



**CONOCOPHILLIPS COMPANY  
REMEDATION SYSTEM STATUS REPORT**

December 7, 2004

Site No.: 255353 Site Address: 600 Westlake Avenue N., Seattle, Washington  
ConocoPhillips Site Manager: Kipp Eckert  
Consultant/Contact Person: Delta Environmental Consultants, Inc. – Eric Larsen  
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

**WORK PERFORMED THIS QUARTER [Third - 2004]**

- Monthly operation and maintenance (O&M) of the remediation system. The remediation system consists of an air sparge (AS) unit operating at 15 AS wells within a sparge trench, a deep air sparge (DAS) unit operating at four DAS wells, and a vapor extraction (VE) unit to extract combined vapors from five on-site VE wells and three off-site VE wells, and to capture sparge vapors from two sections of horizontal piping within the sparge trench (east and west VE trenches).

**WORK PROPOSED FOR NEXT QUARTER [Fourth - 2004]**

- Continue monthly O&M of the remediation system.

**VE SUMMARY**

Extraction Equipment: Rotron EN6F5L VE blower

Offgas Treatment Equipment: H2Oil 55-gallon moisture separator;  
Two 1,800-pound activated carbon units

Permits for Discharge: PSCAA No. 8905 (air) (NPDES, POTW, etc.)

Start-up Date: 8/20/03

Reporting Period: 7/01/04 - 9/30/04

Days in Operation During Period: 92 (days)

Total Days in Operation Since Start-Up: 380 (days)

Percent Operating Time During Period: 100% (%)

System Alarms and Shutdowns: None

VE Points Extracted During Period: On-site VE wells, East VE trench,  
and West VE trench

Average Influent Vacuum: 3.5 (inches H2O)

Average Vapor Influent Flow Rate: 217 (estimated based on blower curve) (SCFM)

Maximum Vapor Influent Concentration for Period (PID): 14.7 (ppmv)

Maximum Vapor Effluent Concentration for Period (PID): 1.8 (ppmv)

Total Hydrocarbon Removal for Period: 83.3 (lbs)

Cumulative Hydrocarbon Removal to Date: 749.9 (since 8/20/03 startup) (lbs)

Analytical Results of TPH Concentration in Offgas Emission Sample: 17.9 (July 22, 2004) (ppmv)



CONOCOPHILLIPS COMPANY  
REMEDIATION SYSTEM STATUS REPORT

December 7, 2004

Site No.: 255353 Site Address: 600 Westlake Avenue N., Seattle, Washington  
ConocoPhillips Site Manager: Kipp Eckert  
Consultant/Contact Person: Delta Environmental Consultants, Inc. – Eric Larsen  
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

**AS SUMMARY**

Sparging Equipment: Sutortbilt air sparge blower  
Start-up Date: 8/20/03  
Reporting Period: 7/01/04 - 9/30/04  
Days in Operation During Period: 92 (days)  
Total Days in Operation Since Start-Up: 380 (days)  
Percent Operating Time During Period: 100% (%)  
Number of Wells On-line: 15 AS Wells (AS-1 through AS-15)  
Average System Injection Pressure: 4.5 (psig)  
Average System Flow Rate: 9.1 (SCFM)

**DAS SUMMARY**

Sparging Equipment: Gast 6066 Compressor  
Start-up Date: 9/22/04  
Reporting Period: 7/01/04 - 9/30/04  
Days in Operation During Period: 8 (days)  
Total Days in Operation Since Start-Up: 8 (days)  
Percent Operating Time During Period: 8.7% (%)  
Number of Wells On-line: 4 DAS Wells (DAS-2 through DAS-5)  
Average System Injection Pressure: 10.5 (estimated) (psig)  
Average System Flow Rate: 9.5 (estimated) (SCFM)



**CONOCOPHILLIPS COMPANY  
REMEDATION SYSTEM STATUS REPORT**

December 7, 2004

Site No.: 255353 Site Address: 600 Westlake Avenue N., Seattle, Washington  
ConocoPhillips Site Manager: Kipp Eckert  
Consultant/Contact Person: Delta Environmental Consultants, Inc. – Eric Larsen  
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

**DISCUSSION**

**System Operation and Maintenance**

Delta conducted monthly site visits on July 22, August 16, and September 21, 2004 to perform operation and maintenance (O&M) of the remediation system during the third quarter of 2004. The air-sparge (AS) and vapor extraction (VE) units operated continuously over the reporting period. The deep air sparge (DAS) unit, which formerly consisted of four compressors, was shut down on March 30, 2004 due to mechanical failure of the compressors. Delta obtained a single compressor (Gast Model 6066) to replace the four DAS compressors. Installation and startup of the new deep sparge compressor occurred on September 22, 2004.

A summary of VE unit operation parameters is presented in Table 1. Operation summaries of the AS and DAS units are presented in Tables 2 and 3, respectively.

**Hydrocarbon Removal and Vapor Emissions**

During this reporting period, the VE unit effectively removed hydrocarbons from the site at an average rate of 0.9 pounds per day (83 pounds over the third quarter of 2004). An estimated total of 750 pounds of hydrocarbons have been removed from the subsurface by vapor extraction since startup of the current remediation system. Hydrocarbon concentrations in vapor emissions were below the limits of the PSCAA permit based on monthly field monitoring conducted during site visits. A summary of the estimated hydrocarbons removed by the VE unit is included in Table 1.



**CONOCOPHILLIPS COMPANY  
REMEDIATION SYSTEM STATUS REPORT**

December 7, 2004

Site No.: 255353 Site Address: 600 Westlake Avenue N., Seattle, Washington  
ConocoPhillips Site Manager: Kipp Eckert  
Consultant/Contact Person: Delta Environmental Consultants, Inc. – Eric Larsen  
Primary Agency/Regulatory ID No.: Washington DOE Northwest Region

**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.

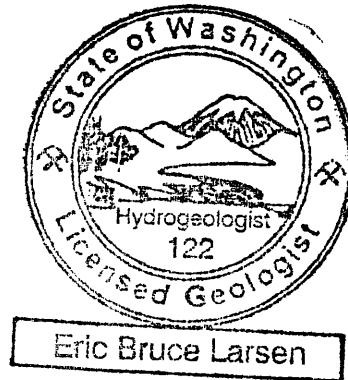
Delta appreciates the opportunity to provide environmental services for ConocoPhillips Company. Please call if you have any questions regarding the contents of this report.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Tena Seeds  
Project Engineer

Eric Larsen, L.H.G.  
Senior Geologist



**ATTACHMENTS**

- Table 1 – VE Unit and Vapor Treatment Operation Summary
- Table 2 – Air Sparge Unit Operational Summary
- Table 3 – Deep Air Sparge Unit Operational Summary
- Figure 1 – Remedial System Site Map
- Laboratory Analytical Report and Chain of Custody Documentation

cc: LUST Coordinator, WA State Dept. of Ecology – Northwest Regional Office, Bellevue, WA 98008

**TABLE 1**  
**VE UNIT AND VAPOR TREATMENT OPERATION SUMMARY**  
 ConocoPhillips Site No. 255353  
 600 Westlake Avenue North  
 Seattle, Washington

Date	Operational Time Since Last Event (days)	Power Reading (KWH)	Vapor Extraction Vacuum (inches H2O)	Average Flowrate <sup>1</sup> (SCFM)	Influent Petroleum Hydrocarbon Concentration <sup>2</sup> (ppm)	Petroleum Hydrocarbon Concentration Between Carbons <sup>3</sup> (ppm)	Emission Petroleum Hydrocarbon Concentration <sup>4</sup> (ppm)	Estimated Petroleum Hydrocarbons Removed During Operating Period <sup>5</sup> (pounds)
01/29/04	45 <sup>6</sup>	NM	3.0	218	1.2	0.0	0.0	4.7
02/28/04	30	32,432	3.0	218	1.2	0.0	0.0	3.1
03/30/04	31	35,592	3.0	218	2.7	0.2	0.0	7.3
04/28/04	29	38,516	3.5	217	0.1	0.1	0.1	0.3
05/27/04	29	41,465	3.5	217	9.8 <sup>9</sup>	0.1	0.1	24.7
06/22/04	26	44,045	3.5	217	4.2 <sup>9</sup>	0.1	0.1	9.5
07/22/04	30	47,097	3.5	217	17.9 <sup>9</sup>	11.1	1.8	46.8
08/16/04	23	49,449	3.5	217	6.4	0.2	0.1	12.8
09/21/04	26	52,907	3.7	217	10.5	0.3	0.2	23.8
<b>Total To Date</b>	<b>376 <sup>7</sup></b>							<b>749.9 <sup>8</sup></b>
<b>Total for 3rd Qtr 2004</b>	<b>79</b>							<b>83.3</b>

**Notes:**

KWH = kilowatt-hours

SCFM = standard cubic feet per minute

ppm = parts per million

NM = not measured

<sup>1</sup> Flowrate based on blower vacuum/flow rate curve.

<sup>2</sup> Influent petroleum hydrocarbon concentrations based on field measurements using a photoionization detector (PID), unless otherwise indicated.

<sup>3</sup> Concentrations between carbon units based on field measurements using a PID.

<sup>4</sup> Effluent concentrations based on field measurements using a PID.

<sup>5</sup> Hydrocarbons removed during each operating period estimated using influent concentration, average flowrate, and operational time period.

<sup>6</sup> Operation and maintenance of the remedial system was performed on 12/15/03 by the previous consultant. Delta assumed operation and maintenance of the system during January 2004.

<sup>7</sup> Total operational time to date includes 107.1 days operated by previous consultant, from system startup on 8/20/03 through 12/15/03.

<sup>8</sup> Total estimated petroleum hydrocarbons removed to date includes 616.9 pounds reportedly removed by previous consultant, from system startup on 8/20/03 through 12/15/03.

<sup>9</sup> Petroleum hydrocarbon concentration from laboratory analysis.

**TABLE 2**  
**AIR SPARGE UNIT OPERATIONAL SUMMARY**  
 ConocoPhillips Site No. 255353  
 600 Westlake Avenue North  
 Seattle, Washington

Date	Header Pressure (psig)	Air Flowrates per Air Sparge Point (SCFM)														
		AS-1	AS-2	AS-3	AS-4	AS-5	AS-6	AS-7	AS-8	AS-9	AS-10	AS-11	AS-12	AS-13	AS-14	AS-15
01/29/04	5	11	12	12	10	11	12	13	8	8	3	<3	5	11	12	8
02/28/04	4	11	12	14	11	11	12	13	8	8	3	4	<3	10	11	9
03/30/04	5	11	12	14	11	12	12	14	8	8	<3	<3	<3	10	12	8
04/28/04	NM	10.5	11.5	14	10.5	11	11.5	13.5	8	7.5	<3	<3	<3	9	10.5	7
05/27/04	4.5	10	11	14	9	10	11	12	7	7	<3	<3	<3	5.5	9	7.5
06/22/04	4.5	11	11	14	10	11	11	12	12.5	11	<3	<3	<3	<3	10	8
07/22/04	4	12	13	16	11	12	12	13	8	5.5	<3	<3	<3	<3	10.5	8
08/16/04	4.5	10	11.5	16	9.5	11	12	10.5	8	5.5	<3	<3	<3	<3	9.5	10.5
09/21/04	4.5	10	10	11.5	8.5	9	9.5	11	6	4.5	<3	<3	4	<3	9.5	7
<b>Average:</b>	<b>4.5</b>	<b>10.7</b>	<b>11.6</b>	<b>13.9</b>	<b>10.1</b>	<b>10.9</b>	<b>11.4</b>	<b>12.4</b>	<b>8.2</b>	<b>7.2</b>	<b>3.0</b>	<b>4.0</b>	<b>5.0</b>	<b>9.1</b>	<b>10.4</b>	<b>8.1</b>

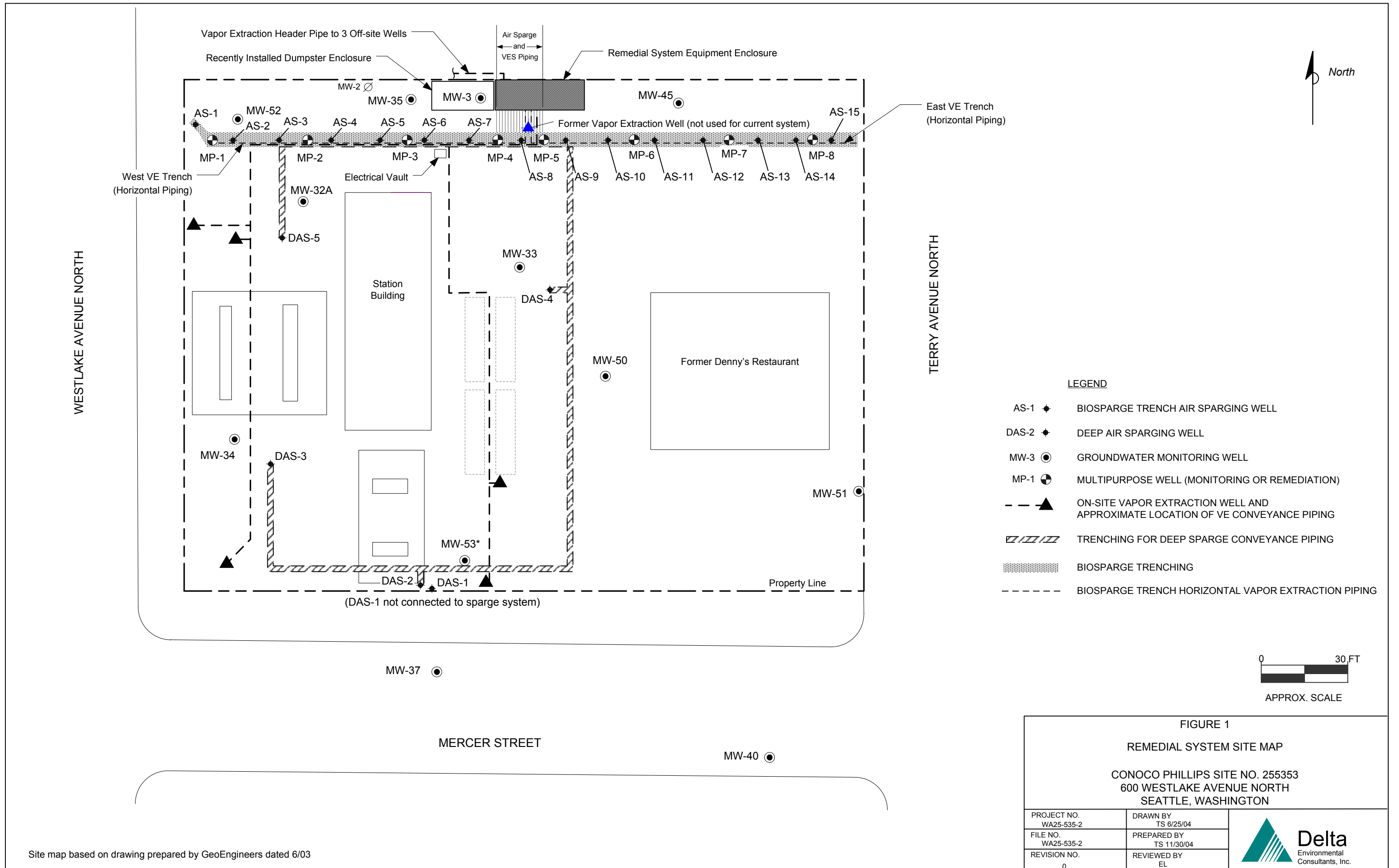
**Notes:**  
 psig = pounds per square inch, gauge  
 SCFM = standard cubic feet per minute

**TABLE 3  
DEEP AIR SPARGE UNIT OPERATIONAL SUMMARY**

ConocoPhillips Site No. 255353  
600 Westlake Avenue North  
Seattle, Washington

Date	Header Pressure (psig)	Air Flowrates per Air Sparge Point (SCFM)				
		DAS-1	DAS-2	DAS-3	DAS-4	DAS-5
01/29/04	NIO	NIO	NIO	NIO	NIO	NIO
02/28/04	12	NIO	3	5	3.5	<3
03/30/04	NIO	NIO	NIO	NIO	NIO	NIO
04/28/04	NIO	NIO	NIO	NIO	NIO	NIO
05/27/04	NIO	NIO	NIO	NIO	NIO	NIO
06/22/04	NIO	NIO	NIO	NIO	NIO	NIO
07/22/04	NIO	NIO	NIO	NIO	NIO	NIO
08/16/04	NIO	NIO	NIO	NIO	NIO	NIO
09/21/04	NIO	NIO	NIO	NIO	NIO	NIO
09/22/04 <sup>1</sup>	10.5*	NIO	5*	22*	4*	7*

**Notes:**  
 psig = pounds per square inch, gauge  
 SCFM = standard cubic feet per minute  
 NIO = not in operation  
 \* Estimated value  
<sup>1</sup> The DAS system was modified and restarted on 9/22/04. DAS pressure and flowrates are estimated based on values recorded during fourth quarter monitoring in October 2004.





**LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY  
DOCUMENTATION**

Remedial System Monitoring  
ConocoPhillips Site No. 255353



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
907.563.9200 fax 907.563.9210

26 July 2004

Eric Larsen  
Delta Environmental -KHM  
17720 NE 65th St Ste 201  
Redmond, WA/USA 98052  
RE: 25535 Westlake

Enclosed are the results of analyses for samples received by the laboratory on 07/22/04 17:21. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeanne Garthwaite  
Project Manager



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Delta Environmental -KHM  
 17720 NE 65th St Ste 201  
 Redmond, WA/USA 98052

Project: 25535 Westlake  
 Project Number: WA25-353-2  
 Project Manager: Eric Larsen

**Reported:**  
 07/26/04 17:15

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Pre-Carbon	B4G0581-01	Air	07/22/04 13:25	07/22/04 17:21

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeanne Garthwaite, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Delta Environmental -KHM  
 17720 NE 65th St Ste 201  
 Redmond, WA/USA 98052

Project: 25535 Westlake  
 Project Number: WA25-353-2  
 Project Manager: Eric Larsen

Reported:  
 07/26/04 17:15

**Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Pre-Carbon (B4G0581-01) Air</b> <b>Sampled: 07/22/04 13:25</b> <b>Received: 07/22/04 17:21</b>										
<b>Gasoline Range Hydrocarbons</b>	<b>75.8</b>	<b>10.0</b>		mg/m <sup>3</sup> Air	1	4G23007	07/23/04	07/23/04	NWTPH Modified	
<b>Benzene</b>	<b>0.755</b>	<b>0.100</b>		"	"	"	"	"	"	
<b>Toluene</b>	<b>0.235</b>	<b>0.100</b>		"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>0.245</b>	<b>0.100</b>		"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>1.20</b>	<b>0.200</b>		"	"	"	"	"	"	
<i>Surrogate: 4-BFB (FID)</i>	<i>91.4 %</i>	<i>50-150</i>				"	"	"	"	
<i>Surrogate: 4-BFB (PID)</i>	<i>104 %</i>	<i>75-133</i>				"	"	"	"	
<b>Gasoline Range Hydrocarbons (v/v)</b>	<b>17.9</b>	<b>2.36</b>		ppmv	"	"	"	"	"	
<b>Benzene (v/v)</b>	<b>0.233</b>	<b>0.0308</b>		"	"	"	"	"	"	
<b>Toluene (v/v)</b>	<b>0.0614</b>	<b>0.0261</b>		"	"	"	"	"	"	
<b>Ethylbenzene (v/v)</b>	<b>0.0557</b>	<b>0.0227</b>		"	"	"	"	"	"	
<b>Xylenes, total (v/v)</b>	<b>0.273</b>	<b>0.0454</b>		"	"	"	"	"	"	

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Jeanne Garthwaite, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Delta Environmental -KHM  
 17720 NE 65th St Ste 201  
 Redmond, WA/USA 98052

Project: 25535 Westlake  
 Project Number: WA25-353-2  
 Project Manager: Eric Larsen

**Reported:**  
 07/26/04 17:15

**Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4G23007: Prepared 07/23/04 Using EPA 5030B (MeOH)**

**Blank (4G23007-BLK1)**

Gasoline Range Hydrocarbons	ND	10.0	mg/m <sup>3</sup> Air							
Benzene	ND	0.100	"							
Toluene	ND	0.100	"							
Ethylbenzene	ND	0.100	"							
Xylenes (total)	ND	0.200	"							
<i>Surrogate: 4-BFB (FID)</i>	9.36		"	9.60		97.5	50-150			
<i>Surrogate: 4-BFB (PID)</i>	10.5		"	9.60		109	75-133			
Gasoline Range Hydrocarbons (v/v)	ND	2.36	ppmv							
Benzene (v/v)	ND	0.0308	"							
Toluene (v/v)	ND	0.0261	"							
Ethylbenzene (v/v)	ND	0.0227	"							
Xylenes, total (v/v)	ND	0.0454	"							

**LCS (4G23007-BS1)**

Gasoline Range Hydrocarbons	54.4	10.0	mg/m <sup>3</sup> Air	100		54.4	50-150			
<i>Surrogate: 4-BFB (FID)</i>	9.01		"	9.60		93.9	50-150			

**LCS (4G23007-BS2)**

Benzene	2.00	0.100	mg/m <sup>3</sup> Air	2.00		100	50-150			
Toluene	1.89	0.100	"	2.00		94.5	50-150			
Ethylbenzene	1.84	0.100	"	2.00		92.0	50-150			
Xylenes (total)	5.60	0.200	"	5.98		93.6	50-150			
<i>Surrogate: 4-BFB (FID)</i>	8.71		"	9.60		90.7	50-150			
<i>Surrogate: 4-BFB (PID)</i>	10.7		"	9.60		111	75-133			

**LCS Dup (4G23007-BSD1)**

Gasoline Range Hydrocarbons	61.3	10.0	mg/m <sup>3</sup> Air	100		61.3	50-150	11.9	50	
<i>Surrogate: 4-BFB (FID)</i>	8.84		"	9.60		92.1	50-150			

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

*Jeanne Garthwaite*

Jeanne Garthwaite, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Delta Environmental -KHM  
 17720 NE 65th St Ste 201  
 Redmond, WA/USA 98052

Project: 25535 Westlake  
 Project Number: WA25-353-2  
 Project Manager: Eric Larsen

Reported:  
 07/26/04 17:15

**Gasoline Hydrocarbons (Benzene to Napthalene) and BTEX in Air by NWTPH-G and EPA 8021B - Quality Control**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 4G23007: Prepared 07/23/04 Using EPA 5030B (MeOH)**

**LCS Dup (4G23007-BSD2)**

Benzene	2.07	0.100	mg/m <sup>3</sup> Air	2.00		104	50-150	3.44	50	
Toluene	1.91	0.100	"	2.00		95.5	50-150	1.05	50	
Ethylbenzene	1.89	0.100	"	2.00		94.5	50-150	2.68	50	
Xylenes (total)	5.71	0.200	"	5.98		95.5	50-150	1.95	50	
Surrogate: 4-BFB (FID)	8.61		"	9.60		89.7	50-150			
Surrogate: 4-BFB (PID)	10.7		"	9.60		111	75-133			

**Duplicate (4G23007-DUP1)**

**Source: B4G0581-01**

Gasoline Range Hydrocarbons	115	50.0	mg/m <sup>3</sup> Air		75.8			41.1	30	Q-05
Surrogate: 4-BFB (FID)	9.56		"	9.60		99.6	50-150			

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

*Jeanne Garthwaite*

Jeanne Garthwaite, Project Manager

North Creek Analytical, Inc.  
 Environmental Laboratory Network

Page 4 of 5



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
 425.420.9200 fax 425.420.9210  
**Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
 509.924.9200 fax 509.924.9290  
**Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132  
 503.906.9200 fax 503.906.9210  
**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588  
**Anchorage** 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119  
 907.563.9200 fax 907.563.9210

Delta Environmental -KHM  
 17720 NE 65th St Ste 201  
 Redmond, WA/USA 98052

Project: 25535 Westlake  
 Project Number: WA25-353-2  
 Project Manager: Eric Larsen

**Reported:**  
 07/26/04 17:15

**Notes and Definitions**

- Q-05 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

North Creek Analytical - Bothell

Jeanne Garthwaite, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*