Column: \_\_\_\_\_ x 0.80 = \_\_\_\_\_ ( )  
Collect sample when Depth to Water measures  
Less than or equal to:

**SECOR  
GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. MW-2

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 8.05 FT. or IN.
- B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.

**E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:**

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water _____ =	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water _____ =	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water _____ =	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	<u>12:35</u>	<u>C</u>	<u>602</u>	<u>87</u>	<u>7.03</u>		<u>18.77</u>	<u>0.67</u>	<u>8.05</u>
2 <sup>nd</sup> Volume:	<u>12:40</u>	<u>C</u>	<u>613</u>	<u>98</u>	<u>7.11</u>		<u>18.93</u>	<u>0.693</u>	<u>8.07</u>
3 <sup>rd</sup> Volume:	<u>12:43</u>	<u>C</u>	<u>633</u>	<u>110</u>	<u>7.31</u>		<u>19.31</u>	<u>0.721</u>	<u>8.09</u>
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: 8.09

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-2</u>	<u>12:43</u>	<u>6 VOLS</u>	
		<u>1 AMPLE</u>	

**COMMENTS:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Casing Capacities:  
2-inch hole.....0.16 gal/lin ft.  
4-inch hole.....0.65 gal/lin ft.  
6.5-inch hole.....1.70 gal/lin ft.  
8-inch hole.....2.60 gal/lin ft.  
10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**

Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_) Total Depth of Well:  
Collect sample when Depth to Water measures  
Less than or equal to:

# SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. MW-3

FACILITY NAME: Dillingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 4.89 FT. or IN.
- B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.
- E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>			
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	=	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	=	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	=	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	<u>12:53</u>	<u>C</u>	<u>690</u>	<u>-103</u>	<u>7.03</u>		<u>18.33</u>	<u>0.623</u>	<u>4.89</u>
2 <sup>nd</sup> Volume:	<u>12:57</u>	<u>C</u>	<u>631</u>	<u>-91</u>	<u>7.21</u>		<u>18.63</u>	<u>0.649</u>	<u>4.91</u>
3 <sup>rd</sup> Volume:	<u>1:00</u>	<u>C</u>	<u>644</u>	<u>-76</u>	<u>7.29</u>		<u>18.81</u>	<u>0.654</u>	<u>4.92</u>
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

4.92

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: \_\_\_\_\_

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-3</u>	<u>1:00</u>	<u>6 vials</u> <u>7 amber</u>	_____
_____	_____	_____	_____

**COMMENTS:**  
Well missing bolt  
well Bot Full of water

Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**

Total Depth of Well:  
 Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_)  
 Collect sample when Depth to Water measures  
Less than or equal to:

# SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO: MW-4

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 6.17 FT. or IN.
- B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.
- C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.
- D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.

E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	<u>3 Well Vols.</u>	<u>5 Well Vols.</u>	
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water _____ = _____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water _____ = _____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water _____ = _____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	<u>1:13</u>	<u>C</u>	<u>700</u>	<u>49</u>	<u>7.00</u>		<u>19.13</u>	<u>0.613</u>	<u>6.17</u>
2 <sup>nd</sup> Volume:	<u>1:18</u>	<u>C</u>	<u>716</u>	<u>56</u>	<u>7.31</u>		<u>19.01</u>	<u>0.652</u>	<u>6.19</u>
3 <sup>rd</sup> Volume:	<u>1:21</u>	<u>C</u>	<u>723</u>	<u>69</u>	<u>7.46</u>		<u>18.57</u>	<u>0.670</u>	<u>6.21</u>
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 6.21

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-4</u>	<u>1:21</u>	<u>6 VOLS</u>	
		<u>1 Amber</u>	

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**  
 Total Depth of Well: \_\_\_\_\_  
 Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_)\_\_\_\_\_  
 Collect sample when Depth to Water measures  
Less than or equal to:

# SECOR GROUNDWATER SAMPLING FIELD DATA SHEET

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. MW-5  
 FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C  
 FIELD PERSONNEL: Travis Dickson  
 WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 4.36 FT. or IN.  
 B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.  
 C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.  
 D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.  
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:
- |               | 3 Well Vols. | 5 Well Vols. |                 |   |          |
|---------------|--------------|--------------|-----------------|---|----------|
| 2" Diameter = | 0.5 gals/ft  | 0.82 gals/ft | x feet of water | = | PV (Gal) |
| 4" Diameter = | 2.0 gals/ft  | 3.25 gals/ft | x feet of water | = | PV (Gal) |
| 6" Diameter = | 4.4 gals/ft  | 7.35 gals/ft | x feet of water | = | PV (Gal) |

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	<u>1:24</u>	<u>C</u>	<u>826</u>	<u>-83</u>	<u>7.03</u>		<u>19.81</u>	<u>0.731</u>	<u>4.36</u>
2 <sup>nd</sup> Volume:	<u>1:34</u>	<u>C</u>	<u>831</u>	<u>-94</u>	<u>7.21</u>		<u>19.73</u>	<u>0.714</u>	<u>4.38</u>
3 <sup>rd</sup> Volume:	<u>1:37</u>	<u>C</u>	<u>847</u>	<u>-99</u>	<u>7.37</u>		<u>19.53</u>	<u>0.707</u>	<u>4.41</u>
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

SAMPLES COLLECTED: Depth to Water at time of sample collection: 4.41

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-5</u>	<u>1:37</u>	<u>6 vials</u> <u>1 amber</u>	

**COMMENTS:** no bolts on well

Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**  
 Total Depth of Well: \_\_\_\_\_  
 Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_)  
 Collect sample when Depth to Water measures  
Less than or equal to:

**SECOR**  
**GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. mcw-6

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 5.46 FT. or IN.  
 B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.  
 C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.  
 D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.  
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.			
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	=	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	=	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	=	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	<u>1:53</u>	<u>C</u>	<u>6.25</u>	<u>-93</u>	<u>7.39</u>		<u>17.81</u>	<u>0.603</u>	<u>5.48</u>
2 <sup>nd</sup> Volume:	<u>1:57</u>	<u>C</u>	<u>6.51</u>	<u>-81</u>	<u>7.34</u>		<u>17.91</u>	<u>0.711</u>	<u>5.59</u>
3 <sup>rd</sup> Volume:	<u>2:00</u>	<u>C</u>	<u>6.71</u>	<u>-72</u>	<u>7.21</u>		<u>18.01</u>	<u>0.719</u>	
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

5.50

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: \_\_\_\_\_

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>mcw-6</u>	<u>2:00</u>	<u>6 Vials</u>	
		<u>1 Amble</u>	

**COMMENTS:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**

Total Depth of Well: \_\_\_\_\_  
 Original Water Column: \_\_\_\_\_ x 0.80 = -- (\_\_\_\_\_)  
 Collect sample when Depth to Water measures  
Less than or equal to:

**SECOR  
GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. MW-7

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 6.47 FT. or IN.  
 B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.  
 C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.  
 D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.  
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water _____ =	_____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water _____ =	_____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water _____ =	_____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	2:15	C	826	-93	7.19		18.31	0.643	6.47
2 <sup>nd</sup> Volume:	2:20	C	837	-107	7.23		18.47	0.659	6.45
3 <sup>rd</sup> Volume:	2:23	C	840	-121	7.29		18.63	0.671	6.51
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: 6.51

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>MW-7</u>	<u>2:23</u>	<u>6 Vac</u>	
		<u>1 Ambi</u>	

**COMMENTS:**  
Well box full of water

Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**

Total Depth of Well: \_\_\_\_\_  
 Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_)  
 Collect sample when Depth to Water measures  
Less than or equal to:

**SECOR  
GROUNDWATER SAMPLING FIELD DATA SHEET**

SECOR PN: \_\_\_\_\_ ENFOS PO# \_\_\_\_\_ DATE: 3-5-08 WELL NO. mw-8

FACILITY NAME: Bellingham TEMPERATURE: \_\_\_\_\_ °F or °C

FIELD PERSONNEL: Travis Dickson

WEATHER: \_\_\_\_\_

**FIELD MEASUREMENTS:**

- A. Static Water Level (SWL) below top of casing/piezometer: 7.30 FT. or IN.  
 B. Thickness of Free Product, if present: \_\_\_\_\_ Inches \_\_\_\_\_ FT. or IN.  
 C. Total Depth of well (TD) from top of casing/piezometer: \_\_\_\_\_ FT. or IN.  
 D. Height of Water Column in casing (h = TD - SWL): \_\_\_\_\_ FT. or IN.  
 E. Useful approximate Purge Volumes (PV) per foot of water column for common casing sizes:

	3 Well Vols.	5 Well Vols.		
2" Diameter =	0.5 gals/ft	0.82 gals/ft	x feet of water	= _____ PV (Gal)
4" Diameter =	2.0 gals/ft	3.25 gals/ft	x feet of water	= _____ PV (Gal)
6" Diameter =	4.4 gals/ft	7.35 gals/ft	x feet of water	= _____ PV (Gal)

PURGING METHOD: LOW FLOW DURATION: START: \_\_\_\_\_ END: \_\_\_\_\_

OBSERVATIONS:	Time	Color	Turbidity	ORP	pH	DO	Temp.	Conduct.	SWL
1 <sup>st</sup> Volume:	2:37	C	66.3	70	7.23		18.67	0.721	7.30
2 <sup>nd</sup> Volume:	2:42	C	6.77	79	7.19		18.93	0.883	7.32
3 <sup>rd</sup> Volume:	2:45	C	6.93	83	7.04		19.07	0.809	7.35
4 <sup>th</sup> Volume:									
Addl. Volumes:									

TOTAL VOLUME OF WATER PURGED FROM WELL: .25 gallons  
 PURGE WATER STORED/DISPOSED OF WHERE/HOW: Taken offsite

**SAMPLES COLLECTED:** Depth to Water at time of sample collection: 7.35

Sample Number(s)	Time	Size/Number of Container(s)	Preservative
<u>mw-8</u>	<u>2:45</u>	<u>4 Vials</u> <u>1 Amber</u>	

**COMMENTS:**  
Well bot full of water

Casing Capacities:  
 2-inch hole.....0.16 gal/lin ft.  
 4-inch hole.....0.65 gal/lin ft.  
 6.5-inch hole.....1.70 gal/lin ft.  
 8-inch hole.....2.60 gal/lin ft.  
 10-inch hole.....4.10 gal/lin ft.

**Recharge Calculation at Time of Sample Collection:**  
 Total Depth of Well: \_\_\_\_\_  
 Original Water Column: \_\_\_\_\_ x 0.80 = --(\_\_\_\_\_)  
 Collect sample when Depth to Water measures  
Less than or equal to:

**ATTACHMENT B  
LABORATORY ANALYTICAL REPORT  
AND CHAIN-OF-CUSTODY RECORD**

## ANALYTICAL RESULTS

Prepared for:

ConocoPhillips  
5528 NW Doane Ave.  
Portland OR 97210

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425SAMPLE GROUP

The sample group for this submittal is 1080354. Samples arrived at the laboratory on Thursday, March 06, 2008. The PO# for this group is 4509020542 and the release number is NOLL.

<u>Client Description</u>	<u>Lancaster Labs Number</u>
MW-1 Grab Water Sample	5296371
MW-2 Grab Water Sample	5296372
MW-3 Grab Water Sample	5296373
MW-4 Grab Water Sample	5296374
MW-5 Grab Water Sample	5296375
MW-6 Grab Water Sample	5296376
MW-7 Grab Water Sample	5296377
MW-8 Grab Water Sample	5296378
Trip Blank Water Sample	5296379

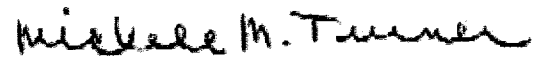
ELECTRONIC    SECOR International  
COPY TO  
ELECTRONIC    SECOR International  
COPY TO

Attn: Alice Larsen

Attn: Tammy Parise

Questions? Contact your Client Services Representative  
Barbara A Weyandt at (717) 656-2300

Respectfully Submitted,



**Michele M. Turner**  
Director

Lancaster Laboratories Sample No. WW5296371

Group No. 1080354

**MW-1 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 12:20 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	800.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	1,000.	ug/l	1
	Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.					
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
	Preservation requirements were not met. The vial submitted for volatile analysis did not have a pH < 2 at the time of analysis. Due to the volatile nature of the analytes, it is not appropriate for the laboratory to adjust the pH at the time of sample receipt. The pH of this sample was pH = 6.					
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	1.	0.5	ug/l	1
05401	Benzene	71-43-2	11.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date and Time			
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/13/2008 20:14		Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/13/2008 23:01		Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 04:56		Matthew F Regan	1

Lancaster Laboratories Sample No. WW5296371

Group No. 1080354

**MW-1 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 12:20 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

## BELM1

01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2008 23:01	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 04:56	Matthew F Regan	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. WW5296372

Group No. 1080354

**MW-2 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 12:43 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	800.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	1,000.	ug/l	1
Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.						
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/13/2008 20:54	Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/11/2008 02:37	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 05:18	Matthew F Regan	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 02:37	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 05:18	Matthew F Regan	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. WW5296372

Group No. 1080354

MW-2 Grab Water Sample

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 12:43 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM2

Lancaster Laboratories Sample No. **WW5296373**

 Group No. **1080354**
**MW-3 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 13:00 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08273	TPH by NWTTPH-Gx waters					
01645	TPH by NWTTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTTPH-Dx(water) w/SiGel	ECY 97-602 NWTTPH-Dx modified	1	03/13/2008 22:12	Matthew E Barton	1
08273	TPH by NWTTPH-Gx waters	ECY 97-602 NWTTPH-Gx modified	1	03/11/2008 03:10	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 05:40	Matthew F Regan	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 03:10	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 05:40	Matthew F Regan	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. WW5296374

Group No. 1080354

**MW-4 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 13:21 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	77.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	96.	ug/l	1
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

## Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/14/2008 02:45	Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/11/2008 03:43	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/10/2008 07:29	Stephanie A Selis	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 03:43	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/10/2008 07:29	Stephanie A Selis	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. **WW5296375**

 Group No. **1080354**
**MW-5 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 13:37 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/14/2008 03:04	Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/11/2008 04:16	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 13:17	Kerri E Koch	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 04:16	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 13:17	Kerri E Koch	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. WW5296376

Group No. 1080354

**MW-6 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 14:00 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	N.D.	95.	ug/l	1
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/14/2008 03:24	Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/11/2008 04:49	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 13:40	Kerri E Koch	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 04:49	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 13:40	Kerri E Koch	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. **WW5296377**

 Group No. **1080354**
**MW-7 Grab Water Sample**

Site# 1571 (256380)

200 S 36th St - Bellingham, WA

Collected: 03/05/2008 14:33 by TD

Account Number: 11817

Submitted: 03/06/2008 09:40

Reported: 03/17/2008 at 11:52

Discard: 04/17/2008

ConocoPhillips

5528 NW Doane Ave.

Portland OR 97210

BELM7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	930.	76.	ug/l	1
02096	Heavy Range Organics	n.a.	100.	95.	ug/l	1
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	240.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/14/2008 03:43	Matthew E Barton	1
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/11/2008 06:28	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 14:47	Kerri E Koch	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/11/2008 06:28	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 14:47	Kerri E Koch	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

**Lancaster Laboratories Sample No. WW5296378**
**Group No. 1080354**
**MW-8 Grab Water Sample**
**Site# 1571 (256380)**
**200 S 36th St - Bellingham, WA**
**Collected: 03/05/2008 14:45 by TD**
**Account Number: 11817**
**Submitted: 03/06/2008 09:40**
**Reported: 03/17/2008 at 11:52**
**Discard: 04/17/2008**
**ConocoPhillips  
5528 NW Doane Ave.  
Portland OR 97210**
**BELM8**

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02211	TPH by NWTPH-Dx(water) w/SiGel					
02095	Diesel Range Organics	n.a.	N.D.	150.	ug/l	2
02096	Heavy Range Organics	n.a.	860.	190.	ug/l	2
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

**Laboratory Chronicle**

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
02211	TPH by NWTPH-Dx(water) w/SiGel	ECY 97-602 NWTPH-Dx modified	1	03/14/2008 10:49	Matthew E Barton	2
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/14/2008 05:36	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 15:09	Kerri E Koch	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/14/2008 05:36	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 15:09	Kerri E Koch	1
02135	Extraction - DRO Water Special	ECY 97-602 NWTPH-Dx 06/97	1	03/13/2008 10:30	Jessica Agosto	1

Lancaster Laboratories Sample No. WW5296379

Group No. 1080354

 Trip Blank Water Sample  
 Site# 1571 (256380)  
 200 S 36th St - Bellingham, WA  
 Collected: 03/05/2008

Account Number: 11817

 Submitted: 03/06/2008 09:40  
 Reported: 03/17/2008 at 11:52  
 Discard: 04/17/2008

 ConocoPhillips  
 5528 NW Doane Ave.  
 Portland OR 97210

BEL-T

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
08273	TPH by NWTPH-Gx waters					
01645	TPH by NWTPH-Gx waters	n.a.	N.D.	50.	ug/l	1
02300	GC/MS Volatiles					
02010	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	ug/l	1
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

State of Washington Lab Certification No. C259

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
08273	TPH by NWTPH-Gx waters	ECY 97-602 NWTPH-Gx modified	1	03/13/2008 18:15	Patrick N Evans	1
02300	GC/MS Volatiles	SW-846 8260B	1	03/11/2008 11:48	Kerri E Koch	1
01146	GC VOA Water Prep	SW-846 5030B	1	03/13/2008 18:15	Patrick N Evans	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	03/11/2008 11:48	Kerri E Koch	1

## Quality Control Summary

 Client Name: ConocoPhillips  
 Reported: 03/17/08 at 11:52 AM

Group Number: 1080354

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 08069A51B TPH by NWTPH-Gx waters	N.D.	50.	ug/l	92	93	75-135	1	30
Batch number: 080720022A Diesel Range Organics Heavy Range Organics	N.D.	80.	ug/l	78		61-106		
Batch number: 080720023A Diesel Range Organics Heavy Range Organics	N.D.	100.	ug/l	78	79	61-106	2	20
Batch number: 08073A51A TPH by NWTPH-Gx waters	N.D.	50.	ug/l	93	91	75-135	1	30
Batch number: L080701AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	N.D.	0.5	ug/l	97		73-119		
	N.D.	0.5	ug/l	100		78-119		
	N.D.	0.7	ug/l	99		85-115		
	N.D.	0.8	ug/l	100		82-119		
	N.D.	0.8	ug/l	99		83-113		
Batch number: L080702AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	N.D.	0.5	ug/l	99		73-119		
	N.D.	0.5	ug/l	105		78-119		
	N.D.	0.7	ug/l	105		85-115		
	N.D.	0.8	ug/l	108		82-119		
	N.D.	0.8	ug/l	106		83-113		
Batch number: L080711AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	N.D.	0.5	ug/l	99		73-119		
	N.D.	0.5	ug/l	105		78-119		
	N.D.	0.7	ug/l	104		85-115		
	N.D.	0.8	ug/l	107		82-119		
	N.D.	0.8	ug/l	104		83-113		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 08069A51B TPH by NWTPH-Gx waters	89		63-154						
									UNSPK: P296286

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: ConocoPhillips  
 Reported: 03/17/08 at 11:52 AM

Group Number: 1080354

### Sample Matrix Quality Control

 Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max	
Batch number: 080720022A Diesel Range Organics Heavy Range Organics	Sample number(s): 5296371-5296373					BKG: 5296371	N.D. N.D.	N.D. N.D.	0 (1) 0 (1)	20 20
Batch number: 08073A51A TPH by NWTTPH-Gx waters	Sample number(s): 5296371,5296378-5296379					UNSPK: P297413				
Batch number: L080701AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample number(s): 5296374					UNSPK: 5296374				
	95	105	69-127	10	30					
	104	112	83-128	8	30					
	102	110	83-127	7	30					
	105	115	82-129	9	30					
	101	111	82-130	10	30					
Batch number: L080702AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample number(s): 5296371-5296373					UNSPK: P296380				
	104	104	69-127	0	30					
	117	133*	83-128	4	30					
	114	113	83-127	1	30					
	122	117	82-129	3	30					
	116	111	82-130	4	30					
Batch number: L080711AA Methyl Tertiary Butyl Ether Benzene Toluene Ethylbenzene Xylene (Total)	Sample number(s): 5296375-5296379					UNSPK: 5296376				
	98	99	69-127	1	30					
	110	109	83-128	1	30					
	108	109	83-127	1	30					
	112	112	82-129	0	30					
	108	107	82-130	0	30					

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

 Analysis Name: TPH by NWTTPH-Gx waters  
 Batch number: 08069A51B  
 Trifluorotoluene-F

5296372	110
5296373	108
5296374	111
5296375	109
5296376	109
5296377	109
Blank	112
LCS	107
LCSD	108
MS	102

Limits: 63-135

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

 Client Name: ConocoPhillips  
 Reported: 03/17/08 at 11:52 AM

Group Number: 1080354

### Surrogate Quality Control

 Analysis Name: TPH by NWTPH-Dx(water) w/SiGel  
 Batch number: 080720022A  
 Orthoterphenyl

5296371	149
5296372	154*
5296373	149
Blank	158*
DUP	151*
LCS	177*

Limits: 50-150

 Analysis Name: TPH by NWTPH-Dx(water) w/SiGel  
 Batch number: 080720023A  
 Orthoterphenyl

5296374	114
5296375	105
5296376	103
5296377	115
5296378	103
Blank	109
LCS	125
LCSD	124

Limits: 50-150

 Analysis Name: TPH by NWTPH-Gx waters  
 Batch number: 08073A51A  
 Trifluorotoluene-F

5296371	111
5296378	106
5296379	113
Blank	112
LCS	106
LCSD	108
MS	103

Limits: 63-135

 Analysis Name: GC/MS Volatiles  
 Batch number: L080701AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5296374	110	105	105	98
Blank	107	105	104	97
LCS	106	102	107	103
MS	106	103	108	107
MSD	106	104	108	106

Limits: 80-116                      77-113                      80-113                      78-113

Analysis Name: GC/MS Volatiles

 Batch number: L080702AA  

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
--	----------------------	-----------------------	------------	----------------------

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

## Quality Control Summary

Client Name: ConocoPhillips  
Reported: 03/17/08 at 11:52 AM

Group Number: 1080354

### Surrogate Quality Control

5296371	112	104	107	99
5296372	111	106	106	99
5296373	110	103	109	100
Blank	109	105	107	99
LCS	107	104	109	106
MS	106	105	108	107
MSD	105	104	108	104
<hr/>				
Limits:	80-116	77-113	80-113	78-113

Analysis Name: GC/MS Volatiles  
Batch number: L080711AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5296375	110	103	111	101
5296376	111	104	108	101
5296377	109	104	107	104
5296378	108	104	109	99
5296379	110	104	108	100
Blank	109	103	109	100
LCS	107	103	111	108
MS	106	105	110	109
MSD	107	101	110	108
<hr/>				
Limits:	80-116	77-113	80-113	78-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

# ConocoPhillips Analysis Request/Chain of Custody



For Lancaster Labs Use ONLY Acct. #:

11817

Group #

1080354

Sample#:

5296371-379

SCR#:

008552

**Analyses Requested** List total number of containers in the box under each analysis.

Site #: 256380 AOC#: \_\_\_\_\_  
 Site City: Bellingham State: WA  
 Enfos PO# \_\_\_\_\_  
 ConocoPhillips PM: Mike Noll  
 Samplers Name: Travis Dickson

Matrix	Preservation Codes									
	A	H	H							
Soil										
Water										
Potable Water										
Oil										
Air										

**Preservative Codes**  
 H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>   O = Other

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Potable Water	Oil	Air	Analyses Requested	Remarks
MW - 1	3-5-08	12:20	X			X				NWTPWH-DX	
MW - 2		12:43	X			X				MWTPWH-GX	
MW - 3		1:00	X			X				OTER-TEMPER	
MW - 4		1:21	X			X					
MW - 5		1:37	X			X					
MW - 6		2:00	X			X					
MW - 7		2:33	X			X					
MW - 8		2:45	X			X					

**Consultant Information:**  
 Office City: Redmond State: WA  
 Project Manager: Joan Beckin  
 Phone Number: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

**Turnaround Time Requested in Business Days (TAT) (Circle One):**  
 STD. 5 day 48 hour 24 hour Other \_\_\_\_\_

**Electronic Data Deliverables (Circle One) Yes / No Format \_\_\_\_\_**  
**Reporting Requirements (Circle One)**  
 Standard Reports/QC Summary Full Validation (LLI Type I)  
 NJ Regulatory NJ Reduced NY ASP-A NY ASP-B Other \_\_\_\_\_

Relinquished by: <u>Travis Dickson</u>	Date <u>3-5</u>	Time <u>3:00</u>	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS <input type="checkbox"/> <u>MedEx</u> <input checked="" type="checkbox"/> Other _____			Temperature Upon Receipt	<u>2.9-3.5 c°</u>	

**ATTACHMENT C  
LIMITATIONS AND CERTIFICATIONS  
FOR NON-PHASE I REPORTS**



LIMITATIONS AND CERTIFICATIONS FOR  
NON-PHASE I REPORTS

QA/QC-302B

Page 1 of 1

Rev. 1.1

Apr 24, 2008

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of ConocoPhillips Company for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Name: Lee Ignatowicz  
Title: Associate Geologist

Reviewed by:

Name: Amanda S. Magee, RG  
Title: Associate Geologist