



Solving environment-related business problems worldwide

www.deltaenv.com

4006 148th Avenue NE
Redmond, Washington 98052 USA
425.882.3528 800.477.7411
Fax 425.869.1892

Date: October 14, 2005
Project No.: WA25-416-1

To: Mr. Kipp Eckert
ConocoPhillips
1144 Eastlake Avenue East
Suite 201
Seattle, Washington 98109-4450

We have enclosed:

Copies Description

<u>1</u>	<u>2Q05 GW Monitoring Report</u>
<u> </u>	<u>202 Avenue D, Snohomish, Washington</u>
<u> </u>	<u>ConocoPhillips Site No. 254165</u>

For your: ☒ Use/Files
☐ Approval
☐ Review
☐ Information

Sent Via: ☐ Regular Mail
☐ Priority Mail (USPS)
☐ Overnight (FedEx)
☒ Other FedEx Saver

Comments: _____

Eric Larsen 

cc: Mr. Brian Sato, Washington State Dept. of Ecology – NW Regional Office, Bellevue, WA
Ms. Mary Murphy, City of Snohomish, 116 Union Avenue, Snohomish, WA 98290

RECEIVED

OCT 19 2005

DEPT OF ECOLOGY

A member of:





CONOCOPHILLIPS COMPANY GROUNDWATER MONITORING REPORT

October 13, 2005

Site No.: 254165 Site Address: 202 Avenue D, Snohomish, Washington
ConocoPhillips Site Manager: Kipp Eckert
ConocoPhillips Address: P.O. Box 923, Bothell, WA 98041
Consultant/Contact Person: Delta Environmental Consultants, Inc. - Eric Larsen
Consultant Address: 4006 148th Avenue NE, Redmond, WA 98052
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

WORK PERFORMED THIS QUARTER [Second - 2005]

- Measured depth to water in Wells MW-1A, MW-2, MW-6A, and MW-9 through MW-15 on June 28, 2005.
- Purged and sampled groundwater from Wells MW-1A, MW-2, MW-6A, and MW-9, through MW-15 on June 28, 2005.
- Analyzed groundwater samples for total petroleum hydrocarbons as gasoline (TPH-G) using Northwest Method NWTPH-Gx; TPH as diesel and heavy oil (TPH-D and TPH-O) using Northwest Method NWTPH-Dx (with silica gel cleanup); benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8260B; nitrate and sulfate using EPA Method 300A.
- Using a YSI 556 water quality meter, measured groundwater quality field parameters in Wells MW-1A, MW-2, MW-6A, and MW-9 through MW-15.

WORK PROPOSED FOR NEXT QUARTER [Third - 2005]

- Measure depth to water and separate-phase hydrocarbon (SPH) thickness (if present) in Wells MW-1A, MW-2, MW-6A, and MW-9 through MW-15.
- Measure groundwater quality field parameters in Wells MW-1A, MW-2, MW-6A, and MW-9 through MW-15 using a Horiba U-22 or YSI 556 water quality meter.
- Analyze groundwater samples collected from Wells MW-1A, MW-2, MW-6A, and MW-9 through MW-15 for TPH-G using Northwest Method NWTPH-Gx, TPH-D and TPH-O using Northwest Method NWTPH-Dx, BTEX using EPA Method 8260B, nitrate and sulfate using EPA Method 300A, and alkalinity using EPA Method 310.1
- Next sampling event is scheduled for September 2005.

SUMMARY

Frequency of Sampling Events:	<u>Quarterly</u> (Quarterly, etc.)
Approximate Depth to Groundwater:	<u>4.77 - 9.43</u> (Measured Feet)
Groundwater Gradient:	<u>Southerly</u> (Direction)
	<u>Varies (0.03 to 0.06)</u> (ft/ft)
Maximum Benzene Concentration:	<u>74.8 (MW-11)</u> (ppb)
Measurable Free Product Detected:	<u>No</u> (Yes - ID well(s)/No)
Free Product Recovered This Quarter:	<u>None</u> (gallons)



**CONOCOPHILLIPS COMPANY
GROUNDWATER MONITORING REPORT**

October 13, 2005

Site No.: 254165	Site Address: 202 Avenue D, Snohomish, Washington
ConocoPhillips Site Manager:	Kipp Eckert
ConocoPhillips Address:	P.O. Box 923, Bothell, WA 98041
Consultant/Contact Person:	Delta Environmental Consultants, Inc. – Eric Larsen
Consultant Address:	4006 148 th Avenue NE, Redmond, WA 98052
Primary Agency/Regulatory ID No.:	Washington DOE Northwest Region

Cumulative Free Product Recovered to Date:	Unknown (gallons)
Water Wells or Surface Waters w/in a 2000'	Snohomish River
Radius and Respective Direction:	800 ft South (Distance and Direction)
Current Remedial Action:	Not Applicable (SVE/AS/P&T/DVE/ Product Removal/Bio/etc.)
Permits for Discharge:	Not Applicable (NPDES, POTW, etc.)

DISCUSSION

- SPH were not detected in any of the wells. A sheen was observed in Well MW-12.
- TPH-G was detected above the Washington State Model Toxics Control Act (MTCA) Method A cleanup level in the groundwater samples collected from Wells MW-6A and MW-12 at concentrations of 1,710 ppb and 8,030 ppb, respectively.
- TPH-D was detected above the MTCA Method A cleanup level in the groundwater samples collected from Wells MW-6A, MW-10, and MW-11 at concentrations of 533 ppb, 749 ppb, and 13,300 ppb, respectively. According to the analytical laboratory report, these results either did not appear to be "typical" product or might be due to overlap from the gasoline range hydrocarbons.
- TPH-O was detected above the MTCA Method A cleanup level in the groundwater samples collected from Wells MW-2 and MW-11 at concentrations of 568 ppb and 5,650 ppb, respectively. The analytical laboratory report indicated that these results did not appear to be "typical" product.
- The TPH-D and TPH-O results reported for MW-11 appear to be much higher during this event than results reported for previous events. Similarly, TPH-D and TPH-O results reported for MW-12 appear to be much lower during this event than results reported for previous events.
- Benzene was detected above the MTCA Method A cleanup level in the groundwater sample collected from MW-11 at a concentration of 74.8 ppb.
- Toluene was not detected above the laboratory reporting limit in groundwater samples collected from Wells MW-1A, MW-2, MW-9, MW-10, and MW-12 through MW-15. Toluene was detected below the MTCA Method A cleanup level in the groundwater samples collected from Wells MW-6A and MW-11 at concentrations of 1.3 ppb and 4.93 ppb, respectively.



CONOCOPHILLIPS COMPANY
GROUNDWATER MONITORING REPORT

Site No.: 254165 Site Address: 202 Avenue D, Snohomish, Washington
ConocoPhillips Site Manager: Kipp Eckert
ConocoPhillips Address: P.O. Box 923, Bothell, WA 98041
Consultant/Contact Person: Delta Environmental Consultants, Inc. – Eric Larsen
Consultant Address: 4006 148th Avenue NE, Redmond, WA 98052
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

- Ethylbenzene was not detected above the laboratory reporting limit in the groundwater samples collected from Wells MW-1A, MW-2, MW-6A, MW-9, MW-10, and MW-13 through MW-15. Ethylbenzene was detected below the MTCA Method A cleanup level in the groundwater samples collected from Wells MW-11 and MW-12 at concentrations of 11.2 ppb and 30.2 ppb, respectively.
- Total xylenes were not detected above the laboratory reporting limit in groundwater collected from any of the wells, with the exception of MW-11. Total xylenes were detected below the MTCA Method A cleanup level in the groundwater sample collected from Well MW-11 at a concentration of 6.41 ppb.
- Natural attenuation parameters are typically monitored at this site. With the exception of Well MW-12, field parameters were monitored at each well during this event using a YSI 556 water quality meter and included pH, conductivity, dissolved oxygen (DO), temperature, total dissolved solids, and oxidation-reduction potential (ORP). Additional parameters of nitrate and sulfate were analyzed by the laboratory.
- Natural attenuation field parameters were not measured in MW-12 because purge water tubing within the well was obstructing the YSI probe. Upon disconnection from the purge pump, the tubing had lowered down into the well, which resulted in the top of the tubing being approximately one foot lower than the top of the well casing. Field personnel made multiple attempts to retrieve the tubing, but were unsuccessful with available tools. Delta will retrieve the tubing from MW-12 during the next monitoring event.
- Degradation of hydrocarbons is often indicated by decreased dissolved oxygen concentrations. DO concentrations were generally low in all wells during this event, ranging from 0.14 milligrams per liter (mg/l) to 2.25 mg/l. Unaffected well MW-9 contained the highest concentration of DO (2.25 mg/l), while all other wells contained DO concentrations below 1 mg/l.
- Upon depletion of dissolved oxygen, ORP decreases and anaerobic conditions increase the availability of alternative electron receptors such as nitrate and sulfate for utilization by microorganisms, which allows for natural attenuation to continue through anaerobic processes. During this event, ORP values and nitrate and sulfate concentrations were generally lower in affected wells and were generally higher in unaffected wells.



**CONOCOPHILLIPS COMPANY
GROUNDWATER MONITORING REPORT**

October 13, 2005

Site No.: 254165	Site Address: 202 Avenue D, Snohomish, Washington
ConocoPhillips Site Manager:	Kipp Eckert
ConocoPhillips Address:	P.O. Box 923, Bothell, WA 98041
Consultant/Contact Person:	Delta Environmental Consultants, Inc. – Eric Larsen
Consultant Address:	4006 148 th Avenue NE, Redmond, WA 98052
Primary Agency/Regulatory ID No.:	Washington DOE Northwest Region

- ORP values ranged from -50.2 millivolts (mV) to 14.1 mV in wells with hydrocarbon impacts (MW-2, MW-6A, MW-10, MW-11, and MW-13) and ranged from 20.7 mV to 182.2 mV in unaffected wells (MW-1A, MW-9, MW-14, and MW-15) during this event. Nitrate concentrations were not detected above the laboratory reporting limit in any of the impacted wells and ranged from non-detectable to 2.42 mg/l in the unaffected wells. Sulfate concentrations ranged from 3.62 mg/l to 51.2 mg/l in the impacted wells and were slightly higher in the unaffected wells, ranging from 15.1 mg/l to 52.7 mg/l.
- Results of monitoring water quality parameters suggest that natural attenuation by anaerobic degradation processes are occurring in the vicinity of impacted wells at the site, but that the degradation process could be slowing due to decreased availability of electron receptors.

LIMITATIONS

The services described in this report were performed in accordance with generally accepted professional consulting principles and practices. No other warranty, either express or implied, is made. These services were performed in accordance with terms established with our client. This report is solely for the use of our client and reliance on any part of this report by a third party is at such party's sole risk.

Delta appreciates the opportunity to provide environmental services for ConocoPhillips Company. Please call (425) 882-3528 if you have any questions regarding the contents of this report.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Tena Seeds

Tena Seeds, E.I.T.
Project Engineer

Eric Larsen

Eric Larsen, L.H.G.
Senior Geologist



cc: Mr. Brian Sato, Washington State Dept. of Ecology – Northwest Regional Office, Bellevue, WA ,
Ms. Mary Murphy, City of Snohomish, 116 Union Avenue, Snohomish, WA 98290



**CONOCOPHILLIPS COMPANY
GROUNDWATER MONITORING REPORT**

October 13, 2005

Site No.: <u>254165</u>	Site Address: <u>202 Avenue D, Snohomish, Washington</u>
ConocoPhillips Site Manager:	<u>Kipp Eckert</u>
ConocoPhillips Address:	<u>P.O. Box 923, Bothell, WA 98041</u>
Consultant/Contact Person:	<u>Delta Environmental Consultants, Inc. – Eric Larsen</u>
Consultant Address:	<u>4006 148th Avenue NE, Redmond, WA 98052</u>
Primary Agency/Regulatory ID No.:	<u>Washington DOE Northwest Region</u>

ATTACHMENTS

- Table 1 – Groundwater Elevations
- Table 2 – Groundwater Analytical Results
- Table 3 – Natural Attenuation Parameters
- Figure 1 –Site Map with Groundwater Elevations and Petroleum Hydrocarbon and BTEX Concentrations
- Laboratory Analytical Report and Chain-of-Custody Documentation
- Groundwater Sampling Procedures and Field Sheets

TABLE 1
GROUNDWATER ELEVATIONS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-1A	04/04/02	69.32	7.21	--	62.11
	07/02/02	69.32	9.30	--	60.02
	10/02/02	69.32	11.67	--	57.65
	01/14/03	69.32	7.75	--	61.57
	04/28/03	69.32	7.85	--	61.47
	07/11/03	69.32	10.31	--	59.01
	12/17/03	69.32	7.44	0.00	61.88
	03/31/04	69.32	8.28	0.00	61.04
	08/19/04	69.32	10.89	0.00	58.43
	03/21/05	69.32	9.22	0.00	60.10
	06/28/05	69.32	8.86	0.00	60.46
MW-2	01/08/99	69.80	4.90	--	64.90
	04/28/99	69.80	4.91	--	64.89
	07/23/99	69.80	6.29	--	63.51
	10/25/99	69.80	8.64	--	61.16
	01/08/00	69.80	4.72	--	65.08
	04/19/00	69.80	5.48	--	64.32
	07/12/00	69.80	7.55	--	62.25
	09/06/00	69.80	--	--	--
	10/16/00	69.80	8.88	--	60.92
	11/27/00	69.80	--	--	--
	01/16/01	69.80	6.02	--	63.78
	04/04/01	Unable to locate			
	05/22/01	69.80	--	--	--
	07/09/01	69.80	--	--	--
	10/09/01	69.80	--	--	--
	01/08/02	Obstructed by construction			
	04/04/02	69.80	3.47	--	66.33
	07/02/02	69.80	5.49	--	64.31
	10/02/02	69.80	7.88	--	61.92
	01/14/03	69.80	3.27	--	66.53
	04/28/03	69.80	4.05	--	65.75
	07/11/03	69.80	6.92	--	62.88
	12/17/03	69.80	3.65	0.00	66.15
	03/31/04	69.80	4.60	0.00	65.20
	08/19/04	69.80	7.45	0.00	62.35
	03/21/05	69.80	5.52	0.00	64.28
	06/28/05	69.80	5.26	0.00	64.54

TABLE 1
GROUNDWATER ELEVATIONS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-6A	04/04/02	67.65	8.25	--	59.40
	07/02/02	67.65	8.98	--	58.67
	10/02/02	67.65	10.48	--	57.17
	01/14/03	67.65	9.88	--	57.77
	04/28/03	67.65	9.20	--	58.45
	07/11/03	67.65	8.48	--	59.17
	12/17/03	67.65	9.45	0.00	58.20
	03/31/04	67.65	8.97	0.00	58.68
	08/19/04	67.65	9.22	0.00	58.43
	03/21/05	67.65	9.45	0.00	58.20
	06/28/05	67.65	9.02	0.00	58.63
MW-9	01/08/99	68.66	6.50	--	62.16
	04/28/99	68.66	7.28	--	61.38
	07/23/99	68.66	7.97	--	60.69
	10/25/99	68.66	--	--	--
	01/08/00	68.66	6.76	--	61.90
	04/19/00	68.66	--	--	--
	07/12/00	68.66	8.65	--	60.01
	09/06/00	68.66	--	--	--
	10/16/00	68.66	--	--	--
	11/27/00	68.66	--	--	--
	01/16/01	68.66	8.08	--	60.58
	04/04/01	68.66	7.78	--	60.88
	05/22/01	68.66	--	--	--
	07/09/01	68.66	--	--	--
	10/09/01	68.66	9.70	--	58.96
	01/08/02	68.66	6.16	--	62.50
	04/04/02	68.66	6.54	--	62.12
	07/02/02	68.66	8.49	--	60.17
	10/02/02	68.66	10.13	--	58.53
	01/14/03	68.66	7.28	--	61.38
	04/28/03	68.66	6.93	--	61.73
	07/11/03	68.66	8.91	--	59.75
	12/23/03	68.66	6.81	0.00	61.85
	03/31/04	68.66	7.34	0.00	61.32
	08/19/04	68.66	9.53	0.00	59.13
	03/21/05 ⁴	67.77	8.11	0.00	59.66
	06/28/05	67.77	7.82	0.00	59.95

TABLE 1
GROUNDWATER ELEVATIONS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-10	01/08/99	67.33	4.91	--	62.42
	04/28/99	67.33	5.04	--	62.29
	07/23/99	67.33	5.44	--	61.89
	10/25/99	67.33	7.00	--	60.33
	01/08/00	67.33	4.64	--	62.69
	04/19/00	67.33	5.02	--	62.31
	07/12/00	67.33	8.27	--	59.06
	09/06/00	67.33	--	--	--
	10/16/00	67.33	7.41	--	59.92
	11/27/00	67.33	--	--	--
	01/16/01	67.33	4.39	--	62.94
	04/04/01	67.33	5.00	--	62.33
	05/22/01	67.33	--	--	--
	07/09/01	67.33	6.03	--	61.30
	10/09/01	67.33	7.15	--	60.18
	01/08/02	67.33	4.61	--	62.72
	04/04/02	67.33	4.48	--	62.85
	07/02/02	67.33	6.00	--	61.33
	10/02/02	67.33	7.96	--	59.37
	01/14/03	67.33	4.25	--	63.08
	04/28/03	67.33	4.71	--	62.62
	07/11/03	67.33	6.40	--	60.93
	12/17/03	Inaccessible; buried under gravel from recent road construction			
	03/31/04	67.33	4.28	0.00	63.05
	08/19/04	67.33	6.84	0.00	60.49
	03/21/05	67.33	4.71	0.00	62.62
	06/28/05	67.33	4.77	0.00	62.56

TABLE 1
GROUNDWATER ELEVATIONS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-11	01/08/99	66.37	9.32	--	57.05
	04/28/99	66.37	9.58	--	56.79
	07/23/99	66.37	9.83	--	56.54
	10/25/99	66.37	10.69	--	55.68
	01/08/00	66.37	9.21	--	57.16
	04/19/00	66.37	9.52	--	56.85
	07/12/00	66.37	10.10	--	56.27
	09/06/00	66.37	--	--	--
	10/16/00	66.37	10.80	--	55.57
	11/27/00	66.37	--	--	--
	01/16/01	66.37	10.75	--	55.62
	04/04/01	66.37	--	--	--
	05/22/01	66.37	9.69	--	56.68
	07/09/01	66.37	9.98	--	56.39
	10/09/01	66.37	10.67	--	55.70
	01/08/02	66.37	9.05	--	57.32
	04/04/02	66.37	5.67	--	60.70
	07/02/02	66.37	5.90	--	60.47
	10/02/02	66.37	10.94	--	55.43
	01/14/03	66.37	9.18	--	57.19
	04/28/03	66.37	9.25	--	57.12
	07/11/03	66.37	10.19	--	56.18
	12/17/03	66.37	8.35	0.00	58.02
	03/31/04	66.37	8.70	0.00	57.67
	08/19/04 ²	65.52	9.73	0.00	55.79
	03/21/05	65.52	9.10	0.00	56.42
	06/28/08	65.52	8.84	0.00	56.68

TABLE 1
GROUNDWATER ELEVATIONS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-12	01/08/99	66.40	8.74	--	57.66
	04/28/99	66.40	9.22	0.03	57.20
	07/23/99	66.40	9.51	0.01	56.90
	10/25/99	66.40	10.81	0.29	55.82
	01/08/00	66.40	8.71	--	57.69
	04/19/00	66.40	8.97	--	57.43
	07/12/00	66.40	--	0.20	--
	09/06/00	66.40	--	--	--
	10/16/00	66.40	--	0.25	--
	11/27/00	66.40	--	--	--
	01/16/01	66.40	9.44	--	56.96
	04/06/01	66.40	9.16	--	57.24
	05/22/01	66.40	9.39	--	57.01
	07/09/01	66.40	--	0.30	--
	10/09/01	66.40	10.65	0.20	55.91
	01/08/02	66.40	8.15	0.08	58.31
	04/04/02	66.40	8.65	0.15	57.87
	07/02/02	66.40	9.66	0.36	57.03
	10/02/02	66.40	11.18	0.60	55.70
	01/14/03	66.40	8.66	0.10	57.82
	04/28/03	66.40	--	0.25	--
	07/11/03	66.40	11.10	0.04	55.33
	12/17/03	66.40	8.52	0.01	57.89
	03/31/04	66.40	8.98	sheen	57.42
	08/19/04 ²	66.33	10.32	0.14	56.12
	10/14/04 ³	66.33	10.00	sheen	56.33
	03/21/05	66.33	9.30	0.01	57.04
	06/28/05	66.33	8.96	sheen	57.37

TABLE 1
GROUNDWATER ELEVATIONS

ConocoPhillips Site No. 254165
202 Avenue D
Snohomish, Washington

Well I.D.	Monitoring Date	TOC Elevation (feet)	Depth to Groundwater (feet)	SPH Thickness (feet)	Groundwater Elevation ¹ (feet)
MW-13	03/21/05 ⁴	67.59	9.72	0.00	57.87
	06/28/05	67.59	9.43	0.00	58.16
MW-14	03/21/05 ⁴	67.67	9.17	0.00	58.50
	06/28/05	67.67	8.87	0.00	58.80
MW-15	03/21/05 ⁴	66.66	9.02	0.00	57.64
	06/28/05	66.66	8.64	0.00	58.02

Notes:

TOC = Top of casing elevation, referenced to a site datum with an assumed elevation of 100.00 feet (National Geodetic Vertical Datum of 1929).

SPH = Separate-phase hydrocarbon thickness

"--" - Not measured or reported

¹ Where applicable, groundwater elevations have been corrected to account for separate-phase hydrocarbon thickness, assuming a specific gravity of 0.80 for the product.

² TOC elevations of MW-11 and MW-12 were re-surveyed on October 14, 2004 in reference to MW-6A. The well casing of MW-12 had been shortened following the March 31, 2004 monitoring event.

³ Delta monitored Well MW-12 on October 14, 2004 to measure SPH thickness in the well. No other wells were monitored at that time.

⁴ TOC elevations of MW-13 through MW-15 were surveyed on March 21, 2005 in reference to MW-6A and MW-9. In doing so, the wellhead elevation of MW-9 was observed to be approximately 0.89 foot lower than previously recorded.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-1A	04/04/02	73.6	<250	<500	<0.500	<0.500	<0.500	<1.00
	07/02/02	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00
	10/02/02	<100	<250	<500	<0.500	<2.00	<1.00	<1.50
	01/14/03	90.5	<250	<500	0.550	<0.500	<0.500	<1.00
	04/28/03	59.2	<250	<500	1.54	<0.500	<0.500	<1.00
	07/11/03	<50.0	<281	<562	<0.500	0.702	0.517	1.74
	12/17/03	<100	<129	<259	0.339	<0.5	<0.5	<1
	03/31/04	<100	<119	<237	<1	<1	<1	<2
	08/19/04	<100	<264	<527	<1	<1	<1	<2
	03/21/05	266	<248	<496	<1	<1	<1	<2
	06/28/05	<100	<259	<517	<1	<1	<1	<2
MW-2	01/08/99	1,510	314	<750	20.7	<2.75	<2.50	<5.00
	04/28/99	1,180	324	<750	16.1	<1.60	<1.32	<3.30
	07/23/99	805	368	<750	12.3	<1.50	<0.500	<4.00
	10/25/99	2,100	250	<750	<0.700	<19.6	<0.700	<1.90
	01/08/00	1,530	<250	<750	22.2	<2.27	<2.43	<6.44
	04/19/00	1,210	257	<718	<0.500	28.5	<2.55	<4.22
	07/12/00	888	653	<750	<1.25	4.75	<1.25	<2.50
	09/06/00	--	--	--	--	--	--	--
	10/16/00	1,110	<358	<1,070	42.3	<4.13	<2.08	<5.00
	11/27/00	--	--	--	--	--	--	--
	01/16/01	2,000	614	<918	<2.50	29.1	<2.50	<5.00
	04/04/01	--	--	--	--	--	--	--
	05/22/01	--	--	--	--	--	--	--
	07/09/01	--	--	--	--	--	--	--
	10/09/01	--	--	--	--	--	--	--
	01/08/02	--	--	--	--	--	--	--
	04/04/02	159	<250	<500	16.3	1.25	<0.500	2.57
	07/02/02	387	273	<500	23.4	<0.500	<0.500	<1.00
	10/02/02	505	<250	<500	22.5	<2.00	<1.00	<1.50
	01/14/03	681	<250	<500	8.10	<0.500	0.515	2.49
	04/28/03	269	<250	<500	3.51	<0.500	<0.500	1.45
	07/11/03	358	<291	<581	5.64	0.557	0.792	3.04
	12/17/03	124	<129	<259	<0.25	<0.5	<0.5	<1.00
	03/31/04	<100	123	<237	9.05	<1	<1	1.12
	08/19/04	<100	<244	<488	<1	<1	<1	<2
	03/21/05	<100	<251	<502	5.07	<1	<1	<2
	06/28/05	<100	344 ²	568 ²	<1	<1	<1	<2

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-6A	04/04/02	2,570	665	<500	2.99	3.16	2.25	7.27
	07/02/02	3,000	613	<500	4.70	4.51	3.42	9.81
	10/02/02	2,970	384	<500	32.4	6.38	8.44	9.75
	01/14/03	1,680	<250	<500	6.69	2.24	1.60	13.4
	04/28/03	1,720	288	<562	1.65	2.20	2.99	12.6
	07/11/03	1,470	<281	<562	2.13	2.45	3.23	6.92
	12/17/03	2,380	457	<265	0.875	1.75	0.941	<1
	03/31/04	1,810	682	<247	<5	<5	<5	<10
	08/19/04	988	347	<476	<1	<1	<1	<2
	03/21/05	1,610	349	<501	<0.5	4.58	4.95	4.71
	06/28/05	1,710	533 ³	<490	<1	1.3	<1	<2
MW-9	01/08/99	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	04/28/99	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	07/23/99	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	10/25/99	--	--	--	--	--	--	--
	01/08/00	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	04/19/00	--	--	--	--	--	--	--
	07/12/00	<50.0	<249	<745	<0.500	<0.500	<0.500	<1.00
	09/06/00	--	--	--	--	--	--	--
	10/16/00	--	--	--	--	--	--	--
	11/27/00	--	--	--	--	--	--	--
	01/16/01	<50.0	--	--	<0.500	<0.500	<0.500	<1.00
	04/04/01	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	05/22/01	--	--	--	--	--	--	--
	07/09/01	--	--	--	--	--	--	--
	10/09/01	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00
	01/08/02	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00
	04/04/02	<50.0	<250	<500	<0.500	0.593	<0.500	<1.00
	07/02/02	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00
	10/02/02	144	<250	<500	3.15	<2.00	7.22	2.25
	01/14/03	<50.0	<284	<568	<0.500	<0.500	<0.500	<1.00
	04/28/03	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00
	07/11/03	<50.0	<329	<658	<0.500	<0.500	<0.500	1.20
	12/23/03	<100	<126	<253	<0.25	<0.5	<0.5	<1
	03/31/04	<100	<118	<237	<1	<1	<1	<2
	08/19/04	<100	<256	<512	<1	<1	<1	<2
	03/21/05	<100	<247	<494	<1	<1	<1	<2
	06/28/05	<100	<258	<516	<1	<1	<1	<2

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-10	01/08/99	331	266	<750	2.30	<0.500	<1.50	<2.50
	04/28/99	280	<250	<750	2.99	<0.800	<1.10	<3.00
	07/23/99	529	<250	<750	2.34	<2.60	2.81	9.37
	10/25/99	519	251	<750	<0.800	<5.65	<2.75	<8.65
	01/08/00	504	<250	<750	<1.22	<0.828	<3.27	<7.59
	04/19/00	332	<250	<750	<0.610	<4.43	<2.84	<6.91
	07/12/00	498	<250	<750	<0.500	4.02	<3.52	<7.18
	09/06/00	--	--	--	--	--	--	--
	10/16/00	770	616	<1,330	<4.17	<3.47	<2.69	<8.05
	11/27/00	--	--	--	--	--	--	--
	01/16/01	209	299	<859	<0.500	2.33	0.980	2.65
	04/04/01	198	<250	<750	<0.500	<0.500	1.03	2.71
	05/22/01	--	--	--	--	--	--	--
	07/09/01	311	334	<853	<0.500	1.97	0.949	1.07
	10/09/01	675	291	<581	2.16	0.678	0.777	4.67
	01/08/02	258	675	<500	0.837	0.722	1.48	2.71
	04/04/02	208	392	<500	<0.500	<0.500	<0.500	1.33
	07/02/02	201	250	<500	0.552	<0.500	<0.500	1.16
	10/02/02	811	326	<500	3.90	<2.00	4.12	4.63
	01/14/03	280	<309	<617	0.549	0.844	<0.500	1.76
	04/28/03	270	<250	<500	0.842	<0.500	<0.500	2.29
	07/11/03	548	<284	<568	0.929	<0.500	3.19	4.18
	12/17/03	Inaccessible; buried under gravel from recent road construction						
	03/31/04	390	308	<237	<1	<1	<1	<2
	08/19/04	244	<251	<501	<1	<1	<1	<2
	03/21/05	396	<247	<494	<1	<1	1.93	<2
	06/28/05	624	746 ³	<504	<1	<1	<1	<2

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-11	01/08/99	371	--	--	141	4.95	10.8	6.66
	04/28/99	782	<250	<750	175	<11.0	26.1	29.9
	07/23/99	474	<250	<750	43.7	<2.70	3.40	8.32
	10/25/99	845	<250	<750	9.22	<2.90	<3.75	<6.20
	01/08/00	133	<250	<750	22.5	<1.03	1.11	3.34
	04/19/00	869	<250	<750	92.8	8.15	9.25	20.2
	07/12/00	581	387	<896	25.6	2.32	<2.31	<7.94
	09/06/00	--	--	--	--	--	--	--
	10/16/00	322	<250	<750	<2.80	<0.640	<0.860	<4.20
	11/27/00	--	--	--	--	--	--	--
	01/16/01	725	311	<866	16.7	2.41	4.46	7.09
	04/04/01	--	--	--	--	--	--	--
	05/22/01	385	--	--	15.8	2.37	2.47	4.37
	07/09/01	439	<310	<931	39.6	2.63	1.72	3.71
	10/09/01	410	333	<500	6.04	1.08	1.74	4.40
	01/08/02	1,280	572	<500	184	10.6	35.7	21.9
	04/04/02	757	366	<500	30.6	2.20	2.81	5.72
	07/02/02	1,060	384	<500	107	8.73	24.2	15.5
	10/02/02	785	<250	<500	13.9	<2.00	4.96	3.59
	01/14/03	570	<305	<610	19.3	1.12	1.96	3.82
	04/28/03	1,100	<287	<575	135	10.7	34.1	20.1
	07/11/03	684	<250	<500	29.7	3.20	10.0	9.17
	12/17/03	673	215	<265	15.1	0.569	<0.5	<1
	03/31/04	409	<127	<253	93.9	5.02	10.4	5.39
	08/19/04	289	<240	<480	2.69	<1	<1	<2
	03/21/05	564	<244	<488	36.8	4.18	9.48	7.34
	06/28/05	653	13,300 ³	5,650 ²	74.8	4.93	11.2	6.41

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

ConocoPhillips Site No. 254165
202 Avenue D
Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-12	01/08/99 ¹	2,670	--	--	21.1	<5.00	40.1	48.1
	04/28/99	Not sampled due to presence of SPH						
	07/23/99	Not sampled due to presence of SPH						
	10/25/99	Not sampled due to presence of SPH						
	01/08/00	5,480	8,380	<8,250	<15.6	<10.2	53.2	47.8
	04/19/00	5,980	3,060	<3,750	<2.60	<21.5	66.6	<63.5
	07/12/00	Not sampled due to presence of SPH						
	09/06/00	--	--	--	--	--	--	--
	10/16/00	Not sampled due to presence of SPH						
	11/27/00	--	--	--	--	--	--	--
	01/16/01	5,360	20,100	<8,250	<5.00	12.9	72.0	63.8
	04/06/01	15,900	6,950	2,280	17.6	9.04	219	131
	05/22/01	15,800	--	--	<10.0	10.3	307	142
	07/09/01	Not sampled due to presence of SPH						
	10/09/01	Not sampled due to presence of SPH						
	01/08/02	Not sampled due to presence of SPH						
	04/04/02	Not sampled due to presence of SPH						
	07/02/02	Not sampled due to presence of SPH						
	10/02/02	Not sampled due to presence of SPH						
	01/14/03	Not sampled due to presence of SPH						
	04/28/03	Not sampled due to presence of SPH						
	07/11/03	Not sampled due to presence of SPH						
	12/17/03	Not sampled due to presence of SPH						
	03/31/04	23,400	17,800	2,200	<50	<50	<50	<100
	08/19/04	Not sampled due to presence of SPH						
	03/21/05	Not sampled due to presence of SPH						
	06/28/05	8,030	<252	<503	<5	<5	30.2	<10

TABLE 2
GROUNDWATER ANALYTICAL RESULTS

ConocoPhillips Site No. 254165
202 Avenue D
Snohomish, Washington

Sample I.D.	Sample Date	TPH-Gasoline (µg/l)	TPH-Diesel (µg/l)	TPH-Oil (µg/l)	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)
MW-13	03/21/05	424	<239	<478	2.84	1.71	5.21	1.86
	06/28/05	402	<244	<487	<1	<1	<1	<2
MW-14	03/21/05	<100	<245	<489	<1	<1	<1	<2
	06/28/05	197	<244	<488	<1	<1	<1	<2
MW-15	03/21/05	<100	<248	<497	<1	1.5	<1	<2
	06/28/05	<100	<247	<493	<1	<1	<1	<2
MTCA Method A Cleanup Levels:		800⁴	500	500	5	1000	700	1000
Notes: µg/l = micrograms per liter <n = Below the detection limit "-" - Not analyzed TPH as Diesel and Oil - Analysis by Method NWTPH-Dx TPH as Gasoline (Toluene to Dodecane) - Analysis by Method NWTPH-Gx BTEX Compounds - Analysis by EPA Method 8021B ¹ Sample collected without purging ² Analytical laboratory indicates that the result does not appear to be "typical" product. ³ Chromatogram suggests that the result might be overlap from the gasoline range. ⁴ MTCA Method A Cleanup Level for TPH-Gasoline is 1,000 µg/l if benzene is not detectable in groundwater								

TABLE 3
NATURAL ATTENUATION PARAMETERS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	FIELD PARAMETERS									LABORATORY ANALYSES		
		pH	Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Salinity (%)	Total Dissolved Solids (g/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-1A	10/09/01	--	--	--	--	--	--	--	--	--	--	--	--
	01/08/02	--	--	--	--	--	--	--	--	--	--	--	--
	04/04/02	4.97	0.406	999	9.56	12.2	0.0	0.26	212	3.2	61.6	0.886	47.8
	07/02/02	5.49	0.252	999	19.99	16.9	0.0	0.16	186	0.0	42.4	<0.200	54.5
	10/02/02	5.33	0.246	999	10.91	15.53	0.0	0.16	364	0.0	103	<0.200	50.3
	04/28/03	5.43	0.353	164	4.49	14.91	0.0	0.23	64	0.5	64.8	0.300	30.4
	12/17/03	4.45	0.018	10	4.15	9.1	--	0.12	253	--	64	0.406	40.9
	03/31/04	5.67	0.222	94	1.44	11.2	--	0.14	83	--	62	1.01	30.4
	08/19/04	4.59	0.022	999	3.20	20.1	--	0.14	130	--	66	0.8	35.7
	03/21/05	6.48	0.226	-5	3.00	12.07	--	0.15	43	--	61.9	1.41	32.6
	06/28/05	6.34	0.200	--	0.38	13.21	--	0.130	58.1	--	--	1.2	26.3
MW-2	10/09/01	--	--	--	--	--	--	--	--	--	--	--	--
	01/08/02	--	--	--	--	--	--	--	--	--	--	--	--
	04/04/02	--	--	--	--	--	--	--	--	--	--	--	--
	07/02/02	5.43	0.368	26.9	17.76	19.6	0.0	0.24	37	3.4	148	<0.200	29.6
	10/02/02	5.34	0.373	21.3	8.97	17.93	0.0	0.24	255	3.4	150	<0.200	41.6
	04/28/03	6.24	1.06	638	7.03	15.48	0.0	0.7	-6.5	2.6	276	<0.200	26.8
	12/17/03	4.47	0.017	9	3.85	9.5	--	0.12	252	--	310	<0.015	23
	03/31/04	6.14	0.564	80	1.62	11.3	--	0.36	-5	--	251	<0.015	23
	08/19/04	5.68	0.043	404	2.81	20.7	--	0.28	-22	--	208	0.2	8.71
	03/21/05	7.39	0.500	220	3.12	11.71	--	0.32	-47	--	205	<0.015	26.9
	06/28/05	6.85	0.478	--	0.20	15.18	--	0.311	-50.2	--	--	<0.015	20.8

TABLE 3
NATURAL ATTENUATION PARAMETERS

ConocoPhillips Site No. 254165

202 Avenue D

Snohomish, Washington

Sample I.D.	Sample Date	FIELD PARAMETERS									LABORATORY ANALYSES		
		pH	Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Salinity (%)	Total Dissolved Solids (g/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-6A	10/09/01	--	--	--	--	--	--	--	--	--	--	--	--
	01/08/02	--	--	--	--	--	--	--	--	--	--	--	--
	04/04/02	--	--	--	--	--	--	--	--	--	--	--	--
	07/02/02	--	--	--	--	--	--	--	--	--	--	--	--
	10/02/02	--	--	--	--	--	--	--	--	--	--	--	--
	04/28/03	6.16	0.794	522	4.55	15.85	0.0	0.51	-92	2.8	203	<0.200	12.1
	12/17/03	4.47	0.018	9	2.97	9.6	--	0.12	250	--	87	0.442	39.6
	03/31/04	6.03	0.487	200	0.54	13.0	--	0.32	-60	--	230	<0.015	5.56
	08/19/04	5.70	0.047	673	3.92	19.9	--	0.30	-16	--	205	0.2	9.48
	03/21/05	7.35	0.471	640	2.76	13.48	--	0.31	-61	--	201	<0.015	11.3
	06/28/05	6.77	0.440	--	0.48	14.66	--	0.286	-37.3	--	--	<0.015	3.62
MW-9	10/09/01	5.16	0.135	242	8.52	16.5	0.0	0.09	313	0.0	33.0	3.05	13.5
	01/08/02	4.77	0.369	206	6.25	12.6	0.0	0.21	182	0.0	32.6	1.78	13.1
	04/04/02	5.10	0.152	278	7.54	15.2	0.0	0.10	350	0.0	29.8	2.49	12.6
	07/02/02	6.36	0.279	550	18.10	17.0	0.0	0.17	448	0.0	28.6	2.02	11.2
	10/02/02	4.90	0.128	275	10.73	17.18	0.0	0.08	498	0.0	32.4	2.49	10.4
	04/28/03	4.91	0.251	63.5	3.77	13.47	0.0	0.16	136	0.0	33.4	1.28	17.3
	12/23/03	4.53	0.018	640	4.60	11.6	--	0.10	252	--	32	2.71	14.4
	03/31/04	5.75	0.134	170	3.13	10.8	--	0.09	89	--	30	1.88	14.9
	08/19/04	3.91	0.013	999	7.64	21.8	--	0.08	283	--	29	2.5	13.2
	03/21/05	5.49	0.167	-5	4.93	11.91	--	0.11	138	--	32.5	1.92	14.3
	06/28/05	5.84	0.127	--	2.25	13.83	--	0.083	182.2	--	--	1.79	15.1

TABLE 3
NATURAL ATTENUATION PARAMETERS
 ConocoPhillips Site No. 254165
 202 Avenue D
 Snohomish, Washington

Sample I.D.	Sample Date	FIELD PARAMETERS									LABORATORY ANALYSES		
		pH	Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Salinity (%)	Total Dissolved Solids (g/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-10	10/09/01	7.20	0.290	999	4.23	17.4	0.0	0.19	7	4.6	132	<0.100	19.4
	01/08/02	5.28	0.588	498	6.67	13.7	0.0	0.33	-107	4.2	168	<0.100	13.5
	04/04/02	5.89	0.368	349	7.81	19.1	0.0	0.24	22	2.0	170	<0.200	13.2
	07/02/02	5.86	0.339	550	19.53	23.4	0.0	0.22	21	2.2	133	<0.200	20.3
	10/02/02	5.50	0.285	162	7.72	18.02	0.0	0.18	302	2.2	129	<0.200	21.3
	04/28/03	5.82	0.592	285	3.75	14.86	0.0	0.38	-110	2.4	162	<0.200	15.7
	12/17/03	Inaccessible; buried under gravel from recent road construction									--	--	--
	03/31/04	5.87	0.313	990	0.50	11.4	--	0.20	-17	--	141	<0.015	17.6
	08/19/04	5.43	0.028	999	3.74	23.7	--	0.18	4	--	127	0.2	22.7
	03/21/05	7.63	0.319	-5	2.54	12.47	--	0.21	-60	--	154	<0.015	15.1
	06/28/05	6.64	0.270	--	0.25	16.27	--	0.175	14.1	--	--	<0.015	18.6
MW-11	10/09/01	6.65	0.319	25.0	4.62	17.3	0.0	0.21	1	3.2	158	<0.100	9.41
	01/08/02	5.15	0.462	201	6.45	13.4	0.0	0.11	166	3.2	186	<0.100	6.55
	04/04/02	5.00	0.414	56.7	8.84	15.7	0.0	0.27	43	5.4	203	<0.200	2.19
	07/02/02	6.52	0.421	31.6	19.55	21.9	0.0	0.27	-68	4.0	203	<0.200	2.93
	10/02/02	5.85	0.346	43.1	8.75	17.01	0.0	0.22	219	4.0	169	<0.200	4.04
	04/28/03	5.97	0.734	13.9	3.56	15.12	0.0	0.47	-80	4.0	208	<0.200	3.32
	12/17/03	4.45	0.019	10	3.77	10.4	--	0.12	247	--	170	<0.15	73.2
	03/31/04	6.15	0.470	20	0.72	12.6	--	0.31	-18	--	218	<0.015	30.1
	08/19/04	5.48	0.039	937	2.39	21.4	--	0.26	-5	--	167	0.2	10.6
	03/21/05	7.69	0.429	0	2.56	13.30	--	0.28	-80	--	189	<0.015	34.8
	06/28/05	6.71	0.712	--	0.52	15.37	--	0.463	-14.6	--	--	<0.015	26.1

TABLE 3
NATURAL ATTENUATION PARAMETERS

ConocoPhillips Site No. 254165
202 Avenue D
Snohomish, Washington

Sample I.D.	Sample Date	FIELD PARAMETERS									LABORATORY ANALYSES		
		pH	Conductivity (S/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	Salinity (%)	Total Dissolved Solids (g/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	Sulfate (mg/L)
MW-12	03/31/04	6.12	0.345	230	0.93	11.6	--	0.22	-58	--	129	<0.015	37.5
	08/19/04	Not measured due to presence of SPH									--	--	--
	03/21/05	Not measured due to presence of SPH									--	--	--
	06/28/05	Not measured due to obstruction in well.									--	<0.075	51.2
MW-13	03/21/05	6.97	0.507	-5	2.43	13.37	--	0.32	15	--	229	<0.015	13.8
	06/28/05	6.83	0.467	--	0.59	14.69	--	0.304	-33.9	--	--	<0.015	16.6
MW-14	03/21/05	6.95	0.472	150	3.68	11.34	--	0.31	35	--	97.4	0.029	46.2
	06/28/05	6.72	0.324	--	0.14	13.85	--	0.211	20.7	--	--	<0.075	52.7
MW-15	03/21/05	5.81	0.179	-5	3.57	12.82	--	0.12	109	--	54.1	2.04	21
	06/28/05	6.02	0.152	--	0.72	16.07	--	0.099	116.3	--	--	2.42	19

Notes:

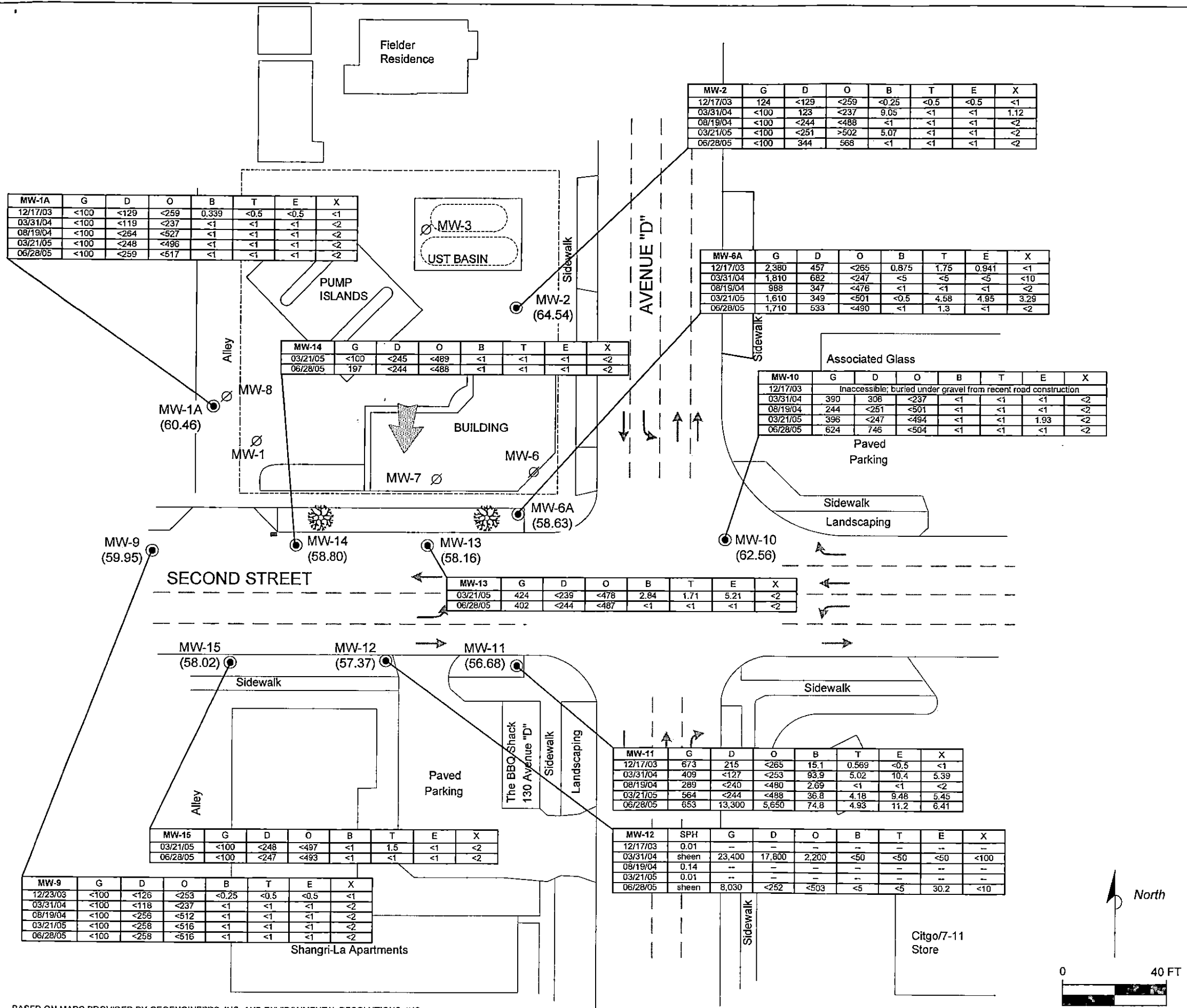
Field measurements were collected using Model U-22 Horiba Probe or a YSI Model 556 water quality meter.

Total Alkalinity reported as CaCO₃ by EPA Method 310.1

Nitrate reported as Nitrogen by EPA Method 300.0

Sulfate analyzed by EPA Method 300.0

"--" - Not analyzed



- LEGEND**
- MW-1A ● GROUNDWATER MONITORING WELL
(60.10) GROUNDWATER ELEVATION, JUNE 28, 2005
- MW-3 ∅ DESTROYED GROUNDWATER MONITORING WELL
- SPH SEPARATE-PHASE HYDROCARBON THICKNESS (feet)
- G GASOLINE RANGE HYDROCARBONS (ug/l)
- D DIESEL RANGE HYDROCARBONS (ug/l)
- O OIL RANGE HYDROCARBONS (ug/l)
- B BENZENE (ug/l)
- T TOLUENE (ug/l)
- E ETHYLBENZENE (ug/l)
- X XYLENES (ug/l)
- <80.0 ANALYTE NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT OF 80.0 ug/l
- ug/l MICROGRAMS PER LITER
- NOT MEASURED OR ANALYZED
- ↓ GROUNDWATER FLOW DIRECTION

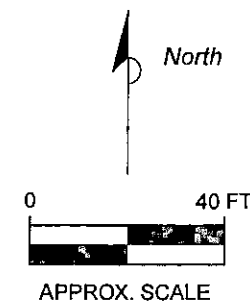


FIGURE 1
SITE MAP WITH GROUNDWATER ELEVATIONS AND
PETROLEUM HYDROCARBON AND BTEX CONCENTRATIONS
CONOCOPHILLIPS SITE NO. 254165
202 AVENUE D
SNOHOMISH, WASHINGTON

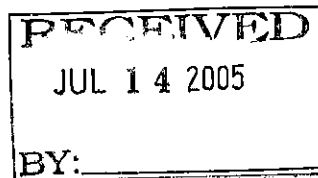
PROJECT NO. WA254-1604-1	DRAWN BY TS 9/15/05	
FILE NO. WA254-1604-1	PREPARED BY TS 9/15/05	
REVISION NO. 0	REVIEWED BY EL	

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

Quarterly Groundwater Sampling
ConocoPhillips Site No. 254165



STL



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 13, 2005

TO: Eric Larsen
Delta Environmental
4006 148th Ave NE
Redmond, WA 98052

PROJECT: WA254-1604-1/COP 254165 Snohomish

REPORT NUMBER: 128652

TOTAL NUMBER OF PAGES: 42

Enclosed are the test results for ten samples received at STL Seattle on June 29, 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 Coyner
Project Manager

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

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

STL Seattle

Sample Identification:

<u>Lab. No.</u>	<u>Client ID</u>	<u>Date/Time Sampled</u>	<u>Matrix</u>
128652-1	MW-1A	06-28-05 11:00	Liquid
128652-2	MW-2	06-28-05 10:30	Liquid
128652-3	MW-6A	06-28-05 10:15	Liquid
128652-4	MW-9	06-28-05 09:50	Liquid
128652-5	MW-10	06-28-05 09:00	Liquid
128652-6	MW-11	06-28-05 11:25	Liquid
128652-7	MW-12	06-28-05 11:45	Liquid
128652-8	MW-13	06-28-05 09:25	Liquid
128652-9	MW-14	06-28-05 09:35	Liquid
128652-10	MW-15	06-28-05 11:15	Liquid

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

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender immediately at 253-922-2310 and destroy this report immediately.

00002

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-1A
Lab ID:	128652-01
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	23.4	X9	50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.259	
Motor Oil	ND	0.517	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-1A
Lab ID:	128652-01
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	113		50	150
1-Chloro-3-fluorobenzene	92		80	120
Bromofluorobenzene	80.6		80	120
Pentafluorobenzene	99.1		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	ND	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-2
Lab ID:	128652-02
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	62.9		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	0.344	0.245	X2
Motor Oil	0.568	0.49	X2

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-2
Lab ID:	128652-02
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	122		50	150
1-Chloro-3-fluorobenzene	101		80	120
Bromofluorobenzene	88.6		80	120
Pentafluorobenzene	107		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	ND	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-6A
Lab ID:	128652-03
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	49.2	X9	50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	0.533	0.245	X1
Motor Oil	ND	0.49	

X1 - Chromatogram suggests this might be overlap from gasoline range

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-6A
Lab ID:	128652-03
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	134		50	150
1-Chloro-3-fluorobenzene	114		80	120
Bromofluorobenzene	99.1		80	120
Pentafluorobenzene	115		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	1.71	0.1	
Benzene	ND	0.001	
Toluene	0.0013	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-9
Lab ID:	128652-04
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	68.3		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.258	
Motor Oil	ND	0.516	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-9
Lab ID:	128652-04
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	131		50	150
1-Chloro-3-fluorobenzene	110		80	120
Bromofluorobenzene	95.1		80	120
Pentafluorobenzene	116		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	ND	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-10
Lab ID:	128652-05
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	70		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	0.746	0.252	X1
Motor Oil	ND	0.504	

X1 - Chromatogram suggests this might be overlap from gasoline range

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-10
Lab ID:	128652-05
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	116		50	150
1-Chloro-3-fluorobenzene	115		80	120
Bromofluorobenzene	101		80	120
Pentafluorobenzene	109		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	0.624	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-11
Lab ID:	128652-06
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	90		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	13.3	0.245	X1
Motor Oil	5.65	0.49	X2

X1 - Chromatogram suggests this might be overlap from gasoline range

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-11
Lab ID:	128652-06
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	126		50	150
1-Chloro-3-fluorobenzene	107		80	120
Bromofluorobenzene	95.1		80	120
Pentafluorobenzene	110		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	0.653	0.1	
Benzene	0.0748	0.001	
Toluene	0.00493	0.001	
Ethylbenzene	0.0112	0.001	
m&p-Xylene	0.00446	0.002	
o-Xylene	0.00195	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-12
Lab ID:	128652-07
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	93.2		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.252	
Motor Oil	ND	0.503	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-12
Lab ID:	128652-07
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	5

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	132		50	150
1-Chloro-3-fluorobenzene	114		80	120
Bromofluorobenzene	102		80	120
Pentafluorobenzene	113		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	8.03	0.5	
Benzene	ND	0.005	
Toluene	ND	0.005	
Ethylbenzene	0.0302	0.005	
m&p-Xylene	ND	0.01	
o-Xylene	ND	0.005	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-13
Lab ID:	128652-08
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	73.5		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.244	
Motor Oil	ND	0.487	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-13
Lab ID:	128652-08
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	124		50	150
1-Chloro-3-fluorobenzene	112		80	120
Bromofluorobenzene	98.5		80	120
Pentafluorobenzene	115		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	0.402	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-14
Lab ID:	128652-09
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	63.8		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.244	
Motor Oil	ND	0.488	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-14
Lab ID:	128652-09
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	127		50	150
1-Chloro-3-fluorobenzene	114		80	120
Bromofluorobenzene	100		80	120
Pentafluorobenzene	119		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	0.197	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-15
Lab ID:	128652-10
Date Received:	6/29/2005
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	59.2		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.247	
Motor Oil	ND	0.493	

STL Seattle

Client Name:	Delta Environmental
Client ID:	MW-15
Lab ID:	128652-10
Date Received:	6/29/2005
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	129		50	150
1-Chloro-3-fluorobenzene	110		80	120
Bromofluorobenzene	96.1		80	120
Pentafluorobenzene	115		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	ND	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-1A
Lab ID:	128652-01
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	1.2	0.03	0.015	
Sulfate	26.3	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-2
Lab ID:	128652-02
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	20.8	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-6A
Lab ID:	128652-03
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	3.62	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-9
Lab ID:	128652-04
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	1.79	0.03	0.015	
Sulfate	15.1	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-10
Lab ID:	128652-05
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	18.6	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-11
Lab ID:	128652-06
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	26.1	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-12
Lab ID:	128652-07
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	7/1/2005
% Solids	-
Dilution Factor	5

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.15	0.075	
Sulfate	51.2	1.5	0.75	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-13
Lab ID:	128652-08
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	7/1/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	16.6	0.3	0.15	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-14
Lab ID:	128652-09
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	7/1/2005
% Solids	-
Dilution Factor	5

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.15	0.075	
Sulfate	52.7	1.5	0.75	

STL Seattle

Client Name	Delta Environmental
Client ID:	MW-15
Lab ID:	128652-10
Date Received:	6/29/2005
Date Prepared:	6/30/2005
Date Analyzed:	7/1/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	2.42	0.03	0.015	
Sulfate	19	0.3	0.15	

STL Seattle

Lab ID:	Method Blank - GB5213
Date Received:	-
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
% Solids	-
Dilution Factor	1

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
Trifluorotoluene	109		50	150
1-Chloro-3-fluorobenzene	92		80	120
Bromofluorobenzene	80.9		80	120
Pentafluorobenzene	96.6		81	126

Analyte	Result (mg/L)	RL	Flags
Gasoline By NWTPH-G	ND	0.1	
Benzene	ND	0.001	
Toluene	ND	0.001	
Ethylbenzene	ND	0.001	
m&p-Xylene	ND	0.002	
o-Xylene	ND	0.001	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	GB5213
Date Prepared:	7/7/2005
Date Analyzed:	7/8/2005
QC Batch ID:	GB5213

GRO by NWTPH-Gx / Volatile Aromatics by 5030/8260B

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
Gasoline By NWTPH-G	0	1.25	1.11	89	1.14	91.5	2.8	
Benzene	0	0.025	0.0273	109	0.028	112	2.7	
Toluene	0	0.025	0.0237	94.8	0.0242	96.9	2.2	
Ethylbenzene	0	0.025	0.0217	86.9	0.0227	90.7	4.3	
m&p-Xylene	0	0.05	0.0435	87	0.0445	89	2.3	
o-Xylene	0	0.025	0.021	83.8	0.0211	84.6	0.95	

STL Seattle

Lab ID:	Method Blank - DW0796
Date Received:	-
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
% Solids	-
Dilution Factor	1

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

Surrogate	% Recovery	Flags	Recovery Limits	
			Low	High
o-terphenyl	92		50	150

Analyte	Result (mg/L)	RL	Flags
#2 Diesel	ND	0.25	
Motor Oil	ND	0.5	

STL Seattle

Blank Spike/Blank Spike Duplicate Report

Lab ID:	DW0796
Date Prepared:	7/5/2005
Date Analyzed:	7/6/2005
QC Batch ID:	DW0796

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

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	BSD Result (mg/L)	BSD % Rec.	RPD	Flag
#2 Diesel	0	5	5.04	101	5.38	108	6.7	
Motor Oil	0	5	4.87	97.3	5.15	103	5.7	

STL Seattle

Lab ID:	Method Blank - 2288A
Date Received:	-
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
% Solids	-
Dilution Factor	1

Anions by USEPA Method 300A

Analyte	Result (mg/L)	PQL	MRL	Flags
Nitrate	ND	0.03	0.015	
Sulfate	ND	0.3	0.15	

STL Seattle

Blank Spike Report

Lab ID: 2288A
Date Prepared: 6/30/2005
Date Analyzed: 6/30/2005
QC Batch ID: 2288A

Anions by USEPA Method 300A

Compound Name	Blank Result (mg/L)	Spike Amount (mg/L)	BS Result (mg/L)	BS % Rec.	Flag
Nitrate	0	1	1.01	101	
Sulfate	0	10	9.8	98	

STL Seattle

Matrix Spike Report

Client Sample ID:	MW-1A
Lab ID:	128652-01
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
QC Batch ID:	2288A

Anions by USEPA Method 300A

Compound Name	Sample Result (mg/L)	Spike Amount (mg/L)	MS Result (mg/L)	MS % Rec.	Flag
Nitrate	1.2	4	4.94	93.6	
Sulfate	26	40	61.9	88.9	X7

STL Seattle

Duplicate Report

Client Sample ID:	MW-1A
Lab ID:	128652-01
Date Prepared:	6/30/2005
Date Analyzed:	6/30/2005
QC Batch ID:	2288A

Anions by USEPA Method 300A

Parameter Name	Sample Result (mg/L)	Duplicate Result (mg/L)	RPD %	Flag
Nitrate	1.2	1.28	-6.5	
Sulfate	26.3	26.3	0.0	

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 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
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- 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

SEVERN
TRENT

STL

Client <u>Conoco Phillips % Delta Env</u>		Project Manager <u>Eric Larson / elarson@deltaenv.com</u>		Date <u>6-28-05</u>	Chain of Custody Number <u>15371</u>
Address <u>4006 148th Ave NE</u>		Telephone Number (Area Code)/Fax Number <u>425-882-3528</u>		Lab Number <u>128652</u>	Page <u>1</u> of <u>1</u>
City <u>Redmond</u>	State <u>WA</u>	Zip Code <u>98052</u>	Site Contact <u>Lindsay Burchak</u>	Lab Contact <u>Tom Coyner</u>	

Project Name and Location (State) <u>WA254-1604-1 / COP 254165 Snohomish</u>	Carrier/Waybill Number	Analysis (Attach list if more space is needed)	Special Instructions/ Conditions of Receipt
Contract/Purchase Order/Quote No. <u>WD #: 1234 DELOOY</u>			

Contract/Purchase Order/Quote No.			Matrix				Containers & Preservatives							Special Instructions/ Conditions of Receipt								
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)			Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc/ NaOH						
																NuTPH-Gx	BTEX	Sulfate	Nitrate	NuTPH-Dx	wh silica gel cleanup	
MW-1A			6/28/05	1100		X				1			4				X	X	X	X	X	
MW-2			↑	1030		↑				↑			↑				↑	↑	↑	↑	↑	
MW-6A				1015																		
MW-9				950																		
MW-10				900																		
MW-11				1125																		
MW-12				1145																		
MW-13				925																		
MW-14			↓	935		↓				↓			↓				↓	↓	↓	↓	↓	
MW-15			6/28/05	1115		X				1			4				X	X	X	X	X	

Cooler ☒ Yes ☐ No Cooler Temp: _____	Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	Sample Disposal ☐ Return To Client ☒ Disposal By Lab	(A fee may be assessed if samples are retained longer than 1 month)
--	---	--	---

Turn Around Time Required (business days) ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☒ 15 Days ☐ Other _____	QC Requirements (Specify)
--	---------------------------

1. Relinquished By <u>Tom E. Burke, Delta Env</u>	Date <u>6/29/05</u>	Time <u>6:35</u>	1. Received By <u>Jack Newton</u>	Date <u>6/29/05</u>	Time <u>10:35</u>
2. Relinquished By <u>Jack Newton</u>	Date <u>6/29/05</u>	Time <u>11:30</u>	2. Received By <u>KR</u>	Date <u>6/29/05</u>	Time <u>11:30</u>
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments _____

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy

GROUNDWATER SAMPLING PROCEDURES AND FIELD SHEETS

Quarterly Groundwater Sampling
ConocoPhillips Site No. 254165

GROUNDWATER MONITORING AND SAMPLING

Before the sampling event, Delta measured depth to water in each groundwater monitoring well at the facility with an electronic water level meter. This information was recorded on waterproof field sheets. Groundwater elevations (GWE) were measured to an accuracy of 0.01 feet. Wells were sampled after purging three casing volumes of water from the well (or until dry). After the well had recharged to approximately 80% of static level, samples were collected using a disposable polyethylene bailer and placed in the appropriate laboratory-provided container. Samples were labeled, placed into ice filled coolers, logged onto chain-of-custody forms and transported to the laboratory.

GROUNDWATER SAMPLING FIELD SHEET

DELTA PROJECT NUMBER: WA254-1604-1
SITE No./JOB No.: 254165 Snohomish
SITE ADDRESS/LOCATION: 202 Ave D
FIELD PERSONNEL: Laura Brock, Chris Milewski

CLIENT: COP
PAGE 1 of 2
DATE: 16-28-05
WEATHER:

[illegible]

System Instructions:

Remedial System On-Site (Y/N)?**Comments:**

Operational Upon Arrival (Y/N)?

Comments:

Shut Down System 1 / 24 hours before gauging (Y/N)?

Time/Date Downed:

Re-Start System (Y/N)?

Time/Date Restarted:

Purge Method:

Comments:

Purge Water Disposal Method:

☒ Treated through mobile carbon treatment unit and discharged on-site

☐ Placed in drums on site

No. of drums:

☐ Transported off-site for treatment

Facility/Location:

Measuring Device(s):

DELTA PROJECT NUMBER:	WA254-1604-1
SITE No./JOB No.:	254165 Snohomish
SITE ADDRESS/LOCATION:	202 Ave D
FIELD PERSONNEL:	Laura Brock, Chris Milewski

CLIENT: COP
PAGE 2 of 2
DATE: 6-28-05
WEATHER: Rainy

[illegible]

Measuring Device(s): Y-Si, I/F Probe
Y-Si calibrated prior to sampling

Additional Comments:

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

SEVERN
TRENT

STL

Client <u>Conoco Phillips % Delta Env</u>		Project Manager <u>Eric Larsen / elarsen@deltaenv.com</u>		Date <u>6-28-05</u>	Chain of Custody Number <u>15371</u>
Address <u>4006 148th Ave NE</u>		Telephone Number (Area Code)/Fax Number <u>425-882-3528</u>		Lab Number	
City <u>Redmond</u>	State <u>WA</u>	Zip Code <u>98052</u>	Site Contact <u>Lindsey Burdick</u>	Lab Contact <u>Tom Coyne</u>	Page <u>1</u> of <u>1</u>

Project Name and Location (State)
WA254-1604-1 / COP 254165 Snohomish

Contract/Purchase Order/Quote No.

WO #: 1234 DELOOY

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Preservatives																									
			Air	Aqueous	Sed.	Soil		Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	NWPH	BTEX	Sulfate	Nitrate		NWPH w/5% HCl	clean								
MW-1A	6/28/05	1100		X				1			4			X	X	X	X	X										
MW-2	↑	1030		↑				↑			↑			↑	↑	↑	↑	↑										
MW-6A		1015																										
MW-9		950																									HCO	
MW-10		900																										
MW-11		1125																									HCO	
MW-12		1145																									sheen	
MW-13		925																										
MW-14	↓	935		↓				↓			↓			↓	↓	↓	↓	↓										
MW-15	6/28/05	1115		X				1			4			X	X	X	X	X										

Cooler: ☒ Yes ☐ No Cooler Temp: _____	Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	Sample Disposal ☐ Return To Client ☐ Archive For _____ Months	☒ Disposal By Lab (A fee may be assessed if samples are retained longer than 1 month)
---	---	--	--

Turn Around Time Required (business days)

☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☒ 15 Days ☐ Other _____

1. Relinquished By

Tom S. Burke, Delta Env

Date 6/29/05 Time 6:35

2. Relinquished By

Date _____ Time _____

3. Relinquished By

Date _____ Time _____

Comments

QC Requirements (Specify)

1. Received By

Jack 2 / J. Coyne

Date 6/29/05 Time 10:35

2. Received By

Date _____ Time _____

3. Received By

Date _____ Time _____

DISTRIBUTION: WHITE - Stays with the Samples; CANARY - Returned to Client with Report; PINK - Field Copy