



SECOR INTERNATIONAL INCORPORATED WWW.secor.com

Post Office Box 230
12034 134th CT NE, Ste 102
Redmond, WA 98052
425.372.1600 TEL
425.372.1700 FAX

Mr. Kipp Eckert ConocoPhillips Company PO Box 923 Bothell, WA 98041

RE:

Subsurface Investigation

247 "D" Street Blaine, Washington ConocoPhillips Facility No. 255028

Dear Mr. Eckert:

The following presents the results of a subsurface investigation conducted by SECOR International Inc. (SECOR) on May 18, 2005 at 247 "D" Street in Blaine, Washington (site). The purpose of the investigation was to further delineate petroleum impacted soil and groundwater.

SITE DECRIPTION

The site is located in Blaine, Whatcom County, Washington in the southeast quarter of Section 36; Township 41 North; and Range 1 West (Figure 1). The site is located at the southeast corner of the intersection of "D" Street and the Interstate 5 off ramp. The Interstate 5 off ramp is to the west of the site, "D" street, a restaurant, and an abandoned gas station are located north of the site; and active gasoline stations are located to the east and south of the site. The nearest surface body of water is an unnamed creek, located approximately 1,200 feet southwest of the site. Drayton Harbor is located 1.3 miles west of the site. The site is located at an elevation of approximately 50 feet above mean sea level.

The site is currently undeveloped and covered with asphalt, patches of rocked surfaces, and planters. In 1990, a 550-gallon heating oil underground storage tank (UST) and 550-gallon used oil UST were decommissioned by removal. Prior to site decommissioning in 2002, site improvements consisted of a station building with hydraulic hoists and a sump, two gasoline dispenser islands and two 12,000 gallon USTs containing gasoline and associated piping. A site plan showing the approximate locations of these features is presented on Figure 2.

BACKGROUND

The following briefly describes environmental services performed at the site based on a review of available historical reports.

The station was reportedly constructed in 1950 and operated until approximately 1997.

A 1986 investigation was performed in response to a reported discharge to the Blaine sewer system near the site. Six wells (MW-1 through MW-6) were installed to depths of 13.5 feet below ground surface (bgs). Petroleum hydrocarbons were reportedly not detected in soil samples collected from the borings. Benzene, toluene, ethylbenzene, and total xylenes (BTEX) were reportedly detected in groundwater samples collected from wells located near the gasoline USTs and dispenser islands (MW-1 through MW-4). Benzene was detected at concentrations between 3,900 $\mu g/L$ and 9,900 $\mu g/L$ in these wells. As a result of the investigation, two steel gasoline USTs were decommissioned and replaced with two 12,000-gallon fiberglass USTs. Approximately 2,000 gallons of groundwater were removed from the UST excavation. No soil samples were obtained from the UST excavation. Wells MW-1, MW-2, and MW-4 were removed during the decommissioning activities. Wells MW-3 and MW-5 were observed to be compromised and were decommissioned in 1993.

A 550-gallon diesel UST and 550-gallon used oil UST were decommissioned by removal in June 1990. The USTs were located south of the station building. Concentrations above Washington Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A cleanup levels were detected in soil samples collected from the north and west sidewalls of the UST excavation. No additional soil was excavated at that time due to the close proximity to the station building. No halogenated volatiles, polychlorinated biphenyls, or metals were detected in soil samples submitted for analyses. Water was observed in the excavation and determined by the consultant not to be representative of groundwater.

During dispenser island upgrades in January 1991, approximately 100 cubic yards of impacted soil was over-excavated. Soil samples were collected from the base and sidewalls of the final excavation. Benzene was detected above MTCA Method A cleanup levels in 7 of 9 soil samples. In anticipation of future remedial action, two 4-inch diameter slotted PVC pipes were installed parallel to the dispenser islands.

In June 1993, monitoring wells MW-1 through MW-4 were installed as part of a phase II assessment. Soils encountered consisted of fine sandy silt underlain by clayey silt to total depth explored of 14 feet bgs. The locations of the wells are shown on Figure 2. Soil samples collected from the boring advanced to construct well MW-2 contained petroleum hydrocarbons and hydrocarbon constituents greater than MTCA Level A cleanup levels. Groundwater samples collected from wells MW-2 and MW-3 contained concentrations of gasoline range hydrocarbons and hydrocarbon constituents above MTCA Level A cleanup levels. Concentrations of vinyl chloride above cleanup levels were also detected in groundwater samples collected from well MW-3. Depth to water was measured between 3.52 feet and 4.48 feet below top of well casing (TOC). The groundwater gradient was determined to flow toward the west-southwest.

Two monitoring wells (MW-5 and MW-6) were installed west of the site boundary in October 1994. Petroleum hydrocarbons and hydrocarbon constituents were not detected above MTCA Method A cleanup levels in soil or groundwater samples collected during the advancement and following construction of wells MW-5 and MW-6.

Treatment wells TW-1 through TW-5 were installed in July 1996 and treatment began using Regenesis oxygen releasing compound (ORC). All of the treatment wells were located on the west side of the dispenser islands as shown in Figure 2. Gasoline range hydrocarbons and benzene were detected above MTCA Method A cleanup levels in all of the soil samples collected during the advancement of the treatment wells. The ORC socks were not replaced due to a lack of effectiveness as measured by dissolved oxygen concentrations.

Treatment using an iSOC remediation system was performed in wells TW-1 and TW-3 between March 2000 and February 2001 to determine if this was a feasible method of remediation. Based on dissolved oxygen concentrations and groundwater concentrations, it was determined that this method of treatment was ineffective.

In March 2002, the USTs, hoists, sump, dispenser islands, and associated piping were decommissioned by removal. Remedial excavation was performed in the UST excavation, the hoist excavations, and beneath the dispenser islands. The limits of this excavation are illustrated on Figure 2. Monitoring wells MW-2, treatment wells TW-1 through TW-5, and soil venting piping were removed during these activities. Approximately 1,900 tons of impacted soil was transported to TPS Technologies in Tacoma, Washington for treatment and disposal. Approximately 2,800 gallons of

water were removed from the excavations and disposed of by Cowlitz Clean Sweep of Longview, Washington. Based on chemical analysis, petroleum hydrocarbon impacted soil remained on the west property boundary north of the former gasoline USTs. In November 2002, well MW-2 was replaced with well MW-2A in the UST excavation backfill.

In September 2004, a third party performed a subsurface investigation consisting of the advancement of 5 borings (P-1 through P-5) with soil and groundwater sampling. The locations of the borings are shown on Figure 2. One soil sample from 3.5 feet bgs in boring P-2 was submitted for analysis. Soil analytical test results reported diesel range hydrocarbons at a concentration of 3,500 mg/kg. Boring P-2 is located on the west edge of the former diesel UST excavation. Analytical test results for the groundwater sample from boring P-2 reported diesel and heavy oil range hydrocarbons at concentrations of 3,900 μ g/L and 2,400 μ g/L, respectively. Gasoline range hydrocarbons and BTEX compounds were not detected above laboratory reporting limits in the groundwater samples collected from boring P-1, P-3, P-4, and P-5.

In November 2004 SECOR performed a subsurface investigation consisting of the advancement of 4 borings (B-1 through B-4) with soil and groundwater sampling. Based on field observations one soil sample from each of the borings and two soil samples from boring B-3 were submitted along with groundwater samples for analysis. Soil analytical results for B-3 indicated gasoline and diesel range hydrocarbons at concentrations of 162 mg/kg and 100 mg/kg, respectively. Boring B-3 is located at the southern portion of the site south of the former diesel and waste oil USTs. Analytical results for the groundwater sample from B-3 detected gasoline and diesel range hydrocarbons at concentrations of 181 μ g/L and 2,010 μ g/L, respectively. Gasoline range hydrocarbons and BTEX compounds were not detected above the laboratory reporting limits in any of the remaining soil and groundwater samples.

On April 5, 2005, SECOR directed remedial excavation activities in the vicinity of and south of the former diesel UST. The excavation was approximately 3.5 feet deep and covered an area of 3,200 square feet. Groundwater was encountered at 3.5 feet bgs, limiting the depth of the excavation. SECOR observed the removal of approximately 100 tons of impacted soil from the excavation. Soil samples were collected from the sidewalls of the excavation at a depth of 3 feet bgs and analytical results indicated the presence of TPH-g above the MTCA Method A cleanup level in one of the six soil samples collected. Sample EX1-6 was collected on the south sidewall of the excavation, approximately 15 feet west of monitoring well MW-4. None of the remaining soil samples collected from the limits of the excavation contained concentrations of analytical constituents above MTCA Method A cleanup levels.

SCOPE OF WORK

The scope of work included advancing two soil borings (B-1 and B-2) in the vicinity of the former diesel and gasoline USTs to a total depth of 13 feet bgs using a hollow stem auger drill rig on May 18, 2005. Each of the borings were completed as a monitoring well. Boring B-1 was completed as MW-7. Boring B-2 was completed as MW-8. Boring and monitoring well locations are shown on Figure 2. Soil samples were collected at five foot intervals and all samples were submitted to Severn Trent Laboratories (STL) in Tacoma, Washington for analysis. Groundwater samples were collected on June 9, 2005 from each of the monitoring wells and submitted to STL for analysis.

Field activities

Cascade Drilling Inc. (Cascade) provided drilling services and Applied Professional Services, Inc. (APS) provided private utility locating services. SECOR personnel were present during all phases of the fieldwork. Details regarding fieldwork are described as follows.

Pre-Field Activities

The following activities were completed prior to starting field work and drilling activities:

A site specific health and safety plan (HASP) was prepared for each phase of the field activities. The HASP identified potential physical and chemical hazards associated with the proposed field activities, and specified personnel protection equipment and safety monitoring requirements. All SECOR personnel and subcontractors working on the project were required to be familiar with and to comply with the provision in the HASP.

Prior to the start of field activities SECOR arranged to have a municipal underground utility location service identify subsurface municipal utilities located in public right-of ways adjacent to the site. In addition, SECOR contracted with APS to provide utility locating services on the site. Prior to drilling, each boring location was cleared to five feet bgs using an air wand and vacuum truck for the purposes of determining if near-surface utilities exist that were not identified during the utility locating activities.

Drilling and Sampling Activities

The borings were advanced using an 8 inch diameter, hollow stem auger rig. Soil samples were taken at 5 foot intervals using a standard spilt spoon sampler. Soil samples analyzed for volatile organics were collected in accordance with Environmental Protection Agency (EPA) sampling method 5035A. The soil was collected using a laboratory supplied sampler and placed into a laboratory supplied container preserved with methanol. Laboratory supplied sample jars were used to collect soil samples analyzed for non-volatiles. All soil samples were uniquely labeled and placed in an iced cooler under chain-of-custody documentation pending transportation and analysis at the laboratory.

Following soil sample collection, a portion of the soil was placed into a small, re-sealable plastic bag. The top of the bag was then closed and, following a lapse of approximately 30 minutes, a photoionization detector (PID) was used to monitor the soils contained within the plastic bag for volatile organic compound (VOC) vapors by inserting the PID probe into the headspace of the bag. The PID was equipped with an ultraviolet lamp of 10.8 electron volts (eV) and calibrated to a 100 parts per million isobutylene standard.

Groundwater monitoring wells MW-7 and MW-8 were developed on May 5, 2005 by purging each well of ten casing volumes or until the purge water ran clear. The network of six groundwater monitoring wells (MW-2A, MW-3, MW-4, and MW-6 through MW-8) were sampled on June 9, 2005. Prior to sampling the wells were purged of approximately 3 casing volumes. The wells were then sampled using a peristaltic pump with dedicated tubing. Groundwater samples were then collected directly into laboratory supplied containers and were immediately placed in an iced cooler with chain-

of-custody documentation to await transport to the laboratory. Results from this sampling event are documented in the October 10, 2005 Groundwater Monitoring Report.

Subsurface Conditions

Soils encountered during drilling activities consisted primarily of sandy silt or sand to the maximum drilled depth of 14 feet bgs. Groundwater was encountered at 5 feet bgs during drilling activities.

Laboratory Program and Analytical Results

Each soil sample was submitted to Severn Trent Laboratories (STL) located in Tacoma, Washington for analysis for total petroleum hydrocarbons as gasoline (TPH-g) using Northwest Method NWTPH-Gx, and diesel (TPH-d); heavy oil (TPH-o) range hydrocarbons using Northwest Method NWTPH-Dx with silica gel cleanup; benzene, tolulene, ethylbenzene, total xylenes (BTEX) and methyl tert-butyl ether (MTBE) using USEPA Method 5035/8021B.

Each groundwater sample was submitted to STL for analysis for TPH-g using Northwest Method NWTPH-Gx; TPH-d and TPH-o using Northwest Method NWTPH-Dx; and BTEX, MTBE, and VOCs using EPA Method 5035/8260.

Analytical Results

Review of the soil and groundwater analytical results indicate the following:

- MTBE was detected at a concentration of 0.00201 mg/kg in the soil sample for B2-10. This
 concentration is less than MTCA Method A cleanup levels.
- None of the remaining soil samples contained concentrations analyzed constituents greater than the laboratory reporting limits (RLs).
- No TPH-g, TPH-d, TPH-o, or BTEX constituents were detected at concentrations greater than the laboratory RLs in any of the groundwater samples collected.
- MTBE was detected at a concentration greater than the MTCA A cleanup levels in the groundwater sample collected from monitoring well MW-7 (138 μg/L.).
- Cis-1,2-Dichloroethene (1,2-DCA) was detected at concentrations greater than MTCA A cleanup levels in the groundwater samples collected from monitoring wells MW-7 (156 μg/L) and MW-8 (177μg/L). Vinyl chloride (VC) was detected at concentrations greater than MTCA A in the groundwater samples from both MW-7 (6.36 μg/L) and MW-8 (36.3 μg/L).
- Trichloroethene (TCE) was detected at concentrations greater than the laboratory RLs in MW-7 (14.6 μg/L) and MW-8 (72 μg/L). These concentrations are greater than MTCA Method A cleanup levels.

Soil sample analytical results are summarized in Table 1 and Figure 3. Groundwater sample analytical results are summarized in Tables 2 and 3 and Figure 4. Copies of the laboratory reports and chain of custody documentation are included as Attachment A.

Conclusions

A subsurface investigation was completed by SECOR on May 18, 2005 at 247 'D' Street in Blaine Washington. The purpose of the investigation was to further delineate petroleum impacted soil and groundwater. Soil samples submitted for analysis did not contain constituent concentrations above the RLs, except for MTBE below MTCA A cleanup levels in soil sample B2-10. Groundwater samples sumbitted for analysis did contain concentrations of constituents associated with chlorinated solvents greater than MTCA Method A cleanup levels for groundwater. The presence of TCE and VC in the groundwater samples submitted for analysis indicate that natural attenuation of chlorinated solvents is occuring. Impacts to soil and groundwater were further delineated in the southwest portion of the site, however the extent of the plume remains undefined.

SECOR appreciates the opportunity to provide environmental consulting services. Please contact the under signed if you have any questions or comments.

Sincerely,

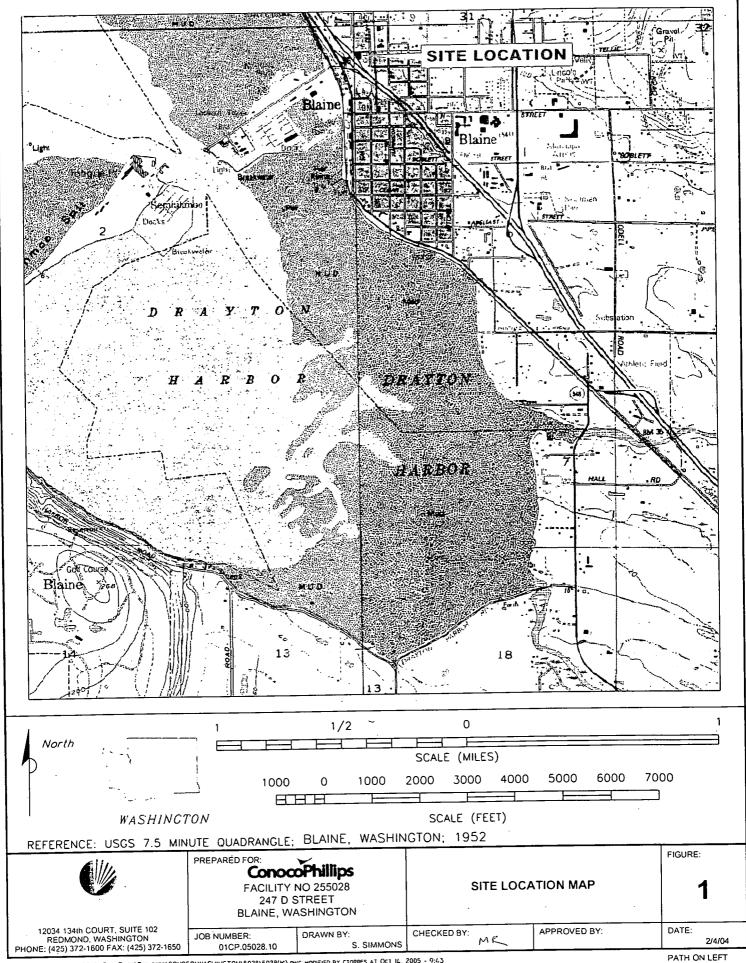
SECOR International Incorporated

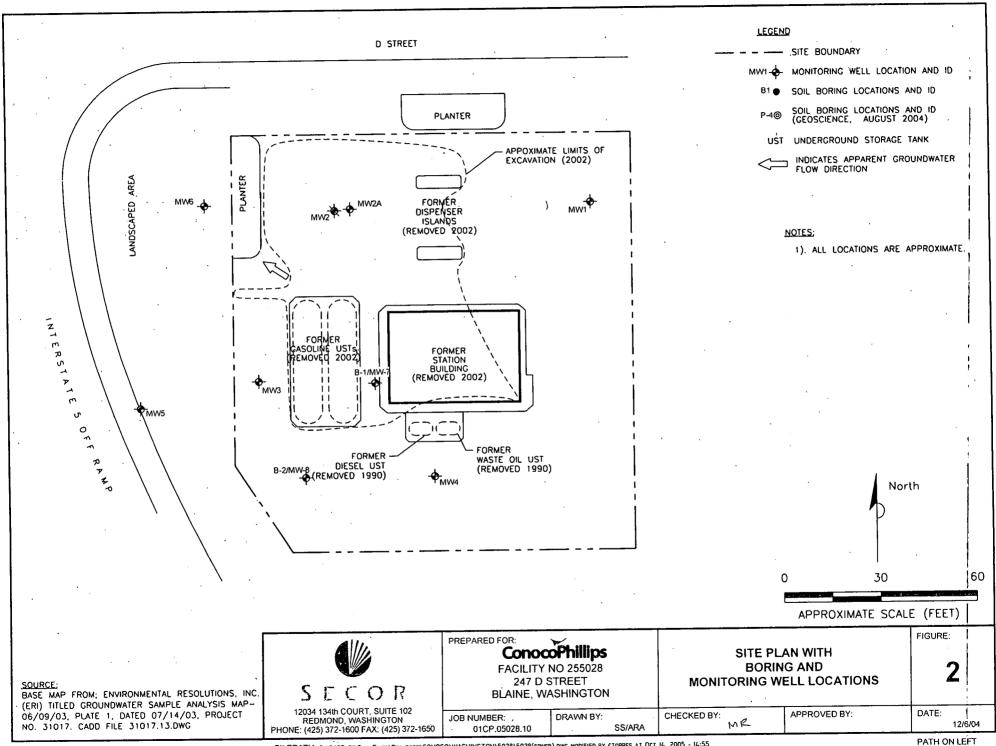
Senior Project Manager

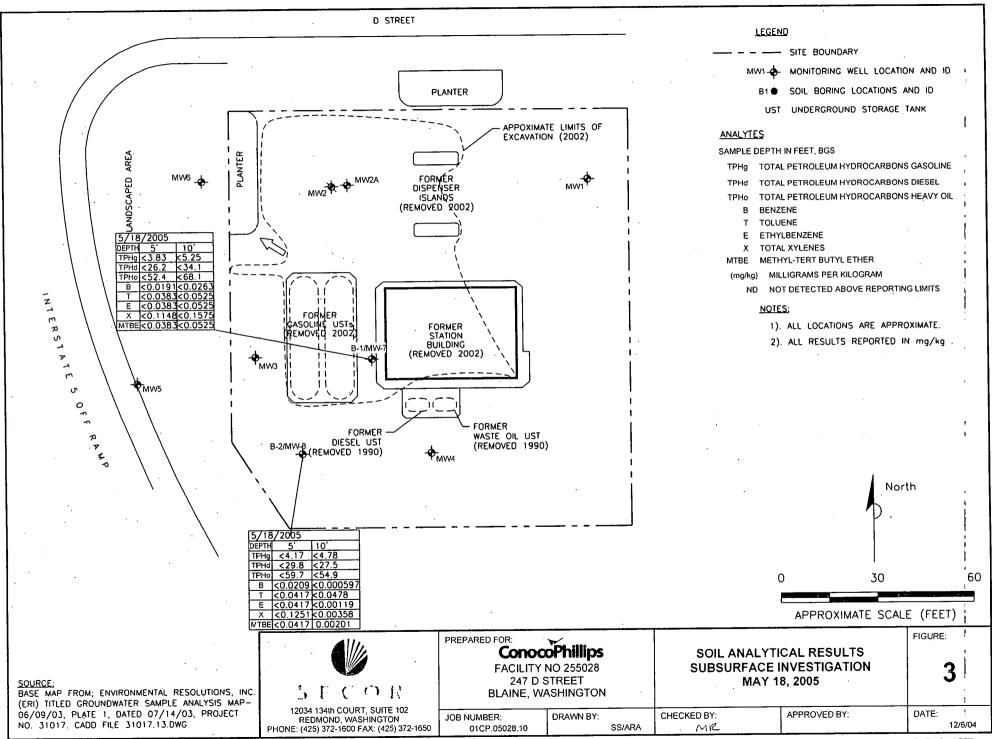
Marc Sauze, PE

Senior Project Engineer

Brian Sato, Washington State Department of Ecology Toxics Cleanup Program CC: David Taney, Duty Free America, Inc







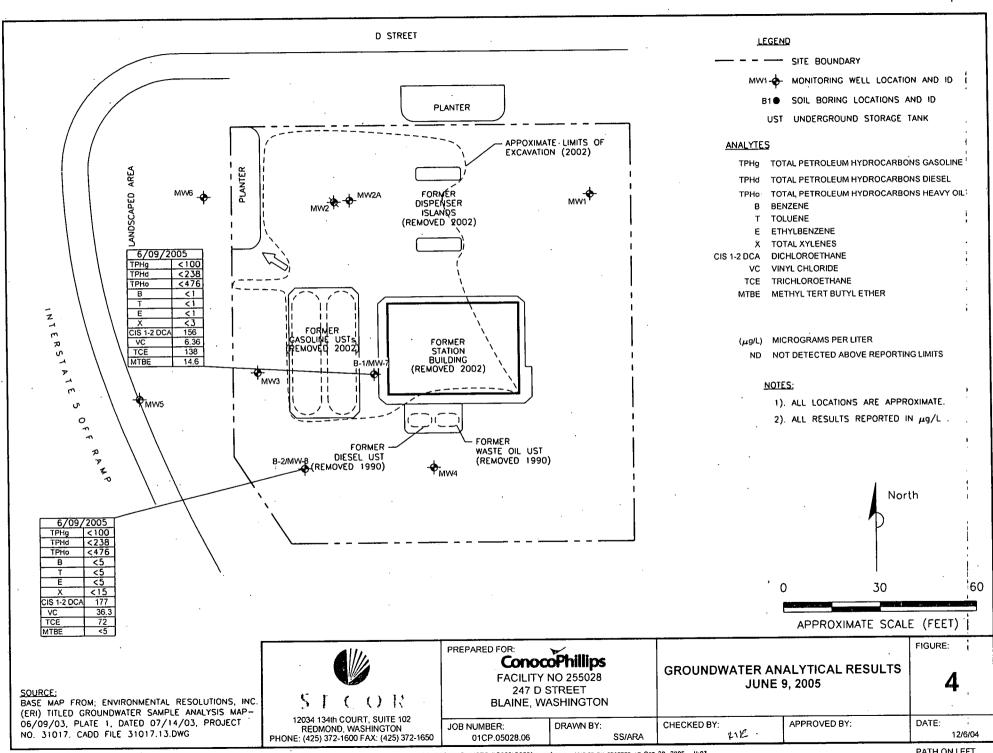


TABLE 1 SOIL SAMPLE ANALYTICAL RESULTS ConocoPhillips Site No. 255028 247 'D' Street Blaine, Washington

Sample [Sample Depth	pth Sample Date	· I	PID (mg/kg)	Total Petro	oleum Hydroca	rbons (mg/kg)		Volati	le Organic Compour	ıds (mg/kg)	
	(bgs)		, 10 (mg/kg)	Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	
B1-5	5.0 ft	5/18/2005	8.6	<3.83	<26.2	<52.4	<0.0191	<0.0383	<0.0383	<0.1148	<0.0383	
B1-10	10.0 ft	5/18/2005	7	<5.25	<34.1	<68.1	<0.0263	<0.0525	<0.0525	<0.1575	<0.0525	
B2-5	5.0 ft	5/18/2005	28.7	<4.17	<29.8	<59.7	<0.0209	<0.0417	<0.0417	<0.1251	<0.0417	
B2-10	. 10.0 ft	5/18/2005	7	<4.78	<27.5	<54.9	<0.000597	<0:0478	<0.00119	<0.00358	0.00201	
MTCA A	Cleanup Lev	rels (mg/kg)		30/100°	2,000	2,000	0.03	7	6	9	0.1	

NOTES:

-- = Indicates sample not submitted for analysis of specified analyte

BOLD = Analyte detected at or above MTCA Method A cleanup levels

mg/kg = Milligrams per kilogram

bgs= bgs indicates depth below ground surface in feet where sample was obtained

a = MTCA Method A Soil Cleanup Levels for TPH-G are 100 mg/kg where no benzene is present and the total of toluene, ethylbenzene and xylene are less that 1% of the gasoline mixture. The cleanup level for all other gasoline mixtures is 30 mg/kg.

MTCA = Model Toxics Control Act

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Northwest Method NWTPH-G

TPH-D = Total Petroleum Hydrocarbons as Diesel by Northwest Method NWTPH-Dx with silica gel cleanup

TPH-O = Total Petroleum Hydrocarbons as Motor Oil by Northwest Method NWTPH-Dx

VOCs = Volatile Organic Compounds by U.S. Environmental Protection Agency (EPA) Method 5035/8021B

MTBE methyl tert-buytl ether

PID Photoionization Detector

BTEX = benzene, toluene, ethylbenzene and xylenes

Lab Note For NWTPH-Gx the surrogate 1-chloro-3-fluorobenzene was outside the QC limites. Probable due to matrix interference in the sample.

Lab Note TPH-g and VOCs are from revised lab report dated 7/6/2005

TABLE 2

GROUNDWATER SAMPLE ANALYTICAL RESULTS

ConocoPhillips Site No. 255028

247 'D' Street

Blaine, Washington

Well ID	Sample Date	DTW .	GW Elev.	Total Petro	leum Hydrocarb	ons (ug/L)
TOC		(feet)	(feet)	TPH-G	TPH-D	TPH-O
MW-7	06/09/05	3.16	92.21	<100	<238	<476
95.37						1
MW-8	06/09/05	4.31	94.74	<100	<238	<476
99.05				<u> </u>		<u> </u>
MTCA Method A	Cleanun Level			1000/800°	500	500

EXPLANATION:

All concentrations are in ug/L (ppb).

TOC = Top of casing elevation

DTW = Depth to water in feet below top of casing

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

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Northwest Method NWTPH-Gx

TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil, respectively, by Ecology Method NWTPH-Dx

< = Less than the stated laboratory reporting limit

Bolded values equal or exceed MTCA Method A Cleanup Levels.

 $^{\rm a}$ Concentration levels stated by MTCA Method A for TPH-G are 1000 $\,\mu g/L$ when no

benzene is present and 800 µg/L when benzene is present.

TABLE 3

GROUNDWATER SAMPLE ANALYTICAL RESULTS

ConocoPhillips Site No. 255028 247 'D' Street

Blaine, Washington

Well ID TOC		Sample Date	DTW	GW Elev.	v. Volatile Organic Compou					ıg/L)		
	• •	(feet) (feet)	(reet)	В	Ť	Ē	Х	1,2-DCA	VC	MTBE	TCE	
MW-7	06/09/05	3.16	92.21	<1	<1	<1	<3	156 ^E	6.36	138 ^E	14.6	
95.37												
MW-8	06/09/05	4.31	94.74	<5	<5	<5	<15	177	36.3	<5	72	
99.05						<u> </u>						
TCA Mothod A	Cleanup Level		1	5	1000	700	1000	. 5	0.2	20	5	

EXPLANATION:

All concentrations are in ug/L (ppb).

TOC = Top of casing elevation

DTW = Depth to water in feet below top of casing

GW Elev = Groundwater elevation relative to top of casing elevations

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

1,2-DCA =1,2-Dichloroethane, VC=Vinyl Chloride; MTBE=Methy tert-butyl ether; TCE= Trichloroethene

VOCs by EPA Method 8260B

Note: All other VOCs were below the laboratory reporting limit

E=Value is estimated

< = Less than the stated laboratory reporting limit

Bolded values equal or exceed MTCA Method A Cleanup Levels.

ATTACHMENT A LABORATORY REPORTS AND CHAIN OF CUSTODY DOCUMENTATION

Subsurface Investigation 247 'D' Street Blaine Washington ConocoPhillips Facility No. 255028 October 21, 2005



STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.st⊦inc.com

TRANSMITTAL MEMORANDUM

DATE: June 30, 2005

TO: Alice Larsen

SECOR International Inc. 12034 134th Ct. NE, Suite 102 Redmond, WA 98052

PROJECT: 5028, Blaine WA

REPORT NUMBER: 128329

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for two samples received at STL Seattle on June 10, 2005.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Tom Coyne

Project Manager

Sample Identification:

Lab. No.	Client ID	Date/Time Sampled	<u>Matrix</u>
128329-1	MW-7	06-09-05 12:15	Liquid
128329-2	MW-8	06-09-05 12:30	Liquid

Client Name:

SECOR International Inc.

Client ID: Lab ID: MW-7 128329-01

Date Received:

128329-01 6/10/2005

Date Prepared: Date Analyzed:

6/20/2005 6/20/2005

1

% Solids
Dilution Factor

0/20/20

Volatile Organics by USEPA Method 5035\8260B

			Recovery Limits		
Surrogate	% Recovery	Flags	Low	High	
Dibromofluoromethane	95.8		.80	120	
Fluorobenzene	101		80	120	
Toluene-D8	101		80	120	
Ethylbenzene-d10	104		80	120	
Bromofluorobenzene	96.7		80	120	
Trifluorotoluene	115		80	120	

•	Re	sult		
Analyte	(u	g/L)	RL	Flags
Chloromethane	ND		1	
Vinyl chloride		6.36	1	
Bromomethane	ND		1	
Chloroethane	ND		1	
Trichlorofluoromethane	ND		1	
1,1-Dichloroethene	ND		1	•
Methylene chloride	ND		1	_
Methyl tert-butyl ether		138 ✓	1	E
trans-1,2-Dichloroethene	ND ND		1	
1,1-Dichloroethane	ND	\ <i>f</i>	. 1	
cis-1,2-Dichloroethene		156 🗡	1	E
Chloroform	ND		1	
1,1,1-Trichloroethane	ND		1	
Carbon Tetrachloride	ND		1	
Benzene	ND		1	
1,2-Dichloroethane	ND	V	1	
Trichloroethene		14.6	1	
1,2-Dichloropropane	· ND	1	1	
Bromodichloromethane	ND	•	1	
cis-1,3-Dichloropropene	ND	•	1	
Toluene	ND		1	
trans-1,3-Dichloropropene	ND		1	
1,1,2-Trichloroethane	ND	•	1	·
Tetrachloroethene	ND		1	
Dibromochloromethane	ND		1	
Chlorobenzene	ND	•	1∙	

Volatile Organics by USEPA Method 5035\8260B data for 128329-01 continued...

	Result		
Analyte	(ug/L)	RL	Flags
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	
Bromoform	ND	· 1	
1,1,2,2-Tetrachloroethane	ND	1	
1,3-Dichlorobenzene	ND	1	
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	. 1	

Client Name
Client ID:
Lab ID:
Date Received:
Date Prepared:
Date Analyzed:
% Solids
Dilution Factor

SECOR International Inc.
MW-7 - dilution
128329L01

6/29/2005
6/29/2005
6/29/2005
5

Volatile Organics by USEPA Method 624

SMC/			Recove	ery Limits
Surrogate Dibromofluoromethane	% Recovery 91.1	Flags	Low 74.5	High 118
Fluorobenzene	103		75 78	120 123
Toluene-D8 Ethylbenzene-d10	104 100		77	126
Bromofluorobenzene Trifluorotoluene	93.7 112		72 74	120 126

,	Re	sult		
Analyte	(u	g/L)	RL	Flags
Chloromethane	ND		5	
Vinyl chloride		6.28	5	
Bromomethane	ND		5	
Chloroethane	ND		5	
Trichlorofluoromethane	ND		5	
1,1-Dichloroethene	ND		5	
Methylene chloride	ND		5	
trans-1,2-Dichloroethene	ND		5	
1,1-Dichloroethane	ND		. 5	
Chloroform	ND		5	
1,1,1-Trichloroethane	ND		5	•
Carbon Tetrachloride	ND		5	
Benzene	ND		5	
1,2-Dichloroethane	ND	•	5	
Trichloroethene		14.2	5	
1,2-Dichloropropane	ND		5	
Bromodichloromethane	ND		5	
2-Chloroethyl vinyl ether	ND		25	
cis-1,3-Dichloropropene	ND		5	
Toluene	ND		5	•
trans-1,3-Dichloropropene	ND		5	
1,1,2-Trichloroethane	ND	•	5	
Tetrachloroethene	ND	•	5	
Dibromochloromethane	ND		5	
Chlorobenzene	ND		5	
Ethylbenzene	ND		5	•

Volatile Organics by USEPA Method 624 data for 128329L01 continued...

Result		
(ug/L)	RL	Flags
ND	5	
	(ug/L) ND ND ND ND	(ug/L) RL ND 5 ND 5 ND 5 ND 5

Client Name:

SECOR International Inc.

Client ID:

MW-8

Lab ID: Date Received: 128329-02

Date Prepared:

6/10/2005 6/20/2005

Date Analyzed: % Solids

6/20/2005

Dilution Factor

-5

Volatile Organics by USEPA Method 5035\8260B

			Recovery Limits		
Surrogate	% Recovery	Flags	Low	High	
Dibromofluoromethane	89.3		80	120	
Fluorobenzene	100		80	120	
Toluene-D8	104		80	120	
Ethylbenzene-d10	106		80	120	
Bromofluorobenzene	. 99		80	120	
Trifluorotoluene	113		80	120	

		Result	RL	Flags
Analyte		(ug/L)	5	, ing
Chloromethane	ND	36.3	5	
Vinyl chloride		30.3 /	5	•
Bromomethane	ND		5	
Chloroethane	ND		5	
Trichlorofluoromethane	ND		5	
1,1-Dichloroethene	ND		5 5	
Methylene chloride	ND			
Methyl tert-butyl ether	ND		5	
trans-1,2-Dichloroethene	ND	•	5	•
1,1-Dichloroethane	ND	C	· 5	
cis-1,2-Dichloroethene		177	5	
Chloroform	ND	. '	5	
1,1,1-Trichloroethane	ND	•	. 5	
Carbon Tetrachloride	ND		5	
Benzene	ND		5	
1,2-Dichloroethane	ND		5	
Trichloroethene		72	5	
1,2-Dichloropropane	ND		5	
Bromodichloromethane	ND		5	•
cis-1,3-Dichloropropene	ND		5	
Toluene	ND		5	
trans-1,3-Dichloropropene	ND		5	
1,1,2-Trichloroethane	ND		5	•
Tetrachloroethene	ND		. 5	•
Dibromochloromethane	ND		5	
Chlorobenzene	ND	•	5	
CHIOLODEHZEHE	, 15			

Volatile Organics by USEPA Method 5035\8260B data for 128329-02 continued...

	Result		
Analyte	(ug/L)	RL	Flags
Ethylbenzene	ND	5	
m.p-Xylene	ND	10	
o-Xylene	ND	5	
Bromoform	ND	5	
1,1,2,2-Tetrachloroethane	ND	5	
1,3-Dichlorobenzene	ND	5	
1,4-Dichlorobenzene	ND .	5	
1,2-Dichlorobenzene	ND	5	

Client Name:

SECOR International Inc.

Client ID:

MW-7

Lab ID:

128329-01

Date Received:

6/10/2005

Date Prepared: Date Analyzed: 6/20/2005

% Solids

6/22/2005

Dilution Factor

1

Gasoline Range Organics by Method NWTPH-Gx

			Kecove	Bi A mining
Surrogate	% Recovery	Flags	Low	High
Trifluorotoluene	121		50	150
1-Chloro-3-fluorobenzene	101		50	150
Bromofluorobenzene	108		50	150
Pentafluorobenzene	88.8		50	150

B. activida	Result (mg/L)	RL	Flags
Analyte	-	0.1	
Gasoline by NWTPH-G	ND	. U. I	

Client Name:

SECOR International Inc.

Client ID:

MW-8

Lab ID: Date Received: 128329-02

Date Prepared:

6/10/2005 6/20/2005

Date Analyzed: % Solids

6/22/2005

Dilution Factor

1

Gasoline Range Organics by Method NWTPH-Gx

			Kecov	ery ∟imins
Surrogate	% Recovery	Flags	Low	High
	124		50	150
Trifluorotoluene	103		50	150
1-Chloro-3-fluorobenzene	110		50	150
Bromofluorobenzene	, , ,		50	150
Pentafluorobenzene	94.1		50	

Result (mg/L) RL Flags
Gasoline by NWTPH-G ND 0.1

Client Name:

SECOR International Inc.

Client ID: Lab ID:

MW-7 128329-01

Date Received:

6/10/2005

Date Prepared:

6/15/2005

Date Analyzed: % Solids

6/15/2005

Dilution Factor

1

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel Cleanup

Recovery Limits

Flags

High

Surrogate o-terphenyl % Recovery 73.6

Low 50

150

Result

(mg/L)

RL

Flags

Analyte #2 Diesel Motor Oil

0.238

ND ND

0.476

Client Name:

SECOR International Inc.

Client ID:

MW-8

Lab ID:

128329-02

Date Received:
Date Prepared:

6/10/2005 6/15/2005

Date Analyzed:

6/15/2005

% Solids
Dilution Factor

-

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel Cleanup

				Kecov	ery Linnis
Surrogate o-terphenyl	a,	% Recovery 79.2	Flags	Low 50	Hìgh 150

Result

(mg/L)

RL

Flags

Analyte #2 Diesel

ND

0.238

Motor Oil

ND

0.476

Lab ID:

Method Blank - VOA1368

Date Received:

6/20/2005 6/20/2005

Date Prepared:
Date Analyzed:
% Solids

-

Dilution Factor

Volatile Organics by USEPA Method 5035\8260B

		Kecov	ery Linnes
% Recovery	Flags	Low	High
93.9		80	120
103		80	120
111		80	120
111		80	120
103		80	120
99.8		80	120
	93.9 103 111 111 103	93.9 103 111 111 103	% Recovery Flags Low 93.9 80 103 80 111 80 111 80 103 80

Analyte		Result (ug/L)	RL	Flags
Chloromethane	ND	(-5-/	. 1	
Vinyl chloride	ND		1	
Bromomethane	ND		1	
Chloroethane	ND		1	
Trichlorofluoromethane	ND		. 1	•
1,1-Dichloroethene	ND		. 1	
Methylene chloride	ND		1	
Methyl tert-butyl ether	ND		· 1	
trans-1,2-Dichloroethene	ND		1 .	
1,1-Dichloroethane	ND		· 1	-
cis-1,2-Dichloroethene	ND		1	
Chloroform	ND		1	
1,1,1-Trichloroethane	ND		1	
Carbon Tetrachloride	ND		1	•
Benzene	ND		1	
1,2-Dichloroethane	ND		1	
Trichloroethene	ND		· 1	
1,2-Dichloropropane	ND		1	
Bromodichloromethane	ND		1	
cis-1,3-Dichloropropene	ND	•	1	
Toluene	ND		1	
trans-1,3-Dichloropropene	ND		1	
1,1,2-Trichloroethane	ND		<u> </u>	•
Tetrachloroethene	ND		1	
Dibromochloromethane	ND		· 1	
Chlorobenzene	ND		1	

Volatile Organics by USEPA Method 5035\8260B data for VOA1368 continued...

	Result		
Analyte	(ug/L)	RL	Flags
Ethylbenzene	ND	1	
m,p-Xylene	ND	2	
o-Xylene	ND	1	
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	ND	1	
1.3-Dichlorobenzene	ND	1	
1,4-Dichlorobenzene	ND	1	
1,2-Dichlorobenzene	ND	1	•

Lab ID:

Method Blank - VOA1394

Date Received:

6/29/2005

Date Prepared: Date Analyzed:

6/29/2005

% Solids
Dilution Factor

1

Volatile Organics by USEPA Method 624

SMC/			Recove	ery Limits
Surrogate	% Recovery 92.8	Flags	Low 74.5	High 118
Dibromofluoromethane Fluorobenzene	106		75	120
Toluene-D8 Ethylbenzene-d10	105 105		78 77	123 126
Bromofluorobenzene Trifluorotoluene	101 108		72 74	120 126

Analista	Result (ug/L)	RL.	Flags
Analyte	ND	1	•
Chloromethane	ND	1	
Vinyl chloride	ND	1	
Bromomethane	ND	1	
Chloroethane	•	1	
Trichlorofluoromethane	ND	1	
1,1-Dichloroethene	ND	4	
Methylene chloride	ND	i 4	
trans-1,2-Dichloroethene	ND	1	
1,1-Dichloroethane	ND ·	1	
Chloroform	ND	1	
1,1,1-Trichloroethane	ND ·	1	,
Carbon Tetrachloride	ND	1	
Benzene	ND	1	
1,2-Dichloroethane	ND	1	
Trichloroethene	ND	1	•
1,2-Dichloropropane	ND	1 .	
Bromodichloromethane	ND	1	
2-Chloroethyl vinyl ether	ND	5	
cis-1,3-Dichloropropene	ND	· 1	
Toluene	ND	1	
trans-1,3-Dichloropropene	ND	1	•
1,1,2-Trichloroethane	,ND	1	
	ND	1	
Tetrachloroethene	ND	1	
Dibromochloromethane		1	
Chlorobenzene	ND	1	
Ethylbenzene	ND	I	

Volatile Organics by USEPA Method 624 data for VOA1394 continued...

Analyte	Result (ug/L)	RL	Flags
Bromoform	ND	1	
1,1,2,2-Tetrachloroethane	. ND	1	
1,3-Dichlorobenzene	ND	1	
1,4-Dichlorobenzene	ND	1	
1,2-Dibromo-3-chloropropane	ND	1	

Blank Spike/Blank Spike Duplicate Report

Lab ID: Date Prepared: Date Analyzed: QC Batch ID: VOA1368 6/20/2005 6/20/2005 VOA1368

Volatile Organics by USEPA Method 5035\8260B

Compound Name 1,1-Dichloroethene	Blank Result (ug/L)	Spike Amount (ug/L) 5	BS Result (ug/L) 4.57	BS % Rec. 91.4	BSD Result (ug/L) 4.39	BSD % Rec. 87.8	RPD -4	Flag
Benzene	o o	5	4.74	94.8	4.51	90.2	-5	•
Trichloroethene	Ö	5	5.29	106	5.17	103	-2.9	
Toluene	Ō	5	4.85	97	4.77	95.5	-1.6	
Chlorobenzene	0	5	4.87	97.3	4.83	96.5	-0.83	

Blank Spike Report

Lab ID: Date Prepared: Date Analyzed: QC Batch ID: VOA1394 6/29/2005 6/29/2005 VOA1394

Volatile Organics by USEPA Method 624

	Blank Result	Spike Amount	BS Result	BS	
Compound Name	(ug/L)	(ug/L)	(ug/L)	% Rec.	Flag
Chloromethane	Ö	5	4.5	90	
Vinyl chloride	0	5	5.09	102	
Bromomethane	0	5	3.13	62.6	
Chloroethane	0	5	3.28	65.6	
Trichlorofluoromethane	0	5	6.13	123	
1,1-Dichloroethene	0	5	5.86	117	i
Methylene chloride	0	5	5.14	103	
trans-1,2-Dichloroethene	Ö	5	5.28	106	
1,1-Dichloroethane	Ō	5	5.34	107	
Chloroform	Ö	5	4.88	97.6	
1,1,1-Trichloroethane	Ö	5	5.43	109	•
Carbon Tetrachloride	Ō	5	5.17	103	
Benzene	0 .	5	5.09	102	
1,2-Dichloroethane	0	5	5.35	107	
Trichloroethene	Ō	5	5.09	102	
1,2-Dichloropropane	0	. 5	5.02	100	
Bromodichloromethane	0	5	4.96	99.2	
2-Chloroethyl vinyl ether	0	25	23.6	94.2	
cis-1,3-Dichloropropene	0	5	5.01 _.	100	
Toluene	0	5	4.97	99.3	
trans-1,3-Dichloropropene	0	5	4.38	[′] 87.5	
1,1,2-Trichloroethane	0	5	4.96	99.3	
Tetrachloroethene	0	5	4.96	99.2	
Dibromochloromethane	0	5	4.57	91.4	
Chlorobenzene	0	5	5.01	100	
Ethylbenzene	Ö	e - 5	5.16	103	
Bromoform	Ō	5	4.7	94	
1,1,2,2-Tetrachloroethane	Ō	5 ·	5.15	103	
1,3-Dichlorobenzene	o ·	5	4.72	94.5	
1,4-Dichlorobenzene	Ō	5	5.08	102	

Lab ID:

Method Blank - GB5190

Date Received:

Date Prepared: Date Analyzed: 6/20/2005 6/21/2005

% Solids

-. 1

Dilution Factor

Gasoline Range Organics by Method NWTPH-Gx

	•		Recovery Limits	
Surrogate	% Recovery	Flags	Low	High
Trifluorotoluene	102		50	150
1-Chloro-3-fluorobenzene	90		· 50	150
Bromofluorobenzene	98.3		50	150
Pentafluorobenzene	81.2		50	150

Result (mg/L) RL Flags
Gasoline by NWTPH-G ND 0.1

Blank Spike/Blank Spike Duplicate Report

Lab ID:

Date Prepared: Date Analyzed:

QC Batch ID:

GB5190 6/20/2005 6/21/2005

GB5190

Gasoline Range Organics by Method NWTPH-Gx

BSD BS Blank Spike BSD Result BS Result Result **Amount RPD** Flag % Rec. % Rec. (mg/L)(mg/L)(mg/L)(mg/L) **Compound Name** -32 77.8 0.973 107 Gasoline by NWTPH-G 1.25 1.34 D

Lab ID:

Method Blank - DW0784

Date Received:

Date Prepared: Date Analyzed: 6/15/2005 6/15/2005

% Solids

1

Dilution Factor

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel Cleanup

Surrogate o-terphenyl % Recovery 86.7

Flags

Recovery Limits High Low

50

150

Result

Analyte #2 Diesel (mg/L)

0.25

Flags

Motor Oil

ND ND

0.5

RL

Blank Spike/Blank Spike Duplicate Report

Lab ID: Date Prepared: Date Analyzed: QC Batch ID: DW0784 6/15/2005 6/15/2005 DW0784

Diesel and Motor Oil by NWTPH-Dx Modified with Silica Gel Cleanup

Compound Name #2 Diesel	Blank Result (mg/L) 0	Spike Amount (mg/L) 5	BS Result (mg/L) 5.37	BS % Rec. 107	BSD Result (mg/L) 5.07	BSD % Rec. 101	RPD -5.8	Flag
Motor Oil	0	5	5	100	4.8	96	-4.1	



STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be ≤ 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The presence of this analyte was not verified per WAC 246-290-010. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- MRL: Method Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- PQL: Practical Quantitation Limit
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be ______
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

Chain of Custody Record

STL Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.stl-inc.com



Client	Projec	t Mana	ger													Dat	e	10		 r <u>-</u>		Ch	nain of Custody Number	EE 1
SECOR	_ △	HIC	ع	(a	rsa	2 1	\								<u> </u>	. <i>و</i>)	10	. 0	2_			4.	1771
Address			umber					er								Lat	Num		~	_		1_		. 1
	ુ પ્	U5	. 37	12.	10	e O	\circ										Ľ	U	<u>32</u>	<u> </u>		Pa	age of	
City State Zip Code	Site C	ontact				Lab (Conta	ct				/ MTBE			Ar	alysis re spi	(Atta	ch lis	t if led)			ř	į	
Redmond WA 9805Z												늗		T	7/10	7 SP	7	17000	<u> </u>	T	Т		1	
Project Name and Location (State)	Carrie	r/Wayl	bill Nurr	ber			-								i			1	-			'	1	
5028 Blaine WA												X	ا	l		ļ						1	Special Instru	
Contract/Purchase Order/Quote No.			Mai	riv			С	ontain	ers &	Ç.		7.5	1	•		- 1	1				1	1	Conditions of	кесеірт
		1	mai				P	reserv	ative	5		1872X	18	ہر			-		İ			1		
Sample I.D. and Location/Description (Containers for each sample may be combined on one line) Date	Time	Air	Aqueous	Sod		Unpres.	H2S04	E DH	NaOH	ZnAc/ NaOH	D D	Š		Ó										
MW-7 6905	12:15		7														_ _	\perp		ļ	_	_		
WM - &	12:30		\downarrow	_			\perp		1	_				!	_	-	_ _	-	\downarrow	_	-			
				-			_	_	1	-	ļ	_				_	-	+	+	-	-	\vdash		
		$\perp \downarrow$	_	-	-		\dashv		+-	+	-	-				+	+	+	+	+	+-	+		
		-		+	-		\dashv	+	╀	-	├	-	\vdash			-		+	+-	+		+		
		+-	-	+-	\vdash		\dashv	- -	╁	+-	-	-				+	+	+	+	+	+	+	<u> </u>	
	 	+	-	╁╴	-		+	+	+	╁	-	-	-			+	+	1		\dagger	1	+-		
	-:	-		+-			\dashv	+	+	+	\dagger	-					$\neg \dagger$		+	+-	-	\dagger		
		+		+-	-		\dashv	+	+	+		1				\neg								
		1					7		1			Γ												
			П	1				\top	T			Γ				T								
Cooler Possible Hazard Identification	n				ــــــــــــــــــــــــــــــــــــــ		1_				Sarr	nple l	Dispo	sal		Z Di	sposa	l By I	Lab				(A fee may be asses	
• 1		□ Sk	in Irrita	nt		oison	В		Unkn	own		Retur	n To	Clien	t	□ Ar	chive	For_			_ Mor	nths	are retained longer t	han 1 month)
Turn Around Time Required (business days)						ا	QC R	Require	men	ts (Sp	ecify))												
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Da	ys 🗆 0	ther _				_		_																
1. Relinquished By	Date /	0·c	- 1	Time 4:	σ7·		I_Re	ceive	d By	ac	مر		7) Le). e i			کے	7	_		_	0/10/05	11:30
2. Relingdished By	Date	1.5/8	ام	Time	<u>ت</u> کرن		2.89	eceive	d By			k	1										Date Til	1258
3. Reinquished By	Date		<u>ی ا</u> ا	Time	<u> </u>	1	3. Re	eceive	d By			Te	1/_										Date	ne
// "																								
Comments																								



STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.stl-inc.com

TRANSMITTAL MEMORANDUM

DATE: July 6, 2005

TO: Alice Larsen
SECOR International Inc.
12034 134th Ct. NE, Suite 102
Redmond, WA 98052

PROJECT: 5028, Blaine WA

REPORT NUMBER: 127968 REV

TOTAL NUMBER OF PAGES: _____

Enclosed are the test results for four samples received at STL Seattle on May 19, 2005.

The Benzene reporting limits were adjusted to low level for this revision.

Nonconformance Narrative: For NWTPH-GX the Surrogate 1-Chloro-3-fluorbenzene was outside the QC limits. Probable due to matrix interference in the sample.

The report consists of this transmittal memo, analytical results, quality control reports, a copy of the chain-of-custody, a list of data qualifiers and analytical narrative when applicable, and a copy of any requested raw data.

Should there be any questions regarding this report, please contact me at (253) 922-2310.

Sincerely,

Tom Coyner
Project Manager

STL Seattle is a part of Severn Trent Laboratories, Inc.

Sample Identification:

Lab. No.	Client ID	Date/Time Sampled	Matrix
127968-1	B1-5	05-18-05 09:28	solid
127968-2	B1-10	05-18-05 09:40	solid
127968-3	B2-5	05-18-05 10:30	solid
127968-4	B2-10	05-18-05 10:35	solid

Client Name:

SECOR International Inc.

Client ID:

B1-5 127968-01

Lab ID:

5/19/05

Date Received: Date Prepared:

5/26/05

Date Analyzed: % Solids

5/26/05 86.81

Dilution Factor

1

GRO by NWTPH-Gx / Volatile Aromatics by 5035/8021B

·			Recov	ery Limits
Surrogate Trifluorotoluene	% Recovery 111 137	Flags	Low 50 76	High 150 137
1-Chloro-3-fluorobenzene	,0,			

	Result		
Analyte	(mg/kg)	RL	Flags
Gasoline By NWTPH-G	ND (C)	3.83	
-	ND	0.0383	
MTBE	ND	0.0191	
Benzene	; ND	0.0383	
Toluene	ND ·	0.0383	
Ethylbenzene	ND	0.0765	
m&p-Xylene	ND	0.0383	
o-Xylene	NU	2.000	

Client Name:

SECOR International Inc.

Client ID: Lab ID: B1-10 127968-02

Date Received:

5/19/05

Date Prepared: Date Analyzed: 5/26/05

Date Analyza Solids 5/26/05

Dilution Factor

69.78 1

GRO by NWTPH-Gx / Volatile Aromatics by 5035/8021B

		•	Recove	ery Limits
Surrogate Trifluorotoluene	% Recovery 94.8	Flags	Low 50	High 150
1-Chloro-3-fluorobenzene	176	N	76	137

	Result		
Analyte	(mg/kg)	RL	Flags
Gasoline By NWTPH-G	ND	5.25	
MTBE	ND	0.0525	
	ND	0.0263	
Benzene	ND	0.0525	
Toluene	ND	0.0525	
Ethylbenzene	ND	0.105	
m&p-Xylene		0.0525	
o-Xylene	ND	0.0020	

Client Name:

SECOR International Inc.

Client ID:

B2-5

Lab ID: Date Received: 127968-03 5/19/05

Date Prepared:

5/26/05

Date Analyzed: % Solids

5/26/05 75.62

Dilution Factor

1

GRO by NWTPH-Gx / Volatile Aromatics by 5035/8021B

			Recov	ery Limits
Surrogate Trifluorotoluene 1-Chloro-3-fluorobenzene	% Recovery 94.9 150	Flags N	Low 50 76	High 150 137

(malka) RL Fli	
Analyte (mg/kg)	-
Gasoline By NWTPH-G ND 4.17	
11102.17	
MIBE	
Renzene	
Toluene ND 0.0417	
ND (11M17)	
Ethylpenzene	
mkh-xviane	
o-Xylene ND 0.0417	

SECOR International Inc. Client Name: B2-10 Client ID: 127968-04 Lab ID: 5/19/05 Date Received: 5/27/05 Date Prepared: Date Analyzed: 5/28/05 79.79 % Solids 1 **Dilution Factor**

. GRO by NWTPH-Gx / Volatile Aromatics by 5030/8021B

			Recov	ery Limits
Surrogate	% Recovery	Flags	Low	High
Trifluorotoluene	94.6		50	150
1-Chloro-3-fluorobenzene	90		76	137
Bromofluorobenzene	98		7 9	132
Pentafluorobenzene	88		76	142

	F	Result		
Analyte	(n	ng/kg)	RL	Flags
Gasoline By NWTPH-G	ND		0.119	
MTBE		0.00201	0.00119	
Benzene	ND		0.000597	
Toluene	ND		0.00119	
Ethylbenzene	ND		0.00119	
m&p-Xylene	ND		0.00239	
o-Xylene	ND		0.00119	

Chain of Custody Record

STL Seattle 5755 8th Street E. Tacoma, WA 98424 Tel. 253-922-2310 Fax 253-922-5047 www.stl-inc.com

127768



Client			Project	Man	ager														٥	late	. /2	45.	,—		Cna	in or custody with	6480
			l A	11	رو		a	15	e v	<u> </u>												0.	2_	<u> </u>	 		0400
SECOR Address			Telepho	one N	tumbe	er (Ari	ua Co	ode)/i	Tax P	Amund	er						9		1	ab Nu	mber			•	Pa	1	a /
			3	100) -	9	31		<u>3U</u>	00	<u>8</u>						_}		Analy	-in /A+	took !	art If			1 ray	ka	<u> </u>
¥,	p Code	e	Site Co	mtaci	t				Lab	Conte	ect				- 1	W	3		more :								
	18	052													_	P	4	\top		П							
Project Name and Location (State)			Carrier	/Way	PAS N	lumbe	r								ł	Σ	٦									Special Ins	tructions/
5028 Blaine WA			L												\dashv	×	بى		-	1 1		1	1		1 1	Conditions	
Contract/Purchase Order/Quote No.					,	Matrix		1				tainei ervat				2	8			1 1		- 1		1		00112.00110	J. 1.000.p.
1344SEC010				_	-	,,		_							-	5	*	1			- 1				1		
Sample I.D. and Location/Description (Containers for each sample may be combined on one line	,	Date	Типе	ŧ	Aquecus	ğ	Ŗ		Chores	K2SO4	FOS.	Ř	MaOH	75. 75. 75. 75. 75. 75. 75. 75. 75. 75.		6x/BRX/MTB	ă				_		_	 			
B1-5	5	18.05	9.28	L			X			\dashv			-			\downarrow	1	<u> </u>		\dashv	\dashv	4	+-	+	\vdash		
B1-10 B2-5 B2-10			9,40	<u> </u>	_		41	_		4						\perp	4		-	\longrightarrow		_ -	+-	-	\vdash		
B2-5			10:30	<u> </u>			\bot	_	_		_						H		+	+		+	-	-	+		
B2-10		<u> </u>	10:35	_	_		4									J	-			╀┤	-			╂			
															L			<u> </u>		\perp		\dashv	4	╁-	\vdash		
	7																			Ш			\bot				
	\top																	1									
	+-		 	1																				\perp	L		
	+		 	+-	1	+			М			T	T				Τ										•
			<u> </u>	┿	╁	-		-	\vdash	\vdash	-	-	1-	\vdash	1	+-	十	$\dagger \dagger$	_	+			┪	 			
				_	1	1_		$ldsymbol{ldsymbol{ldsymbol{eta}}}$			<u> </u>	-	ļ	┼	}_	╁	┼-	+ +		-	├		+	+	+	 	
			1											L	_		L			\perp	<u> </u>	\sqcup	<u> </u>	_	 		
	T-			Τ																1.					\perp	<u> </u>	
Cooler Possibl	e Haza	rd Identificati	on .				Ц.				Ь	٠		_	San	nple i	Disp	osal	B	Dispo	sal B	y Lab				(A fee may be as	sessed if samples
DA Yes □ No Cooler Temp: □ Nor			ammable		ikin Ir	ritant			olso								m To	Client	<u> </u>	Archi	ve Fo			Mor	nths	are retained long	er than 1 month)
Turn Around Time Required (business days)					-						Req	uiren	nents	(Sp	ecify))											
24 Hours 48 Hours 2 5 Days 10	Days	☐ 15 Da	nys 🗆 Ot	ther .									\supseteq	<u> </u>			,	9								Date, .	Time
1. Relinquished By A A			Date		_		me	<u>سر</u>		اسلوا	Nece	ived	₽ý ⊃-		/				~	-		_			J	5/19/05	Time //.: 4 0
Muedoll Kidmon				14.	σ		_	N		>	4	12		a	1		<u> 4</u> 2	1	<u>'</u>	_	مبر	_				Date	Time
2. Bethquished By	-		Date,	c/	a-		me 1 c	41	4	151	KEC	wed .	2	700				M	W	ri	X	Z/	7	_		5/19/5	11:40
3, Kelinguished By			Date	_	. <u>J</u>	1/1	he	7	92	3.	Rece	lved	Ву		-											Date	Time
/						\perp				<u></u>				-												L	1
Comments																											

ATTACHMENT B
BORING LOGS
Subsurface Investigation
247 'D' Street
Blaine Washington
ConocoPhillips Facility No. 255028
October 21, 2005

PROJECT: CONOCOPHILIPS LOCATION: 247 "D" STREET BLAINE, WA PROJECT NUMBER: FACILITY NO: 5028 COMPLETED: 5/18/05 STARTED 5/18/05 DRILLING: INSTALLATION: STARTED 5/18/05 COMPLETED: 5/18/05

DRILLING COMPANY: CASCADE

DRILLING EQUIPMENT: HSA

DRILLING METHOD:

--B-1/MW-7-- PAGE 11 OF 1

WELL / PROBEHOLE / BOREHOLE NO:

EASTING (ft): NORTHING (ft): LONGITUDE: LATITUDE: TOC ELEV (ft): GROUND ELEV (ft): INITIAL DTW (ft): NE

BOREHOLE DEPTH (ft): 13.0 WELL DEPTH (ft): ---BOREHOLE DIAMETER (in): 8

SECOR

STATIC DTW (ft): 5 5/18/05

WELL CASING DIAMETER (in): ---

SAMPLING	<u> EQU</u>	PMEN	NT:	LOG	GED BY: MR				CHECK	(ED BY:	
Time & Depth (feet)	Graphic Log	nscs	Description	Sample	Time Sample ID	Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)		Borehole Backfill
5-		SM	Cleared to 5'. SAND WITH SILT; SM; OLIVE GRAY;	M	N/A B-1/MW-7@ 5-5'	-11,0,00	11 7		<u>.</u> - ▼ 5-		· 0-1.5' Concrete
10-		SM	SAND WITH SILT; SM; OLIVE GRAY light; dense; moist	×	N/A B-1/MW-7@ 10-10'		6 1 2 3	7.0	10-		
15-			Hole terminated at 13 feet.						- - 15- -		
20-			·						20-		
25-	-	-							25-		
SECOR INTL. GDT 10/21/0									30-	-	
SEO FORM 304 01CP0502810.GPJ SECOR INTL.GDT 10/21/05 25 26 26	1,000					***************************************			35-		
0	1.							l		<u> </u>	

WELL / PROBEHOLE / BOREHOLE NO: PROJECT: CONOCOPHILIPS LOCATION: 247 "D" STREET BLAINE, WA -B-2/MW-8--PAGE: 1: OF -1 SECOR PROJECT NUMBER: FACILITY NO. 5028 EASTING (ft): NORTHING (ft): STARTED 5/18/05 COMPLETED: 5/18/05 DRILLING: LONGITUDE: LATITUDE: INSTALLATION: STARTED 5/18/05 **COMPLETED: 5/18/05** TOC ELEV (ft): GROUND ELEV (ft): DRILLING COMPANY: CASCADE BOREHOLE DEPTH (ft): 13.0 INITIAL DTW (ft): NE DRILLING EQUIPMENT: HSA STATIC DTW (ft): 7 5/18/05 WELL DEPTH (ft): ---WELL CASING DIAMETER (in): ---BOREHOLE DIAMETER (in): 8 DRILLING METHOD: CHECKED BY: LOGGED BY: MR SAMPLING EQUIPMENT: Headspace PID (units) Sample Graphic Log Blow Count Time & Depth (feet) Depth (feet) USCS Time Description Sample ID Cleared to 5'.

