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DEPT. OF ECOLOGY

Report

1998 Site Cleanup Activities

Grady Way Complex Property

Renton, Washington

Appendix C (Volume II of II)

December 23, 1998

PSE Grady Way Renton
Complex - VCP

aka LUST # 511315
Renton Sheffield

For

Puget Sound Energy

DEPARTMENT OF ECOLOGY
NWRO/TCP TANKS UNIT

INTERIM CLEANUP REPORT

SITE CHARACTERIZATION

FINAL CLEANUP REPORT

OTHER

AFFECTED MEDIA: SOIL

OTHER GW

INSPECTOR (INIT.) *JS* DATE *6/30/00*

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☒

ENTERED
JS 6/30/00



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980004		Date Prepared: 9/1/98			Extraction Method: EPA 3520C/600 Series					
Blank		0980004-BLK1								
Acenaphthene	9/7/98			ND	ug/l	0.100				
Acenaphthylene	"			ND	"	0.100				
Anthracene	"			ND	"	0.100				
Benzo (a) anthracene	"			ND	"	0.100				
Benzo (a) pyrene	"			ND	"	0.100				
Benzo (b) fluoranthene	"			ND	"	0.100				
Benzo (ghi) perylene	"			ND	"	0.100				
Benzo (k) fluoranthene	"			ND	"	0.100				
Chrysene	"			ND	"	0.100				
Dibenz (a,h) anthracene	"			ND	"	0.100				
Fluoranthene	"			ND	"	0.300				
Fluorene	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.300				
Phenanthrene	"			ND	"	0.100				
Pyrene	"			ND	"	0.300				
Surrogate: 2-FBP	"	50.0		29.6	"	30.0-150	59.2			
Surrogate: Nitrobenzene-d5	"	50.0		28.9	"	30.0-150	57.8			
Surrogate: p-Terphenyl-d14	"	50.0		44.1	"	30.0-150	88.2			
LCS		0980004-BS1								
Chrysene	9/7/98	10.0		5.60	ug/l	50.0-150	56.0			
Fluorene	"	10.0		5.26	"	50.0-150	52.6			
Indeno (1,2,3-cd) pyrene	"	10.0		6.12	"	50.0-150	61.2			
Surrogate: 2-FBP	"	50.0		33.6	"	30.0-150	67.2			
Surrogate: Nitrobenzene-d5	"	50.0		32.1	"	30.0-150	64.2			
Surrogate: p-Terphenyl-d14	"	50.0		41.7	"	30.0-150	83.4			
Matrix Spike		0980004-MS1		B808576-01						
Chrysene	9/7/98	19.4	ND	10.0	ug/l	50.0-150	51.5			
Fluorene	"	19.4	ND	12.0	"	50.0-150	61.9			
Indeno (1,2,3-cd) pyrene	"	19.4	ND	10.9	"	50.0-150	56.2			
Surrogate: 2-FBP	"	97.1		73.3	"	30.0-150	75.5			
Surrogate: Nitrobenzene-d5	"	97.1		62.5	"	30.0-150	64.4			
Surrogate: p-Terphenyl-d14	"	97.1		74.5	"	30.0-150	76.7			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C - 55

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



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Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0980004-MSD1	B808576-01								
Chrysene	9/7/98	19.4	ND	10.1	ug/l	50.0-150	52.1	25.0	1.16	
Fluorene	"	19.4	ND	10.1	"	50.0-150	52.1	25.0	17.2	
Indeno (1,2,3-cd) pyrene	"	19.4	ND	11.5	"	50.0-150	59.3	25.0	5.37	
Surrogate: 2-FBP	"	97.1		62.6	"	30.0-150	64.5			
Surrogate: Nitrobenzene-d5	"	97.1		64.5	"	30.0-150	66.4			
Surrogate: p-Terphenyl-d14	"	97.1		73.7	"	30.0-150	75.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Project Manager: Steve Woodward

Sampled: 8/29/98
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Reported: 9/15/98 11:01

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 57

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Quantitation Report

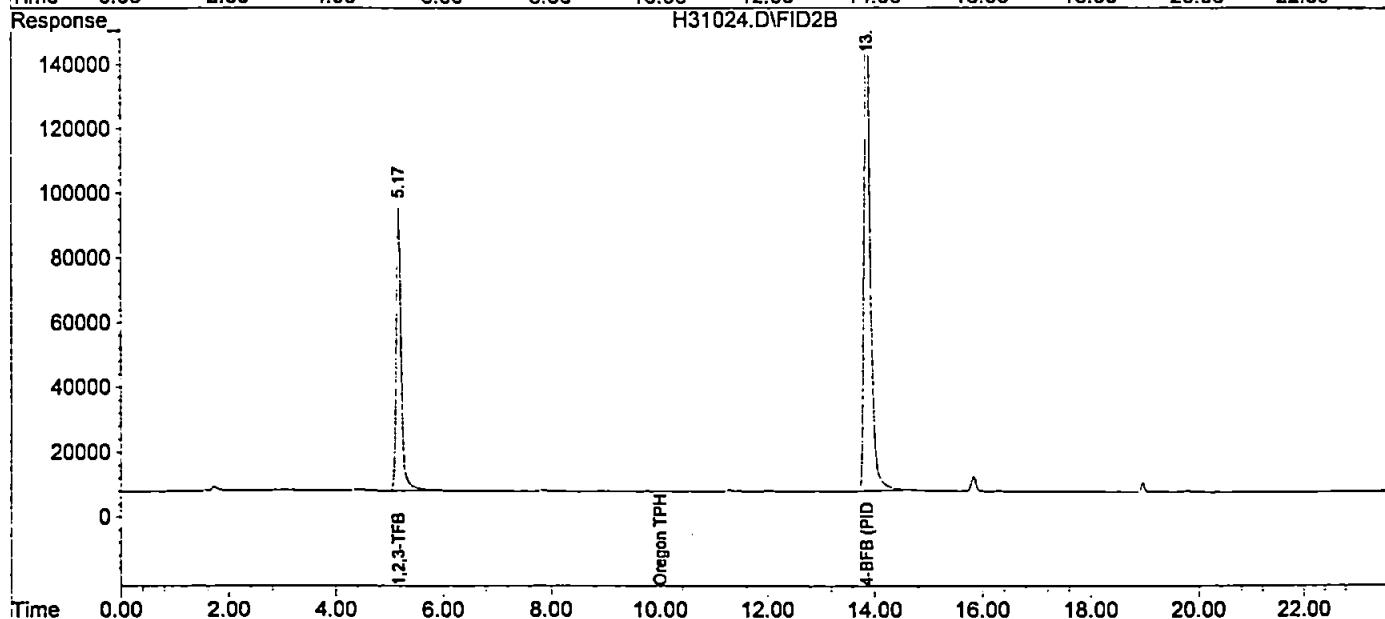
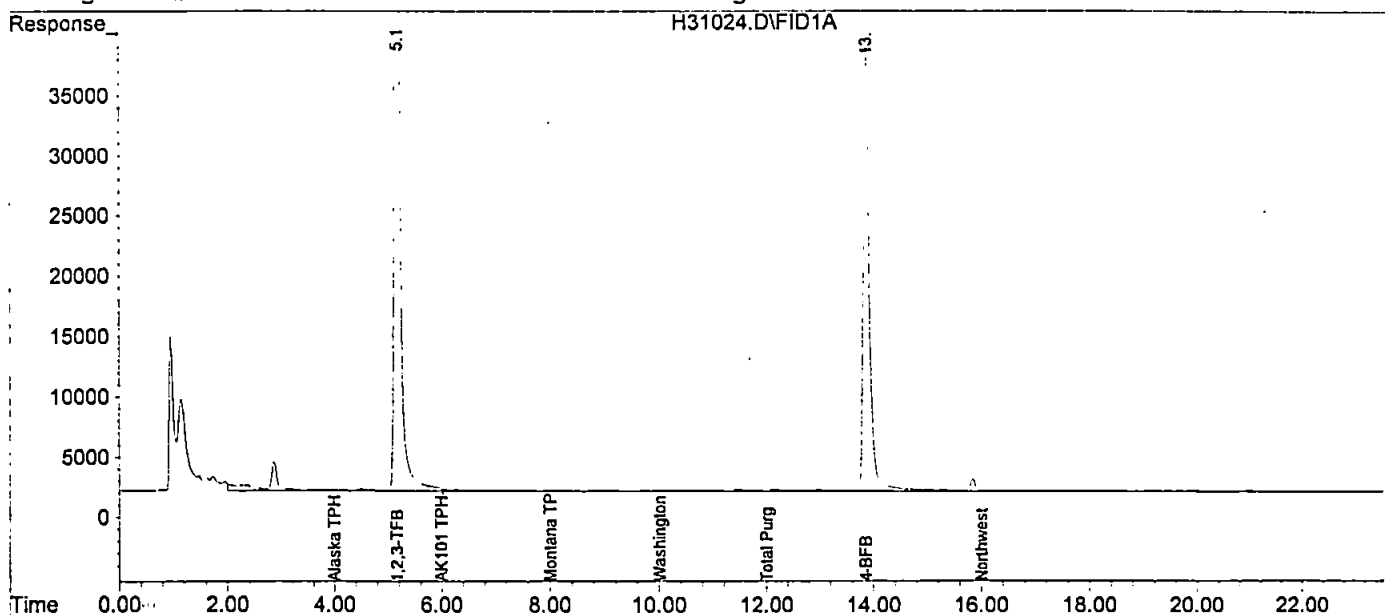
Data File : C:\HPCHEM\3\DATA\083198\H31024.D\FID1A.CH Vial: 24
 Acq On : 31 Aug 1998 9:57 pm Operator: la
 Sample : b808556-12 Inst : GC #6
 Misc : 5 mL Multiplr: 1.00
 IntFile : SURR.E

Data File : C:\HPCHEM\3\DATA\083198\H31024.D\FID2B.CH Vial: 24
 Acq On : 31 Aug 98 9:57 pm Operator: la
 Sample : ~~b808556-12~~ ^{9/1/98} AC Inst : GC #6
 Misc : 5 mL Multiplr: 1.00
 IntFile : SURR2.E

Quant Time: Sep 1 13:31 1998 Quant Results File: TPHG.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHG.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Wed Aug 26 14:44:29 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase :
 Signal #2 Info :



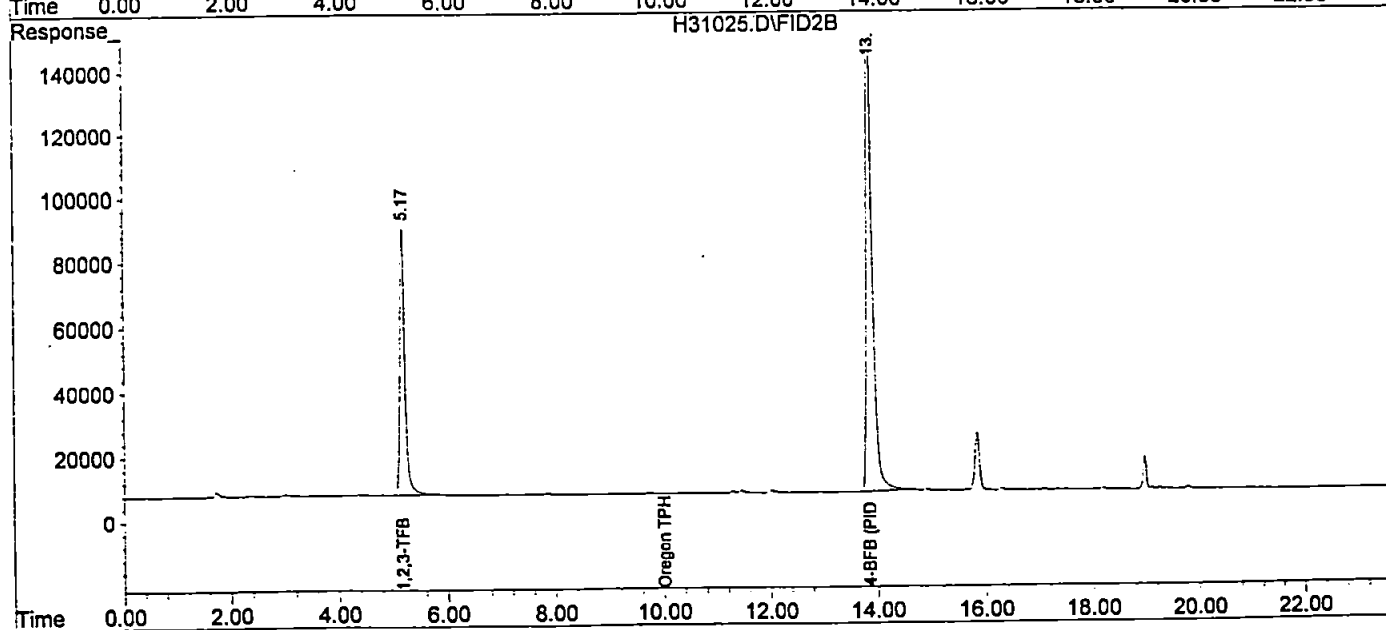
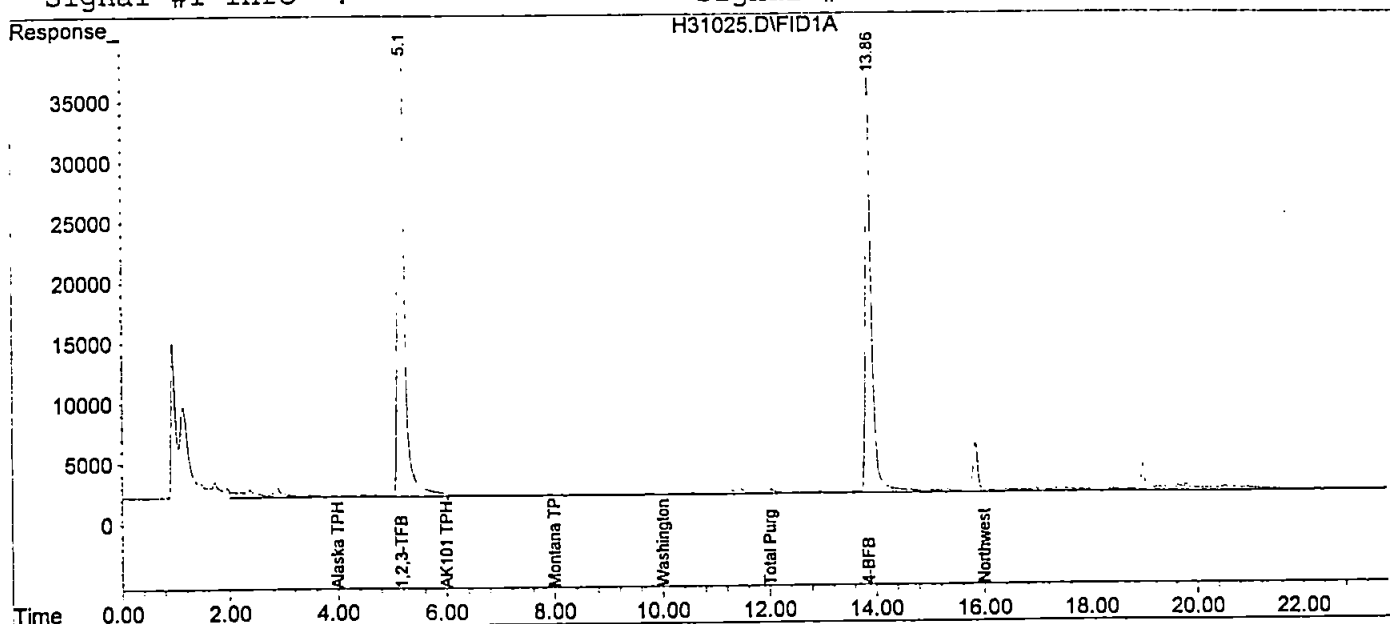
Quantitation Report

Data File : C:\HPCHEM\3\DATA\083198\H31025.D\FID1A.CH Vial: 25
 Acq On : 31 Aug 1998 10:28 pm Operator: la
 Sample : b808556-13 Inst : GC #6
 Misc : 5 mL Multiplr: 1.00
 IntFile : SURR.E

Data File : C:\HPCHEM\3\DATA\083198\H31025.D\FID2B.CH Vial: 25
 Acq On : 31 Aug 98 10:28 pm Operator: la
 Sample : ~~b808556-13~~ 4/1/98 Inst : GC #6
 Misc : 5 mL Multiplr: 1.00
 IntFile : SURR2.E
 Quant Time: Sep 1 13:31 1998 Quant Results File: TPHG.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHG.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Wed Aug 26 14:44:29 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\I01016.D\FID1A.CH
 Acq On : 2 Sep 1998 12:27 am
 Sample : b808556-14 r1
 Misc : 5 mL
 IntFile : SURR.E

Vial: 16
 Operator: la
 Inst : GC #6
 Multiplr: 1.00

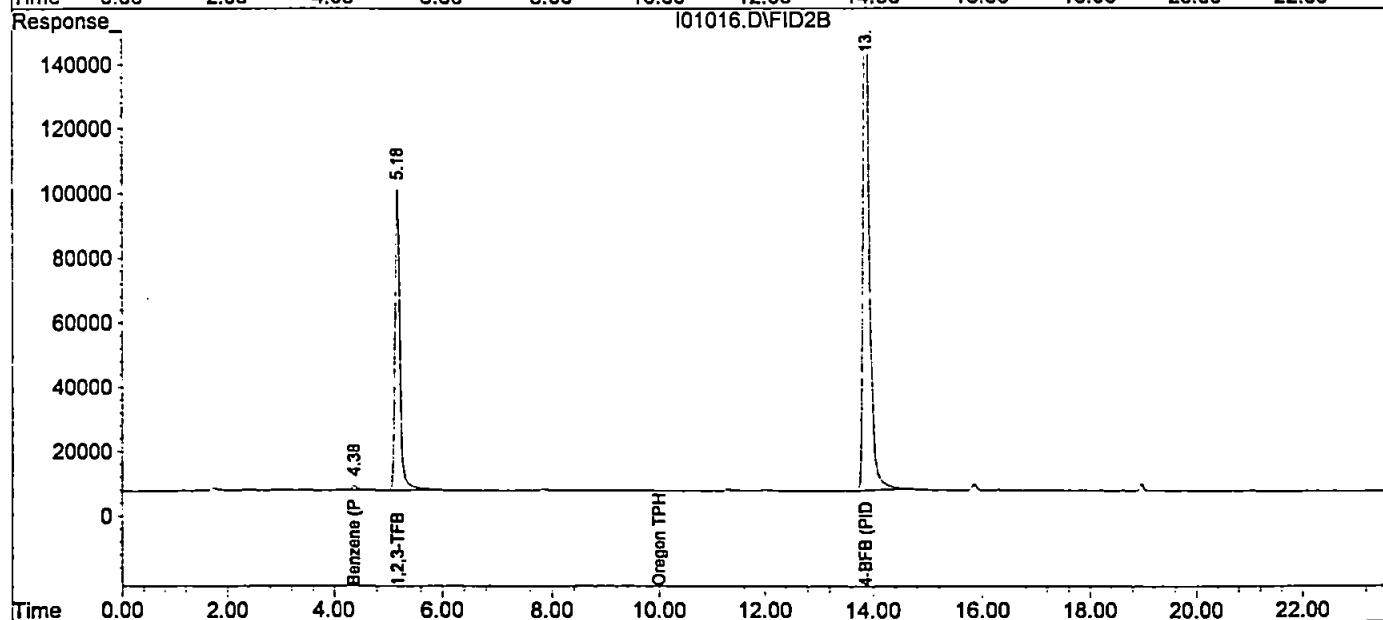
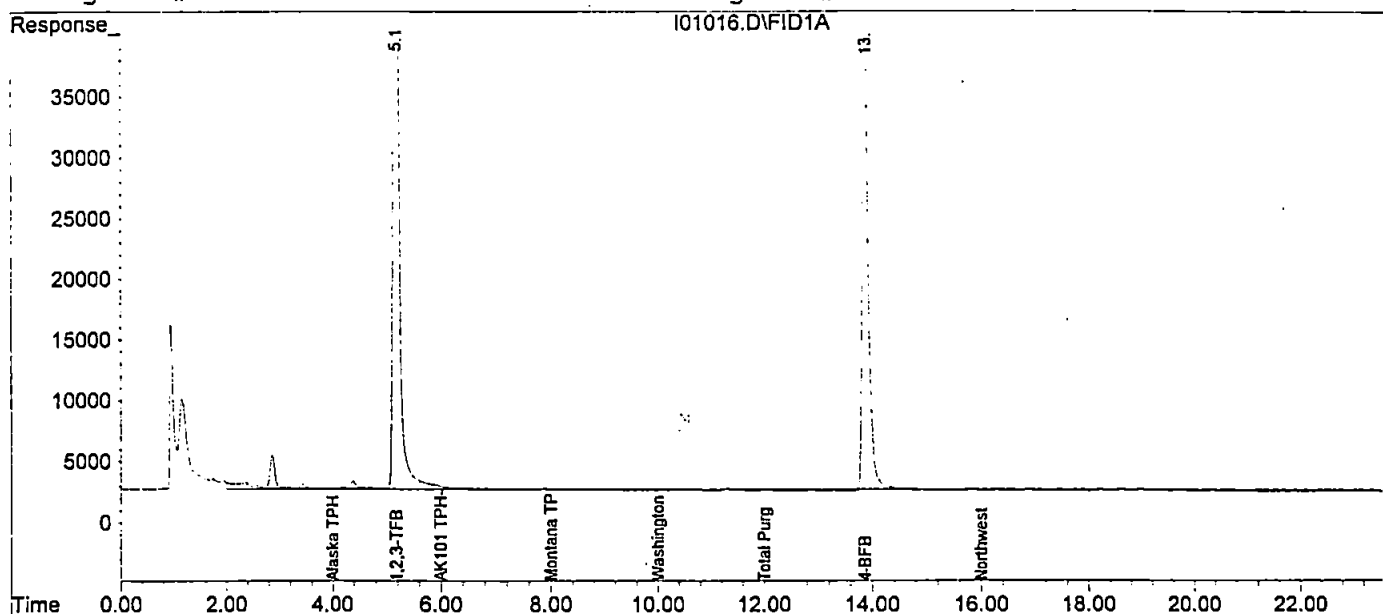
Data File : C:\HPCHEM\3\DATA\I01016.D\FID2B.CH
 Acq On : 2 Sep 98 12:27 am
 Sample : b808556-14 r1
 Misc : 5 mL
 IntFile : SURR2.E

Vial: 16
 Operator: la
 Inst : GC #6
 Multiplr: 1.00

Quant Time: Sep 2 6:37 1998 Quant Results File: TPHG.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHG.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Wed Aug 26 14:44:29 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Quantitation Report

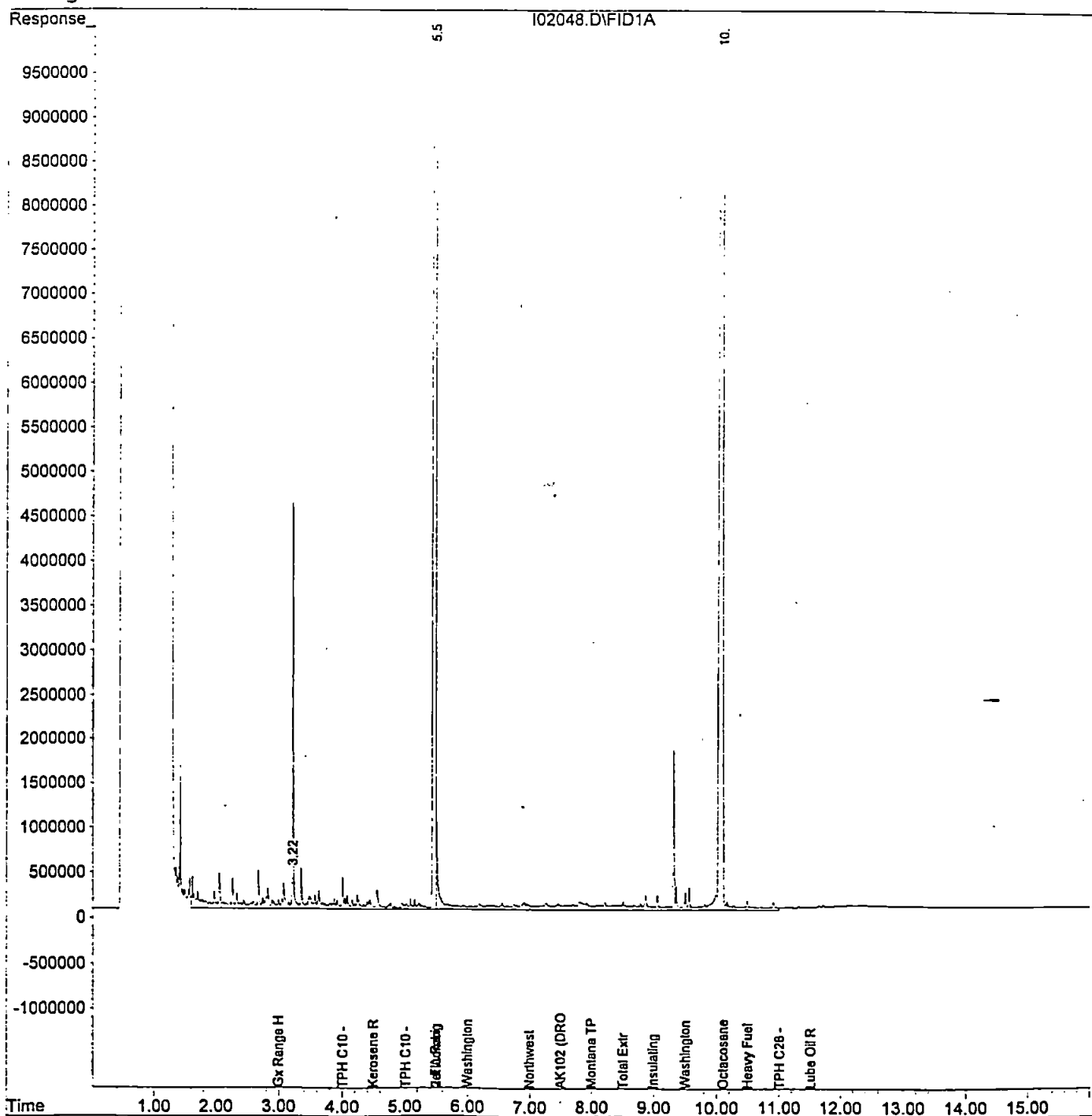
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 Acq On : 9-2-98 7:41:58 PM
 Sample : b808556-01
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 8:30 1998

Vial: 34
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Aug 28 12:14:54 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

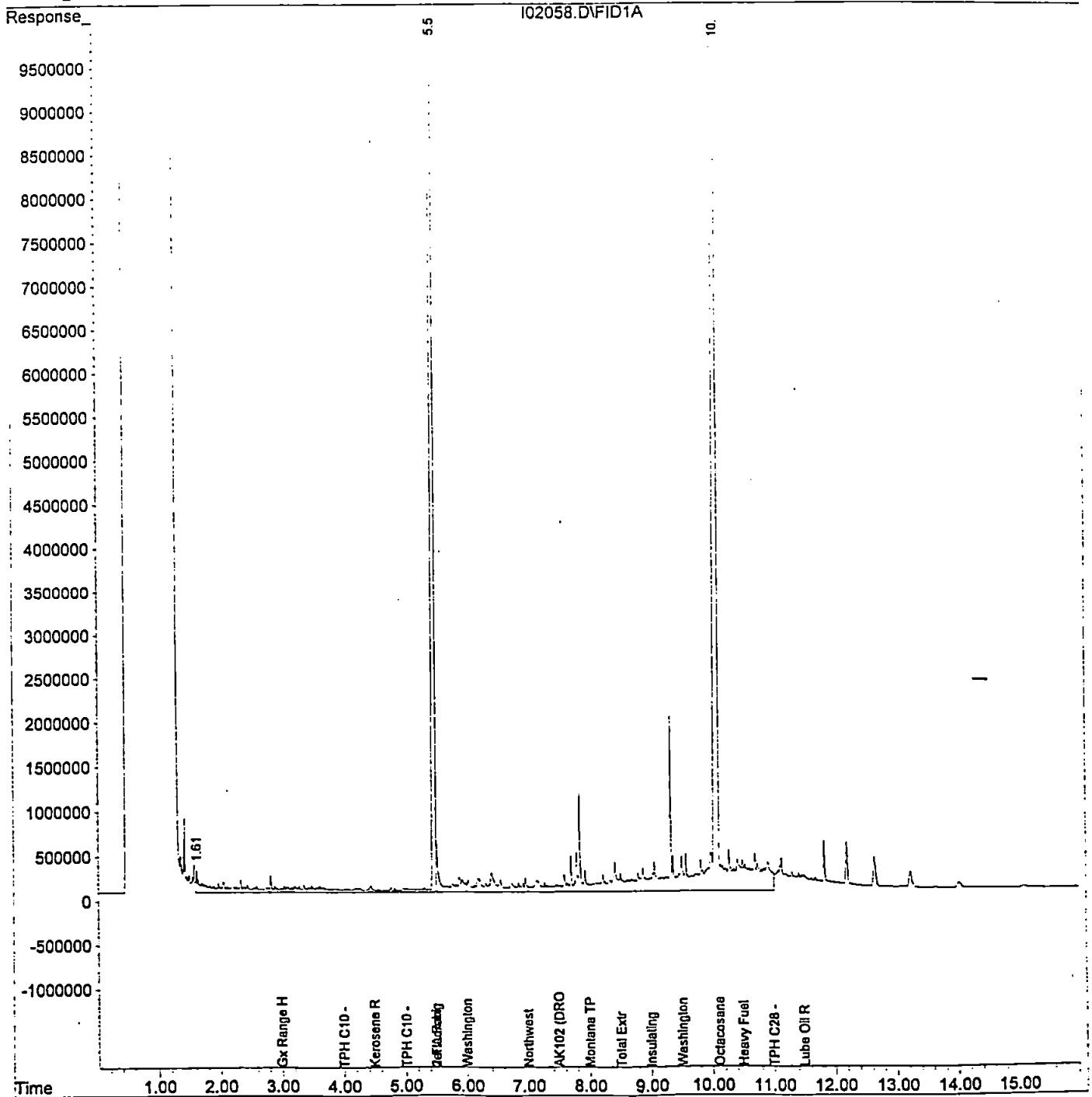
Data File : C:\HPCHEM\4\DATA\090298\I02058.D
 Acq On : 9-2-98 9:41:26 PM
 Sample : b808556-02
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 8:31 1998

Vial: 42
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Aug 28 12:14:54 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\I02059.D

Vial: 43

Acq On : 9-2-98 10:05:09 PM

Operator: kj

Sample : b808556-04

Inst : GC #7

Misc : w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 3 7:16 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Mon Aug 24 11:47:57 1998

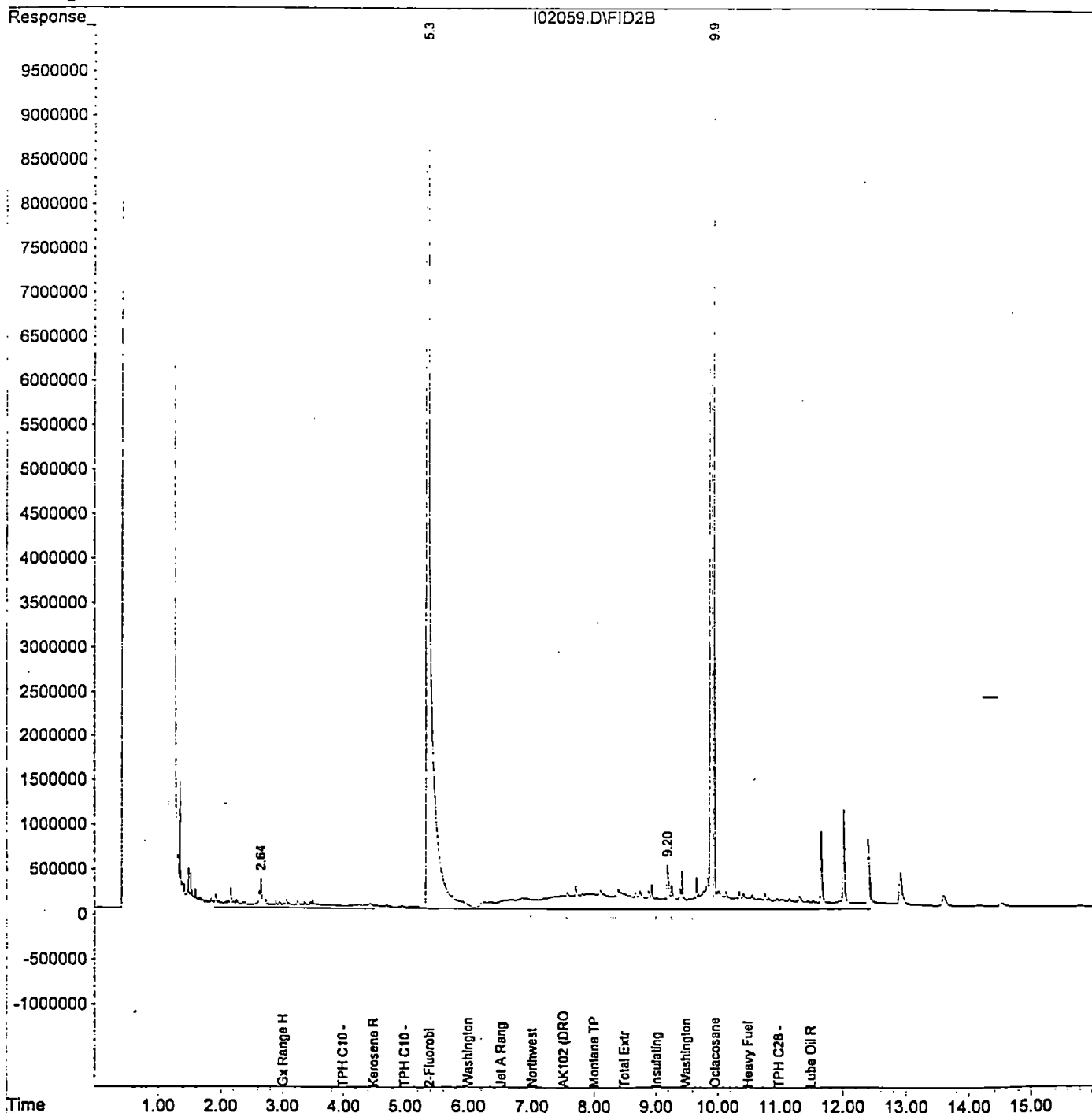
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

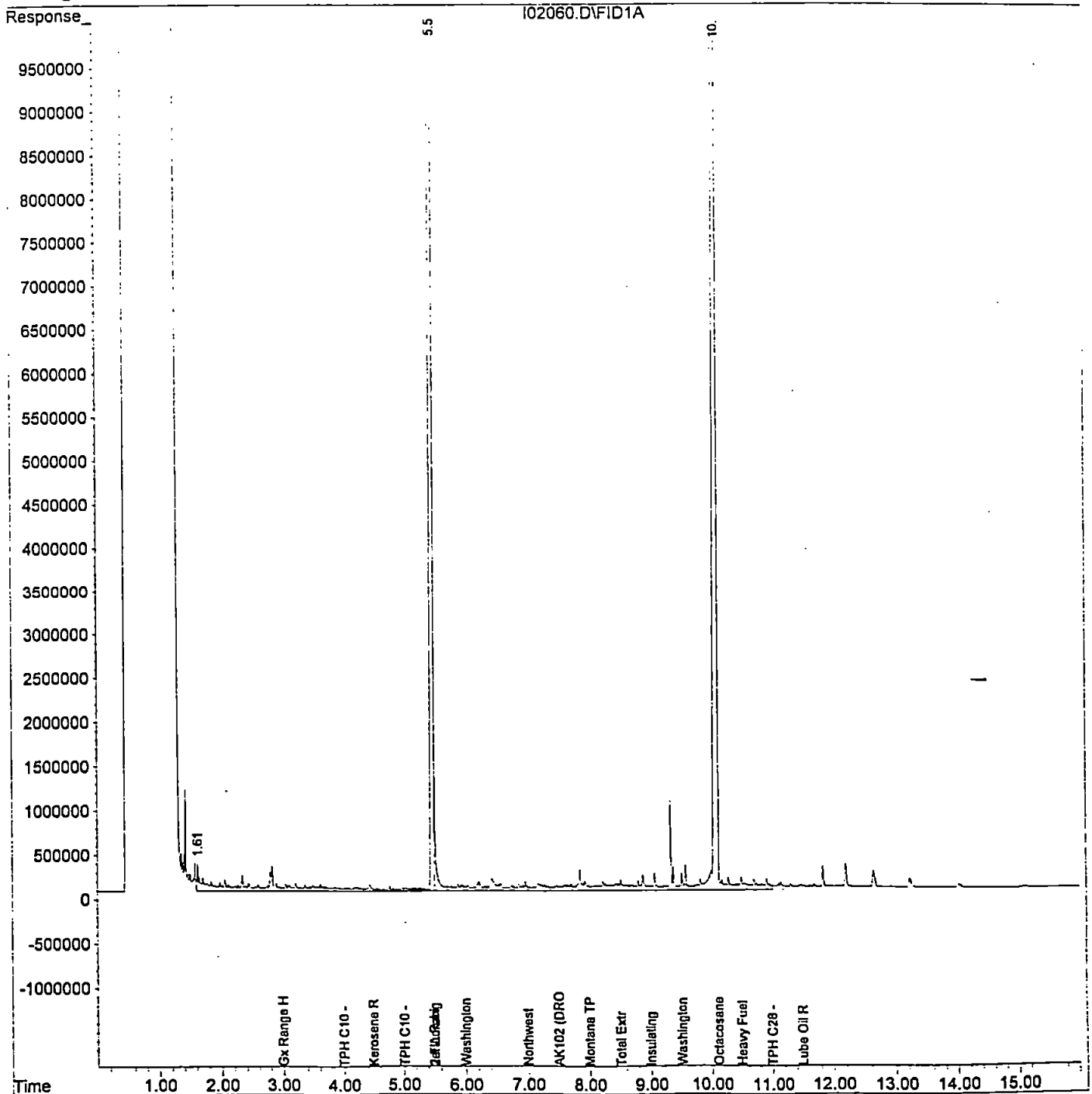
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Sample : b808556-05
Misc : w
IntFile : SURR.E
Quant Time: Sep 3 8:32 1998

Vial: 44
Operator: kj
Inst : GC #7
Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
Title : TPH-D Front Method
Last Update : Fri Aug 28 12:14:54 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPHD.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\I02069.D

Vial: 45

Acq On : 9-2-98 11:39:30 PM

Operator: kj

Sample : b808556-06

Inst : GC #7

Misc : w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 3 7:18 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Mon Aug 24 11:47:57 1998

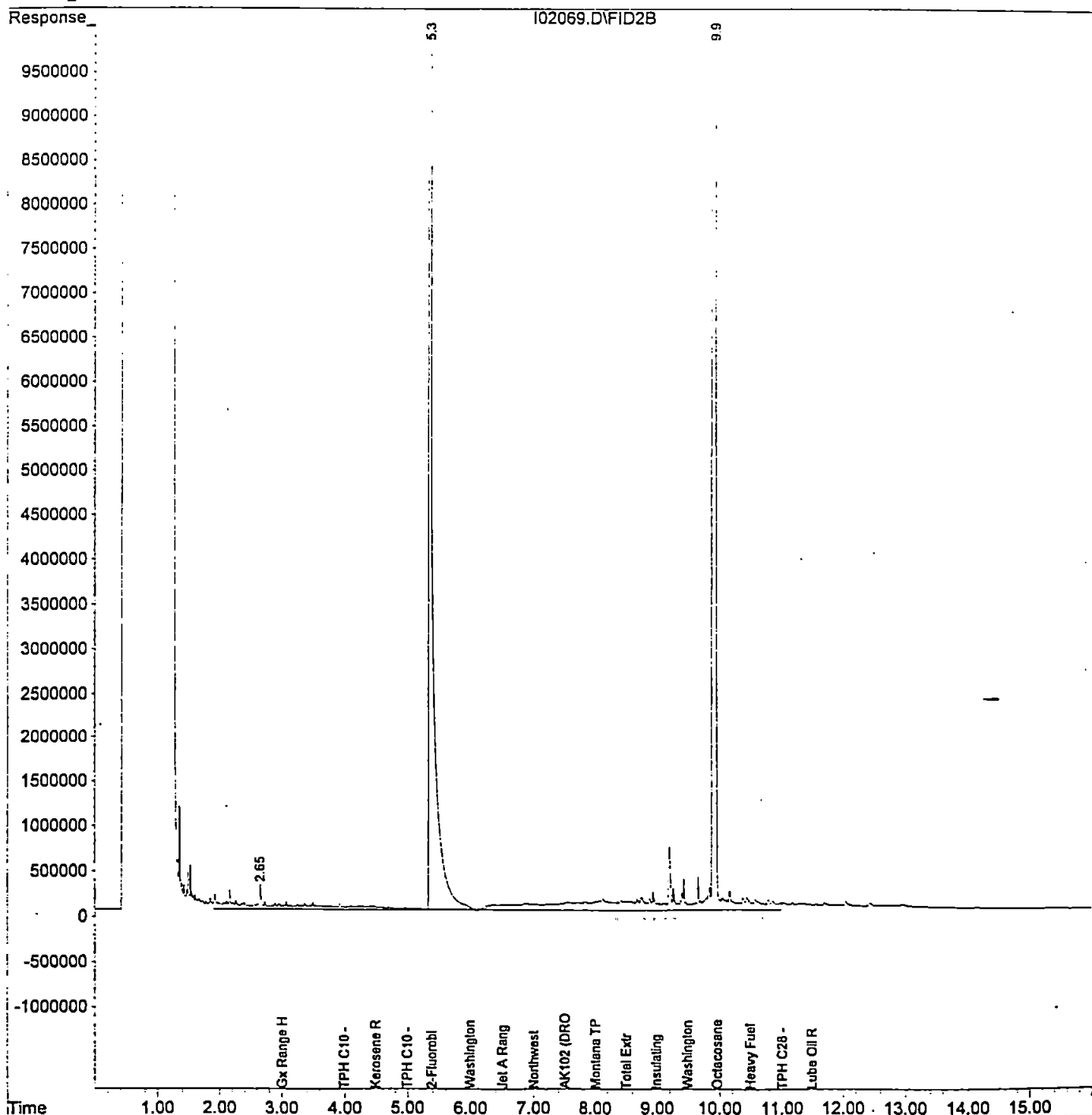
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

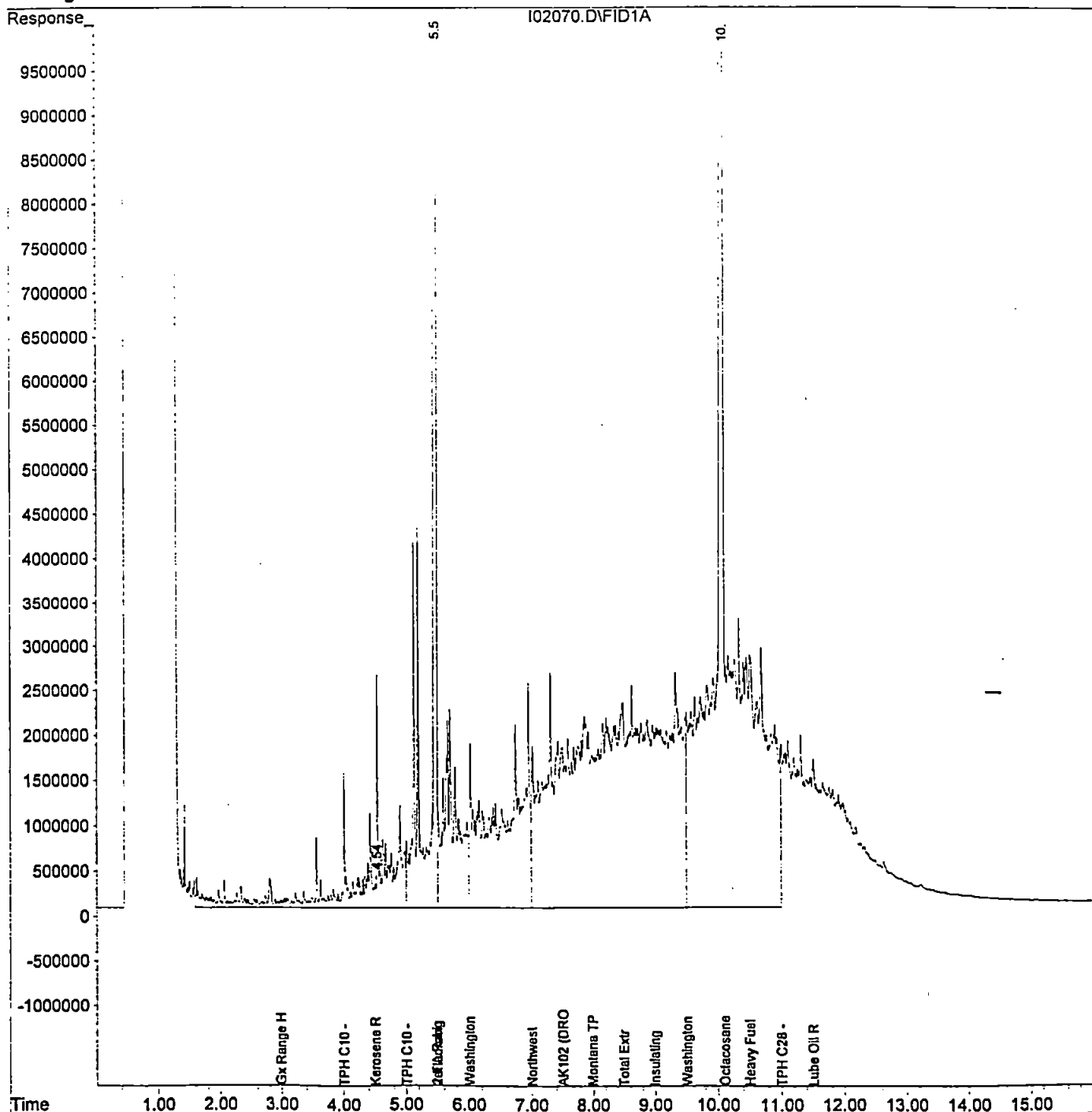
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 Acq On : 9-2-98 11:39:30 PM
 Sample : b808556-07
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 8:33 1998

Vial: 46
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Aug 28 12:14:54 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

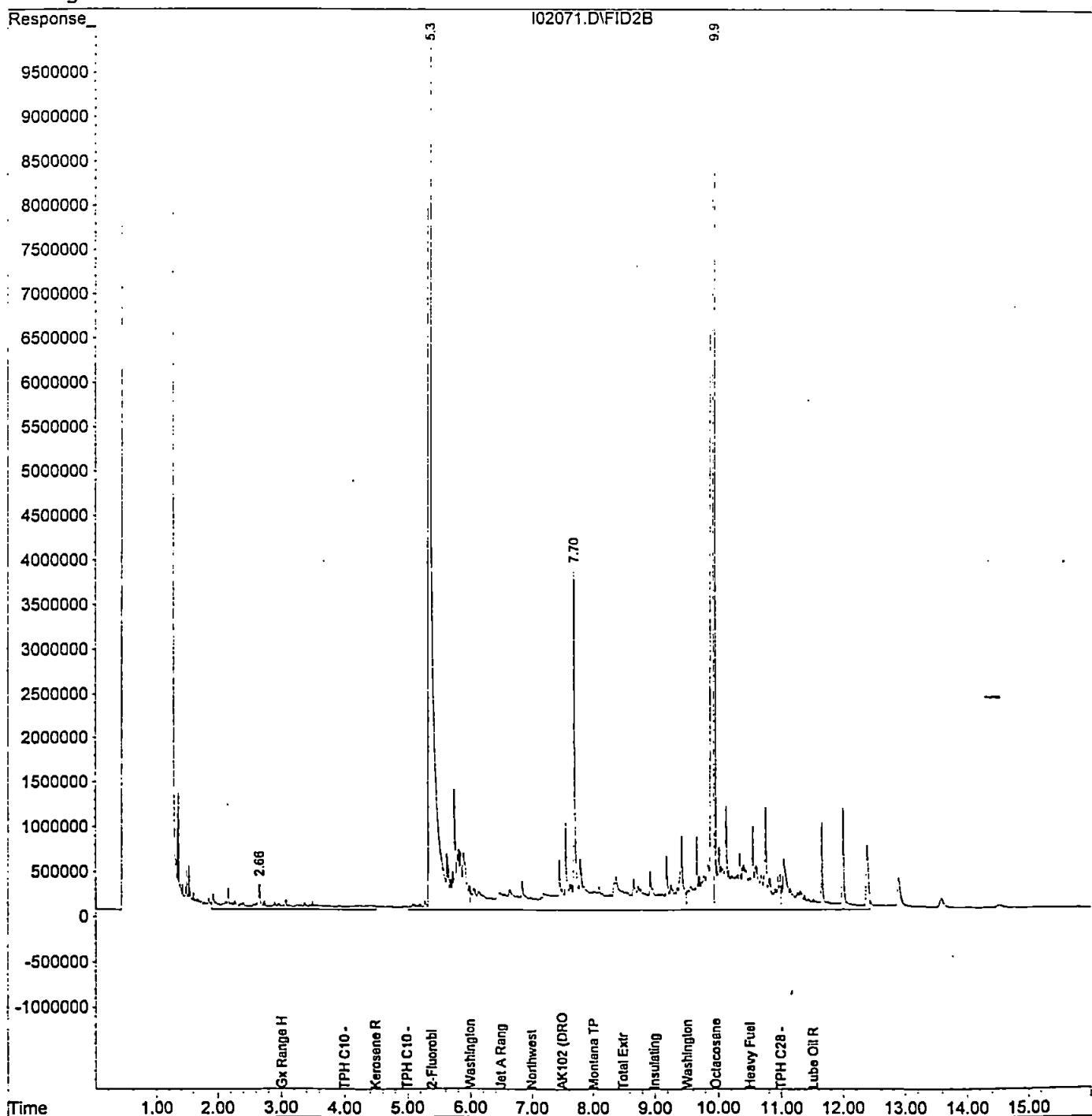
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 Acq On : 9-3-98 12:02:54 AM
 Sample : b808556-08
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 7:18 1998

Vial: 47
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Mon Aug 24 11:47:57 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

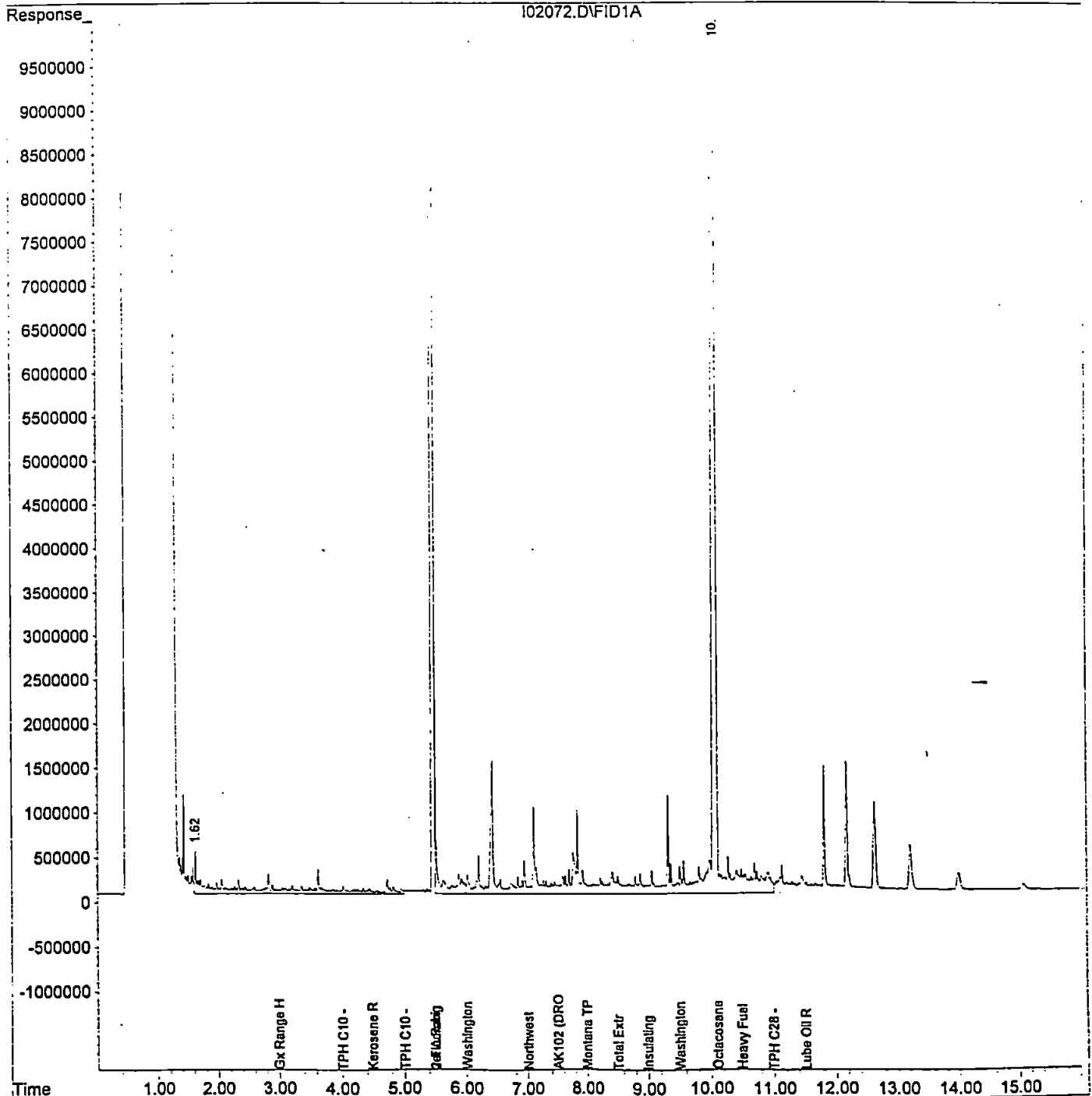
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 Acq On : 9-3-98 12:02:54 AM
 Sample : b808556-09
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 8:33 1998

Vial: 48
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Aug 28 12:14:54 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\I02073.D

Vial: 49

Acq On : 9-3-98 12:26:30 AM

Operator: kj

Sample : b808556-10

Inst : GC #7

Misc : w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 3 7:19 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Mon Aug 24 11:47:57 1998

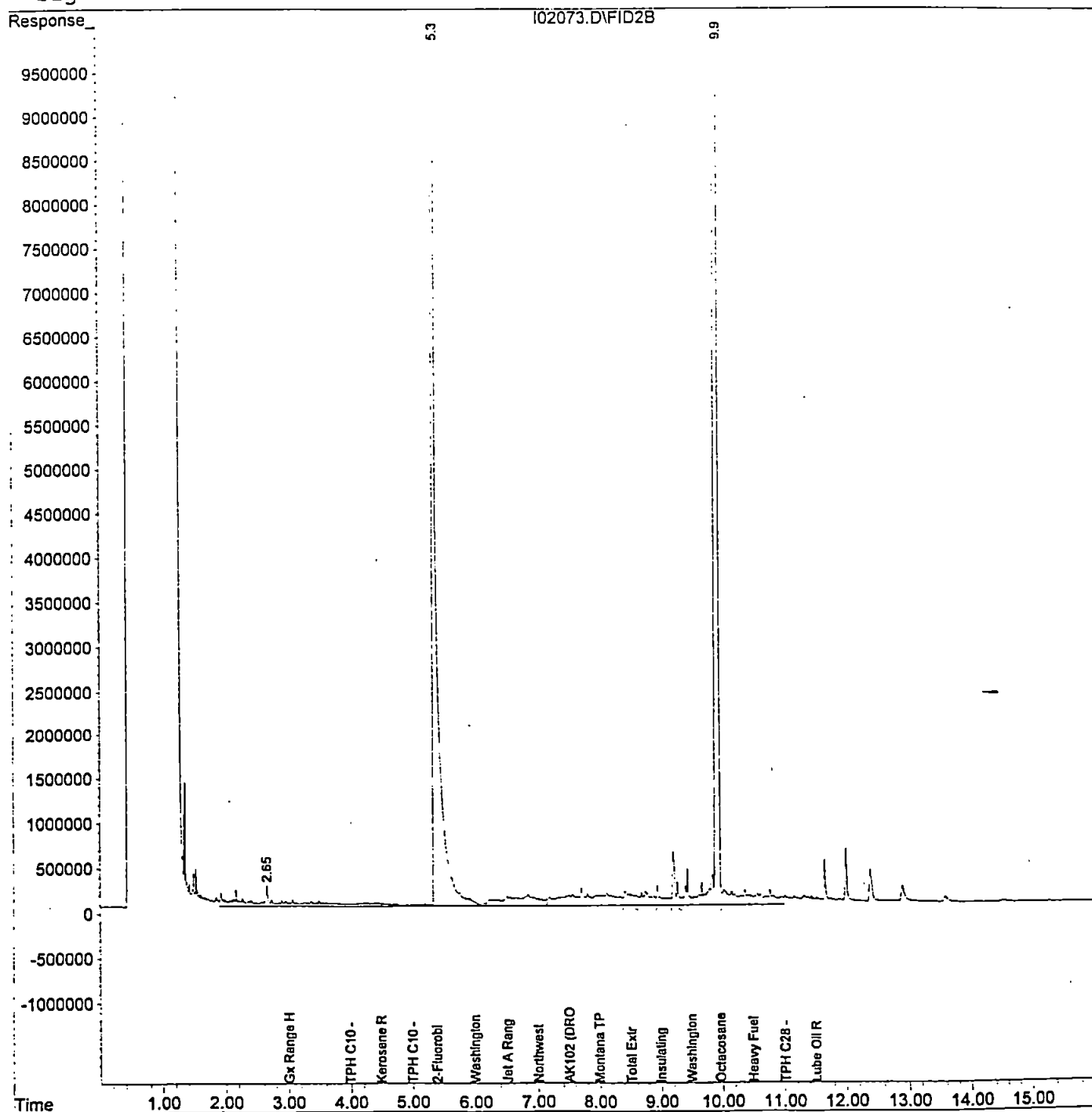
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

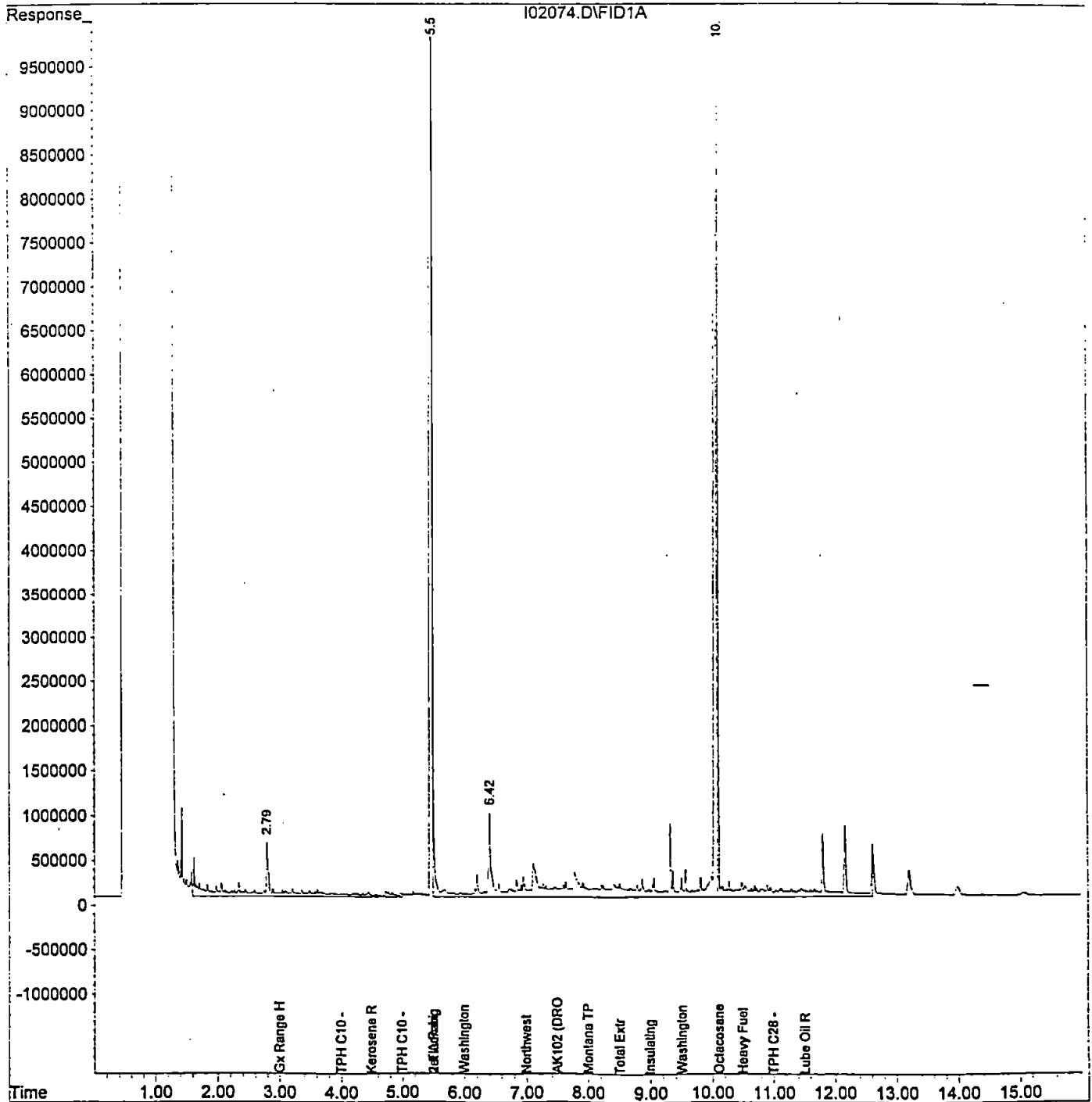
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Acq On : 9-3-98 12:26:30 AM
Sample : b808556-11
Misc : w
IntFile : SURR.E
Quant Time: Sep 3 8:34 1998

Vial: 50
Operator: kj
Inst : GC #7
Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
Title : TPH-D Front Method
Last Update : Fri Aug 28 12:14:54 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPHD.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\I02075.D

Vial: 51

Acq On : 9-3-98 12:50:13 AM

Operator: kj

Sample : b808556-12

Inst : GC #7

Misc : w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 3 7:19 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Mon Aug 24 11:47:57 1998

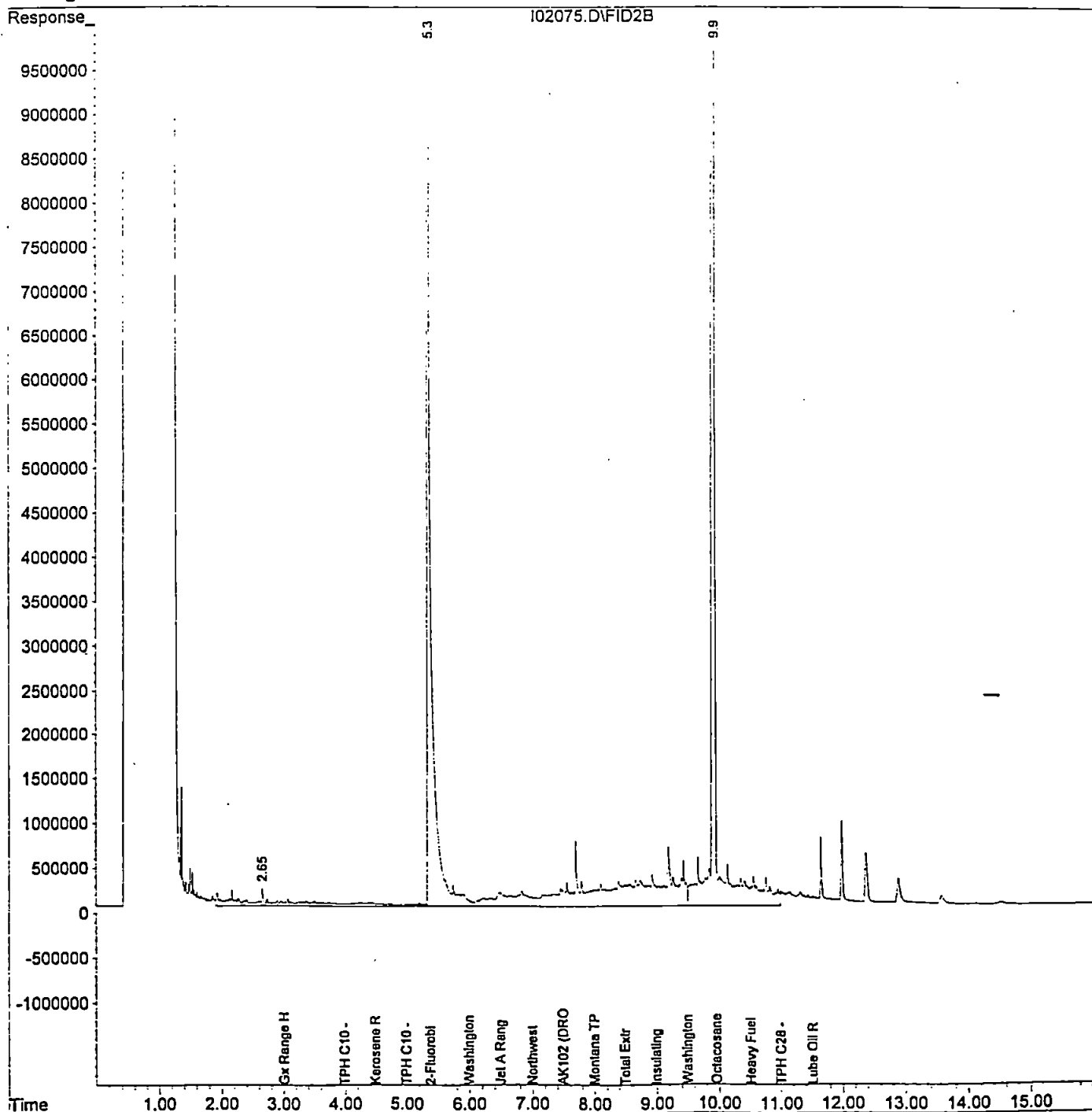
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

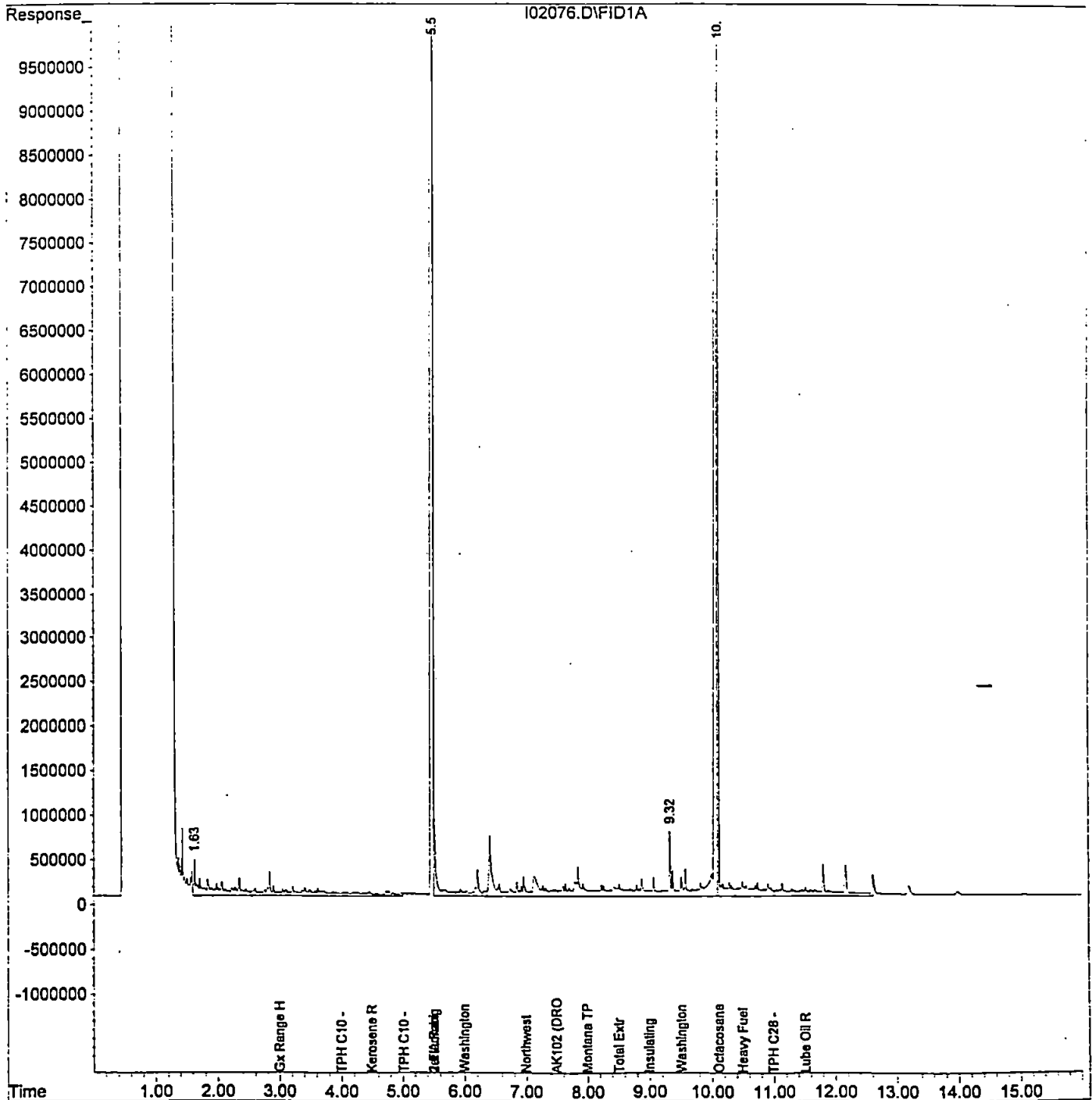
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 Acq On : 9-3-98 12:50:13 AM
 Sample : b808556-13
 Misc : w
 IntFile : SURR.E
 Quant Time: Sep 3 8:35 1998

Vial: 52
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Aug 28 12:14:54 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\I02077.D

Acq On : 9-3-98 1:13:45 AM

Sample : b808556-14

Misc : w

IntFile : SURR.E

Quant Time: Sep 3 7:20 1998 Quant Results File: TPHD2.RES

Vial: 53

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Mon Aug 24 11:47:57 1998

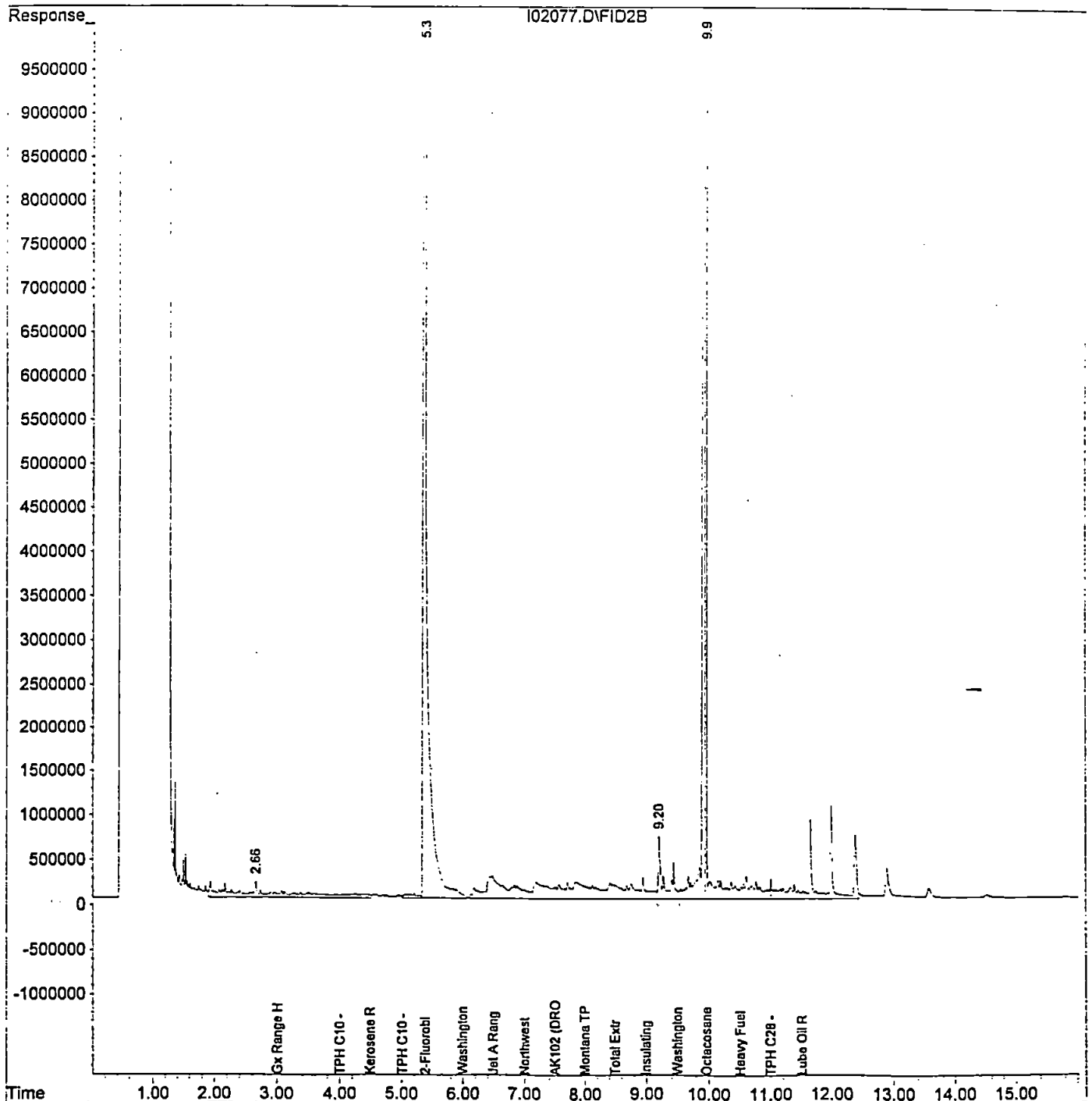
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume, Inj. :

Signal Phase :

Signal Info :





**NORTH
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(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

8808556

REPORT TO: ATTENTION: <u>Steve Woodward</u> ADDRESS: <u>Steward St.</u> <u>Seattle, WA</u> PHONE: _____ FAX: _____ PROJECT NAME: <u>PSE - Grady Way</u> PROJECT NUMBER: <u>0186-402-00</u> SAMPLED BY: <u>GRS</u>			INVOICE TO: ATTENTION: <u>Benny Lombard</u> ADDRESS: _____ P.O. NUMBER: _____ NCA QUOTE #: _____ Analysis Request: <u>NWTPH-D extended</u> <u>CPMH (6270 sim)</u> <u>NWTPH-G</u> <u>BETX</u>			TURNAROUND REQUEST in Business Days * <table style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> </tr> <tr> <td> 10 </td> <td> 7 </td> <td> 5 </td> <td> 4 </td> <td> 3 </td> <td> 2 </td> <td> 1 </td> <td>Same Day</td> </tr> <tr> <td colspan="8">Standard</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td colspan="2"></td> </tr> <tr> <td> 5 </td> <td> 3-4 </td> <td> 2 </td> <td> 1 </td> <td colspan="4">Same Day</td> </tr> <tr> <td colspan="8">Standard</td> </tr> </table> OTHER _____ Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						10	7	5	4	3	2	1	Same Day	Standard								Fuels & Hydrocarbon Analyses								5	3-4	2	1	Same Day				Standard							
Organic & Inorganic Analyses																																																						
10	7	5	4	3	2	1	Same Day																																															
Standard																																																						
Fuels & Hydrocarbon Analyses																																																						
5	3-4	2	1	Same Day																																																		
Standard																																																						
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																																													
1. <u>GMW-1</u>	<u>01/29/98 / 10:05</u>		X					<u>W</u>	<u>1</u>	<u>8808556-01</u>																																												
2. <u>GMW-2</u>	<u>/ 10:12</u>		X					<u>W</u>	<u>1</u>	<u>-02</u>																																												
3. <u>GMW-3</u>	<u>/ 10:38</u>		X					<u>W</u>	<u>1</u>	<u>-03</u>																																												
4. <u>GMW-4</u>	<u>/ 10:44</u>		X	X				<u>W</u>	<u>2</u>	<u>-04</u>																																												
5. <u>GMW-5</u>	<u>/ 11:52</u>		X	X				<u>W</u>	<u>2</u>	<u>-05</u>																																												
6. <u>GMW-6</u>	<u>/ 11:12</u>		X					<u>W</u>	<u>1</u>	<u>-06</u>																																												
7. <u>GMW-7</u>	<u>/ 14:02</u>		X					<u>W</u>	<u>1</u>	<u>-07</u>																																												
8. <u>GMW-8</u>	<u>/ 12:27</u>		X					<u>W</u>	<u>1</u>	<u>-08</u>																																												
9. <u>GMW-9</u>	<u>/ 12:08</u>		X					<u>W</u>	<u>1</u>	<u>-09</u>																																												
10. <u>GMW-10</u>	<u>/ 11:44</u>		X	X				<u>W</u>	<u>2</u>	<u>-10</u>																																												
RELINQUISHED BY (Signature) <u>[Signature]</u>			DATE: <u>01/29/98</u>			RECEIVED BY (Signature) <u>Colette Weaver</u>			DATE: <u>8/29/98</u>																																													
PRINT NAME: <u>Gary Stevens</u>			FIRM: <u>GEI</u>			TIME: <u>16:01</u>			PRINT NAME: <u>Colette Weaver</u>																																													
FIRM: <u>NCA</u>			TIME: <u>10/13</u>																																																			
RELINQUISHED BY (Signature) _____			DATE: _____			RECEIVED BY (Signature) _____			DATE: _____																																													
PRINT NAME: _____			FIRM: _____			TIME: _____			PRINT NAME: _____																																													
FIRM: _____			TIME: _____																																																			
ADDITIONAL REMARKS: <u>NWTPH-D extended w/ silver seal clamp, bottles preserved w/ HCl</u>										PAGE <u>2</u> OF <u>2</u>																																												



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Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

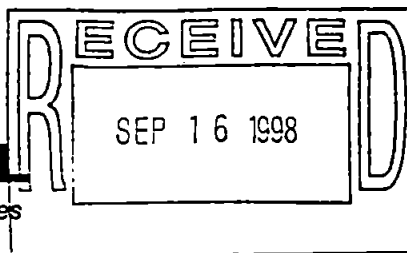
Work Order #

REPORT TO:				INVOICE TO:				TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 1 Same Day Metals & Hydrocarbon Analyses 5 3-4 2 1 Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.				
ATTENTION: Steve Woodward				ATTENTION: Barry Lombard								
ADDRESS: Stewart St. Seattle, WA				ADDRESS:								
PHONE: FAX:				P.O. NUMBER: NCA QUOTE #:								
PROJECT NAME: PSE - Grady Way				Analysis Request: <i>NW+PH-D extended</i> <i>CPAH (P220 SIM)</i> <i>NW+PH-G</i> <i>BETA</i>								
PROJECT NUMBER: 0156-407-00												
SAMPLED BY: GRS												
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS		
1. GMW-11		08/29/98 11:17		X	X					W 2 -11		
2. GMW-4		1/13:32		X		X	X			W 4 1-1.1L, 3 vials-12		
3. MW-10		1/12:41		X		X	X			W 4 1-1.1L, 3 vials-13		
4. MW-20		1/13:07		X		X	X			W 4 1-1.1L, 3 vials-14		
5.												
6.												
7.												
8.												
9.												
10.												
RELINQUISHED BY (Signature): <i>Gary Steiner</i>				DATE: 08/29/98		RECEIVED BY (Signature): <i>Colette Weaver</i>				DATE: 8-29-98		
PRINT NAME: Gary Steiner		FIRM: GEI	TIME: 16:00	PRINT NAME: Colette Weaver		FIRM: NCA	TIME: 16:13					
RELINQUISHED BY (Signature):				DATE:		RECEIVED BY (Signature):				DATE:		
PRINT NAME:		FIRM:	TIME:	PRINT NAME:		FIRM:	TIME:					
ADDITIONAL REMARKS: NW+PH-D extended w/ silica gel cleanup, bottles preserved w/ HCl											14.3 14/98	
											PAGE 2 of 2	

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

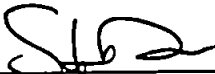
Sampled: 8/31/98
Received: 9/1/98
Reported: 9/14/98 17:47

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SOIL-3-0.5	B809021-01	Soil	8/31/98
SOIL-4-0.5	B809021-04	Soil	8/31/98
SOIL-5-0.5	B809021-06	Soil	8/31/98
SOIL-6-0.5	B809021-09	Soil	8/31/98
SOIL-6-1.5	B809021-10	Soil	8/31/98
SOIL-7-0.5	B809021-12	Soil	8/31/98
SOIL-7-1.5	B809021-13	Soil	8/31/98
SOIL-8-0.5	B809021-15	Soil	8/31/98
SOIL-9-0.5	B809021-18	Soil	8/31/98
SOIL-10-0.5	B809021-21	Soil	8/31/98
SOIL-11-0.5	B809021-24	Soil	8/31/98

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.*


Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 8/31/98
Received: 9/1/98
Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-3-0.5				B809021-01			Soil	
Acenaphthene	0980047	9/2/98	9/8/98		0.200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.200	ND	"	
Anthracene	"	"	"		0.200	ND	"	
Benzo (a) anthracene	"	"	"		0.200	0.331	"	
Benzo (a) pyrene	"	"	"		0.200	0.410	"	
Benzo (b) fluoranthene	"	"	"		0.200	0.726	"	
Benzo (ghi) perylene	"	"	"		0.200	0.442	"	
Benzo (k) fluoranthene	"	"	"		0.200	0.221	"	
Chrysene	"	"	"		0.200	0.426	"	
Dibenz (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.200	0.821	"	
Fluorene	"	"	"		0.200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.200	0.489	"	
Naphthalene	"	"	"		0.200	ND	"	
Phenanthrene	"	"	"		0.200	0.253	"	
Pyrene	"	"	"		0.200	0.568	"	
Surrogate: 2-FBP	"	"	"	30.0-150		57.9	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		58.4	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		68.0	"	
SOIL-4-0.5				B809021-04			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.506	"	
Benzo (a) pyrene	"	"	"		0.250	0.608	"	
Benzo (b) fluoranthene	"	"	"		0.250	1.01	"	
Benzo (ghi) perylene	"	"	"		0.250	0.587	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.324	"	
Chrysene	"	"	"		0.250	0.648	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.24	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.648	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.446	"	
Pyrene	"	"	"		0.250	0.871	"	
Surrogate: 2-FBP	"	"	"	30.0-150		61.1	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 8/31/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-4-0.5 (continued)		B809021-04				Soil		
Surrogate: Nitrobenzene-d5	0980047	9/2/98	9/9/98	30.0-150		60.1	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		73.9	"	
SOIL-5-0.5		B809021-06				Soil		
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.623	"	
Benzo (a) pyrene	"	"	"		0.250	0.715	"	
Benzo (b) fluoranthene	"	"	"		0.250	1.10	"	
Benzo (ghi) perylene	"	"	"		0.250	0.642	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.403	"	
Chrysene	"	"	"		0.250	0.715	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.58	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.734	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.623	"	
Pyrene	"	"	"		0.250	1.08	"	
Surrogate: 2-FBP	"	"	"	30.0-150		55.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		60.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		66.1	"	
SOIL-6-0.5		B809021-09				Soil		
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.528	"	
Benzo (a) pyrene	"	"	"		0.250	0.675	"	
Benzo (b) fluoranthene	"	"	"		0.250	0.998	"	
Benzo (ghi) perylene	"	"	"		0.250	0.558	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.411	"	
Chrysene	"	"	"		0.250	0.675	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.44	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.616	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


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Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 8/31/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-6-0.5 (continued)				B809021-09			Soil	
Naphthalene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Phenanthrene	"	"	"		0.250	0.440	"	
Pyrene	"	"	"		0.250	0.939	"	
Surrogate: 2-FBP	"	"	"	30.0-150		54.9	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		57.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		62.1	"	
SOIL-6-1.5				B809021-10			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		52.7	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		60.4	"	
SOIL-7-0.5				B809021-12			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.534	"	
Benzo (a) pyrene	"	"	"		0.250	0.699	"	
Benzo (b) fluoranthene	"	"	"		0.250	1.32	"	
Benzo (ghi) perylene	"	"	"		0.250	0.781	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.534	"	
Chrysene	"	"	"		0.250	0.822	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 8/31/98
Received: 9/1/98
Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-7-0.5 (continued)				B809021-12			Soil	
Dibenz (a,h) anthracene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Fluoranthene	"	"	"		0.250	1.48	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.904	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.452	"	
Pyrene	"	"	"		0.250	1.07	"	
Surrogate: 2-FBP	"	"	"	30.0-150		54.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		59.1	"	
SOIL-7-1.5				B809021-13			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		52.1	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		56.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		56.0	"	
SOIL-8-0.5				B809021-15			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.392	"	
Benzo (a) pyrene	"	"	"		0.250	0.560	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 8/31/98
Received: 9/1/98
Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-8-0.5 (continued)				B809021-15			Soil	
Benzo (b) fluoranthene	0980047	9/2/98	9/9/98		0.250	0.952	mg/kg dry	
Benzo (ghi) perylene	"	"	"		0.250	0.560	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.392	"	
Chrysene	"	"	"		0.250	0.616	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.18	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.672	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.336	"	
Pyrene	"	"	"		0.250	0.784	"	
Surrogate: 2-FBP	"	"	"	30.0-150		57.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		58.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		62.0	"	
SOIL-9-0.5				B809021-18			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.500	1.36	"	
Benzo (a) pyrene	"	"	"		0.500	1.78	"	
Benzo (b) fluoranthene	"	"	"		0.500	2.78	"	
Benzo (ghi) perylene	"	"	"		0.500	1.66	"	
Benzo (k) fluoranthene	"	"	"		0.500	1.07	"	
Chrysene	"	"	"		0.500	1.72	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.500	3.49	"	
Fluorene	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	1.90	"	
Naphthalene	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.500	1.18	"	
Pyrene	"	"	"		0.500	2.37	"	
Surrogate: 2-FBP	"	"	"	30.0-150		52.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		54.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		60.1	"	
SOIL-10-0.5				B809021-21			Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.500	ND	mg/kg dry	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-10-0.5 (continued)		B809021-21					Soil	
Acenaphthylene	0980047	9/2/98	9/9/98		0.500	ND	mg/kg dry	
Anthracene	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.500	0.780	"	
Benzo (a) pyrene	"	"	"		0.500	1.07	"	
Benzo (b) fluoranthene	"	"	"		0.500	1.95	"	
Benzo (ghi) perylene	"	"	"		0.500	1.27	"	
Benzo (k) fluoranthene	"	"	"		0.500	0.780	"	
Chrysene	"	"	"		0.500	1.17	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.500	2.15	"	
Fluorene	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	1.37	"	
Naphthalene	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.500	0.585	"	
Pyrene	"	"	"		0.500	1.46	"	
Surrogate: 2-FBP	"	"	"	30.0-150		50.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		58.0	"	
SOIL-11-0.5		B809021-24					Soil	
Acenaphthene	0980047	9/2/98	9/9/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.513	"	
Benzo (a) pyrene	"	"	"		0.250	0.577	"	
Benzo (b) fluoranthene	"	"	"		0.250	0.898	"	
Benzo (ghi) perylene	"	"	"		0.250	0.481	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.321	"	
Chrysene	"	"	"		0.250	0.609	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.38	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.545	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.577	"	
Pyrene	"	"	"		0.250	0.994	"	
Surrogate: 2-FBP	"	"	"	30.0-150		53.9	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		57.9	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Reported: 9/14/98 17:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>SOIL-11-0.5 (continued)</u>				<u>B809021-24</u>			<u>Soil</u>	
Surrogate: <i>p</i> -Terphenyl-d14	0980047	9/2/98	9/9/98	30.0-150		62.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Sampled: 8/31/98
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Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SOIL-3-0.5	B809021-01	Soil	84.5	%
SOIL-4-0.5	B809021-04	Soil	82.3	%
SOIL-5-0.5	B809021-06	Soil	90.9	%
SOIL-6-0.5	B809021-09	Soil	56.8	%
SOIL-6-1.5	B809021-10	Soil	68.0	%
SOIL-7-0.5	B809021-12	Soil	40.5	%
SOIL-7-1.5	B809021-13	Soil	59.1	%
SOIL-8-0.5	B809021-15	Soil	29.8	%
SOIL-9-0.5	B809021-18	Soil	56.3	%
SOIL-10-0.5	B809021-21	Soil	34.2	%
SOIL-11-0.5	B809021-24	Soil	52.0	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Sampled: 8/31/98
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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980047	Date Prepared: 9/2/98			Extraction Method: EPA 3550B						
Blank	0980047-BLK1									
Acenaphthene	9/8/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		0.904	"	30.0-150	54.1			
Surrogate: Nitrobenzene-d5	"	1.67		1.00	"	30.0-150	59.9			
Surrogate: p-Terphenyl-d14	"	1.67		1.16	"	30.0-150	69.5			
LCS	0980047-BS1									
Chrysene	9/8/98	0.333		0.169	mg/kg dry	10.0-125	50.8			
Fluorene	"	0.333		0.165	"	11.0-116	49.5			
Indeno (1,2,3-cd) pyrene	"	0.333		0.207	"	10.0-147	62.2			
Surrogate: 2-FBP	"	1.67		0.862	"	30.0-150	51.6			
Surrogate: Nitrobenzene-d5	"	1.67		0.956	"	30.0-150	57.2			
Surrogate: p-Terphenyl-d14	"	1.67		1.09	"	30.0-150	65.3			
Matrix Spike	0980047-MS1	B809021-01								
Chrysene	9/8/98	0.395	0.426	0.647	mg/kg dry	10.0-125	55.9			
Fluorene	"	0.395	ND	0.237	"	10.0-154	60.0			
Indeno (1,2,3-cd) pyrene	"	0.395	0.489	0.742	"	10.0-144	64.1			
Surrogate: 2-FBP	"	1.97		1.28	"	30.0-150	65.0			
Surrogate: Nitrobenzene-d5	"	1.97		1.28	"	30.0-150	65.0			
Surrogate: p-Terphenyl-d14	"	1.97		1.40	"	30.0-150	71.1			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup		0980047-MSD1	B809021-01							
Chrysene	9/8/98	0.395	0.426	0.615	mg/kg dry	10.0-125	47.8	28.0	15.6	
Fluorene	"	0.395	ND	0.237	"	10.0-154	60.0	32.0	0	
Indeno (1,2,3-cd) pyrene	"	0.395	0.489	0.679	"	10.0-144	48.1	47.0	28.5	
Surrogate: 2-FBP	"	1.97		1.15	"	30.0-150	58.4			
Surrogate: Nitrobenzene-d5	"	1.97		1.14	"	30.0-150	57.9			
Surrogate: p-Terphenyl-d14	"	1.97		1.31	"	30.0-150	66.5			


Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

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Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

CHAIN OF CUSTODY REPORT

Work Order #

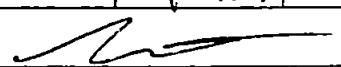
B809021

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * ☐ 10 Standard ☒ 1 Organic & Inorganic Analyses ☐ 4 ☐ 3 ☐ 2 ☐ 1 Same Day ☐ 5 Standard ☐ 3-4 ☐ 2 ☐ 1 Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.					
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard								
ADDRESS: Seattle Office (GEI)			ADDRESS: _____								
PHONE: (206) 729-2674 FAX: _____			P.O. NUMBER: _____ NCA QUOTE #: _____								
PROJECT NAME: 166-407-00			CPAHs MTHH 8270 PSE			Analysis Request:					
PROJECT NUMBER: Grady Way											
SAMPLED BY: TNO											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS		
1. S₁-3-0.5	8/31/98 1030	B809021-01	X					S	1		
2. S₁-3-1.5	1035	02						S	1	Hold	
3. S₁-3-3.0	1040	03						S	1	Hold	
4. S₁-4-0.5	1045	04	X					S	1		
5. S₁-4-1.5	1045	05						S	1	Hold	
6. S₁-5-0.5	1055 1050	06	X					S	1		
7. S₁-5-1.5	1100 1055	07						S	1	Hold	
8. S₁-5-3.0	1105	08						S	1	Hold	
9. S₁-6-0.5	1110	09	X					S	1		
10. S₁-6-1.5	1115	10	X					S	1		
RELINQUISHED BY (Signature):			DATE: 8/31/98			RECEIVED BY (Signature): S. Wideen			DATE: 9/1/98		
PRINT NAME: Tony Dime			FIRM: GEI			TIME: 1445			PRINT NAME: S. Wideen		
FIRM: GEI			TIME: 1445			FIRM: NCA			TIME: 12:20		
RELINQUISHED BY (Signature): _____			DATE: _____			RECEIVED BY (Signature): _____			DATE: _____		
PRINT NAME: _____			FIRM: _____			TIME: _____			PRINT NAME: _____		
FIRM: _____			TIME: _____			FIRM: _____			TIME: _____		
ADDITIONAL REMARKS: W/CS 10.6											
PAGE 1 OF 3											

CHAIN OF CUSTODY REPORT

Work Order #

B809021

REPORT TO:			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 4 3 2 1 Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 1 Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.																																
ATTENTION:			ATTENTION: Barry Lambe																																										
ADDRESS:			ADDRESS:																																										
PHONE:			P.O. NUMBER:																																										
FAX:			NCA QUOTE #:																																										
PROJECT NAME:			Analysis Request: <i>C-PAH by Method 8270</i>										<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>MATRIX (W, S, A, O)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> <tr> <td>S</td> <td>1</td> <td>Hold</td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td>Hold</td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td>Hold</td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td>Hold</td> </tr> <tr> <td>S</td> <td>1</td> <td>Hold</td> </tr> </table>			MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	S	1	Hold	S	1		S	1		S	1	Hold	S	1		S	1	Hold	S	1		S	1	Hold	S	1	Hold
MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																																											
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> <tr> <td>1. S₁:1-6-3.0</td> <td>8/11/98 1110</td> <td>B809021-11</td> </tr> <tr> <td>2. S₂:1-7-0.5</td> <td>1125</td> <td>12</td> </tr> <tr> <td>3. S₃:1-7-1.5</td> <td>1130</td> <td>13</td> </tr> <tr> <td>4. S₄:1-7-3.0</td> <td>1135</td> <td>14</td> </tr> <tr> <td>5. S₅:1-8-0.5</td> <td>1140</td> <td>15</td> </tr> <tr> <td>6. S₆:1-8-1.5</td> <td>1145</td> <td>16</td> </tr> <tr> <td>7. S₇:1-8-3.0</td> <td>1150</td> <td>17</td> </tr> <tr> <td>8. S₈:1-9-0.5</td> <td>1155</td> <td>18</td> </tr> <tr> <td>9. S₉:1-9-1.5</td> <td>1200</td> <td>19</td> </tr> <tr> <td>10. S₁₀:1-9-3.0</td> <td>1205</td> <td>20</td> </tr> </table>			CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	1. S ₁ :1-6-3.0	8/11/98 1110	B809021-11	2. S ₂ :1-7-0.5	1125	12	3. S ₃ :1-7-1.5	1130	13	4. S ₄ :1-7-3.0	1135	14	5. S ₅ :1-8-0.5	1140	15	6. S ₆ :1-8-1.5	1145	16	7. S ₇ :1-8-3.0	1150	17	8. S ₈ :1-9-0.5	1155	18	9. S ₉ :1-9-1.5	1200	19	10. S ₁₀ :1-9-3.0	1205	20										
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CHAIN OF CUSTODY REPORT

Work Order #

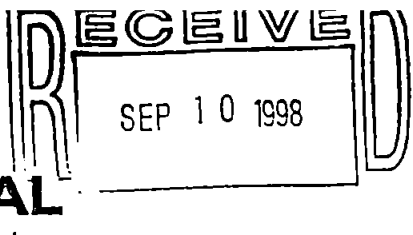
B809021

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses <table border="1"><tr><td>10</td><td>7</td><td>4</td><td>3</td><td>2</td><td>1</td><td>Same Day</td></tr><tr><td>Standard</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Fuels & Hydrocarbon Analyses <table border="1"><tr><td>5</td><td>3-4</td><td>2</td><td>1</td><td>Same Day</td></tr><tr><td>Standard</td><td></td><td></td><td></td><td></td></tr></table> OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			10	7	4	3	2	1	Same Day	Standard							5	3-4	2	1	Same Day	Standard				
10	7	4	3	2	1				Same Day																							
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FAX:			NCA QUOTE #:																													
PROJECT NAME:			Analysis Request: CPAA 648720																													
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CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																								
1. S-1-10-0.5	8/21/98 1210	B809021-21	X			S	1																									
2. S-1-10-1.5	1215	22				S	1	Hold																								
3. S-1-10-3.0	1220	23				S	1	Hold																								
4. S-1-11-0.5	1225	24	X			S	1																									
5. S-1-11-1.5	1230	25				S	1	Hold																								
6. S-1-11-3.0	1235	26				S	1	Hold																								
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E10-1-2.0	B809079-01	Soil	9/2/98
E10-2-3.0	B809079-02	Soil	9/2/98
E10-3-3.0	B809079-03	Soil	9/2/98
E10-4-3.5	B809079-04	Soil	9/2/98

North Creek Analytical - Bothell

Steve Davis, 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.*

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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E10-1-2.0</u>				<u>B809079-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980108	9/3/98	9/4/98		410	12800	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		1030	ND	"	
Surrogate: Octacosane	"	"	"	50.0-150		NR	%	

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Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-1-2.0			B809079-01				Soil	
Aroclor 1016	0980088	9/3/98	9/4/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		63.4	%	
E10-2-3.0			B809079-02				Soil	
Aroclor 1016	0980088	9/3/98	9/4/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		64.4	%	
E10-3-3.0			B809079-03				Soil	
Aroclor 1016	0980088	9/3/98	9/4/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		57.4	%	
E10-4-3.5			B809079-04				Soil	1.2
Aroclor 1016	0980219	9/8/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

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Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E10-4-3.5 (continued)</u>				<u>B809079-04</u>			<u>Soil</u>	<u>1.2</u>
Aroclor 1232	0980219	9/8/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	409	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	311	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		67.7	%	

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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-1-2.0				B809079-01			Soil	2
Acenaphthene	0980109	9/3/98	9/6/98		1.00	ND	mg/kg dry	
Acenaphthylene	"	"	"		1.00	ND	"	
Anthracene	"	"	"		1.00	ND	"	3
Benzo (a) anthracene	"	"	"		1.00	ND	"	
Benzo (a) pyrene	"	"	"		1.00	ND	"	
Benzo (b) fluoranthene	"	"	"		1.00	ND	"	
Benzo (ghi) perylene	"	"	"		1.00	ND	"	
Benzo (k) fluoranthene	"	"	"		1.00	ND	"	
Chrysene	"	"	"		1.00	ND	"	
Dibenz (a,h) anthracene	"	"	"		1.00	ND	"	3
Fluoranthene	"	"	"		1.00	ND	"	
Fluorene	"	"	"		1.00	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		1.00	ND	"	
Naphthalene	"	"	"		1.00	1.29	"	3
Phenanthrene	"	"	"		1.00	ND	"	
Pyrene	"	"	"		1.00	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		76.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		63.7	"	
E10-2-3.0				B809079-02			Soil	2
Acenaphthene	0980109	9/3/98	9/4/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	3
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	3
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	3
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		85.2	%	

North Creek Analytical - Bothell

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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-2-3.0 (continued)				B809079-02			Soil	2
Surrogate: Nitrobenzene-d5	0980109	9/3/98	9/4/98	30.0-150		50.9	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		65.2	"	
E10-3-3.0				B809079-03			Soil	2
Acenaphthene	0980109	9/3/98	9/4/98		0.200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.200	ND	"	
Anthracene	"	"	"		0.200	ND	"	
Benzo (a) anthracene	"	"	"		0.200	ND	"	
Benzo (a) pyrene	"	"	"		0.200	ND	"	
Benzo (b) fluoranthene	"	"	"		0.200	0.207	"	
Benzo (ghi) perylene	"	"	"		0.200	ND	"	
Benzo (k) fluoranthene	"	"	"		0.200	ND	"	
Chrysene	"	"	"		0.200	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.200	ND	"	
Fluorene	"	"	"		0.200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.200	ND	"	
Naphthalene	"	"	"		0.200	ND	"	
Phenanthrene	"	"	"		0.200	ND	"	
Pyrene	"	"	"		0.200	0.311	"	
Surrogate: 2-FBP	"	"	"	30.0-150		73.6	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		38.4	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		85.6	"	
E10-4-3.5				B809079-04			Soil	2
Acenaphthene	0980109	9/3/98	9/4/98		0.200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.200	ND	"	
Anthracene	"	"	"		0.200	ND	"	
Benzo (a) anthracene	"	"	"		0.200	ND	"	
Benzo (a) pyrene	"	"	"		0.200	ND	"	
Benzo (b) fluoranthene	"	"	"		0.200	ND	"	
Benzo (ghi) perylene	"	"	"		0.200	ND	"	
Benzo (k) fluoranthene	"	"	"		0.200	ND	"	
Chrysene	"	"	"		0.200	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.200	ND	"	
Fluorene	"	"	"		0.200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.200	ND	"	

North Creek Analytical - Bothell

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E10-4-3.5 (continued)				B809079-04			Soil	2
Naphthalene	0980109	9/3/98	9/4/98		0.200	ND	mg/kg dry	
Phenanthrene	"	"	"		0.200	ND	"	
Pyrene	"	"	"		0.200	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		80.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		47.3	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		69.2	"	

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E10-1-2.0	B809079-01	Soil	93.3	%
E10-2-3.0	B809079-02	Soil	72.4	%
E10-3-3.0	B809079-03	Soil	77.2	%
E10-4-3.5	B809079-04	Soil	89.9	%

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980108										
Blank										
Date Prepared: 9/3/98										
Extraction Method: EPA 3550B										
0980108-BLK1										
Diesel Range Hydrocarbons	9/4/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.12	"	50.0-150	73.8			
LCS										
0980108-BS1										
Diesel Range Hydrocarbons	9/4/98	66.7		65.3	mg/kg dry	60.0-140	97.9			
Surrogate: 2-FBP	"	11.0		8.05	"	50.0-150	73.2			
Duplicate										
0980108-DUP1 B808518-17										
Diesel Range Hydrocarbons	9/4/98		18.5	12.8	mg/kg dry			50.0	36.4	
Lube Oil Range Hydrocarbons	"		71.6	40.4	"			50.0	55.7	4
Surrogate: 2-FBP	"	11.6		9.80	"	50.0-150	84.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

C - 99

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980088										
Date Prepared: 9/3/98										
Extraction Method: EPA 3550B										
Blank										
0980088-BLK1										
Aroclor 1016	9/4/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.56	"	40.0-130	98.4			
LCS										
0980088-BS1										
Aroclor 1260	9/4/98	333		216	ug/kg dry	44.0-123	64.9			
Surrogate: TCX	"	6.67		6.76	"	40.0-130	101			
Matrix Spike										
0980088-MS1 B809044-01										
Aroclor 1260	9/4/98	349	ND	211	ug/kg dry	28.0-132	60.5			
Surrogate: TCX	"	6.98		5.89	"	40.0-130	84.4			
Matrix Spike Dup										
0980088-MSD1 B809044-01										
Aroclor 1260	9/4/98	349	ND	206	ug/kg dry	28.0-132	59.0	23.0	2.51	
Surrogate: TCX	"	6.98		6.30	"	40.0-130	90.3			
Batch: 0980219										
Date Prepared: 9/8/98										
Extraction Method: EPA 3550B										
Blank										
0980219-BLK1										
Aroclor 1016	9/9/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.13	"	40.0-130	91.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS	0980219-BS1									1.2
Aroclor 1260	9/9/98	333		230	ug/kg dry	44.0-123	69.1			
Surrogate: TCX	"	6.67		6.44	"	40.0-130	96.6			
Matrix Spike	0980219-MS1		B809164-06							1.2
Aroclor 1260	9/9/98				ug/kg dry	28.0-132				
Surrogate: TCX	"				"	40.0-130				
Matrix Spike Dup	0980219-MSD1		B809164-06							1.2
Aroclor 1260	9/9/98				ug/kg dry	28.0-132		23.0		
Surrogate: TCX	"				"	40.0-130				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980109		Date Prepared: 9/3/98			Extraction Method: EPA 3550B					
Blank		0980109-BLK1								
Acenaphthene	9/4/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.05	"	30.0-150	62.9			
Surrogate: Nitrobenzene-d5	"	1.67		1.04	"	30.0-150	62.3			
Surrogate: p-Terphenyl-d14	"	1.67		1.63	"	30.0-150	97.6			
LCS		0980109-BS1								
Chrysene	9/4/98	0.333		0.165	mg/kg dry	10.0-125	49.5			
Fluorene	"	0.333		0.197	"	11.0-116	59.2			
Indeno (1,2,3-cd) pyrene	"	0.333		0.230	"	10.0-147	69.1			
Surrogate: 2-FBP	"	1.67		1.19	"	30.0-150	71.3			
Surrogate: Nitrobenzene-d5	"	1.67		0.987	"	30.0-150	59.1			
Surrogate: p-Terphenyl-d14	"	1.67		1.45	"	30.0-150	86.8			
Matrix Spike		0980109-MS1			B809056-11					
Chrysene	9/4/98				mg/kg dry	10.0-125				
Fluorene	"				"	10.0-154				
Indeno (1,2,3-cd) pyrene	"				"	10.0-144				
Surrogate: 2-FBP	"				"	30.0-150				
Surrogate: Nitrobenzene-d5	"				"	30.0-150				
Surrogate: p-Terphenyl-d14	"				"	30.0-150				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 9/2/98 Received: 9/3/98 Reported: 9/9/98 16:29

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0980109-MSD1	B809056-11								
Chrysene	9/4/98				mg/kg dry	10.0-125		28.0		
Fluorene	"				"	10.0-154		32.0		
Indeno (1,2,3-cd) pyrene	"				"	10.0-144		47.0		
Surrogate: 2-FBP	"				"	30.0-150				
Surrogate: Nitrobenzene-d5	"				"	30.0-150				
Surrogate: p-Terphenyl-d14	"				"	30.0-150				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C - 103

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/2/98
Received: 9/3/98
Reported: 9/9/98 16:29

Notes and Definitions

#	Note
1	To reduce matrix interference, the sample extract has undergone sulfuric acid clean-up, method 3665, which is specific to hydrocarbon contamination.
2	To reduce matrix interference, the sample extract has undergone copper clean-up, method 3660, which is specific to sulfur contamination.
3	Due to matrix interference with the internal standard associated with this analyte, the reported result should be considered an approximate value.
4	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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 104

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Quantitation Report

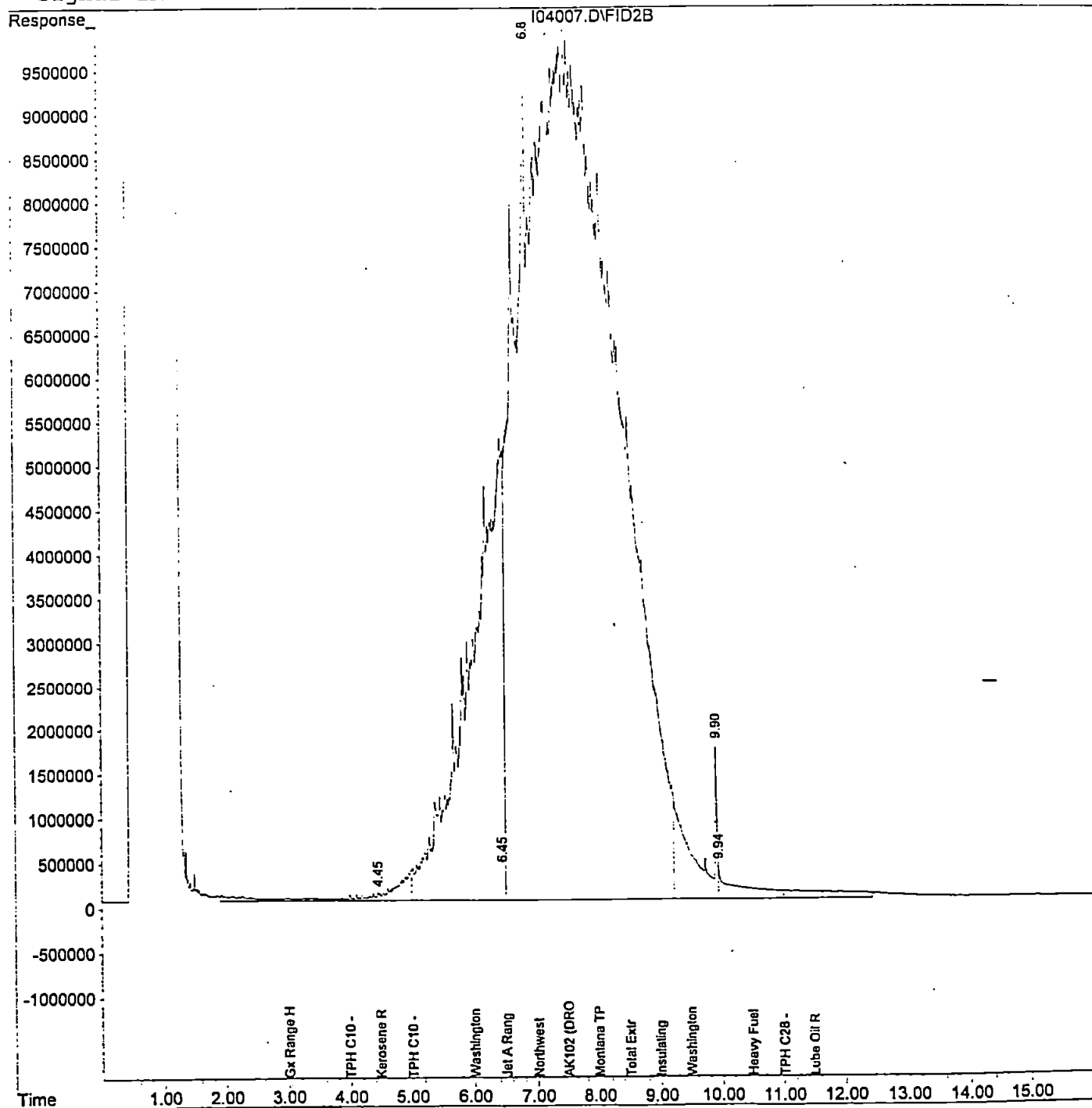
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 Sample : b809079-01 r1
 Misc : s 41x
 IntFile : SURR.E
 Quant Time: Sep 4 10:53 1998

Vial: 4
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Mon Aug 24 11:47:57 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :

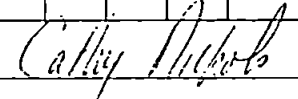


CHAIN OF CUSTODY REPORT

Work Order #

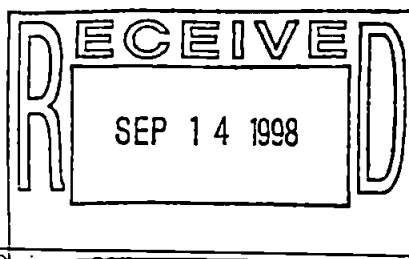
6809079

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2" style="text-align: center;"> ☒ Same Day </td> </tr> <tr> <td style="text-align: center;">10</td> <td style="text-align: center;">7</td> <td style="text-align: center;">5</td> <td style="text-align: center;">4</td> <td style="text-align: center;">3</td> <td style="text-align: center;">2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2" style="text-align: center;"> ☒ Same Day </td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">3-4</td> <td style="text-align: center;">2</td> <td colspan="3"></td> </tr> </table>			Organic & Inorganic Analyses						☒ Same Day	10	7	5	4	3	2	Fuels & Hydrocarbon Analyses						☒ Same Day	5	3-4	2			
Organic & Inorganic Analyses									☒ Same Day																									
10	7	5	4	3	2																													
Fuels & Hydrocarbon Analyses									☒ Same Day																									
5	3-4	2																																
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE P.O. Box 97034 - MER-04																															
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: Bellevue, WA NCA QUOTE #: 98009																															
PROJECT NAME: Goady Way			Analysis Request: PCB by 8082 CPAH by 8270 NWTPH PA			OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges																												
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: Tony Orme																																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																									
1. E10-1 - 2.0	9/2/98 1315	6809079 -01		X	X	X	S	1																										
2. E10-2 - 3.0	9/2/98 1330	-02		X	X		S	1																										
3. E10-3 - 3.0	9/2/98 1340	-03		X	X		S	1																										
4. E10-4 - 3.5	9/2/98 1430	-04		X	X		S	1																										
5.																																		
6.																																		
7.																																		
8.																																		
9.																																		
10.																																		

RELINQUISHED BY (Signature): 		DATE: 9/2/98	RECEIVED BY (Signature): 		DATE: 9/3/98
PRINT NAME: Tony Orme	FIRM: GEI	TIME: 1600	PRINT NAME:	FIRM: NCR	TIME: 15:5
RELINQUISHED BY (Signature):		DATE:	RECEIVED BY (Signature):		DATE:
PRINT NAME:	FIRM:	TIME:	PRINT NAME:	FIRM:	TIME:
ADDITIONAL REMARKS: 24 hour turn around time. 21.7 w/					



**NORTH
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Environmental Laboratory Services



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E7-1-3.0	B809135-01	Soil	9/3/98
E7-2-0.5	B809135-02	Soil	9/3/98
E7-3-0.5	B809135-03	Soil	9/3/98
E7-4-0.5	B809135-04	Soil	9/3/98
E7-5-0.5	B809135-05	Soil	9/3/98
E6-1-6.0	B809135-06	Soil	9/3/98

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.*

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 14:55

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-1-6.0				<u>B809135-06</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980171	9/4/98	9/8/98		50.0	995	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	2500	"	
Surrogate: 2-FBP	"	"	"	50.0-150		89.6	%	



NORTH CREEK ANALYTICAL

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600 Stewart Street, Suite 1215
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-1-6.0				B809135-06			Soil	1.2
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	86.8	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		75.0	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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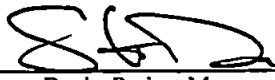
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 14:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E7-1-3.0				B809135-01			Soil	2
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		81.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		57.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		90.2	"	
E7-2-0.5				B809135-02			Soil	2
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	0.347	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.250	"	
Pyrene	"	"	"		0.250	0.462	"	
Surrogate: 2-FBP	"	"	"	30.0-150		74.6	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E7-2-0.5 (continued)				B809135-02			Soil	2
Surrogate: Nitrobenzene-d5	0980156	9/4/98	9/6/98	30.0-150		52.8	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		86.0	"	
E7-3-0.5				B809135-03			Soil	2
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		71.4	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		51.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		84.9	"	
E7-4-0.5				B809135-04			Soil	2
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 14:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E7-4-0.5 (continued)				B809135-04			Soil	2
Naphthalene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		67.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		54.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		81.0	"	
E7-5-0.5				B809135-05			Soil	2
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	0.656	"	
Benzo (a) pyrene	"	"	"		0.250	0.619	"	
Benzo (b) fluoranthene	"	"	"		0.250	0.747	"	
Benzo (ghi) perylene	"	"	"		0.250	0.419	"	
Benzo (k) fluoranthene	"	"	"		0.250	0.273	"	
Chrysene	"	"	"		0.250	0.638	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	1.28	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	0.474	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	0.783	"	
Pyrene	"	"	"		0.250	1.69	"	
Surrogate: 2-FBP	"	"	"	30.0-150		75.3	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		52.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		75.8	"	



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E7-1-3.0	B809135-01	Soil	81.2	%
E7-2-0.5	B809135-02	Soil	86.5	%
E7-3-0.5	B809135-03	Soil	86.7	%
E7-4-0.5	B809135-04	Soil	88.0	%
E7-5-0.5	B809135-05	Soil	91.5	%
E6-1-6.0	B809135-06	Soil	60.0	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 14:55

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 0980171</u>		<u>Date Prepared: 9/4/98</u>		<u>Extraction Method: EPA 3550B</u>						
<u>Blank</u>		<u>0980171-BLK1</u>								
Diesel Range Hydrocarbons	9/5/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.60	"	50.0-150	78.2			
<u>LCS</u>		<u>0980171-BS1</u>								
Diesel Range Hydrocarbons	9/5/98	66.7		63.8	mg/kg dry	60.0-140	95.7			
Surrogate: 2-FBP	"	11.0		9.52	"	50.0-150	86.5			
<u>Duplicate</u>		<u>0980171-DUP1</u>	<u>B809135-06</u>							
Diesel Range Hydrocarbons	9/8/98		995	1180	mg/kg dry			50.0	17.0	
Lube Oil Range Hydrocarbons	"		2500	2910	"			50.0	15.2	
Surrogate: 2-FBP	"	18.3		16.0	"	50.0-150	87.4			



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
Batch: 0980170										
Blank										
Date Prepared: 9/4/98										
0980170-BLK1										
Extraction Method: EPA 3550B										
Aroclor 1016	9/5/98			ND	ug/kg dry	50.0				1.2
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		8.19	"	40.0-130	123			
LCS										
0980170-BS1										
Aroclor 1260	9/5/98	333		220	ug/kg dry	44.0-123	66.1			1.2
Surrogate: TCX	"	6.67		5.95	"	40.0-130	89.2			
Matrix Spike										
0980170-MS1 B809137-09										
Aroclor 1260	9/5/98	441	ND	286	ug/kg dry	28.0-132	64.9			1.2
Surrogate: TCX	"	8.82		6.58	"	40.0-130	74.6			
Matrix Spike Dup										
0980170-MSD1 B809137-09										
Aroclor 1260	9/5/98	441	ND	303	ug/kg dry	28.0-132	68.7	23.0	5.69	1.2
Surrogate: TCX	"	8.82		9.40	"	40.0-130	107			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 14:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980156										
Date Prepared: 9/4/98										
Extraction Method: EPA 3550B										
Blank	0980156-BLK1									
Acenaphthene	9/5/98			ND	mg/kg dry	0.0100				2
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.37	"	30.0-150	82.0			
Surrogate: Nitrobenzene-d5	"	1.67		1.10	"	30.0-150	65.9			
Surrogate: p-Terphenyl-d14	"	1.67		1.48	"	30.0-150	88.6			
LCS										
0980156-BS1										
Chrysene	9/5/98	0.333		0.214	mg/kg dry	10.0-125	64.3			2
Fluorene	"	0.333		0.184	"	11.0-116	55.3			
Indeno (1,2,3-cd) pyrene	"	0.333		0.265	"	10.0-147	79.6			
Surrogate: 2-FBP	"	1.67		1.07	"	30.0-150	64.1			
Surrogate: Nitrobenzene-d5	"	1.67		1.03	"	30.0-150	61.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.36	"	30.0-150	81.4			
Matrix Spike										
0980156-MS1 B809135-03										
Chrysene	9/6/98	0.385	ND	0.289	mg/kg dry	10.0-125	75.1			
Fluorene	"	0.385	ND	0.250	"	10.0-154	64.9			
Indeno (1,2,3-cd) pyrene	"	0.385	ND	0.269	"	10.0-144	69.9			
Surrogate: 2-FBP	"	1.92		1.40	"	30.0-150	72.9			
Surrogate: Nitrobenzene-d5	"	1.92		1.02	"	30.0-150	53.1			
Surrogate: p-Terphenyl-d14	"	1.92		1.69	"	30.0-150	88.0			



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

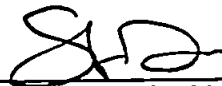
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0980156-MSD1	B809135-03								2
Chrysene	9/6/98	0.385	ND	0.289	mg/kg dry	10.0-125	75.1	28.0	0	
Fluorene	"	0.385	ND	0.250	"	10.0-154	64.9	32.0	0	
Indeno (1,2,3-cd) pyrene	"	0.385	ND	0.289	"	10.0-144	75.1	47.0	7.17	
Surrogate: 2-FBP	"	1.92		1.42	"	30.0-150	74.0			
Surrogate: Nitrobenzene-d5	"	1.92		1.13	"	30.0-150	58.9			
Surrogate: p-Terphenyl-d14	"	1.92		1.65	"	30.0-150	85.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/10/98 14:55

Notes and Definitions

#	Note
1	To reduce matrix interference, the sample extract has undergone sulfuric acid clean-up, method 3665, which is specific to hydrocarbon contamination.
2	To reduce matrix interference, the sample extract has undergone copper clean-up, method 3660, which is specific to sulfur contamination.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-118

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

Quantitation Report

Data File : C:\HPCHEM\4\DATA\I08008.D

Acq On : 9-8-98 9:26:58 AM

Sample : b809135-06 r1

Misc : s 5x

IntFile : SURR.E

Quant Time: Sep 8 10:19 1998 Quant Results File: TPHD.RES

Vial: 5

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Sat Sep 05 13:39:54 1998

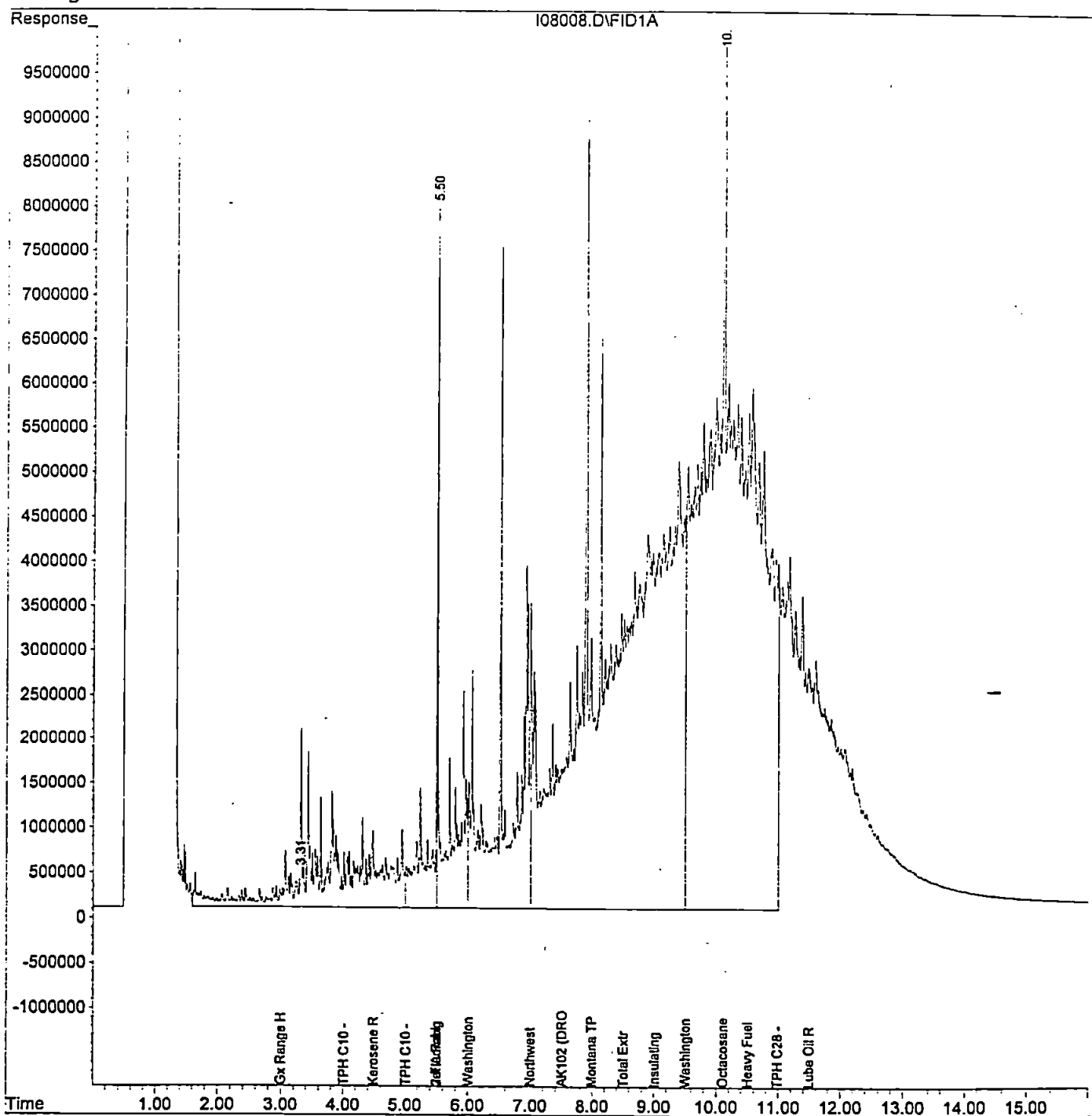
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





**NORTH
CREEK
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Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

Work Order #

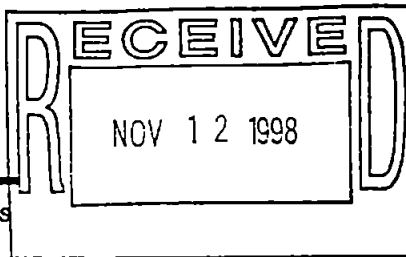
B809135

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *											
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			Organic & Inorganic Analyses											
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: RSE - P.O. Box 97041-MER-04 Bellevue, WA 98009			☐ 10 Standard ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☒ Same Day											
PHONE: (206) 728-2674 FAX: (206) -728-2732			P.O. NUMBER:			Fuels & Hydrocarbon Analyses											
PROJECT NAME: Grady Way			Analysis Request:			☐ 5 Standard ☐ 3-4 ☐ 2 ☒ Same Day											
PROJECT NUMBER: 186-407-00			NCA QUOTE #:			OTHER Specify:											
SAMPLED BY: Tony Orme						* Turnaround Requests less than standard may incur Rush Charges.											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS								
1. E7-1-3.0	9/3/98 1450	B809135-01	X				S	1									
2. E7-2-0.5	1455	-02	X				S	1									
3. E7-3-0.5	1500	-03	X				S	1									
4. E7-4-0.5	1505	-04	X				S	1									
5. E7-5-0.5	1510	-05	X				S	1									
6. EC-1-6.0	1350	-06		X	X		S	1									
7.																	
8.																	
9.																	
10.																	
RELINQUISHED BY (Signature): [Signature]			DATE: 9/3/98			RECEIVED BY (Signature): S. Wideen			DATE: 9-4-98								
PRINT NAME: Tony Orme			FIRM: GET			TIME: 1700			PRINT NAME: S. Wideen			FIRM: NCA			TIME: 14:25		
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature):			DATE:								
PRINT NAME:			FIRM:			TIME:			PRINT NAME:			FIRM:			TIME:		
ADDITIONAL REMARKS:																	
19.2° 1/1.0																	



**NORTH
CREEK
ANALYTICAL**

Environmental Laboratory Services



BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/15/98 08:24

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GMW-12--10.0	B809144-04	Soil	9/3/98

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.*

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/15/98 08:24

Total Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
GMW-12-10.0				B809144-04			Soil	
Arsenic	0980380	9/11/98	9/12/98	EPA 6020	2.50	4.19	mg/kg dry	
Cadmium	"	"	"	EPA 6020	2.50	ND	"	
Chromium	"	"	"	EPA 6020	2.50	11.5	"	
Lead	"	"	"	EPA 6020	2.50	15.5	"	
Mercury	0980262	9/9/98	9/10/98	EPA 7471A	0.100	ND	"	



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

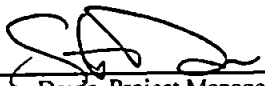
Sampled: 9/3/98
Received: 9/4/98
Reported: 9/15/98 08:24

Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>GMW-12-10.0</u> pH	0980231	9/8/98	9/8/98	<u>B809144-04</u> EPA 9045B		6.45	<u>Soil</u> pH units	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 9/3/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/4/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/15/98 08:24

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
GMW-12--10.0	B809144-04	Soil	59.1	%

North Creek Analytical - Bothell


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/15/98 08:24

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980262										
Date Prepared: 9/9/98										
Extraction Method: EPA 3050B										
Blank										
0980262-BLK1										
Mercury	9/10/98			ND	mg/kg dry	0.100				
LCS										
0980262-BS1										
Mercury	9/10/98	1.75		2.05	mg/kg dry	80.0-120	117			
Matrix Spike										
0980262-MS1 B809044-01										
Mercury	9/10/98	0.503	ND	0.548	mg/kg dry	80.0-120	109			
Matrix Spike Dup										
0980262-MSD1 B809044-01										
Mercury	9/10/98	0.476	ND	0.514	mg/kg dry	80.0-120	108	20.0	0.922	
Batch: 0980380										
Date Prepared: 9/11/98										
Extraction Method: EPA 3050B										
Blank										
0980380-BLK1										
Arsenic	9/12/98			ND	mg/kg dry	0.500				
Cadmium	"			ND	"	0.500				
Chromium	"			ND	"	0.500				
Lead	"			ND	"	0.500				
LCS										
0980380-BS1										
Arsenic	9/12/98	25.0		20.1	mg/kg dry	70.0-130	80.4			
Cadmium	"	25.0		20.0	"	70.0-130	80.0			
Chromium	"	25.0		21.3	"	80.0-120	85.2			
Lead	"	25.0		23.3	"	80.0-120	93.2			
Duplicate										
0980380-DUP1 B809144-04										
Arsenic	9/12/98		4.19	3.65	mg/kg dry			20.0	13.8	
Cadmium	"		ND	ND	"			20.0		
Chromium	"		11.5	11.2	"			20.0	2.64	
Lead	"		15.5	15.4	"			20.0	0.647	
Matrix Spike										
0980380-MS1 B809144-04										
Arsenic	9/12/98	35.2	4.19	33.3	mg/kg dry	70.0-130	82.7			
Cadmium	"	35.2	ND	32.0	"	70.0-130	90.9			
Chromium	"	35.2	11.5	41.9	"	70.0-130	86.4			
Lead	"	35.2	15.5	51.5	"	70.0-130	102			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/15/98 08:24

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980231										
Duplicate										
pH	9/8/98		6.45	6.47	pH units			10.0	0.310	



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/3/98
Received: 9/4/98
Reported: 9/15/98 08:24

Notes and Definitions

#	Note

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

Recov. Recovery

RPD Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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(425) 420-9200 FAX 420-9210
(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

13809144

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * ☒ Standard ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☒ Same Day Organic & Inorganic Analyses ☒ Standard ☐ 3-4 ☐ 2 ☒ Same Day Fuels & Hydrocarbon Analyses ☒ Standard ☐ 3-4 ☐ 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges. <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th>MATRIX (W, S, A, O)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Call Steve Woodward</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	S	1	Hold	S	1	Call Steve Woodward	S	1	Hold	S	1	Hold	S	1	Hold	S	1	Hold	S	1	Hold									
MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																																							
S	1	Hold																																							
S	1	Call Steve Woodward																																							
S	1	Hold																																							
S	1	Hold																																							
S	1	Hold																																							
S	1	Hold																																							
S	1	Hold																																							
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																																						
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034 - MER-09 Bellevue, WA 98009																																						
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____																																						
PROJECT NAME: Grady Way			Analysis Request: PAHs by GC/MS PCBs by GC/MS HWPB DA Metals PH																																						
PROJECT NUMBER: 186-407-00																																									
SAMPLED BY: Tony Orme																																									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	Analysis Request: PAHs by GC/MS PCBs by GC/MS HWPB DA Metals PH																																						
1. GMW-12-2.5	9/3/98 900	B809144-01																																							
2. GMW-12-5.0	910	-02-01																																							
3. GMW-12-7.5	920	-03-02																																							
4. GMW-12-10.0	930	-04-03																																							
5. GMW-12-12.5	940	-05-04																																							
6. GMW-12-15.0	950	-06																																							
7. GMW-12-17.5	1000	-07																																							
8.																																									
9.																																									
10.																																									
RELINQUISHED BY (Signature):			DATE: 9/3/98			RECEIVED BY (Signature):			DATE: 9-4-98																																
PRINT NAME: Tony Orme			FIRM: GEI			TIME: 1800			PRINT NAME: S. Widener			FIRM: NCA			TIME: 14:45																										
RELINQUISHED BY (Signature): _____			DATE: _____			RECEIVED BY (Signature): _____			DATE: _____																																
PRINT NAME: _____			FIRM: _____			TIME: _____			PRINT NAME: _____			FIRM: _____			TIME: _____																										
ADDITIONAL REMARKS:												PAGE 1 OF 1																													
STD Turn around time 19.20 w/es																																									

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/9/98 17:06

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	No
<u>E12-1-2.0</u>				<u>B809183-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980228	9/8/98	9/9/98		10.0	22.0	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	52.8	"	
Surrogate: 2-FBP	"	"	"	50.0-150		73.7	%	
<u>E12-2-2.0</u>				<u>B809183-02</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980228	9/8/98	9/9/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		61.6	%	
<u>E12-4-2.0</u>				<u>B809183-03</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980228	9/8/98	9/9/98		10.0	21.5	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	41.4	"	
Surrogate: 2-FBP	"	"	"	50.0-150		82.2	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

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BOTHELL ■ (425) 420-9200 ■ FAX 420-9211
SPOKANE ■ (509) 924-9200 ■ FAX 924-9296
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/9/98 17:06

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E12-1-2.0	B809183-01	Soil	85.2	%
E12-2-2.0	B809183-02	Soil	93.3	%
E12-4-2.0	B809183-03	Soil	85.2	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 168

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/9/98 17:06

Semivolatile Petroleum Products by NWTPh-Dx with Acid/Silica Gel Clean-up/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD % No
Batch: 0980228									
Blank									
Date Prepared: 9/8/98									
Extraction Method: EPA 3550B									
Diesel Range Hydrocarbons	9/9/98			ND	mg/kg dry	10.0			
Lube Oil Range Hydrocarbons	"			ND	"	25.0			
Surrogate: 2-FBP	"	11.0		7.86	"	50.0-150	71.5		
LCS									
0980228-BS1									
Diesel Range Hydrocarbons	9/9/98	66.7		52.0	mg/kg dry	50.0-150	78.0		
Surrogate: 2-FBP	"	11.0		7.12	"	50.0-150	64.7		
Duplicate									
0980228-DUP1 B809183-03									
Diesel Range Hydrocarbons	9/9/98		21.5	29.5	mg/kg dry			50.0	31.4
Lube Oil Range Hydrocarbons	"		41.4	38.0	"			50.0	8.56
Surrogate: 2-FBP	"	12.9		11.6	"	50.0-150	89.9		

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

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Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/9/98 17:06

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-170

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
6405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Quantitation Report

Data File : C:\HPCHEM\4\DATA\I08080.D

Vial: 53

Acq On : 9-9-98 2:06:20 AM

Operator: kj

Sample : b809183-01

Inst : GC #7

Misc : S

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 9 6:56 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Sat Sep 05 13:39:54 1998

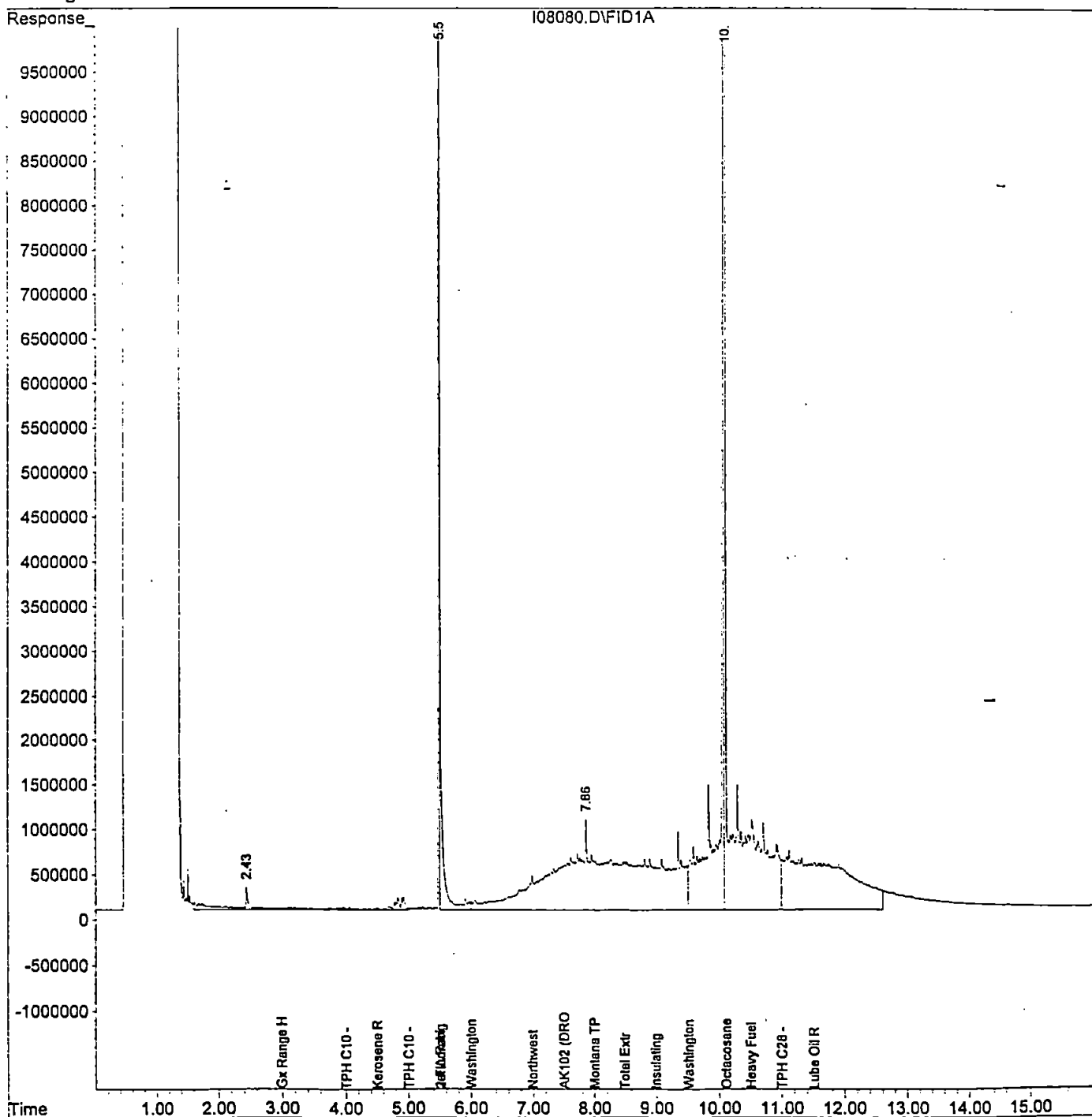
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\I09010.D

Vial: 7

Acq On : 9 Sep 1998 3:02 pm

Operator: KRL

Sample : b809183-02 r2

Inst : GC #5

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 9 16:52 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

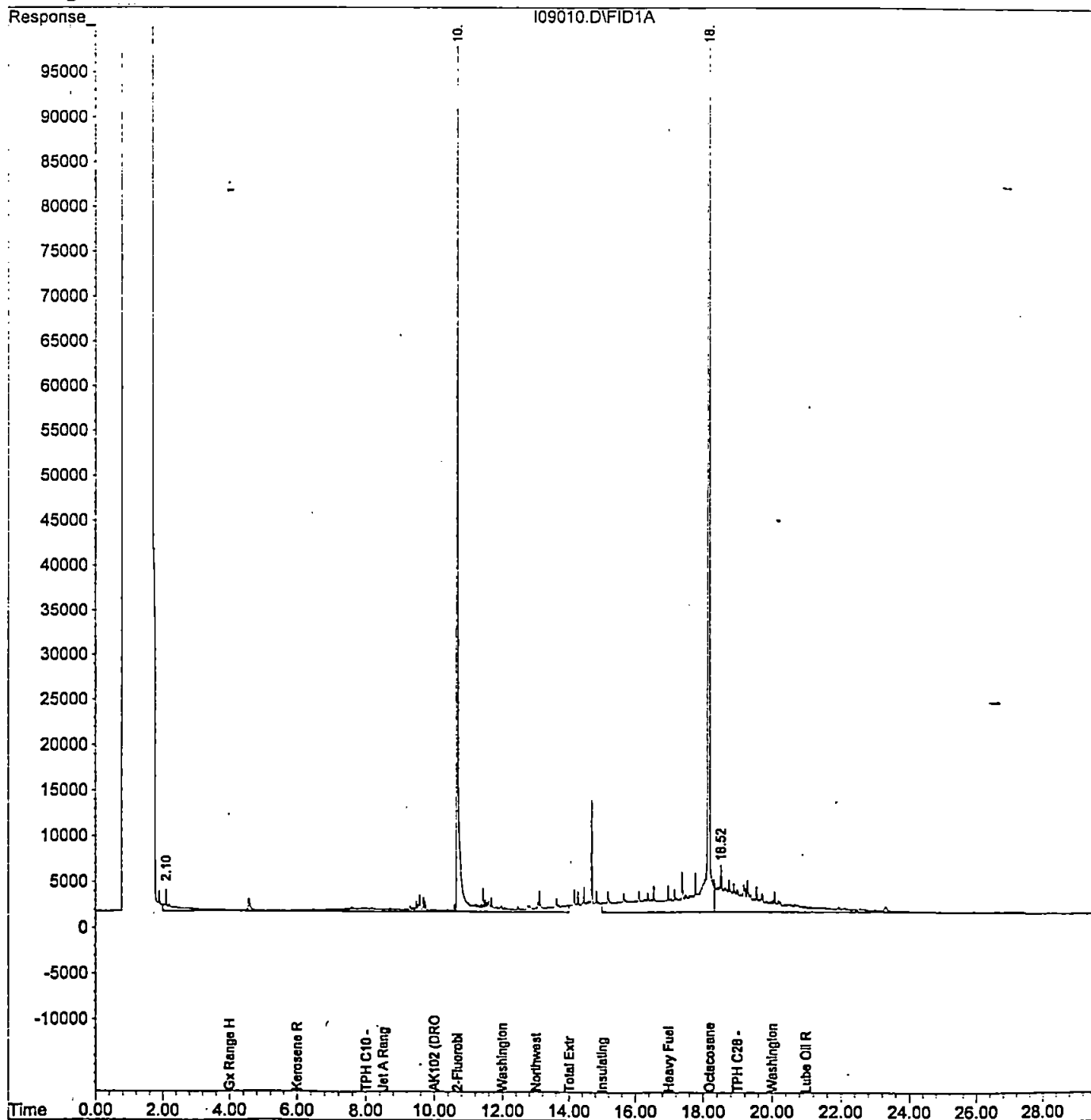
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA.SEC\I09011.D

Vial: 8

Acq On : 9 Sep 1998 3:42 pm

Operator: KRL

Sample : b809183-03 r2

Inst : GC #5

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 9 16:51 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Wed Sep 09 14:03:59 1998

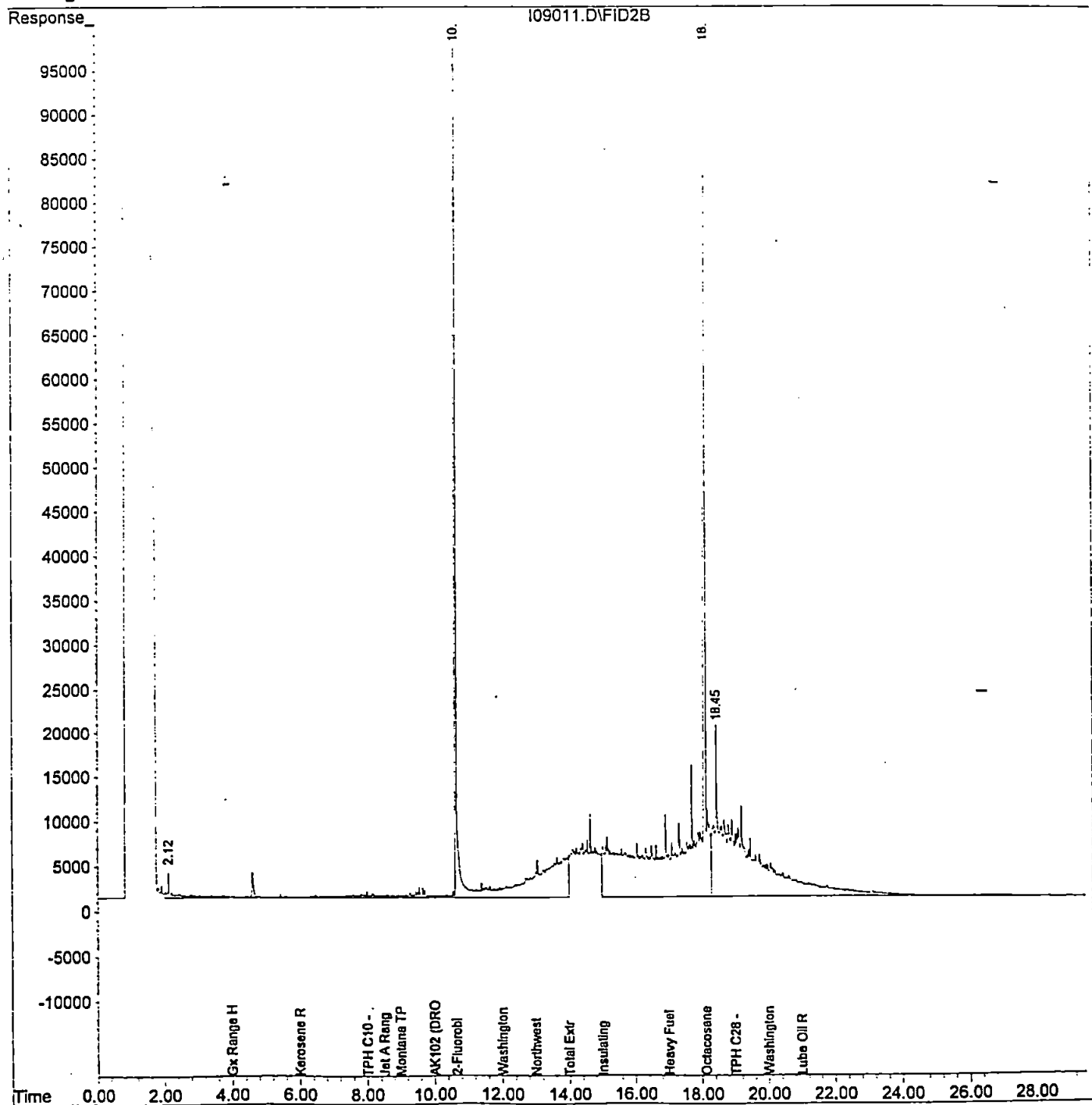
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





**NORTH
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ANALYTICAL**
Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

Work Order #

B809183

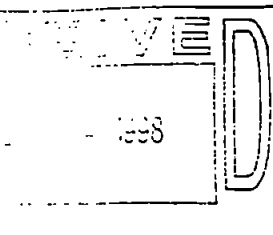
REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Standard Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day Standard OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.																																			
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>																																						
ADDRESS: <u>600 Stewart St. Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97034 - MER-01</u>																																						
<u>Seattle WA, 98101</u>			<u>Belleuve, WA 98009</u>																																						
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____																																						
PROJECT NAME: <u>Grady Way</u>			PAHs by GC/MS PCBs by GC/MS NUTRA DA																																						
PROJECT NUMBER: <u>186-407-00</u>																																									
SAMPLED BY: <u>Tony Orsini</u>																																									
<table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr> <td>1. <u>E12-1-2.0</u></td> <td><u>9/13/98 1455</u></td> <td><u>B809183-01</u></td> </tr> <tr> <td>2. <u>E12-2-2.0</u></td> <td><u>9/13/98 1155</u></td> <td><u>-02</u></td> </tr> <tr> <td>3. <u>E12-4-2.0</u></td> <td><u>9/13/98 1505</u></td> <td><u>-03</u></td> </tr> <tr> <td>4. <u>RT12-1.5.0</u></td> <td><u>9/13/98 800</u></td> <td><u>-04</u></td> </tr> <tr><td>5.</td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td></tr> </tbody> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	1. <u>E12-1-2.0</u>	<u>9/13/98 1455</u>	<u>B809183-01</u>	2. <u>E12-2-2.0</u>	<u>9/13/98 1155</u>	<u>-02</u>	3. <u>E12-4-2.0</u>	<u>9/13/98 1505</u>	<u>-03</u>	4. <u>RT12-1.5.0</u>	<u>9/13/98 800</u>	<u>-04</u>	5.			6.			7.			8.			9.			10.					
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PRINT NAME: <u>Tony Orsini</u>			FIRM: <u>CEI</u>			TIME: <u>1615</u>			PRINT NAME: <u>S. Widen</u>			FIRM: <u>NCA</u>			TIME: <u>1645</u>																										
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ADDITIONAL REMARKS:												19.1																													
												PAGE 1 OF 1																													

C-174



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/9/98
Received: 9/9/98
Reported: 9/10/98 13:27

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E12-5-5.0	B809219-01	Soil	9/9/98
E12-3-4.0	B809219-02	Soil	9/9/98
E11-2-7.0	B809219-03	Soil	9/9/98
E11-4-6.0	B809219-05	Soil	9/9/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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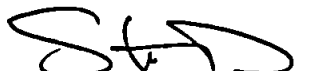
Geo Engineers, - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/9/98
Received: 9/9/98
Reported: 9/10/98 13:27

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E12-5-5.0</u>				<u>B809219-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980263	9/9/98	9/10/98		10.0	18.1	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	30.9	"	
Surrogate: 2-FBP	"	"	"	50.0-150		96.2	%	
<u>E12-3-4.0</u>				<u>B809219-02</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980263	9/9/98	9/10/98		10.0	103	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	228	"	
Surrogate: 2-FBP	"	"	"	50.0-150		72.3	%	
<u>E11-2-7.0</u>				<u>B809219-03</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980263	9/9/98	9/10/98		10.0	191	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	811	"	
Surrogate: 2-FBP	"	"	"	50.0-150		105	%	
<u>E11-4-6.0</u>				<u>B809219-05</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980263	9/9/98	9/10/98		10.0	193	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	157	"	
Surrogate: 2-FBP	"	"	"	50.0-150		74.0	%	


Steve Davis, Project Manager



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/9/98
Received: 9/9/98
Reported: 9/10/98 13:27

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E12-5-5.0	B809219-01	Soil	82.4	%
E12-3-4.0	B809219-02	Soil	74.2	%
E11-2-7.0	B809219-03	Soil	49.7	%
E11-4-6.0	B809219-05	Soil	75.4	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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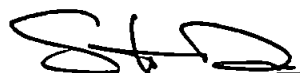
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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/9/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/9/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/10/98 13:27

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980263		Date Prepared: 9/9/98		Extraction Method: EPA 3550B						
Blank		0980263-BLK1								
Diesel Range Hydrocarbons	9/9/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		6.75	"	50.0-150	61.4			
LCS		0980263-BS1								
Diesel Range Hydrocarbons	9/9/98	66.7		65.1	mg/kg dry	60.0-140	97.6			
Surrogate: 2-FBP	"	11.0		11.7	"	50.0-150	106			
Duplicate		0980263-DUP2		B809219-01						
Diesel Range Hydrocarbons	9/10/98		18.1	16.5	mg/kg dry			50.0	9.25	
Lube Oil Range Hydrocarbons	"		30.9	36.8	"			50.0	17.4	
Surrogate: 2-FBP	"	13.3		9.66	"	50.0-150	72.6			


Steve Davis, Project Manager

APPENDIX C (VOLUME II)

CHEMICAL ANALYTICAL PROGRAM

ANALYTICAL METHODS

Chain-of-custody procedures were followed during the transport of the water and soil samples to North Creek Analytical in Bothell, Washington. The samples were held in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference and laboratory QA/QC (quality assurance/quality control) records are included in this appendix. The analytical results are also summarized in the text and tables of this report.

ANALYTICAL DATA REVIEW

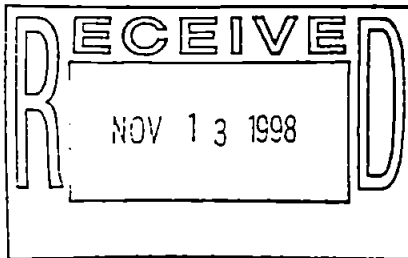
The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals are included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory report. Data quality exceptions documented by the laboratory in the laboratory reports are reviewed by GeoEngineers using the applicable data validation guidelines from the following documents: "National Functional Guidelines For Organic Data Review" draft dated 1991 and "Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses" dated 1988.

ANALYTICAL DATA REVIEW SUMMARY

The laboratory reports did identify some data quality exceptions. However, the data quality exceptions documented in the laboratory reports are not significant. Based on our data quality review, it is our opinion that the analytical data are of acceptable quality for their intended use in this report.



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Revised Data

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SED-1	B806142-00	Soil	6/5/98
SED-2	B806142-01	Soil	6/5/98
SED-3	B806142-02	Soil	6/5/98

North Creek Analytical - Bothell

Steve Woodward

Joy B Chang, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-1				B806142-00			Soil	
Diesel Range Hydrocarbons	0680248	6/8/98	6/9/98		10.0	14.1	mg/kg dry	1.2
Lube Oil Range Hydrocarbons	"	"	"		25.0	60.0	"	2
Surrogate: 2-FBP	"	"	"	50.0-150		51.1	%	
SED-2				B806142-01			Soil	
Diesel Range Hydrocarbons	0680248	6/8/98	6/9/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		55.3	%	
SED-3				B806142-02			Soil	
Diesel Range Hydrocarbons	0680248	6/8/98	6/9/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		52.6	%	

Steve Dan



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-1				B806142-00			Soil	
Aroclor 1016	0680268	6/9/98	6/19/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	38.0-117		78.5	%	
SED-2				B806142-01			Soil	
Aroclor 1016	0680268	6/9/98	6/19/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	38.0-117		80.7	%	
SED-3				B806142-02			Soil	
Aroclor 1016	0680268	6/9/98	6/19/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	38.0-117		80.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: not given Project Manager: Steve Woodward	Sampled: 6/5/98 Received: 6/5/98 Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-1				B806142-00			Soil	
Acenaphthene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Aniline	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	0.201	"	2
Benzoic Acid	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.100	0.706	"	2
Benzo (b) fluoranthene	"	"	"		0.100	1.03	"	2
Benzo (k) fluoranthene	"	"	"		0.100	0.414	"	2
Benzo (ghi) perylene	"	"	"		0.100	0.314	"	2
Benzo (a) pyrene	"	"	"		0.100	0.694	"	2
Benzyl alcohol	"	"	"		0.100	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.100	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.100	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.100	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		0.500	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.100	ND	"	
Butyl benzyl phthalate	"	"	"		0.100	ND	"	
Carbazole	"	"	"		1.00	ND	"	
4-Chloroaniline	"	"	"		0.100	ND	"	
2-Chloronaphthalene	"	"	"		0.100	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.100	ND	"	
2-Chlorophenol	"	"	"		0.100	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	0.865	"	2
Dibenz (a,h) anthracene	"	"	"		0.100	0.102	"	2
Dibenzofuran	"	"	"		0.100	ND	"	
Di-n-butyl phthalate	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.100	ND	"	
1,4-Dichlorobenzene	"	"	"		0.100	ND	"	
1,2-Dichlorobenzene	"	"	"		0.100	ND	"	
3,3'-Dichlorobenzidine	"	"	"		5.00	ND	"	
2,4-Dichlorophenol	"	"	"		0.100	ND	"	
Diethyl phthalate	"	"	"		0.100	0.133	"	2
2,4-Dimethylphenol	"	"	"		0.100	ND	"	
Dimethyl phthalate	"	"	"		0.100	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		0.500	ND	"	
2,4-Dinitrophenol	"	"	"		0.500	ND	"	
2,4-Dinitrotoluene	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-1 (continued)				B806142-00			Soil	
2,6-Dinitrotoluene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.100	1.77	"	2
Fluorene	"	"	"		0.100	ND	"	
Hexachlorobenzene	"	"	"		0.100	ND	"	
Hexachlorobutadiene	"	"	"		0.100	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.100	ND	"	
Hexachloroethane	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	0.316	"	2
Isophorone	"	"	"		0.100	ND	"	
2-Methylnaphthalene	"	"	"		0.100	ND	"	
2-Methylphenol	"	"	"		0.100	ND	"	
3 & 4-Methylphenol	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
2-Nitroaniline	"	"	"		0.500	ND	"	
3-Nitroaniline	"	"	"		0.500	ND	"	
4-Nitroaniline	"	"	"		0.500	ND	"	
Nitrobenzene	"	"	"		0.100	ND	"	
2-Nitrophenol	"	"	"		0.100	ND	"	
4-Nitrophenol	"	"	"		0.500	ND	"	
N-Nitrosodiphenylamine	"	"	"		0.200	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.100	ND	"	
Pentachlorophenol	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.100	1.10	"	2
Phenol	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	1.50	"	2
1,2,4-Trichlorobenzene	"	"	"		0.100	ND	"	
2,4,5-Trichlorophenol	"	"	"		0.500	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.100	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		75.7	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		77.4	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		98.7	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		55.2	"	
Surrogate: 2-FBP	"	"	"	51.0-124		77.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		91.3	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

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Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	No.
SED-2				B806142-01			Soil	
Acenaphthene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Aniline	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzoic Acid	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	0.115	"	2
Benzo (k) fluoranthene	"	"	"		0.100	0.193	"	2
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzyl alcohol	"	"	"		0.100	0.137	"	2
Bis(2-chloroethoxy)methane	"	"	"		0.100	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.100	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.100	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		0.100	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.500	ND	"	
Butyl benzyl phthalate	"	"	"		0.100	ND	"	
Carbazole	"	"	"		0.100	ND	"	
4-Chloroaniline	"	"	"		0.500	ND	"	
2-Chloronaphthalene	"	"	"		0.100	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.100	ND	"	
2-Chlorophenol	"	"	"		0.100	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	0.152	"	2
Dibenzofuran	"	"	"		0.100	ND	"	
Di-n-butyl phthalate	"	"	"		0.100	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.100	ND	"	
1,2-Dichlorobenzene	"	"	"		0.100	ND	"	
3,3'-Dichlorobenzidine	"	"	"		0.100	ND	"	
2,4-Dichlorophenol	"	"	"		5.00	ND	"	
Diethyl phthalate	"	"	"		0.100	ND	"	
2,4-Dimethylphenol	"	"	"		0.100	ND	"	
Dimethyl phthalate	"	"	"		0.100	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		0.100	ND	"	
2,4-Dinitrophenol	"	"	"		0.500	ND	"	
2,4-Dinitrotoluene	"	"	"		0.500	ND	"	
					0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>SED-2 (continued)</u>				<u>B806142-01</u>			<u>Soil</u>	
2,6-Dinitrotoluene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.100	0.278	"	2
Fluorene	"	"	"		0.100	ND	"	
Hexachlorobenzene	"	"	"		0.100	ND	"	
Hexachlorobutadiene	"	"	"		0.100	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.100	ND	"	
Hexachloroethane	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Isophorone	"	"	"		0.100	ND	"	
2-Methylnaphthalene	"	"	"		0.100	ND	"	
2-Methylphenol	"	"	"		0.100	ND	"	
3 & 4-Methylphenol	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
2-Nitroaniline	"	"	"		0.500	ND	"	
3-Nitroaniline	"	"	"		0.500	ND	"	
4-Nitroaniline	"	"	"		0.500	ND	"	
Nitrobenzene	"	"	"		0.100	ND	"	
2-Nitrophenol	"	"	"		0.100	ND	"	
4-Nitrophenol	"	"	"		0.500	ND	"	
N-Nitrosodiphenylamine	"	"	"		0.200	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.100	ND	"	
Pentachlorophenol	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.100	0.156	"	2
Phenol	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	0.246	"	2
1,2,4-Trichlorobenzene	"	"	"		0.100	ND	"	
2,4,5-Trichlorophenol	"	"	"		0.500	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.100	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		56.6	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		62.4	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		77.1	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		45.5	"	
Surrogate: 2-FBP	"	"	"	51.0-124		55.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		69.8	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 6/5/98
600 Stewart Street, Suite 1215	Project Number: not given	Received: 6/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-3			B806142-02				Soil	
Acenaphthene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Aniline	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzoic Acid	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	0.163	"	2
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzyl alcohol	"	"	"		0.100	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.100	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.100	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.100	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		0.500	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.100	ND	"	
Butyl benzyl phthalate	"	"	"		0.100	ND	"	
Carbazole	"	"	"		0.500	ND	"	
4-Chloroaniline	"	"	"		0.100	ND	"	
2-Chloronaphthalene	"	"	"		0.100	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.100	ND	"	
2-Chlorophenol	"	"	"		0.100	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	0.111	"	2
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Dibenzofuran	"	"	"		0.100	ND	"	
Di-n-butyl phthalate	"	"	"		0.500	ND	"	
1,3-Dichlorobenzene	"	"	"		0.100	ND	"	
1,4-Dichlorobenzene	"	"	"		0.100	ND	"	
1,2-Dichlorobenzene	"	"	"		0.100	ND	"	
3,3'-Dichlorobenzidine	"	"	"		5.00	ND	"	
2,4-Dichlorophenol	"	"	"		0.100	ND	"	
Diethyl phthalate	"	"	"		0.100	ND	"	
2,4-Dimethylphenol	"	"	"		0.100	ND	"	
Dimethyl phthalate	"	"	"		0.100	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		0.500	ND	"	
2,4-Dinitrophenol	"	"	"		0.500	ND	"	
2,4-Dinitrotoluene	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Dan

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 6/5/98
600 Stewart Street, Suite 1215	Project Number: not given	Received: 6/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-3 (continued)				B806142-02			Soil	
2,6-Dinitrotoluene	0680341	6/10/98	6/11/98		0.100	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.100	0.239	"	2
Fluorene	"	"	"		0.100	ND	"	
Hexachlorobenzene	"	"	"		0.100	ND	"	
Hexachlorobutadiene	"	"	"		0.100	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.100	ND	"	
Hexachloroethane	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Isophorone	"	"	"		0.100	ND	"	
2-Methylnaphthalene	"	"	"		0.100	ND	"	
2-Methylphenol	"	"	"		0.100	ND	"	
3 & 4-Methylphenol	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
2-Nitroaniline	"	"	"		0.500	ND	"	
3-Nitroaniline	"	"	"		0.500	ND	"	
4-Nitroaniline	"	"	"		0.500	ND	"	
Nitrobenzene	"	"	"		0.100	ND	"	
2-Nitrophenol	"	"	"		0.100	ND	"	
4-Nitrophenol	"	"	"		0.500	ND	"	
N-Nitrosodiphenylamine	"	"	"		0.200	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.100	ND	"	
Pentachlorophenol	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.100	0.100	"	2
Phenol	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	0.214	"	2
1,2,4-Trichlorobenzene	"	"	"		0.100	ND	"	
2,4,5-Trichlorophenol	"	"	"		0.500	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.100	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		79.9	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		85.6	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		97.9	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		62.4	"	
Surrogate: 2-FBP	"	"	"	51.0-124		76.3	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		91.8	"	

Steve Woodward



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SED-1	B806142-00	Soil	72.4	%
SED-2	B806142-01	Soil	81.4	%
SED-3	B806142-02	Soil	85.7	%

North Creek Analytical - Bothell

Joy B Chang, Project Manager

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18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0680248										
Blank										
Date Prepared: 6/8/98										
Extraction Method: EPA 3550B										
0680248-BLK1										
Diesel Range Hydrocarbons	6/9/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		6.05	"	50.0-150	56.5			
LCS										
0680248-BS1										
Diesel Range Hydrocarbons	6/9/98	66.7		47.6	mg/kg dry	50.0-150	71.4			
Surrogate: 2-FBP	"	10.7		7.52	"	50.0-150	70.3			
Duplicate										
0680248-DUP1 B806142-00										
Diesel Range Hydrocarbons	6/9/98		14.1	10.6	mg/kg dry			50.0	28.3	
Lube Oil Range Hydrocarbons	"		60.0	28.0	"			50.0	72.7	3
Surrogate: 2-FBP	"	14.8		8.21	"	50.0-150	55.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 6/5/98
600 Stewart Street, Suite 1215	Project Number: not given	Received: 6/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/5/98 10:46

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0680268		Date Prepared: 6/9/98		Extraction Method: EPA 3550B						
Blank		0680268-BLK1								
Aroclor 1016	6/19/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		3.58	"	38.0-117	53.7			
LCS		0680268-BS1								
Aroclor 1260	6/19/98	333		281	ug/kg dry	44.0-123	84.4			
Surrogate: TCX	"	6.67		4.33	"	38.0-117	64.9			
Matrix Spike		0680268-MS1 B806155-01								
Aroclor 1260	6/19/98	401	ND	326	ug/kg dry	28.0-132	81.3			
Surrogate: TCX	"	8.01		4.44	"	38.0-117	55.4			
Matrix Spike Dup		0680268-MSD1 B806155-01								
Aroclor 1260	6/19/98	401	ND	344	ug/kg dry	28.0-132	85.8	23.0	5.39	
Surrogate: TCX	"	8.01		4.01	"	38.0-117	50.1			

Steve Dan



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0680341		Date Prepared: 6/10/98		Extraction Method: EPA 3550B						
Blank		0680341-BLK1								
Acenaphthene	6/11/98			ND	mg/kg dry	0.100				
Acenaphthylene	"			ND	"	0.100				
Aniline	"			ND	"	0.100				
Anthracene	"			ND	"	0.100				
Benzoic Acid	"			ND	"	0.500				
Benzo (a) anthracene	"			ND	"	0.100				
Benzo (b) fluoranthene	"			ND	"	0.100				
Benzo (k) fluoranthene	"			ND	"	0.100				
Benzo (ghi) perylene	"			ND	"	0.100				
Benzo (a) pyrene	"			ND	"	0.100				
Benzyl alcohol	"			ND	"	0.100				
Bis(2-chloroethoxy)methane	"			ND	"	0.100				
Bis(2-chloroethyl)ether	"			ND	"	0.100				
Bis(2-chloroisopropyl)ether	"			ND	"	0.100				
Bis(2-ethylhexyl)phthalate	"			ND	"	0.500				
4-Bromophenyl phenyl ether	"			ND	"	0.100				
Butyl benzyl phthalate	"			ND	"	0.100				
Carbazole	"			ND	"	0.500				
4-Chloroaniline	"			ND	"	0.100				
2-Chloronaphthalene	"			ND	"	0.100				
4-Chloro-3-methylphenol	"			ND	"	0.100				
2-Chlorophenol	"			ND	"	0.100				
4-Chlorophenyl phenyl ether	"			ND	"	0.100				
Chrysene	"			ND	"	0.100				
Dibenz (a,h) anthracene	"			ND	"	0.100				
Dibenzofuran	"			ND	"	0.100				
Di-n-butyl phthalate	"			ND	"	0.500				
1,3-Dichlorobenzene	"			ND	"	0.100				
1,4-Dichlorobenzene	"			ND	"	0.100				
1,2-Dichlorobenzene	"			ND	"	0.100				
3,3'-Dichlorobenzidine	"			ND	"	5.00				
2,4-Dichlorophenol	"			ND	"	0.100				
Diethyl phthalate	"			ND	"	0.100				
2,4-Dimethylphenol	"			ND	"	0.100				
Dimethyl phthalate	"			ND	"	0.100				
4,6-Dinitro-2-methylphenol	"			ND	"	0.500				
2,4-Dinitrophenol	"			ND	"	0.500				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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6405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 6/5/98
600 Stewart Street, Suite 1215	Project Number: not given	Received: 6/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	0680341-BLK1									
2,4-Dinitrotoluene	6/11/98			ND	mg/kg dry	0.100				
2,6-Dinitrotoluene	"			ND	"	0.100				
Di-n-octyl phthalate	"			ND	"	0.500				
Fluoranthene	"			ND	"	0.100				
Fluorene	"			ND	"	0.100				
Hexachlorobenzene	"			ND	"	0.100				
Hexachlorobutadiene	"			ND	"	0.100				
Hexachlorocyclopentadiene	"			ND	"	0.100				
Hexachloroethane	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Isophorone	"			ND	"	0.100				
2-Methylnaphthalene	"			ND	"	0.100				
2-Methylphenol	"			ND	"	0.100				
3 & 4-Methylphenol	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
2-Nitroaniline	"			ND	"	0.500				
3-Nitroaniline	"			ND	"	0.500				
4-Nitroaniline	"			ND	"	0.500				
Nitrobenzene	"			ND	"	0.100				
2-Nitrophenol	"			ND	"	0.100				
4-Nitrophenol	"			ND	"	0.500				
N-Nitrosodiphenylamine	"			ND	"	0.200				
N-Nitrosodi-n-propylamine	"			ND	"	0.100				
Pentachlorophenol	"			ND	"	0.500				
Phenanthrene	"			ND	"	0.100				
Phenol	"			ND	"	0.100				
Pyrene	"			ND	"	0.100				
1,2,4-Trichlorobenzene	"			ND	"	0.100				
2,4,5-Trichlorophenol	"			ND	"	0.500				
2,4,6-Trichlorophenol	"			ND	"	0.100				
Surrogate: 2-FP	"	1.67		1.19	"	19.0-141	71.3			
Surrogate: Phenol-d6	"	1.67		1.29	"	44.0-128	77.2			
Surrogate: 2,4,6-TBP	"	1.67		1.38	"	10.0-137	82.6			
Surrogate: Nitrobenzene-d5	"	1.67		1.03	"	33.0-108	61.7			
Surrogate: 2-FBP	"	1.67		1.28	"	51.0-124	76.6			
Surrogate: p-Terphenyl-d14	"	1.67		1.45	"	48.0-149	86.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Woodward

C - 14

Joy B Chang, Project Manager

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Page 14 of 1



NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS	0680341-BS1									
Acenaphthene	6/11/98	3.33		2.41	mg/kg dry	48.0-110	72.4			
4-Chloro-3-methylphenol	"	6.67		5.07	"	34.0-115	76.0			
2-Chlorophenol	"	6.67		5.22	"	57.0-110	78.3			
1,4-Dichlorobenzene	"	3.33		2.52	"	39.0-110	75.7			
2,4-Dinitrotoluene	"	3.33		2.87	"	50.0-110	86.2			
4-Nitrophenol	"	6.67		5.46	"	26.0-116	81.9			
N-Nitrosodi-n-propylamine	"	3.33		2.40	"	28.0-147	72.1			
Pentachlorophenol	"	6.67		6.04	"	46.0-120	90.6			
Phenol	"	6.67		5.53	"	35.0-110	82.9			
Pyrene	"	3.33		2.68	"	35.0-143	80.5			
1,2,4-Trichlorobenzene	"	3.33		2.52	"	39.0-110	75.7			
Surrogate: 2-FP	"	1.67		1.38	"	19.0-141	82.6			
Surrogate: Phenol-d6	"	1.67		1.49	"	44.0-128	89.2			
Surrogate: 2,4,6-TBP	"	1.67		1.49	"	10.0-137	89.2			
Surrogate: Nitrobenzene-d5	"	1.67		1.09	"	33.0-108	65.3			
Surrogate: 2-FBP	"	1.67		1.37	"	51.0-124	82.0			
Surrogate: p-Terphenyl-d14	"	1.67		1.57	"	48.0-149	94.0			
Matrix Spike	0680341-MS1									
Acenaphthene	6/11/98	4.01	ND	2.60	mg/kg dry	34.0-122	64.8			
4-Chloro-3-methylphenol	"	8.01	ND	6.19	"	26.0-129	77.3			
2-Chlorophenol	"	8.01	ND	5.21	"	43.0-131	65.0			
1,4-Dichlorobenzene	"	4.01	ND	2.47	"	34.0-131	61.6			
2,4-Dinitrotoluene	"	4.01	ND	3.70	"	10.0-126	92.3			
4-Nitrophenol	"	8.01	ND	6.91	"	10.0-111	86.3			
N-Nitrosodi-n-propylamine	"	4.01	ND	2.27	"	29.0-160	56.6			
Pentachlorophenol	"	8.01	ND	7.64	"	46.0-120	95.4			
Phenol	"	8.01	ND	5.36	"	41.0-118	66.9			
Pyrene	"	4.01	ND	3.50	"	44.0-122	87.3			
1,2,4-Trichlorobenzene	"	4.01	ND	2.67	"	10.0-176	66.6			
Surrogate: 2-FP	"	2.00		1.35	"	19.0-141	67.5			
Surrogate: Phenol-d6	"	2.00		1.39	"	44.0-128	69.5			
Surrogate: 2,4,6-TBP	"	2.00		1.90	"	10.0-137	95.0			
Surrogate: Nitrobenzene-d5	"	2.00		1.18	"	33.0-108	59.0			
Surrogate: 2-FBP	"	2.00		1.44	"	51.0-124	72.0			
Surrogate: p-Terphenyl-d14	"	2.00		1.92	"	48.0-149	96.0			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

C-15

Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/3/98
Received: 6/5/98
Reported: 11/5/98 10:46

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Matrix Spike Dup	0680341-MSD1	B806155-01								
Acenaphthene	6/11/98	4.01	ND	2.60	mg/kg dry	34.0-122	64.8	56.0	0	
4-Chloro-3-methylphenol	"	8.01	ND	5.78	"	26.0-129	72.2	29.0	6.82	
2-Chlorophenol	"	8.01	ND	4.97	"	43.0-131	62.0	27.0	4.72	
1,4-Dichlorobenzene	"	4.01	ND	2.27	"	34.0-131	56.6	23.0	8.46	
2,4-Dinitrotoluene	"	4.01	ND	3.50	"	10.0-126	87.3	22.0	5.57	
4-Nitrophenol	"	8.01	ND	6.60	"	10.0-111	82.4	43.0	4.62	
N-Nitrosodi-n-propylamine	"	4.01	ND	2.24	"	29.0-160	55.9	25.0	1.24	
Pentachlorophenol	"	8.01	ND	7.33	"	46.0-120	91.5	29.0	4.17	
Phenol	"	8.01	ND	5.22	"	41.0-118	65.2	29.0	2.57	
Pyrene	"	4.01	ND	3.25	"	44.0-122	81.0	31.0	7.49	
1,2,4-Trichlorobenzene	"	4.01	ND	2.41	"	10.0-176	60.1	24.0	10.3	
Surrogate: 2-FP	"	2.00		1.34	"	19.0-141	67.0			
Surrogate: Phenol-d6	"	2.00		1.40	"	44.0-128	70.0			
Surrogate: 2,4,6-TBP	"	2.00		1.75	"	10.0-137	87.5			
Surrogate: Nitrobenzene-d5	"	2.00		0.997	"	33.0-108	49.8			
Surrogate: 2-FBP	"	2.00		1.40	"	51.0-124	70.0			
Surrogate: p-Terphenyl-d14	"	2.00		1.75	"	48.0-149	87.5			

Steve Woodward



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: not given
Project Manager: Steve Woodward

Sampled: 6/5/98
Received: 6/5/98
Reported: 11/5/98 10:46

Notes and Definitions

#	Note

1	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
2	The dry-weight corrected result for this analyte is based upon a total solids value which has been amended from previously reported data.
3	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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Joy B Chang, Project Manager

C - 17

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
6105 S.W. Alameda Avenue, Portland, OR 97206-7100

Page 17 of 17

Quantitation Report

Data File : C:\HPCHEM\3\DATA.SEC\F08037.D

Acq On : 9 Jun 1998 3:49 am

Sample : b806142-01

Misc : s

IntFile : SURR.E

Quant Time: Jun 9 11:10 1998 Quant Results File: TPHD2.RES

Vial: 9

Operator: kl

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Wed May 27 20:03:14 1998

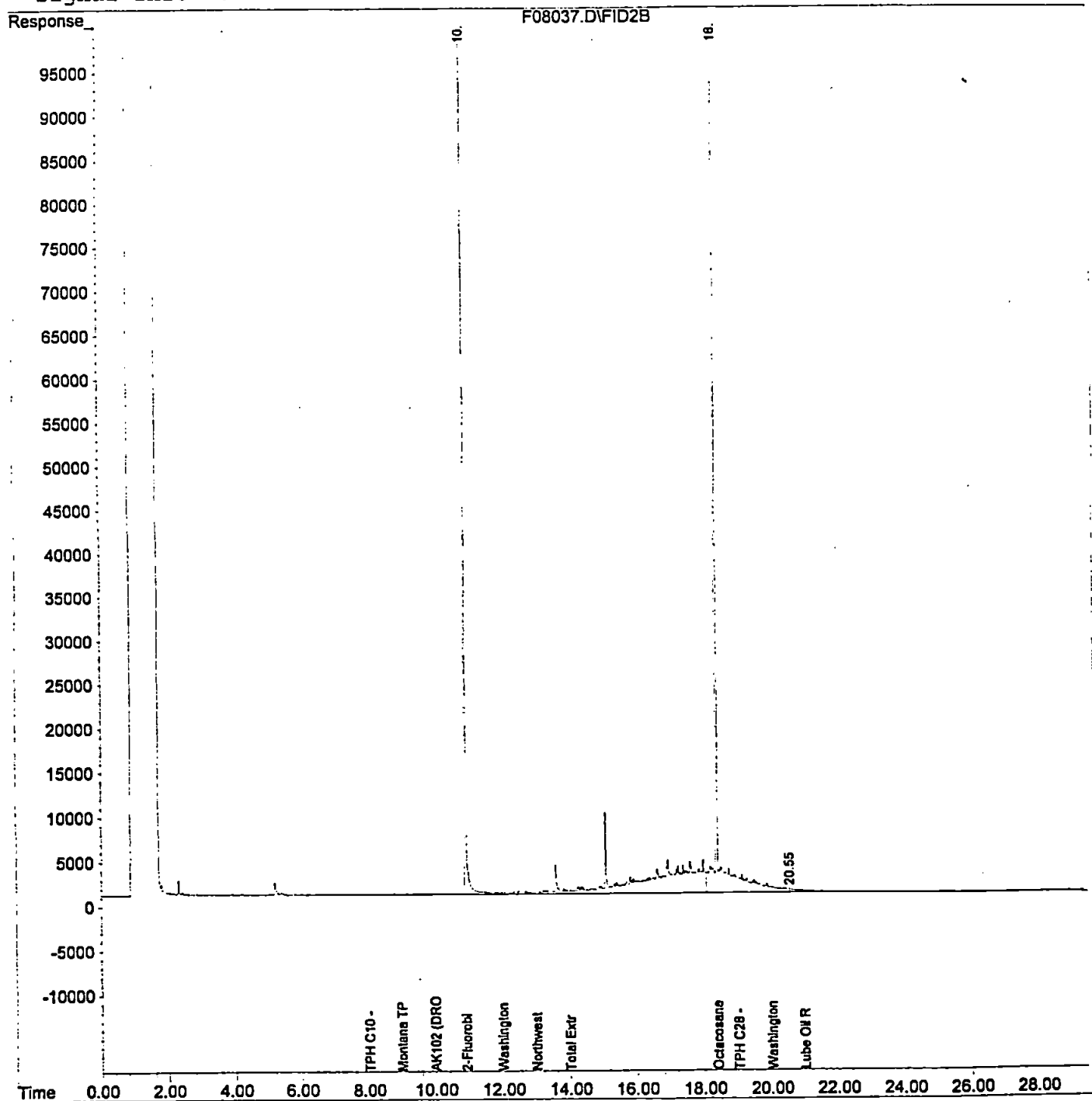
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

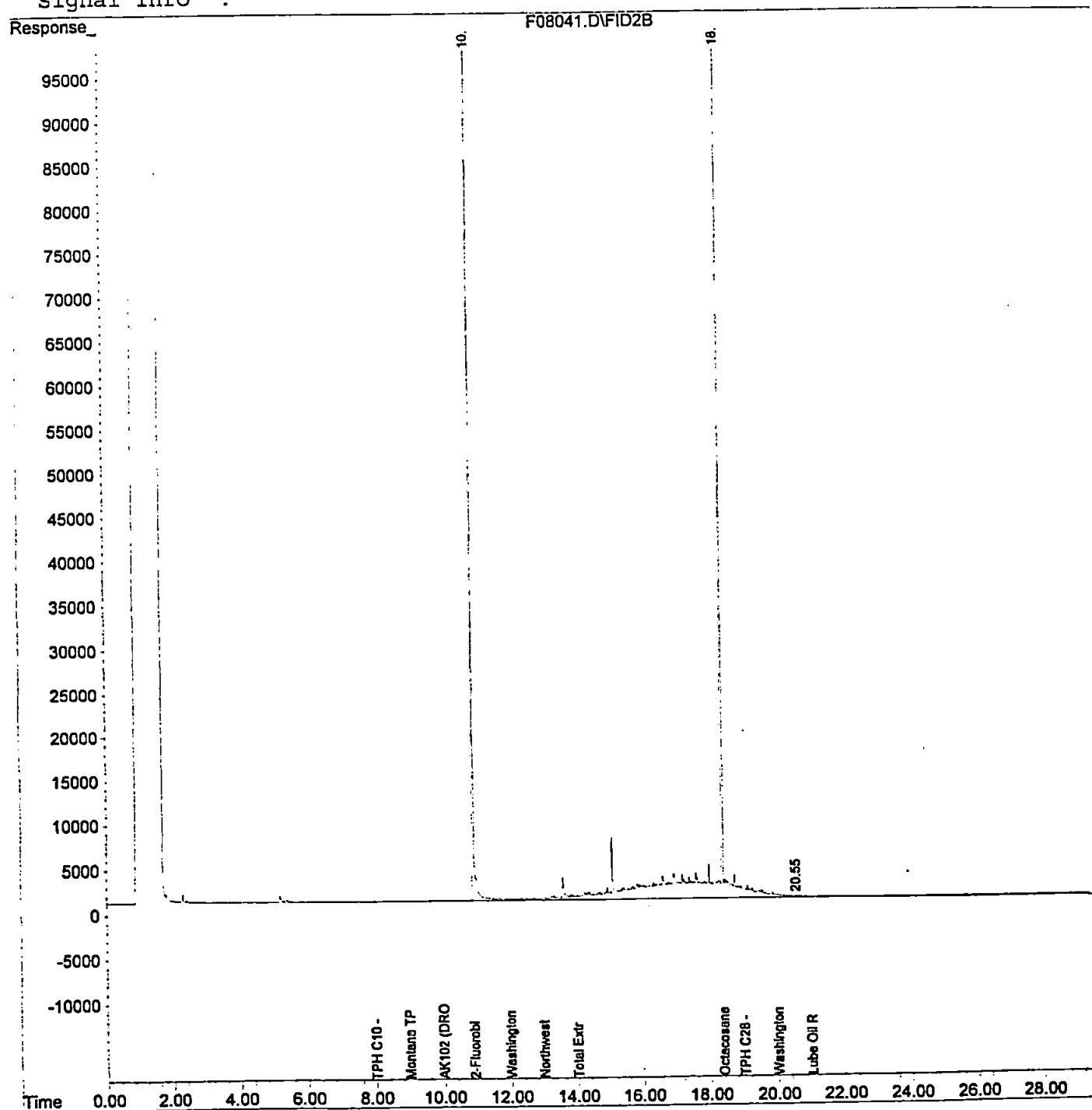
Data File : C:\HPCHEM\3\DATA.SEC\F08041.D
 Acq On : 9 Jun 1998 5:08 am
 Sample : b806142-02
 Misc : S
 IntFile : SURR.E
 Quant Time: Jun 9 11:10 1998

Vial: 10
 Operator: kl
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed May 27 20:03:14 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992

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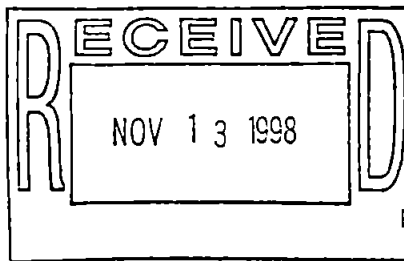
CHAIN OF CUSTODY REPORT

Work Order # **B806142**

REPORT TO: GEI			INVOICE TO:																																			
ATTENTION: Steve Woodward			ATTENTION: Barry Lumbert																																			
ADDRESS: Seattle			ADDRESS: PSE Seattle																																			
PHONE: (206) 728-2674 FAX: 6			P.O. NUMBER: NCA QUOTE #:																																			
PROJECT NAME:			Analysis Request: PCBs SWEETS GALZ 5PA																																			
PROJECT NUMBER:																																						
SAMPLED BY:																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr> <td>1. SED - 1</td> <td>4/5/98 750</td> <td>B806142-00</td> </tr> <tr> <td>2. SED - 2</td> <td>746</td> <td>-01</td> </tr> <tr> <td>3. SED - 3</td> <td>750</td> <td>-02</td> </tr> <tr><td>4.</td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td></tr> </tbody> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	1. SED - 1	4/5/98 750	B806142-00	2. SED - 2	746	-01	3. SED - 3	750	-02	4.			5.			6.			7.			8.			9.			10.		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)																																				
1. SED - 1	4/5/98 750	B806142-00																																				
2. SED - 2	746	-01																																				
3. SED - 3	750	-02																																				
4.																																						
5.																																						
6.																																						
7.																																						
8.																																						
9.																																						
10.																																						
			Organic & Inorganic Analyses ☒ 10-7 5 4 3 2 1 Same Day Fuels & Hydrocarbon Analyses ☒ 3-4 2 1 Same Day OTHER Specify:																																			
			* Turnaround Requests less than standard may incur Rush Charges																																			
			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>MATRIX (W, S, A, O)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr> <td>S</td> <td>1</td> <td></td> </tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table>			MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	S	1		S	1		S	1																						
MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																																				
S	1																																					
S	1																																					
S	1																																					
RELINQUISHED BY (Signature): [Signature] DATE: 4/5/98			RECEIVED BY (Signature): [Signature] DATE: 6/5/98																																			
PRINT NAME: Bruce Spangle FIRM: GEI TIME: 12:35			PRINT NAME: B. Dightman FIRM: XICA TIME: 12:35																																			
RELINQUISHED BY (Signature): DATE:			RECEIVED BY (Signature): DATE:																																			
PRINT NAME: FIRM: TIME:			PRINT NAME: FIRM: TIME:																																			
ADDITIONAL REMARKS:			12.6° p.c.b.s																																			
			PAGE OF																																			



**NORTH
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Environmental Laboratory Services



Revised Data

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Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SED-4	B807309-01	Soil	7/15/98
SED-5	B807309-02	Soil	7/15/98
SOIL-1	B807309-03	Soil	7/15/98
SOIL-2	B807309-04	Soil	7/15/98

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.*

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-4				B807309-01			Soil	
Diesel Range Hydrocarbons	0780561	7/17/98	7/21/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		68.9	%	
SED-5				B807309-02			Soil	
Diesel Range Hydrocarbons	0780561	7/17/98	7/21/98		10.0	18.1	mg/kg dry	1.2
Lube Oil Range Hydrocarbons	"	"	"		25.0	48.3	"	1
Surrogate: 2-FBP	"	"	"	50.0-150		59.3	%	
SOIL-1				B807309-03			Soil	
Diesel Range Hydrocarbons	0780561	7/17/98	7/21/98		10.0	16.1	mg/kg dry	1.2
Lube Oil Range Hydrocarbons	"	"	"		25.0	71.0	"	1
Surrogate: 2-FBP	"	"	"	50.0-150		75.7	%	
SOIL-2				B807309-04			Soil	
Diesel Range Hydrocarbons	0780561	7/17/98	7/21/98		10.0	27.4	mg/kg dry	1.2
Lube Oil Range Hydrocarbons	"	"	"		25.0	98.4	"	1
Surrogate: 2-FBP	"	"	"	50.0-150		56.4	%	

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8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-4				B807309-01			Soil	
Aroclor 1016	0780540	7/17/98	7/23/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		83.6	%	
SED-5				B807309-02			Soil	
Aroclor 1016	0780540	7/17/98	7/23/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		68.2	%	
SOIL-1				B807309-03			Soil	
Aroclor 1016	0780540	7/17/98	7/23/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		79.1	%	
SOIL-2				B807309-04			Soil	
Aroclor 1016	0780540	7/17/98	7/23/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve

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Joy B Chang, Project Manager

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-2 (continued)				B807309-04			Soil	
Aroclor 1232	0780540	7/17/98	7/23/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		73.0	%	

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Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-4				B807309-01			Soil	
Acenaphthene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Aniline	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzoic Acid	"	"	"		2.50	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	ND	"	
Benzo (a) pyrene	"	"	"		0.500	ND	"	
Benzyl alcohol	"	"	"		0.500	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.500	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.500	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.500	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		2.50	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.500	ND	"	
Butyl benzyl phthalate	"	"	"		0.500	ND	"	
Carbazole	"	"	"		2.50	ND	"	
4-Chloroaniline	"	"	"		0.500	ND	"	
2-Chloronaphthalene	"	"	"		0.500	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.500	ND	"	
2-Chlorophenol	"	"	"		0.500	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Dibenzofuran	"	"	"		0.500	ND	"	
Di-n-butyl phthalate	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
3,3'-Dichlorobenzidine	"	"	"		25.0	ND	"	
2,4-Dichlorophenol	"	"	"		0.500	ND	"	
Diethyl phthalate	"	"	"		0.500	ND	"	
2,4-Dimethylphenol	"	"	"		0.500	ND	"	
Dimethyl phthalate	"	"	"		0.500	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		2.50	ND	"	
2,4-Dinitrophenol	"	"	"		2.50	ND	"	
2,4-Dinitrotoluene	"	"	"		0.500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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NORTH CREEK ANALYTICAL

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Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-4 (continued)				B807309-01		Soil		
2,6-Dinitrotoluene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		2.50	ND	"	
Fluoranthene	"	"	"		0.500	ND	"	
Fluorene	"	"	"		0.500	ND	"	
Hexachlorobenzene	"	"	"		0.500	ND	"	
Hexachlorobutadiene	"	"	"		0.500	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.500	ND	"	
Hexachloroethane	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	ND	"	
Isophorone	"	"	"		0.500	ND	"	
2-Methylnaphthalene	"	"	"		0.500	ND	"	
2-Methylphenol	"	"	"		0.500	ND	"	
3 & 4-Methylphenol	"	"	"		0.500	ND	"	
Naphthalene	"	"	"		0.500	ND	"	
2-Nitroaniline	"	"	"		2.50	ND	"	
3-Nitroaniline	"	"	"		2.50	ND	"	
4-Nitroaniline	"	"	"		2.50	ND	"	
Nitrobenzene	"	"	"		0.500	ND	"	
2-Nitrophenol	"	"	"		0.500	ND	"	
4-Nitrophenol	"	"	"		2.50	ND	"	
N-Nitrosodiphenylamine	"	"	"		1.00	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.500	ND	"	
Pentachlorophenol	"	"	"		2.50	ND	"	
Phenanthrene	"	"	"		0.500	ND	"	
Phenol	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	ND	"	
1,2,4-Trichlorobenzene	"	"	"		0.500	ND	"	
2,4,5-Trichlorophenol	"	"	"		2.50	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.500	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		87.3	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		85.8	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		112	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		84.0	"	
Surrogate: 2-FBP	"	"	"	51.0-124		97.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		104	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Woodward

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Joy B Chang, Project Manager

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-5			B807309-02				Soil	
Acenaphthene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Aniline	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzoic Acid	"	"	"		2.50	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.500	0.534	"	1
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	ND	"	
Benzo (a) pyrene	"	"	"		0.500	ND	"	
Benzyl alcohol	"	"	"		0.500	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.500	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.500	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.500	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		2.50	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.500	ND	"	
Butyl benzyl phthalate	"	"	"		0.500	ND	"	
Carbazole	"	"	"		2.50	ND	"	
4-Chloroaniline	"	"	"		0.500	ND	"	
2-Chloronaphthalene	"	"	"		0.500	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.500	ND	"	
2-Chlorophenol	"	"	"		0.500	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Dibenzofuran	"	"	"		0.500	ND	"	
Di-n-butyl phthalate	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
3,3'-Dichlorobenzidine	"	"	"		25.0	ND	"	
2,4-Dichlorophenol	"	"	"		0.500	ND	"	
Diethyl phthalate	"	"	"		0.500	ND	"	
2,4-Dimethylphenol	"	"	"		0.500	ND	"	
Dimethyl phthalate	"	"	"		0.500	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		2.50	ND	"	
2,4-Dinitrophenol	"	"	"		2.50	ND	"	
2,4-Dinitrotoluene	"	"	"		0.500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Dan

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE/ Grady Way
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Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SED-5 (continued)			B807309-02				Soil	
2,6-Dinitrotoluene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		2.50	ND	"	
Fluoranthene	"	"	"		0.500	0.959	"	1
Fluorene	"	"	"		0.500	ND	"	
Hexachlorobenzene	"	"	"		0.500	ND	"	
Hexachlorobutadiene	"	"	"		0.500	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.500	ND	"	
Hexachloroethane	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	ND	"	
Isophorone	"	"	"		0.500	ND	"	
2-Methylnaphthalene	"	"	"		0.500	ND	"	
2-Methylphenol	"	"	"		0.500	ND	"	
3 & 4-Methylphenol	"	"	"		0.500	ND	"	
Naphthalene	"	"	"		0.500	ND	"	
2-Nitroaniline	"	"	"		2.50	ND	"	
3-Nitroaniline	"	"	"		2.50	ND	"	
4-Nitroaniline	"	"	"		2.50	ND	"	
Nitrobenzene	"	"	"		0.500	ND	"	
2-Nitrophenol	"	"	"		0.500	ND	"	
4-Nitrophenol	"	"	"		2.50	ND	"	
N-Nitrosodiphenylamine	"	"	"		1.00	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.500	ND	"	
Pentachlorophenol	"	"	"		2.50	ND	"	
Phenanthrene	"	"	"		0.500	ND	"	
Phenol	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	0.833	"	1
1,2,4-Trichlorobenzene	"	"	"		0.500	ND	"	
2,4,5-Trichlorophenol	"	"	"		2.50	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.500	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		88.5	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		85.4	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		109	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		88.5	"	
Surrogate: 2-FBP	"	"	"	51.0-124		97.3	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		111	"	

Steve Woodward



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Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-1				B807309-03			Soil	
Acenaphthene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Aniline	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzoic Acid	"	"	"		2.50	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.500	0.640	"	1
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	ND	"	
Benzo (a) pyrene	"	"	"		0.500	ND	"	
Benzyl alcohol	"	"	"		0.500	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.500	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.500	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.500	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		2.50	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.500	ND	"	
Butyl benzyl phthalate	"	"	"		0.500	ND	"	
Carbazole	"	"	"		2.50	ND	"	
4-Chloroaniline	"	"	"		0.500	ND	"	
2-Chloronaphthalene	"	"	"		0.500	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.500	ND	"	
2-Chlorophenol	"	"	"		0.500	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	0.512	"	1
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Dibenzofuran	"	"	"		0.500	ND	"	
Di-n-butyl phthalate	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
3,3'-Dichlorobenzidine	"	"	"		25.0	ND	"	
2,4-Dichlorophenol	"	"	"		0.500	ND	"	
Diethyl phthalate	"	"	"		0.500	ND	"	
2,4-Dimethylphenol	"	"	"		0.500	ND	"	
Dimethyl phthalate	"	"	"		0.500	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		2.50	ND	"	
2,4-Dinitrophenol	"	"	"		2.50	ND	"	
2,4-Dinitrotoluene	"	"	"		0.500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Redmond
8410 154th Ave NE
Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-1 (continued)				B807309-03			Soil	
2,6-Dinitrotoluene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		2.50	ND	"	
Fluoranthene	"	"	"		0.500	0.861	"	1
Fluorene	"	"	"		0.500	ND	"	
Hexachlorobenzene	"	"	"		0.500	ND	"	
Hexachlorobutadiene	"	"	"		0.500	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.500	ND	"	
Hexachloroethane	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	ND	"	
Isophorone	"	"	"		0.500	ND	"	
2-Methylnaphthalene	"	"	"		0.500	ND	"	
2-Methylphenol	"	"	"		0.500	ND	"	
3 & 4-Methylphenol	"	"	"		0.500	ND	"	
Naphthalene	"	"	"		0.500	ND	"	
2-Nitroaniline	"	"	"		2.50	ND	"	
3-Nitroaniline	"	"	"		2.50	ND	"	
4-Nitroaniline	"	"	"		2.50	ND	"	
Nitrobenzene	"	"	"		0.500	ND	"	
2-Nitrophenol	"	"	"		0.500	ND	"	
4-Nitrophenol	"	"	"		2.50	ND	"	
N-Nitrosodiphenylamine	"	"	"		1.00	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.500	ND	"	
Pentachlorophenol	"	"	"		2.50	ND	"	
Phenanthrene	"	"	"		0.500	ND	"	
Phenol	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	0.894	"	1
1,2,4-Trichlorobenzene	"	"	"		0.500	ND	"	
2,4,5-Trichlorophenol	"	"	"		2.50	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.500	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		80.4	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		81.5	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		110	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		75.5	"	
Surrogate: 2-FBP	"	"	"	51.0-124		86.4	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		115	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-2			B807309-04				Soil	
Acenaphthene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Aniline	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzoic Acid	"	"	"		2.50	ND	"	
Benzo (a) anthracene	"	"	"		0.500	0.537	"	1
Benzo (b) fluoranthene	"	"	"		0.500	1.04	"	1
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	0.566	"	1
Benzo (a) pyrene	"	"	"		0.500	0.668	"	1
Benzyl alcohol	"	"	"		0.500	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		0.500	ND	"	
Bis(2-chloroethyl)ether	"	"	"		0.500	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		0.500	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		2.50	ND	"	
4-Bromophenyl phenyl ether	"	"	"		0.500	ND	"	
Butyl benzyl phthalate	"	"	"		0.500	ND	"	
Carbazole	"	"	"		2.50	ND	"	
4-Chloroaniline	"	"	"		0.500	ND	"	
2-Chloronaphthalene	"	"	"		0.500	ND	"	
4-Chloro-3-methylphenol	"	"	"		0.500	ND	"	
2-Chlorophenol	"	"	"		0.500	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	0.895	"	1
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Dibenzofuran	"	"	"		0.500	ND	"	
Di-n-butyl phthalate	"	"	"		2.50	ND	"	
1,3-Dichlorobenzene	"	"	"		0.500	ND	"	
1,4-Dichlorobenzene	"	"	"		0.500	ND	"	
1,2-Dichlorobenzene	"	"	"		0.500	ND	"	
3,3'-Dichlorobenzidine	"	"	"		25.0	ND	"	
2,4-Dichlorophenol	"	"	"		0.500	ND	"	
Diethyl phthalate	"	"	"		0.500	ND	"	
2,4-Dimethylphenol	"	"	"		0.500	ND	"	
Dimethyl phthalate	"	"	"		0.500	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		2.50	ND	"	
2,4-Dinitrophenol	"	"	"		2.50	ND	"	
2,4-Dinitrotoluene	"	"	"		0.500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Signature

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SOIL-2 (continued)				B807309-04			Soil	
2,6-Dinitrotoluene	0780587	7/20/98	7/28/98		0.500	ND	mg/kg dry	
Di-n-octyl phthalate	"	"	"		2.50	ND	"	
Fluoranthene	"	"	"		0.500	1.40	"	1
Fluorene	"	"	"		0.500	ND	"	
Hexachlorobenzene	"	"	"		0.500	ND	"	
Hexachlorobutadiene	"	"	"		0.500	ND	"	
Hexachlorocyclopentadiene	"	"	"		0.500	ND	"	
Hexachloroethane	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	0.585	"	1
Isophorone	"	"	"		0.500	ND	"	
2-Methylnaphthalene	"	"	"		0.500	ND	"	
2-Methylphenol	"	"	"		0.500	ND	"	
3 & 4-Methylphenol	"	"	"		0.500	ND	"	
Naphthalene	"	"	"		0.500	ND	"	
2-Nitroaniline	"	"	"		2.50	ND	"	
3-Nitroaniline	"	"	"		2.50	ND	"	
4-Nitroaniline	"	"	"		2.50	ND	"	
Nitrobenzene	"	"	"		0.500	ND	"	
2-Nitrophenol	"	"	"		0.500	ND	"	
4-Nitrophenol	"	"	"		2.50	ND	"	
N-Nitrosodiphenylamine	"	"	"		1.00	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		0.500	ND	"	
Pentachlorophenol	"	"	"		2.50	ND	"	
Phenanthrene	"	"	"		0.500	0.561	"	1
Phenol	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	1.39	"	1
1,2,4-Trichlorobenzene	"	"	"		0.500	ND	"	
2,4,5-Trichlorophenol	"	"	"		2.50	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.500	ND	"	
Surrogate: 2-FP	"	"	"	19.0-141		82.2	%	
Surrogate: Phenol-d6	"	"	"	44.0-128		86.4	"	
Surrogate: 2,4,6-TBP	"	"	"	10.0-137		113	"	
Surrogate: Nitrobenzene-d5	"	"	"	33.0-108		73.1	"	
Surrogate: 2-FBP	"	"	"	51.0-124		92.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	48.0-149		113	"	

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Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SED-4	B807309-01	Soil	78.5	%
SED-5	B807309-02	Soil	73.7	%
SOIL-1	B807309-03	Soil	90.6	%
SOIL-2	B807309-04	Soil	68.9	%

North Creek Analytical - Bothell

Joy B Chang, Project Manager

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 0780561</u>		<u>Date Prepared: 7/17/98</u>			<u>Extraction Method: EPA 3550B</u>						
<u>Blank</u>		<u>0780561-BLK1</u>									
Diesel Range Hydrocarbons	7/21/98			ND	mg/kg dry		10.0				
Lube Oil Range Hydrocarbons	"			ND	"		25.0				
Surrogate: 2-FBP	"	11.0		6.26	"		50.0-150		56.9		
<u>LCS</u>		<u>0780561-BS1</u>									
Diesel Range Hydrocarbons	7/21/98	66.7		48.5	mg/kg dry		50.0-150		72.7		
Surrogate: 2-FBP	"	11.0		8.84	"		50.0-150		80.4		
<u>Duplicate</u>		<u>0780561-DUP1</u>		<u>B807309-03</u>							
Diesel Range Hydrocarbons	7/21/98		16.1	15.1	mg/kg dry				50.0	6.41	
Lube Oil Range Hydrocarbons	"		71.0	52.9	"				50.0	29.2	
Surrogate: 2-FBP	"	12.1		7.34	"		50.0-150		60.7		

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 0780540</u>		<u>Date Prepared: 7/17/98</u>		<u>Extraction Method: EPA 3550B</u>						
<u>Blank</u>		<u>0780540-BLK1</u>								
Aroclor 1016	7/21/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		5.00	"	40.0-130	75.0			
<u>LCS</u>		<u>0780540-BS1</u>								
Aroclor 1260	7/21/98	333		303	ug/kg dry	44.0-123	91.0			
Surrogate: TCX	"	6.67		6.03	"	40.0-130	90.4			
<u>Matrix Spike</u>		<u>0780540-MS1</u>		<u>B807280-05</u>						
Aroclor 1260	7/21/98	393	ND	249	ug/kg dry	28.0-132	63.4			
Surrogate: TCX	"	7.86		7.28	"	40.0-130	92.6			
<u>Matrix Spike Dup</u>		<u>0780540-MSD1</u>		<u>B807280-05</u>						
Aroclor 1260	7/21/98	393	ND	326	ug/kg dry	28.0-132	83.0	23.0	26.8	3
Surrogate: TCX	"	7.86		7.58	"	40.0-130	96.4			

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*Refer to end of report for text of notes and definitions.

Steve Woodward

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Joy B Chang, Project Manager

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Geo Engineers - Redmond
8410 154th Ave NE
Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0780587		Date Prepared: 7/20/98			Extraction Method: EPA 3550B					
Blank	0780587-BLK1									
Acenaphthene	7/28/98			ND	mg/kg dry		0.100			
Acenaphthylene	"			ND	"		0.100			
Aniline	"			ND	"		0.100			
Anthracene	"			ND	"		0.100			
Benzoic Acid	"			ND	"		0.500			
Benzo (a) anthracene	"			ND	"		0.100			
Benzo (b) fluoranthene	"			ND	"		0.100			
Benzo (k) fluoranthene	"			ND	"		0.100			
Benzo (ghi) perylene	"			ND	"		0.100			
Benzo (a) pyrene	"			ND	"		0.100			
Benzyl alcohol	"			ND	"		0.100			
Bis(2-chloroethoxy)methane	"			ND	"		0.100			
Bis(2-chloroethyl)ether	"			ND	"		0.100			
Bis(2-chloroisopropyl)ether	"			ND	"		0.100			
Bis(2-ethylhexyl)phthalate	"			ND	"		0.500			
4-Bromophenyl phenyl ether	"			ND	"		0.100			
Butyl benzyl phthalate	"			ND	"		0.100			
Carbazole	"			ND	"		0.500			
4-Chloroaniline	"			ND	"		0.100			
2-Chloronaphthalene	"			ND	"		0.100			
4-Chloro-3-methylphenol	"			ND	"		0.100			
2-Chlorophenol	"			ND	"		0.100			
4-Chlorophenyl phenyl ether	"			ND	"		0.100			
Chrysene	"			ND	"		0.100			
Dibenz (a,h) anthracene	"			ND	"		0.100			
Dibenzofuran	"			ND	"		0.100			
Di-n-butyl phthalate	"			ND	"		0.500			
1,3-Dichlorobenzene	"			ND	"		0.100			
1,4-Dichlorobenzene	"			ND	"		0.100			
1,2-Dichlorobenzene	"			ND	"		0.100			
3,3'-Dichlorobenzidine	"			ND	"		5.00			
2,4-Dichlorophenol	"			ND	"		0.100			
Diethyl phthalate	"			ND	"		0.100			
2,4-Dimethylphenol	"			ND	"		0.100			
Dimethyl phthalate	"			ND	"		0.100			
4,6-Dinitro-2-methylphenol	"			ND	"		0.500			
2,4-Dinitrophenol	"			ND	"		0.500			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Woodward

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Joy B Chang, Project Manager

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	0780587-BLK1									
2,4-Dinitrotoluene	7/28/98			ND	mg/kg dry	0.100				
2,6-Dinitrotoluene	"			ND	"	0.100				
Di-n-octyl phthalate	"			ND	"	0.500				
Fluoranthene	"			ND	"	0.100				
Fluorene	"			ND	"	0.100				
Hexachlorobenzene	"			ND	"	0.100				
Hexachlorobutadiene	"			ND	"	0.100				
Hexachlorocyclopentadiene	"			ND	"	0.100				
Hexachloroethane	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Isophorone	"			ND	"	0.100				
2-Methylnaphthalene	"			ND	"	0.100				
2-Methylphenol	"			ND	"	0.100				
3 & 4-Methylphenol	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
2-Nitroaniline	"			ND	"	0.500				
3-Nitroaniline	"			ND	"	0.500				
4-Nitroaniline	"			ND	"	0.500				
Nitrobenzene	"			ND	"	0.100				
2-Nitrophenol	"			ND	"	0.100				
4-Nitrophenol	"			ND	"	0.500				
N-Nitrosodiphenylamine	"			ND	"	0.200				
N-Nitrosodi-n-propylamine	"			ND	"	0.100				
Pentachlorophenol	"			ND	"	0.500				
Phenanthrene	"			ND	"	0.100				
Phenol	"			ND	"	0.100				
Pyrene	"			ND	"	0.100				
1,2,4-Trichlorobenzene	"			ND	"	0.100				
2,4,5-Trichlorophenol	"			ND	"	0.500				
2,4,6-Trichlorophenol	"			ND	"	0.100				
Surrogate: 2-FP	"	1.67		1.09	"	19.0-141	65.3			
Surrogate: Phenol-d6	"	1.67		1.18	"	44.0-128	70.7			
Surrogate: 2,4,6-TBP	"	1.67		1.35	"	10.0-137	80.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.14	"	33.0-108	68.3			
Surrogate: 2-FBP	"	1.67		1.22	"	51.0-124	73.1			
Surrogate: p-Terphenyl-d14	"	1.67		1.34	"	48.0-149	80.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Chang

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Redmond
8410 154th Ave NE
Redmond, WA 98052

Project: PSE/ Grady Way
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 7/15/98
Received: 7/16/98
Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS										
0780587-BS1										
Acenaphthene	7/28/98	3.33		2.15	mg/kg dry	48.0-110	64.6			
4-Chloro-3-methylphenol	"	6.67		4.88	"	34.0-115	73.2			
2-Chlorophenol	"	6.67		4.41	"	57.0-110	66.1			
1,4-Dichlorobenzene	"	3.33		2.31	"	39.0-110	69.4			
2,4-Dinitrotoluene	"	3.33		2.47	"	50.0-110	74.2			
4-Nitrophenol	"	6.67		4.65	"	26.0-116	69.7			
N-Nitrosodi-n-propylamine	"	3.33		2.45	"	28.0-147	73.6			
Pentachlorophenol	"	6.67		5.55	"	46.0-120	83.2			
Phenol	"	6.67		4.46	"	35.0-110	66.9			
Pyrene	"	3.33		2.37	"	35.0-143	71.2			
1,2,4-Trichlorobenzene	"	3.33		2.49	"	39.0-110	74.8			
Surrogate: 2-FP	"	1.67		1.09	"	19.0-141	65.3			
Surrogate: Phenol-d6	"	1.67		1.19	"	44.0-128	71.3			
Surrogate: 2,4,6-TBP	"	1.67		1.40	"	10.0-137	83.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.19	"	33.0-108	71.3			
Surrogate: 2-FBP	"	1.67		1.24	"	51.0-124	74.3			
Surrogate: p-Terphenyl-d14	"	1.67		1.25	"	48.0-149	74.9			
Matrix Spike										
0780587-MS1 B807237-06										
Acenaphthene	7/28/98	4.09	ND	2.24	mg/kg dry	34.0-122	54.8			
4-Chloro-3-methylphenol	"	8.18	ND	5.70	"	26.0-129	69.7			
2-Chlorophenol	"	8.18	ND	3.68	"	43.0-131	45.0			
1,4-Dichlorobenzene	"	4.09	ND	1.75	"	34.0-131	42.8			
2,4-Dinitrotoluene	"	4.09	ND	2.94	"	10.0-126	71.9			
4-Nitrophenol	"	8.18	ND	5.81	"	10.0-111	71.0			
N-Nitrosodi-n-propylamine	"	4.09	ND	1.96	"	29.0-160	47.9			
Pentachlorophenol	"	8.18	ND	6.69	"	46.0-120	81.8			
Phenol	"	8.18	ND	3.79	"	41.0-118	46.3			
Pyrene	"	4.09	ND	2.84	"	44.0-122	69.4			
1,2,4-Trichlorobenzene	"	4.09	ND	2.02	"	10.0-176	49.4			
Surrogate: 2-FP	"	2.04		0.933	"	19.0-141	45.7			
Surrogate: Phenol-d6	"	2.04		1.02	"	44.0-128	50.0			
Surrogate: 2,4,6-TBP	"	2.04		1.74	"	10.0-137	85.3			
Surrogate: Nitrobenzene-d5	"	2.04		0.891	"	33.0-108	43.7			
Surrogate: 2-FBP	"	2.04		1.14	"	51.0-124	55.9			
Surrogate: p-Terphenyl-d14	"	2.04		1.51	"	48.0-149	74.0			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Woodward

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0780587-MSD1	B807237-06								
Acenaphthene	7/28/98	4.09	ND	2.57	mg/kg dry	34.0-122	62.8	56.0	13.6	
4-Chloro-3-methylphenol	"	8.18	ND	5.99	"	26.0-129	73.2	29.0	4.90	
2-Chlorophenol	"	8.18	ND	5.14	"	43.0-131	62.8	27.0	33.0	3
1,4-Dichlorobenzene	"	4.09	ND	2.59	"	34.0-131	63.3	23.0	38.6	3
2,4-Dinitrotoluene	"	4.09	ND	3.08	"	10.0-126	75.3	22.0	4.62	
4-Nitrophenol	"	8.18	ND	6.29	"	10.0-111	76.9	43.0	7.98	
N-Nitrosodi-n-propylamine	"	4.09	ND	2.88	"	29.0-160	70.4	25.0	38.0	3
Pentachlorophenol	"	8.18	ND	6.78	"	46.0-120	82.9	29.0	1.34	
Phenol	"	8.18	ND	5.19	"	41.0-118	63.4	29.0	31.2	3
Pyrene	"	4.09	ND	3.10	"	44.0-122	75.8	31.0	8.82	
1,2,4-Trichlorobenzene	"	4.09	ND	2.86	"	10.0-176	69.9	24.0	34.4	3
Surrogate: 2-FP	"	2.04		1.30	"	19.0-141	63.7			
Surrogate: Phenol-d6	"	2.04		1.35	"	44.0-128	66.2			
Surrogate: 2,4,6-TBP	"	2.04		1.80	"	10.0-137	88.2			
Surrogate: Nitrobenzene-d5	"	2.04		1.32	"	33.0-108	64.7			
Surrogate: 2-FBP	"	2.04		1.46	"	51.0-124	71.6			
Surrogate: p-Terphenyl-d14	"	2.04		1.59	"	48.0-149	77.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Joy B Chang, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Redmond	Project: PSE/ Grady Way	Sampled: 7/15/98
8410 154th Ave NE	Project Number: 186-407-00	Received: 7/16/98
Redmond, WA 98052	Project Manager: Steve Woodward	Reported: 11/4/98 17:30

Notes and Definitions

#	Note
1	The dry-weight corrected result for this analyte is based upon a total solids value which has been amended from previously reported data.
2	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
3	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
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
Recov.	Recovery
RPD	Relative Percent Difference

Quantitation Report

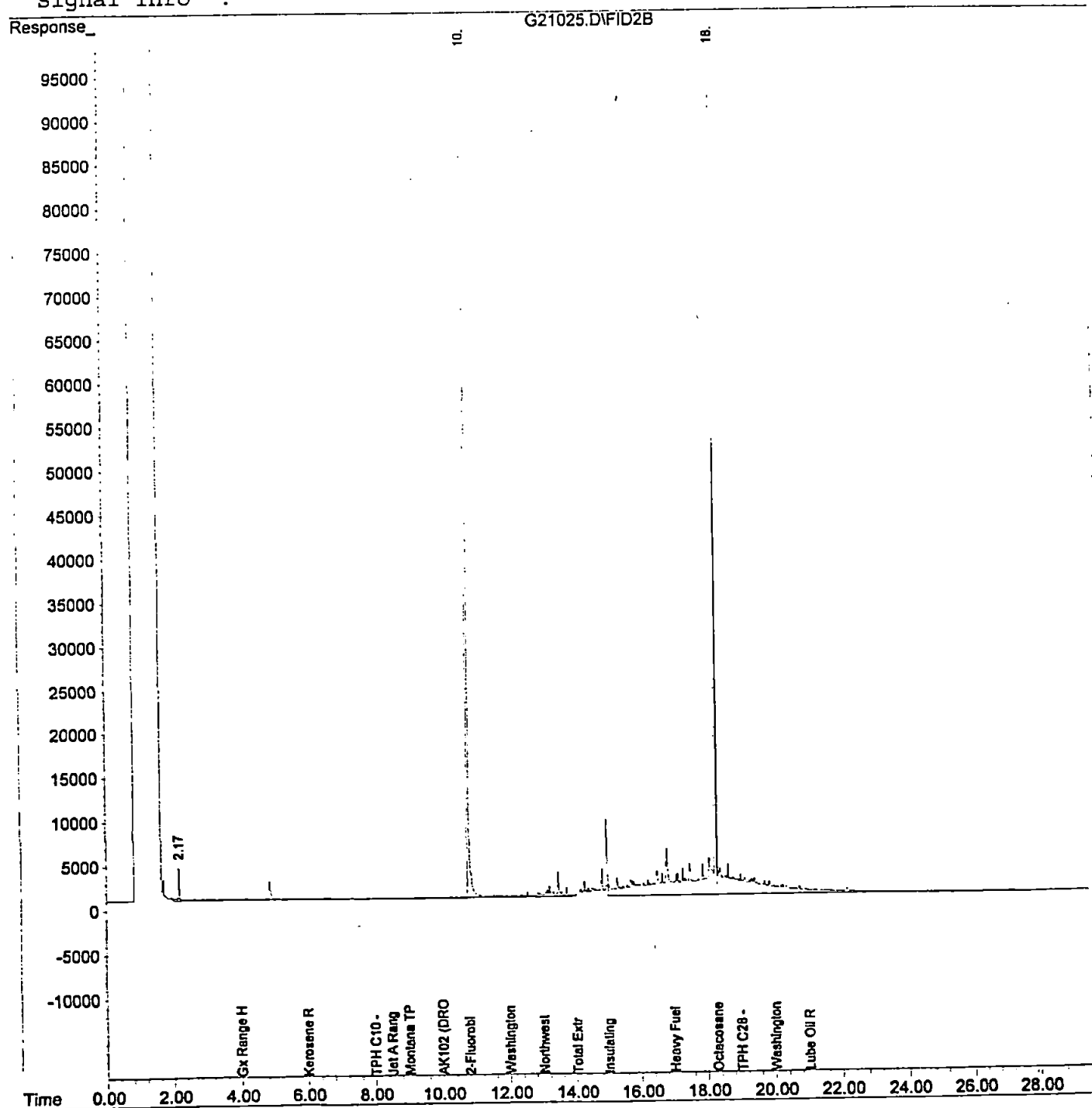
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 Acq On : 21 Jul 1998 6:22 pm
 Sample : b807309-01
 Misc : s
 IntFile : SURR.E
 Quant Time: Jul 22 11:27 1998

Vial: 20
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed Jul 08 20:06:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\G21026.D

Acq On : 21 Jul 1998 6:22 pm

Sample : b807309-02

Misc : S

IntFile : SURR.E

Quant Time: Jul 22 11:36 1998 Quant Results File: TPHD.RES

Vial: 21

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Jul 08 20:03:57 1998

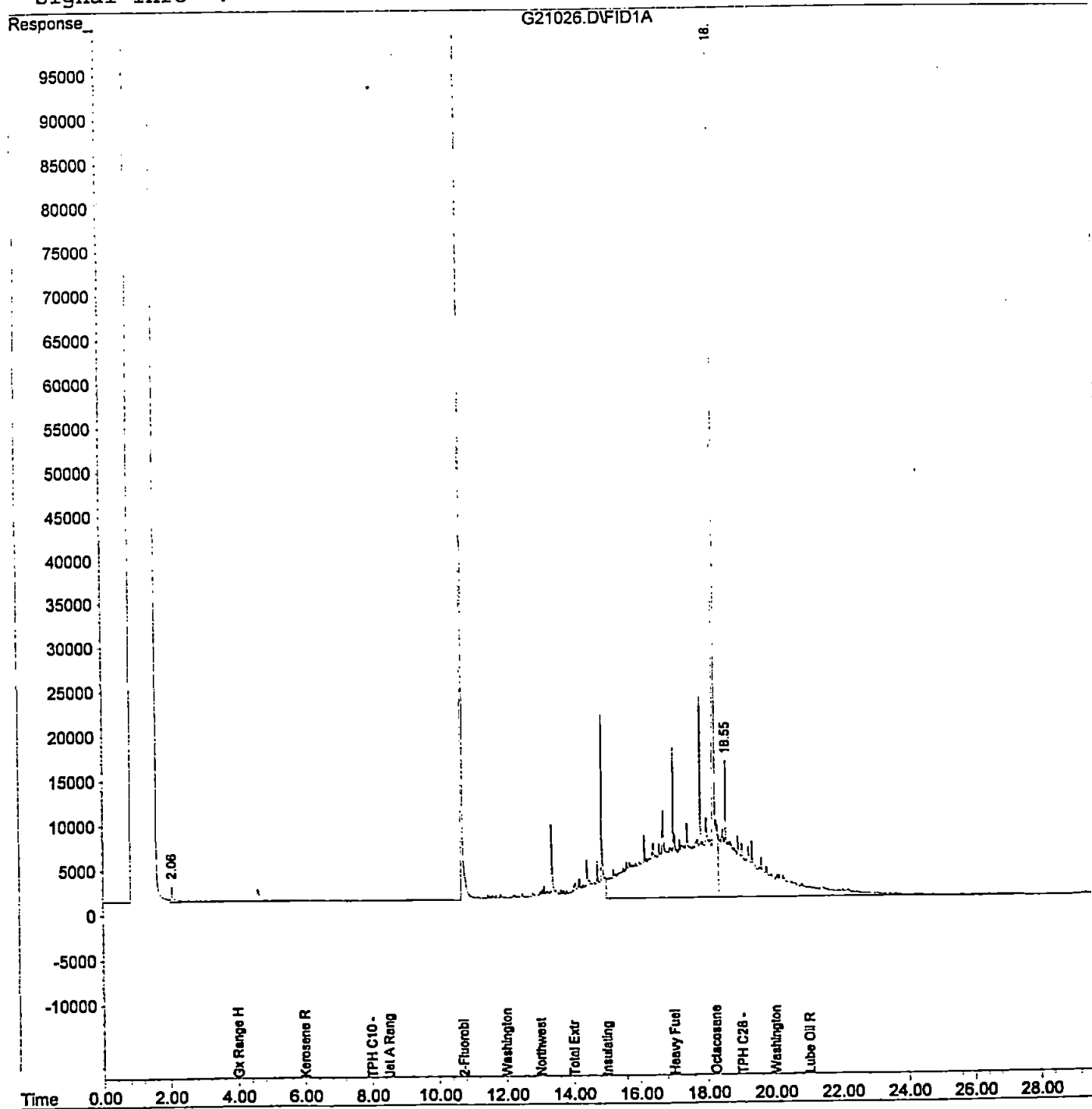
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

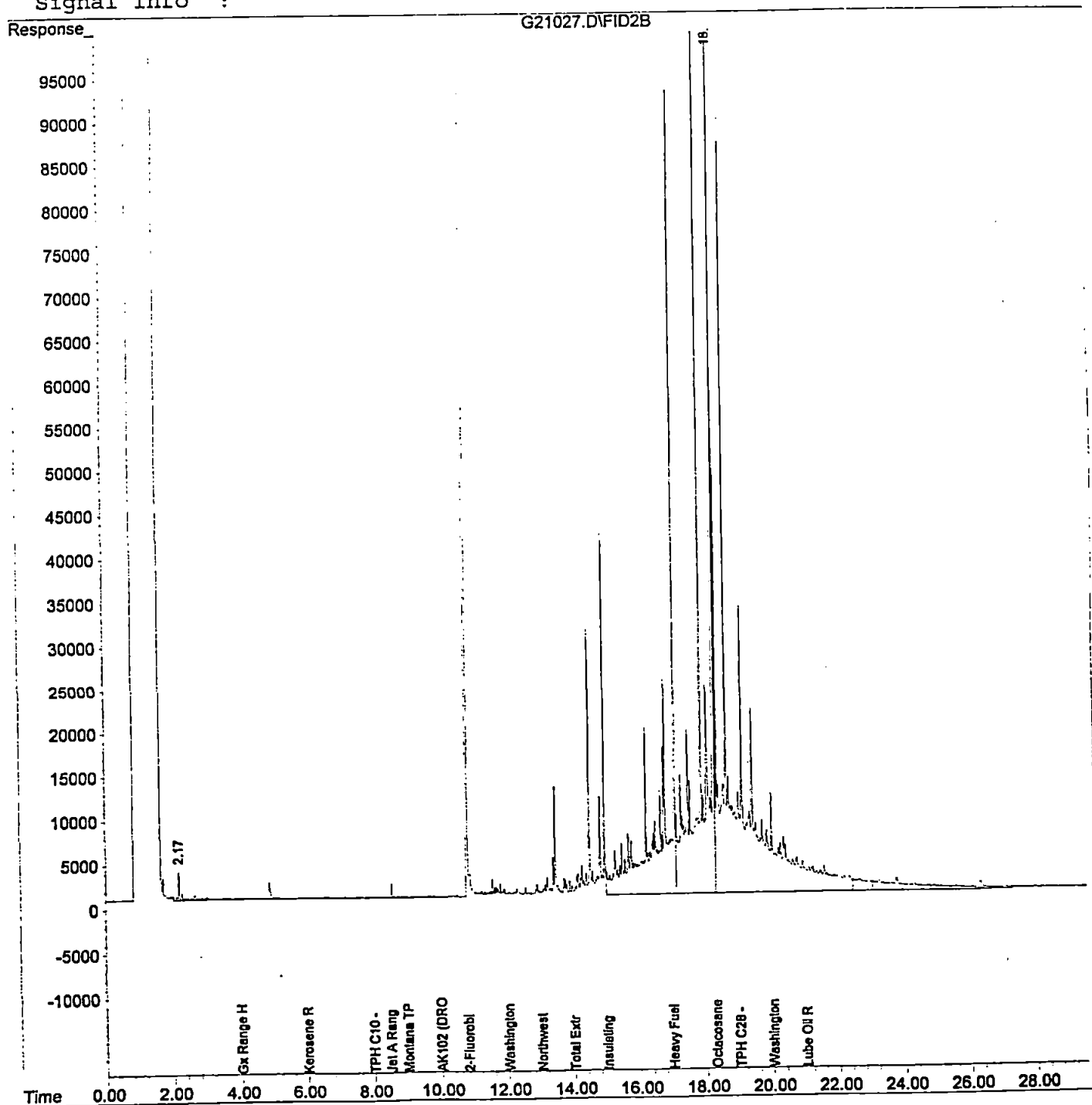
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 Misc : s
 IntFile : SURR.E
 Quant Time: Jul 22 11:28 1998

Vial: 22
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed Jul 08 20:06:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

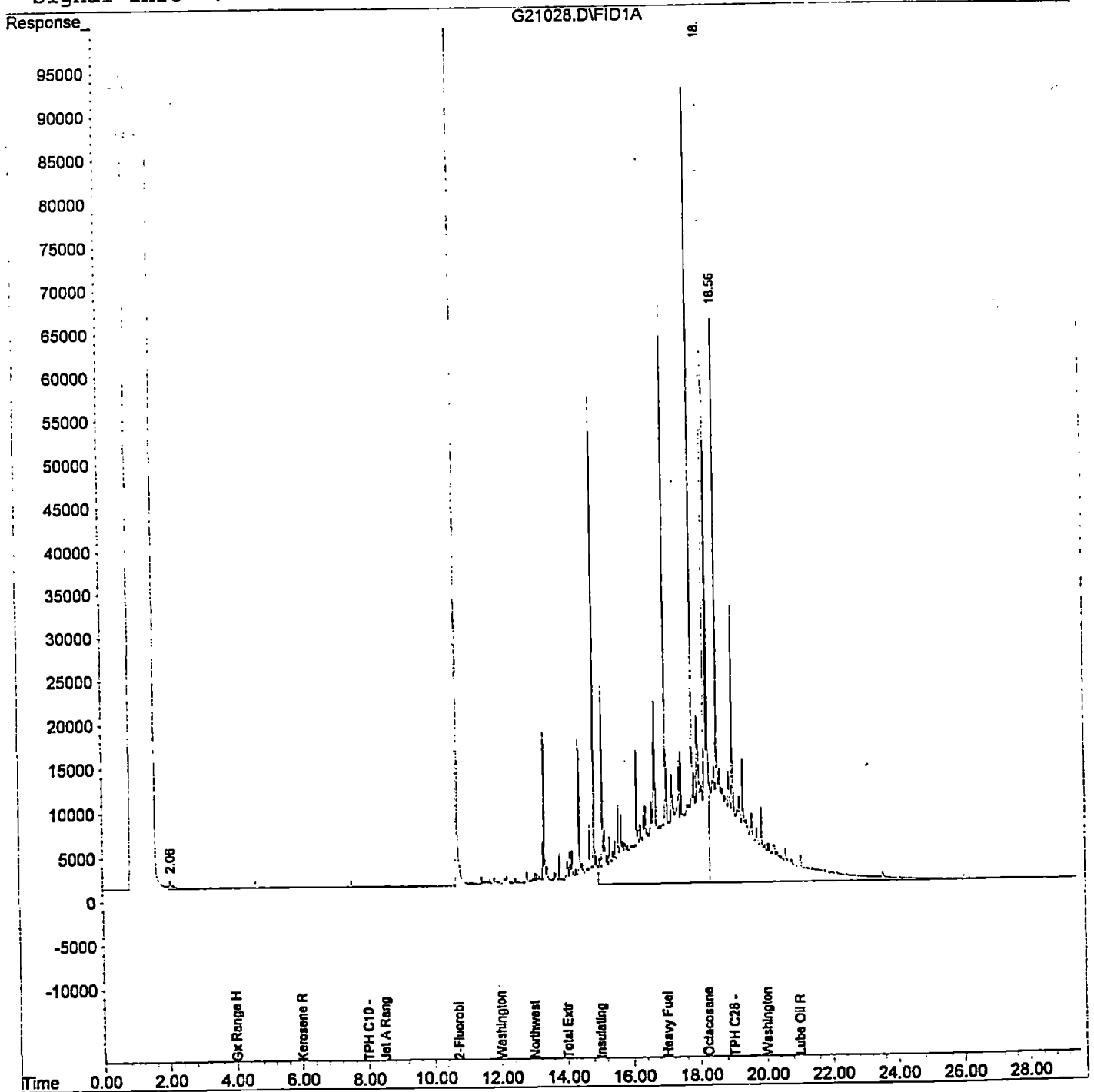
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 Sample : b807309-04
 Misc : s
 IntFile : SURR.E
 Quant Time: Jul 22 11:37 1998

Vial: 23
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Wed Jul 08 20:03:57 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





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(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

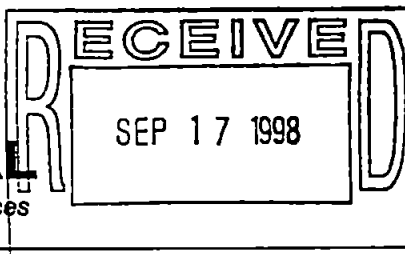
Work Order # 5807309

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *					
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			10 7 5 4 3 2 1 Standard Same Day 3-4 2 1 Standard Same Day					
ADDRESS:			ADDRESS: PSE								
PHONE: 4206-728-2874 FAX:			P.O. NUMBER:			NCA QUOTE #:					
PROJECT NAME: Grady Way			Analysis Request: WTPH Dx PCE by EPA 8082 Sux by EPA 8082 2210			OTHER Specify:					
PROJECT NUMBER: 186-409-00						* Turnaround Requests less than standard may incur Rush Charges.					
SAMPLED BY: TNO											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)						MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	
1. Sed-4	7/17/98 1315	B807309-01	X	X	X			S	1		
2. Sed-5	7/17/98 1320	-02	X	X	X			S	1		
3. Soil-1	7/17/98 1325	-03	X	X	X			S	1		
4. Soil-2	7/17/98 1320	-04	X	X	X			S	1		
5.											
6.											
7.											
8.											
9.											
10.											
RELINQUISHED BY (Signature):			DATE: 7/15/98			RECEIVED BY (Signature):			DATE: 7/16/98		
PRINT NAME: Tony Oime			FIRM: CEI			PRINT NAME: B. Dightman			FIRM: NCH		
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature):			DATE:		
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:		
ADDITIONAL REMARKS:			WTPH Dx w/ silica gel cleanup			17.1 w/CS			PAGE 1 OF 1		



NORTH CREEK ANALYTICAL

Environmental Laboratory Services



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GMW-1	B808556-01	Water	8/29/98
GMW-2	B808556-02	Water	8/29/98
GMW-3	B808556-03	Water	8/29/98
GMW-4	B808556-04	Water	8/29/98
GMW-5	B808556-05	Water	8/29/98
GMW-6	B808556-06	Water	8/29/98
GMW-7	B808556-07	Water	8/29/98
GMW-8	B808556-08	Water	8/29/98
GMW-9	B808556-09	Water	8/29/98
GMW-10	B808556-10	Water	8/29/98
GMW-11	B808556-11	Water	8/29/98
MW-4	B808556-12	Water	8/29/98
MW-10	B808556-13	Water	8/29/98
MW-20	B808556-14	Water	8/29/98

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.*

Steve Davis, Project Manager

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Page 1 of 1



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4				B808556-12			Water	
Gasoline Range Hydrocarbons	0880893	8/31/98	8/31/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		105	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		106	"	
MW-10				B808556-13			Water	
Gasoline Range Hydrocarbons	0880893	8/31/98	8/31/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		98.5	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		104	"	
MW-20				B808556-14			Water	
Gasoline Range Hydrocarbons	0880893	8/31/98	9/2/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		109	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		106	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

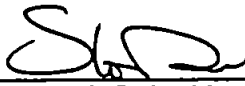
Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-1								
				B808556-01			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		80.3	%	
GMW-2								
				B808556-02			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		76.8	%	
GMW-4								
				B808556-04			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		78.4	%	
GMW-5								
				B808556-05			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.3	%	
GMW-6								
				B808556-06			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		78.1	%	
GMW-7								
				B808556-07			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/2/98		0.250	1.25	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	1.96	"	
Surrogate: 2-FBP	"	"	"	50.0-150		73.9	%	
GMW-8								
				B808556-08			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.3	%	
GMW-9								
				B808556-09			Water	
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-10								
				B808556-10				
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	Water mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		82.9	%	
GMW-11								
				B808556-11				
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	Water mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.6	%	
MW-4								
				B808556-12				
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	Water mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		58.7	%	
MW-10								
				B808556-13				
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	Water mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		79.0	%	
MW-20								
				B808556-14				
Diesel Range Hydrocarbons	0980003	9/1/98	9/3/98		0.250	ND	Water mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		83.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 8/29/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 8/29/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/15/98 11:01

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-4				B808556-04			Water	
Acenaphthene	0980004	9/1/98	9/7/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		57.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		61.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		71.4	"	
GMW-5				B808556-05			Water	
Acenaphthene	0980004	9/1/98	9/8/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		65.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-5 (continued)				B808556-05			Water	
Surrogate: Nitrobenzene-d5	0980004	9/1/98	9/8/98	30.0-150		60.6	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		61.9	"	
GMW-10				B808556-10			Water	
Acenaphthene	0980004	9/1/98	9/8/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		59.5	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		61.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		68.0	"	
GMW-11				B808556-11			Water	
Acenaphthene	0980004	9/1/98	9/8/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>GMW-11 (continued)</u>				<u>B808556-11</u>			<u>Water</u>	
Naphthalene	0980004	9/1/98	9/8/98		0.300	ND	ug/l	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		59.7	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		63.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		70.8	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0880893		Date Prepared: 8/31/98			Extraction Method: EPA 5030B (P/T)					
Blank		0880893-BLK1								
Gasoline Range Hydrocarbons	8/31/98			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB (FID)	"	48.0		51.8	"	50.0-150	108			
Surrogate: 4-BFB (PID)	"	48.0		50.8	"	50.0-150	106			
LCS		0880893-BS1								
Gasoline Range Hydrocarbons	8/31/98	500		459	ug/l	70.0-130	91.8			
Surrogate: 4-BFB (FID)	"	48.0		58.9	"	50.0-150	123			
Duplicate		0880893-DUP1	B808519-03							
Gasoline Range Hydrocarbons	8/31/98		181000	191000	ug/l			25.0	5.38	
Surrogate: 4-BFB (FID)	"	48.0		59.2	"	50.0-150	123			
Duplicate		0880893-DUP2	B808519-02							
Gasoline Range Hydrocarbons	8/31/98		82400	81600	ug/l			25.0	0.976	
Surrogate: 4-BFB (FID)	"	48.0		71.9	"	50.0-150	150			
Matrix Spike		0880893-MS1	B808537-07							
Benzene	8/31/98	10.0	ND	11.0	ug/l	70.0-130	110			
Toluene	"	10.0	ND	10.4	"	70.0-130	104			
Ethylbenzene	"	10.0	ND	9.76	"	70.0-130	97.6			
Xylenes (total)	"	30.0	ND	28.7	"	70.0-130	95.7			
Surrogate: 4-BFB (PID)	"	48.0		52.2	"	50.0-150	109			
Matrix Spike Dup		0880893-MSD1	B808537-07							
Benzene	8/31/98	10.0	ND	11.0	ug/l	70.0-130	110	15.0	0	
Toluene	"	10.0	ND	10.5	"	70.0-130	105	15.0	0.957	
Ethylbenzene	"	10.0	ND	10.0	"	70.0-130	100	15.0	2.43	
Xylenes (total)	"	30.0	ND	29.7	"	70.0-130	99.0	15.0	3.39	
Surrogate: 4-BFB (PID)	"	48.0		54.0	"	50.0-150	113			

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 8/29/98
Received: 8/29/98
Reported: 9/15/98 11:01

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980003		Date Prepared: 9/1/98		Extraction Method: EPA 3520C/600 Series						
Blank		0980003-BLK1								
Diesel Range Hydrocarbons	9/2/98			ND	mg/l	0.250				
Lube Oil Range Hydrocarbons	"			ND	"	0.500				
Surrogate: 2-FBP	"	0.329		0.271	"	50.0-150	82.4			
LCS		0980003-BS1								
Diesel Range Hydrocarbons	9/2/98	2.00		1.79	mg/l	50.0-150	89.5			
Surrogate: 2-FBP	"	0.329		0.272	"	50.0-150	82.7			
LCS Dup		0980003-BSD1								
Diesel Range Hydrocarbons	9/2/98	2.00		1.88	mg/l	50.0-150	94.0	50.0	4.90	
Surrogate: 2-FBP	"	0.329		0.324	"	50.0-150	98.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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Geo Engineers - Seattle
 600 Stewart Street, Suite 1215
 Seattle, WA 98101

Project: PSE-Grady Way
 Project Number: 0186-407-00
 Project Manager: Steve Woodward

Sampled: 9/17/98
 Received: 9/17/98
 Reported: 9/25/98 10:52

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 0980573</u>		<u>Date Prepared: 9/17/98</u>			<u>Extraction Method: EPA 3550B</u>					
<u>Blank</u>		<u>0980573-BLK1</u>								
Aroclor 1016	9/24/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.40	"	40.0-130	96.0			
<u>LCS</u>		<u>0980573-BS1</u>								
Aroclor 1260	9/24/98	333		220	ug/kg dry	44.0-123	66.1			
Surrogate: TCX	"	6.67		7.58	"	40.0-130	114			
<u>Matrix Spike</u>		<u>0980573-MS1</u>		<u>B809439-01</u>						
Aroclor 1260	9/24/98	382	ND	334	ug/kg dry	28.0-132	87.4			
Surrogate: TCX	"	7.64		6.48	"	40.0-130	84.8			
<u>Matrix Spike Dup</u>		<u>0980573-MSD1</u>		<u>B809439-01</u>						
Aroclor 1260	9/24/98	382	ND	346	ug/kg dry	28.0-132	90.6	23.0	3.60	
Surrogate: TCX	"	7.64		6.49	"	40.0-130	84.9			


 Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/17/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/17/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/25/98 10:52

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Quantitation Report

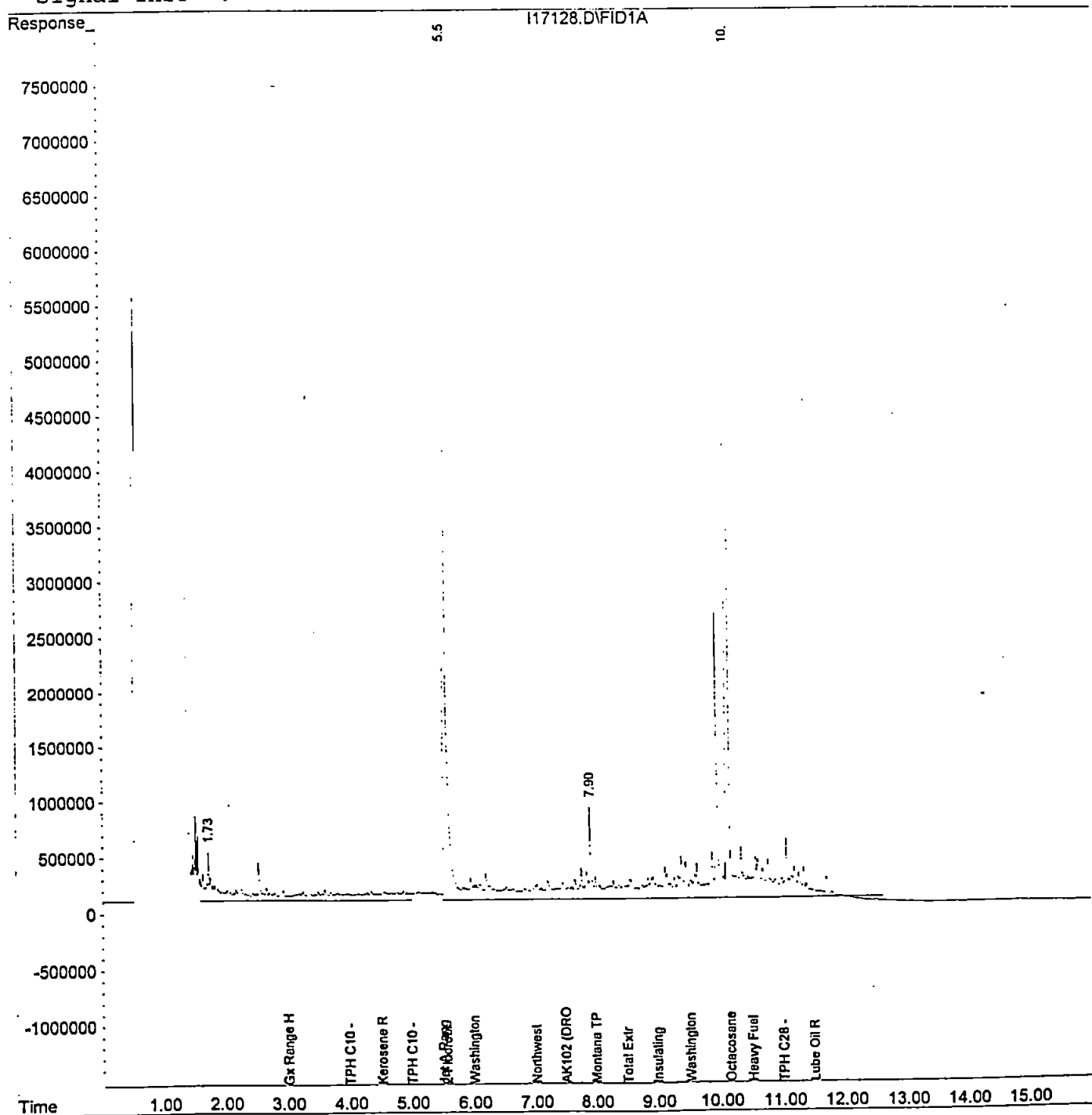
Data File : C:\HPCHEM\4\DATA\I17128.D
 Acq On : 9-18-98 9:21:33 AM
 Sample : b809439-04
 Misc : S
 IntFile : SURR.E

Vial: 84
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Time: Sep 18 10:19 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Sep 11 09:20:25 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





CHAIN OF CUSTODY REPORT

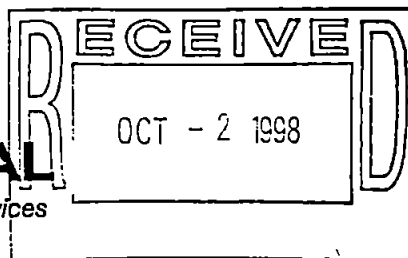
Work Order # **B809439**

REPORT TO:				INVOICE TO:				TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			
ATTENTION: Steve Woodward				ATTENTION: Barry Lombard							
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101				ADDRESS: PSE - P.O. Box 97634-MER-0 Bellevue, WA 98009							
PHONE: (206) 728-2674 FAX: (206) - 728-2732				P.O. NUMBER: _____ NCA QUOTE #: _____							
PROJECT NAME: Grady Way				PAHs by 8270 PCBs by 8082 MUTPH DA							
PROJECT NUMBER: 186-407-00											
SAMPLED BY: Tony Orme											
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	
1. E6-16-0.5		7/17/98 845	B809439-01	X				S	1		
2. EG-17-0.5		850	-02	X				S	1		
3. EC-18-4.5		855	-03	X				S	1		
4. E11-12-2.0		800	-04	X				S	1		
5.											
6.											
7.											
8.											
9.											
10.											
RELINQUISHED BY (Signature):				DATE: 9/17/98		RECEIVED BY (Signature):				DATE: 9/17/98	
PRINT NAME: Tony Orme FIRM: GEI				TIME: 1400		PRINT NAME: Cathy Nichols FIRM: HCH				TIME: 1610	
RELINQUISHED BY (Signature): _____				DATE: _____		RECEIVED BY (Signature): _____				DATE: _____	
PRINT NAME: _____ FIRM: _____				TIME: _____		PRINT NAME: _____ FIRM: _____				TIME: _____	
ADDITIONAL REMARKS: 14.20 v/ew											
									PAGE 1 OF		

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**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services



BOTHELL ▪ (425) 420-9200 ▪ FAX 420-9210
SPOKANE ▪ (509) 924-9200 ▪ FAX 924-9290
PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-4	B809440-01	Water	9/17/98
MW-20	B809440-02	Water	9/17/98
GMW-3	B809440-03	Water	9/17/98

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.*

Steve Davis, Project Manager

C - 233

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-4</u> Arsenic	0980981	9/18/98	9/30/98	<u>B809440-01</u> EPA 6020	0.00100	0.0199	<u>Water</u> mg/l	
<u>GMW-3</u> Arsenic	0980981	9/18/98	9/30/98	<u>B809440-03</u> EPA 6020	0.00100	0.00256	<u>Water</u> mg/l	



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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

Halogenated Volatile Organics by EPA Method 8021B (modified) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-20				B809440-02			Water	
Bromodichloromethane	0980756	9/23/98	9/23/98		1.00	ND	ug/l	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	ND	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		10.0	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	ND	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (ELCD)	"	"	"	50.0-150		95.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980981										
Blank										
Arsenic	9/30/98			ND	mg/l	0.00100				
LCS										
Arsenic	9/30/98	0.200		0.204	mg/l	80.0-120	102			
Duplicate										
Arsenic	9/30/98		0.0199	0.0198	mg/l			20.0	0.504	
Matrix Spike										
Arsenic	9/30/98	0.200	0.0199	0.227	mg/l	75.0-125	104			



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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/17/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/17/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/30/98 13:14

Halogenated Volatile Organics by EPA Method 8021B (modified)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980756		Date Prepared: 9/23/98			Extraction Method: EPA 5030B [P/T]					
Blank		0980756-BLK1								
Bromodichloromethane	9/23/98			ND	ug/l	1.00				
Bromoform	"			ND	"	1.00				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	1.00				
Chlorobenzene	"			ND	"	1.00				
Chloroethane	"			ND	"	1.00				
Chloroform	"			ND	"	1.00				
Chloromethane	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	1.00				
1,2-Dichlorobenzene	"			ND	"	1.00				
1,3-Dichlorobenzene	"			ND	"	1.00				
1,4-Dichlorobenzene	"			ND	"	1.00				
1,1-Dichloroethane	"			ND	"	1.00				
1,2-Dichloroethane	"			ND	"	1.00				
1,1-Dichloroethene	"			ND	"	1.00				
cis-1,2-Dichloroethene	"			ND	"	1.00				
trans-1,2-Dichloroethene	"			ND	"	1.00				
1,2-Dichloropropane	"			ND	"	1.00				
cis-1,3-Dichloropropene	"			ND	"	1.00				
trans-1,3-Dichloropropene	"			ND	"	1.00				
Methylene chloride	"			ND	"	10.0				
1,1,2,2-Tetrachloroethane	"			ND	"	1.00				
Tetrachloroethene	"			ND	"	1.00				
1,1,1-Trichloroethane	"			ND	"	1.00				
1,1,2-Trichloroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	1.00				
Trichlorofluoromethane	"			ND	"	1.00				
Vinyl chloride	"			ND	"	1.00				
Surrogate: 4-BFB (ELCD)	"	10.0		9.74	"	50.0-150	97.4			
LCS		0980756-BS1								
Chlorobenzene	9/23/98	10.0		8.26	ug/l	70.0-130	82.6			
1,1-Dichloroethene	"	10.0		8.32	"	70.0-130	83.2			
Trichloroethene	"	10.0		8.83	"	70.0-130	88.3			
Surrogate: 4-BFB (ELCD)	"	10.0		9.08	"	50.0-150	90.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

Halogenated Volatile Organics by EPA Method 8021B (modified)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike		0980756-MS1	B809417-01							
Chlorobenzene	9/23/98	10.0	ND	8.10	ug/l	70.0-130	81.0			
1,1-Dichloroethene	"	10.0	ND	7.80	"	70.0-130	78.0			
Trichloroethene	"	10.0	ND	8.25	"	70.0-130	82.5			
Surrogate: 4-BFB (ELCD)	"	10.0		9.13	"	50.0-150	91.3			
Matrix Spike Dup		0980756-MSD1	B809417-01							
Chlorobenzene	9/23/98	10.0	ND	8.35	ug/l	70.0-130	83.5	20.0	3.04	
1,1-Dichloroethene	"	10.0	ND	8.02	"	70.0-130	80.2	20.0	2.78	
Trichloroethene	"	10.0	ND	8.68	"	70.0-130	86.8	20.0	5.08	
Surrogate: 4-BFB (ELCD)	"	10.0		9.69	"	50.0-150	96.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

C - 238

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/30/98 13:14

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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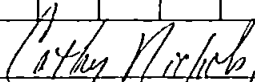
CHAIN OF CUSTODY REPORT

Work Order #

B809440

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> </tr> <tr> <td>☒ 7</td> <td>☐ 5</td> <td>☐ 4</td> <td>☐ 3</td> <td>☐ 2</td> <td>☐ 1</td> <td rowspan="2">☐ Same Day</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> </tr> <tr> <td>☒ Standard</td> <td>☐ 3-4</td> <td>☐ 2</td> <td>☐ 1</td> <td colspan="3">☐ Same Day</td> </tr> </table> ☐ OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						☒ 7	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1	☐ Same Day	Fuels & Hydrocarbon Analyses						☒ Standard	☐ 3-4	☐ 2	☐ 1	☐ Same Day		
Organic & Inorganic Analyses																																		
☒ 7	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1				☐ Same Day																									
Fuels & Hydrocarbon Analyses																																		
☒ Standard	☐ 3-4	☐ 2	☐ 1	☐ Same Day																														
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA			ADDRESS: PSE																															
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			NCA QUOTE #:																												
PROJECT NAME: Grady Way			Analysis Request: 4006 by 80210 Dissolved Arsenic																															
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: TNO																																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)							MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																							
1. MW-4	9/17/98 1000	B809440-01								W	1																							
2. MW-20	1 1030	-02								W	4																							
3. GMW-4	1 1100	-03								W	1																							
4.																																		
5.																																		
6.																																		
7.																																		
8.																																		
9.																																		
10.																																		

RELINQUISHED BY (Signature): 
PRINT NAME: Tony Orme **FIRM:** GEI **DATE:** 9/17/98 **TIME:** 1400

RECEIVED BY (Signature): 
PRINT NAME: Cathy Nichols **FIRM:** PCA **DATE:** 9/17/98 **TIME:** 16:00

RELINQUISHED BY (Signature): _____
PRINT NAME: _____ **FIRM:** _____ **DATE:** _____ **TIME:** _____

RECEIVED BY (Signature): _____
PRINT NAME: _____ **FIRM:** _____ **DATE:** _____ **TIME:** _____

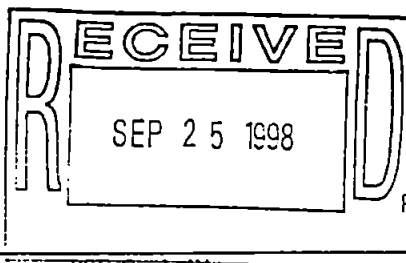
ADDITIONAL REMARKS: Samples were not Field filtered ! Please Filter with in the specified Time period (24 hrs)

PAGE 1 OF 1



NORTH CREEK ANALYTICAL

Environmental Laboratory Services



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/21/98
Received: 9/22/98
Reported: 9/23/98 16:02

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
RTP2-1-2.5	B809563-01	Soil	9/21/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/21/98
Received: 9/22/98
Reported: 9/23/98 16:02

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>RTP2-1-2.5</u>				<u>B809563-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980699	9/22/98	9/23/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		87.8	%	

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/21/98
Received: 9/22/98
Reported: 9/23/98 16:02

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
RTP2-1-2.5	B809563-01	Soil	83.8	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 243

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Project: PSE-Grady Way
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Project Manager: Steve Woodward

Sampled: 9/21/98
Received: 9/22/98
Reported: 9/23/98 16:02

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980699										
Blank										
Date Prepared: 9/22/98										
Extraction Method: EPA 3550B										
0980699-BLK1										
Diesel Range Hydrocarbons	9/23/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.08	"	50.0-150	73.5			
LCS										
0980699-BS1										
Diesel Range Hydrocarbons	9/23/98	66.7		66.9	mg/kg dry	60.0-140	100			
Surrogate: 2-FBP	"	11.0		9.47	"	50.0-150	86.1			
Duplicate										
0980699-DUP1 B809432-01										
Diesel Range Hydrocarbons	9/23/98		247	58.4	mg/kg dry			50.0	124	
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	12.1		10.6	"	50.0-150	87.6			

Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

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Project Manager: Steve Woodward

Sampled: 9/21/98
Received: 9/22/98
Reported: 9/23/98 16:02

Notes and Definitions

#	Note
1	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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 245

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Quantitation Report

Data File : C:\HPCHEM\4\DATA\I23016.D

Acq On : 9-23-98 12:26:57 PM

Sample : b809563-01

Misc : S

IntFile : SURR.E

Quant Time: Sep 23 12:50 1998 Quant Results File: TPHD.RES

Vial: 11

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

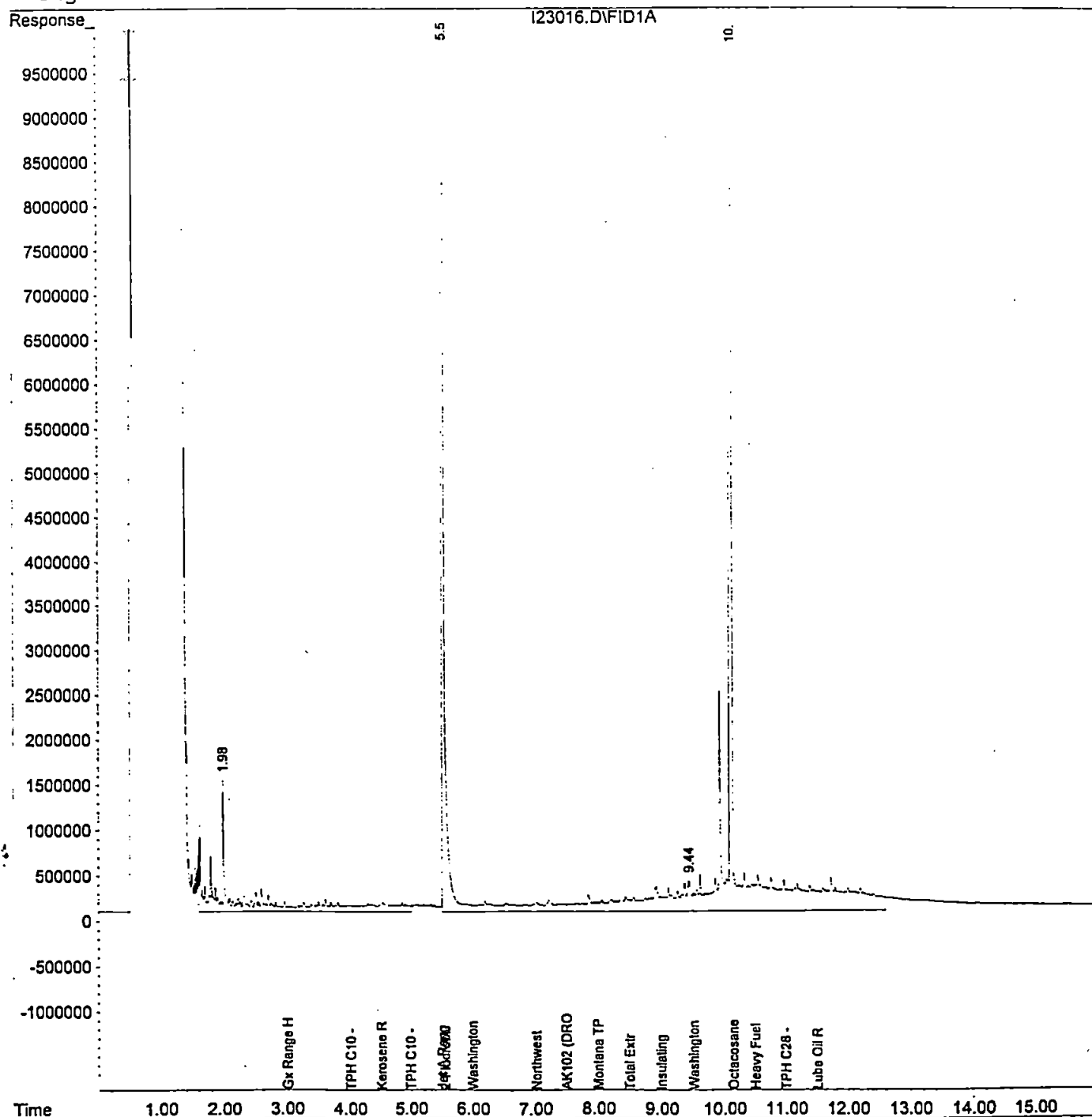
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

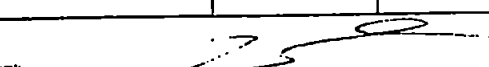
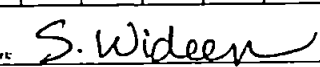
Signal Phase :

Signal Info :



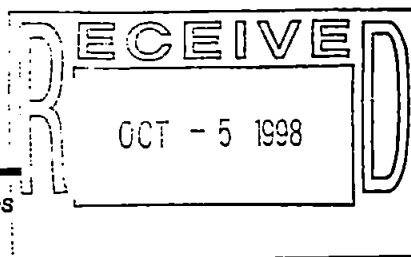
CHAIN OF CUSTODY REPORT

Work Order # **B809563**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.				
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard							
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034-MER-04 Bellevue, WA 98009							
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____							
PROJECT NAME: Grady Way			PAHs by 8/2/98 PCBs by 8/2/98 WWTPH DX							
PROJECT NUMBER: 186-407-00										
SAMPLED BY: Tony Orme										
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	PAHs by 8/2/98 PCBs by 8/2/98 WWTPH DX				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	
1. RTP2-1-2.5	9/21/98 12:30	B80956301					S	1		
2.										
3.										
4.										
5.										
6.										
7.										
8.										
9.										
10.										
RELINQUISHED BY (Signature): 			DATE: 9/21/98		RECEIVED BY (Signature): 	DATE: 9-22-98				
PRINT NAME: Tony Orme			FIRM: GEI		TIME: 1600		PRINT NAME: S. Wideen	FIRM: NCA	TIME: 17:45	
RELINQUISHED BY (Signature): _____			DATE: _____		RECEIVED BY (Signature): _____		DATE: _____			
PRINT NAME: _____			FIRM: _____		TIME: _____		PRINT NAME: _____		FIRM: _____	TIME: _____
ADDITIONAL REMARKS:						wks 12.1				



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ANALYTICAL**
Environmental Laboratory Services



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/29/98
Received: 9/29/98
Reported: 10/1/98 15:17

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX2-1-15.0	B809742-01	Soil	9/29/98
EX2-2-15.0	B809742-02	Soil	9/29/98
EX2-3-6.0	B809742-03	Soil	9/29/98
EX2-4-6.0	B809742-04	Soil	9/29/98
EX2-5-6.0	B809742-05	Soil	9/29/98
RTP3-1-6.0	B809742-06	Soil	9/29/98

North Creek Analytical - Bothell

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

Steve Davis, Project Manager

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600 Stewart Street, Suite 1215
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/29/98
Received: 9/29/98
Reported: 10/1/98 15:17

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX2-1-15.0				B809742-01			Soil	
Gasoline Range Hydrocarbons	0980956	9/29/98	9/30/98		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		85.9	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		93.4	"	
EX2-2-15.0				B809742-02			Soil	
Gasoline Range Hydrocarbons	0980956	9/29/98	9/30/98		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		67.1	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		73.7	"	
EX2-3-6.0				B809742-03			Soil	
Gasoline Range Hydrocarbons	0980956	9/29/98	9/30/98		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		47.1	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		51.2	"	
EX2-4-6.0				B809742-04			Soil	
Gasoline Range Hydrocarbons	0980956	9/29/98	9/30/98		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	
Toluene	"	"	"		0.0500	ND	"	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		70.8	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		70.8	"	
EX2-5-6.0				B809742-05			Soil	
Gasoline Range Hydrocarbons	0980956	9/29/98	9/30/98		5.00	ND	mg/kg dry	
Benzene	"	"	"		0.0500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/29/98
Received: 9/29/98
Reported: 10/1/98 15:17

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>EX2-5-6.0 (continued)</u>				<u>B809742-05</u>			<u>Soil</u>	
Toluene	0980956	9/29/98	9/30/98		0.0500	ND	mg/kg dry	
Ethylbenzene	"	"	"		0.0500	ND	"	
Xylenes (total)	"	"	"		0.100	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		34.7	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		36.1	"	1

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 9/29/98 Received: 9/29/98 Reported: 10/1/98 15:17

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX2-1-15.0				B809742-01			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		64.5	%	
EX2-2-15.0				B809742-02			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		10.0	41.7	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	138	"	
Surrogate: 2-FBP	"	"	"	50.0-150		80.5	%	
EX2-3-6.0				B809742-03			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		10.0	239	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	813	"	
Surrogate: 2-FBP	"	"	"	50.0-150		77.2	%	
EX2-4-6.0				B809742-04			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		10.0	31.6	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	84.3	"	
Surrogate: 2-FBP	"	"	"	50.0-150		88.9	%	
EX2-5-6.0				B809742-05			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		10.0	277	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	814	"	
Surrogate: 2-FBP	"	"	"	50.0-150		71.1	%	
RTP3-1-6.0				B809742-06			Soil	
Diesel Range Hydrocarbons	0980982	9/29/98	9/30/98		210	6760	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		525	13700	"	
Surrogate: 2-FBP	"	"	"	50.0-150		75.5	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/29/98
Received: 9/29/98
Reported: 10/1/98 15:17

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX2-1-15.0	B809742-01	Soil	75.3	%
EX2-2-15.0	B809742-02	Soil	69.6	%
EX2-3-6.0	B809742-03	Soil	54.3	%
EX2-4-6.0	B809742-04	Soil	78.9	%
EX2-5-6.0	B809742-05	Soil	59.4	%
RTP3-1-6.0	B809742-06	Soil	72.7	%

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/29/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/29/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/1/98 15:17

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980956		Date Prepared: 9/29/98		Extraction Method: EPA 5030B (MeOH)						
Blank		0980956-BLK1								
Gasoline Range Hydrocarbons	9/30/98			ND	mg/kg dry	5.00				
Benzene	"			ND	"	0.0500				
Toluene	"			ND	"	0.0500				
Ethylbenzene	"			ND	"	0.0500				
Xylenes (total)	"			ND	"	0.100				
Surrogate: 4-BFB (FID)	"	4.00		4.23	"	50.0-150	106			
Surrogate: 4-BFB (PID)	"	4.00		4.52	"	50.0-150	113			
LCS		0980956-BS1								
Gasoline Range Hydrocarbons	9/30/98	25.0		23.0	mg/kg dry	70.0-130	92.0			
Surrogate: 4-BFB (FID)	"	4.00		4.31	"	50.0-150	108			
Duplicate		0980956-DUP1		B809612-03						
Gasoline Range Hydrocarbons	9/30/98		ND	ND	mg/kg dry			50.0		
Surrogate: 4-BFB (FID)	"	4.49		3.54	"	50.0-150	78.8			
Matrix Spike		0980956-MS1		B809597-05						
Benzene	9/30/98	0.578	0.0657	0.607	mg/kg dry	60.0-140	93.7			
Toluene	"	0.578	ND	0.501	"	60.0-140	86.7			
Ethylbenzene	"	0.578	0.0635	0.536	"	60.0-140	81.7			
Xylenes (total)	"	1.73	ND	1.54	"	60.0-140	89.0			
Surrogate: 4-BFB (PID)	"	4.63		4.78	"	50.0-150	103			
Matrix Spike Dup		0980956-MSD1		B809597-05						
Benzene	9/30/98	0.578	0.0657	0.619	mg/kg dry	60.0-140	95.7	20.0	2.11	
Toluene	"	0.578	ND	0.523	"	60.0-140	90.5	20.0	4.29	
Ethylbenzene	"	0.578	0.0635	0.567	"	60.0-140	87.1	20.0	6.40	
Xylenes (total)	"	1.73	ND	1.63	"	60.0-140	94.2	20.0	5.68	
Surrogate: 4-BFB (PID)	"	4.63		4.81	"	50.0-150	104			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/29/98
Received: 9/29/98
Reported: 10/1/98 15:17

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 0980982										
Blank										
Date Prepared: 9/29/98										
Extraction Method: EPA 3550B										
0980982-BLK1										
Diesel Range Hydrocarbons	9/30/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		6.59	"	50.0-150	61.6			
LCS										
0980982-BS1										
Diesel Range Hydrocarbons	9/30/98	66.7		62.5	mg/kg dry	60.0-140	93.7			
Surrogate: 2-FBP	"	10.7		7.89	"	50.0-150	73.7			
Duplicate										
0980982-DUP1 B809742-06										
Diesel Range Hydrocarbons	9/30/98		6760	5560	mg/kg dry			50.0	19.5	
Lube Oil Range Hydrocarbons	"		13700	11900	"			50.0	14.1	
Surrogate: 2-FBP	"	14.7		13.4	"	50.0-150	91.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 9/29/98 Received: 9/29/98 Reported: 10/1/98 15:17

Notes and Definitions

#	Note

1	Multiple analyses indicate the percent recovery is outside the control limits due to a matrix effect.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Quantitation Report

Data File : C:\HPCHEM\4\DATA\I29039.D\FID1A.CH
 Acq On : 30 Sep 1998 2:30 am
 Sample : B809742-01
 Misc : 100 uL, S
 IntFile : SURR.E

Vial: 39
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

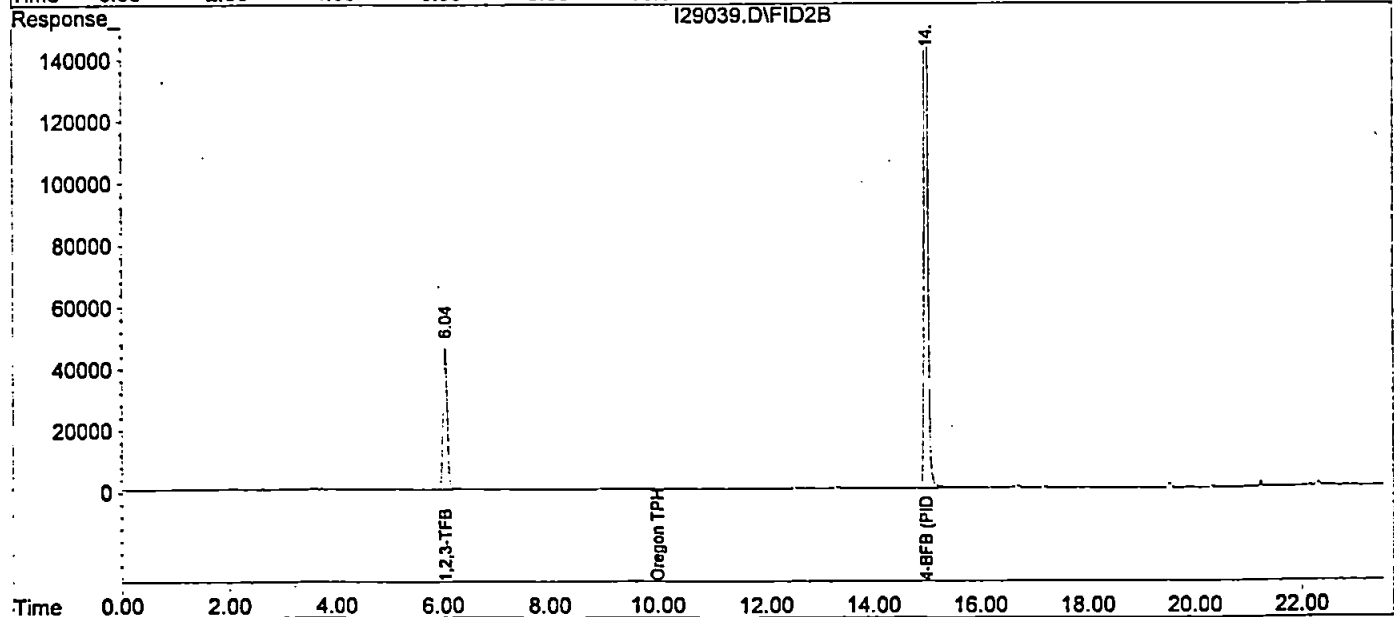
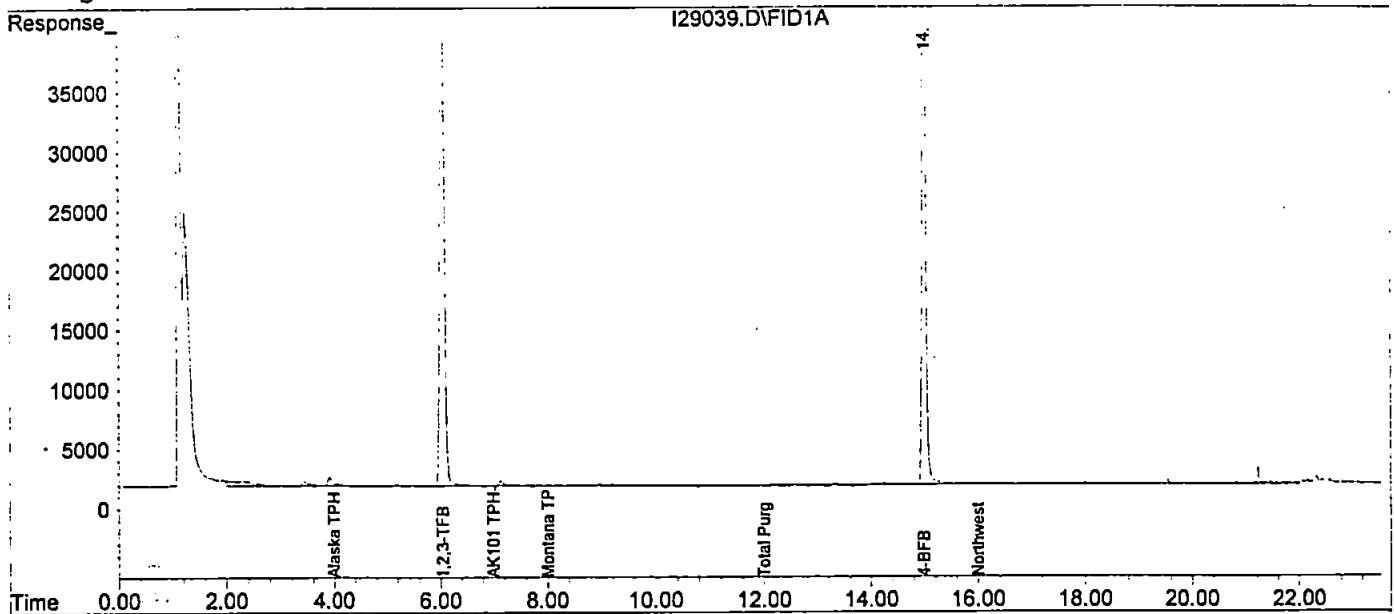
Data File : C:\HPCHEM\4\DATA\I29039.D\FID2B.CH
 Acq On : 30 Sep 98 2:30 am
 Sample : B809742-01
 Misc : 100 uL, S
 IntFile : SURR2.E

Vial: 39
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Sep 30 6:42 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Tue Sep 22 09:25:49 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase :
 Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I29040.D\FID1A.CH
 Acq On : 30 Sep 1998 3:00 am
 Sample : B809742-02
 Misc : 100 uL, S
 IntFile : SURR.E

Vial: 40
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

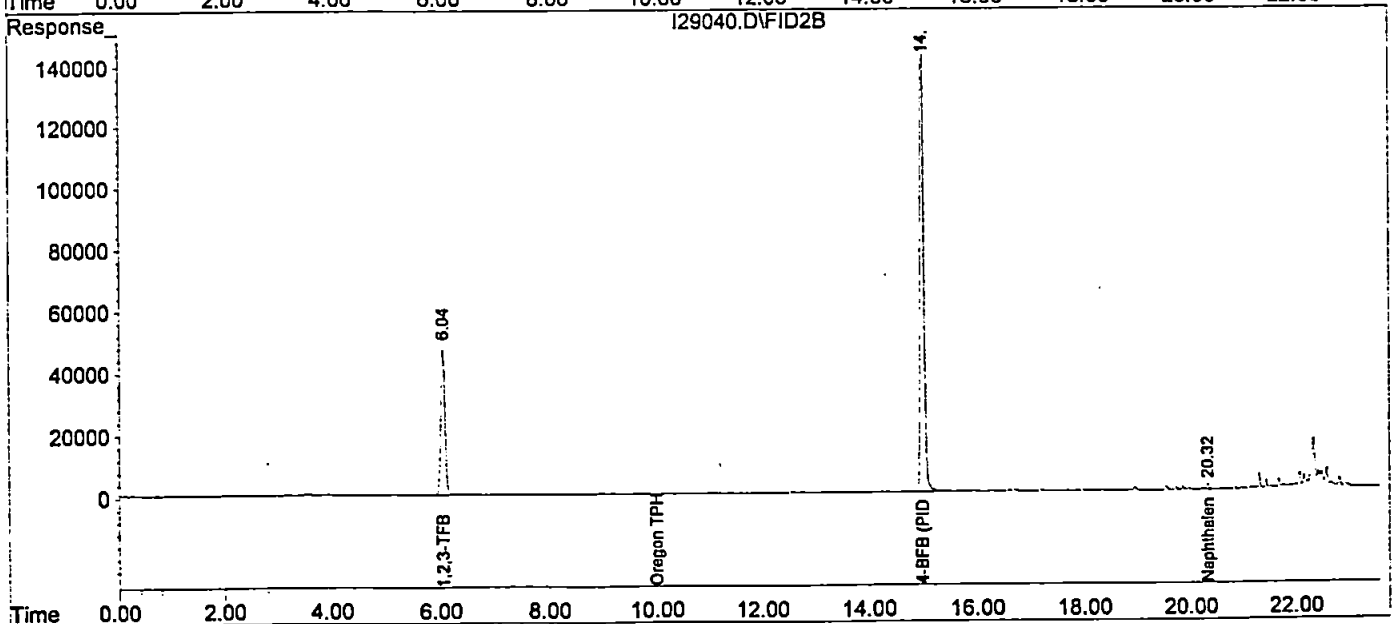
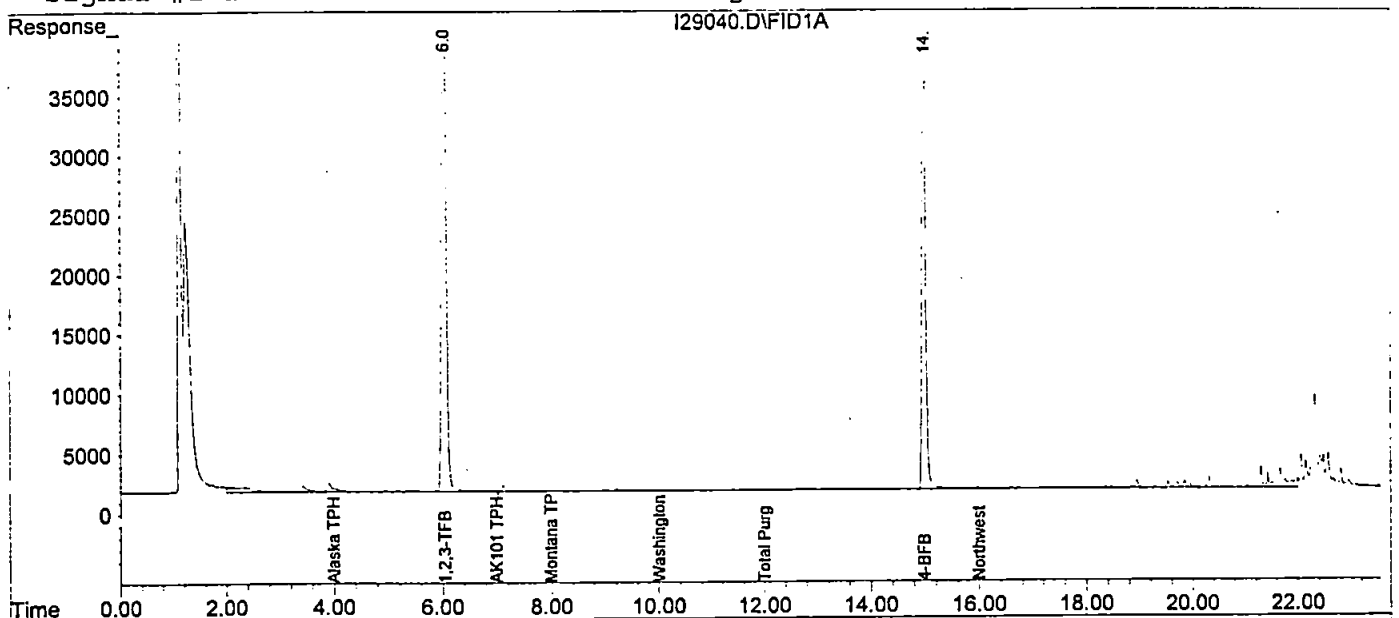
Data File : C:\HPCHEM\4\DATA\I29040.D\FID2B.CH
 Acq On : 30 Sep 98 3:00 am
 Sample : B809742-02
 Misc : 100 uL, S
 IntFile : SURR2.E

Vial: 40
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Sep 30 6:42 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Tue Sep 22 09:25:49 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I29042.D\FID1A.CH
 Acq On : 30 Sep 1998 4:00 am
 Sample : B809742-03
 Misc : 100 uL, S
 IntFile : SURR.E

Vial: 42
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

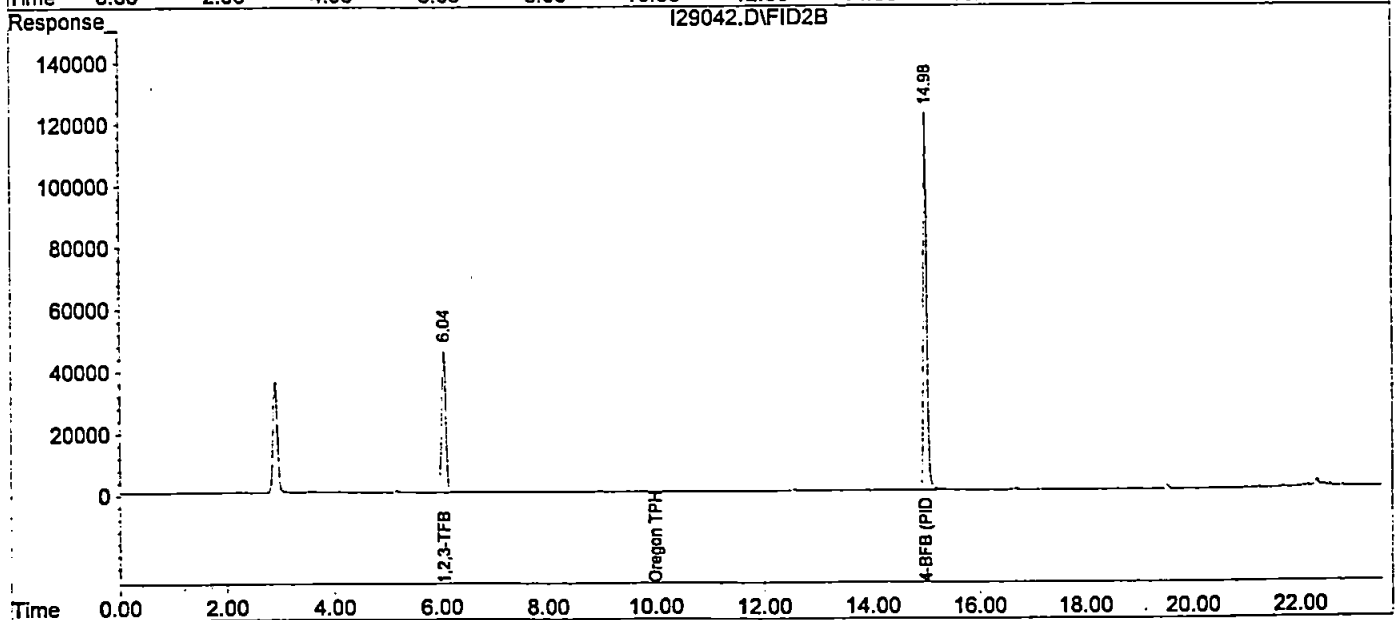
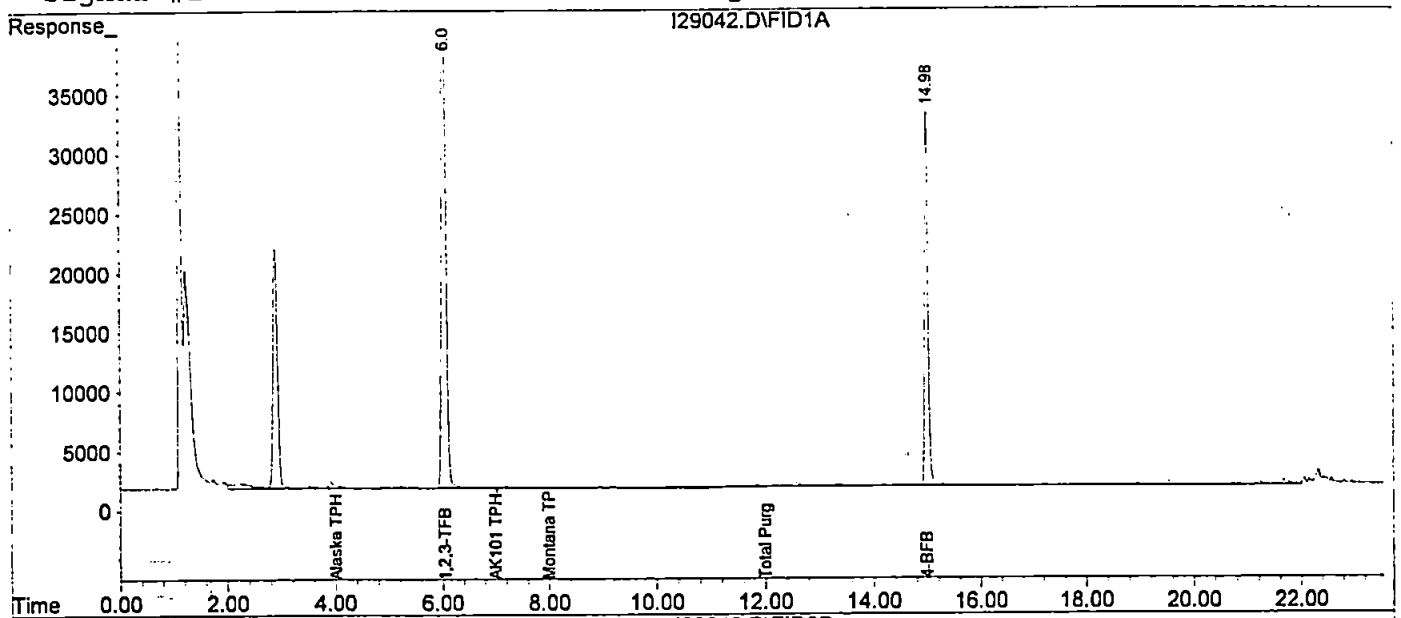
Data File : C:\HPCHEM\4\DATA\I29042.D\FID2B.CH
 Acq On : 30 Sep 98 4:00 am
 Sample : B809742-03
 Misc : 100 uL, S
 IntFile : SURR2.E

Vial: 42
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Sep 30 6:42 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Tue Sep 22 09:25:49 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase :
 Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I30022.D\FID1A.CH
 Acq On : 30 Sep 1998 5:42 pm
 Sample : b809742-04 re-extract
 Misc : 100 uL
 IntFile : SURR.E

Vial: 22
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

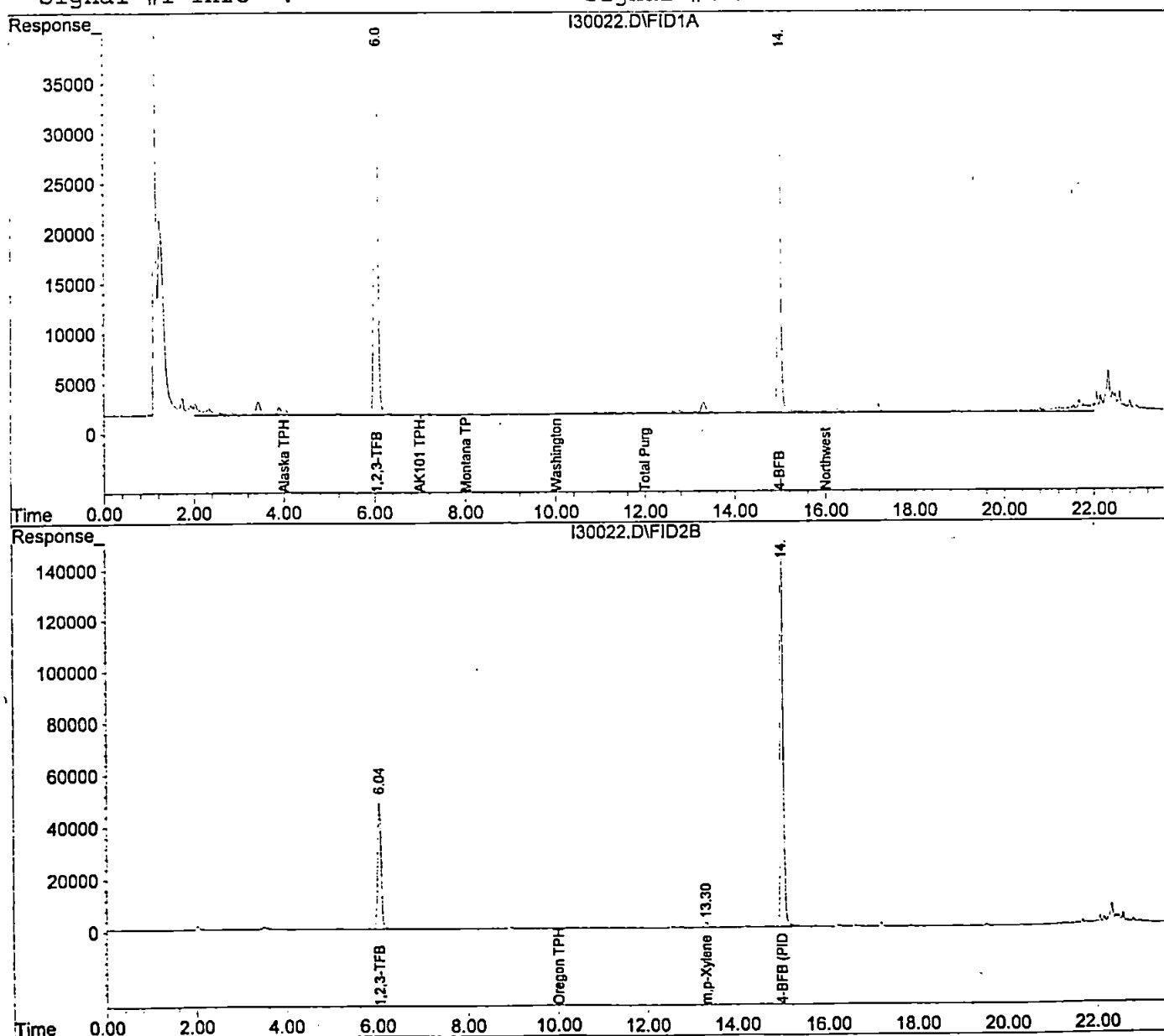
Data File : C:\HPCHEM\4\DATA\I30022.D\FID2B.CH
 Acq On : 30 Sep 98 5:42 pm
 Sample : b809742-04 re-extract
 Misc : 100 uL
 IntFile : SURR2.E

Vial: 22
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Sep 30 18:06 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Tue Sep 22 09:25:49 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase:
 Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I30023.D\FID1A.CH
 Acq On : 30 Sep 1998 6:12 pm
 Sample : b809742-05 re-extract
 Misc : 100 uL
 IntFile : SURR.E

Vial: 23
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

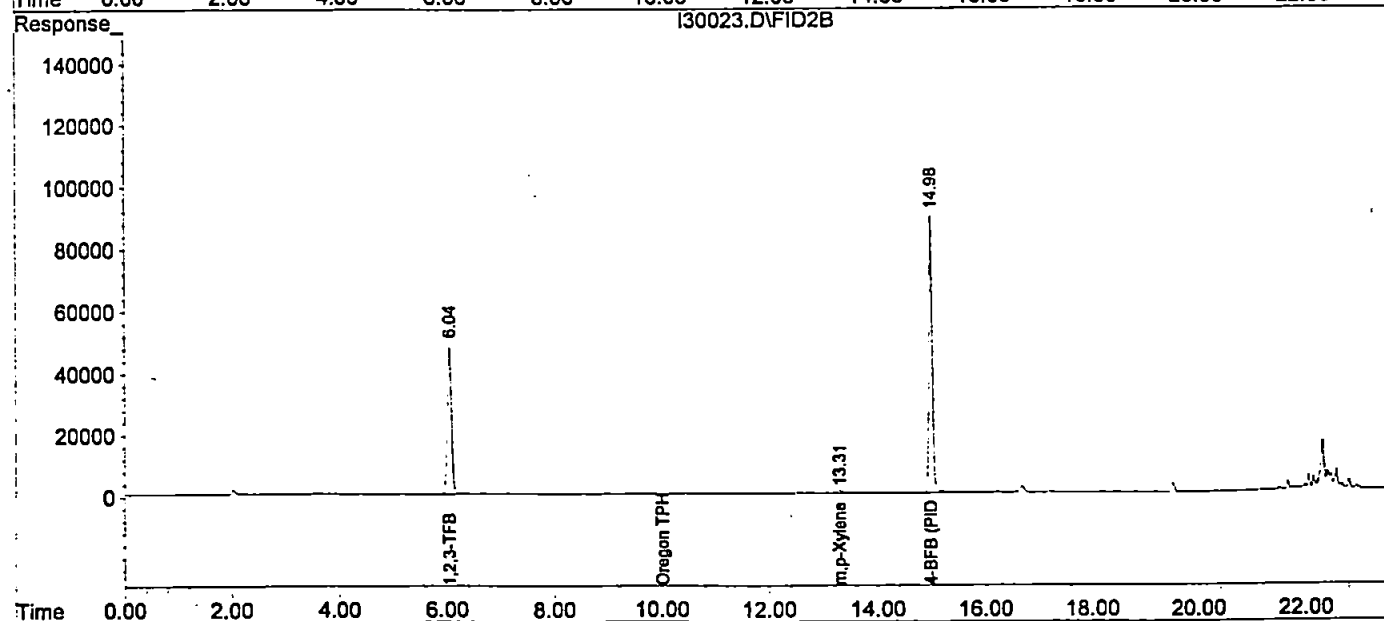
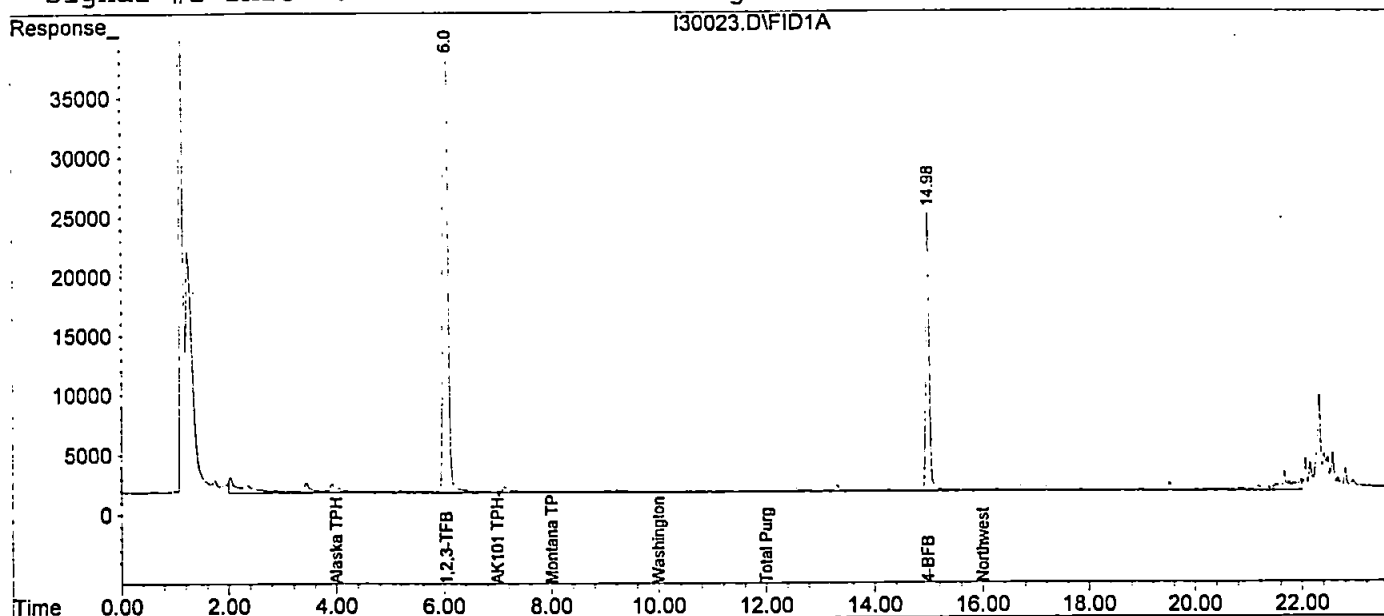
Data File : C:\HPCHEM\4\DATA\I30023.D\FID2B.CH
 Acq On : 30 Sep 98 6:12 pm
 Sample : b809742-05 re-extract
 Misc : 100 uL
 IntFile : SURR2.E

Vial: 23
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Sep 30 18:36 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Tue Sep 22 09:25:49 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase :
 Signal #2 Info :



Quantitation Report

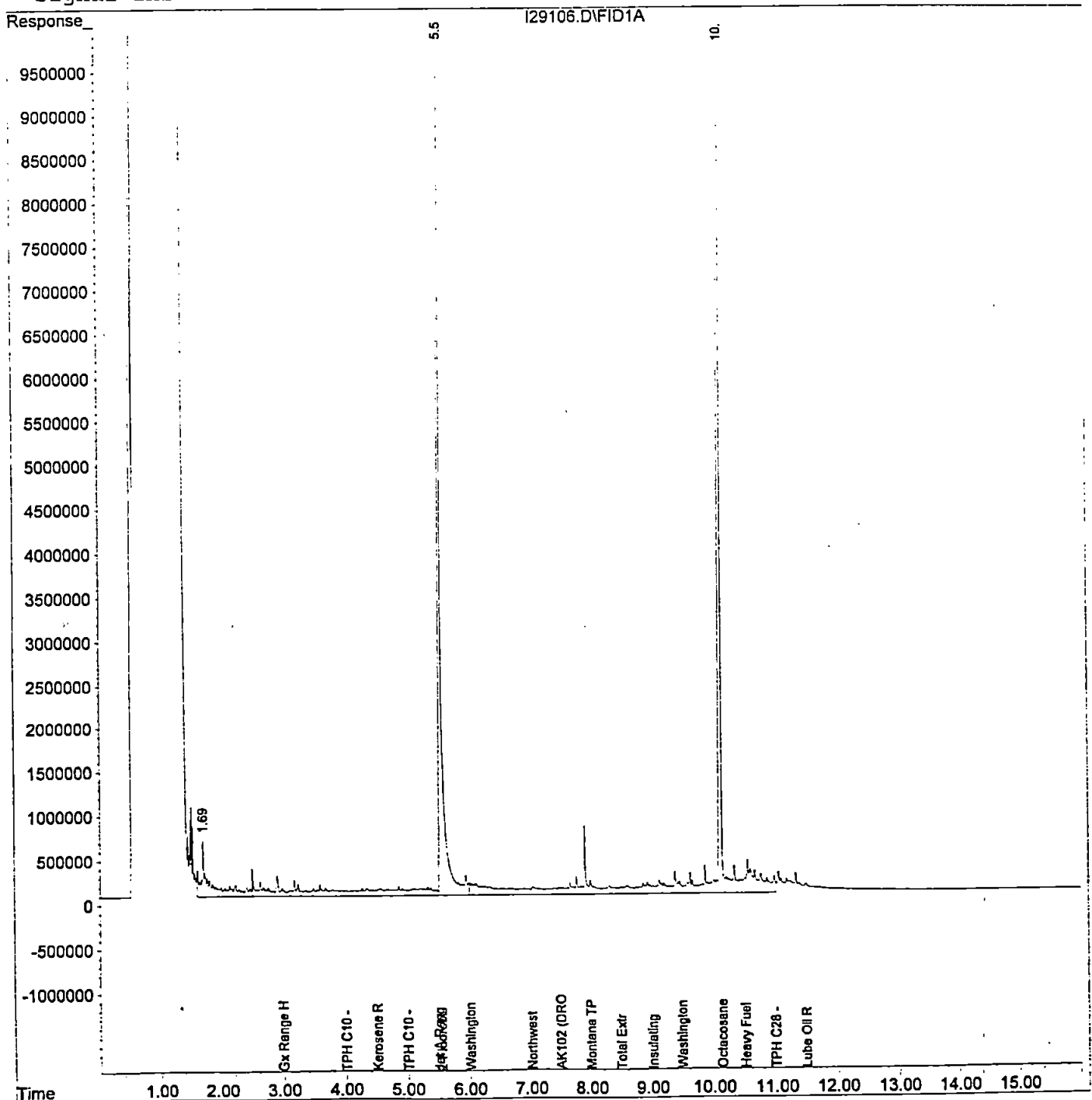
Data File : C:\HPCHEM\4\DATA\I29106.D
 Acq On : 9-30-98 5:13:18 AM
 Sample : b809742-01
 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 30 7:26 1998

Vial: 76
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Sep 11 09:20:25 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

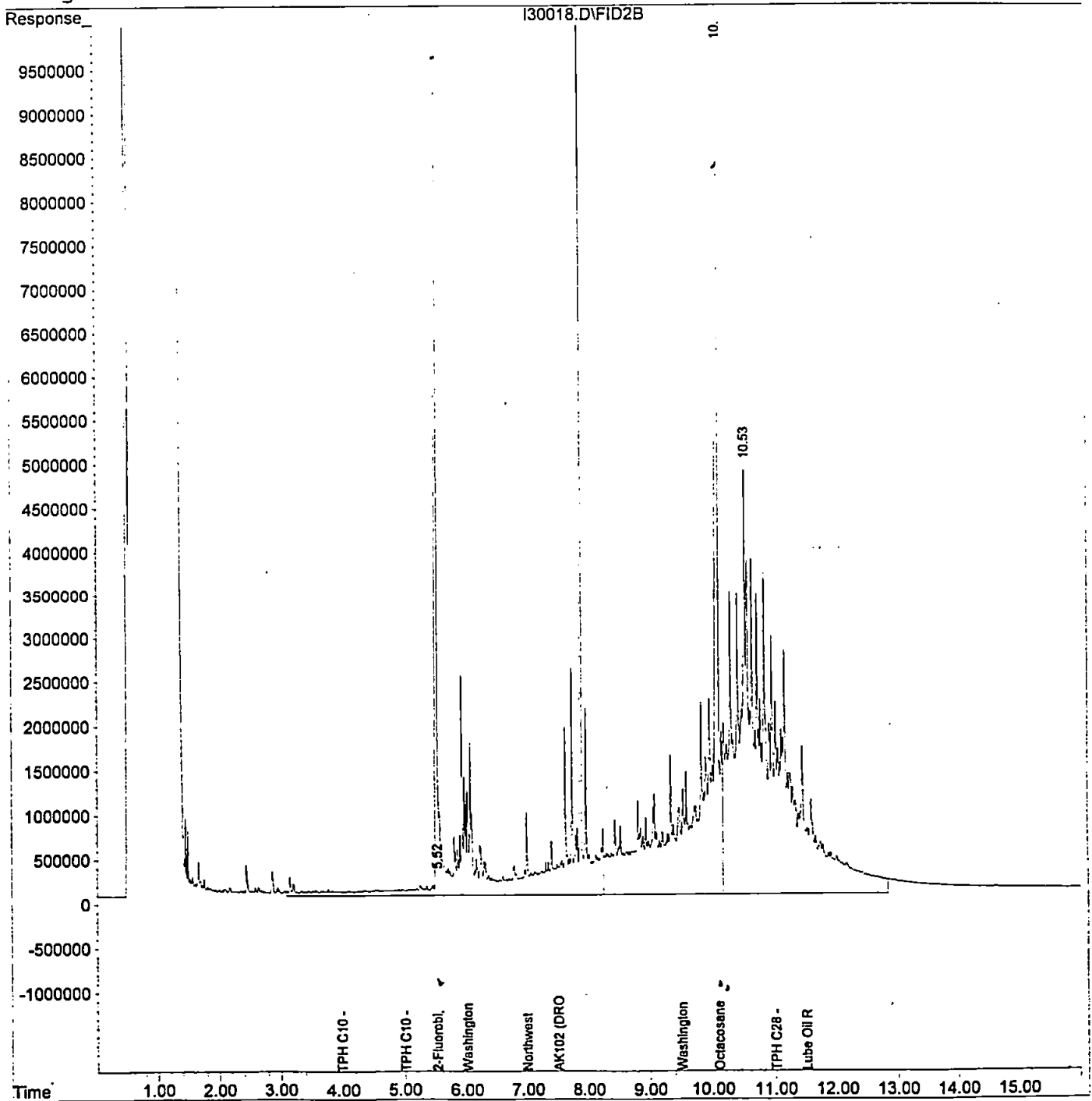
Data File : C:\HPCHEM\4\DATA.SEC\I30018.D
 Acq On : 9-30-98 11:00:17 AM
 Sample : b809742-02 r1
 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 30 11:17 1998

Vial: 10
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Mon Sep 28 16:14:58 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I29108.D

Acq On : 9-30-98 5:36:06 AM

Sample : b809742-03

Misc : s

IntFile : SURR.E

Quant Time: Sep 30 7:27 1998 Quant Results File: TPHD.RES

Vial: 78

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

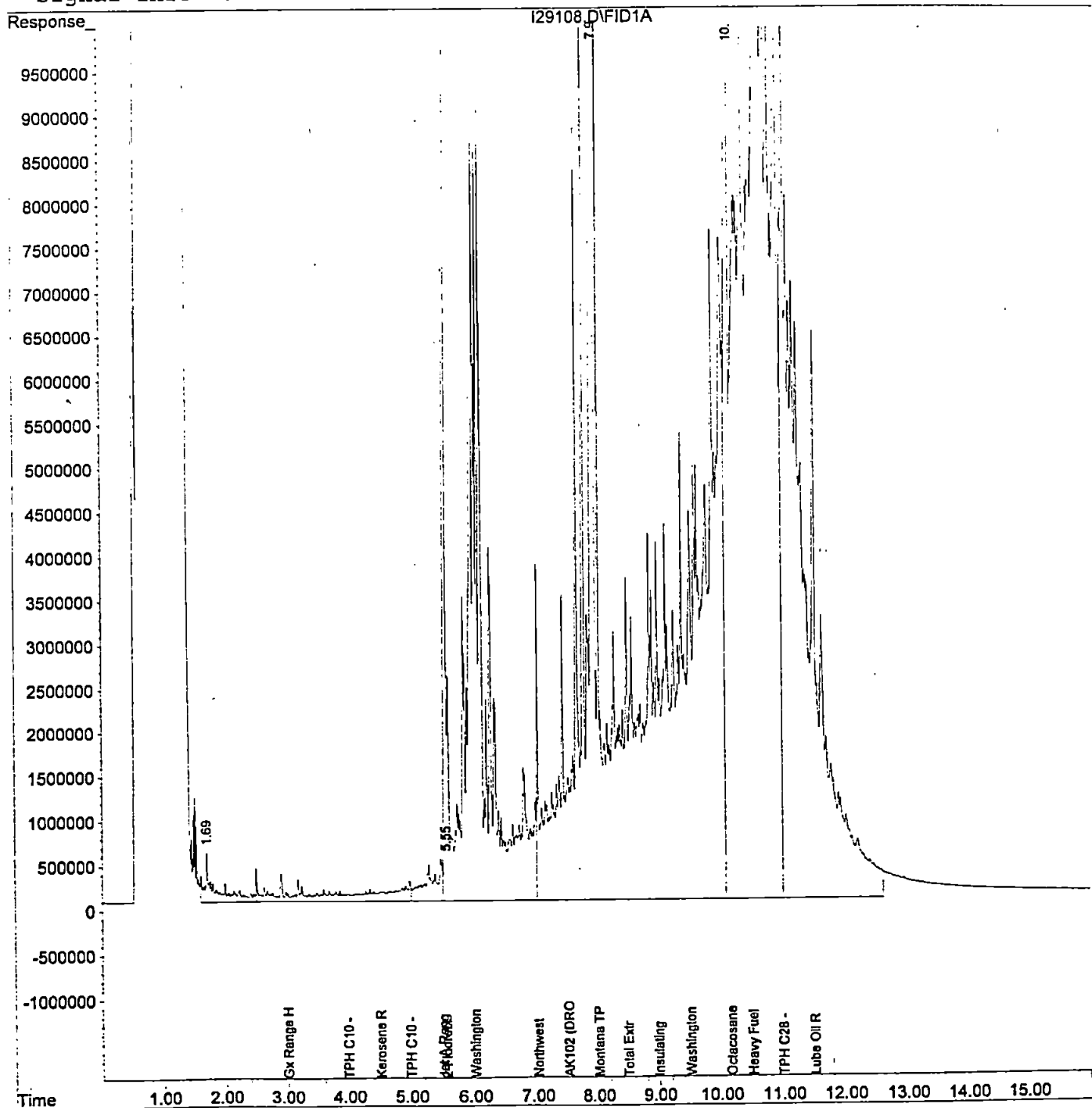
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I30019.D

Acq On : 9-30-98 11:00:17 AM

Sample : b809742-04 r1

Misc : S

IntFile : SURR.E

Quant Time: Sep 30 11:21 1998 Quant Results File: TPHD.RES

Vial: 11

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

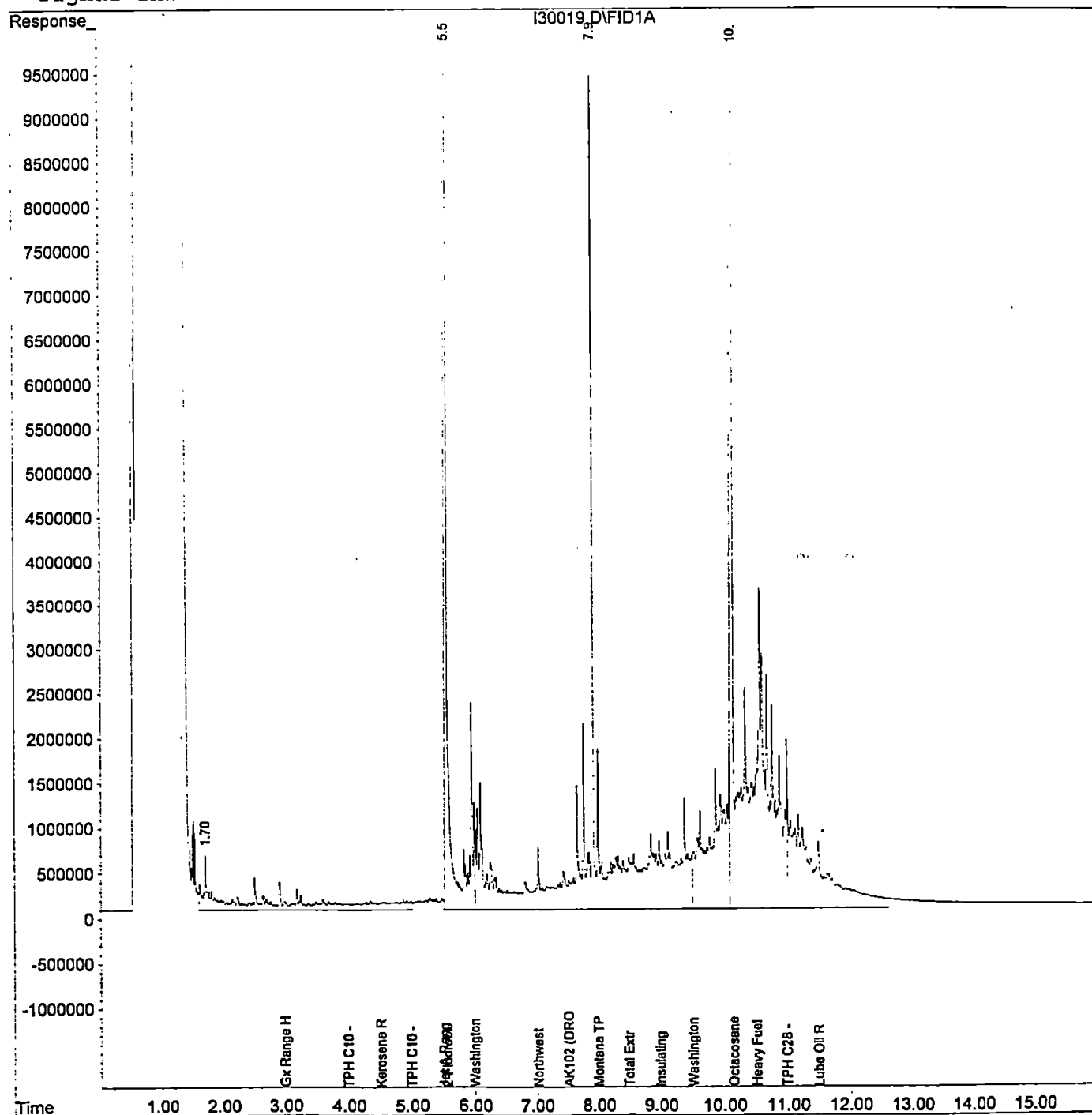
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I29110.D

Acq On : 9-30-98 5:58:58 AM

Sample : b809742-05

Misc : S

IntFile : SURR.E

Quant Time: Sep 30 7:27 1998 Quant Results File: TPHD.RES

Vial: 80

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

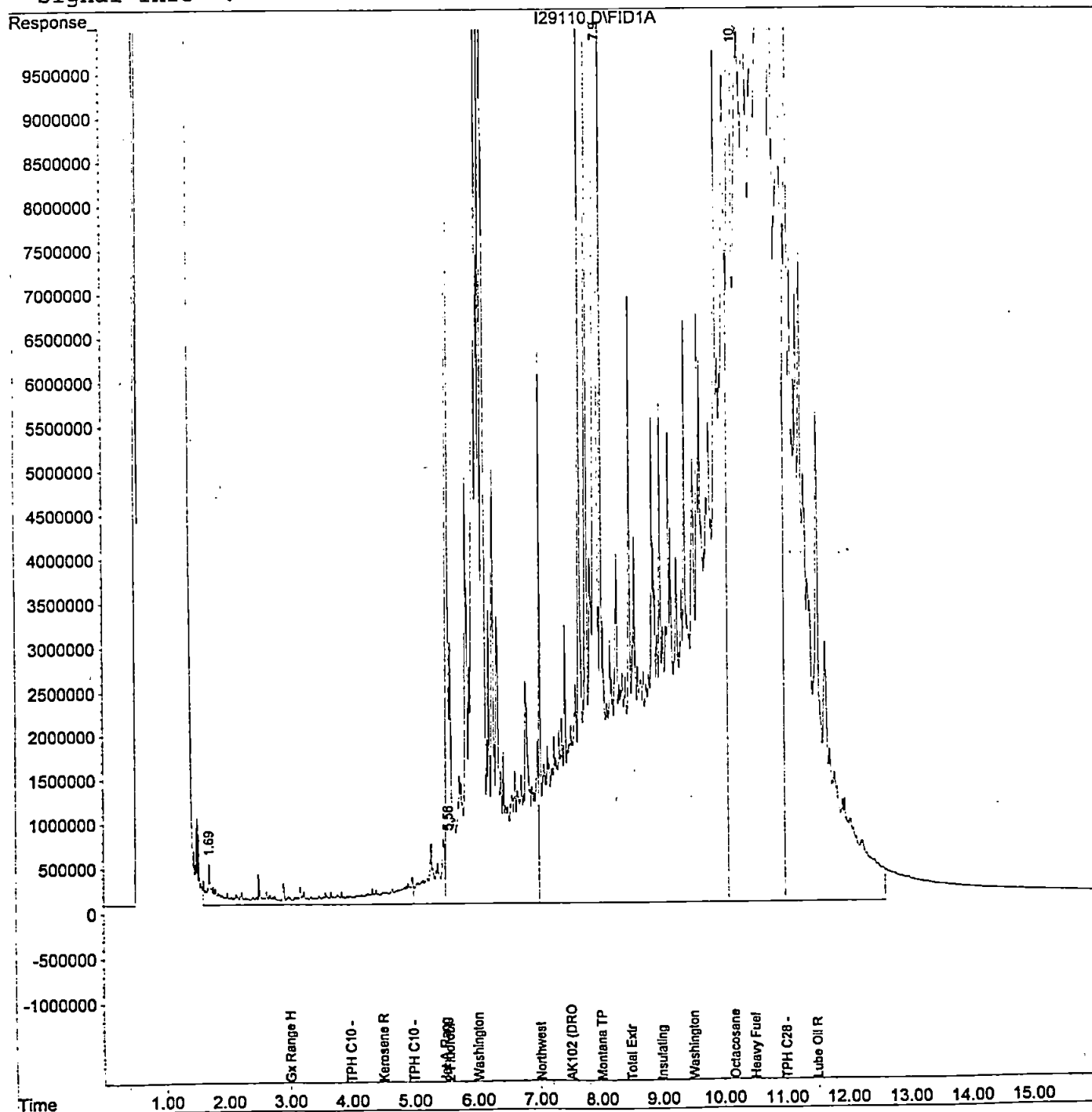
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

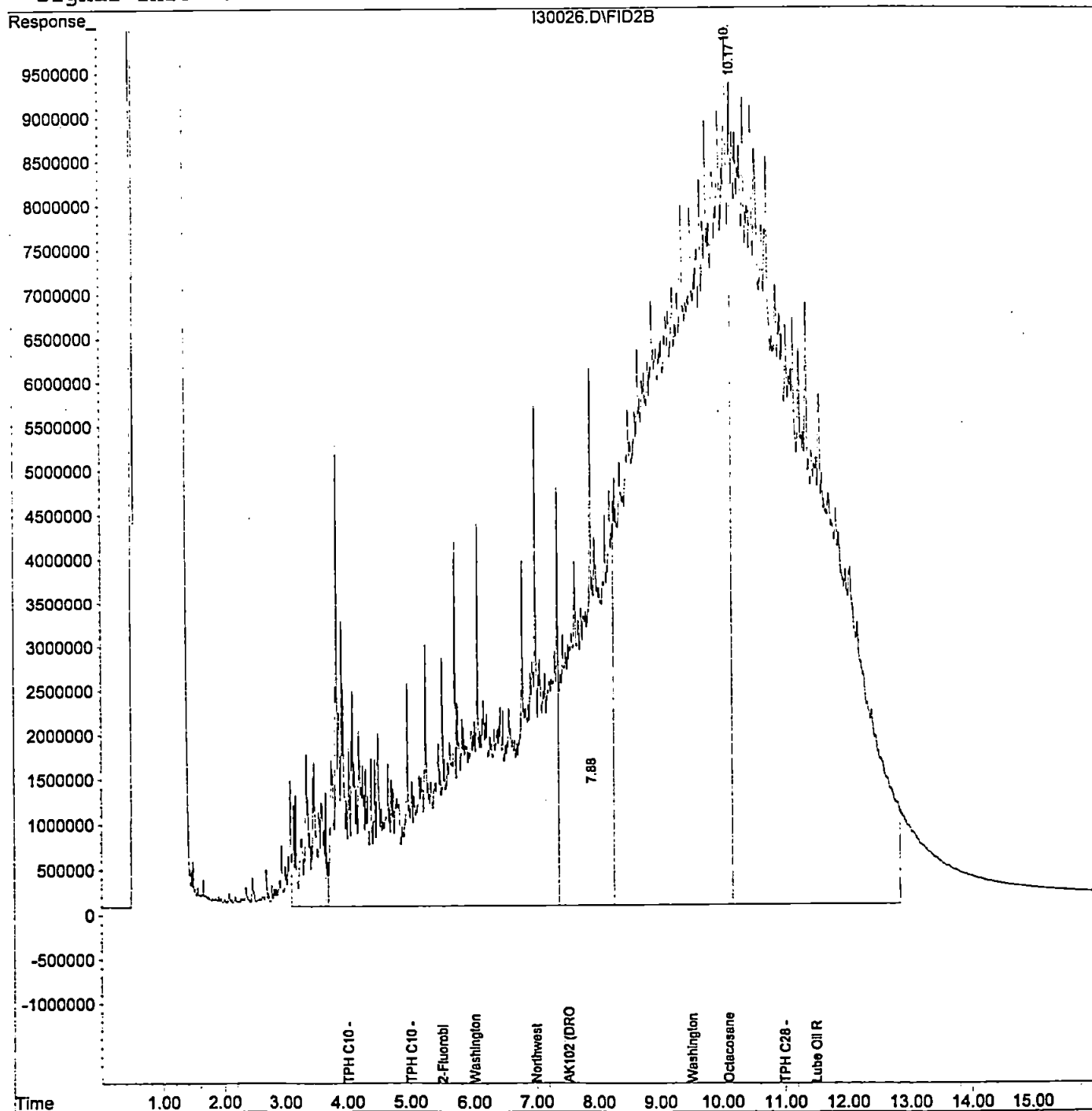
Data File : C:\HPCHEM\4\DATA.SEC\I30026.D
 Acq On : 9-30-98 1:27:24 PM
 Sample : b809742-06 r1
 Misc : 21x s
 IntFile : SURR.E
 Quant Time: Sep 30 13:52 1998

Vial: 16
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Mon Sep 28 16:14:58 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





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CHAIN OF CUSTODY REPORT

Work Order #

B809742

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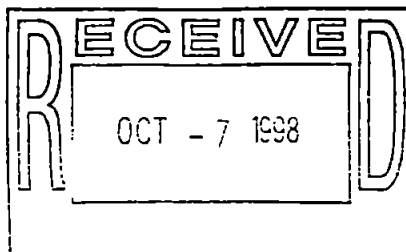
123

DATE

[illegible]



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX-3-1-3.0	B809779-01	Soil	9/30/98
EX-3-2-0.5	B809779-02	Soil	9/30/98
EX-3-3-0.5	B809779-03	Soil	9/30/98
EX-3-4-0.5	B809779-04	Soil	9/30/98
EX-3-5-0.5	B809779-05	Soil	9/30/98
EX-4-1-3.0	B809779-06	Soil	9/30/98
EX-4-2-0.5	B809779-07	Soil	9/30/98
EX-4-3-0.5	B809779-08	Soil	9/30/98
EX-4-4-0.5	B809779-09	Soil	9/30/98
EX-4-5-0.5	B809779-10	Soil	9/30/98
EX-5-1-3.0	B809779-11	Soil	9/30/98
EX-5-2-0.5	B809779-12	Soil	9/30/98
EX-5-3-0.5	B809779-13	Soil	9/30/98
EX-5-4-0.5	B809779-14	Soil	9/30/98
EX-5-5-0.5	B809779-15	Soil	9/30/98

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.*


Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E7-6-3.0				B809244-01			Soil	
Acenaphthene	0980330	9/10/98	9/11/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	0.0813	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	0.0542	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		89.4	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		81.4	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		108	"	
E7-7-0.5				B809244-02			Soil	
Acenaphthene	0980330	9/10/98	9/11/98		0.0100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0100	ND	"	
Anthracene	"	"	"		0.0100	ND	"	
Benzo (a) anthracene	"	"	"		0.0100	0.0232	"	
Benzo (a) pyrene	"	"	"		0.0100	0.0141	"	
Benzo (b) fluoranthene	"	"	"		0.0100	0.0253	"	
Benzo (ghi) perylene	"	"	"		0.0100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0100	0.0105	"	
Chrysene	"	"	"		0.0100	0.0246	"	
Dibenz (a,h) anthracene	"	"	"		0.0100	ND	"	
Fluoranthene	"	"	"		0.0100	0.0787	"	
Fluorene	"	"	"		0.0100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0100	ND	"	
Naphthalene	"	"	"		0.0100	ND	"	
Phenanthrene	"	"	"		0.0100	0.0520	"	
Pyrene	"	"	"		0.0100	0.0527	"	
Surrogate: 2-FBP	"	"	"	30.0-150		90.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E7-7-0.5 (continued)</u>				<u>B809244-02</u>		<u>Soil</u>		
Surrogate: Nitrobenzene-d5	0980330	9/10/98	9/11/98	30.0-150		85.8	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		110	"	
<u>E7-8-0.5</u>				<u>B809244-03</u>		<u>Soil</u>		
Acenaphthene	0980330	9/10/98	9/11/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		73.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		65.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		80.9	"	
<u>E7-9-0.5</u>				<u>B809244-04</u>		<u>Soil</u>		
Acenaphthene	0980330	9/10/98	9/11/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E7-9-0.5 (continued)				B809244-04			Soil	
Naphthalene	0980330	9/10/98	9/11/98		0.0500	ND	mg/kg dry	
Phenanthrene	"	"	"		0.0500	0.0999	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		89.3	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		94.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		146	"	

North Creek Analytical - Bothell

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E7-6-3.0	B809244-01	Soil	73.8	%
E7-7-0.5	B809244-02	Soil	94.8	%
E7-8-0.5	B809244-03	Soil	90.9	%
E7-9-0.5	B809244-04	Soil	93.5	%
E11-5-9.0	B809244-05	Soil	58.0	%
E11-6-6.0	B809244-06	Soil	62.6	%
SP-1	B809244-07	Soil	75.6	%
SP-2	B809244-08	Soil	72.8	%
SP-3	B809244-09	Soil	67.4	%
E6-7-0.5	B809244-10	Soil	92.4	%
E6-8-0.5	B809244-11	Soil	93.7	%
E6-9-0.5	B809244-12	Soil	78.9	%

North Creek Analytical - Bothell

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/10/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/10/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/15/98 09:41

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up/Quality Control

North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980326										
Blank										
Date Prepared: 9/10/98										
Extraction Method: EPA 3550B										
Diesel Range Hydrocarbons	9/11/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.92	"	50.0-150	81.1			
LCS										
0980326-BS1										
Diesel Range Hydrocarbons	9/11/98	66.7		60.2	mg/kg dry	50.0-150	90.3			
Surrogate: 2-FBP	"	11.0		10.5	"	50.0-150	95.5			
Duplicate										
0980326-DUP2 B809244-08										
Diesel Range Hydrocarbons	9/11/98		1040	654	mg/kg dry			50.0	45.6	
Lube Oil Range Hydrocarbons	"		2820	1690	"			50.0	50.1	1
Surrogate: 2-FBP	"	15.1		13.4	"	50.0-150	88.7			

Steve Davis, Project Manager



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980331		Date Prepared: 9/10/98			Extraction Method: EPA 3550B					
Blank	0980331-BLK1									
Aroclor 1016	9/11/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.57	"	40.0-130	98.5			
LCS		0980331-BS1								
Aroclor 1260	9/11/98	333		241	ug/kg dry	44.0-123	72.4			
Surrogate: TCX	"	6.67		6.65	"	40.0-130	99.7			
Matrix Spike		0980331-MS1		B809244-11						
Aroclor 1260	9/11/98	356	110	317	ug/kg dry	28.0-132	58.1			
Surrogate: TCX	"	7.11		5.76	"	40.0-130	81.0			
Matrix Spike Dup		0980331-MSD1		B809244-11						
Aroclor 1260	9/11/98	356	110	326	ug/kg dry	28.0-132	60.7	23.0	4.38	
Surrogate: TCX	"	7.11		5.56	"	40.0-130	78.2			



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/10/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/10/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/15/98 09:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control

North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980330		Date Prepared: 9/10/98			Extraction Method: EPA 3550B					
Blank		0980330-BLK1								
Acenaphthene	9/11/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.40	"	30.0-150	83.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.56	"	30.0-150	93.4			
Surrogate: p-Terphenyl-d14	"	1.67		1.84	"	30.0-150	110			
LCS		0980330-BS1								
Chrysene	9/11/98	0.333		0.289	mg/kg dry	10.0-125	86.8			
Fluorene	"	0.333		0.274	"	11.0-116	82.3			
Indeno (1,2,3-cd) pyrene	"	0.333		0.255	"	10.0-147	76.6			
Surrogate: 2-FBP	"	1.67		1.33	"	30.0-150	79.6			
Surrogate: Nitrobenzene-d5	"	1.67		1.59	"	30.0-150	95.2			
Surrogate: p-Terphenyl-d14	"	1.67		1.76	"	30.0-150	105			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 195

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Notes and Definitions

#	Note
1	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

C - 196

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Page 12 of

Quantitation Report

Data File : C:\HPCHEM\4\DATA\I10080.D

Acq On : 9-11-98 7:34:12 AM

Sample : b809244-05

Misc : S

IntFile : SURR.E

Quant Time: Sep 11 9:37 1998 Quant Results File: TPHD.RES

Vial: 80

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

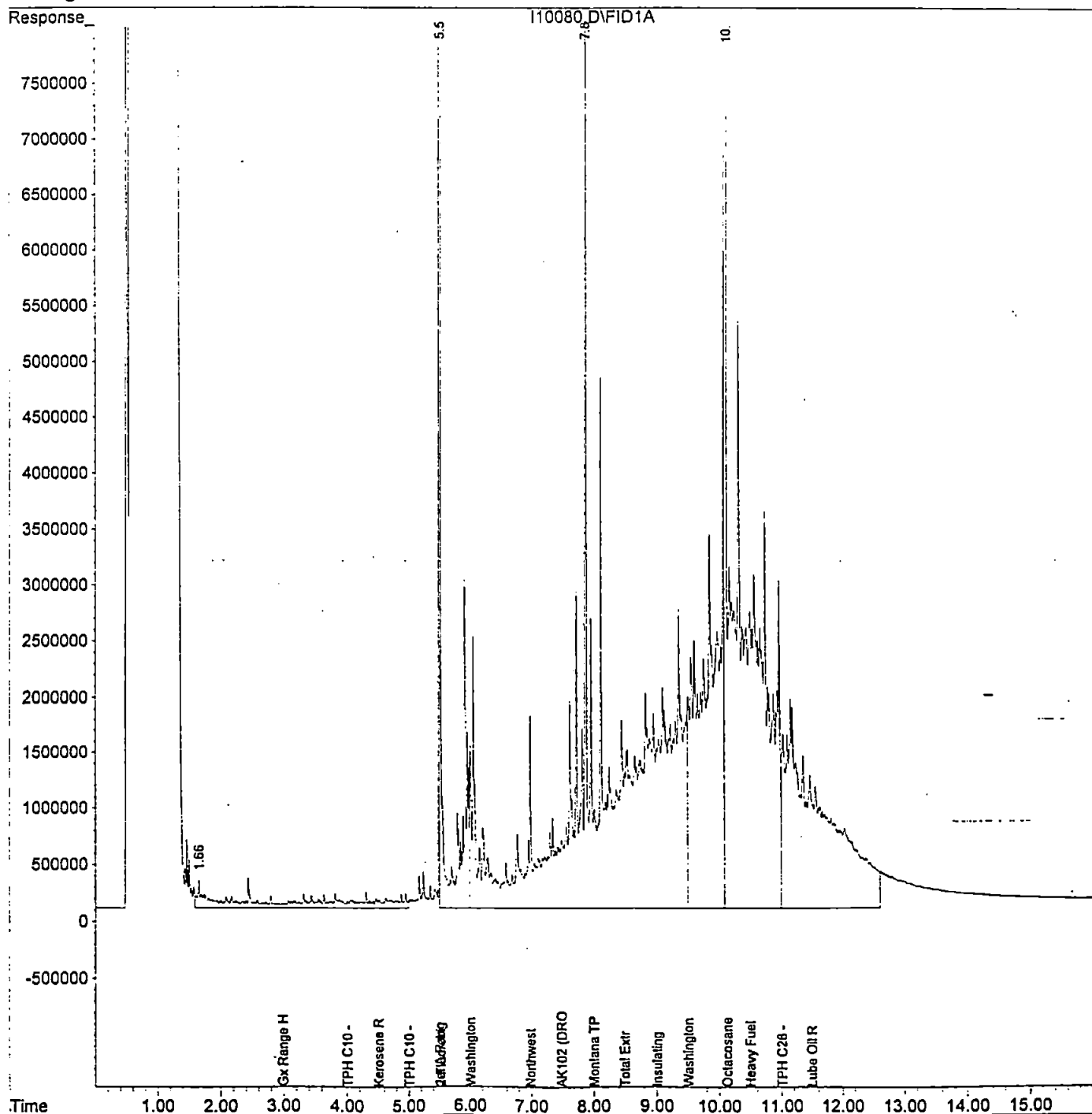
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I10084.D

Acq On : 9-11-98 8:20:55 AM

Sample : b809244-06

Misc : s

IntFile : SURR.E

Quant Time: Sep 11 9:38 1998 Quant Results File: TPHD.RES

Vial: 81

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

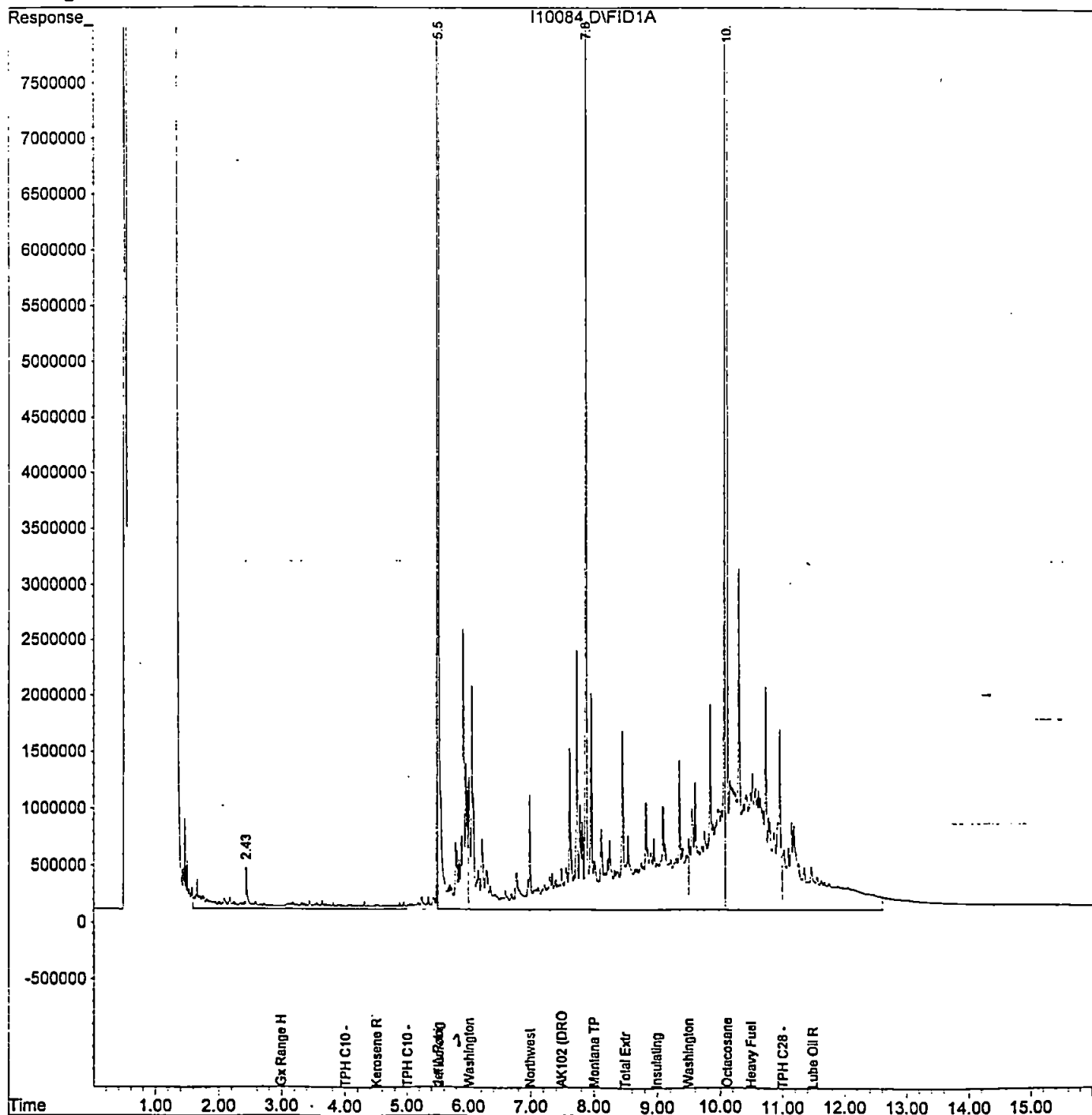
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

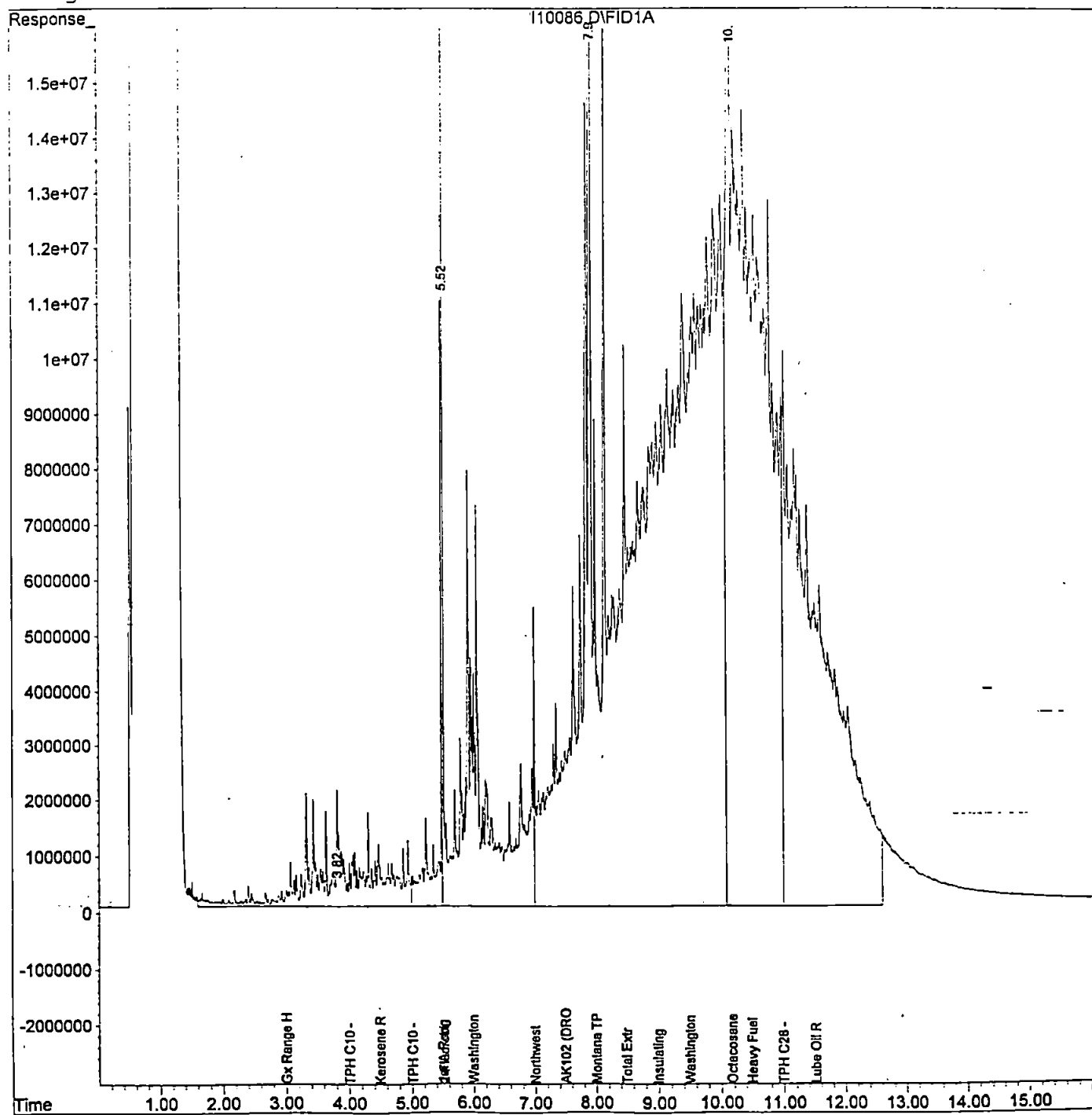
Data File : C:\HPCHEM\4\DATA\091098\I10086.D
 Acq On : 9-11-98 8:44:30 AM
 Sample : b809244-07
 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 11 9:38 1998

Vial: 82
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Sep 11 09:20:25 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\I11014.D

Acq On : 11 Sep 1998 1:43 pm

Sample : b809244-08 r1

Misc : s 5x

IntFile : SURR.E

Quant Time: Sep 11 14:17 1998 Quant Results File: TPHD.RES

Vial: 11

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

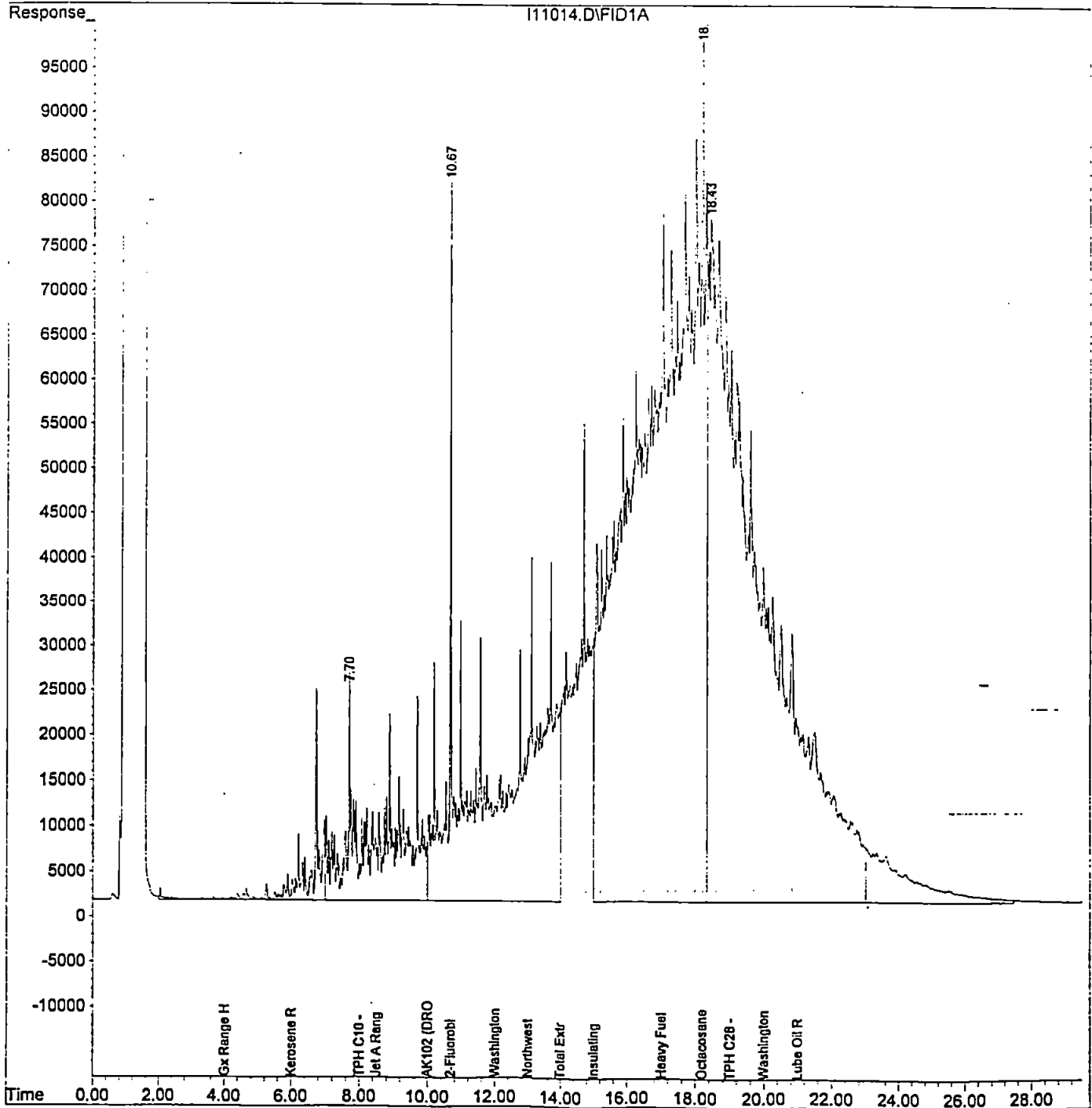
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\091098\I10090.D

Vial: 84

Acq On : 9-11-98 9:31:00 AM

Operator: kj

Sample : b809244-09

Inst : GC #7

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 11 13:24 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

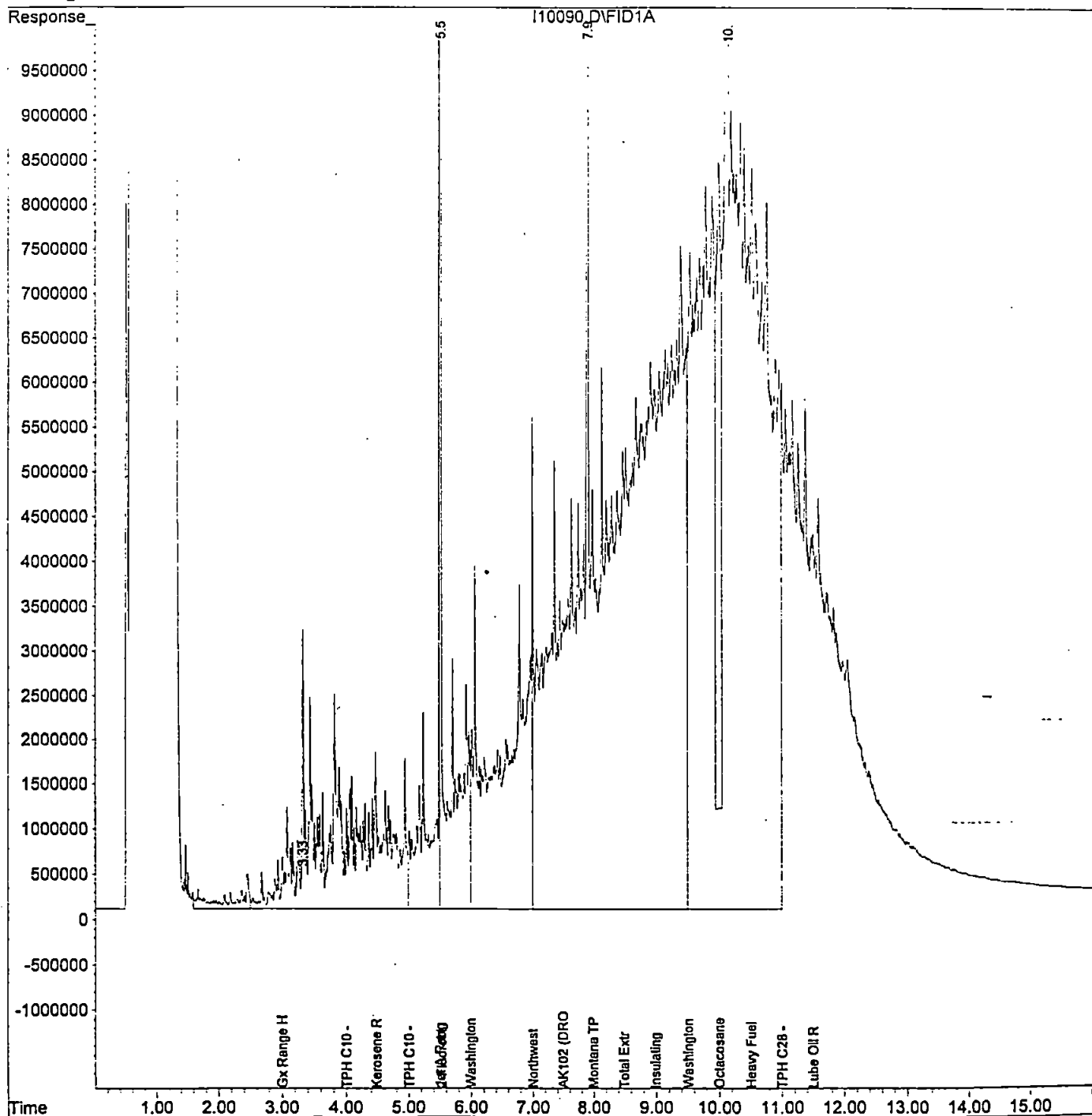
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





CHAIN OF CUSTODY REPORT

Work Order # **B809244**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER * Turnaround Requests less than standard may incur Rush Charges.																													
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																																
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: PSE - P.O. Box 97634 - MER-04																																
Seattle WA, 98101			Bellevue, WA 98009																																
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: NCA QUOTE #:																																
PROJECT NAME: Grady Way			Analysis Request: PAHs by 8270 PCBs by 8082 HWPB D+			MATRIX (W, S, A, O)			# OF CONTAINERS			COMMENTS																							
PROJECT NUMBER: 186-407-00																																			
SAMPLED BY: Tony Orrie																																			
CLIENT SAMPLE IDENTIFICATION			SAMPLING DATE/TIME			NCA SAMPLE ID (Laboratory Use Only)																													
1. E7-6-3.0			9/10/98 8:00			B809244-01			X																										
2. E7-7-0.5			8:05			-02			X																										
3. E7-8-0.5			8:10			-03			X																										
4. E7-9-0.5			8:15			-04			X																										
5. E11-5-7.0			9:25			-05						X																							
6. E11-6-6.0			9:30			-06						X																							
7. SP-1			10:00			-07			X			X																							
8. SP-2			10:05			-08			X			X																							
9. SP-3			10:10			-09			X			X																							
10.																																			
RELINQUISHED BY (Signature):						DATE: 9/10/98						RECEIVED BY (Signature):						DATE: 9/10/98																	
PRINT NAME: Tony Orrie						FIRM: CEI						TIME: 1330						PRINT NAME: D. Heur						FIRM: NCA B						TIME: 1700					
RELINQUISHED BY (Signature):						DATE:						RECEIVED BY (Signature):						DATE:																	
PRINT NAME:						FIRM:						TIME:						PRINT NAME:						FIRM:						TIME:					
ADDITIONAL REMARKS:																		PAGE 1 OF 2																	



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

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(509) 924-9200 FAX 924-9290
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CHAIN OF CUSTODY REPORT

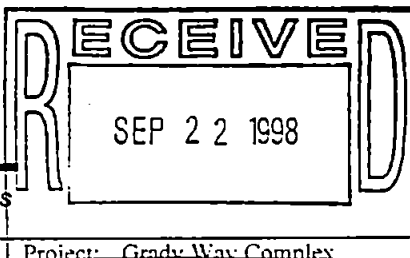
Work Order #

B809244

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER _____ * Turnaround Requests less than standard may incur Rush Charges.		
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard					
ADDRESS: 600 Stewart St, Ste 1215 Seattle WA, 98101			ADDRESS: RSE - P.O. Box 97034-MER-01 Bellevue, WA 98009					
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____					
PROJECT NAME: Grady Way			PAHs by 8270 PCBs by 8282 WWTPH DA					



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E-11-7-3.5	B809335-01	Soil	9/14/98
E-11-8-6.0	B809335-02	Soil	9/14/98
E-11-9-6.0	B809335-03	Soil	9/14/98
E-11-10-6.0	B809335-04	Soil	9/14/98
E-6-10-4.5	B809335-05	Soil	9/14/98
E-6-11-4.5	B809335-06	Soil	9/14/98
E-6-12-0.5	B809335-07	Soil	9/14/98
E-6-13-0.5	B809335-08	Soil	9/14/98
E-6-14-3.0	B809335-09	Soil	9/14/98
E-6-15-3.0	B809335-10	Soil	9/14/98
SP-4	B809335-11	Soil	9/14/98
SP-5	B809335-12	Soil	9/14/98
SP-6	B809335-13	Soil	9/14/98

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*

Steve Davis, Project Manager

C-204

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NORTH CREEK ANALYTICAL

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes
E-11-7-3.5				B809335-01				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		50.0	2420	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	5370	"	
Surrogate: 2-FBP	"	"	"	50.0-150		95.7	%	
E-11-8-6.0				B809335-02				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		50.0	2090	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	5250	"	
Surrogate: 2-FBP	"	"	"	50.0-150		98.8	%	
E-11-9-6.0				B809335-03				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		10.0	437	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	1160	"	
Surrogate: 2-FBP	"	"	"	50.0-150		76.2	%	
E-11-10-6.0				B809335-04				
Diesel Range Hydrocarbons	0980502	9/16/98	9/16/98		110	7290	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		275	14900	"	
Surrogate: 2-FBP	"	"	"	50.0-150		96.6	%	
SP-4				B809335-11				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		10.0	391	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	709	"	
Surrogate: 2-FBP	"	"	"	50.0-150		70.1	%	
SP-5				B809335-12				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		50.0	1100	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	2110	"	
Surrogate: 2-FBP	"	"	"	50.0-150		85.8	%	
SP-6				B809335-13				
Diesel Range Hydrocarbons	0980433	9/14/98	9/15/98		50.0	3510	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	5050	"	
Surrogate: 2-FBP	"	"	"	50.0-150		105	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 205

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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 SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
 PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
 600 Stewart Street, Suite 1215
 Seattle, WA 98101

Project: Grady Way Complex
 Project Number: 186-407-00
 Project Manager: Steve Woodward

Sampled: 9/14/98
 Received: 9/14/98
 Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes
E-11-7-3.5								
				B809335-01			Soil	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	71.1	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		50.0	ND	"
						91.1	%	
E-11-8-6.0								
				B809335-02			Soil	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	205	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	149	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		50.0	ND	"
						98.1	%	
E-11-9-6.0								
				B809335-03			Soil	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		50.0	ND	"
						64.8	%	
E-11-10-6.0								
				B809335-04			Soil	
Aroclor 1016	0980518	9/16/98	9/17/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


 Steve Davis, Project Manager

C - 206

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 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
 9405 S.W. Nimbus Avenue



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

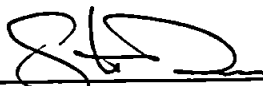
Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E-11-10-6.0 (continued)</u>				<u>B809335-04</u>		<u>Soil</u>		
Aroclor 1232	0980518	9/16/98	9/17/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	51.0	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	106	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		87.9	%	
<u>E-6-10-4.5</u>				<u>B809335-05</u>		<u>Soil</u>		
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		66.1	%	
<u>E-6-11-4.5</u>				<u>B809335-06</u>		<u>Soil</u>		
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		71.5	%	
<u>E-6-12-0.5</u>				<u>B809335-07</u>		<u>Soil</u>		
Aroclor 1016	0980434	9/14/98	9/16/98		550	ND	ug/kg dry	
Aroclor 1221	"	"	"		550	ND	"	
Aroclor 1232	"	"	"		550	ND	"	
Aroclor 1242	"	"	"		550	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C-207

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3125 S.W. Mill Avenue, Portland, OR 97209-3125



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 9/14/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/14/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E-6-12-0.5 (continued)</u>				<u>B809335-07</u>			<u>Soil</u>	
Aroclor 1248	0980434	9/14/98	9/16/98		550	1220	ug/kg dry	
Aroclor 1254	"	"	"		550	ND	"	
Aroclor 1260	"	"	9/15/98		50.0	79.0	"	
Aroclor 1262	"	"	9/16/98		550	ND	"	
Aroclor 1268	"	"	"		550	ND	"	
Surrogate: TCX	"	"	9/15/98	40.0-130		85.7	%	
<u>E-6-13-0.5</u>				<u>B809335-08</u>			<u>Soil</u>	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	70.9	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	56.8	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		83.5	%	
<u>E-6-14-3.0</u>				<u>B809335-09</u>			<u>Soil</u>	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		68.8	%	
<u>E-6-15-3.0</u>				<u>B809335-10</u>			<u>Soil</u>	
Aroclor 1016	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

C - 208

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E-6-15-3.0 (continued)</u>				<u>B809335-10</u>			<u>Soil</u>	
Aroclor 1260	0980434	9/14/98	9/15/98		50.0	ND	ug/kg dry	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		82.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 209

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E-11-7-3.5	B809335-01	Soil	95.2	%
E-11-8-6.0	B809335-02	Soil	63.3	%
E-11-9-6.0	B809335-03	Soil	49.2	%
E-11-10-6.0	B809335-04	Soil	53.8	%
E-6-10-4.5	B809335-05	Soil	55.4	%
E-6-11-4.5	B809335-06	Soil	75.1	%
E-6-12-0.5	B809335-07	Soil	74.1	%
E-6-13-0.5	B809335-08	Soil	78.3	%
E-6-14-3.0	B809335-09	Soil	75.6	%
E-6-15-3.0	B809335-10	Soil	82.9	%
SP-4	B809335-11	Soil	76.3	%
SP-5	B809335-12	Soil	74.2	%
SP-6	B809335-13	Soil	71.6	%

North Creek Analytical - Bothell


Steve Davis, Project Manager

C-210

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980433		Date Prepared: 9/14/98			Extraction Method: EPA 3550B					
Blank		0980433-BLK1								
Diesel Range Hydrocarbons	9/15/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		7.12	"	50.0-150	64.7			
LCS		0980433-BS1								
Diesel Range Hydrocarbons	9/15/98	66.7		69.7	mg/kg dry	60.0-140	104			
Surrogate: 2-FBP	"	11.0		12.0	"	50.0-150	109			
Duplicate		0980433-DUP1		B809335-01						
Diesel Range Hydrocarbons	9/15/98		2420	2440	mg/kg dry			50.0	0.823	
Lube Oil Range Hydrocarbons	"		5370	4460	"			50.0	18.5	
Surrogate: 2-FBP	"	11.5		13.0	"	50.0-150	113			
Batch: 0980502		Date Prepared: 9/16/98			Extraction Method: EPA 3550B					
Blank		0980502-BLK1								
Diesel Range Hydrocarbons	9/16/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.99	"	50.0-150	81.7			
LCS		0980502-BS1								
Diesel Range Hydrocarbons	9/16/98	66.7		64.0	mg/kg dry	60.0-140	96.0			
Surrogate: 2-FBP	"	11.0		6.23	"	50.0-150	56.6			
Duplicate		0980502-DUP1		B809335-04						
Diesel Range Hydrocarbons	9/16/98		7290	5770	mg/kg dry			50.0	23.3	
Lube Oil Range Hydrocarbons	"		14900	20200	"			50.0	30.2	
Surrogate: 2-FBP	"	20.4		17.1	"	50.0-150	83.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-211

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980434										
Blank										
		Date Prepared: 9/14/98			Extraction Method: EPA 3550B					
		0980434-BLK1								
Aroclor 1016	9/15/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.28	"	40.0-130	94.2			
LCS										
		0980434-BS1								
Aroclor 1260	9/15/98	333		234	ug/kg dry	44.0-123	70.3			
Surrogate: TCX	"	6.67		6.18	"	40.0-130	92.7			
Matrix Spike										
		0980434-MS1			B809335-10					
Aroclor 1260	9/15/98	402	ND	239	ug/kg dry	28.0-132	59.5			
Surrogate: TCX	"	8.04		5.90	"	40.0-130	73.4			
Matrix Spike Dup										
		0980434-MSD1			B809335-10					
Aroclor 1260	9/15/98	402	ND	279	ug/kg dry	28.0-132	69.4	23.0	15.4	
Surrogate: TCX	"	8.04		7.08	"	40.0-130	88.1			
Batch: 0980518										
Blank										
		Date Prepared: 9/16/98			Extraction Method: EPA 3550B					
		0980518-BLK1								
Aroclor 1016	9/17/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		6.55	"	40.0-130	98.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

C - 212

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

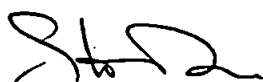
Sampled: 9/14/98
Received: 9/14/98
Reported: 9/18/98 14:12

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>LCS</u>										
		<u>0980518-BS1</u>								
Aroclor 1260	9/17/98	333		275	ug/kg dry	44.0-123	82.6			
Surrogate: TCX	"	6.67		6.26	"	40.0-130	93.9			
<u>Matrix Spike</u>										
		<u>0980518-MS1</u> <u>B809335-04</u>								
Aroclor 1260	9/17/98	620	106	432	ug/kg dry	28.0-132	52.6			
Surrogate: TCX	"	12.4		8.94	"	40.0-130	72.1			
<u>Matrix Spike Dup</u>										
		<u>0980518-MSD1</u> <u>B809335-04</u>								
Aroclor 1260	9/17/98	620	106	495	ug/kg dry	28.0-132	62.7	23.0	17.5	
Surrogate: TCX	"	12.4		13.4	"	40.0-130	108			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 213

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: Grady Way Complex	Sampled: 9/14/98
600 Stewart Street, Suite 1215	Project Number: 186-407-00	Received: 9/14/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/18/98 14:12

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-214

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

Quantitation Report

Data File : C:\HPCHEM\3\DATA\I15010.D

Vial: 25

Acq On : 15 Sep 1998 2:56 pm

Operator: KRL

Sample : b809335-01 r1

Inst : GC #5

Misc : s 5x 11/15/98

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 15 16:37 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

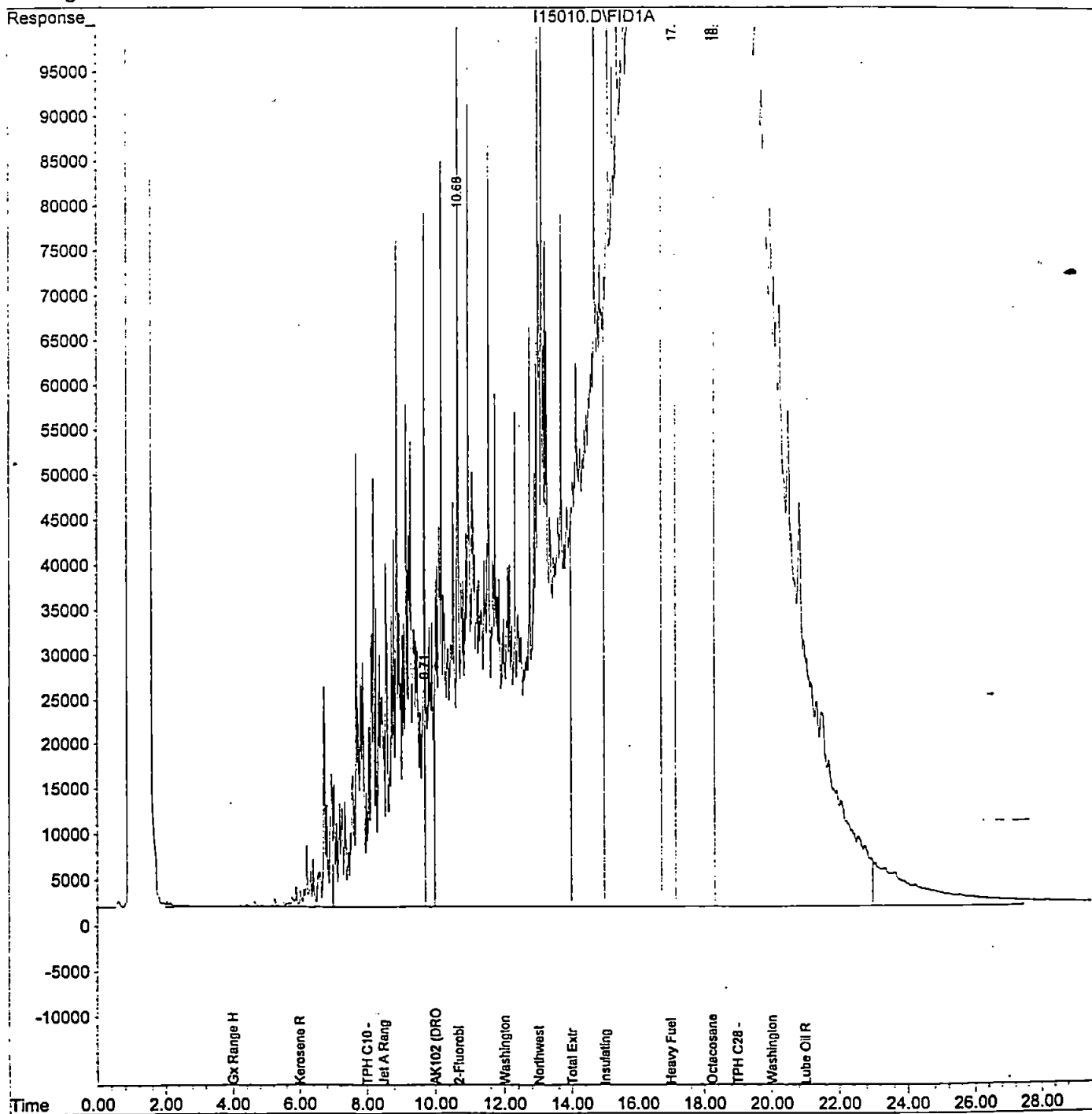
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA.SEC\I15011.D

Acq On : 15 Sep 1998 3:37 pm

Sample : b809335-02 r1

Misc : s 5x

IntFile : SURR.E

Quant Time: Sep 15 16:39 1998 Quant Results File: TPHD2.RES

Vial: 26

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Tue Sep 15 14:27:01 1998

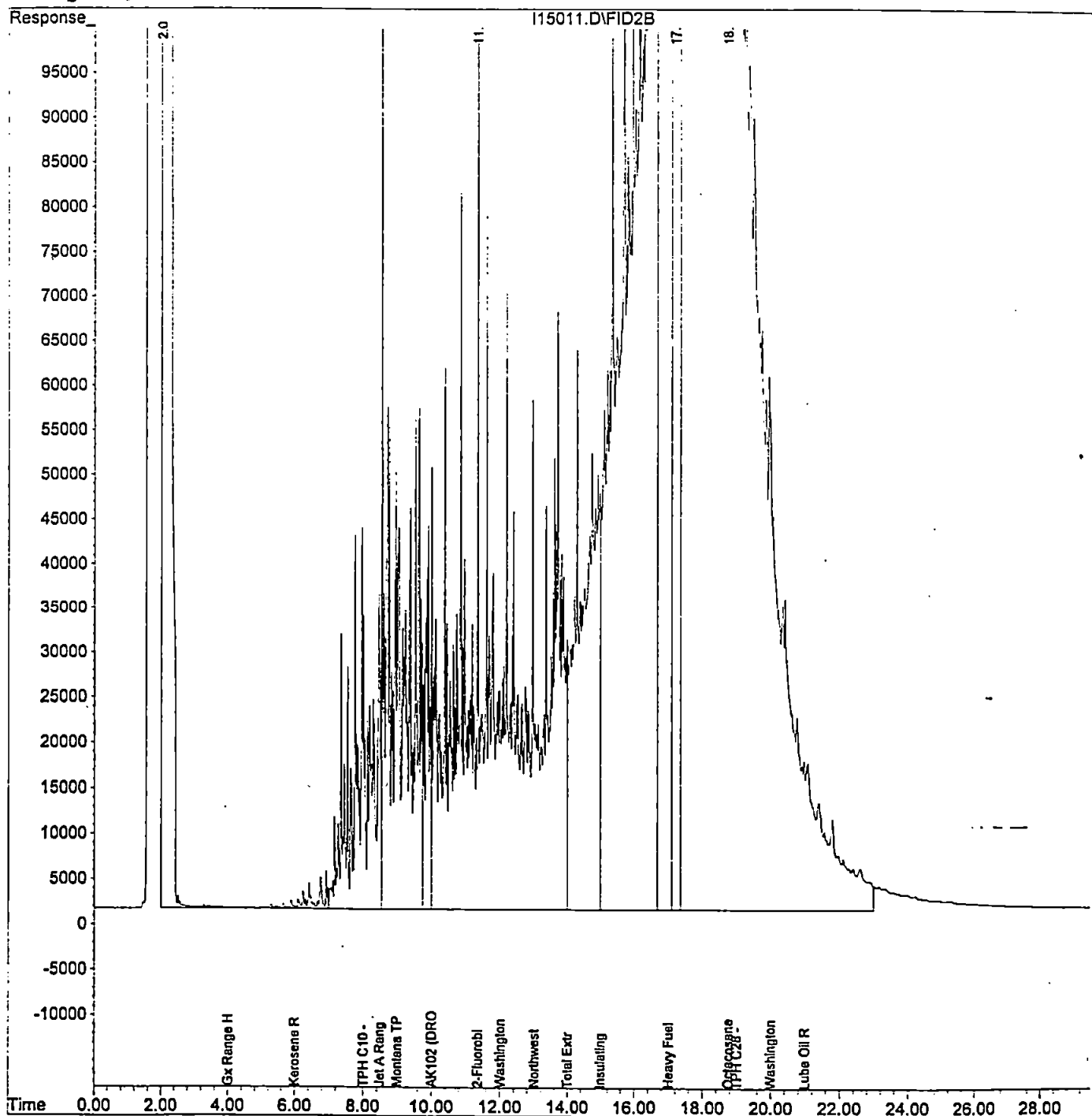
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\I15012.D

Acq On : 15 Sep 1998 3:37 pm

Sample : b809335-03 r1

Misc : S

IntFile : SURR.E

Quant Time: Sep 15 16:35 1998 Quant Results File: TPHD.RES

Vial: 27

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

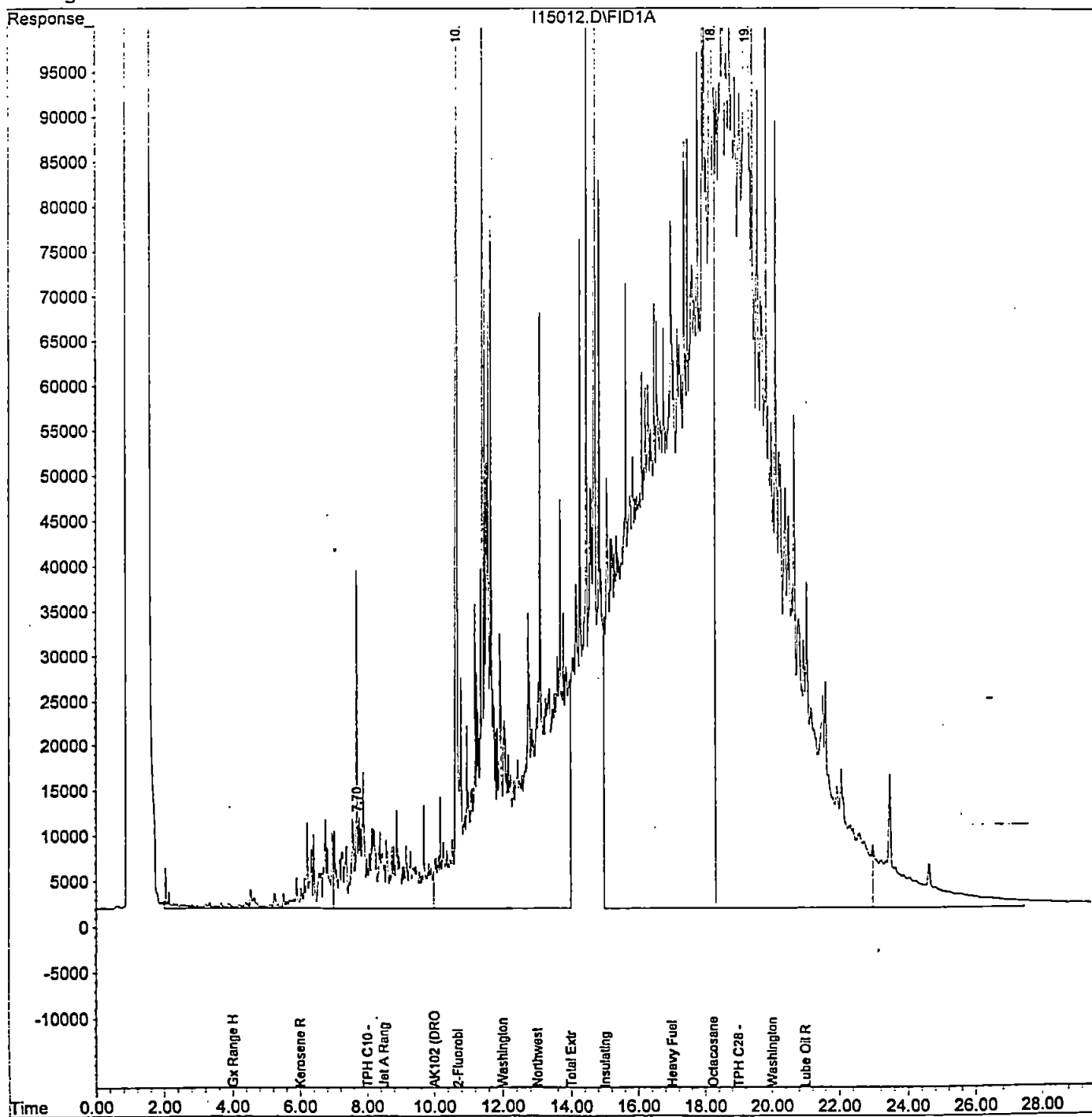
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I16016.D

Acq On : 9-16-98 2:55:11 PM

Sample : b809335-04 *Sum 9/16/98*

Misc : w 1/x

IntFile : SURR.E

Quant Time: Sep 16 15:21 1998 Quant Results File: TPHD.RES

Vial: 12

Operator: kj

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

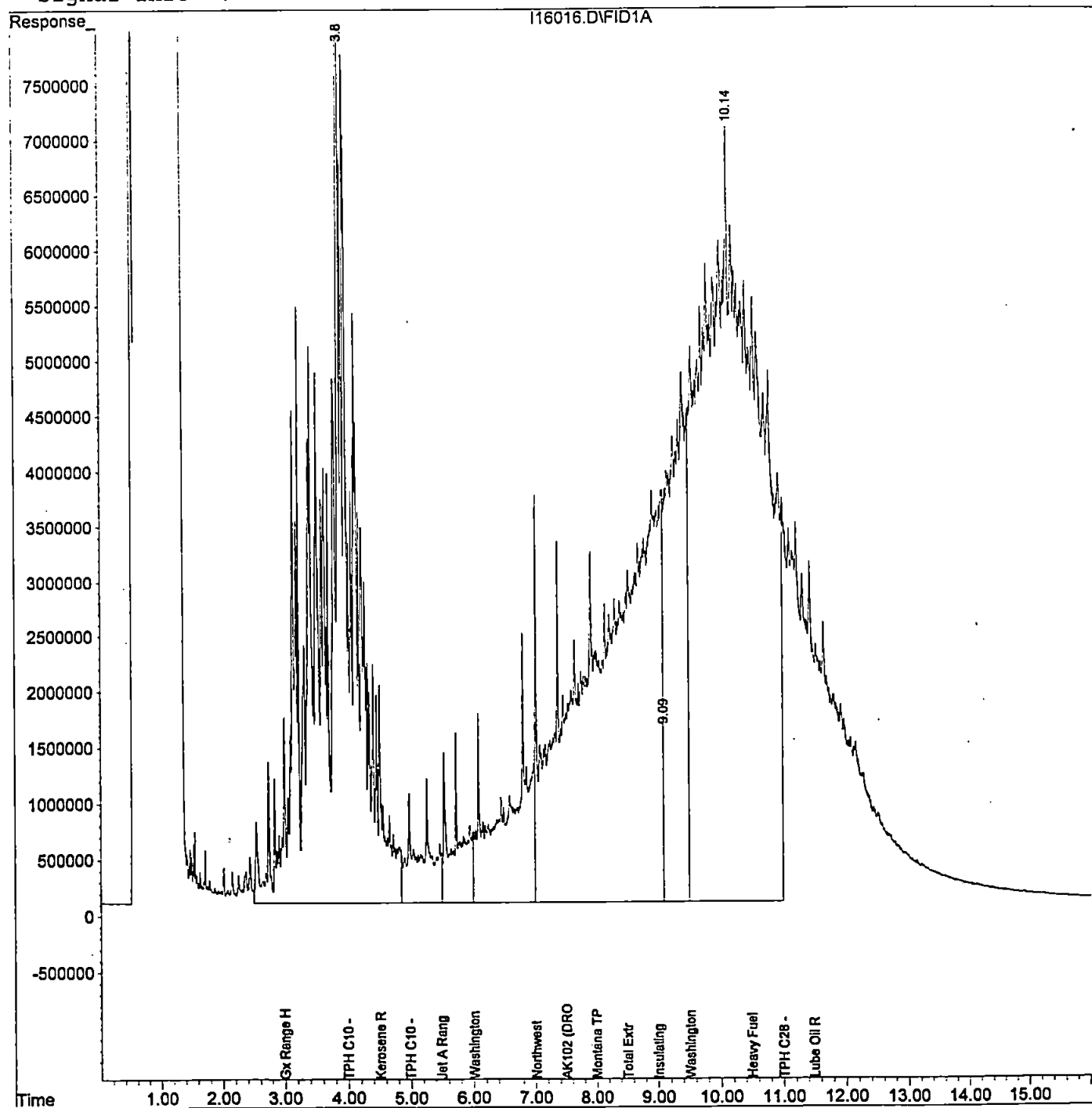
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E10-5-6.0	B809137-01	Soil	90.6	%
E10-6-5.5	B809137-02	Soil	83.1	%
E10-7-4.0	B809137-03	Soil	79.1	%
E10-8-4.0	B809137-04	Soil	58.4	%
E8-1-6.0	B809137-05	Soil	66.7	%
E8-2-4.0	B809137-06	Soil	75.5	%
E8-3-4.0	B809137-07	Soil	76.5	%
E8-4-4.0	B809137-08	Soil	76.9	%
E8-5-4.0	B809137-09	Soil	75.6	%
E6-2-7.0	B809137-10	Soil	68.6	%
E6-3-6.0	B809137-11	Soil	59.8	%
E6-4-1.5	B809137-12	Soil	74.8	%
E6-5-3.0	B809137-13	Soil	80.7	%
E11-1-7.0	B809137-14	Soil	71.9	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980171										
Blank										
Date Prepared: 9/4/98										
Extraction Method: EPA 3550B										
0980171-BLK1										
Diesel Range Hydrocarbons	9/5/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.60	"	50.0-150	78.2			
LCS										
0980171-BS1										
Diesel Range Hydrocarbons	9/5/98	66.7		63.8	mg/kg dry	60.0-140	95.7			
Surrogate: 2-FBP	"	11.0		9.52	"	50.0-150	86.5			
Duplicate										
0980171-DUP1 B809135-06										
Diesel Range Hydrocarbons	9/8/98		995	1180	mg/kg dry			50.0	17.0	
Lube Oil Range Hydrocarbons	"		2500	2910	"			50.0	15.2	
Surrogate: 2-FBP	"	18.3		16.0	"	50.0-150	87.4			



NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980170		Date Prepared: 9/4/98			Extraction Method: EPA 3550B					
Blank										3.4
Aroclor 1016	9/5/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		8.19	"	40.0-130	123			
LCS		0980170-BS1								
Aroclor 1260	9/5/98	333		220	ug/kg dry	44.0-123	66.1			3.4
Surrogate: TCX	"	6.67		5.95	"	40.0-130	89.2			
Matrix Spike		0980170-MS1 B809137-09								
Aroclor 1260	9/5/98	441	ND	286	ug/kg dry	28.0-132	64.9			3.4
Surrogate: TCX	"	8.82		6.58	"	40.0-130	74.6			
Matrix Spike Dup		0980170-MSD1 B809137-09								
Aroclor 1260	9/5/98	441	ND	303	ug/kg dry	28.0-132	68.7	23.0	5.69	3.4
Surrogate: TCX	"	8.82		9.40	"	40.0-130	107			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980156										
Date Prepared: 9/4/98										
Extraction Method: EPA 3550B										
Blank	0980156-BLK1									
Acenaphthene	9/5/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.37	"	30.0-150	82.0			
Surrogate: Nitrobenzene-d5	"	1.67		1.10	"	30.0-150	65.9			
Surrogate: p-Terphenyl-d14	"	1.67		1.48	"	30.0-150	88.6			
LCS										
0980156-BS1										
Chrysene	9/5/98	0.333		0.214	mg/kg dry	10.0-125	64.3			
Fluorene	"	0.333		0.184	"	11.0-116	55.3			
Indeno (1,2,3-cd) pyrene	"	0.333		0.265	"	10.0-147	79.6			
Surrogate: 2-FBP	"	1.67		1.07	"	30.0-150	64.1			
Surrogate: Nitrobenzene-d5	"	1.67		1.03	"	30.0-150	61.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.36	"	30.0-150	81.4			
Matrix Spike										
0980156-MS1 B809135-03										
Chrysene	9/6/98	0.385	ND	0.289	mg/kg dry	10.0-125	75.1			
Fluorene	"	0.385	ND	0.250	"	10.0-154	64.9			
Indeno (1,2,3-cd) pyrene	"	0.385	ND	0.269	"	10.0-144	69.9			
Surrogate: 2-FBP	"	1.92		1.40	"	30.0-150	72.9			
Surrogate: Nitrobenzene-d5	"	1.92		1.02	"	30.0-150	53.1			
Surrogate: p-Terphenyl-d14	"	1.92		1.69	"	30.0-150	88.0			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0980156-MSD1	B809135-03								3
Chrysene	9/6/98	0.385	ND	0.289	mg/kg dry	10.0-125	75.1	28.0	0	
Fluorene	"	0.385	ND	0.250	"	10.0-154	64.9	32.0	0	
Indeno (1,2,3-cd) pyrene	"	0.385	ND	0.289	"	10.0-144	75.1	47.0	7.17	
Surrogate: 2-FBP	"	1.92		1.42	"	30.0-150	74.0			
Surrogate: Nitrobenzene-d5	"	1.92		1.13	"	30.0-150	58.9			
Surrogate: p-Terphenyl-d14	"	1.92		1.65	"	30.0-150	85.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Notes and Definitions

#	Note
1	The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
2	The heavy oil range organics present are due to hydrocarbons eluting primarily in the diesel range.
3	To reduce matrix interference, the sample extract has undergone copper clean-up, method 3660, which is specific to sulfur contamination.
4	To reduce matrix interference, the sample extract has undergone sulfuric acid clean-up, method 3665, which is specific to hydrocarbon contamination.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

Quantitation Report

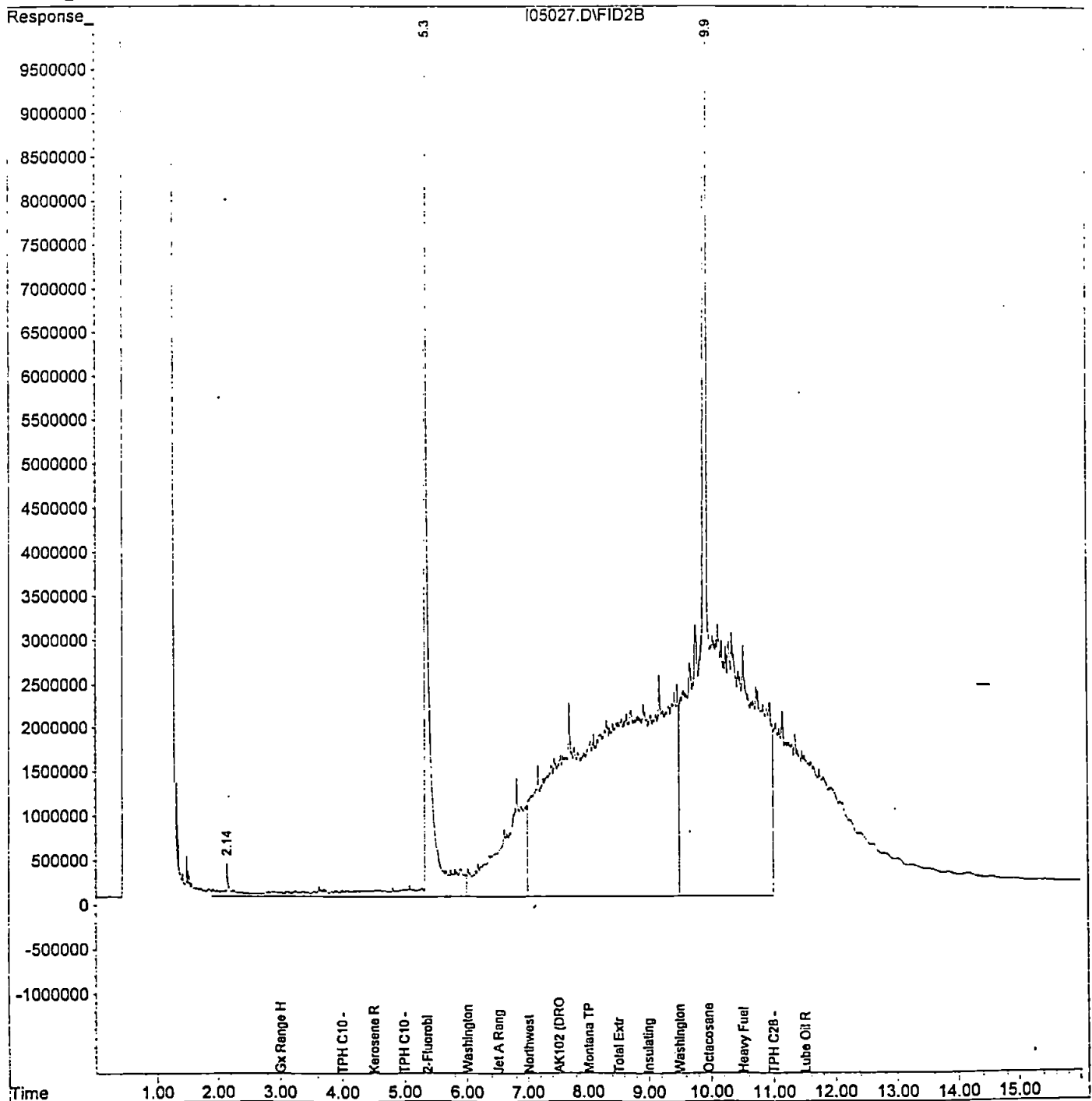
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 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 8 6:48 1998

Vial: 22
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Sat Sep 05 13:42:08 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

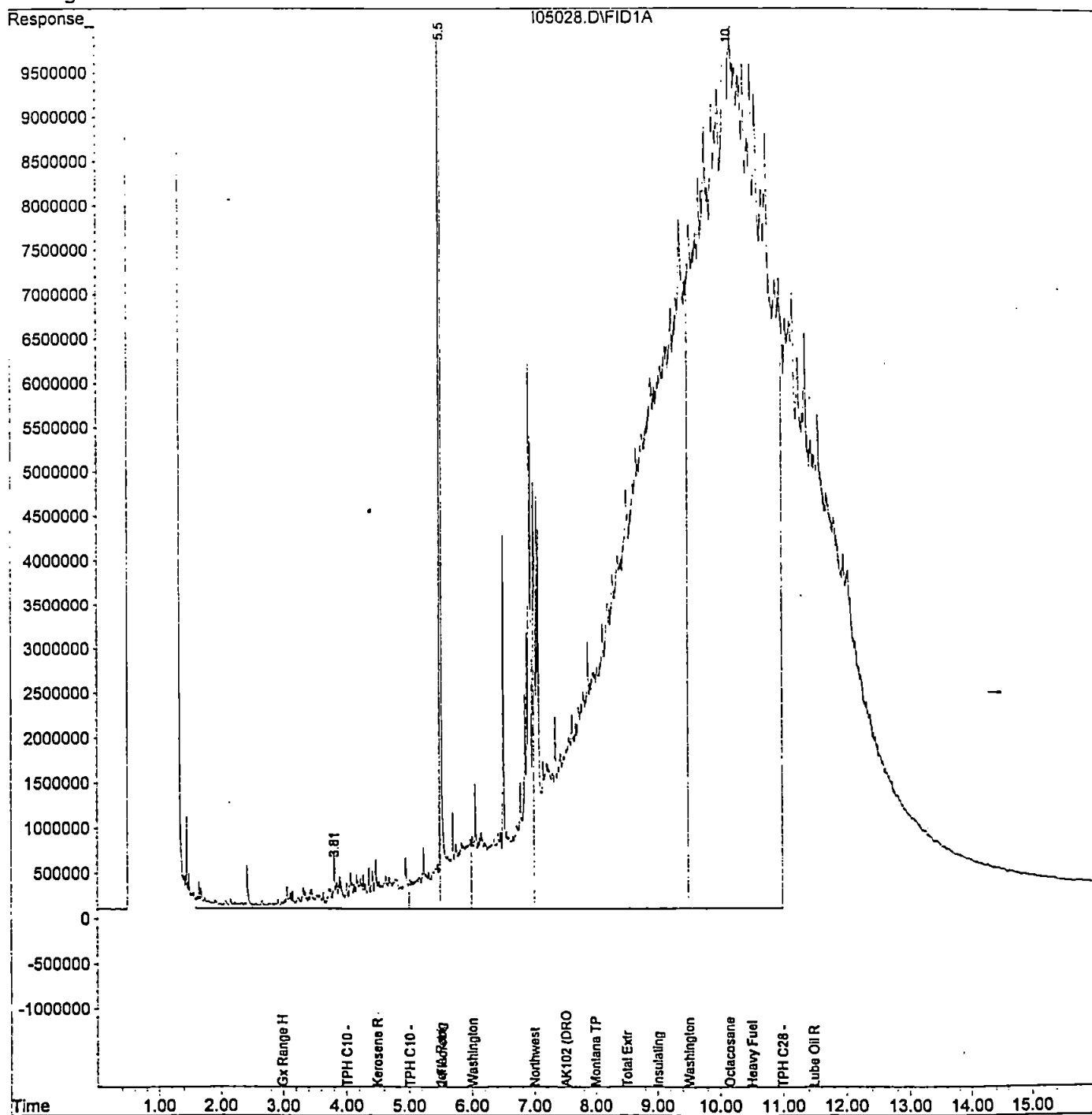
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 IntFile : SURR.E
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Vial: 23
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

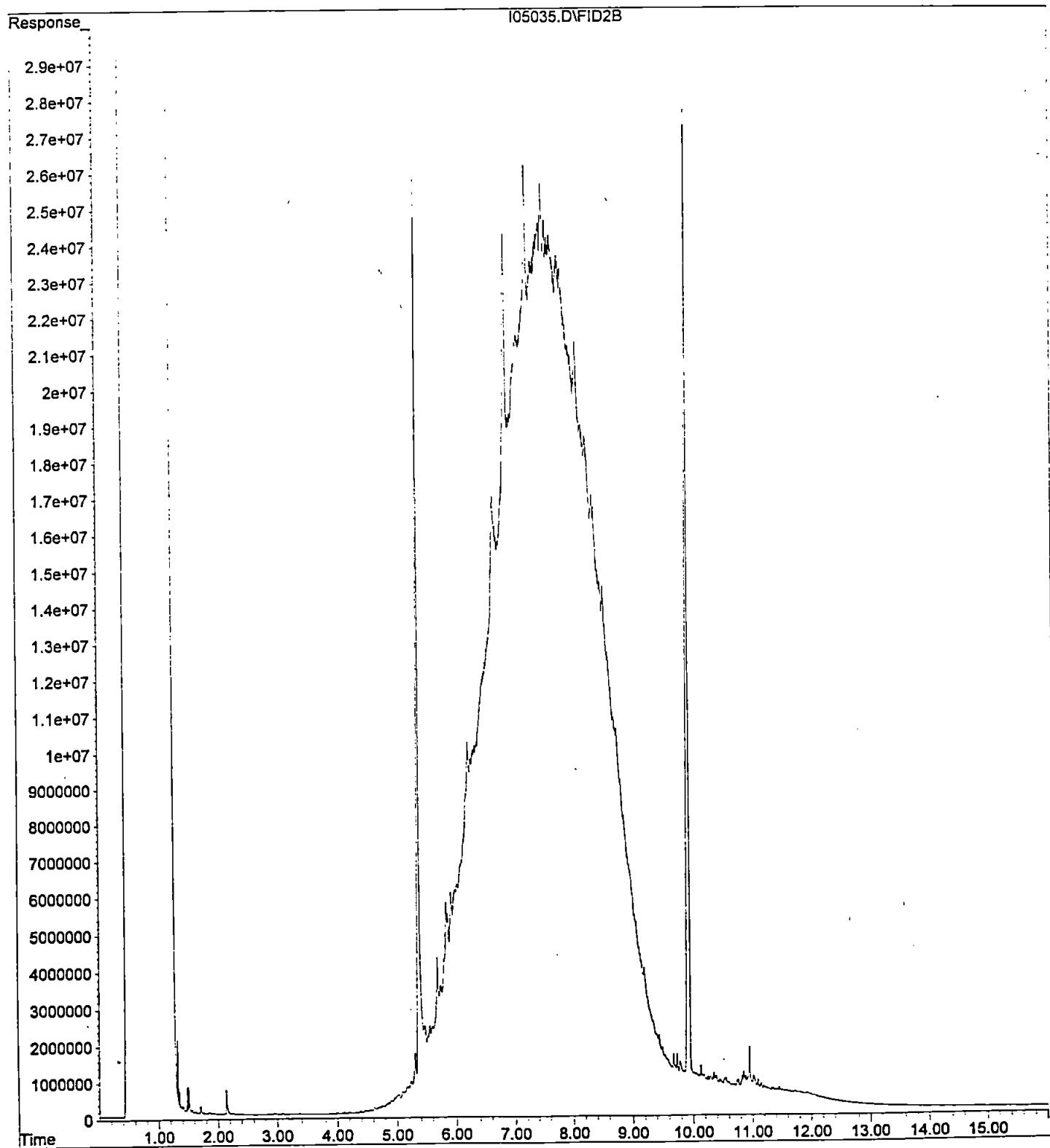
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Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
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 DataAcq Meth : TPHD.M

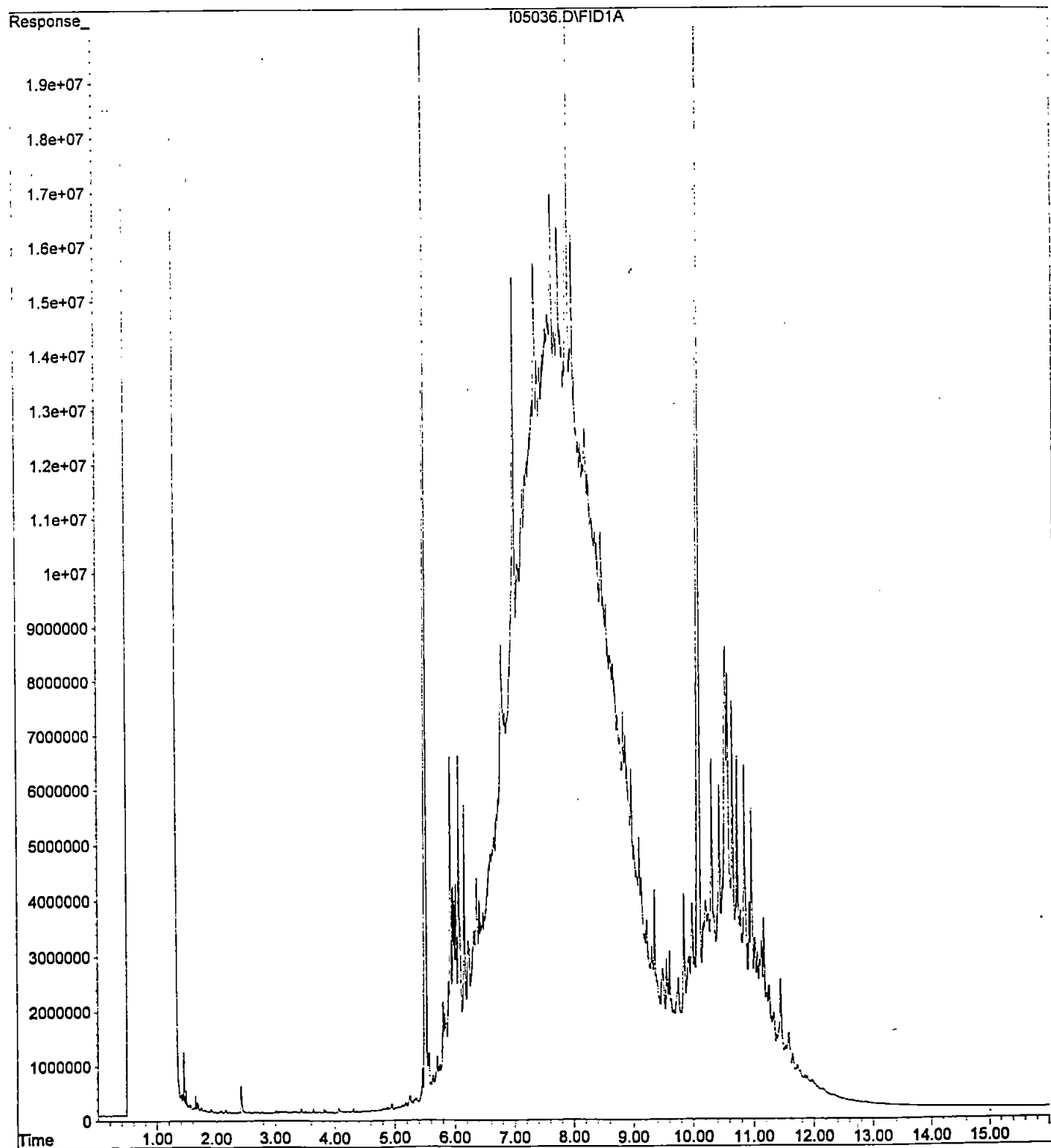
Volume Inj. :
 Signal Phase :
 Signal Info :



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Operator : kj
Acquired : 9-5-98 9:24:17 PM using AcqMethod TPHD.M
Instrument : GC #7
Sample Name: b809137-03
Misc Info : s
Vial Number: 24



File : C:\HPCHEM\4\DATA\090598\I05036.D
Operator : kj
Acquired : 9-5-98 9:24:17 PM using AcqMethod TPHD.M
Instrument : GC #7
Sample Name: b809137-04
Misc Info : s
Vial Number: 25



Quantitation Report

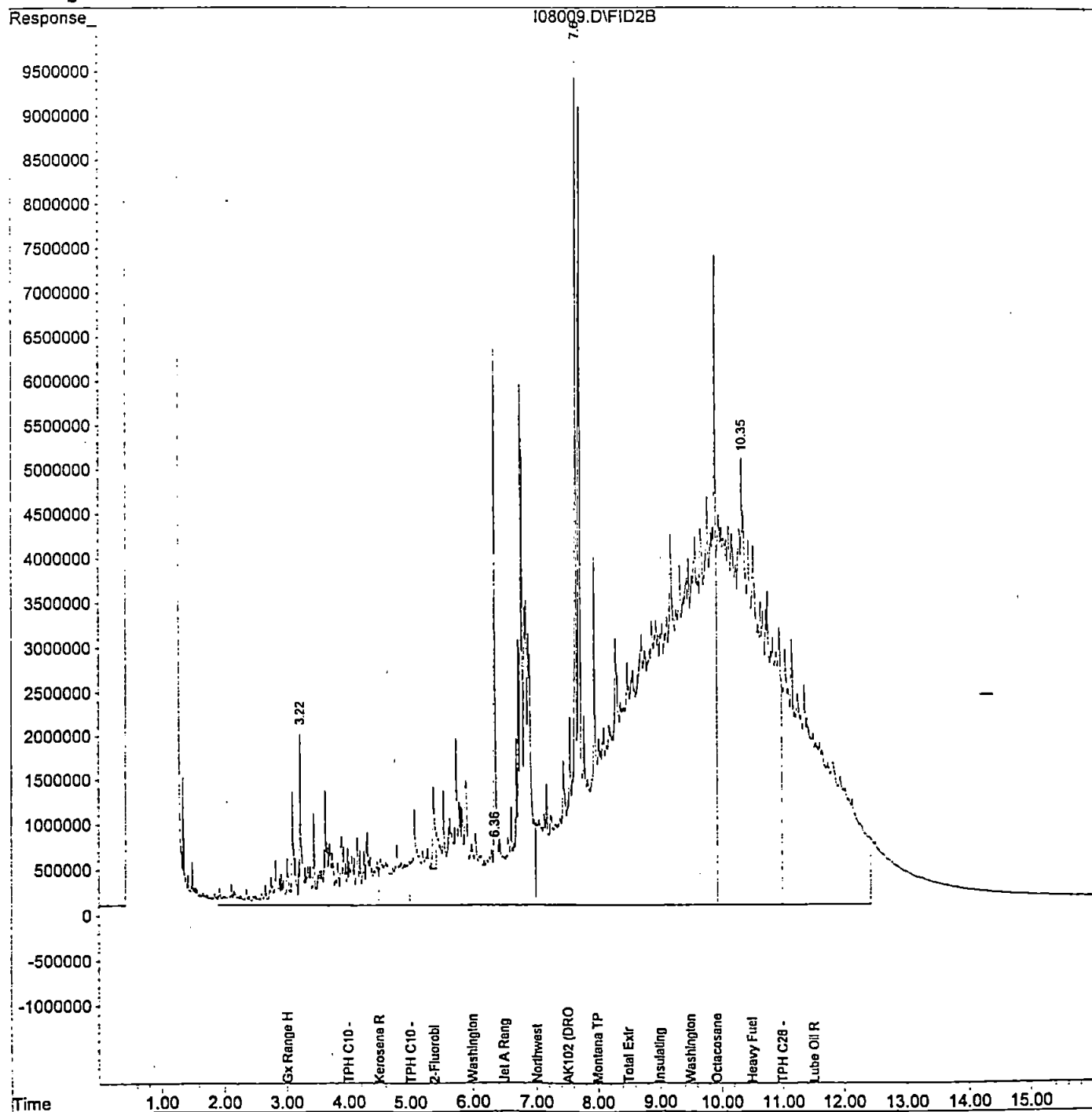
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 Sample : b809137-11 r1
 Misc : s 11x
 IntFile : SURR.E
 Quant Time: Sep 8 10:39 1998

Vial: 6
 Operator: kj
 Inst : GC #7
 Multiplr: 1.00

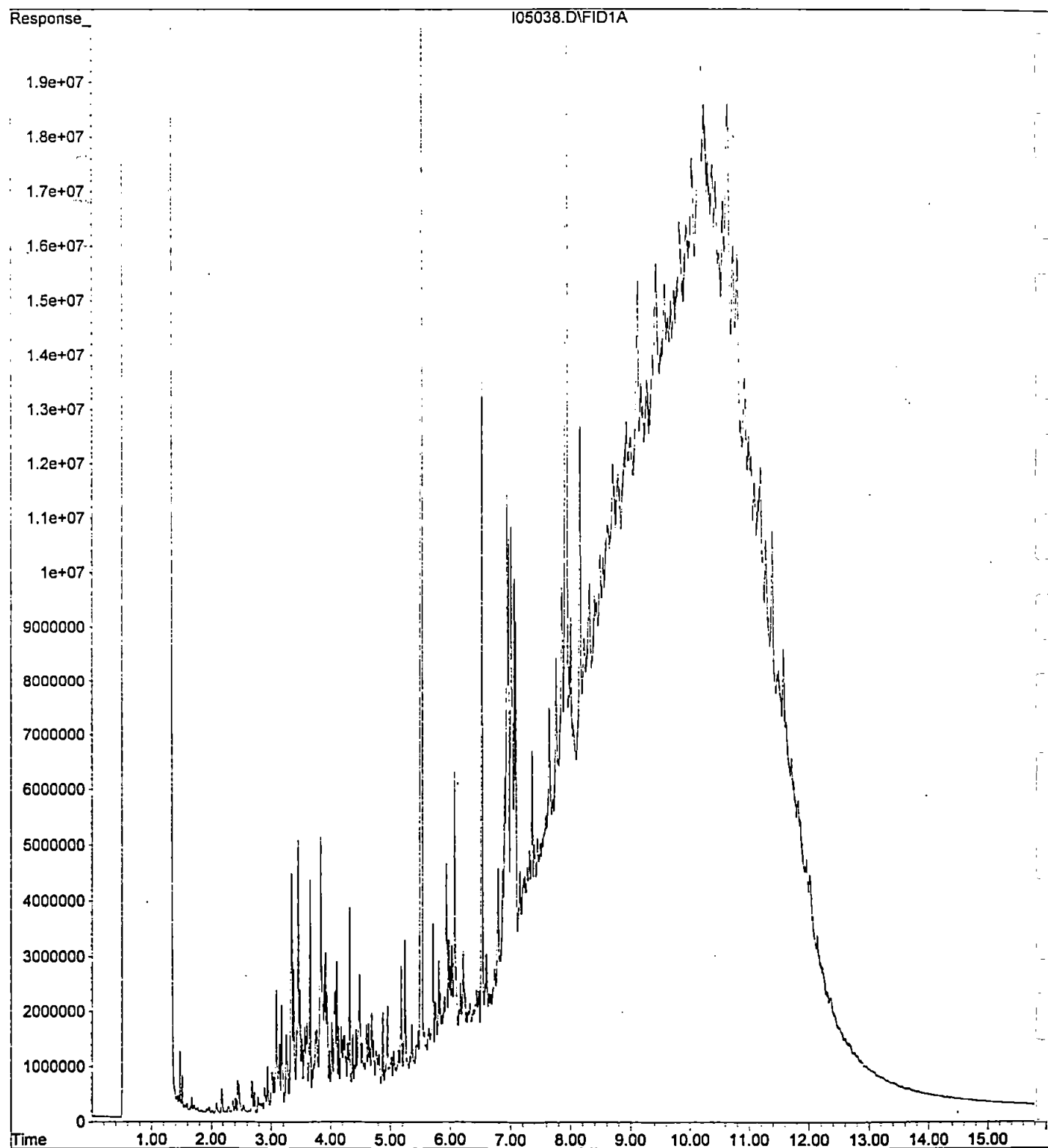
Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Sat Sep 05 13:42:08 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



File : C:\HPCHEM\4\DATA\090598\I05038.D
Operator : kj
Acquired : 9-5-98 9:48:06 PM using AcqMethod TPHD.M
Instrument : GC #7
Sample Name: b809137-14
Misc Info : s
Vial Number: 27





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(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

B809137

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *			
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			Organic & Inorganic Analyses			
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: PSE - P.O. Box 97634-MER-01			Standard 10 7 5 4 3 2 ☒ Same Day			
Seattle WA, 98101			Bellevue, WA 98009			Fuels & Hydrocarbon Analyses			
PHONE: (206) 728-2674 FAX: (206) - 728-2732			P.O. NUMBER: NCA QUOTE #:			Standard 5 3-4 2 ☒ Same Day			
PROJECT NAME: Grady Way			Analysis Request: PAHs by 8270 PCBs by 8082 NWTPH DA			OTHER Specify:			
PROJECT NUMBER: 186-407-00						* Turnaround Requests less than standard may incur Rush Charges.			
SAMPLED BY: Tony Orme									
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. E10-5 - 6.0		9/4/98 730	6809137-01	X X X			S	1	Coal in matrix
2. E10-6 - 5.5		9/4/98 745	-02	X X X			S	1	
3. E10-7 - 4.0		9/5	-03	X X X			S	1	
4. E10-8 - 4.0		1030	-04	X X X			S	1	
5. E8-1 - 6.0		1040	-05	X			S	1	
6. E8-2 - 4.0		1045	-06	X			S	1	
7. E8-3 - 4.0		1050	-07	X			S	1	
8. E8-4 - 4.0		1055	-08	X			S	1	
9. E8-5 - 4.0		1100	-09	X			S	1	
10.							S	1	
RELINQUISHED BY (Signature): [Signature]			DATE: 9/4/98	RECEIVED BY (Signature): [Signature]			DATE: 9/4		
PRINT NAME: Tony Orme			FIRM: GEI	TIME: 1600	PRINT NAME: K. Barker			FIRM: NCA	TIME: 1700
RELINQUISHED BY (Signature):			DATE:	RECEIVED BY (Signature):			DATE:		
PRINT NAME:			FIRM:	TIME:	PRINT NAME:			FIRM:	TIME:
ADDITIONAL REMARKS:									
19.2 w/cg									
PAGE 1 OF 2									

PAGE 1 OF 7



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

B809137

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * <table style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>☐ 10</td> <td>☐ 7</td> <td>☐ 5</td> <td>☐ 4</td> <td>☐ 3</td> <td>☐ 2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>☐ 5</td> <td>☐ 3-4</td> <td>☐ 2</td> <td colspan="3"></td> </tr> </table> ☐ OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						☒ Same Day	☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☐ 2	Fuels & Hydrocarbon Analyses						☒ Same Day	☐ 5	☐ 3-4	☐ 2			
Organic & Inorganic Analyses									☒ Same Day																									
☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☐ 2																													
Fuels & Hydrocarbon Analyses									☒ Same Day																									
☐ 5	☐ 3-4	☐ 2																																
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034 - MER-01 Bellevue, WA 98009																															
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____																															
PROJECT NAME: Grady Way			PAHs by 8270 PCB by 9002 HWPB DA																															
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: Tony Orme																																		
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																								
1. EG-2-7.0		7/4/98 1325	B809137-10					S	1	Coal in Matrix																								
2. EG-3-6.0		1330	-11					S	1																									
3. EG-4-1.5		1335	-12					S	1																									
4. EG-5-3.0		1340	-13					S	1																									
5. E11-1-7.0		9/4/98 1500	-14		X X X			S	1																									
6.																																		
7.																																		
8.																																		
9.																																		
10.																																		
RELINQUISHED BY (Signature):			DATE: 7/4/98		RECEIVED BY (Signature): KBarker			DATE: 9/4																										
PRINT NAME: Tony Orme			FIRM: GEI		PRINT NAME: KBarker			FIRM: NCA																										
RELINQUISHED BY (Signature): _____			DATE: _____		RECEIVED BY (Signature): _____			DATE: _____																										
PRINT NAME: _____			FIRM: _____		PRINT NAME: _____			FIRM: _____																										
ADDITIONAL REMARKS:									PAGE 2 OF 2																									

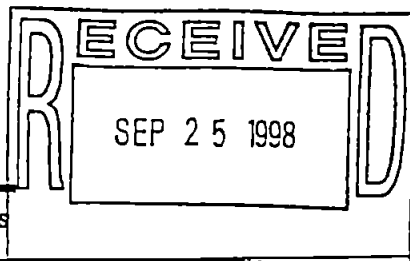
19.2 w/cs

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**NORTH
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Environmental Laboratory Services



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GMW-12	B809189-01	Water	9/8/98
GMW-3	B809189-02	Water	9/8/98

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.*

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-12				B809189-01			Water	
Diesel Range Hydrocarbons	0980296	9/10/98	9/11/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		95.8	%	
GMW-3				B809189-02			Water	
Diesel Range Hydrocarbons	0980296	9/10/98	9/15/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		95.6	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Davis, Project Manager

C - 154

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
GMW-12				B809189-01			Water	
Arsenic	0980447	9/14/98	9/18/98	EPA 6020	0.00100	ND	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00100	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	0980603	9/18/98	9/22/98	EPA 7470A	0.00100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C - 155

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>GMW-12</u>				<u>B809189-01</u>			<u>Water</u>	
Aroclor 1016	0980272	9/9/98	9/10/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		84.7	%	



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>GMW-12</u> pH	0980235	9/8/98	9/8/98	<u>B809189-01</u> EPA 150.1		6.61	<u>Water</u> pH Units	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 157

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980296										
Blank										
Date Prepared: 9/10/98										
Extraction Method: EPA 3520C/600 Series										
Diesel Range Hydrocarbons	9/11/98			ND	mg/l	0.250				
Lube Oil Range Hydrocarbons	"			ND	"	0.500				
Surrogate: 2-FBP	"	0.330		0.333	"	50.0-150	101			
LCS										
0980296-BS1										
Diesel Range Hydrocarbons	9/15/98	2.00		1.84	mg/l	50.0-150	92.0			
Surrogate: 2-FBP	"	0.330		0.317	"	50.0-150	96.1			
Duplicate										
0980296-DUP1 B809209-04										
Diesel Range Hydrocarbons	9/15/98		ND	ND	mg/l			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	0.660		0.527	"	50.0-150	79.8			



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 0980447</u>		<u>Date Prepared: 9/14/98</u>			<u>Extraction Method: EPA 3020A</u>					
<u>Blank</u>		<u>0980447-BLK1</u>								
Arsenic	9/18/98			ND	mg/l	0.00100				
Cadmium	"			ND	"	0.00100				
Chromium	"			ND	"	0.00100				
Lead	"			ND	"	0.00100				
<u>LCS</u>		<u>0980447-BS1</u>								
Arsenic	9/18/98	0.200		0.199	mg/l	80.0-120	99.5			
Cadmium	"	0.200		0.201	"	80.0-120	101			
Chromium	"	0.200		0.205	"	80.0-120	102			
Lead	"	0.200		0.199	"	80.0-120	99.5			
<u>Duplicate</u>		<u>0980447-DUP1</u>		<u>B809189-01</u>						
Arsenic	9/18/98		ND	ND	mg/l				20.0	
Cadmium	"		ND	ND	"				20.0	
Chromium	"		0.00100	ND	"				20.0	
Lead	"		ND	ND	"				20.0	
<u>Matrix Spike</u>		<u>0980447-MS1</u>		<u>B809189-01</u>						
Arsenic	9/18/98	0.200	ND	0.223	mg/l	75.0-125	112			
Cadmium	"	0.200	ND	0.209	"	75.0-125	105			
Chromium	"	0.200	0.00100	0.198	"	75.0-125	98.5			
Lead	"	0.200	ND	0.221	"	75.0-125	110			
<u>Batch: 0980603</u>		<u>Date Prepared: 9/18/98</u>			<u>Extraction Method: EPA 7470A</u>					
<u>Blank</u>		<u>0980603-BLK1</u>								
Mercury	9/22/98			ND	mg/l	0.00100				
<u>LCS</u>		<u>0980603-BS1</u>								
Mercury	9/22/98	0.00500		0.00442	mg/l	70.0-130	88.4			
<u>Matrix Spike</u>		<u>0980603-MS1</u>		<u>B809403-11</u>						
Mercury	9/22/98	0.00500	ND	0.00458	mg/l	75.0-125	91.6			
<u>Matrix Spike Dup</u>		<u>0980603-MSD1</u>		<u>B809403-11</u>						
Mercury	9/22/98	0.00500	ND	0.00483	mg/l	75.0-125	96.6	20.0	5.31	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980272		Date Prepared: 9/9/98		Extraction Method: EPA 3510C/600 Series						
Blank		0980272-BLK1								
Aroclor 1016	9/10/98			ND	ug/l	0.100				
Aroclor 1221	"			ND	"	0.100				
Aroclor 1232	"			ND	"	0.100				
Aroclor 1242	"			ND	"	0.100				
Aroclor 1248	"			ND	"	0.100				
Aroclor 1254	"			ND	"	0.100				
Aroclor 1260	"			ND	"	0.100				
Aroclor 1262	"			ND	"	0.100				
Aroclor 1268	"			ND	"	0.100				
Surrogate: TCX	"	0.200		0.164	"	40.0-130	82.0			
LCS		0980272-BS1								
Aroclor 1260	9/10/98	10.0		6.87	ug/l	33.0-122	68.7			
Surrogate: TCX	"	0.200		0.186	"	40.0-130	93.0			
LCS Dup		0980272-BSD1								
Aroclor 1260	9/10/98	10.0		6.80	ug/l	33.0-122	68.0	21.0	1.02	
Surrogate: TCX	"	0.200		0.185	"	40.0-130	92.5			



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980235										
Duplicate										
pH										
Date Prepared: 9/8/98										
0980235-DUP1 B809189-01										
9/8/98 6.61 6.64 pH Units 10.0 0.453										
Extraction Method: General Preparation										



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

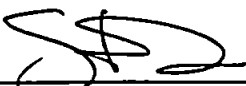
Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/22/98 16:32

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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Quantitation Report

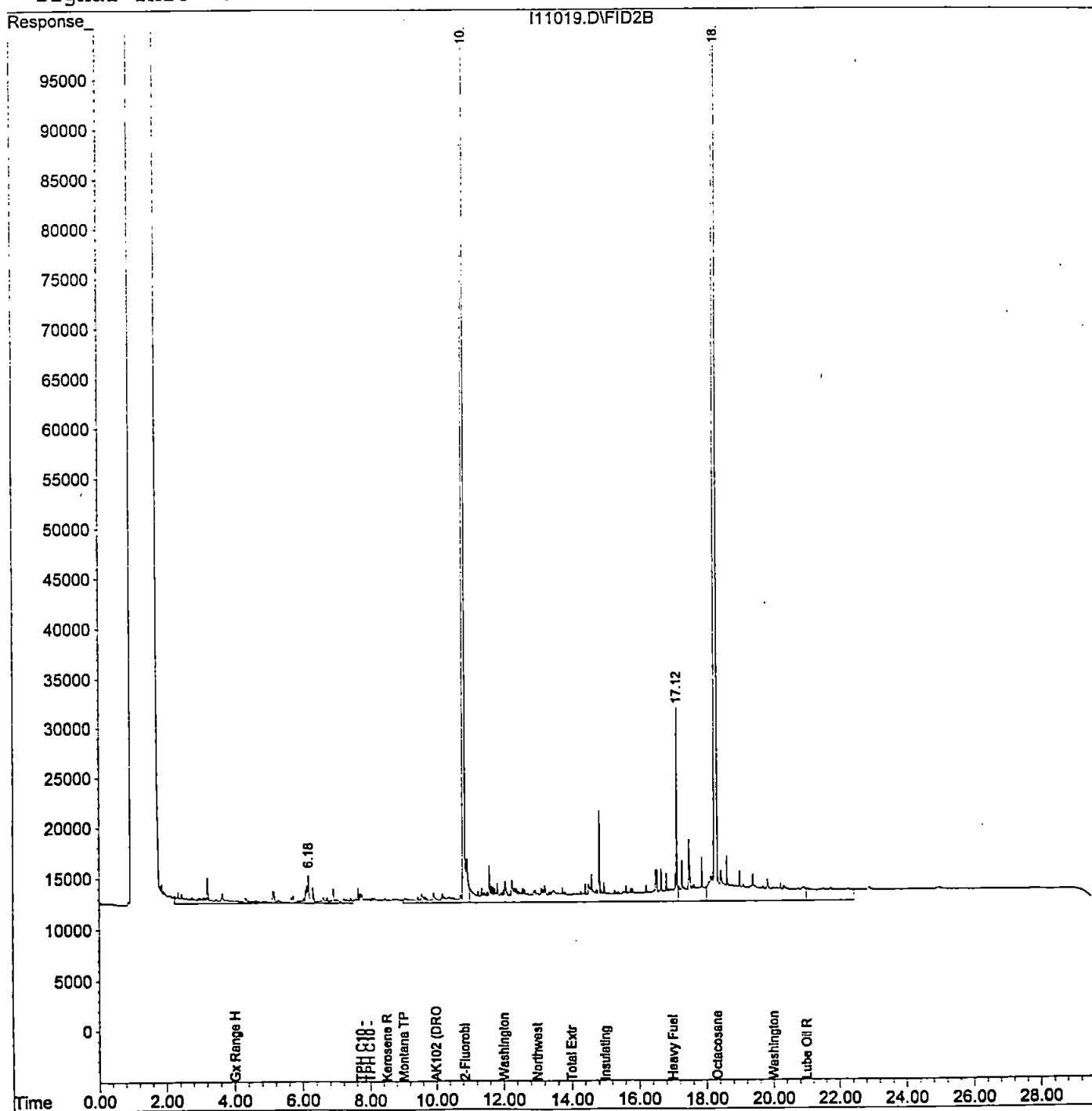
Data File : C:\HPCHEM\1\DATA\091198\I11019.D
 Acq On : 11 Sep 1998 7:40 pm
 Sample : b809189-01
 Misc : *SW m 9/16*
 IntFile : SURR.E
 Quant Time: Sep 14 11:25 1998

Vial: 8
 Operator: CC
 Inst : GC #1
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Mon Sep 14 10:24:23 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\1\DATA.SEC\I15017.D

Vial: 18

Acq On : 15 Sep 1998 5:25 pm

Operator: CC

Sample : b809189-02 r1

Inst : GC #1

Misc : 8 W 4 1/4

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Sep 15 19:14 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Tue Sep 15 09:55:21 1998

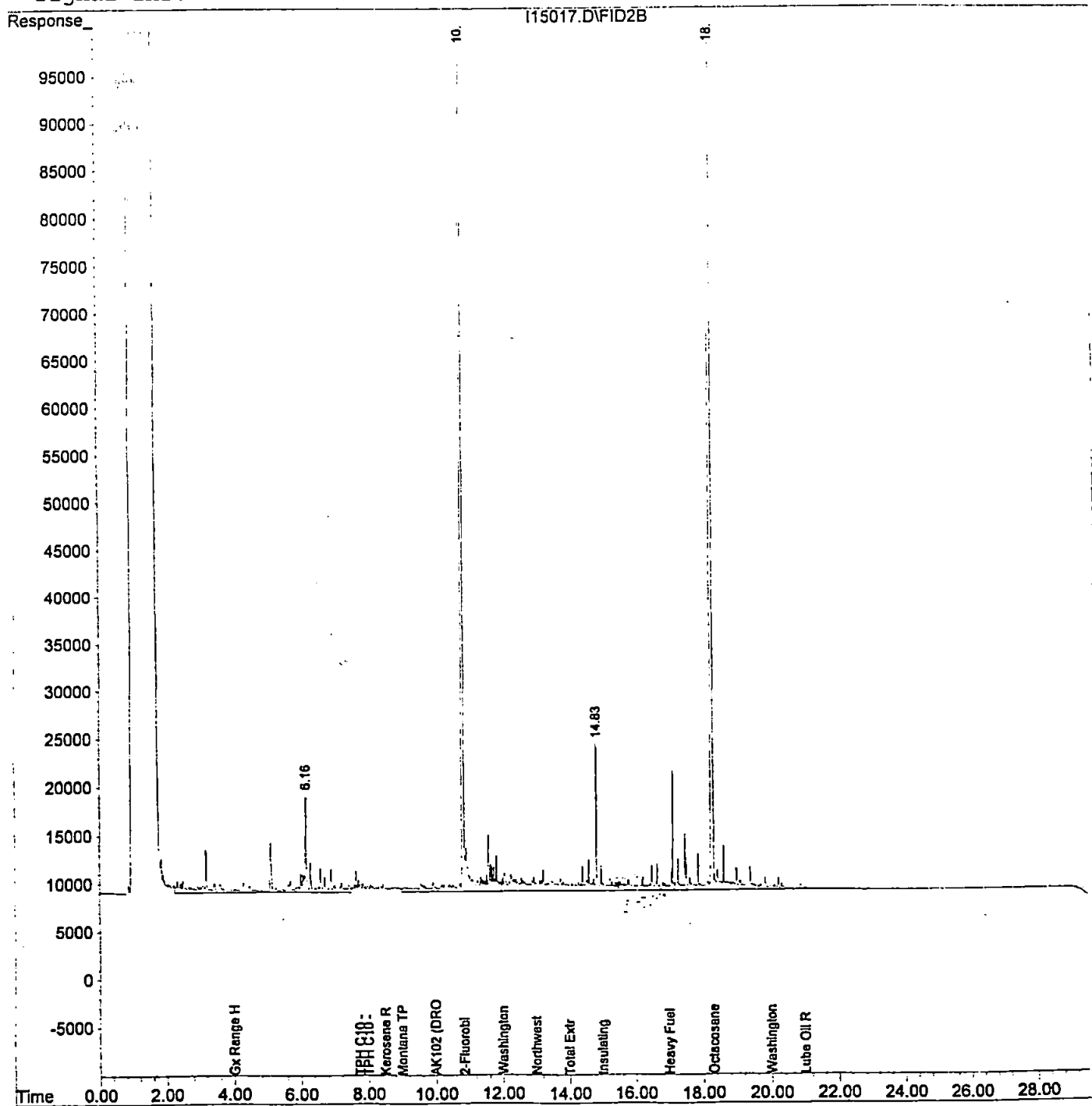
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





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CHAIN OF CUSTODY REPORT

Work Order #

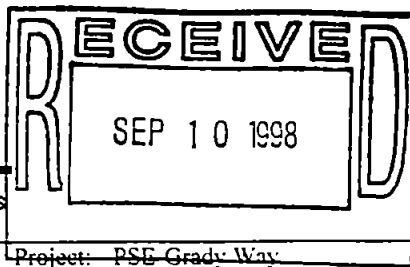
6809189

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *					
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			☒ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☒ Same Day Organic & Inorganic Analyses					
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: RSE - P.O. Box 97674-MER-04			☒ 3-4 ☐ 2 ☒ Same Day Fuels & Hydrocarbon Analyses					
City: Seattle WA, 98101			City: Bellevue, WA 98009			OTHER Specify: _____					
PHONE: (206) 728-2674 FAX: (206) -728-2732			P.O. NUMBER:			NCA QUOTE #:					
PROJECT NAME: Grady Way			Analysis Request: PAHs by GC/MS PCBs by GC/MS HWP4 DA Dissolved metals PH			* Turnaround Requests less than standard may incur Rush Charges.					
PROJECT NUMBER: 186-407-00						MATRIX (W, S, A, O)			# OF CONTAINERS		
SAMPLED BY: Tony Orsini						COMMENTS					
CLIENT SAMPLE IDENTIFICATION						SAMPLING DATE/TIME			NCA SAMPLE ID (Laboratory Use Only)		
1.	GMW-12	9/8/98 900	6809189-01	X	X	X	X	X	W	6	Dissolved metals (As, Cd, Cr, Pb, Hg)
2.	GMW-3	9/8/98 930	02-				X		W	1	
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
RELINQUISHED BY (Signature):			DATE: 9/8/98			RECEIVED BY (Signature):			DATE: 9-8-98		
PRINT NAME: Tony Orsini			FIRM: GCI			PRINT NAME: S. Wideman			FIRM: NCA		
RELINQUISHED BY (Signature):			DATE: 9-8-98			RECEIVED BY (Signature):			DATE: 9-8-98		
PRINT NAME: S. Wideman			FIRM: NCA			PRINT NAME: Cathy Nichols			FIRM: NCA		
ADDITIONAL REMARKS: Information that we received from the lab was incomplete and conflicting. I have included 1 ml bottle preserved with HNO3 and 1 500 ml bottle on preserved. Also I have included 3 liter amber bottles (unpreserved) and 1 preserved with HCl									PAGE 1 OF 1		

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/8/98
Received: 9/8/98
Reported: 9/9/98 17:06

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E12-1-2.0	B809183-01	Soil	9/8/98
E12-2-2.0	B809183-02	Soil	9/8/98
E12-4-2.0	B809183-03	Soil	9/8/98

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*

Steve Davis, Project Manager

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Quantitation Report

Data File : C:\HPCHEM\3\DATA\I14064.D

Acq On : 15 Sep 1998 7:25 am

Sample : b809335-11

Misc : s

IntFile : SURR.E

Quant Time: Sep 15 11:02 1998 Quant Results File: TPHD.RES

Vial: 49

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

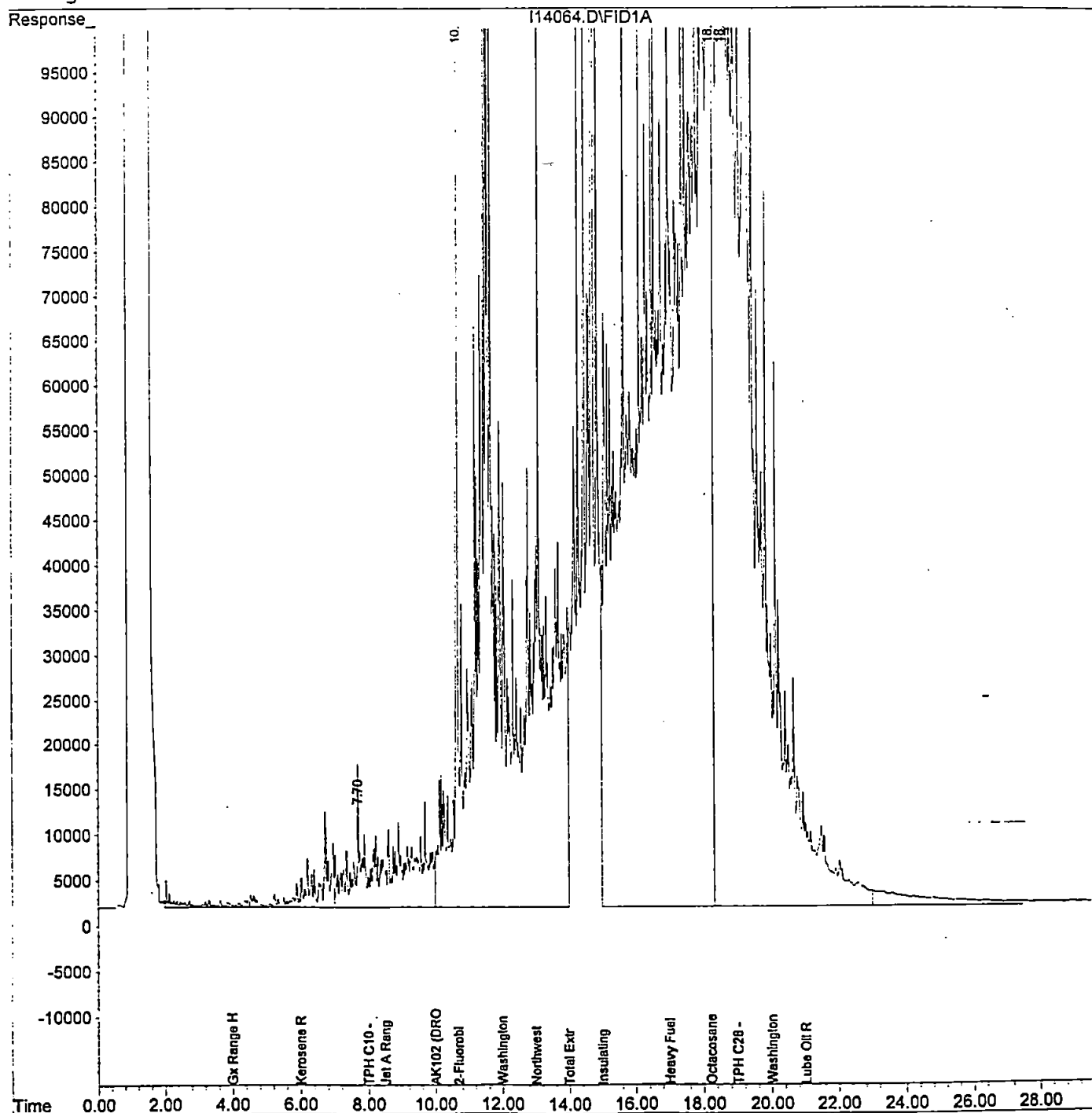
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\I15016.D

Acq On : 9-15-98 2:11:51 PM

Sample : b809335-12 r1

Misc : s 5x

IntFile : SURR.E

Quant Time: Sep 15 17:02 1998 Quant Results File: TPHD.RES

Vial: 31

Operator: KRL

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Sep 11 09:20:25 1998

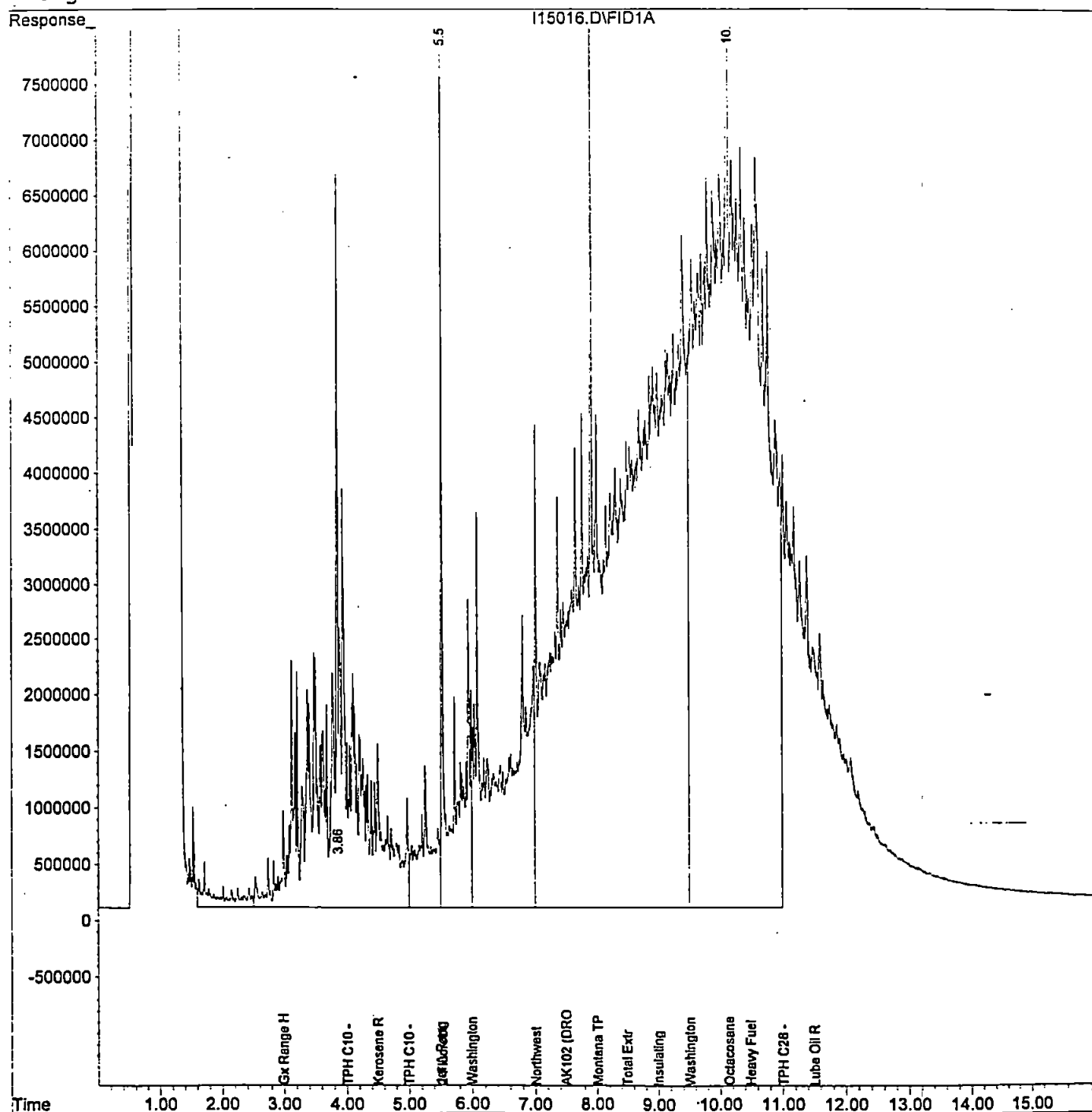
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

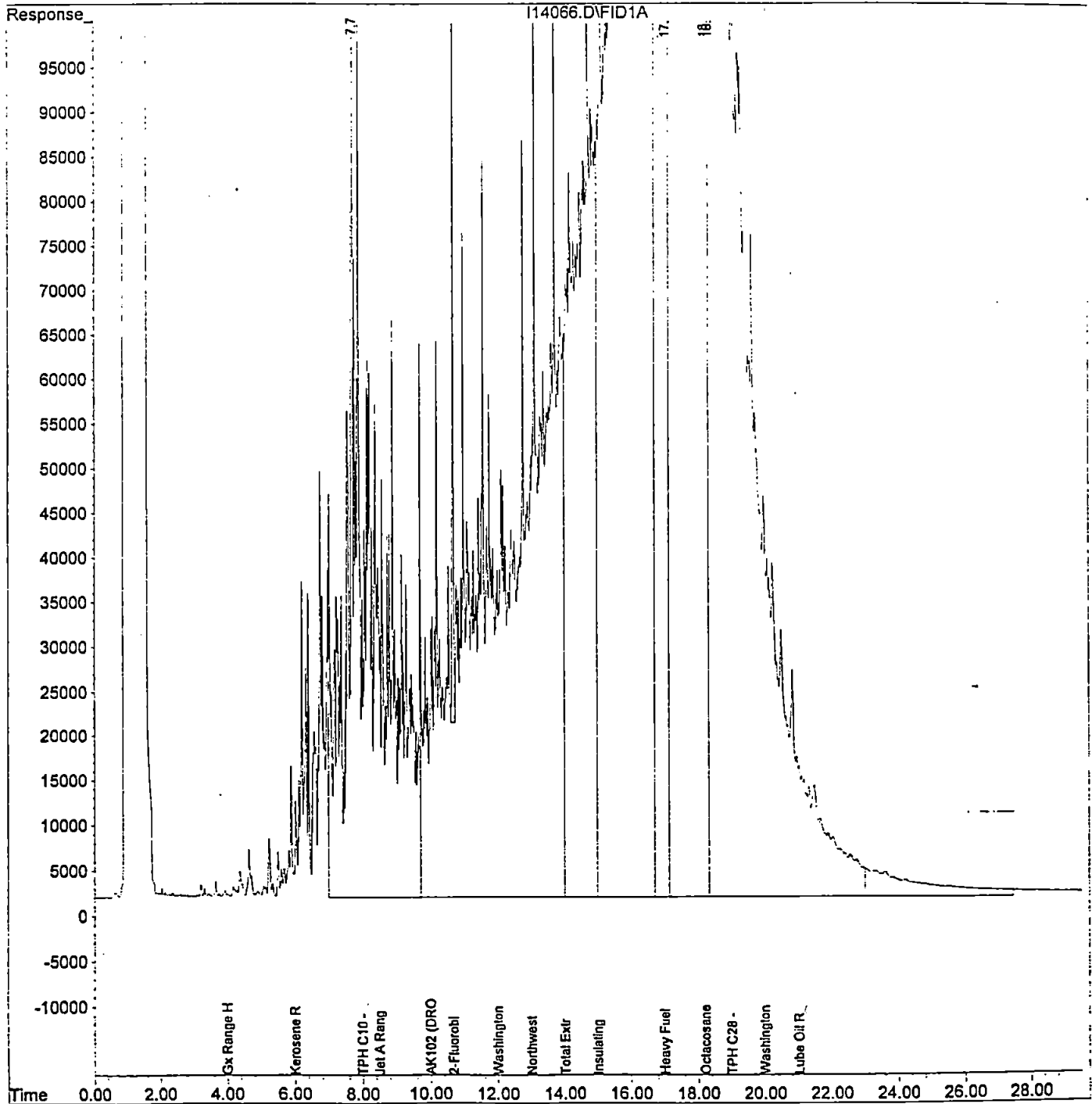
Data File : C:\HPCHEM\3\DATA\I14066.D
 Acq On : 15 Sep 1998 8:05 am
 Sample : b809335-13
 Misc : s 5x
 IntFile : SURR.E

Vial: 51
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Time: Sep 15 12:37 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Wed Sep 09 13:59:13 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





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(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order # **B809335**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard						
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034-MER-01 Bellevue, WA 98007						
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____						
PROJECT NAME: Grady Way			PAA by 8/27/0 PCR by 9/2/0 NMTPH DA						
PROJECT NUMBER: 186-407-00									
SAMPLED BY: Tony Orme									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. E11-7-3.5	9/14/98 945	B809335-01			X	X	S	1	
2. E11-8-6.0	1230	-02			X	X	S	1	
3. E11-9-6.0	1400	-03			X	X	S	1	
4. E11-10-6.0	1430	-04					S	1	Hold
5. E6-10-4.5	1435	-05			X		S	1	
6. E6-11-4.5	1440	-06			X		S	1	Hold (A)
7. E6-12-0.5	1440	-07			X		S	1	
8. E6-13-0.5	1445	-08			X		S	1	
9. E6-14-3.0	1450	-09			X		S	1	
10. E6-15-3.0	1500	-10			X		S	1	
RELINQUISHED BY (Signature):			DATE: 9/14/98		RECEIVED BY (Signature): S. Wideen		DATE: 9-14-98		
PRINT NAME: Tony Orme			FIRM: CEI		PRINT NAME: S. Wideen		FIRM: NCA		
RELINQUISHED BY (Signature): S. Wideen			DATE: 9-14-98		RECEIVED BY (Signature): Cathy Nichols		DATE: 9/14/98		
PRINT NAME: S. Wideen			FIRM: NCA		PRINT NAME: Cathy Nichols		FIRM: NCA		
ADDITIONAL REMARKS:									
22.7 w/d									
PAGE 1 OF 2									

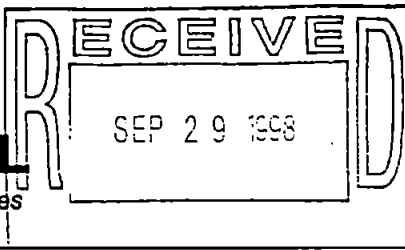
CHAIN OF CUSTODY REPORT

Work Order # 13809335

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER _____ Specify: _____ * Turnaround Requests less than standard may incur Rush Charges. <table border="1" style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 20%;">MATRIX (W. S. A. O)</th> <th style="width: 20%;"># OF CONTAINERS</th> <th style="width: 60%;">COMMENTS</th> </tr> </thead> <tbody> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td>S</td><td>1</td><td>Hold</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			MATRIX (W. S. A. O)	# OF CONTAINERS	COMMENTS	S	1	Hold	S	1	Hold	S	1	Hold																										
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ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>																																											
ADDRESS: <u>600 Stewart St. Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97634 - MER-09</u>																																											
<u>Seattle WA, 98101</u>			<u>Belleuve, WA 98009</u>																																											
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____																																											
PROJECT NAME: <u>Grady Way</u>			PAHs by 8270 PCB by 8082 HWPB DX 21																																											
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RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>9/14/98</u>																																											
PRINT NAME: <u>Tony Orme</u> FIRM: <u>LET</u> TIME: <u>1600</u>			RECEIVED BY (Signature): <u>S. Wideen</u> DATE: <u>9-14-98</u>																																											
RELINQUISHED BY (Signature): <u>S. Wideen</u>			PRINT NAME: <u>S. Wideen</u> FIRM: <u>NCA</u> TIME: <u>16:20</u>																																											
PRINT NAME: <u>S. Wideen</u> FIRM: <u>NCA</u> TIME: <u>17:05</u>			RECEIVED BY (Signature): <u>Cathy Rickel</u> DATE: <u>9-14-98</u>																																											
PRINT NAME: _____ FIRM: _____ TIME: _____			PRINT NAME: _____ FIRM: _____ TIME: _____																																											
ADDITIONAL REMARKS:																																														



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/25/98 10:52

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E6-16-0.5	B809439-01	Soil	9/17/98
E6-17-0.5	B809439-02	Soil	9/17/98
E6-18-4.5	B809439-03	Soil	9/17/98
E11-12-7.0	B809439-04	Soil	9/17/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/17/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/17/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 9/25/98 10:52

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E11-12-7.0</u>				<u>B809439-04</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	0980568	9/17/98	9/18/98		10.0	14.3	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		95.6	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/25/98 10:52

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-16-0.5								
				B809439-01		Soil		
Aroclor 1016	0980573	9/17/98	9/24/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	298	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	101	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		81.7	%	
E6-17-0.5								
				B809439-02		Soil		
Aroclor 1016	0980573	9/17/98	9/24/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		78.5	%	
E6-18-4.5								
				B809439-03		Soil		
Aroclor 1016	0980573	9/17/98	9/24/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		81.8	%	



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/17/98
Received: 9/17/98
Reported: 9/25/98 10:52

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E6-16-0.5	B809439-01	Soil	87.3	%
E6-17-0.5	B809439-02	Soil	83.7	%
E6-18-4.5	B809439-03	Soil	71.9	%
E11-12-7.0	B809439-04	Soil	69.5	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Seattle, WA 98101

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Project Number: 0186-407-00
Project Manager: Steve Woodward

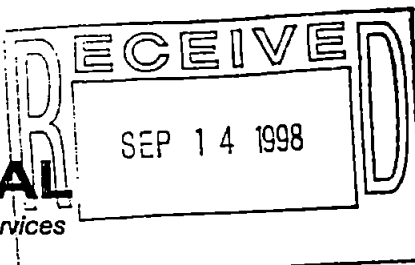
Sampled: 9/17/98
Received: 9/17/98
Reported: 9/25/98 10:52

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0980568										
Blank										
		Date Prepared: 9/17/98			Extraction Method: EPA 3550B					
		0980568-BLK1								
Diesel Range Hydrocarbons	9/18/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	11.0		8.52	"	50.0-150	77.5			
LCS										
		0980568-BS1								
Diesel Range Hydrocarbons	9/18/98	66.7		76.4	mg/kg dry	60.0-140	115			
Surrogate: 2-FBP	"	11.0		10.8	"	50.0-150	98.2			
Duplicate										
		0980568-DUP1			B809434-03					
Diesel Range Hydrocarbons	9/18/98		ND	ND	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	15.9		14.4	"	50.0-150	90.6			
Duplicate										
		0980568-DUP2			B809439-04					
Diesel Range Hydrocarbons	9/18/98		14.3	17.6	mg/kg dry			50.0	20.7	
Lube Oil Range Hydrocarbons	"		ND	26.7	"			50.0		
Surrogate: 2-FBP	"	15.8		13.9	"	50.0-150	88.0			



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E10-5-6.0	B809137-01	Soil	9/4/98
E10-6-5.5	B809137-02	Soil	9/4/98
E10-7-4.0	B809137-03	Soil	9/4/98
E10-8-4.0	B809137-04	Soil	9/4/98
E8-1-6.0	B809137-05	Soil	9/4/98
E8-2-4.0	B809137-06	Soil	9/4/98
E8-3-4.0	B809137-07	Soil	9/4/98
E8-4-4.0	B809137-08	Soil	9/4/98
E8-5-4.0	B809137-09	Soil	9/4/98
E6-2-7.0	B809137-10	Soil	9/4/98
E6-3-6.0	B809137-11	Soil	9/4/98
E6-4-1.5	B809137-12	Soil	9/4/98
E6-5-3.0	B809137-13	Soil	9/4/98
E11-1-7.0	B809137-14	Soil	9/4/98

North Creek Analytical - Bothell

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Note
E10-5-6.0				B809137-01				
Diesel Range Hydrocarbons	0980171	9/4/98	9/5/98		10.0	66.2	Soil mg/kg dry	1
Lube Oil Range Hydrocarbons	"	"	"		25.0	168	"	
Surrogate: 2-FBP	"	"	"	50.0-150		87.6	%	
E10-6-5.5				B809137-02				
Diesel Range Hydrocarbons	0980171	9/4/98	9/5/98		10.0	166	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	619	"	
Surrogate: 2-FBP	"	"	"	50.0-150		86.4	%	
E10-7-4.0				B809137-03				
Diesel Range Hydrocarbons	0980171	9/4/98	9/5/98		10.0	922	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	72.4	"	2
Surrogate: 2-FBP	"	"	"	50.0-150		88.5	%	
E10-8-4.0				B809137-04				
Diesel Range Hydrocarbons	0980171	9/4/98	9/5/98		10.0	706	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	350	"	
Surrogate: 2-FBP	"	"	"	50.0-150		86.7	%	
E6-3-6.0				B809137-11				
Diesel Range Hydrocarbons	0980171	9/4/98	9/8/98		110	1790	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		275	4080	"	
Surrogate: 2-FBP	"	"	"	50.0-150		58.5	%	
E11-1-7.0				B809137-14				
Diesel Range Hydrocarbons	0980171	9/4/98	9/5/98		10.0	512	Soil mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	1340	"	
Surrogate: 2-FBP	"	"	"	50.0-150		88.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Not
E10-5-6.0		B809137-01					Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	146	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	84.2	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		66.8	%	
E10-6-5.5		B809137-02					Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	71.0	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	69.3	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		68.4	%	
E10-7-4.0		B809137-03					Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		61.9	%	
E10-8-4.0		B809137-04					Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

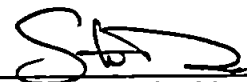
Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-8-4.0 (continued)				B809137-04			Soil	3.4
Aroclor 1232	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		58.0	%	
E8-1-6.0				B809137-05			Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		80.5	%	
E8-2-4.0				B809137-06			Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	163	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		72.3	%	
E8-3-4.0				B809137-07			Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E8-3-4.0 (continued)</u>				<u>B809137-07</u>			<u>Soil</u>	<u>3.4</u>
Aroclor 1248	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		77.2	%	
<u>E8-4-4.0</u>				<u>B809137-08</u>			<u>Soil</u>	<u>3.4</u>
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		73.6	%	
<u>E8-5-4.0</u>				<u>B809137-09</u>			<u>Soil</u>	<u>3.4</u>
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		75.7	%	
<u>E6-2-7.0</u>				<u>B809137-10</u>			<u>Soil</u>	<u>3.4</u>
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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Environmental Laboratory Services

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Geo Engineers - Seattle
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
Received: 9/4/98
Reported: 9/10/98 15:06

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	No
E6-2-7.0 (continued)				B809137-10			Soil	
Aroclor 1260	0980170	9/4/98	9/9/98		50.0	64.5	ug/kg dry	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		74.6	%	
E6-3-6.0				B809137-11			Soil	
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	105	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	116	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		83.0	%	
E6-4-1.5				B809137-12			Soil	
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		71.3	%	
E6-5-3.0				B809137-13			Soil	
Aroclor 1016	0980170	9/4/98	9/6/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	9/9/98		550	1680	"	
Aroclor 1248	"	"	9/6/98		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

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Geo Engineers - Seattle
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
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Reported: 9/10/98 15:06

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-5-3.0 (continued)				B809137-13			Soil	3.4
Aroclor 1268	0980170	9/4/98	9/6/98		50.0	ND	ug/kg dry	
Surrogate: TCX	"	"	9/9/98	40.0-130		68.9	%	
E11-1-7.0				B809137-14			Soil	3.4
Aroclor 1016	0980170	9/4/98	9/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	69.0	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		95.0	%	
Surrogate: Decachlorobiphenyl	"	"	9/5/98	40.0-130		67.0	"	



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/4/98
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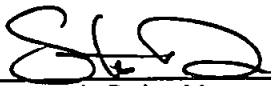
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-5-6.0				B809137-01			Soil	3
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		85.9	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		59.8	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		96.7	"	
E10-6-5.5				B809137-02			Soil	3
Acenaphthene	0980156	9/4/98	9/6/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (a) pyrene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.500	ND	"	
Fluorene	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	ND	"	
Naphthalene	"	"	"		0.500	ND	"	
Phenanthrene	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		71.6	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Environmental Laboratory Services

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Geo Engineers - Seattle
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Project: PSE-Grady Way
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Project Manager: Steve Woodward

Sampled: 9/4/98
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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-6-5.5 (continued)				B809137-02			Soil	3
Surrogate: Nitrobenzene-d5	0980156	9/4/98	9/6/98	30.0-150		45.9	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		80.1	"	
E10-7-4.0				B809137-03			Soil	3
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	ND	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		81.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		51.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		74.9	"	
E10-8-4.0				B809137-04			Soil	3
Acenaphthene	0980156	9/4/98	9/6/98		0.500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.500	ND	"	
Anthracene	"	"	"		0.500	ND	"	
Benzo (a) anthracene	"	"	"		0.500	ND	"	
Benzo (a) pyrene	"	"	"		0.500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.500	ND	"	
Benzo (ghi) perylene	"	"	"		0.500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.500	ND	"	
Chrysene	"	"	"		0.500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.500	ND	"	
Fluoranthene	"	"	"		0.500	ND	"	
Fluorene	"	"	"		0.500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.500	ND	"	

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-8-4.0 (continued)				B809137-04			Soil	3
Naphthalene	0980156	9/4/98	9/6/98		0.500	ND	mg/kg dry	
Phenanthrene	"	"	"		0.500	ND	"	
Pyrene	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		64.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		44.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		68.1	"	
E11-1-7.0				B809137-14			Soil	3
Acenaphthene	0980156	9/4/98	9/6/98		0.250	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.250	ND	"	
Anthracene	"	"	"		0.250	ND	"	
Benzo (a) anthracene	"	"	"		0.250	ND	"	
Benzo (a) pyrene	"	"	"		0.250	ND	"	
Benzo (b) fluoranthene	"	"	"		0.250	ND	"	
Benzo (ghi) perylene	"	"	"		0.250	ND	"	
Benzo (k) fluoranthene	"	"	"		0.250	ND	"	
Chrysene	"	"	"		0.250	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.250	ND	"	
Fluoranthene	"	"	"		0.250	ND	"	
Fluorene	"	"	"		0.250	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.250	ND	"	
Naphthalene	"	"	"		0.250	0.904	"	
Phenanthrene	"	"	"		0.250	ND	"	
Pyrene	"	"	"		0.250	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		79.7	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		50.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		82.8	"	



NORTH CREEK ANALYTICAL

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/9/98
Received: 9/9/98
Reported: 9/10/98 13:27

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Page

Quantitation Report

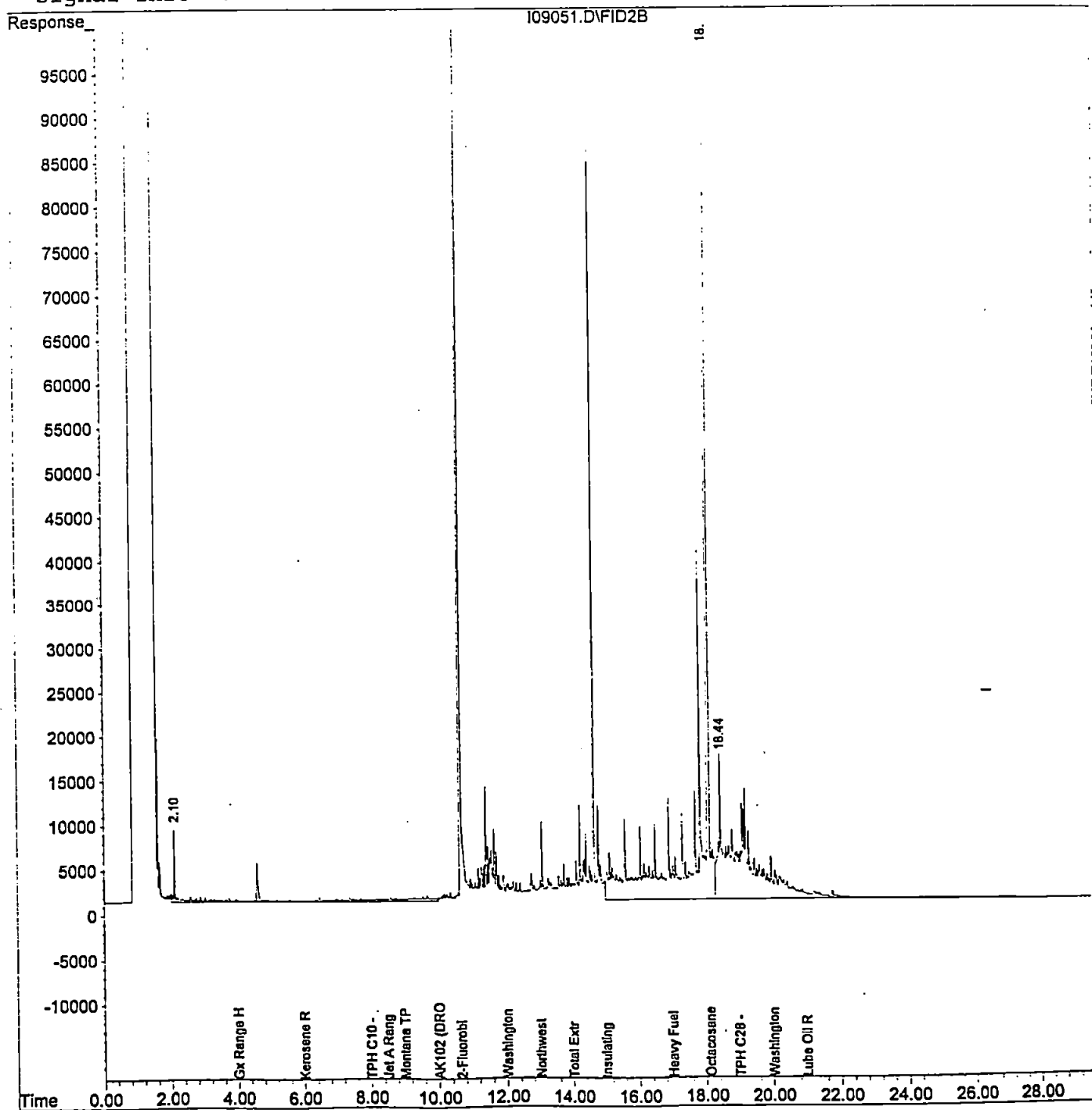
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 Sample : b809219-01
 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 10 9:53 1998

Vial: 38
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed Sep 09 14:03:59 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :

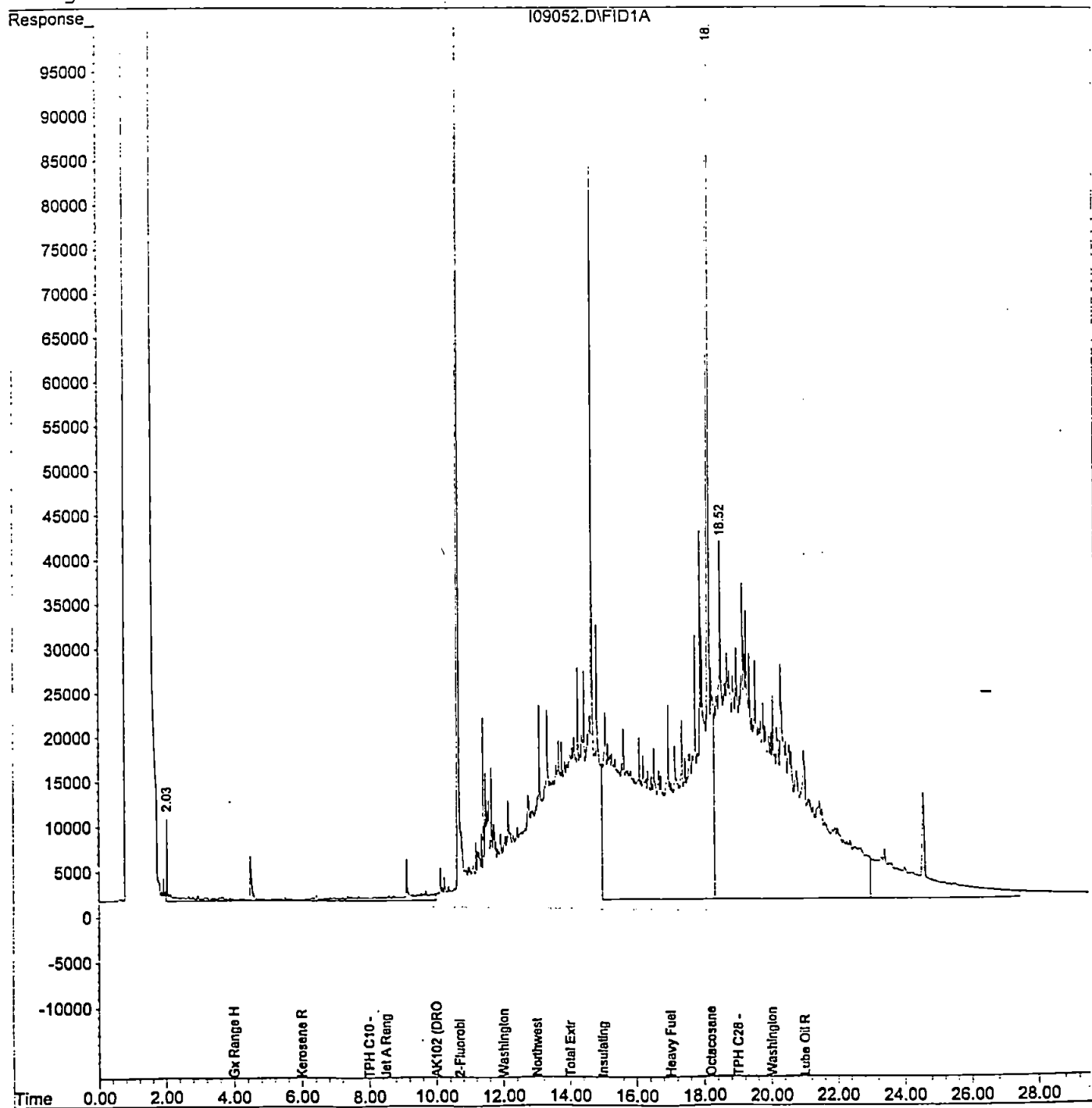


Quantitation Report

Data File : C:\HPCHEM\3\DATA\I09052.D Vial: 39
 Acq On : 10 Sep 1998 4:52 am Operator: KRL
 Sample : b809219-02 Inst : GC #5
 Misc : s Multiplr: 1.00
 IntFile : SURR.E
 Quant Time: Sep 10 10:11 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Wed Sep 09 13:59:13 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

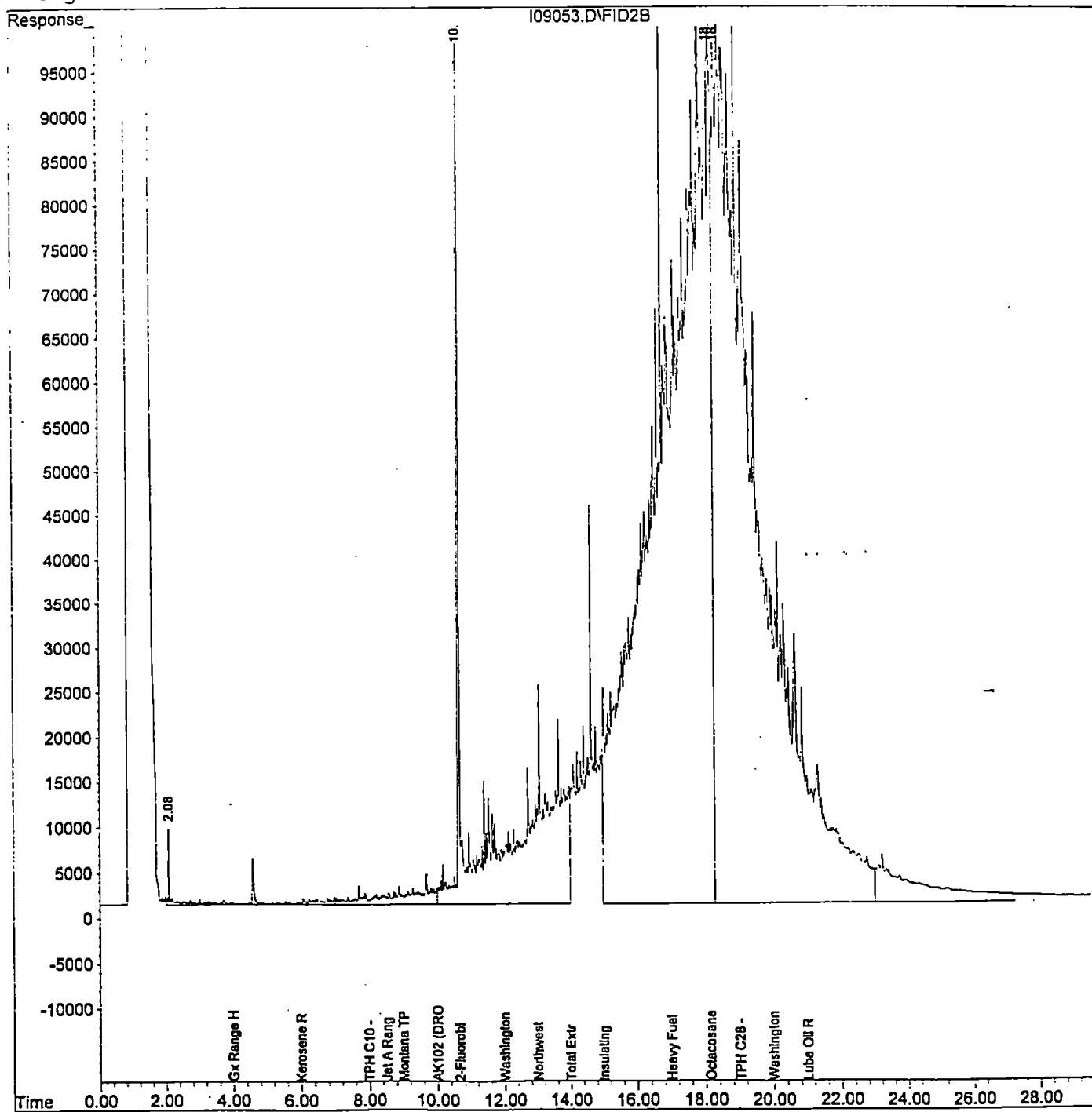
Data File : C:\HPCHEM\3\DATA.SEC\I09053.D
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 Sample : b809219-03
 Misc : s
 IntFile : SURR.E
 Quant Time: Sep 10 9:53 1998

Vial: 40
 Operator: KRL
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed Sep 09 14:03:59 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\I09054.D

Acq On : 10 Sep 1998 5:31 am

Sample : b809219-05 *5/10/98*

Misc : s

IntFile : SURR.E

Quant Time: Sep 10 10:12 1998 Quant Results File: TPHD.RES

Vial: 41

Operator: KRL

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Wed Sep 09 13:59:13 1998

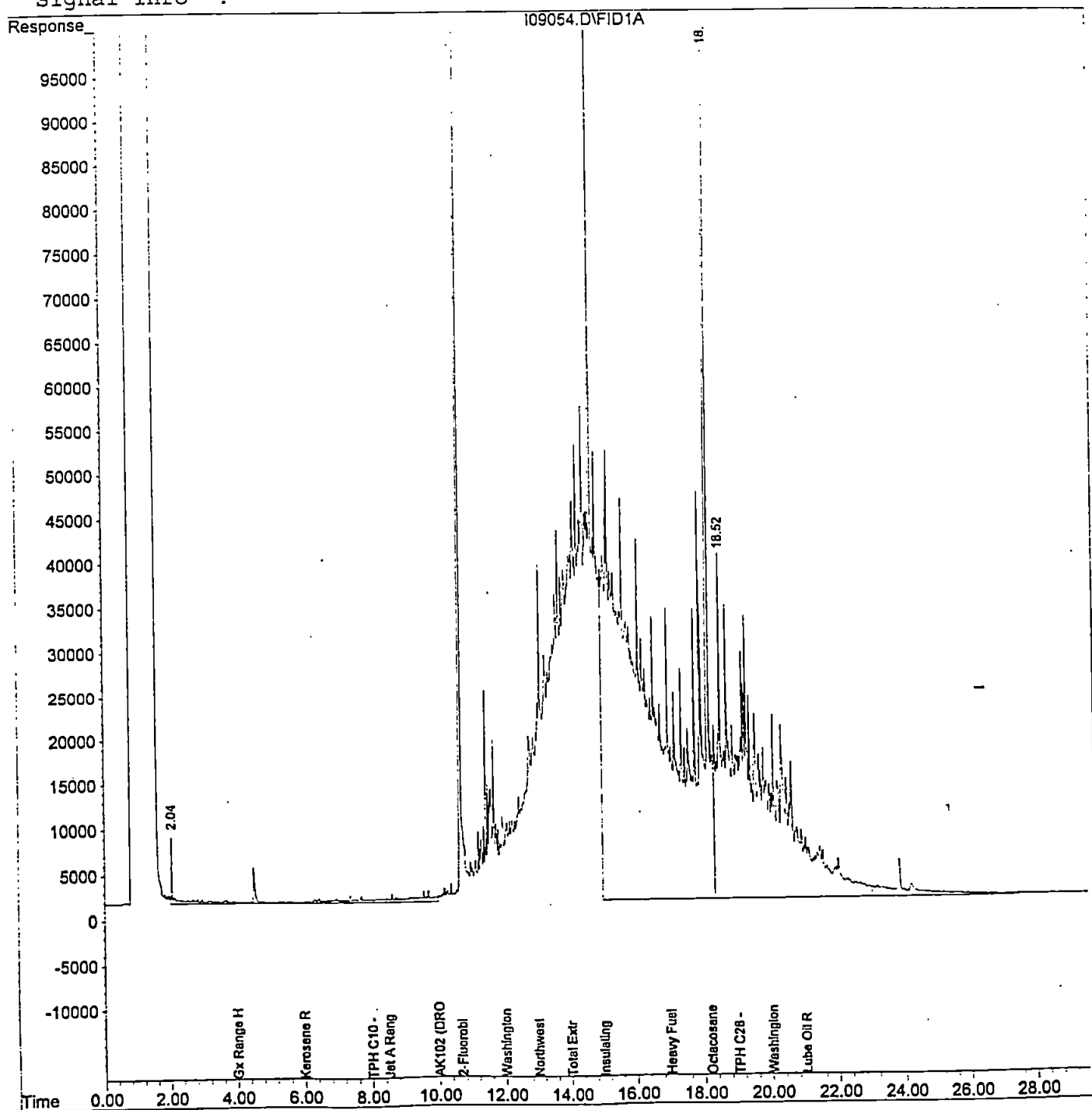
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





**NORTH
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Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

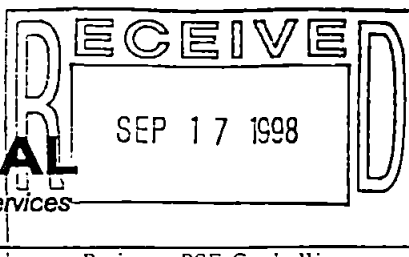
Work Order #

3809219

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> </tr> <tr> <td>☐ 10</td> <td>☐ 7</td> <td>☐ 5</td> <td>☐ 4</td> <td>☐ 3</td> <td>☒ 2</td> <td>☒ Same Day</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> </tr> <tr> <td>☐ 5</td> <td>☐ 3-4</td> <td>☐ 2</td> <td>☒ 1</td> <td colspan="2">☒ Same Day</td> </tr> </table> ☐ OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☒ 2	☒ Same Day	Fuels & Hydrocarbon Analyses						☐ 5	☐ 3-4	☐ 2	☒ 1	☒ Same Day	
Organic & Inorganic Analyses																																	
☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☒ 2				☒ Same Day																								
Fuels & Hydrocarbon Analyses																																	
☐ 5	☐ 3-4	☐ 2	☒ 1	☒ Same Day																													
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																														
ADDRESS: 600 Stewart St, Ste 1215 Seattle WA, 98101			ADDRESS: RSE - P.O. Box 97034 - MER-01 Bellevue, WA 98009																														
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: NCA QUOTE #:																														
PROJECT NAME: Grady Way			PAHs by 8270 PCBs by 8082 WWTP DA																														
PROJECT NUMBER: 186-407-00																																	
SAMPLED BY: Tony Orsini																																	
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																								
1. E12-5-5.0	9/19/98 800	3809219 -01						S	1																								
2. E12-3-4.0	9/19/98 1530	-02						S	1																								
3. E11-2-7.0	9/19/98 1140	-03						S	1																								
4. E11-3-7.0	9/19/98 1145	-04						S	1	Hold																							
5. E11-4-6.0	9/19/98 1500	-05						S	1																								
6.																																	
7.																																	
8.																																	
9.																																	
10.																																	
RELINQUISHED BY (Signature):			DATE: 9/9/98		RECEIVED BY (Signature):			DATE: 9/9/98																									
PRINT NAME: Tony Orsini			FIRM: GEI		PRINT NAME: K. Barker			FIRM: NCA																									
RELINQUISHED BY (Signature):			DATE: 9/9/98		RECEIVED BY (Signature): S. Wideen			DATE: 9/9/98																									
PRINT NAME: K. Barker			FIRM: NCA		PRINT NAME: S. Wideen			FIRM: NCA																									
ADDITIONAL REMARKS:																																	
W/O 19.1																																	
								PAGE	OF																								



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E7-6-3.0	B809244-01	Soil	9/10/98
E7-7-0.5	B809244-02	Soil	9/10/98
E7-8-0.5	B809244-03	Soil	9/10/98
E7-9-0.5	B809244-04	Soil	9/10/98
E11-5-9.0	B809244-05	Soil	9/10/98
E11-6-6.0	B809244-06	Soil	9/10/98
SP-1	B809244-07	Soil	9/10/98
SP-2	B809244-08	Soil	9/10/98
SP-3	B809244-09	Soil	9/10/98
E6-7-0.5	B809244-10	Soil	9/10/98
E6-8-0.5	B809244-11	Soil	9/10/98
E6-9-0.5	B809244-12	Soil	9/10/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E11-5-9.0								
				<u>B809244-05</u>		<u>Soil</u>		
Diesel Range Hydrocarbons	0980326	9/10/98	9/11/98		10.0	78.7	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	225	"	
Surrogate: 2-FBP	"	"	"	50.0-150		78.3	%	
E11-6-6.0								
				<u>B809244-06</u>		<u>Soil</u>		
Diesel Range Hydrocarbons	0980326	9/10/98	9/11/98		10.0	35.7	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	73.9	"	
Surrogate: 2-FBP	"	"	"	50.0-150		84.0	%	
SP-1								
				<u>B809244-07</u>		<u>Soil</u>		
Diesel Range Hydrocarbons	0980326	9/10/98	9/11/98		10.0	315	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	885	"	
Surrogate: 2-FBP	"	"	"	50.0-150		82.8	%	
SP-2								
				<u>B809244-08</u>		<u>Soil</u>		
Diesel Range Hydrocarbons	0980326	9/10/98	9/11/98		50.0	1040	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	2820	"	
Surrogate: 2-FBP	"	"	"	50.0-150		71.5	%	
SP-3								
				<u>B809244-09</u>		<u>Soil</u>		
Diesel Range Hydrocarbons	0980326	9/10/98	9/11/98		10.0	283	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	653	"	
Surrogate: 2-FBP	"	"	"	50.0-150		100	%	


Steve Davis, Project Manager



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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP-1				B809244-07			Soil	
Aroclor 1016	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		81.2	%	
SP-2				B809244-08			Soil	
Aroclor 1016	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	262	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	54.2	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		76.2	%	
SP-3				B809244-09			Soil	
Aroclor 1016	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	117	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		85.7	%	
E6-7-0.5				B809244-10			Soil	
Aroclor 1016	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/10/98
Received: 9/10/98
Reported: 9/15/98 09:41

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E6-7-0.5 (continued)				B809244-10			Soil	
Aroclor 1232	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	60.9	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		73.8	%	
E6-8-0.5				B809244-11			Soil	
Aroclor 1016	0980331	9/10/98	9/14/98		1050	ND	ug/kg dry	
Aroclor 1221	"	"	"		1050	ND	"	
Aroclor 1232	"	"	"		1050	ND	"	
Aroclor 1242	"	"	"		1050	ND	"	
Aroclor 1248	"	"	"		1050	1880	"	
Aroclor 1254	"	"	"		1050	ND	"	
Aroclor 1260	"	"	9/11/98		50.0	110	"	
Aroclor 1262	"	"	9/14/98		1050	ND	"	
Aroclor 1268	"	"	"		1050	ND	"	
Surrogate: TCX	"	"	9/11/98	40.0-130		97.0	%	
E6-9-0.5				B809244-12			Soil	
Aroclor 1016	0980331	9/10/98	9/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	160	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		77.9	%	



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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-3-1-3.0				B809779-01		Soil		
Aroclor 1016	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		74.5	%	
EX-3-2-0.5				B809779-02		Soil		
Aroclor 1016	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	10/2/98		50.0	ND	"	
Aroclor 1262	"	"	10/1/98		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	10/2/98	40.0-130		97.6	%	
EX-3-3-0.5				B809779-03		Soil		
Aroclor 1016	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	10/2/98		50.0	270	"	
Aroclor 1262	"	"	10/1/98		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	10/2/98	40.0-130		69.1	%	
EX-3-4-0.5				B809779-04		Soil		
Aroclor 1016	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>EX-3-4-0.5 (continued)</u>				<u>B809779-04</u>			<u>Soil</u>	
Aroclor 1232	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	10/2/98		50.0	175	"	
Aroclor 1262	"	"	10/1/98		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: Decachlorobiphenyl	"	"	"	40.0-130		81.9	%	1
<u>EX-3-5-0.5</u>				<u>B809779-05</u>			<u>Soil</u>	
Aroclor 1016	0981020	9/30/98	10/1/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		71.2	%	



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/30/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/30/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-4-1-3.0				B809779-06			Soil	
Acenaphthene	0981019	9/30/98	10/1/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	0.0524	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	0.0830	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	0.0568	"	
Pyrene	"	"	"		0.0500	0.105	"	
Surrogate: 2-FBP	"	"	"	30.0-150		94.1	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		56.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		108	"	
EX-4-2-0.5				B809779-07			Soil	
Acenaphthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	0.123	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	0.130	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	0.215	"	
Surrogate: 2-FBP	"	"	"	30.0-150		96.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>EX-4-2-0.5 (continued)</u>				<u>B809779-07</u>			<u>Soil</u>	
Surrogate: Nitrobenzene-d5	0981019	9/30/98	10/2/98	30.0-150		56.8	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		109	"	
<u>EX-4-3-0.5</u>				<u>B809779-08</u>			<u>Soil</u>	
Acenaphthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	0.110	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	0.136	"	
Surrogate: 2-FBP	"	"	"	30.0-150		103	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		59.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		106	"	
<u>EX-4-4-0.5</u>				<u>B809779-09</u>			<u>Soil</u>	
Acenaphthene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-4-4-0.5 (continued)				B809779-09			Soil	
Naphthalene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	0.0714	"	
Surrogate: 2-FBP	"	"	"	30.0-150		107	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		73.7	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		122	"	
EX-4-5-0.5				B809779-10			Soil	
Acenaphthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		88.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		59.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		103	"	
EX-5-1-3.0				B809779-11			Soil	
Acenaphthene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>EX-5-1-3.0 (continued)</u>				<u>B809779-11</u>		<u>Soil</u>		
Dibenz (a,h) anthracene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		89.3	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		64.7	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		106	"	
<u>EX-5-2-0.5</u>				<u>B809779-12</u>		<u>Soil</u>		
Acenaphthene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		94.8	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		64.7	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		106	"	
<u>EX-5-3-0.5</u>				<u>B809779-13</u>		<u>Soil</u>		
Acenaphthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX-5-3-0.5 (continued)				B809779-13			Soil	
Benzo (b) fluoranthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		89.4	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		102	"	
EX-5-4-0.5				B809779-14			Soil	
Acenaphthene	0981019	9/30/98	10/2/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		84.8	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		58.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		114	"	
EX-5-5-0.5				B809779-15			Soil	
Acenaphthene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
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Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>EX-5-5-0.5 (continued)</u>			<u>B809779-15</u>				<u>Soil</u>	
Acenaphthylene	0981019	9/30/98	10/2/98		0.0500	ND	mg/kg dry	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		87.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		59.4	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		95.7	"	



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Project: PSE-Grady Way
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Project Manager: Steve Woodward

Sampled: 9/30/98
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Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX-3-1-3.0	B809779-01	Soil	62.5	%
EX-3-2-0.5	B809779-02	Soil	93.0	%
EX-3-3-0.5	B809779-03	Soil	71.9	%
EX-3-4-0.5	B809779-04	Soil	73.5	%
EX-3-5-0.5	B809779-05	Soil	81.8	%
EX-4-1-3.0	B809779-06	Soil	76.3	%
EX-4-2-0.5	B809779-07	Soil	87.0	%
EX-4-3-0.5	B809779-08	Soil	78.6	%
EX-4-4-0.5	B809779-09	Soil	84.1	%
EX-4-5-0.5	B809779-10	Soil	76.9	%
EX-5-1-3.0	B809779-11	Soil	74.3	%
EX-5-2-0.5	B809779-12	Soil	96.1	%
EX-5-3-0.5	B809779-13	Soil	93.1	%
EX-5-4-0.5	B809779-14	Soil	87.4	%
EX-5-5-0.5	B809779-15	Soil	89.0	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0981020		Date Prepared: 9/30/98			Extraction Method: EPA 3550B					
Blank		0981020-BLK1								
Aroclor 1016	10/2/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	10/1/98	6.67		7.05	"	40.0-130	106			
LCS		0981020-BS1								
Aroclor 1260	10/1/98	333		260	ug/kg dry	44.0-123	78.1			
Surrogate: TCX	"	6.67		7.53	"	40.0-130	113			
Matrix Spike		0981020-MS1		B809779-02						
Aroclor 1260	10/1/98	358	ND	265	ug/kg dry	28.0-132	74.0			
Surrogate: TCX	"	7.17		6.70	"	40.0-130	93.4			
Matrix Spike Dup		0981020-MSD1		B809779-02						
Aroclor 1260	10/1/98	358	ND	273	ug/kg dry	28.0-132	76.3	23.0	3.06	
Surrogate: TCX	"	7.17		6.64	"	40.0-130	92.6			



NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 9/30/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 9/30/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0981019		Date Prepared: 9/30/98			Extraction Method: EPA 3550B					
Blank		0981019-BLK1								
Acenaphthene	10/1/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.13	"	30.0-150	67.7			
Surrogate: Nitrobenzene-d5	"	1.67		0.961	"	30.0-150	57.5			
Surrogate: p-Terphenyl-d14	"	1.67		1.26	"	30.0-150	75.4			
LCS		0981019-BS1								
Chrysene	10/1/98	0.333		0.173	mg/kg dry	10.0-125	52.0			
Fluorene	"	0.333		0.215	"	11.0-116	64.6			
Indeno (1,2,3-cd) pyrene	"	0.333		0.235	"	10.0-147	70.6			
Surrogate: 2-FBP	"	1.67		1.29	"	30.0-150	77.2			
Surrogate: Nitrobenzene-d5	"	1.67		0.998	"	30.0-150	59.8			
Surrogate: p-Terphenyl-d14	"	1.67		1.26	"	30.0-150	75.4			
Matrix Spike		0981019-MS1		B809779-13						
Chrysene	10/2/98	0.358	ND	0.244	mg/kg dry	10.0-125	68.2			
Fluorene	"	0.358	ND	0.229	"	10.0-154	64.0			
Indeno (1,2,3-cd) pyrene	"	0.358	ND	0.294	"	10.0-144	82.1			
Surrogate: 2-FBP	"	1.79		1.62	"	30.0-150	90.5			
Surrogate: Nitrobenzene-d5	"	1.79		1.14	"	30.0-150	63.7			
Surrogate: p-Terphenyl-d14	"	1.79		2.34	"	30.0-150	131			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 9/30/98
Received: 9/30/98
Reported: 10/2/98 14:33

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	0981019-MSD1	B809779-13								
Chrysene	10/2/98	0.358	ND	0.279	mg/kg dry	10.0-125	77.9	28.0	13.3	
Fluorene	"	0.358	ND	0.229	"	10.0-154	64.0	32.0	0	
Indeno (1,2,3-cd) pyrene	"	0.358	ND	0.301	"	10.0-144	84.1	47.0	2.41	
Surrogate: 2-FBP	"	1.79		1.85	"	30.0-150	103			
Surrogate: Nitrobenzene-d5	"	1.79		1.35	"	30.0-150	75.4			
Surrogate: p-Terphenyl-d14	"	1.79		2.61	"	30.0-150	146			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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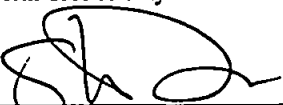
Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 9/30/98 Received: 9/30/98 Reported: 10/2/98 14:33

Notes and Definitions

#	Note

1	Due to interference from coeluting organic compounds with the primary surrogate, results of the secondary surrogate have been used to control the analysis.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4779
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

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(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #: B609799

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			Organic & Inorganic Analyses		
ADDRESS: 600 Stewart St Ste 1215			ADDRESS: RSE - P.O. Box 97034 - MER-04			Standard ☐ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☒ Same Day		
Seattle WA, 98101			Bellevue, WA 98007			Fuels & Hydrocarbon Analyses		
PHONE: (206) 728-2674 FAX: (206) -728-2732			P.O. NUMBER:			Standard ☐ 5 ☐ 3-4 ☐ 2 ☒ Same Day		
PROJECT NAME: Grady Way			Analysis Request: PANs by 8/2/90 PCB by 8/2/90 HWT/PA D+ / / / / / / / / / /			OTHER Specify:		
PROJECT NUMBER: 186-407-00						* Turnaround Requests less than standard may incur Rush Charges.		
SAMPLED BY: Tony Orme								
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)		MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	
1. EX3-1-3.0		7/30/98 1330	B809779 -01		S	1		
2. EX3-2-0.5		1335	-02		S	1		
3. EX3-3-0.5		1340	-03		S	1		
4. EX3-4-0.5		1345	-04		S	1		
5. EX3-5-0.5		1356	-05		S	1		
6.								
7.								
8.								
9.								
10.								
RELINQUISHED BY (Signature): [Signature]			DATE: 9/30/98		RECEIVED BY (Signature): Cathy Nichols			
PRINT NAME: Tony Orme			FIRM: CEI		PRINT NAME: Cathy Nichols			
RELINQUISHED BY (Signature):			DATE:		RECEIVED BY (Signature):			
PRINT NAME:			FIRM:		PRINT NAME:			
ADDITIONAL REMARKS:			TIME: 1600		FIRM: NCA			
			DATE:		TIME: 1900			
			TIME:		DATE:			
			FIRM:		TIME:			
			PRINT NAME:		FIRM:			
			DATE:		TIME:			
			FIRM:		DATE:			
			PRINT NAME:		TIME:			
			FIRM:		DATE:			
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			FIRM:		FIRM:			
			PRINT NAME:		PRINT NAME:			
			DATE:		DATE:			
			FIRM:					

CHAIN OF CUSTODY REPORT

Work Order # B809779

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>						
ADDRESS: <u>600 Stewart St Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97031-MER-01</u>						
<u>Seattle WA, 98101</u>			<u>Bellevue, WA 98007</u>						
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____						
PROJECT NAME: <u>Grady Way</u>			PAHs by 8270 PCBs by 8082 HWTPh DA						
PROJECT NUMBER: <u>186-407-00</u>									
SAMPLED BY: <u>Tony Orme</u>									
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. <u>EX4-1-3.0</u>	<u>9/30/98 1330</u>	<u>B809779-06</u>	<u>X</u>				<u>S</u>	<u>1</u>	
2. <u>EX4-2-0.5</u>	<u>1335</u>	<u>-07</u>	<u>X</u>				<u>S</u>	<u>1</u>	
3. <u>EX4-3-0.5</u>	<u>1340</u>	<u>-08</u>	<u>X</u>				<u>S</u>	<u>1</u>	
4. <u>EX4-4-0.5</u>	<u>1345</u>	<u>-09</u>	<u>X</u>				<u>S</u>	<u>1</u>	
5. <u>EX4-5-0.5</u>	<u>1350</u>	<u>-10</u>	<u>X</u>				<u>S</u>	<u>1</u>	
6. <u>EX5-1-3.0</u>	<u>1400</u>	<u>-11</u>	<u>X</u>				<u>S</u>	<u>1</u>	
7. <u>EX5-2-0.5</u>	<u>1405</u>	<u>-12</u>	<u>X</u>				<u>S</u>	<u>1</u>	
8. <u>EX5-3-0.5</u>	<u>1410</u>	<u>-13</u>	<u>X</u>				<u>S</u>	<u>1</u>	
9. <u>EX5-4-0.5</u>	<u>1415</u>	<u>-14</u>	<u>X</u>				<u>S</u>	<u>1</u>	
10. <u>EX5-5-0.5</u>	<u>1420</u>	<u>-15</u>	<u>X</u>				<u>S</u>	<u>1</u>	
RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>9/30/98</u>		RECEIVED BY (Signature): <u>Cathy Nichols</u>			DATE: <u>9/30/98</u>	
PRINT NAME: <u>Tony Orme</u>			FIRM: <u>GEI</u>		PRINT NAME: <u>Cathy Nichols</u>			FIRM: <u>NCA</u>	
RELINQUISHED BY (Signature): _____			DATE: _____		RECEIVED BY (Signature): _____			DATE: _____	
PRINT NAME: _____			FIRM: _____		PRINT NAME: _____			FIRM: _____	
ADDITIONAL REMARKS:									



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

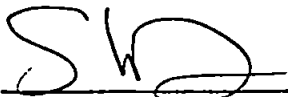
Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
EX9-1-8.0	B810032-01	Soil	10/1/98
EX9-2-6.0	B810032-02	Soil	10/1/98
EX9-3-6.0	B810032-03	Soil	10/1/98
EX9-4-6.0	B810032-04	Soil	10/1/98
EX9-5-6.0	B810032-05	Soil	10/1/98
EX9-SP1	B810032-06	Soil	10/1/98
EX9-SP2	B810032-07	Soil	10/1/98
EX9-SP3	B810032-08	Soil	10/1/98
EX1-1-12.0	B810032-10	Soil	10/1/98
EX1-2-9.0	B810032-11	Soil	10/1/98
EX1-3-10.0	B810032-12	Soil	10/1/98
EX1-4-10.0	B810032-13	Soil	10/1/98
EX1-5-10.0	B810032-14	Soil	10/1/98
EX1-SP1	B810032-15	Soil	10/1/98
EX1-SP2	B810032-16	Soil	10/1/98
EX1-SP3	B810032-17	Soil	10/1/98

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.*


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX1-1-12.0				B810032-10			Soil	
C5-C6 Aliphatics	1080411	10/12/98	10/14/98		10.0	ND	mg/kg dry	
C6-C8 Aliphatics	"	"	"		10.0	ND	"	
C8-C10 Aliphatics	"	"	"		10.0	ND	"	
C10-C12 Aliphatics	"	"	"		10.0	ND	"	
C8-C10 Aromatics	"	"	"		10.0	ND	"	
C10-C12 Aromatics	"	"	"		10.0	13.9	"	
C12-C13 Aromatics	"	"	"		10.0	31.8	"	
Surrogate: 4-BFB (FID)	"	"	"	60.0-140		110	%	
Surrogate: 4-BFB (PID)	"	"	"	60.0-140		108	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 285

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/1/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/20/98 11:17

BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX1-1-12.0				B810032-10			Soil	
Methyl tert-butyl ether	1080177	10/6/98	10/7/98		0.500	ND	mg/kg dry	
Benzene	"	"	"		0.100	ND	"	
Toluene	"	"	"		0.100	0.107	"	
Ethylbenzene	"	"	"		0.100	ND	"	
m,p-Xylene	"	"	"		0.200	ND	"	
o-Xylene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	0.137	"	
Surrogate: 2-Bromopropene	"	"	"	70.0-130		111	%	
Surrogate: 1,2-DCA-d4	"	"	"	70.0-130		103	"	
Surrogate: Toluene-d8	"	"	"	70.0-130		105	"	
Surrogate: 4-BFB	"	"	"	70.0-130		106	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX9-1-8.0				B810032-01			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.2	%	
EX9-2-6.0				B810032-02			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	108	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	314	"	
Surrogate: 2-FBP	"	"	"	50.0-150		79.0	%	
EX9-3-6.0				B810032-03			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	119	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	357	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.1	%	
EX9-4-6.0				B810032-04			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	63.7	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	204	"	
Surrogate: 2-FBP	"	"	"	50.0-150		76.1	%	
EX9-5-6.0				B810032-05			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	75.3	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	209	"	
Surrogate: 2-FBP	"	"	"	50.0-150		79.6	%	
EX9-SP1				B810032-06			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	122	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	338	"	
Surrogate: 2-FBP	"	"	"	50.0-150		84.7	%	
EX9-SP2				B810032-07			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	62.0	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	163	"	
Surrogate: 2-FBP	"	"	"	50.0-150		77.3	%	
EX9-SP3				B810032-08			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	165	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	451	"	
Surrogate: 2-FBP	"	"	"	50.0-150		79.7	%	

North Creek Analytical - Bothell

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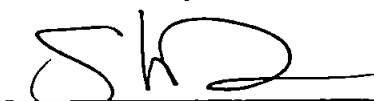
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/1/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/20/98 11:17

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX1-1-12.0				B810032-10			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	413	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		85.6	%	
EX1-2-9.0				B810032-11			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		92.2	%	
EX1-3-10.0				B810032-12			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	44.8	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	86.7	"	
Surrogate: 2-FBP	"	"	"	50.0-150		57.8	%	
EX1-4-10.0				B810032-13			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	84.9	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	134	"	
Surrogate: 2-FBP	"	"	"	50.0-150		90.1	%	
EX1-5-10.0				B810032-14			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	173	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	611	"	
Surrogate: 2-FBP	"	"	"	50.0-150		89.4	%	
EX1-SP1				B810032-15			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		110	2880	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		275	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		103	%	
EX1-SP2				B810032-16			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	12.9	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	51.7	"	
Surrogate: 2-FBP	"	"	"	50.0-150		84.3	%	
EX1-SP3				B810032-17			Soil	
Diesel Range Hydrocarbons	1080032	10/1/98	10/2/98		10.0	52.1	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	55.6	"	
Surrogate: 2-FBP	"	"	"	50.0-150		83.0	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

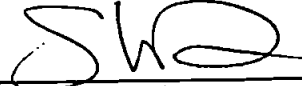
Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Extractable Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX1-I-12.0				B810032-10			Soil	
C8-C10 Aliphatics	1080380	10/11/98	10/14/98		5.00	ND	mg/kg dry	
C10-C12 Aliphatics	"	"	"		5.00	7.00	"	
C12-C16 Aliphatics	"	"	"		5.00	67.6	"	
C16-C21 Aliphatics	"	"	"		5.00	110	"	
C21-C34 Aliphatics	"	"	"		5.00	23.4	"	
C10-C12 Aromatics	"	"	"		5.00	ND	"	
C12-C16 Aromatics	"	"	"		5.00	12.8	"	
C16-C21 Aromatics	"	"	"		5.00	18.2	"	
C21-C34 Aromatics	"	"	"		5.00	ND	"	
Extractable Petroleum Hydrocarbons	"	"	"			239	"	
Surrogate: 2-FBP	"	"	"	50.0-150		57.3	%	
Surrogate: Octacosane	"	"	"	50.0-150		80.6	"	
Surrogate: Undecane	"	"	"	30.0-150		70.3	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
EX1-1-12.0				B819032-10			Soil	
Acenaphthene	1080380	10/11/98	10/13/98		0.0100	0.0109	mg/kg dry	
Acenaphthylene	"	"	"		0.0100	ND	"	
Anthracene	"	"	"		0.0100	ND	"	
Benzo (a) anthracene	"	"	"		0.0100	ND	"	
Benzo (a) pyrene	"	"	"		0.0100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0100	ND	"	
Benzo (ghi) perylene	"	"	"		0.0100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0100	ND	"	
Chrysene	"	"	"		0.0100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0100	ND	"	
Fluoranthene	"	"	"		0.0100	ND	"	
Fluorene	"	"	"		0.0100	0.0446	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0100	ND	"	
2-Methylnaphthalene	"	"	"		0.0100	0.0649	"	
Naphthalene	"	"	"		0.0100	ND	"	
Phenanthrene	"	"	"		0.0100	0.0719	"	
Pyrene	"	"	"		0.0100	0.0195	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		85.6	%	


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Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
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Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
EX9-1-8.0	B810032-01	Soil	71.5	%
EX9-2-6.0	B810032-02	Soil	68.1	%
EX9-3-6.0	B810032-03	Soil	72.3	%
EX9-4-6.0	B810032-04	Soil	67.3	%
EX9-5-6.0	B810032-05	Soil	64.1	%
EX9-SP1	B810032-06	Soil	71.0	%
EX9-SP2	B810032-07	Soil	65.6	%
EX9-SP3	B810032-08	Soil	72.4	%
EX1-1-12.0	B810032-10	Soil	85.3	%
EX1-2-9.0	B810032-11	Soil	92.8	%
EX1-3-10.0	B810032-12	Soil	87.3	%
EX1-4-10.0	B810032-13	Soil	81.5	%
EX1-5-10.0	B810032-14	Soil	75.9	%
EX1-SP1	B810032-15	Soil	92.0	%
EX1-SP2	B810032-16	Soil	92.3	%
EX1-SP3	B810032-17	Soil	91.4	%

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/1/98 Received: 10/1/98 Reported: 10/20/98 11:17

Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080411										
Blank										
Date Prepared: 10/12/98										
1080411-BLK1										
C5-C6 Aliphatics	10/14/98			ND	mg/kg dry	5.00				
C6-C8 Aliphatics	"			ND	"	5.00				
C8-C10 Aliphatics	"			ND	"	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C8-C10 Aromatics	"			ND	"	5.00				
C10-C12 Aromatics	"			ND	"	5.00				
C12-C13 Aromatics	"			ND	"	5.00				
Surrogate: 4-BFB (FID)	"	4.00		4.15	"	60.0-140	104			
Surrogate: 4-BFB (PID)	"	4.00		4.40	"	60.0-140	110			
LCS										
1080411-BS1										
C5-C6 Aliphatics	10/14/98	2.00		2.13	mg/kg dry	70.0-130	107			
C6-C8 Aliphatics	"	1.00		0.919	"	70.0-130	91.9			
C8-C10 Aliphatics	"	1.00		0.666	"	70.0-130	66.6			
C10-C12 Aliphatics	"	1.00		0.897	"	70.0-130	89.7			
C8-C10 Aromatics	"	4.00		3.88	"	70.0-130	97.0			
C10-C12 Aromatics	"	1.00		0.975	"	70.0-130	97.5			
C12-C13 Aromatics	"	2.00		2.31	"	70.0-130	115			
Surrogate: 4-BFB (FID)	"	4.00		4.04	"	60.0-140	101			
Surrogate: 4-BFB (PID)	"	4.00		4.51	"	60.0-140	113			
Duplicate										
1080411-DUP1 B809538-04										
C5-C6 Aliphatics	10/14/98		ND	ND	mg/kg dry				25.0	
C6-C8 Aliphatics	"		ND	ND	"				25.0	
C8-C10 Aliphatics	"		ND	ND	"				25.0	
C10-C12 Aliphatics	"		ND	ND	"				25.0	
C8-C10 Aromatics	"		ND	ND	"				25.0	
C10-C12 Aromatics	"		ND	ND	"				25.0	
C12-C13 Aromatics	"		ND	ND	"				25.0	
Surrogate: 4-BFB (FID)	"	4.42		4.36	"	60.0-140	98.6			
Surrogate: 4-BFB (PID)	"	4.42		4.78	"	60.0-140	108			
Duplicate										
1080411-DUP2 B810001-01										
C5-C6 Aliphatics	10/14/98		ND	ND	mg/kg dry				25.0	
C6-C8 Aliphatics	"		139	121	"				25.0	13.8
C8-C10 Aliphatics	"		ND	ND	"				25.0	
C10-C12 Aliphatics	"		ND	81.2	"				25.0	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Volatile Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Duplicate (continued)	1080411-DUP2		B810001-01							
C8-C10 Aromatics	10/14/98		168	190	mg/kg dry			25.0	12.3	
C10-C12 Aromatics	"		188	222	"			25.0	16.6	
C12-C13 Aromatics	"		ND	57.5	"			25.0		
Surrogate: 4-BFB (FID)	"	4.79		ND	"	60.0-140	NR			3
Surrogate: 4-BFB (PID)	"	4.79		ND	"	60.0-140	NR			3

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/1/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/20/98 11:17

BTEX, MTBE and Naphthalene by WDOE Interim TPH Policy Method using GC/MS/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080177		Date Prepared: 10/6/98			Extraction Method: EPA 5030B [MeOH]					
Blank		1080177-BLK1								
Methyl tert-butyl ether	10/6/98			ND	mg/kg dry	0.500				
Benzene	"			ND	"	0.100				
Toluene	"			ND	"	0.100				
Ethylbenzene	"			ND	"	0.100				
m,p-Xylene	"			ND	"	0.200				
o-Xylene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.100				
Surrogate: 2-Bromopropene	"	2.00		2.47	"	70.0-130	124			
Surrogate: 1,2-DCA-d4	"	2.00		2.08	"	70.0-130	104			
Surrogate: Toluene-d8	"	2.00		2.20	"	70.0-130	110			
Surrogate: 4-BFB	"	2.00		2.18	"	70.0-130	109			
LCS		1080177-BS1								
Benzene	10/6/98	1.00		0.929	mg/kg dry	70.0-130	92.9			
Toluene	"	1.00		0.948	"	70.0-130	94.8			
Surrogate: 2-Bromopropene	"	2.00		2.34	"	70.0-130	117			
Surrogate: 1,2-DCA-d4	"	2.00		2.06	"	70.0-130	103			
Surrogate: Toluene-d8	"	2.00		2.35	"	70.0-130	117			
Surrogate: 4-BFB	"	2.00		2.09	"	70.0-130	104			
Matrix Spike		1080177-MS1			B810099-02					
Benzene	10/7/98	1.09	ND	0.961	mg/kg dry	70.0-130	88.2			
Toluene	"	1.09	ND	0.936	"	70.0-130	85.9			
Surrogate: 2-Bromopropene	"	2.18		2.22	"	70.0-130	102			
Surrogate: 1,2-DCA-d4	"	2.18		1.98	"	70.0-130	90.8			
Surrogate: Toluene-d8	"	2.18		1.96	"	70.0-130	89.9			
Surrogate: 4-BFB	"	2.18		2.03	"	70.0-130	93.1			
Matrix Spike Dup		1080177-MSD1			B810099-02					
Benzene	10/7/98	1.09	ND	1.03	mg/kg dry	70.0-130	94.5	20.0	6.90	
Toluene	"	1.09	ND	0.904	"	70.0-130	82.9	20.0	3.55	
Surrogate: 2-Bromopropene	"	2.18		2.54	"	70.0-130	117			
Surrogate: 1,2-DCA-d4	"	2.18		2.16	"	70.0-130	99.1			
Surrogate: Toluene-d8	"	2.18		2.05	"	70.0-130	94.0			
Surrogate: 4-BFB	"	2.18		2.16	"	70.0-130	99.1			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.


Steve Davis, Project Manager

C - 294

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080032										
Blank										
Date Prepared: 10/1/98			Extraction Method: EPA 3550B							
1080032-BLK1										
Diesel Range Hydrocarbons	10/2/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		8.81	"	50.0-150	82.3			
LCS										
1080032-BS1										
Diesel Range Hydrocarbons	10/2/98	66.7		63.8	mg/kg dry	60.0-140	95.7			
Surrogate: 2-FBP	"	10.7		8.91	"	50.0-150	83.3			
Duplicate										
1080032-DUP1			B810032-01							
Diesel Range Hydrocarbons	10/2/98		ND	11.3	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	29.1	"			50.0		4
Surrogate: 2-FBP	"	14.9		11.5	"	50.0-150	77.2			
Duplicate										
1080032-DUP2			B810032-12							
Diesel Range Hydrocarbons	10/2/98		44.8	44.0	mg/kg dry			50.0	1.80	
Lube Oil Range Hydrocarbons	"		86.7	138	"			50.0	45.7	
Surrogate: 2-FBP	"	12.2		9.73	"	50.0-150	79.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Signature of Steve Davis

Steve Davis, Project Manager

C - 295

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/1/98
Reported: 10/20/98 11:17

Extractable Petroleum Hydrocarbons by modified WDOE Interim TPH Policy Method/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080380		Date Prepared: 10/11/98			Extraction Method: EPA 3550B					
Blank		1080380-BLK1								
C8-C10 Aliphatics	10/14/98			ND	mg/kg dry	5.00				
C10-C12 Aliphatics	"			ND	"	5.00				
C12-C16 Aliphatics	"			ND	"	5.00				
C16-C21 Aliphatics	"			ND	"	5.00				
C21-C34 Aliphatics	"			ND	"	5.00				
C10-C12 Aromatics	"			ND	"	5.00				
C12-C16 Aromatics	"			ND	"	5.00				
C16-C21 Aromatics	"			ND	"	5.00				
C21-C34 Aromatics	"			ND	"	5.00				
Extractable Petroleum Hydrocarbons	"			ND	"					
Surrogate: 2-FBP	"	12.0		6.73	"	50.0-150	56.1			
Surrogate: Octacosane	"	12.3		9.90	"	50.0-150	80.5			
Surrogate: Undecane	"	13.3		9.12	"	30.0-150	68.6			
LCS		1080380-BS1								
Extractable Petroleum Hydrocarbons	10/14/98	167		84.3	mg/kg dry	30.0-120	50.5			
Surrogate: 2-FBP	"	12.0		6.33	"	50.0-150	52.7			
Surrogate: Octacosane	"	12.3		9.72	"	50.0-150	79.0			
Surrogate: Undecane	"	13.3		9.07	"	30.0-150	68.2			
LCS Dup		1080380-BSD1								
Extractable Petroleum Hydrocarbons	10/16/98	167		80.5	mg/kg dry	30.0-120	48.2	40.0	4.66	
Surrogate: 2-FBP	"	12.0		7.83	"	50.0-150	65.2			
Surrogate: Octacosane	"	12.3		9.31	"	50.0-150	75.7			
Surrogate: Undecane	"	13.3		9.20	"	30.0-150	69.2			
Matrix Spike		1080380-MS1 B810198-03								
Extractable Petroleum Hydrocarbons	10/16/98	180	327	518	mg/kg dry	30.0-120	106			
Surrogate: 2-FBP	"	13.0		7.84	"	50.0-150	60.3			
Surrogate: Octacosane	"	13.3		9.31	"	50.0-150	70.0			
Surrogate: Undecane	"	14.3		8.47	"	30.0-150	59.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

C - 296

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NORTH CREEK ANALYTICAL

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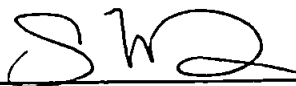
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/1/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/1/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/20/98 11:17

Polynuclear Aromatic Hydrocarbons by GC/MS-SIM/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080380		Date Prepared: 10/11/98			Extraction Method: EPA 3550B					
Blank		1080380-BLK1								
Acenaphthene	10/13/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
2-Methylnaphthalene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: p-Terphenyl-d14	"	0.267		0.285	"	30.0-150	107			
LCS		1080380-BS1								
Chrysene	10/13/98	0.333		0.257	mg/kg dry	10.0-125	77.2			
Fluorene	"	0.333		0.249	"	11.0-116	74.8			
Indeno (1,2,3-cd) pyrene	"	0.333		0.310	"	10.0-147	93.1			
Surrogate: p-Terphenyl-d14	"	0.267		0.255	"	30.0-150	95.5			
LCS Dup		1080380-BSD1								
Chrysene	10/13/98	0.333		0.252	mg/kg dry	10.0-125	75.7	28.0	1.96	
Fluorene	"	0.333		0.237	"	11.0-116	71.2	32.0	4.93	
Indeno (1,2,3-cd) pyrene	"	0.333		0.289	"	10.0-147	86.8	34.0	7.00	
Surrogate: p-Terphenyl-d14	"	0.267		0.245	"	30.0-150	91.8			
Matrix Spike		1080380-MS1		B810198-03						
Chrysene	10/13/98	0.360	0.0101	0.275	mg/kg dry	10.0-125	73.6			
Fluorene	"	0.360	0.0469	0.329	"	10.0-154	78.4			
Indeno (1,2,3-cd) pyrene	"	0.360	ND	0.276	"	10.0-144	76.7			
Surrogate: p-Terphenyl-d14	"	0.288		0.284	"	30.0-150	98.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/1/98 Received: 10/1/98 Reported: 10/20/98 11:17

Notes and Definitions

#	Note
1	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
2	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
3	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
4	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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

C - 298

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Quantitation Report

Data File : C:\HPCHEM\4\DATA\J14030.D\FID1A.CH
Acq On : 14 Oct 1998 9:50 pm
Sample : b810032-10 R1
Misc : 50 uL
IntFile : SURR.E

Vial: 30
Operator: la
Inst : GC #8
Multiplr: 2.00

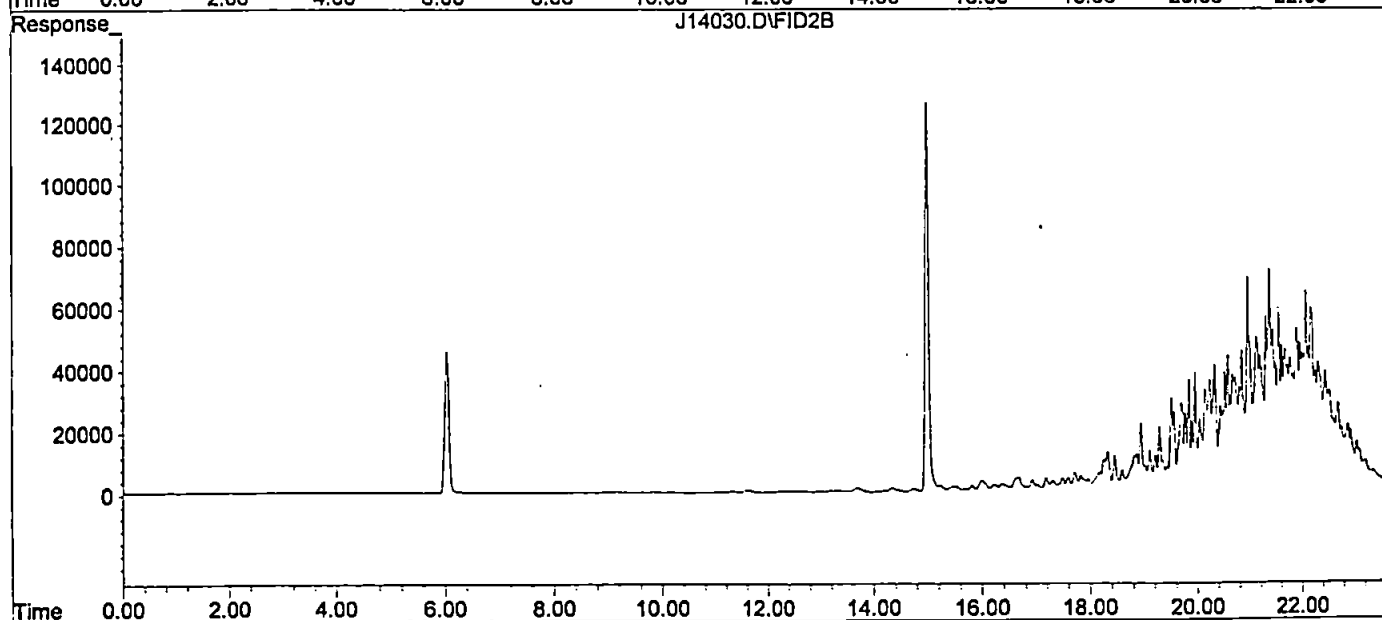
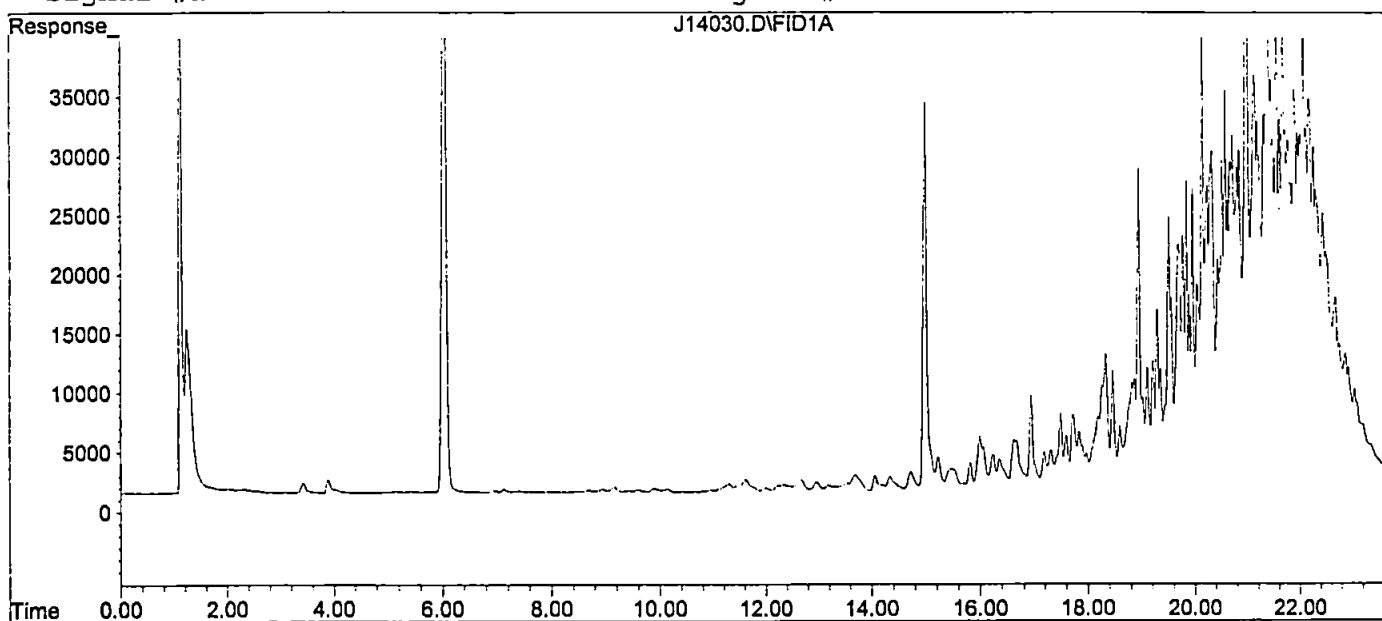
Data File : C:\HPCHEM\4\DATA\J14030.D\FID2B.CH
Acq On : 14 Oct 98 9:50 pm
Sample : b810032-10 R1
Misc : 50 uL
IntFile : SURR2.E

Vial: 30
Operator: la
Inst : GC #8
Multiplr: 2.00

Quant Time: Oct 14 22:14 1998 Quant Results File: VPHS.RES

Quant Method : C:\HPCHEM\4\METHODS\VPHS.M (Chemstation Integrator)
Title : VPH Soil Method
Last Update : Mon Oct 05 15:58:27 1998
Response via : Multiple Level Calibration
DataAcq Meth : VPHS.M

Volume Inj. :
Signal #1 Phase :
Signal #1 Info :
Signal #2 Phase :
Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\J14038.D

Acq On : 14 Oct 1998 11:07 pm

Sample : b810032-10 al

Misc : s

IntFile : SURR.E

Quant Time: Oct 15 8:36 1998 Quant Results File: EPH.RES

Vial: 28

Operator: krl

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\EPH.M (Chemstation Integrator)

Title : EPH Front Method

Last Update : Thu Oct 15 08:34:49 1998

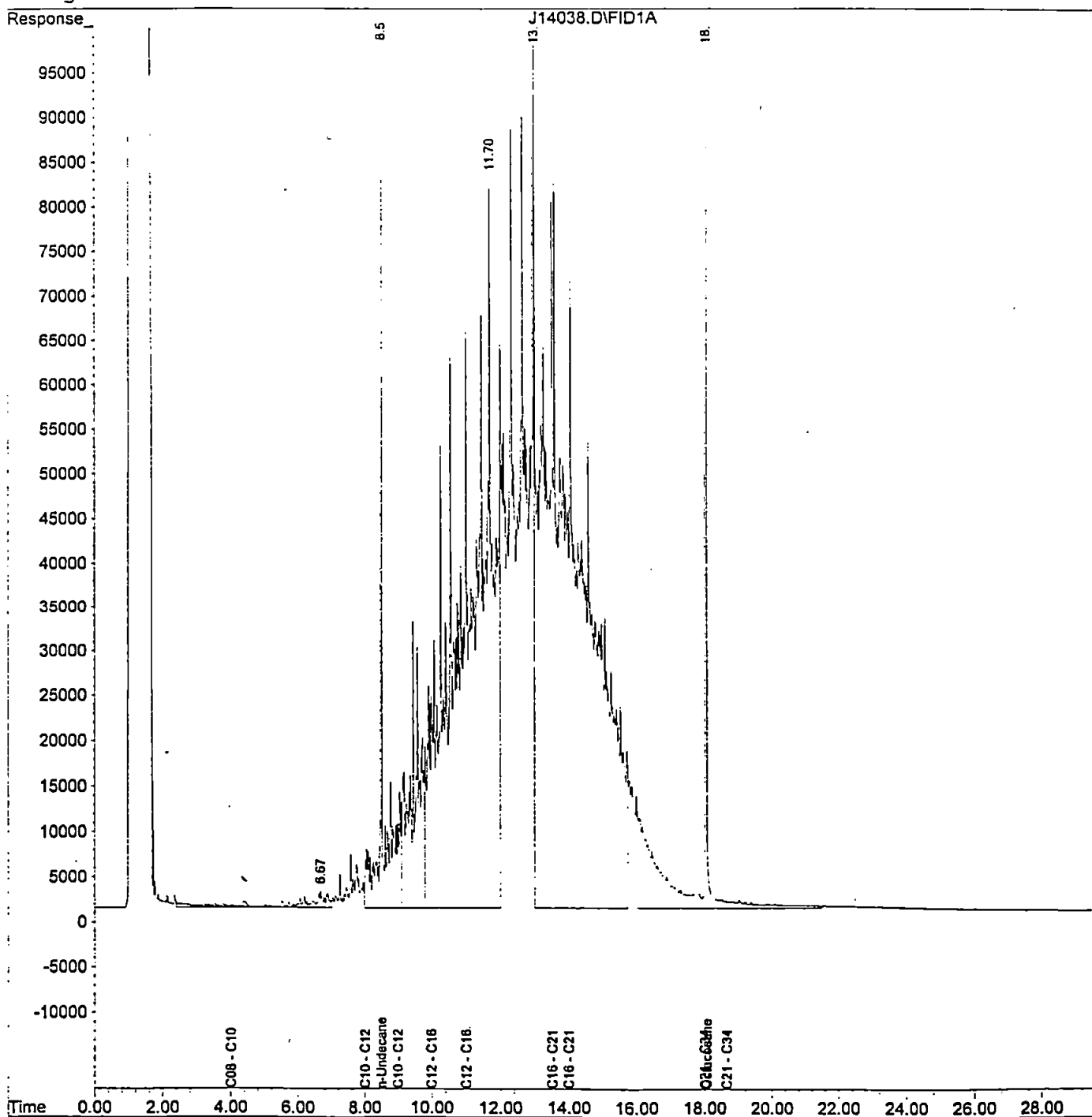
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\3\DATA\J14040.D

Acq On : 14 Oct 1998 11:47 pm

Sample : b810032-10 ar

Misc : s

IntFile : SURR.E

Quant Time: Oct 15 8:19 1998 Quant Results File: EPH.RES

Vial: 30

Operator: krl

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\EPH.M (Chemstation Integrator)

Title : EPH Front Method

Last Update : Thu Oct 15 08:17:47 1998

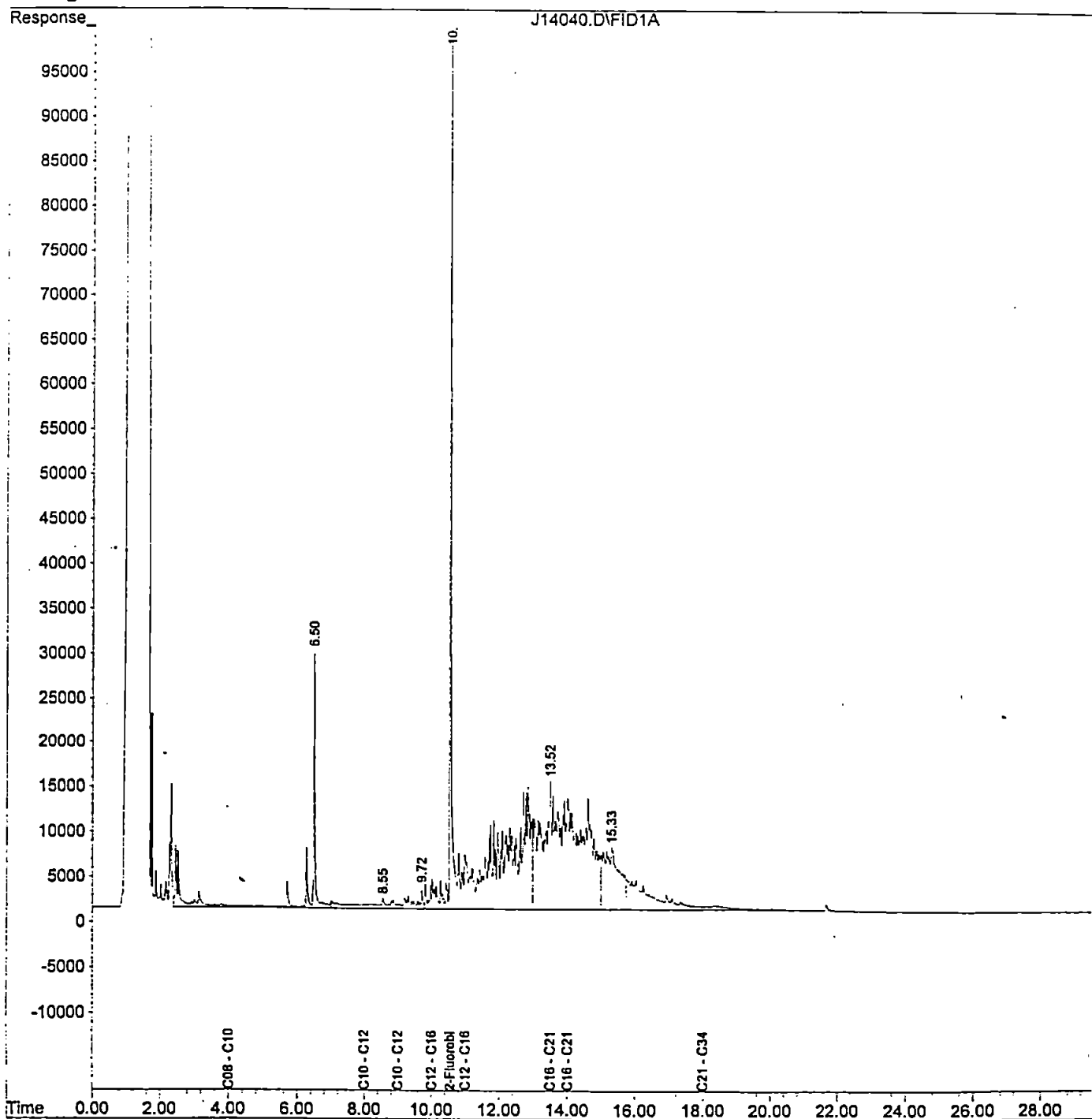
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





CHAIN OF CUSTODY REPORT

Work Order # **B810032**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *							
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lomberg</u>			Organic & Inorganic Analyses ☐ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☒ 2 ☐ Same Day							
ADDRESS: <u>600 Stewart St. Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97034-MER-04</u>			Fuels & Hydrocarbon Analyses ☐ 5 ☐ 3-4 ☐ 2 ☒ Same Day							
CITY: <u>Seattle WA, 98101</u>			CITY: <u>Bellevue, WA 98007</u>										
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER:			NCA QUOTE #:							
PROJECT NAME: <u>Grady Way</u>			Analysis Request: <u>PAHs by 8270</u> <u>PCBs by 8082</u> <u>MUTPH DA</u>			OTHER: ☐ Specify: _____							
PROJECT NUMBER: <u>186-407-00</u>						* Turnaround Requests less than standard may incur Rush Charges.							
SAMPLED BY: <u>Tony Orme</u>													
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	MATRIX (W, S, A, O)							# OF CONTAINERS	COMMENTS		
1. EX9-1-8.0	10/1/98 1100	B810032-01								S	1		
2. EX9-2-6.0	1310	- 02								S	1		
3. EX9-3-6.0	1315	- 03								S	1		
4. EX9-4-6.0	1320	- 04								S	1		
5. EX9-5-6.0	1325	- 05								S	1		
6. EX9-SPI	1150	- 06								S	1		
7. EX9-SPI2	1155	- 07								S	1		
8. EX9-SPI3	1200	- 08								S	1		
9. RTP4-1-4.0	10/1/98 1410	- 09								S	1	14010	
10. ~~EX-1-2-4~~	~~1100~~	~~B~~											
RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>10/1/98</u>			RECEIVED BY (Signature): <u>[Signature]</u>			DATE: <u>10/1/98</u>				
PRINT NAME: <u>Tony Orme</u> FIRM: <u>GET</u> TIME: <u>1430</u>			PRINT NAME: <u>LBarker</u> FIRM: <u>NCA</u> TIME: <u>1439</u>										
RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>10/1/98</u>			RECEIVED BY (Signature): <u>[Signature]</u>			DATE: <u>10-1</u>				
PRINT NAME: <u>LBarker</u> FIRM: <u>NCA</u> TIME: <u>1615</u>			PRINT NAME: <u>STEVEN J. BERNICK</u> FIRM: <u>NCA</u> TIME: <u>1722</u>										
ADDITIONAL REMARKS:											58°C		
											PAGE 1 OF		

CHAIN OF CUSTODY REPORT

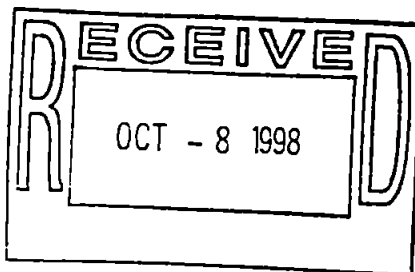
Work Order # **B810032**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 X Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 X Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.																																
ATTENTION: Steve Woodward			ATTENTION: Barry LomLard																																			
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: PSE - P.O. Box 97034-MER-01																																			
Seattle WA, 98101			Bellevue, WA 98007																																			
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____																																			
PROJECT NAME: Grady Way			Analysis Request: PAHs by GC/MS PCBs by GC/MS HVTGA DA																																			
PROJECT NUMBER: 186-407-00																																						
SAMPLED BY: Tony Orme																																						
<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr><td>EX1-1 - 12.0</td><td>10/1/98 1055</td><td>B810032-10</td></tr> <tr><td>EX1-2 - 9.0</td><td>1100</td><td>- 11</td></tr> <tr><td>EX1-3 - 10.0</td><td>1105</td><td>- 12</td></tr> <tr><td>EX1-4 - 10.0</td><td>1110</td><td>- 13</td></tr> <tr><td>EX1-5 - 10.0</td><td>1115</td><td>- 14</td></tr> <tr><td>EX1-SP1</td><td>1115</td><td>- 15</td></tr> <tr><td>EX1-SP2</td><td>1120</td><td>- 16</td></tr> <tr><td>EX1-SP3</td><td>1125</td><td>- 17</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	EX1-1 - 12.0	10/1/98 1055	B810032-10	EX1-2 - 9.0	1100	- 11	EX1-3 - 10.0	1105	- 12	EX1-4 - 10.0	1110	- 13	EX1-5 - 10.0	1115	- 14	EX1-SP1	1115	- 15	EX1-SP2	1120	- 16	EX1-SP3	1125	- 17						
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)																																				
EX1-1 - 12.0	10/1/98 1055	B810032-10																																				
EX1-2 - 9.0	1100	- 11																																				
EX1-3 - 10.0	1105	- 12																																				
EX1-4 - 10.0	1110	- 13																																				
EX1-5 - 10.0	1115	- 14																																				
EX1-SP1	1115	- 15																																				
EX1-SP2	1120	- 16																																				
EX1-SP3	1125	- 17																																				
<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>MATRIX (W, S, A, OI)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td>S</td><td>1</td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			MATRIX (W, S, A, OI)	# OF CONTAINERS	COMMENTS	S	1		S	1		S	1		S	1		S	1		S	1		S	1		S	1										
MATRIX (W, S, A, OI)	# OF CONTAINERS	COMMENTS																																				
S	1																																					
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S	1																																					
S	1																																					

RELINQUISHED BY (Signature):	DATE: 10/1/98	RECEIVED BY (Signature):	DATE: 10/1/98
PRINT NAME: Tony Orme FIRM: CSI TIME: 1430		PRINT NAME: K Barker FIRM: NCA TIME: 1439	
RELINQUISHED BY (Signature):	DATE: 10/1/98	RECEIVED BY (Signature):	DATE: 10-1-98
PRINT NAME: K Barker FIRM: NCA TIME: 1615		PRINT NAME: STEVEN A BENNETT FIRM: NCA TIME: 1722	
ADDITIONAL REMARKS:			0.82 PAGE 1 OF 2



**NORTH
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PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/2/98
Reported: 10/6/98 16:08

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
RTP6-1-3.5	B810073-02	Soil	10/1/98
RTP7-1-3.0	B810073-03	Soil	10/1/98

North Creek Analytical - Bothell

Steve Davis, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>RTP6-1-3.5</u>				<u>B810073-02</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080069	10/2/98	10/5/98		10.0	22.5	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		85.3	%	
<u>RTP7-1-3.0</u>				<u>B810073-03</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080143	10/5/98	10/6/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		90.9	%	

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Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
RTP6-1-3.5	B810073-02	Soil	82.7	%
RTP7-1-3.0	B810073-03	Soil	80.8	%

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Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/2/98
Reported: 10/6/98 16:08

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080069										
Blank										
Date Prepared: 10/2/98		Extraction Method: EPA 3550B								
1080069-BLK1										
Diesel Range Hydrocarbons	10/5/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		11.4	"	50.0-150	107			
LCS										
1080069-BS1										
Diesel Range Hydrocarbons	10/5/98	66.7		80.1	mg/kg dry	60.0-140	120			
Surrogate: 2-FBP	"	10.7		11.3	"	50.0-150	106			
Duplicate										
1080069-DUP1		B810053-03								
Diesel Range Hydrocarbons	10/5/98		ND	ND	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	11.7		13.3	"	50.0-150	114			
Duplicate										
1080069-DUP2		B810073-02								
Diesel Range Hydrocarbons	10/5/98		22.5	23.2	mg/kg dry			50.0	3.06	
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	12.9		10.3	"	50.0-150	79.8			
Batch: 1080143										
Blank										
Date Prepared: 10/5/98		Extraction Method: EPA 3550B								
1080143-BLK1										
Diesel Range Hydrocarbons	10/6/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		7.73	"	50.0-150	72.2			
LCS										
1080143-BS1										
Diesel Range Hydrocarbons	10/6/98	66.7		68.7	mg/kg dry	60.0-140	103			
Surrogate: 2-FBP	"	10.7		10.5	"	50.0-150	98.1			
Duplicate										
1080143-DUP1		B810073-03								
Diesel Range Hydrocarbons	10/6/98		ND	ND	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	13.2		9.78	"	50.0-150	74.1			

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/1/98
Received: 10/2/98
Reported: 10/6/98 16:08

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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Quantitation Report

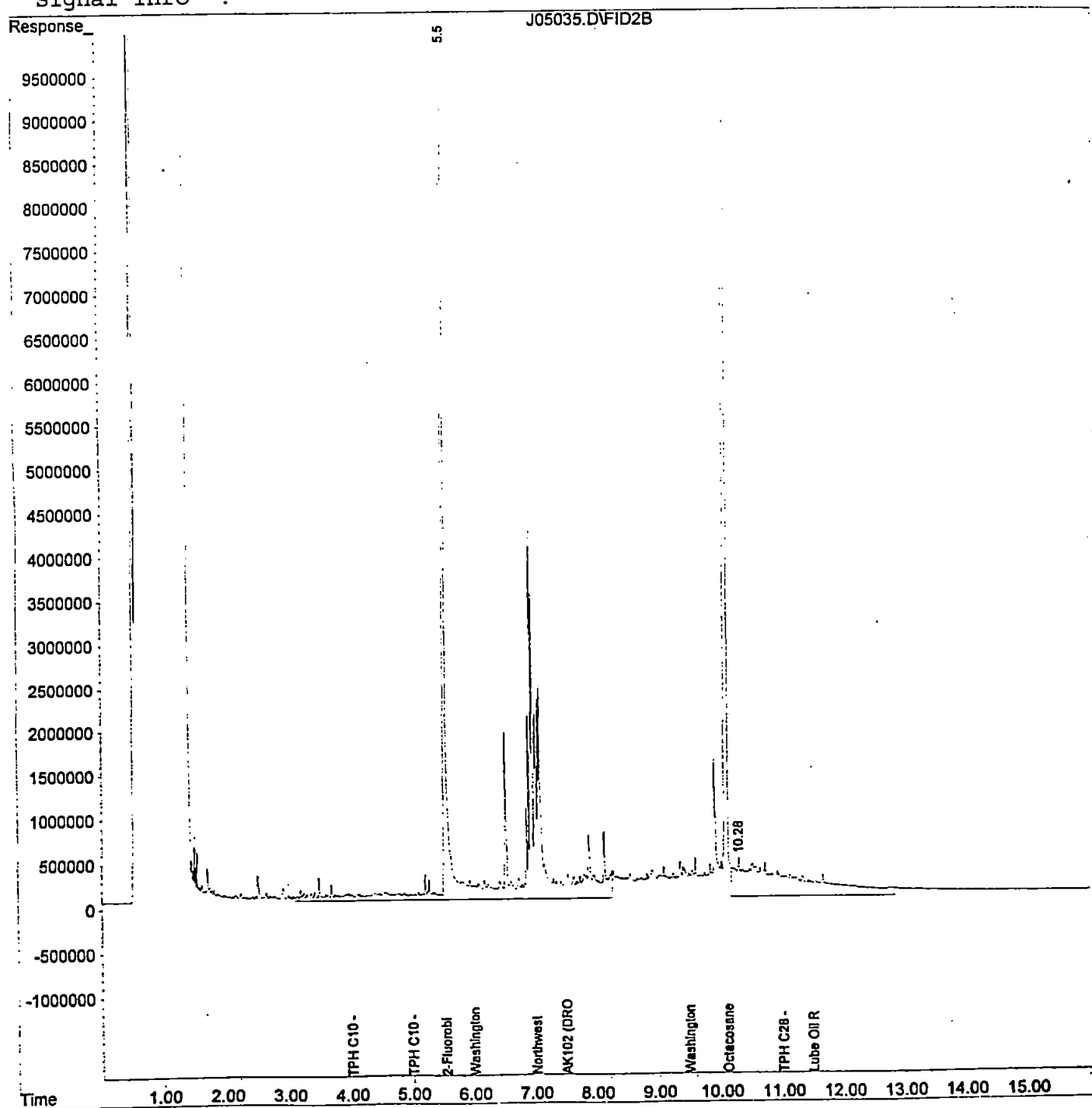
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 Misc : s
 IntFile : SURR.E
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Vial: 24
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J06016.D

Vial: 11

Acq On : 10-6-98 10:39:31 AM

Operator: lac

Sample : b810073-03 RE1

Inst : GC #7

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Oct 6 12:23 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

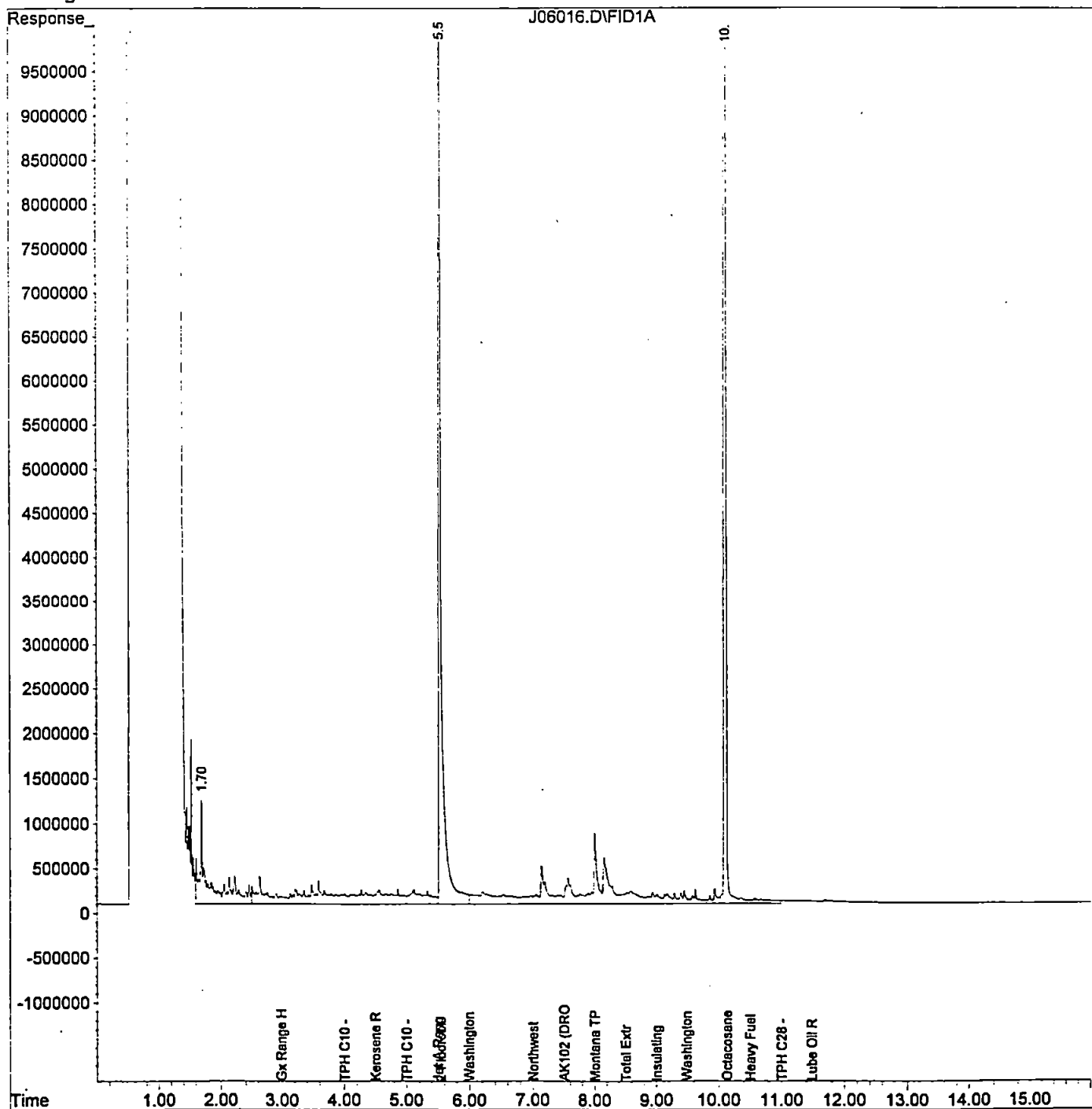
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





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CHAIN OF CUSTODY REPORT

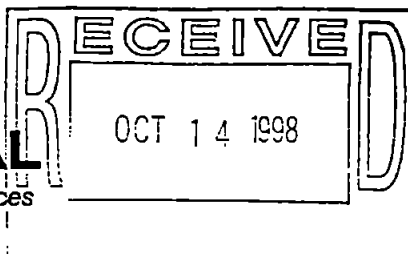
Work Order # 6810073

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98
Received: 10/5/98
Reported: 10/9/98 11:39

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SP5-2-5	B810118-02	Soil	10/5/98
SP1-2-5	B810118-06	Soil	10/5/98
SP-2-8.5	B810118-12	Soil	10/5/98
SP-3-6	B810118-17	Soil	10/5/98
SP-3-10	B810118-19	Soil	10/5/98
SP-4-7	B810118-22	Soil	10/5/98
SP-1	B810118-25	Water	10/5/98
SP-2	B810118-26	Water	10/5/98
SP-3	B810118-27	Water	10/5/98
SP-4	B810118-28	Water	10/5/98

North Creek Analytical - Bothell

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/5/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/9/98 11:39

Total Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>SP5-2-5</u> Arsenic	1080152	10/5/98	10/7/98	<u>B810118-02</u> EPA 6020	0.500	16.5	<u>Soil</u> mg/kg dry	
<u>SP1-2-5</u> Arsenic	1080152	10/5/98	10/7/98	<u>B810118-06</u> EPA 6020	0.500	5.03	<u>Soil</u> mg/kg dry	
<u>SP-2-8.5</u> Arsenic	1080152	10/5/98	10/7/98	<u>B810118-12</u> EPA 6020	0.500	4.80	<u>Soil</u> mg/kg dry	
<u>SP-3-6</u> Arsenic	1080152	10/5/98	10/7/98	<u>B810118-17</u> EPA 6020	0.500	8.30	<u>Soil</u> mg/kg dry	
<u>SP-3-10</u> Arsenic	1080261	10/7/98	10/9/98	<u>B810118-19</u> EPA 6020	0.500	2.12	<u>Soil</u> mg/kg dry	
<u>SP-4-7</u> Arsenic	1080152	10/5/98	10/7/98	<u>B810118-22</u> EPA 6020	0.500	2.97	<u>Soil</u> mg/kg dry	



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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98
Received: 10/5/98
Reported: 10/9/98 11:39

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>SP-1</u> Arsenic	1080153	10/5/98	10/6/98	<u>B810118-25</u> EPA 6020	0.00100	0.00124	<u>Water</u> mg/l	
<u>SP-2</u> Arsenic	1080153	10/5/98	10/6/98	<u>B810118-26</u> EPA 6020	0.00100	0.00221	<u>Water</u> mg/l	
<u>SP-3</u> Arsenic	1080153	10/5/98	10/6/98	<u>B810118-27</u> EPA 6020	0.00100	0.00281	<u>Water</u> mg/l	
<u>SP-4</u> Arsenic	1080153	10/5/98	10/6/98	<u>B810118-28</u> EPA 6020	0.00100	ND	<u>Water</u> mg/l	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/5/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/5/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/9/98 11:39

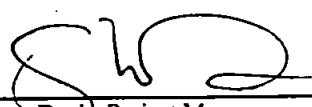
Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>SP5-2-5</u> pH	1080232	10/6/98	10/6/98	<u>B810118-02</u> EPA 9045B		7.04	<u>Soil</u> pH units	
<u>SP1-2-5</u> pH	1080232	10/6/98	10/6/98	<u>B810118-06</u> EPA 9045B		6.90	<u>Soil</u> pH units	
<u>SP-2-8.5</u> pH	1080232	10/6/98	10/6/98	<u>B810118-12</u> EPA 9045B		7.11	<u>Soil</u> pH units	
<u>SP-3-6</u> pH	1080232	10/6/98	10/6/98	<u>B810118-17</u> EPA 9045B		7.06	<u>Soil</u> pH units	
<u>SP-3-10</u> pH	1080232	10/6/98	10/6/98	<u>B810118-19</u> EPA 9045B		6.85	<u>Soil</u> pH units	
<u>SP-4-7</u> pH	1080232	10/6/98	10/6/98	<u>B810118-22</u> EPA 9045B		6.75	<u>Soil</u> pH units	

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Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SP5-2-5	B810118-02	Soil	67.4	%
SP1-2-5	B810118-06	Soil	87.0	%
SP-2-8.5	B810118-12	Soil	71.3	%
SP-3-6	B810118-17	Soil	87.3	%
SP-3-10	B810118-19	Soil	71.2	%
SP-4-7	B810118-22	Soil	89.1	%

North Creek Analytical - Bothell

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Sampled: 10/5/98
Received: 10/5/98
Reported: 10/9/98 11:39

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080152										
Date Prepared: 10/5/98										
Extraction Method: EPA 3050B										
Blank	1080152-BLK1									
Arsenic	10/7/98			ND	mg/kg dry	0.500				
LCS	1080152-BS1									
Arsenic	10/7/98	25.0		22.0	mg/kg dry	70.0-130	88.0			
Duplicate	1080152-DUP1 B810118-06									
Arsenic	10/7/98		5.03	9.97	mg/kg dry			20.0	65.9	1
Matrix Spike	1080152-MS1 B810118-06									
Arsenic	10/7/98	17.8	5.03	24.4	mg/kg dry	70.0-130	109			
Batch: 1080261										
Date Prepared: 10/7/98										
Extraction Method: EPA 3050B										
Blank	1080261-BLK1									
Arsenic	10/9/98			ND	mg/kg dry	0.500				
LCS	1080261-BS1									
Arsenic	10/9/98	25.0		23.2	mg/kg dry	70.0-130	92.8			
Duplicate	1080261-DUP1 B809758-12									
Arsenic	10/9/98		0.915	1.68	mg/kg dry			20.0	59.0	2
Matrix Spike	1080261-MS1 B809758-12									
Arsenic	10/9/98	22.2	0.915	18.6	mg/kg dry	70.0-130	79.7			

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Sampled: 10/5/98
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Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080153										
Blank										
Arsenic	10/6/98			ND	mg/l	0.00100				
LCS										
Arsenic	10/6/98	0.200		0.199	mg/l	80.0-120	99.5			
Duplicate										
Arsenic	10/6/98		0.00124	ND	mg/l				20.0	
Matrix Spike										
Arsenic	10/6/98	0.200	0.00124	0.210	mg/l	75.0-125	104			



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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98
Received: 10/5/98
Reported: 10/9/98 11:39

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*

Batch: 1080232

Date Prepared: 10/6/98

Extraction Method: General Preparation

Duplicate

1080232-DUP1 B810118-02

pH

10/6/98

7.04

6.93

pH units

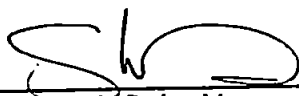
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1.57

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98
Received: 10/5/98
Reported: 10/9/98 11:39

Notes and Definitions

#	Note
1	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
2	Analyses are not controlled on RPD values from sample concentrations less than 5 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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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(509) 924-9200 FAX 924-9290
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CHAIN OF CUSTODY REPORT

Work Order # **B810118**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td colspan="3"></td> </tr> </table>			Organic & Inorganic Analyses						☒ Same Day	10	7	5	4	3	2	Fuels & Hydrocarbon Analyses						☒ Same Day	5	3-4	2			
Organic & Inorganic Analyses									☒ Same Day																									
10	7	5	4	3	2																													
Fuels & Hydrocarbon Analyses									☒ Same Day																									
5	3-4	2																																
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St Ste 1215			ADDRESS: RSE - P.O. Box 97634-MER-09																															
Seattle WA, 98101			Bellevue, WA 98009																															
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			NCA QUOTE #:																												
PROJECT NAME: Grady Way			PAHs by GC/MS PCB by GC/MS WWTPH DA Total Arsenic			OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.																												
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: Tony Orme																																		
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																									
1. SP5-1-3		1/15/98 900	-01				S	1	Hold																									
2. SP5-2-5		905	-02	X			S	1																										
3. SP5-3-7		910	-03				S	1	Hold																									
4. SP5-4-9		915	-04				S	1	Hold																									
5. SP1-1-3		1/15/98 915	-05				S	1	Hold																									
6. SP1-2-5		920	-06	X			S	1																										
7. SP1-3-7		925	-07				S	1	Hold																									
8. SP1-4-9		930	-08				S	1	Hold																									
9. SP-2-4 1		1220	-09				S	1	Hold																									
10. SP-2-6		1225	-10				S	1	Hold																									
RELINQUISHED BY (Signature):			DATE:	RECEIVED BY (Signature): <i>Ken Hui</i>			DATE: 1/15/98																											
PRINT NAME:			FIRM:	TIME:	PRINT NAME: Ken Hui			FIRM: NCA	TIME: 1809																									
RELINQUISHED BY (Signature):			DATE:	RECEIVED BY (Signature): <i>W/S</i>			DATE:																											
PRINT NAME:			FIRM:	TIME:	PRINT NAME: 20.1°C			FIRM:	TIME:																									
ADDITIONAL REMARKS:									PAGE 1 OF 3																									

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CHAIN OF CUSTODY REPORT

Work Order # 13810118

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.										
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>													
ADDRESS: <u>600 Stewart St. Ste 1215</u>			ADDRESS: <u>RSE - P.O. Box 97034-MER-01</u>													
<u>Seattle WA, 98101</u>			<u>Bellevue, WA 98007</u>													
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____													
PROJECT NAME: <u>Grady Way</u>			PAHs by GC/MS PCBs by GC/MS WWTPH DA Total Alkalinity													
PROJECT NUMBER: <u>186-407-00</u>																
SAMPLED BY: <u>Tony Orme</u>																
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)											MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	
1. <u>SP-2-7</u>	<u>10/5/94 1240</u>	<u>-11</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
2. <u>SP-2-8.5</u>	<u>1241</u>	<u>-12</u>														
3. <u>SP-2-9</u>	<u>1245</u>	<u>-13</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
4. <u>SP-2-10</u>	<u>1255</u>	<u>-14</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
5. <u>SP-2-12</u>	<u>1257</u>	<u>-15</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
6. <u>SP-3-4</u>	<u>1135</u>	<u>-16</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
7. <u>SP-3-6</u>	<u>1140</u>	<u>-17</u>														
8. <u>SP-3-8</u>	<u>1145</u>	<u>-18</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
9. <u>SP-3-10</u>	<u>1150</u>	<u>-19</u>												<u>S</u>	<u>1</u>	<u>Hold</u>
10. <u>SP-3-12</u>	<u>1155</u>	<u>-20</u>												<u>S</u>	<u>1</u>	<u>Hold</u>

RELINQUISHED BY (Signature): _____		DATE: _____	RECEIVED BY (Signature): _____		DATE: _____
PRINT NAME: _____		FIRM: _____	PRINT NAME: _____		FIRM: _____
RELINQUISHED BY (Signature): _____		DATE: _____	RECEIVED BY (Signature): _____		DATE: _____
PRINT NAME: _____		FIRM: _____	PRINT NAME: _____		FIRM: _____

ADDITIONAL REMARKS:

PAGE 2 OF 3



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(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210

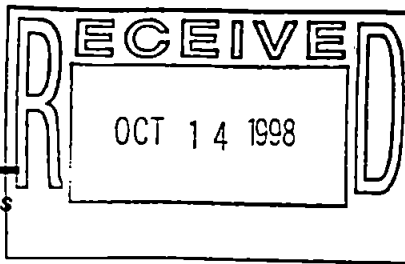
Work Order #

B910118

REPORT TO:			INVOICE TO:								TURNAROUND REQUEST In Business Days *								
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard								Organic & Inorganic Analytes [10] [7] [5] [4] [3] [2] [X] Same Day								
ADDRESS: 600 Stewart St Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034-MER-01 Bellevue, WA 98007								Fuels & Hydrocarbon Analytes [5] [3-4] [2] [X] Same Day								
PHONE: (206) 728-2674 FAX: (206)-728-2732			P.O. NUMBER: NCA QUOTE #:								OTHER Specify:								
PROJECT NAME: Grady Way			Analysis Request: PAA by 8270 PCB by 8082 MWTPH DA Total Arsenic Dissolved Arsenic								* Turnaround Requests less than standard may incur Rush Charges.								
PROJECT NUMBER: 186-407-00											MATRIX (W.S.A.O)			# OF CONTAINERS			COMMENTS		
SAMPLED BY: Tony Orme																			
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)																	
SP-4-3	10/5/98 1030	-21								S	1	Hold							
SP-4-7	10/5/98 1035	-22			X					S	1								
SP-4-10	10/5/98 1045	-23								S	1	Hold							
SP-4-12	10/5/98 1120	-24								S	1	Hold							
SP-1	10/5/98 730	-25					X			W	1								
SP-2	10/5/98 1250	-26					X			W	1								
SP-3	10/5/98 1200	-27					X			W	1								
SP-4	10/5/98 1055	-28					X			W	1								
RELINQUISHED BY (Signature)			DATE:		RECEIVED BY (Signature)			DATE:											
PRINT NAME:			FIRM:		TIME:		PRINT NAME:			FIRM:		TIME:							
RELINQUISHED BY (Signature)			DATE:		RECEIVED BY (Signature)			DATE:											
PRINT NAME:			FIRM:		TIME:		PRINT NAME:			FIRM:		TIME:							
ADDITIONAL REMARKS: Dissolved Arsenic was field filtered and stored in 9 containers with nitric acid												PAGE 3 OF 3							



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

ANALYTICAL REPORT FOR SAMPLES:

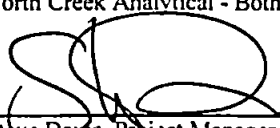
Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SP7-3-10	B810154-06	Soil	10/5/98
SP8-3-9.0	B810154-10	Soil	10/5/98
SP10-3-8.0	B810154-16	Soil	10/6/98
SP11-3-8.0	B810154-20	Soil	10/6/98
SP12-3-8.0	B810154-24	Soil	10/5/98

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.*

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Steve Davis, Project Manager

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP7-3-10								
				B810154-06			Soil	
Diesel Range Hydrocarbons	1080231	10/7/98	10/8/98		10.0	179	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	510	"	
Surrogate: 2-FBP	"	"	"	50.0-150		82.1	%	
SP8-3-9.0								
				B810154-10			Soil	
Diesel Range Hydrocarbons	1080231	10/7/98	10/8/98		10.0	87.0	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	259	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.5	%	
SP10-3-8.0								
				B810154-16			Soil	
Diesel Range Hydrocarbons	1080231	10/7/98	10/8/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.7	%	
SP11-3-8.0								
				B810154-20			Soil	
Diesel Range Hydrocarbons	1080231	10/7/98	10/8/98		10.0	42.0	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	88.5	"	
Surrogate: 2-FBP	"	"	"	50.0-150		82.7	%	
SP12-3-8.0								
				B810154-24			Soil	
Diesel Range Hydrocarbons	1080231	10/7/98	10/8/98		10.0	82.3	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	116	"	
Surrogate: 2-FBP	"	"	"	50.0-150		86.7	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

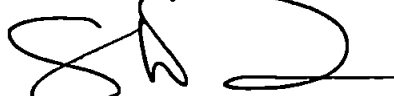
Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP7-3-10		B810154-06					Soil	
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		71.5	%	
SP8-3-9.0		B810154-10					Soil	
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		82.1	%	
SP10-3-8.0		B810154-16					Soil	
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		66.6	%	
SP11-3-8.0		B810154-20					Soil	
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>SP11-3-8.0 (continued)</u>				<u>B810154-20</u>			<u>Soil</u>	
Aroclor 1232	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		65.1	%	
<u>SP12-3-8.0</u>				<u>B810154-24</u>			<u>Soil</u>	
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		79.4	%	

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*Refer to end of report for text of notes and definitions.


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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units
SP7-3-10				B810154-06			Soil
Acenaphthene	1080341	10/9/98	10/11/98		0.100	ND	mg/kg dry
Acenaphthylene	"	"	"		0.100	ND	"
Anthracene	"	"	"		0.100	ND	"
Benzo (a) anthracene	"	"	"		0.100	ND	"
Benzo (a) pyrene	"	"	"		0.100	ND	"
Benzo (b) fluoranthene	"	"	"		0.100	ND	"
Benzo (ghi) perylene	"	"	"		0.100	ND	"
Benzo (k) fluoranthene	"	"	"		0.100	ND	"
Chrysene	"	"	"		0.100	ND	"
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"
Fluoranthene	"	"	"		0.100	ND	"
Fluorene	"	"	"		0.100	ND	"
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"
Naphthalene	"	"	"		0.100	ND	"
Phenanthrene	"	"	"		0.100	ND	"
Pyrene	"	"	"		0.100	ND	"
Surrogate: 2-FBP	"	"	"	30.0-150		82.2	%
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		56.8	"
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		106	"

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
SP7-3-10	B810154-06	Soil	70.7	%
SP8-3-9.0	B810154-10	Soil	78.9	%
SP10-3-8.0	B810154-16	Soil	81.6	%
SP11-3-8.0	B810154-20	Soil	80.3	%
SP12-3-8.0	B810154-24	Soil	78.9	%

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/5/98 to 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/12/98 17:03

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 1080231										
Date Prepared: 10/7/98										
Extraction Method: EPA 3550B										
Blank										
Diesel Range Hydrocarbons	10/8/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		7.12	"	50.0-150	66.5			
LCS										
1080231-BS1										
Diesel Range Hydrocarbons	10/8/98	66.7		60.6	mg/kg dry	60.0-140	90.9			
Surrogate: 2-FBP	"	10.7		8.14	"	50.0-150	76.1			
Duplicate										
1080231-DUP1 B810154-06										
Diesel Range Hydrocarbons	10/8/98		179	127	mg/kg dry			50.0	34.0	
Lube Oil Range Hydrocarbons	"		510	352	"			50.0	36.7	
Surrogate: 2-FBP	"	15.1		10.6	"	50.0-150	70.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/5/98 to 10/6/98
Received: 10/6/98
Reported: 10/12/98 17:03

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080203		Date Prepared: 10/7/98		Extraction Method: EPA 3550B						
Blank		1080203-BLK1								
Aroclor 1016	10/7/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.71	"	40.0-130	116			
LCS		1080203-BS1								
Aroclor 1260	10/7/98	333		252	ug/kg dry	44.0-123	75.7			
Surrogate: TCX	"	6.67		7.97	"	40.0-130	119			
Matrix Spike		1080203-MS1		B810026-20						
Aroclor 1260	10/7/98	371	ND	342	ug/kg dry	28.0-132	92.2			
Surrogate: TCX	"	7.43		7.59	"	40.0-130	102			
Matrix Spike Dup		1080203-MSD1		B810026-20						
Aroclor 1260	10/7/98	371	ND	325	ug/kg dry	28.0-132	87.6	23.0	5.12	
Surrogate: TCX	"	7.43		7.48	"	40.0-130	101			

North Creek Analytical - Bothell

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/5/98 to 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/12/98 17:03

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080341		Date Prepared: 10/9/98			Extraction Method: EPA 3550B					
Blank		1080341-BLK1								
Acenaphthene	10/11/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.31	"	30.0-150	78.4			
Surrogate: Nitrobenzene-d5	"	1.67		1.08	"	30.0-150	64.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.55	"	30.0-150	92.8			
LCS		1080341-BS1								
Chrysene	10/11/98	0.333		0.190	mg/kg dry	10.0-125	57.1			
Fluorene	"	0.333		0.222	"	11.0-116	66.7			
Indeno (1,2,3-cd) pyrene	"	0.333		0.261	"	10.0-147	78.4			
Surrogate: 2-FBP	"	1.67		1.55	"	30.0-150	92.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.13	"	30.0-150	67.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.46	"	30.0-150	87.4			
Matrix Spike		1080341-MS1		B810058-02						
Chrysene	10/11/98	0.387	ND	0.279	mg/kg dry	10.0-125	72.1			
Fluorene	"	0.387	0.868	0.868	"	10.0-154	NR			
Indeno (1,2,3-cd) pyrene	"	0.387	ND	0.318	"	10.0-144	82.2			
Surrogate: 2-FBP	"	1.94		1.63	"	30.0-150	84.0			
Surrogate: Nitrobenzene-d5	"	1.94		1.24	"	30.0-150	63.9			
Surrogate: p-Terphenyl-d14	"	1.94		1.70	"	30.0-150	87.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions



Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/5/98 to 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/12/98 17:03

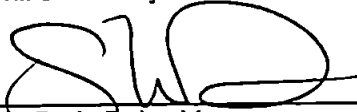
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control

North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	1080341-MSD1	B810058-02								
Chrysene	10/11/98	0.387	ND	0.260	mg/kg dry	10.0-125	67.2	28.0	7.04	
Fluorene	"	0.387	0.868	0.844	"	10.0-154	NR	32.0	-200	1
Indeno (1,2,3-cd) pyrene	"	0.387	ND	0.318	"	10.0-144	82.2	47.0	0	
Surrogate: 2-FBP	"	1.94		1.63	"	30.0-150	84.0			
Surrogate: Nitrobenzene-d5	"	1.94		1.39	"	30.0-150	71.6			
Surrogate: p-Terphenyl-d14	"	1.94		1.54	"	30.0-150	79.4			

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

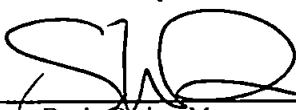
BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/5/98 to 10/6/98 Received: 10/6/98 Reported: 10/12/98 17:03

Notes and Definitions

#	Note
1	The percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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Quantitation Report

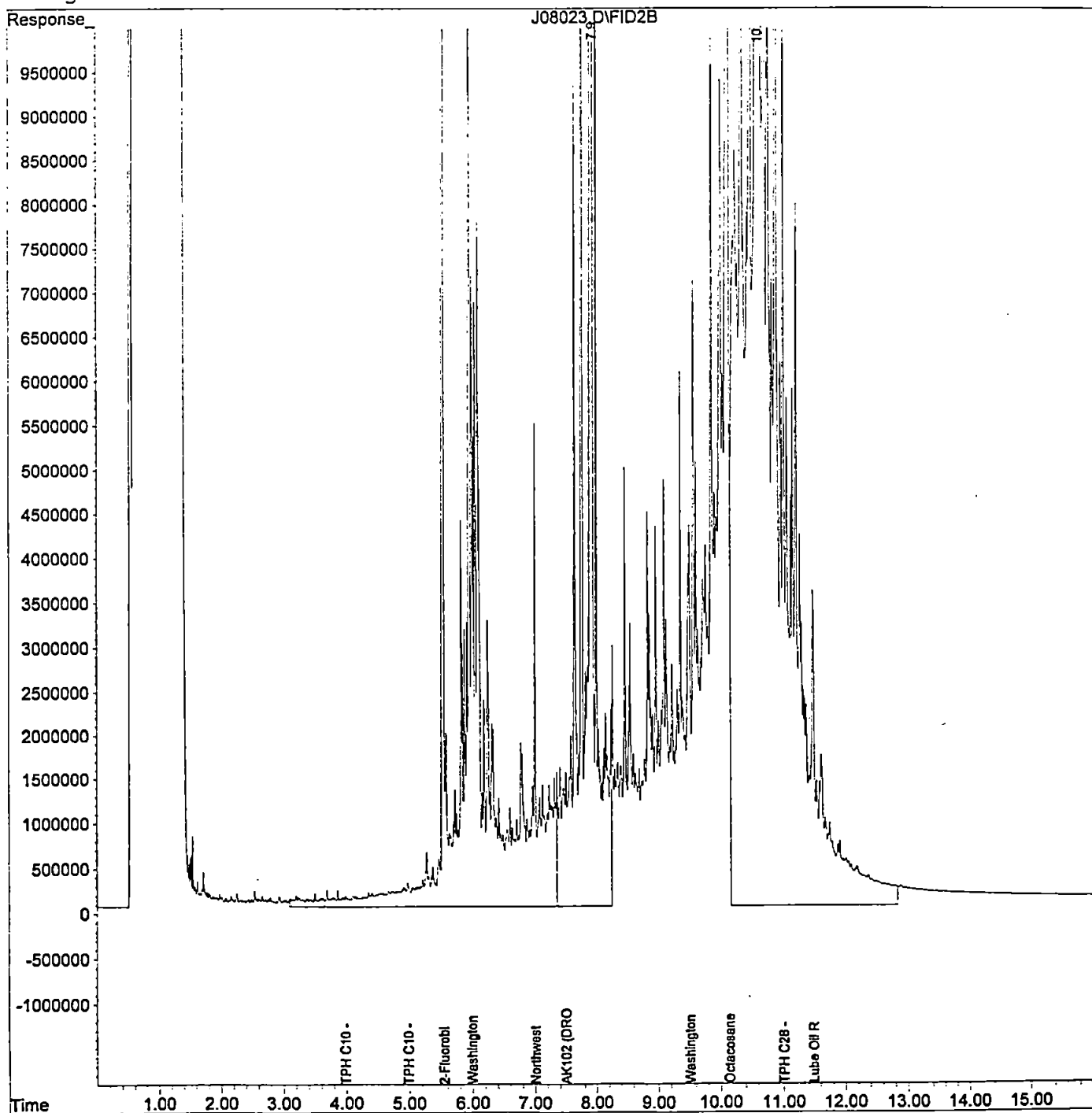
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 Acq On : 10-8-98 1:03:42 PM
 Sample : b810154-06
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 8 13:27 1998

Vial: 18
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J08024.D

Acq On : 10-8-98 1:03:42 PM

Sample : b810154-10

Misc : s

IntFile : SURR.E

Quant Time: Oct 8 13:28 1998 Quant Results File: TPHD.RES

Vial: 19

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

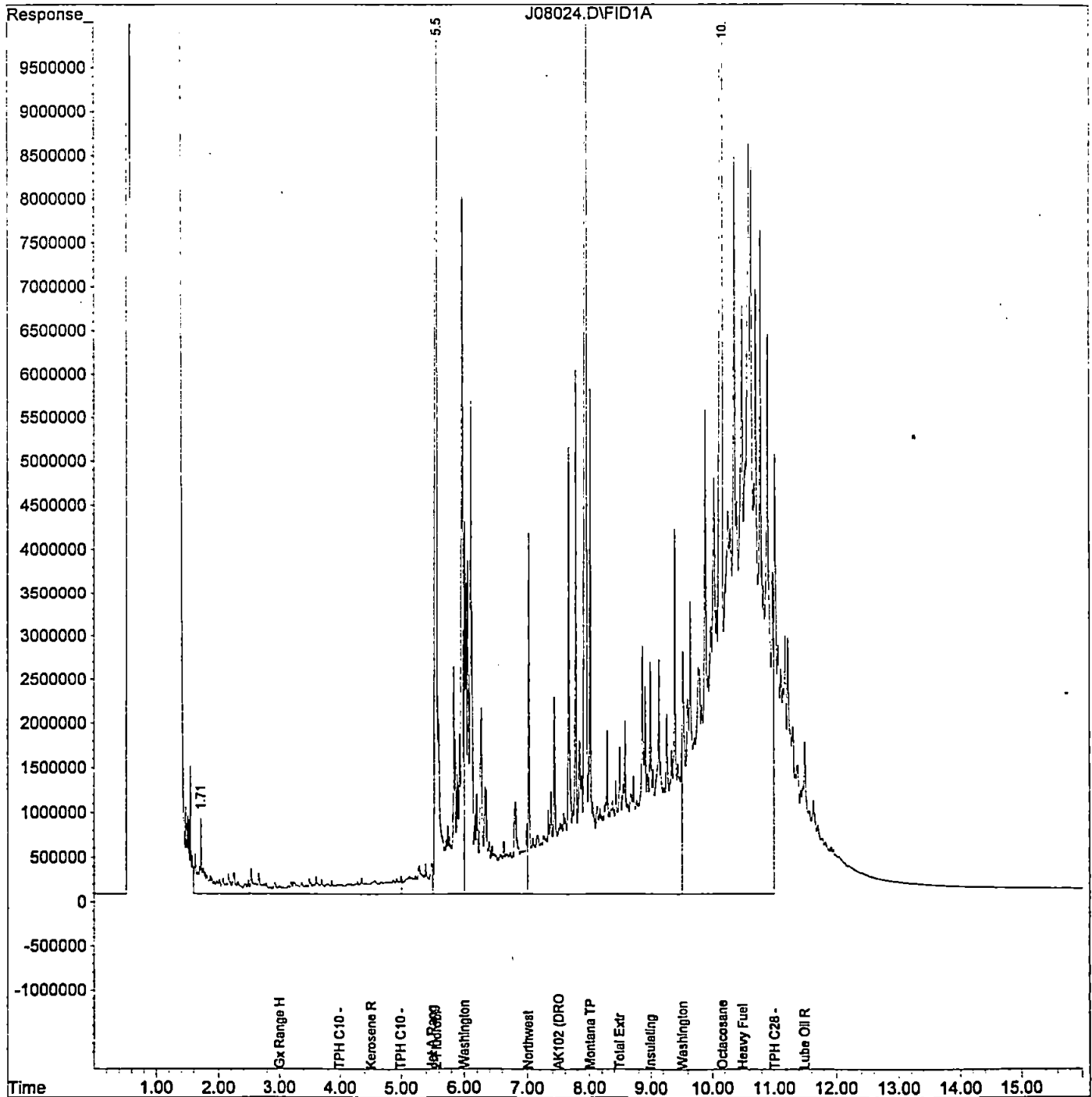
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

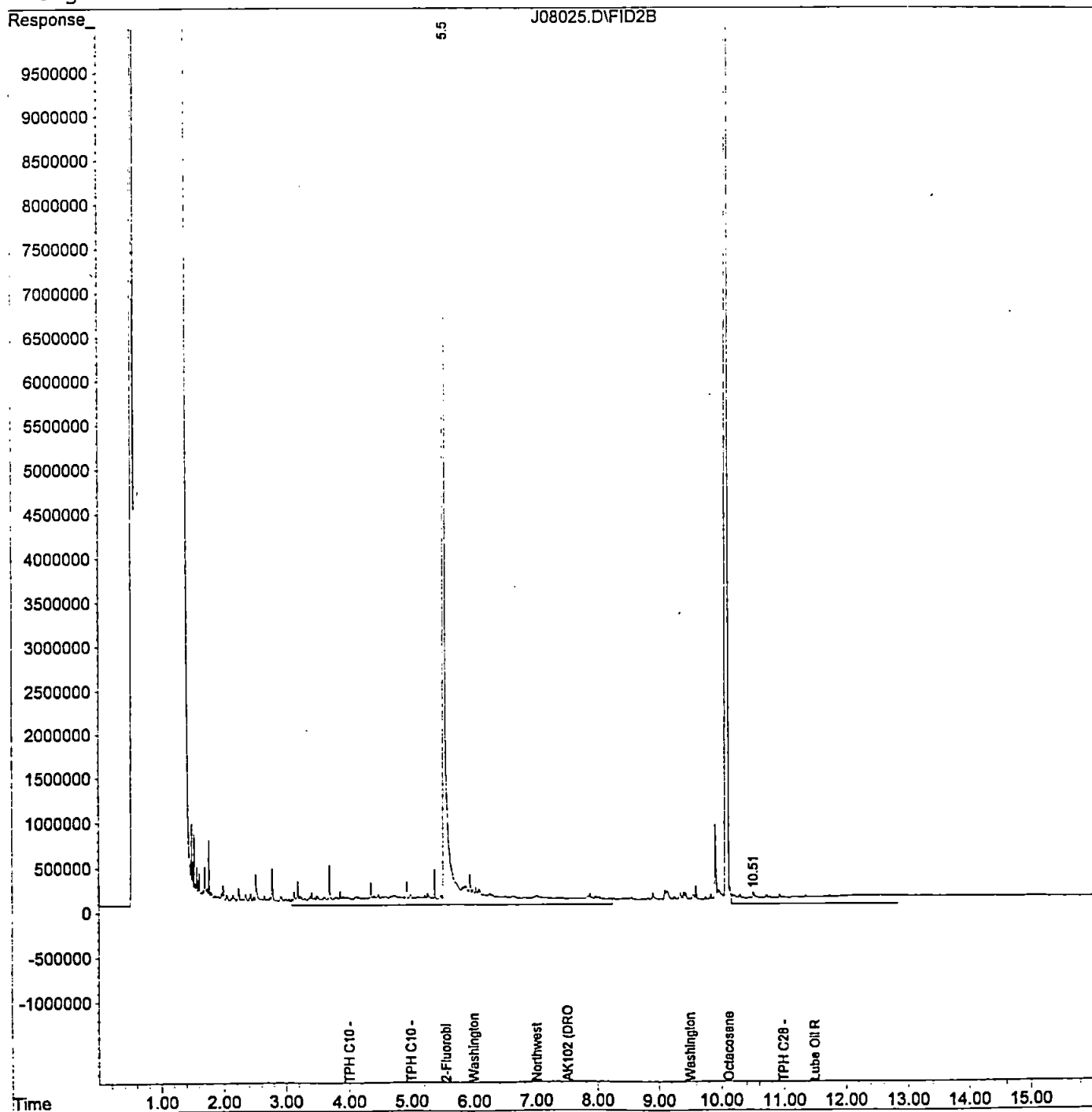
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 Sample : b810154-16
 Misc : S
 IntFile : SURR.E
 Quant Time: Oct 8 13:56 1998

Vial: 20
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

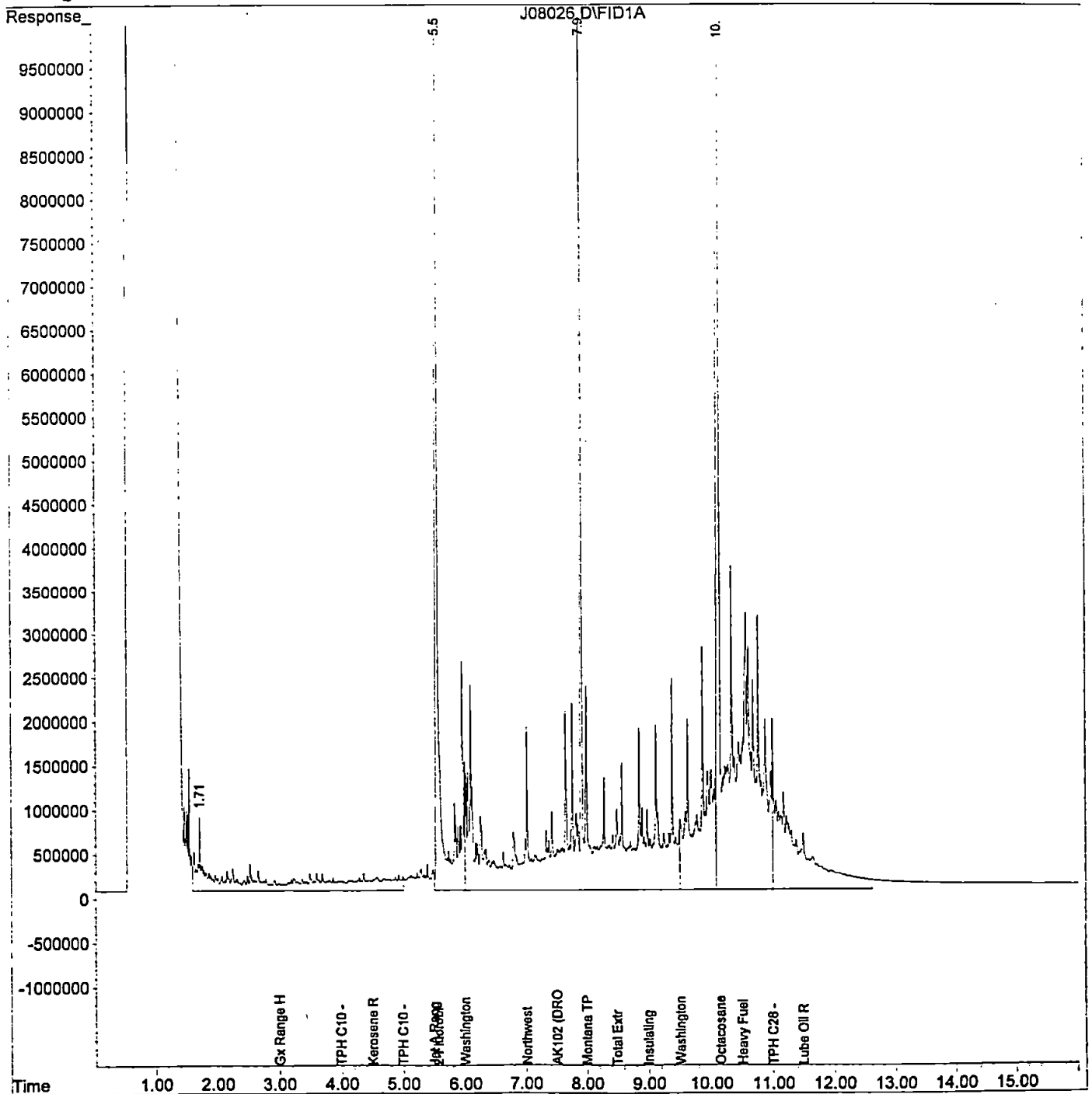
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Acq On : 10-8-98 1:26:55 PM
Sample : b810154-20
Misc : s
IntFile : SURR.E
Quant Time: Oct 8 13:55 1998

Vial: 21
Operator: lac
Inst : GC #7
Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
Title : TPH-D Front Method
Last Update : Fri Oct 02 11:08:58 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPHD.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\J08027.D

Vial: 22

Acq On : 10-8-98 1:50:11 PM

Operator: lac

Sample : b810154-24

Inst : GC #7

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Oct 8 14:07 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Fri Oct 02 11:09:47 1998

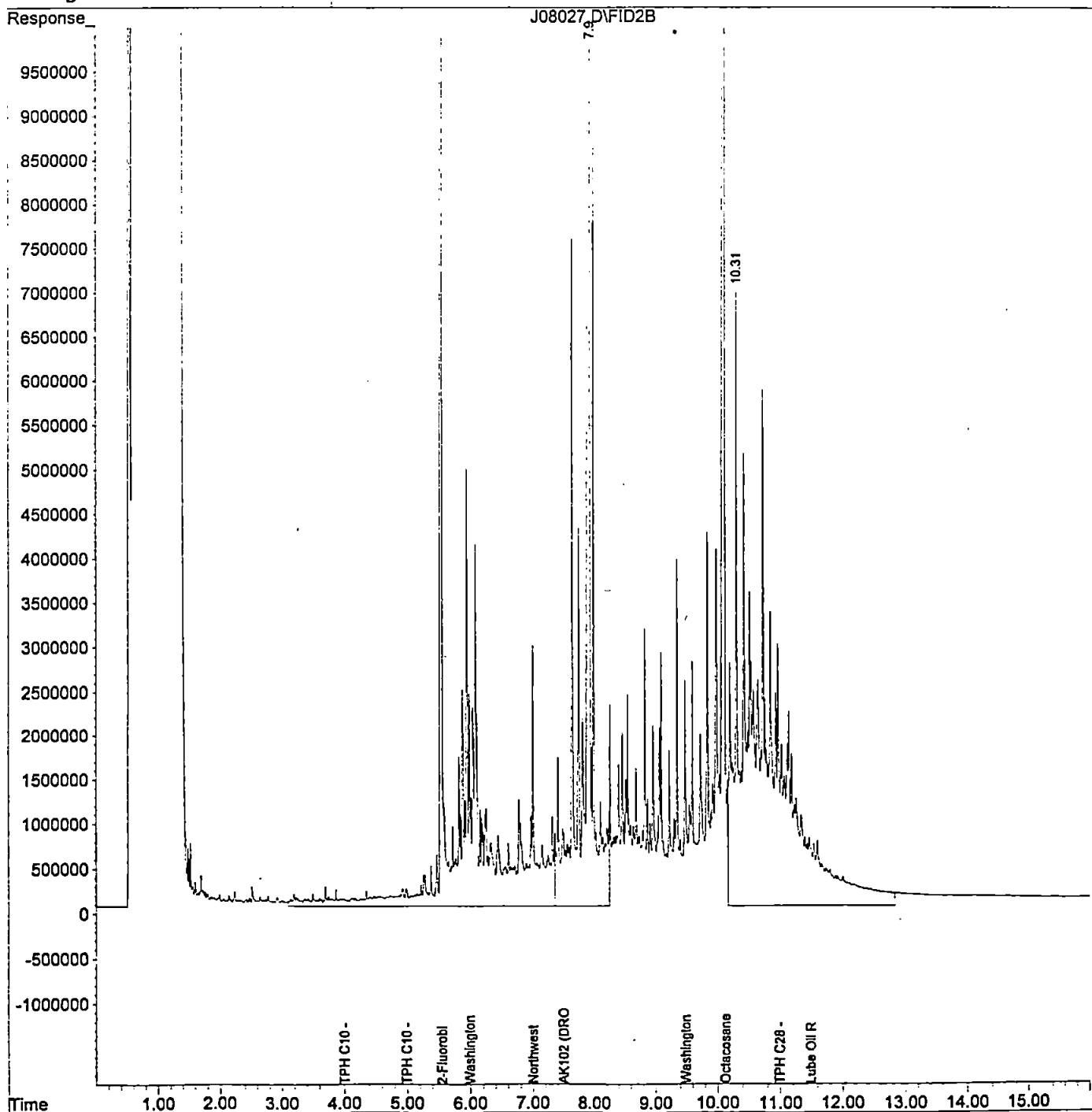
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



CHAIN OF CUSTODY REPORT

Work Order #

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry LamLied			☒ 1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16 ☐ 17 ☐ 18 ☐ 19 ☐ 20 ☐ 21 ☐ 22 ☐ 23 ☐ 24 ☐ 25 ☐ 26 ☐ 27 ☐ 28 ☐ 29 ☐ 30 ☐ 31 ☐ 32 ☐ 33 ☐ 34 ☐ 35 ☐ 36 ☐ 37 ☐ 38 ☐ 39 ☐ 40 ☐ 41 ☐ 42 ☐ 43 ☐ 44 ☐ 45 ☐ 46 ☐ 47 ☐ 48 ☐ 49 ☐ 50 ☐ 51 ☐ 52 ☐ 53 ☐ 54 ☐ 55 ☐ 56 ☐ 57 ☐ 58 ☐ 59 ☐ 60 ☐ 61 ☐ 62 ☐ 63 ☐ 64 ☐ 65 ☐ 66 ☐ 67 ☐ 68 ☐ 69 ☐ 70 ☐ 71 ☐ 72 ☐ 73 ☐ 74 ☐ 75 ☐ 76 ☐ 77 ☐ 78 ☐ 79 ☐ 80 ☐ 81 ☐ 82 ☐ 83 ☐ 84 ☐ 85 ☐ 86 ☐ 87 ☐ 88 ☐ 89 ☐ 90 ☐ 91 ☐ 92 ☐ 93 ☐ 94 ☐ 95 ☐ 96 ☐ 97 ☐ 98 ☐ 99 ☐ 100 ☐ 101 ☐ 102 ☐ 103 ☐ 104 ☐ 105 ☐ 106 ☐ 107 ☐ 108 ☐ 109 ☐ 110 ☐ 111 ☐ 112 ☐ 113 ☐ 114 ☐ 115 ☐ 116 ☐ 117 ☐ 118 ☐ 119 ☐ 120 ☐ 121 ☐ 122 ☐ 123 ☐ 124 ☐ 125 ☐ 126 ☐ 127 ☐ 128 ☐ 129 ☐ 130 ☐ 131 ☐ 132 ☐ 133 ☐ 134 ☐ 135 ☐ 136 ☐ 137 ☐ 138 ☐ 139 ☐ 140 ☐ 141 ☐ 142 ☐ 143 ☐ 144 ☐ 145 ☐ 146 ☐ 147 ☐ 148 ☐ 149 ☐ 150 ☐ 151 ☐ 152 ☐ 153 ☐ 154 ☐ 155 ☐ 156 ☐ 157 ☐ 158 ☐ 159 ☐ 160 ☐ 161 ☐ 162 ☐ 163 ☐ 164 ☐ 165 ☐ 166 ☐ 167 ☐ 168 ☐ 169 ☐ 170 ☐ 171 ☐ 172 ☐ 173 ☐ 174 ☐ 175 ☐ 176 ☐ 177 ☐ 178 ☐ 179 ☐ 180 ☐ 181 ☐ 182 ☐ 183 ☐ 184 ☐ 185 ☐ 186 ☐ 187 ☐ 188 ☐ 189 ☐ 190 ☐ 191 ☐ 192 ☐ 193 ☐ 194 ☐ 195 ☐ 196 ☐ 197 ☐ 198 ☐ 199 ☐ 200 ☐ 201 ☐ 202 ☐ 203 ☐ 204 ☐ 205 ☐ 206 ☐ 207 ☐ 208 ☐ 209 ☐ 210 ☐ 211 ☐ 212 ☐ 213 ☐ 214 ☐ 215 ☐ 216 ☐ 217 ☐ 218 ☐ 219 ☐ 220 ☐ 221 ☐ 222 ☐ 223 ☐ 224 ☐ 225 ☐ 226 ☐ 227 ☐ 228 ☐ 229 ☐ 230 ☐ 231 ☐ 232 ☐ 233 ☐ 234 ☐ 235 ☐ 236 ☐ 237 ☐ 238 ☐ 239 ☐ 240 ☐ 241 ☐ 242 ☐ 243 ☐ 244 ☐ 245 ☐ 246 ☐ 247 ☐ 248 ☐ 249 ☐ 250 ☐ 251 ☐ 252 ☐ 253 ☐ 254 ☐ 255 ☐ 256 ☐ 257 ☐ 258 ☐ 259 ☐ 260 ☐ 261 ☐ 262 ☐ 263 ☐ 264 ☐ 265 ☐ 266 ☐ 267 ☐ 268 ☐ 269 ☐ 270 ☐ 271 ☐ 272 ☐ 273 ☐ 274 ☐ 275 ☐ 276 ☐ 277 ☐ 278 ☐ 279 ☐ 280 ☐ 281 ☐ 282 ☐ 283 ☐ 284 ☐ 285 ☐ 286 ☐ 287 ☐ 288 ☐ 289 ☐ 290 ☐ 291 ☐ 292 ☐ 293 ☐ 294 ☐ 295 ☐ 296 ☐ 297 ☐ 298 ☐ 299 ☐ 300 ☐ 301 ☐ 302 ☐ 303 ☐ 304 ☐ 305 ☐ 306 ☐ 307 ☐ 308 ☐ 309 ☐ 310 ☐ 311 ☐ 312 ☐ 313 ☐ 314 ☐ 315 ☐ 316 ☐ 317 ☐ 318 ☐ 319 ☐ 320 ☐ 321 ☐ 322 ☐ 323 ☐ 324 ☐ 325 ☐ 326 ☐ 327 ☐ 328 ☐ 329 ☐ 330 ☐ 331 ☐ 332 ☐ 333 ☐ 334 ☐ 335 ☐ 336 ☐ 337 ☐ 338 ☐ 339 ☐ 340 ☐ 341 ☐ 342 ☐ 343 ☐ 344 ☐ 345 ☐ 346 ☐ 347 ☐ 348 ☐ 349 ☐ 350 ☐ 351 ☐ 352 ☐ 353 ☐ 354 ☐ 355 ☐ 356 ☐ 357 ☐ 358 ☐ 359 ☐ 360 ☐ 361 ☐ 362 ☐ 363 ☐ 364 ☐ 365 ☐ 366 ☐ 367 ☐ 368 ☐ 369 ☐ 370 ☐ 371 ☐ 372 ☐ 373 ☐ 374 ☐ 375 ☐ 376 ☐ 377 ☐ 378 ☐ 379 ☐ 380 ☐ 381 ☐ 382 ☐ 383 ☐ 384 ☐ 385 ☐ 386 ☐ 387 ☐ 388 ☐ 389 ☐ 390 ☐ 391 ☐ 392 ☐ 393 ☐ 394 ☐ 395 ☐ 396 ☐ 397 ☐ 398 ☐ 399 ☐ 400 ☐ 401 ☐ 402 ☐ 403 ☐ 404 ☐ 405 ☐ 406 ☐ 407 ☐ 408 ☐ 409 ☐ 410 ☐ 411 ☐ 412 ☐ 413 ☐ 414 ☐ 415 ☐ 416 ☐ 417 ☐ 418 ☐ 419 ☐ 420 ☐ 421 ☐ 422 ☐ 423 ☐ 424 ☐ 425 ☐ 426 ☐ 427 ☐ 428 ☐ 429 ☐ 430 ☐ 431 ☐ 432 ☐ 433 ☐ 434 ☐ 435 ☐ 436 ☐ 437 ☐ 438 ☐ 439 ☐ 440 ☐ 441 ☐ 442 ☐ 443 ☐ 444 ☐ 445 ☐ 446 ☐ 447 ☐ 448 ☐ 449 ☐ 450 ☐ 451 ☐ 452 ☐ 453 ☐ 454 ☐ 455 ☐ 456 ☐ 457 ☐ 458 ☐ 459 ☐ 460 ☐ 461 ☐ 462 ☐ 463 ☐ 464 ☐ 465 ☐ 466 ☐ 467 ☐ 468 ☐ 469 ☐ 470 ☐ 471 ☐ 472 ☐ 473 ☐ 474 ☐ 475 ☐ 476 ☐ 477 ☐ 478 ☐ 479 ☐ 480 ☐ 481 ☐ 482 ☐ 483 ☐ 484 ☐ 485 ☐ 486 ☐ 487 ☐ 488 ☐ 489 ☐ 490 ☐ 491 ☐ 492 ☐ 493 ☐ 494 ☐ 495 ☐ 496 ☐ 497 ☐ 498 ☐ 499 ☐ 500 ☐ 501 ☐ 502 ☐ 503 ☐ 504 ☐ 505 ☐ 506 ☐ 507 ☐ 508 ☐ 509 ☐ 510 ☐ 511 ☐ 512 ☐ 513 ☐ 514 ☐ 515 ☐ 516 ☐ 517 ☐ 518 ☐ 519 ☐ 520 ☐ 521 ☐ 522 ☐ 523 ☐ 524 ☐ 525 ☐ 526 ☐ 527 ☐ 528 ☐ 529 ☐ 530 ☐ 531 ☐ 532 ☐ 533 ☐ 534 ☐ 535 ☐ 536 ☐ 537 ☐ 538 ☐ 539 ☐ 540 ☐ 541 ☐ 542 ☐ 543 ☐ 544 ☐ 545 ☐ 546 ☐ 547 ☐ 548 ☐ 549 ☐ 550 ☐ 551 ☐ 552 ☐ 553 ☐ 554 ☐ 555 ☐ 556 ☐ 557 ☐ 558 ☐ 559 ☐ 560 ☐ 561 ☐ 562 ☐ 563 ☐ 564 ☐ 565 ☐ 566 ☐ 567 ☐ 568 ☐ 569 ☐ 570 ☐ 571 ☐ 572 ☐ 573 ☐ 574 ☐ 575 ☐ 576 ☐ 577 ☐ 578 ☐ 579 ☐ 580 ☐ 581 ☐ 582 ☐ 583 ☐ 584 ☐ 585 ☐ 586 ☐ 587 ☐ 588 ☐ 589 ☐ 590 ☐ 591 ☐ 592 ☐ 593 ☐ 594 ☐ 595 ☐ 596 ☐ 597 ☐ 598 ☐ 599 ☐ 600 ☐ 601 ☐ 602 ☐ 603 ☐ 604 ☐ 605 ☐ 606 ☐ 607 ☐ 608 ☐ 609 ☐ 610 ☐ 611 ☐ 612 ☐ 613 ☐ 614 ☐ 615 ☐ 616 ☐ 617 ☐ 618 ☐ 619 ☐ 620 ☐ 621 ☐ 622 ☐ 623 ☐ 624 ☐ 625 ☐ 626 ☐ 627 ☐ 628 ☐ 629 ☐ 630 ☐ 631 ☐ 632 ☐ 633 ☐ 634 ☐ 635 ☐ 636 ☐ 637 ☐ 638 ☐ 639 ☐ 640 ☐ 641 ☐ 642 ☐ 643 ☐ 644 ☐ 645 ☐ 646 ☐ 647 ☐ 648 ☐ 649 ☐ 650 ☐ 651 ☐ 652 ☐ 653 ☐ 654 ☐ 655 ☐ 656 ☐ 657 ☐ 658 ☐ 659 ☐ 660 ☐ 661 ☐ 662 ☐ 663 ☐ 664 ☐ 665 ☐ 666 ☐ 667 ☐ 668 ☐ 669 ☐ 670 ☐ 671 ☐ 672 ☐ 673 ☐ 674 ☐ 675 ☐ 676 ☐ 677 ☐ 678 ☐ 679 ☐ 680 ☐ 681 ☐ 682 ☐ 683 ☐ 684 ☐ 685 ☐ 686 ☐ 687 ☐ 688 ☐ 689 ☐ 690 ☐ 691 ☐ 692 ☐ 693 ☐ 694 ☐ 695 ☐ 696 ☐ 697 ☐ 698 ☐ 699 ☐ 700 ☐ 701 ☐ 702 ☐ 703 ☐ 704 ☐ 705 ☐ 706 ☐ 707 ☐ 708 ☐ 709 ☐ 710 ☐ 711 ☐ 712 ☐ 713 ☐ 714 ☐ 715 ☐ 716 ☐ 717 ☐ 718 ☐ 719 ☐ 720 ☐ 721 ☐ 722 ☐ 723 ☐ 724 ☐ 725 ☐ 726 ☐ 727 ☐ 728 ☐ 729 ☐ 730 ☐ 731 ☐ 732 ☐ 733 ☐ 734 ☐ 735 ☐ 736 ☐ 737 ☐ 738 ☐ 739 ☐ 740 ☐ 741 ☐ 742 ☐ 743 ☐ 744 ☐ 745 ☐ 746 ☐ 747 ☐ 748 ☐ 749 ☐ 750 ☐ 751 ☐ 752 ☐ 753 ☐ 754 ☐ 755 ☐ 756 ☐ 757 ☐ 758 ☐ 759 ☐ 760 ☐ 761 ☐ 762 ☐ 763 ☐ 764 ☐ 765 ☐ 766 ☐ 767 ☐ 768 ☐ 769 ☐ 770 ☐ 771 ☐ 772 ☐ 773 ☐ 774 ☐ 775 ☐ 776 ☐ 777 ☐ 778 ☐ 779 ☐ 780 ☐ 781 ☐ 782 ☐ 783 ☐ 784 ☐ 785 ☐ 786 ☐ 787 ☐ 788 ☐ 789 ☐ 790 ☐ 791 ☐ 792 ☐ 793 ☐ 794 ☐ 795 ☐ 796 ☐ 797 ☐ 798 ☐ 799 ☐ 800 ☐ 801 ☐ 802 ☐ 803 ☐ 804 ☐ 805 ☐ 806 ☐ 807 ☐ 808 ☐ 809 ☐ 810 ☐ 811 ☐ 812 ☐ 813 ☐ 814 ☐ 815 ☐ 816 ☐ 817 ☐ 818 ☐ 819 ☐ 820 ☐ 821 ☐ 822 ☐ 823 ☐ 824 ☐ 825 ☐ 826 ☐ 827 ☐ 828 ☐ 829 ☐ 830 ☐ 831 ☐ 832 ☐ 833 ☐ 834 ☐ 835 ☐ 836 ☐ 837 ☐ 838 ☐ 839 ☐ 840 ☐ 841 ☐ 842 ☐ 843 ☐ 844 ☐ 845 ☐ 846 ☐ 847 ☐ 848 ☐ 849 ☐ 850 ☐ 851 ☐ 852 ☐ 853 ☐ 854 ☐ 855 ☐ 856 ☐ 857 ☐ 858 ☐ 859 ☐ 860 ☐ 861 ☐ 862 ☐ 863 ☐ 864 ☐ 865 ☐ 866 ☐ 867 ☐ 868 ☐ 869 ☐ 870 ☐ 871 ☐ 872 ☐ 873 ☐ 874 ☐ 875 ☐ 876 ☐ 877 ☐ 878 ☐ 879 ☐ 880 ☐ 881 ☐ 882 ☐ 883 ☐ 884 ☐ 885 ☐ 886 ☐ 887 ☐ 888 ☐ 889 ☐ 890 ☐ 891 ☐ 892 ☐ 893 ☐ 894 ☐ 895 ☐ 896 ☐ 897 ☐ 898 ☐ 899 ☐ 900 ☐ 901 ☐ 902 ☐ 903 ☐ 904 ☐ 905 ☐ 906 ☐ 907 ☐ 908 ☐ 909 ☐ 910 ☐ 911 ☐ 912 ☐ 913 ☐ 914 ☐ 915 ☐ 916 ☐ 917 ☐ 918 ☐ 919 ☐ 920 ☐ 921 ☐ 922 ☐ 923 ☐ 924 ☐ 925 ☐ 926 ☐ 927 ☐ 928 ☐ 929 ☐ 930 ☐ 931 ☐ 932 ☐ 933 ☐ 934 ☐ 935 ☐ 936 ☐ 937 ☐ 938 ☐ 939 ☐ 940 ☐ 941 ☐ 942 ☐ 943 ☐ 944 ☐ 945 ☐ 946 ☐ 947 ☐ 948 ☐ 949 ☐ 950 ☐ 951 ☐ 952 ☐ 953 ☐ 954 ☐ 955 ☐ 956 ☐ 957 ☐ 958 ☐ 959 ☐ 960 ☐ 961 ☐ 962 ☐ 963 ☐ 964 ☐ 965 ☐ 966 ☐ 967 ☐ 968 ☐ 969 ☐ 970 ☐ 971 ☐ 972 ☐ 973 ☐ 974 ☐ 975 ☐ 976 ☐ 977 ☐ 978 ☐ 979 ☐ 980 ☐ 981 ☐ 982 ☐ 983 ☐ 984 ☐ 985 ☐ 986 ☐ 987 ☐ 988 ☐ 989 ☐ 990 ☐ 991 ☐ 992 ☐ 993 ☐ 994 ☐ 995 ☐ 996 ☐ 997 ☐ 998 ☐ 999 ☐ 1000 ☐ 1001 ☐ 1002 ☐ 1003 ☐ 1004 ☐ 1005 ☐ 1006 ☐ 1007 ☐ 1008 ☐ 1009 ☐ 1010 ☐ 1011 ☐ 1012 ☐ 1013 ☐ 1014 ☐ 1015 ☐ 1016 ☐ 1017 ☐ 1018 ☐ 1019 ☐ 1020 ☐ 1021 ☐ 1022 ☐ 1023 ☐ 1024 ☐ 1025 ☐ 1026 ☐ 1027 ☐ 1028 ☐ 1029 ☐ 1030 ☐ 1031 ☐ 1032 ☐ 1033 ☐ 1034 ☐ 1035 ☐ 1036 ☐ 1037 ☐ 1038 ☐ 1039 ☐ 1040 ☐ 1041 ☐ 1042 ☐ 1043 ☐ 1044 ☐ 1045 ☐ 1046 ☐ 1047 ☐ 1048 ☐ 1049 ☐ 1050 ☐ 1051 ☐ 1052 ☐ 1053 ☐ 1054 ☐ 1055 ☐ 1056 ☐ 1057 ☐ 1058 ☐ 1059 ☐ 1060 ☐ 1061 ☐ 1062 ☐ 1063 ☐ 1064 ☐ 1065 ☐ 1066 ☐ 1067 ☐ 1068 ☐ 1069 ☐ 1070 ☐ 1071 ☐ 1072 ☐ 1073 ☐ 1074 ☐ 1075 ☐ 1076 ☐ 1077 ☐ 1078 ☐ 1079 ☐ 1080 ☐ 1081 ☐ 1082 ☐ 1083 ☐ 1084 ☐ 1085 ☐ 1086 ☐ 1087 ☐ 1088 ☐ 1089 ☐ 1090 ☐ 1091 ☐ 1092 ☐ 1093 ☐ 1094 ☐ 1095 ☐ 1096 ☐ 1097 ☐ 1098 ☐ 1099 ☐ 1100 ☐ 1101 ☐ 1102 ☐ 1103 ☐ 1104 ☐ 1105 ☐ 1106 ☐ 1107 ☐ 1108 ☐ 1109 ☐ 1110 ☐ 1111 ☐ 1112 ☐ 1113 ☐ 1114 ☐ 1115 ☐ 1116 ☐ 1117 ☐ 1118 ☐ 1119 ☐ 1120 ☐ 1121 ☐ 1122 ☐ 1123 ☐ 1124 ☐ 1125 ☐ 1126 ☐ 1127 ☐ 1128 ☐ 1129 ☐ 1130 ☐ 1131 ☐ 1132 ☐ 1133 ☐ 1134 ☐ 1135 ☐ 1136 ☐ 1137 ☐ 1138 ☐ 1139 ☐ 1140 ☐ 1141 ☐ 1142 ☐ 1143 ☐ 1144 ☐ 1145 ☐ 1146 ☐ 1147 ☐ 1148 ☐ 1149 ☐ 1150 ☐ 1151 ☐ 1152 ☐ 1153 ☐ 1154 ☐ 1155 ☐ 1156 ☐ 1157 ☐ 1158 ☐ 1159 ☐ 1160 ☐ 1161 ☐ 1162 ☐ 1163 ☐ 1164 ☐ 1165 ☐ 1166 ☐ 1167 ☐ 1168 ☐ 1169 ☐ 1170 ☐ 1171 ☐ 1172 ☐ 1173 ☐ 1174 ☐ 1175 ☐ 1176 ☐ 1177 ☐ 1178 ☐ 1179 ☐ 1180 ☐ 1181 ☐ 1182 ☐ 1183 ☐ 1184 ☐ 1185 ☐ 1186 ☐ 1187		



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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

(509) 244-9200 FAX 906-9210
(503) 906-9200 FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #

38101541

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry Lomberg			Organic & Inorganic Analysis		
ADDRESS: 600 Stewart St, Ste 1215			ADDRESS: PSE - P.O. Box 97034 - MER-0			7 5 4 2 1		
Seattle WA, 98101			Bellevue, WA 98007			Fuels & Hydrocarbon Analysis		
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			3 2 1		
PROJECT NAME: Grady Way			Analysis Request:			OTHER Specify:		
PROJECT NUMBER: 186-407-00			NCA QUOTE #:			To 10/6/98		
SAMPLED BY: Tony Orme			Analysis Request:			* Turnaround Requests less than standard may incur Rush Charges.		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
SP1-1-3.0	10/5/98	3810154-01				S	1	Hold
SP1-2-2.0	10/5/98	-02				S	1	Hold
SP1-4-11.0	10/5/98	-03				S	1	Hold
SP2-1-5.0	10/5/98	-04				S	1	Hold
SP2-2-5.0	10/5/98	-05				S	1	Hold
SP7-3-10	10/5/98	-06	X X			S	1	Hold
SP7-4-11.5	10/5/98	-07				S	1	Hold
SP8-1-2.0	10/5/98	-08				S	1	Hold
SP8-2-5.0	10/5/98	-09				S	1	Hold
SP8-3-7.0	10/5/98	-10	X X			S	1	Hold
RELINQUISHED BY: Tony Orme			DATE: 10/6/98			RECEIVED BY: D. HEINE		
PRINT NAME: Tony Orme			FIRM: CEF			FIRM: NCA B		
RELINQUISHED BY: Tony Orme			DATE: 10/6/98			DATE: 10/6/98		
PRINT NAME: Tony Orme			FIRM: CEF			FIRM: NCA B		
ADDITIONAL REMARKS:			PCB - 3day Turn Dx 2day Turn - H-TT test sample will be resubmitted For PAH by 8270					



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(425) 420-9200 FAX 420-9210
(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210

X

CHAIN OF CUSTODY REPORT

Work Order #

B810154

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			☒ 10 Standard		
ADDRESS: 600 Stewart St Ste 1215			ADDRESS: RSE - P.O. Box 97034 - MER-01			☐ 7 Standard		
Seattle WA, 98101			Bellevue, WA 98007			☐ 5 Standard		
PHONE: (206) 728-2674 FAX: (206) -728-2732			P.O. NUMBER:			☐ 4 Standard		
PROJECT NAME: Grady Way			Analysis Request:			☐ 3 Standard		
PROJECT NUMBER: 186-407-00			PAHs by 8270 PCBs by 8282 HWTPh Dx			☒ 2 Standard		
SAMPLED BY: Tony Orme						OTHER Specify:		
CLIENT SAMPLE IDENTIFICATION			SAMPLING DATE/TIME			NCA SAMPLE ID (Laboratory Use Only)		
SP9-1-3.0			10/1/98 945			-11		
SP9-2-5.0			10/1/98 935			-12		
SP9-4-11.0			10/2/98 905			-13		
SP10-1-3.0			945			-14		
SP10-2-6.0			925			-15		
SP10-3-8.0			1000			-16		
SP10-4-11			1005			-17		
SP11-1-3.0			1030			-18		
SP11-2-5.0			1035			-19		
SP11-3-8.0			1040			-20		
RELINQUISHED BY: [Signature]			DATE: 10/6/98			RECEIVED BY: [Signature]		
PRINT NAME: Tony Orme			FIRM: GET			PRINT NAME: D. HEINE		
RELINQUISHED BY: [Signature]			DATE:			RECEIVED BY: [Signature]		
PRINT NAME:			FIRM:			PRINT NAME:		
ADDITIONAL REMARKS:						PAGE 2 OF 3		

PAGE 7 OF 7



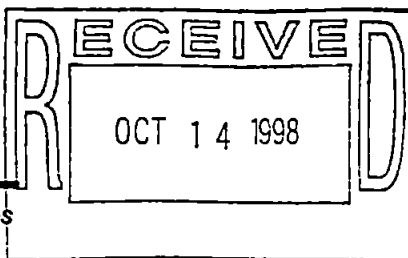
CHAIN OF CUSTODY REPORT

Work Order # **B810154**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * ☒ 7 Standard ☐ 5 Organic & Inorganic Analyses ☐ 4 3 ☐ 3 2 ☐ 2 1 ☐ Same Day ☒ 3-4 Fuels & Hydrocarbon Analysis ☐ 2 1 ☐ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.		
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lomberg</u>					
ADDRESS: <u>600 Stewart St. Ste 1215</u>			ADDRESS: <u>RSE - P.O. Box 97034 - MER-01</u>					
<u>Seattle WA, 98101</u>			<u>Bellevue, WA 98007</u>					
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____					
PROJECT NAME: <u>Grady Way</u>			<u>PAHs by 8/2/90</u> <u>PCB by 8/2/90</u> <u>MWTPH DA</u>					
PROJECT NUMBER: <u>186-407-00</u>								
SAMPLED BY: <u>Tony Orme</u>								
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. <u>SP11-1-12</u>	<u>10/13/98 10:20</u>	<u>- 21</u>				<u>S</u>	<u>1</u>	<u>Hold</u>
2. <u>11-1-3.0</u>	<u>10/15</u>	<u>- 22</u>				<u>S</u>	<u>1</u>	<u>Hold</u>
3. <u>SP11-2-5.0</u>	<u>11:20</u>	<u>- 23</u>				<u>S</u>	<u>1</u>	<u>Hold</u>
4. <u>SP12-3-8.0</u>		<u>- 24</u>		<u>XX</u>		<u>S</u>	<u>1</u>	
5. <u>SP12-4.0</u>		<u>- 25</u>				<u>S</u>	<u>1</u>	
6. <u>SP11-4-11.0</u>	<u>10/6 1045</u>	<u>- 26</u>						<u>Hold (K10)</u>
<u>No + on original Chain</u>								
RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>10/6/98</u>			RECEIVED BY (Signature): <u>[Signature]</u>		
PRINT NAME: <u>Tony Orme</u> FIRM: <u>GEI</u> TIME: <u>1800</u>						PRINT NAME: <u>D. HEINRICH</u> FIRM: <u>NCAB</u> TIME: <u>1800</u>		
RELINQUISHED BY (Signature): _____			DATE: _____			RECEIVED BY (Signature): _____		
PRINT NAME: _____ FIRM: _____ TIME: _____						PRINT NAME: _____ FIRM: _____ TIME: _____		
ADDITIONAL REMARKS:								



**NORTH
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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E10-9-2.5	B810158-01	Soil	10/6/98
E10-10-2.5	B810158-02	Soil	10/6/98
E10-11-2.5	B810158-03	Soil	10/6/98
E10-12-2.5	B810158-04	Soil	10/6/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Steve Davis, Project Manager

C - 344

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6105 S.W. Nicholas Avenue, Bend, OR 97703-7122

Page 1 of 1



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E10-10-2.5</u>				<u>B810158-02</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080181	10/6/98	10/7/98		50.0	2250	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		125	182	"	
Surrogate: 2-FBP	"	"	"	50.0-150		67.2	%	
<u>E10-12-2.5</u>				<u>B810158-04</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080181	10/6/98	10/7/98		10.0	358	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	182	"	
Surrogate: 2-FBP	"	"	"	50.0-150		108	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-345

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/11/98 11:28

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E10-9-2.5</u>				<u>B810158-01</u>		<u>Soil</u>		
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		77.2	%	
<u>E10-10-2.5</u>				<u>B810158-02</u>		<u>Soil</u>		
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	74.6	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	54.7	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		69.1	%	
<u>E10-11-2.5</u>				<u>B810158-03</u>		<u>Soil</u>		
Aroclor 1016	1080203	10/7/98	10/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		73.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-9-2.5				B810158-01		Soil		
Acenaphthene	1080228	10/7/98	10/7/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		83.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		55.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		99.3	"	
E10-10-2.5				B810158-02		Soil		
Acenaphthene	1080228	10/7/98	10/7/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	ND	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	ND	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		96.8	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/6/98 Received: 10/6/98 Reported: 10/11/98 11:28

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-11-2.5 (continued)				B810158-02			Soil	
Surrogate: Nitrobenzene-d5	1080228	10/7/98	10/7/98	30.0-150		56.7	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		76.5	"	
E10-11-2.5				B810158-03			Soil	
Acenaphthene	1080228	10/7/98	10/7/98		0.200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.200	ND	"	
Anthracene	"	"	"		0.200	ND	"	
Benzo (a) anthracene	"	"	"		0.200	ND	"	
Benzo (a) pyrene	"	"	"		0.200	ND	"	
Benzo (b) fluoranthene	"	"	"		0.200	ND	"	
Benzo (ghi) perylene	"	"	"		0.200	ND	"	
Benzo (k) fluoranthene	"	"	"		0.200	ND	"	
Chrysene	"	"	"		0.200	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.200	ND	"	
Fluorene	"	"	"		0.200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.200	ND	"	
Naphthalene	"	"	"		0.200	ND	"	
Phenanthrene	"	"	"		0.200	ND	"	
Pyrene	"	"	"		0.200	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		94.6	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		51.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		103	"	



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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E10-9-2.5	B810158-01	Soil	58.2	%
E10-10-2.5	B810158-02	Soil	89.3	%
E10-11-2.5	B810158-03	Soil	90.5	%
E10-12-2.5	B810158-04	Soil	91.7	%

North Creek Analytical - Bothell

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Steve Davis, Project Manager



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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/11/98 11:28

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080181		Date Prepared: 10/6/98		Extraction Method: EPA 3550B						
Blank		1080181-BLK1								
Diesel Range Hydrocarbons	10/7/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		7.83	"	50.0-150	73.2			
LCS		1080181-BS1								
Diesel Range Hydrocarbons	10/7/98	66.7		59.1	mg/kg dry	60.0-140	88.6			
Surrogate: 2-FBP	"	10.7		8.37	"	50.0-150	78.2			
Duplicate		1080181-DUP1		B810158-04						
Diesel Range Hydrocarbons	10/7/98		358	220	mg/kg dry			50.0	47.8	
Lube Oil Range Hydrocarbons	"		182	105	"			50.0	53.7	
Surrogate: 2-FBP	"	11.7		8.87	"	50.0-150	75.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/6/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/6/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/11/98 11:28

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 1080203</u>		<u>Date Prepared: 10/7/98</u>			<u>Extraction Method: EPA 3550B</u>					
<u>Blank</u>		<u>1080203-BLK1</u>								
Aroclor 1016	10/7/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.71	"	40.0-130	116			
<u>LCS</u>		<u>1080203-BS1</u>								
Aroclor 1260	10/7/98	333		252	ug/kg dry	44.0-123	75.7			
Surrogate: TCX	"	6.67		7.97	"	40.0-130	119			
<u>Matrix Spike</u>		<u>1080203-MS1</u>		<u>B810026-20</u>						
Aroclor 1260	10/7/98	371	ND	342	ug/kg dry	28.0-132	92.2			
Surrogate: TCX	"	7.43		7.59	"	40.0-130	102			
<u>Matrix Spike Dup</u>		<u>1080203-MSD1</u>		<u>B810026-20</u>						
Aroclor 1260	10/7/98	371	ND	325	ug/kg dry	28.0-132	87.6	23.0	5.12	
Surrogate: TCX	"	7.43		7.48	"	40.0-130	101			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recover. Limits	Recover. %	RPD Limit	RPD %	Notes*
Batch: 1080228										
Blank										
Date Prepared: 10/7/98										
Extraction Method: EPA 3550B										
1080228-BLK1										
Acenaphthene	10/7/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.28	"	30.0-150	76.6			
Surrogate: Nitrobenzene-d5	"	1.67		1.10	"	30.0-150	65.9			
Surrogate: p-Terphenyl-d14	"	1.67		1.45	"	30.0-150	86.8			
LCS										
1080228-BS1										
Chrysene	10/7/98	0.333		0.189	mg/kg dry	10.0-125	56.8			
Fluorene	"	0.333		0.212	"	11.0-116	63.7			
Indeno (1,2,3-cd) pyrene	"	0.333		0.235	"	10.0-147	70.6			
Surrogate: 2-FBP	"	1.67		1.40	"	30.0-150	83.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.08	"	30.0-150	64.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.35	"	30.0-150	80.8			
Matrix Spike										
1080228-MS1 B810158-02										
Chrysene	10/8/98	0.373	ND	0.209	mg/kg dry	10.0-125	56.0			
Fluorene	"	0.373	ND	0.194	"	10.0-154	52.0			
Indeno (1,2,3-cd) pyrene	"	0.373	ND	0.273	"	10.0-144	73.2			
Surrogate: 2-FBP	"	1.87		1.80	"	30.0-150	96.3			
Surrogate: Nitrobenzene-d5	"	1.87		1.12	"	30.0-150	59.9			
Surrogate: p-Terphenyl-d14	"	1.87		1.35	"	30.0-150	72.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/6/98
Received: 10/6/98
Reported: 10/11/98 11:28

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	1080228-MSD1	B810158-02								
Chrysene	10/8/98	0.373	ND	0.224	mg/kg dry	10.0-125	60.1	28.0	7.06	
Fluorene	"	0.373	ND	0.190	"	10.0-154	50.9	32.0	2.14	
Indeno (1,2,3-cd) pyrene	"	0.373	ND	0.254	"	10.0-144	68.1	47.0	7.22	
Surrogate: 2-FBP	"	1.87		1.77	"	30.0-150	94.7			
Surrogate: Nitrobenzene-d5	"	1.87		1.01	"	30.0-150	54.0			
Surrogate: p-Terphenyl-d14	"	1.87		1.47	"	30.0-150	78.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/6/98 Received: 10/6/98 Reported: 10/11/98 11:28

Notes and Definitions

#	Note
1	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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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Quantitation Report

Data File : C:\HPCHEM\3\DATA\J07016.D

Acq On : 7 Oct 1998 1:36 pm

Sample : b810158-02 r1

Misc : 5x s

IntFile : SURR.E

Quant Time: Oct 7 15:16 1998 Quant Results File: TPHD.RES

Vial: 20

Operator: krl

Inst : GC #5

Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Mon Sep 28 16:20:24 1998

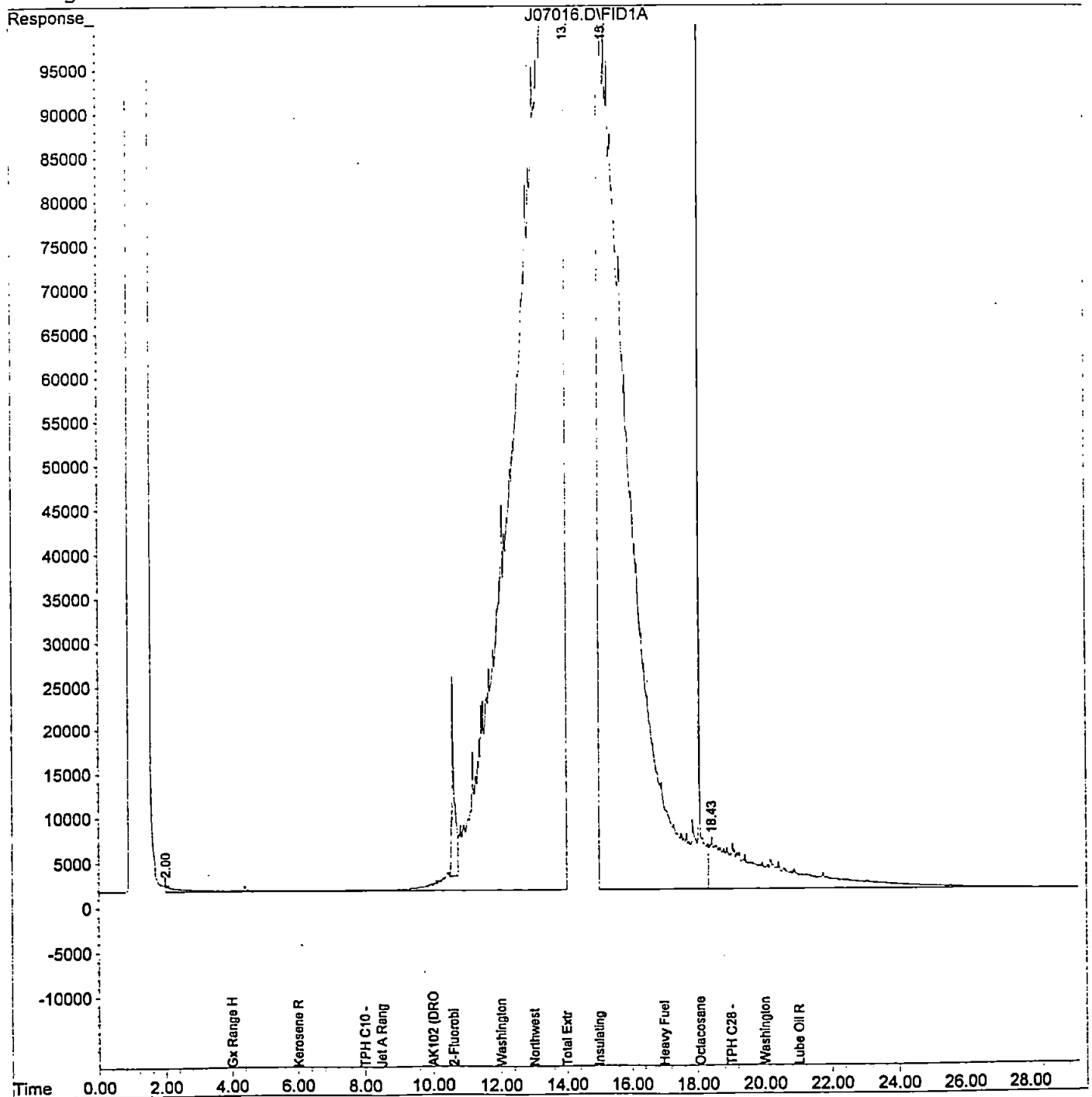
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

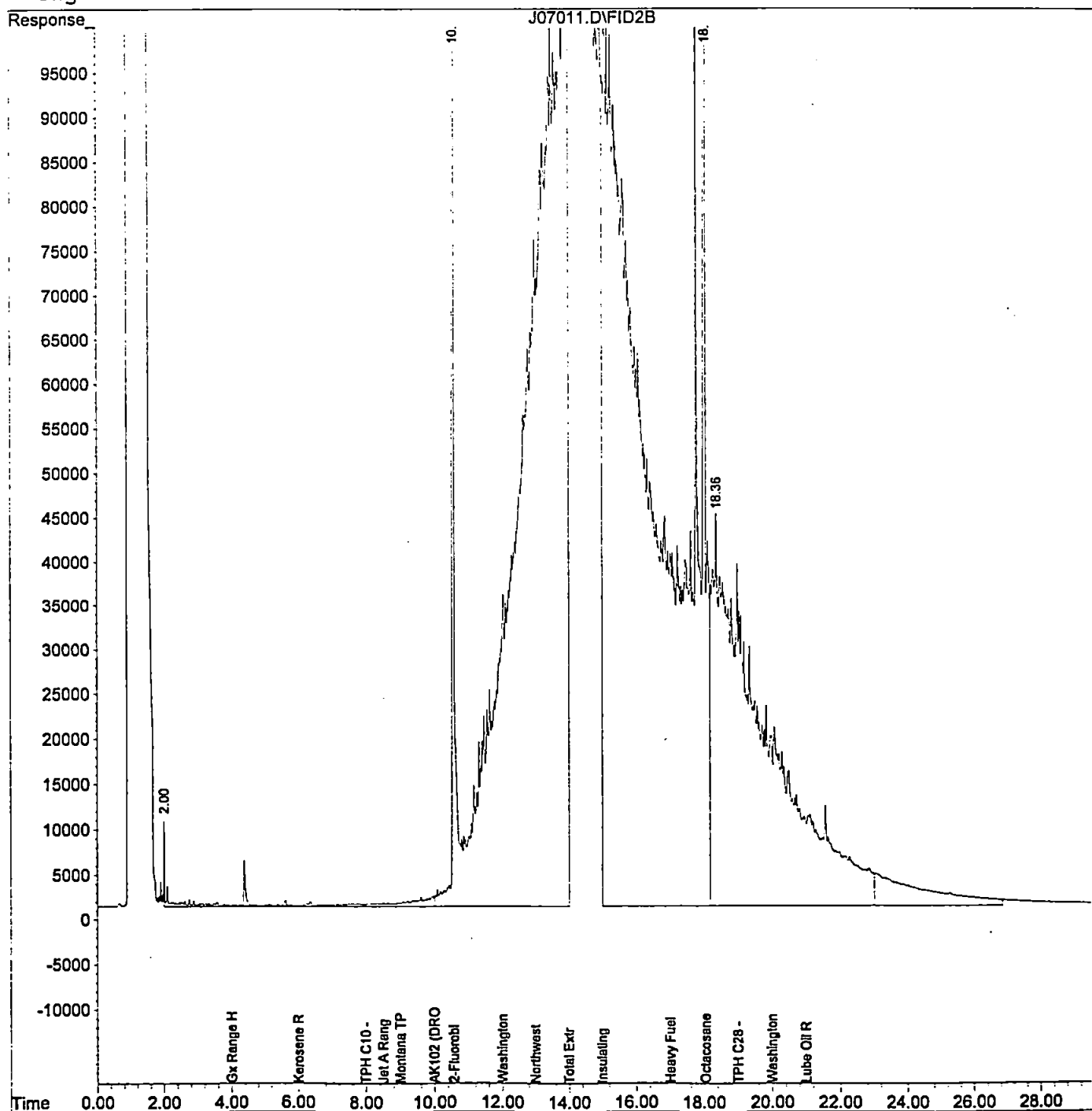
Data File : C:\HPCHEM\3\DATA.SEC\J07011.D
 Acq On : 7 Oct 1998 12:15 pm
 Sample : b810158-04
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 7 13:01 1998

Vial: 8
 Operator: krl
 Inst : GC #5
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\3\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Wed Sep 30 16:23:35 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





CREEK ANALYTICAL
Environmental Laboratory Services

19 12 1991
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

(509) 924-7200
(503) 906-9200
(509) 924-9270
FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #

3810158

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry LomLard			Organic & Inorganic Analyses		
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: PSE - P.O. Box 97034-MER-01			10 7 5 4 3 2 ☒ Same Day		
Seattle WA, 98101			Bellevue, WA 98009			Fuels & Hydrocarbon Analyses		
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			5 4 2 ☒ Same Day		
PROJECT NAME: Grady Way			NCA QUOTE #:			OTHER Specify:		
PROJECT NUMBER: 186-407-00			Analysis Request:			* Turnaround Requests less than standard may incur Rush Charges.		
SAMPLED BY: Tony Orme			Analysis Request:			MATRIX (W, S, A, O)		
CLIENT SAMPLE IDENTIFICATION			SAMPLING DATE/TIME			# OF CONTAINERS		
NCA SAMPLE ID (Laboratory Use Only)						COMMENTS		
1. E10-9-2.5			10/6/98, 1400			B810158-01		
2. E10-10-2.5			10/6/98, 1420			02		
3. E10-11-2.5			10/6/98, 1445			03		
4. E10-12-2.5			10/6/98, 1445			04		
5.						0		
6.								
7.								
8.								
9.								
10.								
RELINQUISHED BY (Signature):			DATE: 10/6/98			RECEIVED BY (Signature): Dana		
PRINT NAME: Tony Orme			FIRM: CEI			TIME: 1800		
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature): D. HEINE		
PRINT NAME:			FIRM:			TIME: 1802		
ADDITIONAL REMARKS:						PAGE 1 OF 1		



GeoEngineers

Quanterra Incorporated
880 Riverside Parkway
West Sacramento, California 95605

916 373-5600 Telephone
916 372-1059 Fax

10/30/98
Sew

October 30, 1998

QUANTERRA INCORPORATED PROJECT NUMBER: 301999

Steve C. Woodward
Geo Engineers
8410 154th Avenue NE
Redmond, WA 98052

Dear Mr. Woodward:

This report contains the analytical results for the two soil samples which were received under chain of custody by Quanterra Incorporated on 08 October 1998. This sample set is associated with your "PSE Grady Way Complex" project.

The case narrative is an integral part of this report.

If you have any questions, please feel free to call.

Sincerely,

Terry A. Wilson
for

Terry A. Wilson
Project Manager
Advanced Technology

TW/ne

TABLE OF CONTENTS

QUANTERRA INCORPORATED PROJECT NUMBER 301999

Case Narrative

Quanterra's Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

Polychlorinated Dioxins/Furans - Method 8290

Includes Sample(s): 1 and 2

Method Blank Sheets

Sample Data Sheets

Laboratory Control Sample

CASE NARRATIVE

QUANTERRA INCORPORATED PROJECT NUMBER 301999

Your samples were received at sixteen degrees Celsius.

Detection limits for dioxins and furans are reported on a sample specific basis and all results are recovery corrected per the isotope dilution technique.

Please note that the recovery exceeded the established control limits for three analytes in the laboratory control sample associated with your samples. As the samples were 'ND' for these analytes, data quality is not adversely affected.

There were no other anomalies associated with this report.

QUANTERRA INCORPORATED QUALITY CONTROL PROGRAM

Quanterra has implemented an extensive Quality Control (QC) program to ensure the production of scientifically sound, legally defensible data of known documentable quality. This QC program is based upon requirements in "Test Methods for Evaluating Solid Waste", USEPA SW-846, Third Edition. It applies whenever SW-846 analytical methods are used. It also applies in whole or in part whenever project requirements fail to specify some aspect of QC practices described here. It does not apply when other well defined QC programs (e.g. CLP or CLP-like) are specified. This is Quanterra's base QC program for environmental analysis.

Definitions:

Quality Control Batch. The quality control (QC) batch is a set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.

Surrogate. A surrogate (or internal standard) is an organic compound similar in chemical behavior to the target analyte, but not normally found in environmental samples. Surrogates (or IS) are added to all samples in a batch to monitor the effects of both the matrix and the analytical process on accuracy.

Method Blank. A method blank (MB) is a control sample prepared using the same reagents used for the samples. As part of the QC batch, it accompanies the samples through all steps of the sample extraction and cleanup procedure. The method blank is used to monitor the level of contamination introduced to a batch of samples as a result of processing in the laboratory.

Laboratory Control Sample. A laboratory control sample (LCS) is prepared using a well characterized matrix (e.g., reagent water or Ottawa sand) that is spiked with known amounts of representative analytes. Alternate matrices (e.g., glass beads) may be used for soil analyses when Ottawa sand is not appropriate. As part of a QC batch, it accompanies the samples through all steps of the sample extraction and cleanup process. The LCS is used to monitor the accuracy of the analytical process independent of possible interference effects due to sample matrix.

Duplicate Control Sample. A duplicate laboratory control sample (DCS) consists of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects.

SAMPLE DESCRIPTION INFORMATION
for
Geo Engineers

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
301999-0001-MB	Method Blank	SOLID			08 OCT 98
301999-0001-SA	SP9-3-8.0	SOIL	06 OCT 98	09:00	08 OCT 98
301999-0002-SA	SP6-3-8.0	SOIL	05 OCT 98	14:50	08 OCT 98



POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Geo Engineers
Client ID: SP9-3-8.0
Lab ID: 301999-0001-SA
Matrix: SOIL
Authorized: 08 OCT 98

Sampled: 06 OCT 98
Prepared: 26 OCT 98

Received: 08 OCT 98
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

Parameter	Result	Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.31	
2,3,7,8-TCDF	ND	pg/g	0.31	
PeCDFs (total)	ND	pg/g	0.86	
1,2,3,7,8-PeCDF	ND	pg/g	0.78	
2,3,4,7,8-PeCDF	ND	pg/g	0.86	
HxCDFs (total)	ND	pg/g	0.71	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.58	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.58	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.68	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.71	
HpCDFs (total)	ND	pg/g	1.9	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.93	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.28	
OCDF	ND	pg/g	3.0	
Dioxins				
TCDDs (total)	ND	pg/g	0.48	
2,3,7,8-TCDD	ND	pg/g	0.48	
PeCDDs (total)	ND	pg/g	2.2	
1,2,3,7,8-PeCDD	ND	pg/g	0.72	
HxCDDs (total)	ND	pg/g	0.71	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.69	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.66	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.71	
HpCDDs (total)	7.7	pg/g	--	
1,2,3,4,6,7,8-HpCDD	4.6	pg/g	--	j
OCDD	33	pg/g	--	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Eric Redman

The cover letter is an integral part of this report.
Rev 230787



POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Geo Engineers
Client ID: SP9-3-8.0
Lab ID: 301999-0001-SA
Matrix: SOIL
Authorized: 08 OCT 98

Sampled: 06 OCT 98
Prepared: 26 OCT 98

Received: 08 OCT 98
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

% Recovery

13C-2,3,7,8-TCDF	79
13C-2,3,7,8-TCDD	75
13C-1,2,3,7,8-PeCDF	83
13C-1,2,3,7,8-PeCDD	84
13C-1,2,3,4,7,8-HxCDF	75
13C-1,2,3,6,7,8-HxCDD	72
13C-1,2,3,4,6,7,8-HpCDF	81
13C-1,2,3,4,6,7,8-HpCDD	84
13C-OCDD	77

Note j : Result is an estimated value that is below the lower calibration limit but above the target detection limit.

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Eric Redman

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Geo Engineers
Client ID: SP6-3-8.0
Lab ID: 301999-0002-SA
Matrix: SOIL
Authorized: 08 OCT 98

Sampled: 05 OCT 98
Prepared: 26 OCT 98

Received: 08 OCT 98
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

Parameter	Result	Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.33	
2,3,7,8-TCDF	ND	pg/g	0.33	
PeCDFs (total)	ND	pg/g	1.5	
1,2,3,7,8-PeCDF	ND	pg/g	1.3	
2,3,4,7,8-PeCDF	ND	pg/g	1.5	
HxCDFs (total)	ND	pg/g	0.32	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.26	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.26	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.30	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.32	
HpCDFs (total)	ND	pg/g	1.4	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.95	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	1.4	
OCDF	ND	pg/g	0.42	
Dioxins				
TCDDs (total)	ND	pg/g	0.33	
2,3,7,8-TCDD	ND	pg/g	0.33	
PeCDDs (total)	ND	pg/g	2.5	
1,2,3,7,8-PeCDD	ND	pg/g	0.89	
HxCDDs (total)	ND	pg/g	0.47	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.46	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.44	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.47	
HpCDDs (total)	ND	pg/g	0.82	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.82	
OCDD	ND	pg/g	0.70	

(continued on following page)

ND = Not detected
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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Geo Engineers
Client ID: SP6-3-8.0
Lab ID: 301999-0002-SA
Matrix: SOIL
Authorized: 08 OCT 98

Sampled: 05 OCT 98
Prepared: 26 OCT 98

Received: 08 OCT 98
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

	% Recovery
13C-2,3,7,8-TCDF	71
13C-2,3,7,8-TCDD	73
13C-1,2,3,7,8-PeCDF	57
13C-1,2,3,7,8-PeCDD	74
13C-1,2,3,4,7,8-HxCDF	68
13C-1,2,3,6,7,8-HxCDD	67
13C-1,2,3,4,6,7,8-HpCDF	68
13C-1,2,3,4,6,7,8-HpCDD	73
13C-OCDD	68

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Eric Redman

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LABORATORY CONTROL SAMPLE REPORT
Advanced Technology Group - High Resolution
Project: 301999

Category: 8290-HR-S C14-C18 D/F plus 2378-substituted isomers by Method 8290
Test: 8290-SW-S
Matrix: SOLID
QC Lot: 26 OCT 98-A
Concentration Units: pg/g

QC Run: 28 OCT 98-D

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	LCS	Limits
2,3,7,8-TCDF	20.0	26.4	132	48-152
1,2,3,7,8-PeCDF	100	131	131	44-158
2,3,4,7,8-PeCDF	100	120	120	43-162
1,2,3,4,7,8-HxCDF	100	130	130	56-141
1,2,3,6,7,8-HxCDF	100	119	119	49-137
2,3,4,6,7,8-HxCDF	100	133	133	60-120 #
1,2,3,7,8,9-HxCDF	100	118	118	63-123
1,2,3,4,6,7,8-HpCDF	100	133	133	42-155
1,2,3,4,7,8,9-HpCDF	100	142	142	70-130 #
OCDF	200	247	124	26-169
2,3,7,8-TCDD	20.0	22.1	110	49-150
1,2,3,7,8-PeCDD	100	129	129	54-147
1,2,3,4,7,8-HxCDD	100	136	136	75-135 #
1,2,3,6,7,8-HxCDD	100	117	117	70-130
1,2,3,7,8,9-HxCDD	100	147	147	44-168
1,2,3,4,6,7,8-HpCDD	100	129	129	50-146
OCDD	200	243	122	52-146
13C-2,3,7,8-TCDF	200	149	75	40-135
13C-2,3,7,8-TCDD	200	154	77	40-135
13C-1,2,3,7,8-PeCDF	200	183	92	40-135
13C-1,2,3,7,8-PeCDD	200	176	88	40-135
13C-1,2,3,4,7,8-HxCDF	200	139	70	40-135
13C-1,2,3,6,7,8-HxCDD	200	130	65	40-135
13C-1,2,3,4,6,7,8-HpCDF	200	169	85	40-135
13C-1,2,3,4,6,7,8-HpCDD	200	164	82	40-135
13C-OCDD	400	337	84	40-135

= Outside of control limits.

Calculations are performed before rounding to avoid round-off errors in calculated results.



POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS
Method 8290

Client Name: Geo Engineers
Client ID: Method Blank
Lab ID: 301999-0001-MB
Matrix: SOLID
Authorized: 08 OCT 98

Sampled: NA
Prepared: 26 OCT 98

Received: NA
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

Parameter	Result	Units	Detection Limit	Data Qualifiers
Furans				
TCDFs (total)	ND	pg/g	0.33	
2,3,7,8-TCDF	ND	pg/g	0.33	
PeCDFs (total)	ND	pg/g	0.89	
1,2,3,7,8-PeCDF	ND	pg/g	0.81	
2,3,4,7,8-PeCDF	ND	pg/g	0.89	
HxCDFs (total)	ND	pg/g	0.23	
1,2,3,4,7,8-HxCDF	ND	pg/g	0.19	
1,2,3,6,7,8-HxCDF	ND	pg/g	0.19	
2,3,4,6,7,8-HxCDF	ND	pg/g	0.22	
1,2,3,7,8,9-HxCDF	ND	pg/g	0.23	
HpCDFs (total)	ND	pg/g	0.15	
1,2,3,4,6,7,8-HpCDF	ND	pg/g	0.10	
1,2,3,4,7,8,9-HpCDF	ND	pg/g	0.15	
OCDF	ND	pg/g	0.47	
Dioxins				
TCDDs (total)	ND	pg/g	0.35	
2,3,7,8-TCDD	ND	pg/g	0.35	
PeCDDs (total)	ND	pg/g	2.5	
1,2,3,7,8-PeCDD	ND	pg/g	0.71	
HxCDDs (total)	ND	pg/g	0.51	
1,2,3,4,7,8-HxCDD	ND	pg/g	0.50	
1,2,3,6,7,8-HxCDD	ND	pg/g	0.48	
1,2,3,7,8,9-HxCDD	ND	pg/g	0.51	
HpCDDs (total)	ND	pg/g	0.33	
1,2,3,4,6,7,8-HpCDD	ND	pg/g	0.33	
OCDD	ND	pg/g	0.43	

(continued on following page)

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Eric Redman

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POLYCHLORINATED DIOXINS/FURANS
ISOMER SPECIFIC ANALYSIS (CONT.)
Method 8290

Client Name: Geo Engineers
Client ID: Method Blank
Lab ID: 301999-0001-MB
Matrix: SOLID
Authorized: 08 OCT 98

Sampled: NA
Prepared: 26 OCT 98

Received: NA
Analyzed: 28 OCT 98

Sample Amount 10.0 G
Column Type DB-5

% Recovery

13C-2,3,7,8-TCDF	80
13C-2,3,7,8-TCDD	83
13C-1,2,3,7,8-PeCDF	94
13C-1,2,3,7,8-PeCDD	90
13C-1,2,3,4,7,8-HxCDF	70
13C-1,2,3,6,7,8-HxCDD	67
13C-1,2,3,4,6,7,8-HpCDF	87
13C-1,2,3,4,6,7,8-HpCDD	83
13C-OCDD	87

ND = Not detected
NA = Not applicable

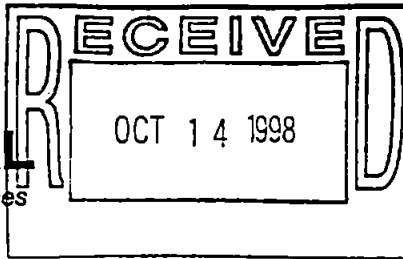
Reported By: Teri Stone

Approved By: Eric Redman

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**NORTH
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ANALYTICAL**
Environmental Laboratory Services



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E10-13-2.5	B810190-01	Soil	10/7/98

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.*

C - 371

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
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Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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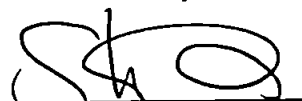
Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E10-13-2.5</u>				<u>B810190-01</u>			<u>Soil</u>	
Aroclor 1016	1080319	10/9/98	10/11/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	68.7	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		82.2	%	


Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E10-13-2.5				B810190-01			Soil	
Acenaphthene	1080341	10/9/98	10/11/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		101	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		62.9	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		98.3	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 373

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
2405 S.W. Alimbur Avenue, Beaverton, OR 97008-7132

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E10-13-2.5	B810190-01	Soil	93.6	%

North Creek Analytical - Bothell


Steve Woodward Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080319										
Blank										
Date Prepared: 10/9/98										
1080319-BLK1										
Aroclor 1016	10/11/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		5.92	"	40.0-130	88.8			
LCS										
1080319-BS1										
Aroclor 1260	10/11/98			210	ug/kg dry	44.0-123				
Surrogate: TCX	"	6.67		4.66	"	40.0-130	69.9			
Matrix Spike										
1080319-MS1 B810222-06										
Aroclor 1260	10/11/98				ug/kg dry	28.0-132				
Surrogate: TCX	"				"	40.0-130				
Matrix Spike Dup										
1080319-MSD1 B810222-06										
Aroclor 1260	10/11/98				ug/kg dry	28.0-132		23.0		
Surrogate: TCX	"				"	40.0-130				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

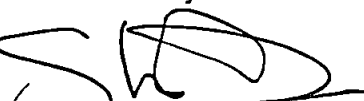
Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080341		Date Prepared: 10/9/98			Extraction Method: EPA 3550B					
Blank		1080341-BLK1								
Acenaphthene	10/11/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.31	"	30.0-150	78.4			
Surrogate: Nitrobenzene-d5	"	1.67		1.08	"	30.0-150	64.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.55	"	30.0-150	92.8			
LCS		1080341-BS1								
Chrysene	10/11/98	0.333		0.190	mg/kg dry	10.0-125	57.1			
Fluorene	"	0.333		0.222	"	11.0-116	66.7			
Indeno (1,2,3-cd) pyrene	"	0.333		0.261	"	10.0-147	78.4			
Surrogate: 2-FBP	"	1.67		1.55	"	30.0-150	92.8			
Surrogate: Nitrobenzene-d5	"	1.67		1.13	"	30.0-150	67.7			
Surrogate: p-Terphenyl-d14	"	1.67		1.46	"	30.0-150	87.4			
Matrix Spike		1080341-MS1		B810058-02						
Chrysene	10/11/98	0.387	ND	0.279	mg/kg dry	10.0-125	72.1			
Fluorene	"	0.387	0.868	0.868	"	10.0-154	NR			
Indeno (1,2,3-cd) pyrene	"	0.387	ND	0.318	"	10.0-144	82.2			
Surrogate: 2-FBP	"	1.94		1.63	"	30.0-150	84.0			
Surrogate: Nitrobenzene-d5	"	1.94		1.24	"	30.0-150	63.9			
Surrogate: p-Terphenyl-d14	"	1.94		1.70	"	30.0-150	87.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

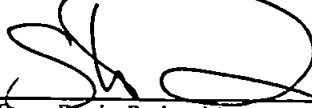
Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Not
E13-1-6.0		B810268-01						
Aroclor 1016	1080423	10/12/98	10/13/98		50.0	ND	Soil ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		75.5	%	
E13-2-6.0		B810268-02						
Aroclor 1016	1080423	10/12/98	10/13/98		50.0	ND	Soil ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		75.2	%	
E13-3-6.0		B810268-03						
Aroclor 1016	1080423	10/12/98	10/13/98		50.0	ND	Soil ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		70.6	%	

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
E13-1-6.0		B810268-01				Soil		
Acenaphthene	1080413	10/12/98	10/13/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		94.6	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		60.5	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		106	"	
E13-2-6.0		B810268-02				Soil		
Acenaphthene	1080413	10/12/98	10/13/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		99.6	%	

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Not
E13-2-6.0 (continued)				B810268-02			Soil	
Surrogate: Nitrobenzene-d5	1080413	10/12/98	10/13/98	30.0-150		63.8	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		109	"	
E13-3-6.0				B810268-03			Soil	
Acenaphthene	1080413	10/12/98	10/13/98		0.100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.100	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.100	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.100	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		89.0	%	1
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		50.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		101	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E13-1-6.0	B810268-01	Soil	63.9	%
E13-2-6.0	B810268-02	Soil	62.1	%
E13-3-6.0	B810268-03	Soil	65.6	%

North Creek Analytical - Bothell


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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	NC
Batch: 1080414										
Blank										
			Date Prepared: 10/12/98		Extraction Method: EPA 3550B					
			1080414-BLK1							
Diesel Range Hydrocarbons	10/13/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		8.76	"	50.0-150	81.9			
LCS										
			1080414-BS1							
Diesel Range Hydrocarbons	10/13/98	66.7		60.7	mg/kg dry	60.0-140	91.0			
Surrogate: 2-FBP	"	10.7		8.93	"	50.0-150	83.6			
Duplicate										
			1080414-DUP2		B810268-02					
Diesel Range Hydrocarbons	10/13/98		191	156	mg/kg dry			50.0	20.2	
Lube Oil Range Hydrocarbons	"		349	260	"			50.0	29.2	
Surrogate: 2-FBP	"	17.2		14.6	"	50.0-150	84.9			

North Creek Analytical - Bothell

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NORTH CREEK ANALYTICAL

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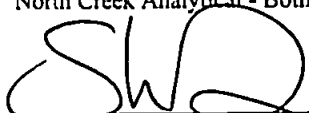
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/12/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/12/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/13/98 16:47

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 1080423</u>		<u>Date Prepared: 10/12/98</u>			<u>Extraction Method: EPA 3550B</u>					
<u>Blank</u>		<u>1080423-BLK1</u>								
Aroclor 1016	10/13/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.46	"	40.0-130	112			
<u>LCS</u>		<u>1080423-BS1</u>								
Aroclor 1260	10/13/98	333		243	ug/kg dry	44.0-123	73.0			
Surrogate: TCX	"	6.67		8.41	"	40.0-130	126			
<u>Matrix Spike</u>		<u>1080423-MS1</u>		<u>B810268-03</u>						
Aroclor 1260	10/13/98	508	ND	312	ug/kg dry	28.0-132	61.4			
Surrogate: TCX	"	10.2		7.31	"	40.0-130	71.7			
<u>Matrix Spike Dup</u>		<u>1080423-MSD1</u>		<u>B810268-03</u>						
Aroclor 1260	10/13/98	508	ND	349	ug/kg dry	28.0-132	68.7	23.0	11.2	
Surrogate: TCX	"	10.2		8.27	"	40.0-130	81.1			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD % N
Batch: 1080413									
Blank									
Date Prepared: 10/12/98									
1080413-BLK1									
Extraction Method: EPA 3550B									
Acenaphthene	10/13/98			ND	mg/kg dry	0.0100			
Acenaphthylene	"			ND	"	0.0100			
Anthracene	"			ND	"	0.0100			
Benzo (a) anthracene	"			ND	"	0.0100			
Benzo (a) pyrene	"			ND	"	0.0100			
Benzo (b) fluoranthene	"			ND	"	0.0100			
Benzo (ghi) perylene	"			ND	"	0.0100			
Benzo (k) fluoranthene	"			ND	"	0.0100			
Chrysene	"			ND	"	0.0100			
Dibenz (a,h) anthracene	"			ND	"	0.0100			
Fluoranthene	"			ND	"	0.0100			
Fluorene	"			ND	"	0.0100			
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100			
Naphthalene	"			ND	"	0.0100			
Phenanthrene	"			ND	"	0.0100			
Pyrene	"			ND	"	0.0100			
Surrogate: 2-FBP	"	1.67		1.50	"	30.0-150	89.8		
Surrogate: Nitrobenzene-d5	"	1.67		1.15	"	30.0-150	68.9		
Surrogate: p-Terphenyl-d14	"	1.67		1.48	"	30.0-150	88.6		
LCS									
1080413-BS1									
Chrysene	10/13/98	0.333		0.201	mg/kg dry	10.0-125	60.4		
Fluorene	"	0.333		0.237	"	11.0-116	71.2		
Indeno (1,2,3-cd) pyrene	"	0.333		0.275	"	10.0-147	82.6		
Surrogate: 2-FBP	"	1.67		1.48	"	30.0-150	88.6		
Surrogate: Nitrobenzene-d5	"	1.67		1.11	"	30.0-150	66.5		
Surrogate: p-Terphenyl-d14	"	1.67		1.39	"	30.0-150	83.2		
Matrix Spike									
1080413-MS1 B810024-08									
Chrysene	10/13/98	0.458	ND	0.255	mg/kg dry	10.0-125	55.7		
Fluorene	"	0.458	ND	0.293	"	10.0-154	64.0		
Indeno (1,2,3-cd) pyrene	"	0.458	ND	0.360	"	10.0-144	78.6		
Surrogate: 2-FBP	"	2.29		1.54	"	30.0-150	67.2		
Surrogate: Nitrobenzene-d5	"	2.29		1.16	"	30.0-150	50.7		
Surrogate: p-Terphenyl-d14	"	2.29		2.02	"	30.0-150	88.2		

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

C - 395

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

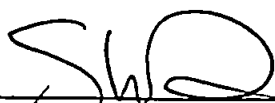
Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %
Matrix Spike Dup	1080413-MSD1	B810024-08							
Chrysene	10/13/98	0.458	ND	0.268	mg/kg dry	10.0-125	58.5	28.0	4.90
Fluorene	"	0.458	ND	0.307	"	10.0-154	67.0	32.0	4.58
Indeno (1,2,3-cd) pyrene	"	0.458	ND	0.377	"	10.0-144	82.3	47.0	4.60
Surrogate: 2-FBP	"	2.29		1.92	"	30.0-150	83.8		
Surrogate: Nitrobenzene-d5	"	2.29		1.51	"	30.0-150	65.9		
Surrogate: p-Terphenyl-d14	"	2.29		2.20	"	30.0-150	96.1		

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

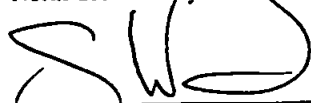
Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Notes and Definitions

#	Note

1	Due to matrix interference with the internal standard associated with this analyte, the reported value should be considered approximate.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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CHAIN OF CUSTODY REPORT

Work Order # B810268

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td colspan="3"></td> </tr> </table> OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						☒ Same Day	10	7	5	4	3	2	Fuels & Hydrocarbon Analyses						☒ Same Day	5	3-4	2			
Organic & Inorganic Analyses									☒ Same Day																									
10	7	5	4	3	2																													
Fuels & Hydrocarbon Analyses									☒ Same Day																									
5	3-4	2																																
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>																															
ADDRESS: <u>600 Stewart St Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97634-MER-01</u>																															
<u>Seattle WA 98101</u>			<u>Bellevue, WA 98007</u>																															
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____																															
PROJECT NAME: <u>Grady Way</u>			PAHs by 8270 PCB by 8082 HWPB DA																															
PROJECT NUMBER: <u>186-407-00</u>																																		
SAMPLED BY: <u>Tony Orme</u>																																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																									
1. <u>E13-1-6.0</u>	<u>10/12/98 800</u>	<u>B810268-01</u>	X	X	X			S	1																									
2. <u>E13-2-6.0</u>	<u>10/12/98 830</u>	<u>-02</u>	X	X	X			S	1																									
3. <u>E13-3-6.0</u>	<u>10/12/98 1000</u>	<u>-03</u>	X	X	X			S	1																									
4. <u>RTP8-1-4.0</u>	<u>10/12/98 1200</u>	<u>-04</u>						S	1	<u>Hold</u>																								
5.																																		
6.																																		
7.																																		
8.																																		
9.																																		
10.																																		

RELINQUISHED BY (Signature): <u>[Signature]</u>		DATE: <u>10/12/98</u>	RECEIVED BY (Signature): <u>[Signature]</u>		DATE: <u>10/12/98</u>
PRINT NAME: <u>Tony Orme</u>	FIRM: <u>GEI</u>	TIME: <u>1200</u>	PRINT NAME: <u>K Barker</u>	FIRM: <u>NCA</u>	TIME: <u>1230</u>
RELINQUISHED BY (Signature): <u>[Signature]</u>		DATE: <u>10/12/98</u>	RECEIVED BY (Signature): <u>[Signature]</u>		DATE: <u>10/12/98</u>
PRINT NAME: <u>K Barker</u>	FIRM: <u>NCA</u>	TIME: <u>1345</u>	PRINT NAME: <u>Cathy Nichols</u>	FIRM: <u>NCA</u>	TIME: <u>1345</u>

ADDITIONAL REMARKS:

Quantitation Report

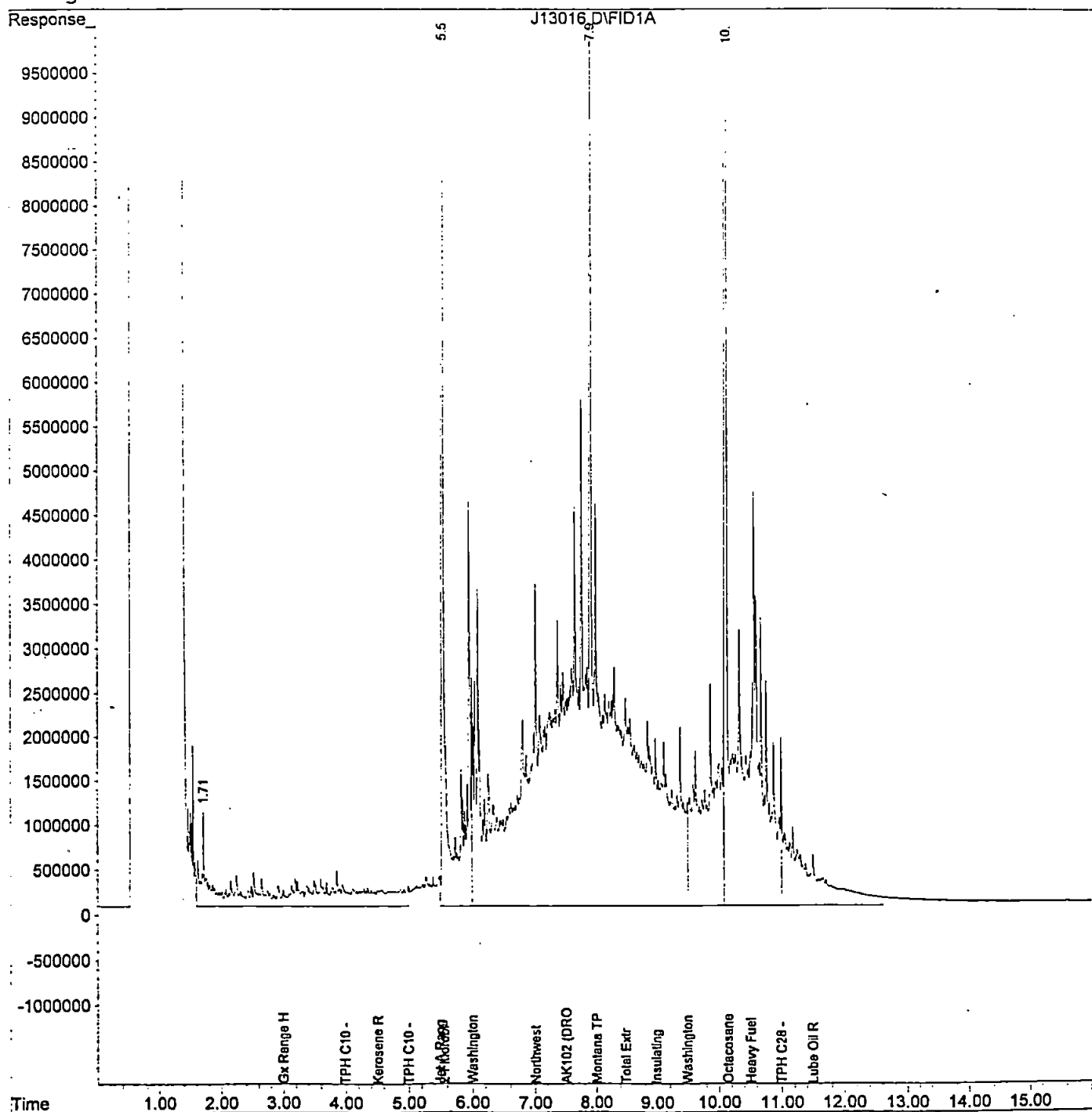
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 Sample : b810268-01
 Misc : s
 IntFile : SURR.E

Vial: 13
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Time: Oct 13 11:10 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Oct 02 11:08:58 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

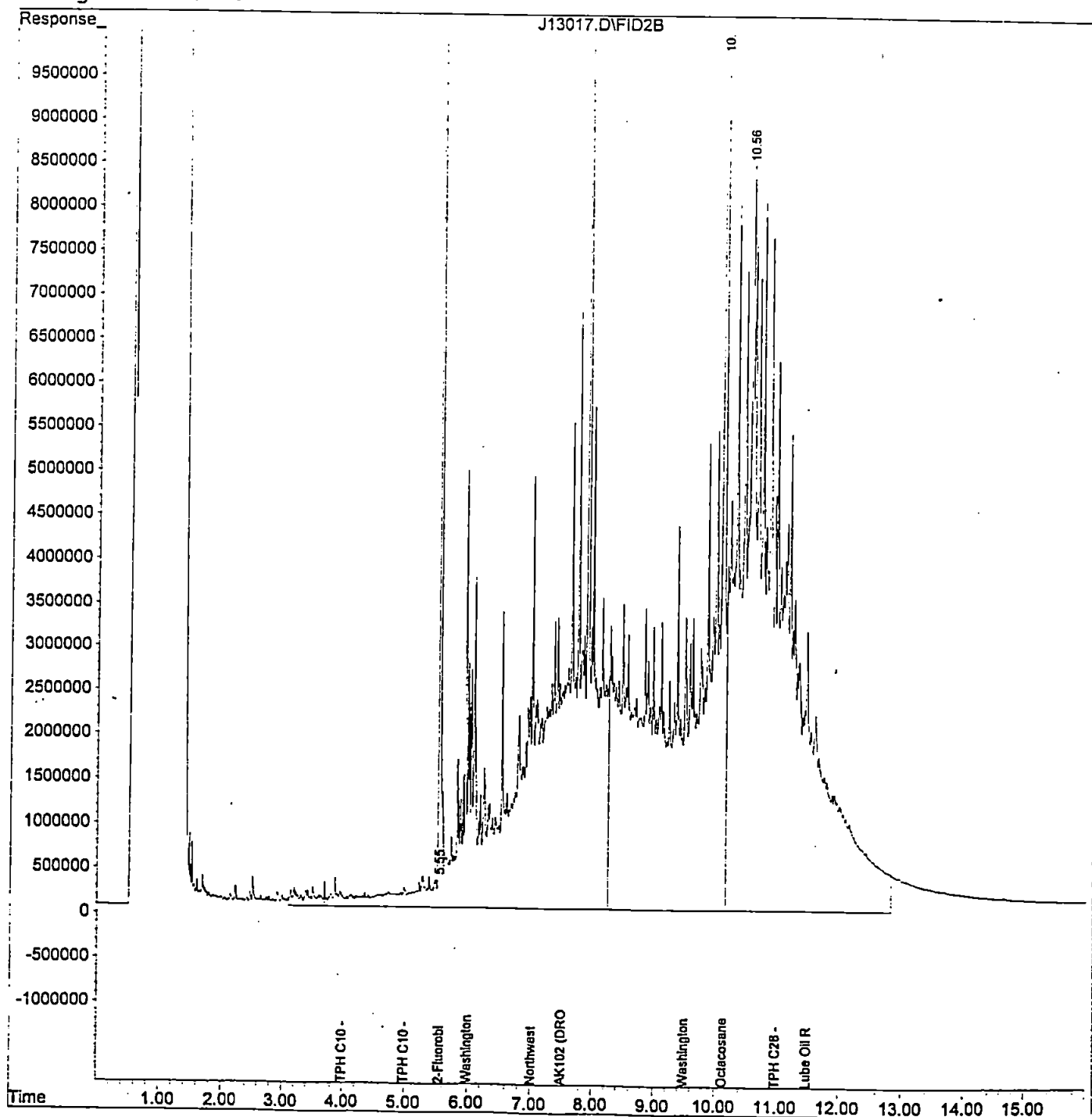
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 Sample : b810268-02
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 13 11:12 1998

Vial: 14
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J13018.D

Acq On : 10-13-98 10:40:57 AM

Sample : b810268-03

Misc : S

IntFile : SURR.E

Vial: 15

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Time: Oct 13 11:11 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

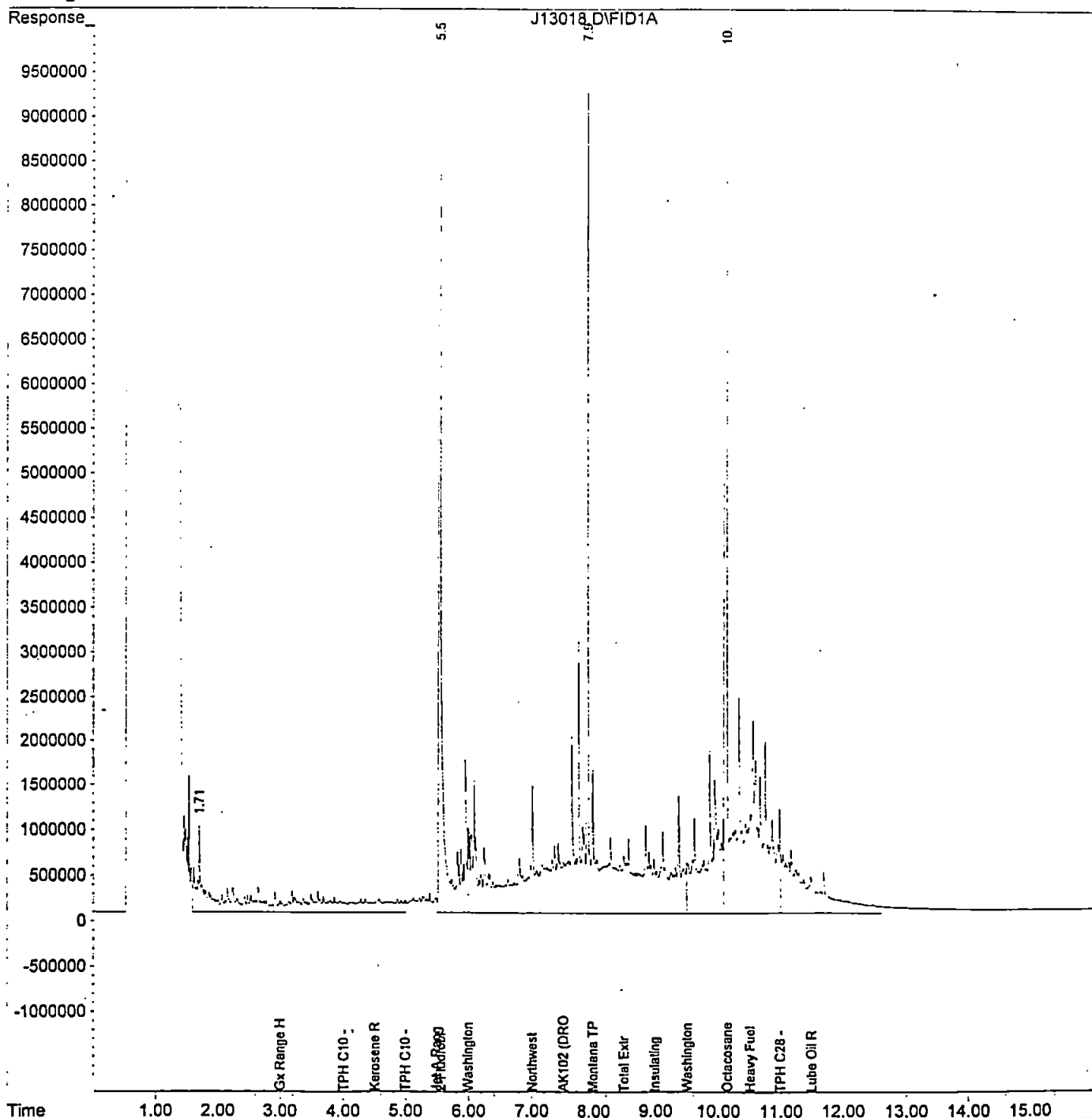
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

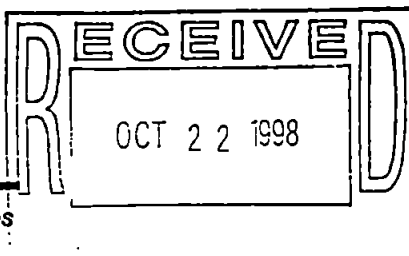
Signal Phase :

Signal Info :





**NORTH
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ANALYTICAL**
Environmental Laboratory Services



BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
RTP-8-2-3.0	B810313-01	Soil	10/13/98

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.*

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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600 Stewart Street, Suite 1215
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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
RTP-8-2-3.0				B810313-01			Soil	
Aroclor 1016	1080514	10/14/98	10/16/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		87.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C - 403

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
RTP-8-2-3.0				B810313-01			Soil	
Acenaphthene	1080541	10/15/98	10/15/98		0.0100	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0100	ND	"	
Anthracene	"	"	"		0.0100	ND	"	
Benzo (a) anthracene	"	"	"		0.0100	ND	"	
Benzo (a) pyrene	"	"	"		0.0100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0200	ND	"	1
Benzo (ghi) perylene	"	"	"		0.0100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0100	ND	"	
Chrysene	"	"	"		0.0100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0100	ND	"	
Fluoranthene	"	"	"		0.0100	0.0186	"	
Fluorene	"	"	"		0.0100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0100	ND	"	
Naphthalene	"	"	"		0.0100	ND	"	
Phenanthrene	"	"	"		0.0100	ND	"	
Pyrene	"	"	"		0.0100	0.0202	"	
Surrogate: 2-FBP	"	"	"	30.0-150		83.2	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		92.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		141	"	



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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/13/98 Received: 10/14/98 Reported: 10/20/98 10:55

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
RTP-8-2-3.0	B810313-01	Soil	82.4	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-405

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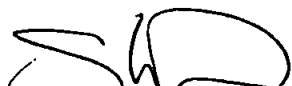
Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080514										
Date Prepared: 10/14/98										
Extraction Method: EPA 3550B										
Blank										
1080514-BLK1										
Aroclor 1016	10/16/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		5.39	"	40.0-130	80.8			
LCS										
1080514-BS1										
Aroclor 1260	10/16/98	333		210	ug/kg dry	44.0-123	63.1			
Surrogate: TCX	"	6.67		4.14	"	40.0-130	62.1			
Matrix Spike										
1080514-MS1 B810273-06										
Aroclor 1260	10/16/98	431	ND	270	ug/kg dry	28.0-132	62.6			
Surrogate: TCX	"	8.62		5.51	"	40.0-130	63.9			
Matrix Spike Dup										
1080514-MSD1 B810273-06										
Aroclor 1260	10/16/98	431	ND	301	ug/kg dry	28.0-132	69.8	23.0	10.9	
Surrogate: TCX	"	8.62		6.03	"	40.0-130	70.0			


Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/13/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/14/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/20/98 10:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080541		Date Prepared: 10/15/98			Extraction Method: EPA 3550B					
Blank		1080541-BLK1								
Acenaphthene	10/15/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.41	"	30.0-150	84.4			
Surrogate: Nitrobenzene-d5	"	1.67		2.07	"	30.0-150	124			
Surrogate: p-Terphenyl-d14	"	1.67		2.02	"	30.0-150	121			
LCS		1080541-BS1								
Chrysene	10/15/98	0.333		0.295	mg/kg dry	10.0-125	88.6			
Fluorene	"	0.333		0.308	"	11.0-116	92.5			
Indeno (1,2,3-cd) pyrene	"	0.333		0.345	"	10.0-147	104			
Surrogate: 2-FBP	"	1.67		1.61	"	30.0-150	96.4			
Surrogate: Nitrobenzene-d5	"	1.67		2.16	"	30.0-150	129			
Surrogate: p-Terphenyl-d14	"	1.67		2.11	"	30.0-150	126			
Matrix Spike		1080541-MS1		B810313-01						
Chrysene	10/15/98	0.404	ND	0.372	mg/kg dry	10.0-125	92.1			
Fluorene	"	0.404	ND	0.364	"	10.0-154	90.1			
Indeno (1,2,3-cd) pyrene	"	0.404	ND	0.372	"	10.0-144	92.1			
Surrogate: 2-FBP	"	2.02		2.09	"	30.0-150	103			
Surrogate: Nitrobenzene-d5	"	2.02		2.23	"	30.0-150	110			
Surrogate: p-Terphenyl-d14	"	2.02		2.47	"	30.0-150	122			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

C - 407

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Page 6 of 8

Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Matrix Spike Dup	1080541-MSD1	B810313-01								
Chrysene	10/15/98	0.404	ND	0.340	mg/kg dry	10.0-125	84.2	28.0	8.96	
Fluorene	"	0.404	ND	0.340	"	10.0-154	84.2	32.0	6.77	
Indeno (1,2,3-cd) pyrene	"	0.404	ND	0.332	"	10.0-144	82.2	47.0	11.4	
Surrogate: 2-FBP	"	2.02		1.82	"	30.0-150	90.1			
Surrogate: Nitrobenzene-d5	"	2.02		1.78	"	30.0-150	88.1			
Surrogate: p-Terphenyl-d14	"	2.02		2.31	"	30.0-150	114			


Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

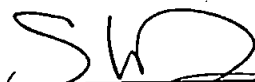
Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/13/98
Received: 10/14/98
Reported: 10/20/98 10:55

Notes and Definitions

#	Note
1	The reporting limit for this analyte has been raised due to matrix interference with the associated internal standard.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

C - 409

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6105 S.W. 5th Avenue, Portland, OR 97206-7122

Page 8 of 8



**NORTH
CREEK
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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

(425) 420-9200 FAX 420-9210
(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

B810313

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days *		
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			Organic & Inorganic Analyses		
ADDRESS: 600 Stewart St Ste 1215			ADDRESS: PSE - P.O. Box 97034-MER-01			10 7 5 4 3 2 ☒ Same Day		
Seattle WA, 98101			Bellevue, WA 98007			Fuels & Hydrocarbon Analyses		
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			5 3-4 2 ☒ Same Day		
PROJECT NAME: Grady Way			NCA QUOTE #:			OTHER Specify:		
PROJECT NUMBER: 186-407-00			Analysis Request: PAHs by 8270 PCBs by 8082 HWPB by 8082			* Turnaround Requests less than standard may incur Rush Charges.		
SAMPLED BY: Tony Orme								
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. RTP8-2-3.0	10/13/98 1230	B810313-01	X	X		S	1	
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature): KBarker		
PRINT NAME:			FIRM:			DATE: 10/19/98		
TIME:			PRINT NAME: KBarker			FIRM: NCA		
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature):		
PRINT NAME:			FIRM:			DATE:		
TIME:			PRINT NAME:			FIRM:		
TIME:			PRINT NAME:			DATE:		
ADDITIONAL REMARKS:						PAGE 1 OF		

4.8 W/CS



**NORTH
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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/14/98
Received: 10/15/98
Reported: 10/19/98 16:44

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
Vault-1-3.0	B810345-01	Soil	10/14/98

GeoEngineers

OCT 22 1998

Routing ☐ ☒ ☐

North Creek Analytical - Bothell


Steve Davis, 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.*

C-411

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NORTH CREEK ANALYTICAL

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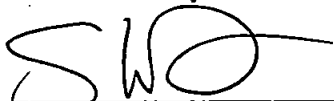
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/14/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/15/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/19/98 16:44

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Vault-1-3.0</u>				<u>B810345-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080556	10/15/98	10/16/98		489	17500	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		1220	3140	"	
Surrogate: 2-FBP	"	"	"	50.0-150		72.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

C-412

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/14/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/15/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/19/98 16:44

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Vault-1-3.0</u>				<u>B810345-01</u>			<u>Soil</u>	
Aroclor 1016	1080563	10/16/98	10/17/98		5930	ND	ug/kg dry	1
Aroclor 1221	"	"	"		5930	ND	"	1
Aroclor 1232	"	"	"		5930	ND	"	1
Aroclor 1242	"	"	"		5930	ND	"	1
Aroclor 1248	"	"	"		5930	1620	"	1.J
Aroclor 1254	"	"	"		5930	ND	"	1
Aroclor 1260	"	"	"		5930	ND	"	1
Aroclor 1262	"	"	"		5930	ND	"	1
Aroclor 1268	"	"	"		5930	ND	"	1
Surrogate: TCX	"	"	10/16/98	40.0-130		68.4	%	1

Steve Davis, Project Manager



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/14/98
Received: 10/15/98
Reported: 10/19/98 16:44

Dry Weight Determination
North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
Vault-1-3.0	B810345-01	Soil	43.0	%

North Creek Analytical - Bothell


Steve Davis, Project Manager

C-414

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/14/98
Received: 10/15/98
Reported: 10/19/98 16:44

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080556										
Date Prepared: 10/15/98										
Extraction Method: EPA 3550B										
Blank										
1080556-BLK1										
Diesel Range Hydrocarbons	10/16/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		6.70	"	50.0-150	62.6			
LCS										
1080556-BS1										
Diesel Range Hydrocarbons	10/16/98	66.7		65.2	mg/kg dry	60.0-140	97.8			
Surrogate: 2-FBP	"	10.7		8.66	"	50.0-150	80.9			
Duplicate										
1080556-DUP1 B810342-02										
Diesel Range Hydrocarbons	10/16/98		8.36	5.17	mg/kg dry			50.0	47.2	
Lube Oil Range Hydrocarbons	"		6.14	7.47	"			50.0	19.5	
Surrogate: 2-FBP	"	12.0		7.65	"	50.0-150	63.8			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-415

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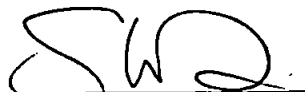
Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/14/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/15/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/19/98 16:44

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080563										
Blank										
Date Prepared: 10/16/98										
1080563-BLK1										
Aroclor 1016	10/16/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		5.49	"	40.0-130	82.3			
IS										
1080563-BS1										
Aroclor 1260	10/16/98	333		272	ug/kg dry	44.0-123	81.7			
Surrogate: TCX	"	6.67		6.43	"	40.0-130	96.4			
Matrix Spike										
1080563-MS1 B810288-16										
Aroclor 1260	10/16/98	466	ND	370	ug/kg dry	28.0-132	79.4			
Surrogate: TCX	"	9.33		9.58	"	40.0-130	103			
Matrix Spike Dup										
1080563-MSD1 B810288-16										
Aroclor 1260	10/16/98	466	ND	380	ug/kg dry	28.0-132	81.5	23.0	2.61	
Surrogate: TCX	"	9.33		9.32	"	40.0-130	99.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

C-416

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NORTH CREEK ANALYTICAL

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/14/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/15/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/19/98 16:44

Notes and Definitions

#	Note
J	Estimated Value
1	The reporting limit for this analyte has been raised to account for matrix interference.
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
Recov.	Recovery
RD	Relative Percent Difference

North Creek Analytical - Bothell

C-417

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Steve Davis, Project Manager

Quantitation Report

Data File : C:\HPCHEM\4\DATA\J16030.D

Vial: 26

Acq On : 10-16-98 4:10:20 PM

Operator: lac

Sample : b810345-01

Inst : GC #7

Misc : 21x s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Oct 16 16:33 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

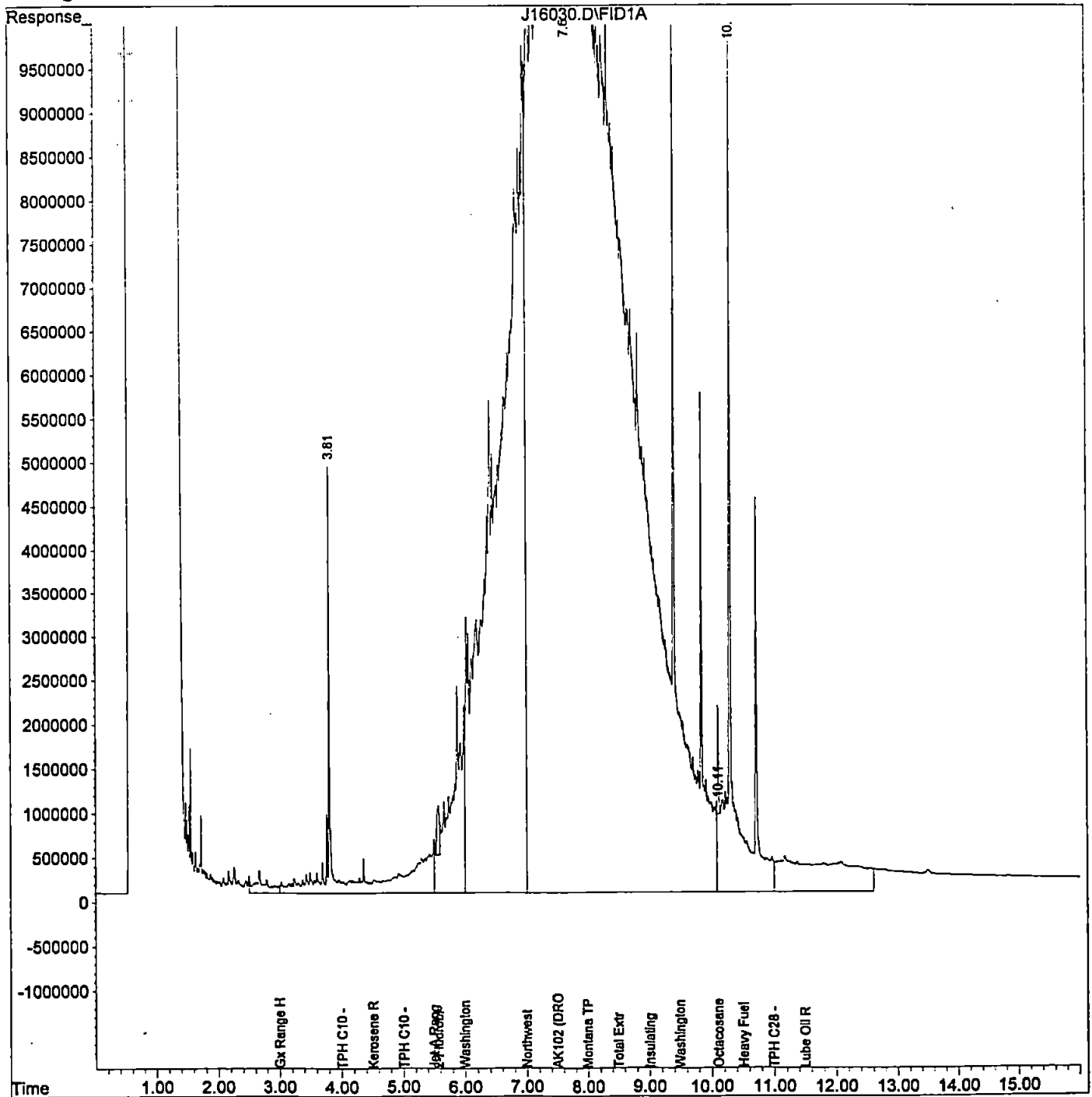
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

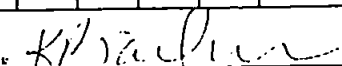
Signal Phase :

Signal Info :



CHAIN OF CUSTODY REPORT

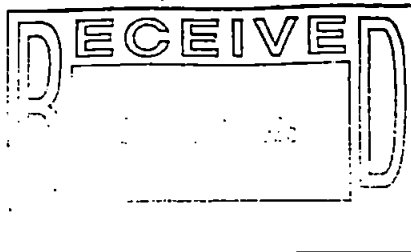
Work Order # **6810345**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2">☒ Same Day</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td colspan="3"></td> </tr> </table>			Organic & Inorganic Analyses						☒ Same Day	10	7	5	4	3	2	Fuels & Hydrocarbon Analyses						☒ Same Day	5	3-4	2			
Organic & Inorganic Analyses									☒ Same Day																									
10	7	5	4	3	2																													
Fuels & Hydrocarbon Analyses									☒ Same Day																									
5	3-4	2																																
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St Ste 1215			ADDRESS: PSE - P.O. Box 97634-MER-04																															
Seattle WA, 98101			Bellevue, WA 98007																															
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER:			NCA QUOTE #:																												
PROJECT NAME: Grady Way			PAHs by 8270 PCB by 9002 WWTPH DX																															
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: Tony Orme																																		
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W. S. A. O)	# OF CONTAINERS	COMMENTS																								
1. Vault-1-3.0		1/14/98 800	B810345-01					S	1																									
2.																																		
3.																																		
4.																																		
5.																																		
6.																																		
7.																																		
8.																																		
9.																																		
10.																																		
RELINQUISHED BY (Signature): 			DATE: 1/14/98			RECEIVED BY (Signature): 			DATE: 1/15/98																									
PRINT NAME: Tony Orme			FIRM: GEI			TIME: 1600			PRINT NAME: K. Marker																									
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature):			DATE:																									
PRINT NAME:			FIRM:			TIME:			PRINT NAME:																									
ADDITIONAL REMARKS:																																		



NORTH CREEK ANALYTICAL

Environmental Laboratory Services



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/19/98
Received: 10/20/98
Reported: 10/22/98 13:21

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
VTP-1-4.5	B810450-01	Soil	10/19/98
VTP-2-2.5	B810450-02	Soil	10/19/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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C - 420


Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/19/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/20/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/22/98 13:21

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
VTP-1-4.5				B810450-01			Soil	
Diesel Range Hydrocarbons	1080690	10/20/98	10/21/98		10.0	34.4	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	37.0	"	
Surrogate: 2-FBP	"	"	"	50.0-150		71.9	%	
VTP-2-2.5				B810450-02			Soil	
Diesel Range Hydrocarbons	1080690	10/20/98	10/21/98		10.0	80.8	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	232	"	
Surrogate: 2-FBP	"	"	"	50.0-150		78.7	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

C-421

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/19/98
Received: 10/20/98
Reported: 10/22/98 13:21

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
VTP-1-4.5				B810450-01			Soil	
Aroclor 1016	1080692	10/20/98	10/22/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	72.6	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		91.0	%	
VTP-2-2.5				B810450-02			Soil	
Aroclor 1016	1080692	10/20/98	10/22/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		83.0	%	



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ▪ (509) 924-9200 ▪ FAX 924-9290
PORTLAND ▪ (503) 906-9200 ▪ FAX 906-9210

Geo Engineers - Seattle	Project: - PSE-Grady Way	Sampled: 10/19/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/20/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/22/98 13:21

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
VTP-1-4.5	B810450-01	Soil	76.7	%
VTP-2-2.5	B810450-02	Soil	69.0	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-423

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

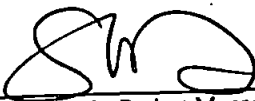
Sampled: 10/19/98
Received: 10/20/98
Reported: 10/22/98 13:21

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080690										
Blank										
Extraction Method: EPA 3550B										
Diesel Range Hydrocarbons	10/21/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		7.16	"	50.0-150	66.9			
LCS										
1080690-BS1										
Diesel Range Hydrocarbons	10/21/98	66.7		67.2	mg/kg dry	60.0-140	101			
Surrogate: 2-FBP	"	10.7		9.47	"	50.0-150	88.5			
Duplicate										
1080690-DUP2 B810468-02										
Diesel Range Hydrocarbons	10/21/98		ND	ND	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	11.4		7.49	"	50.0-150	65.7			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/19/98 Received: 10/20/98 Reported: 10/22/98 13:21

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080692										
Blank										
Date Prepared: 10/20/98										
Extraction Method: EPA 3550B										
Aroclor 1016	10/22/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.72	"	40.0-130	116			
LCS										
1080692-BS1										
Aroclor 1260	10/22/98	333		179	ug/kg dry	44.0-123	53.8			
Surrogate: TCX	"	6.67		6.57	"	40.0-130	98.5			
Matrix Spike										
1080692-MS1 B810450-02										
Aroclor 1260	10/22/98	483	ND	260	ug/kg dry	28.0-132	53.8			
Surrogate: TCX	"	9.67		7.51	"	40.0-130	77.7			
Matrix Spike Dup										
1080692-MSD1 B810450-02										
Aroclor 1260	10/22/98	483	ND	279	ug/kg dry	28.0-132	57.8	23.0	7.17	
Surrogate: TCX	"	9.67		8.07	"	40.0-130	83.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-425

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/19/98
Received: 10/20/98
Reported: 10/22/98 13:21

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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Page 7 of 7

Quantitation Report

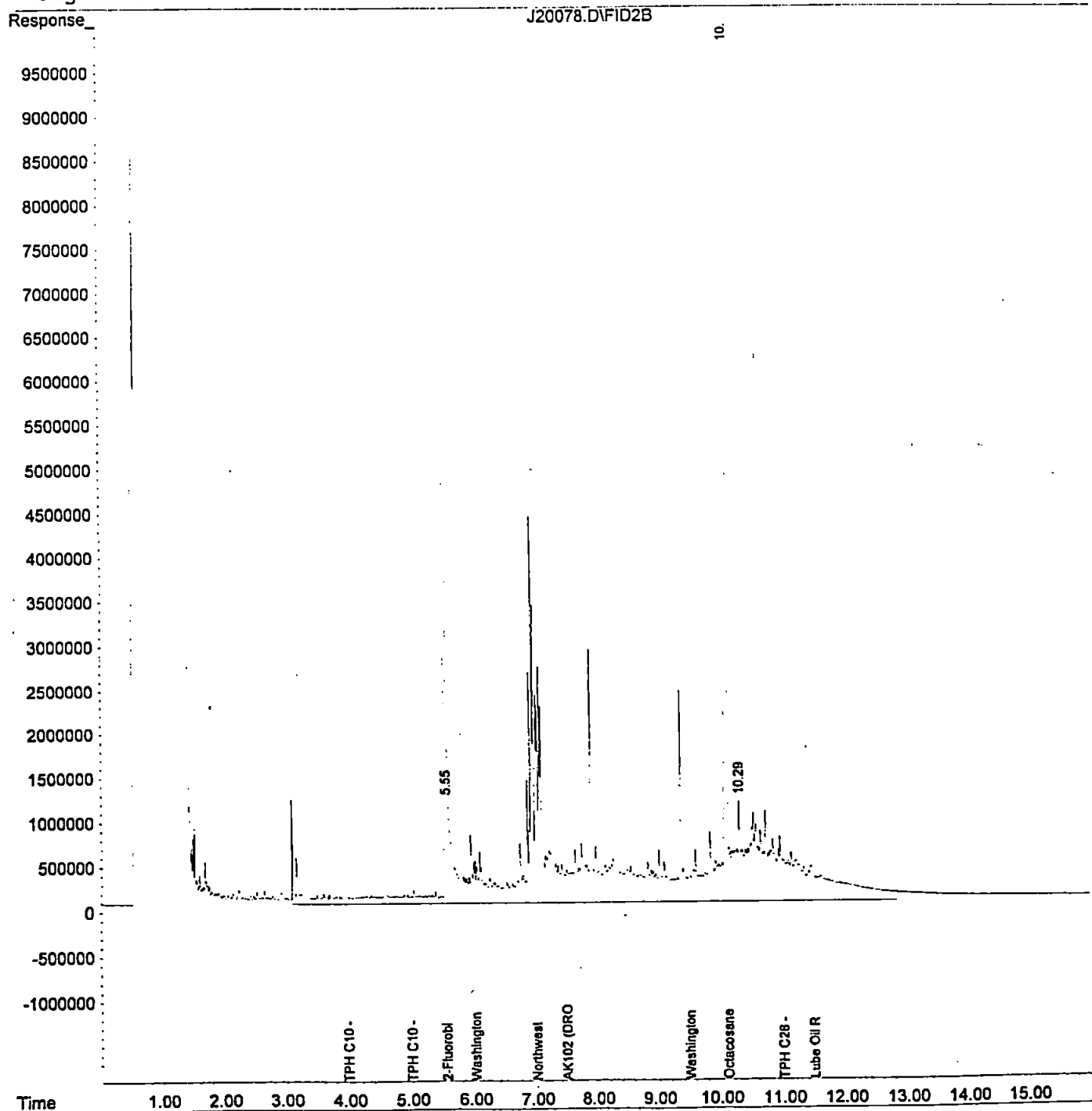
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 Acq On : 10-21-98 10:00:24 AM
 Sample : b810450-01
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 21 10:30 1998

Vial: 51
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J20079.D

Vial: 52

Acq On : 10-21-98 10:00:24 AM

Operator: lac

Sample : b810450-02

Inst : GC #7

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Oct 21 10:29 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

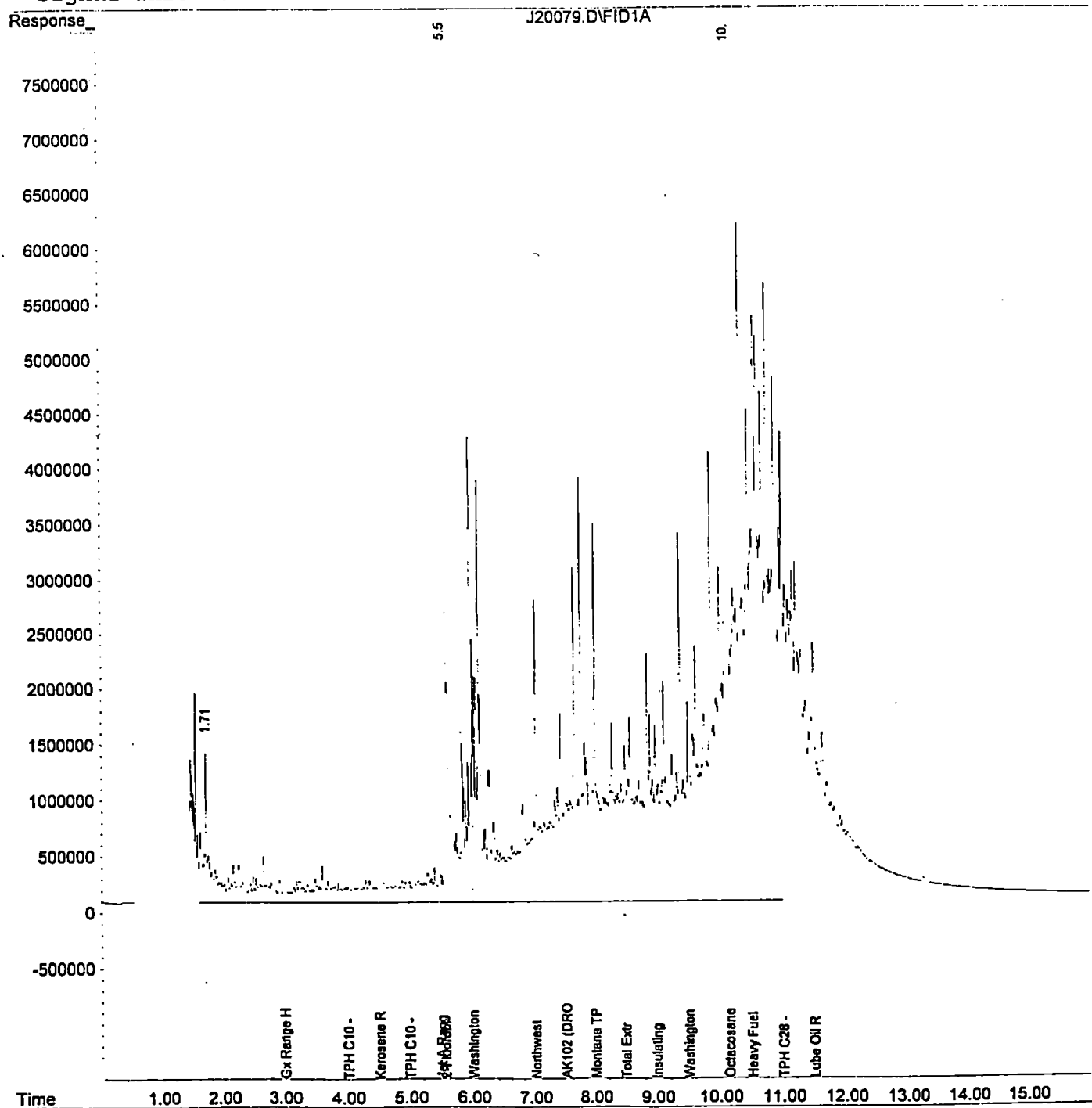
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



CHAIN OF CUSTODY REPORT

Work Order #

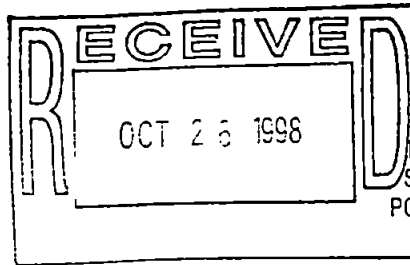
B810450

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.					
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard								
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97634 - MER-04 Bellevue, WA 98007								
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: NCA QUOTE #:								
PROJECT NAME: Grady Way			PAHs by 8/2/98 PCB by 8/2/98 WWTPH D+								
PROJECT NUMBER: 186-407-00											
SAMPLED BY: Tony Orme											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS		
1. VTP-1-4.3	10-19-98 1415	B810450-01			X	X			S	1	
2. VTP-2-2.5	1415	-02			X	X			S	1	
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											

RELINQUISHED BY (Signature): <i>[Signature]</i>		DATE: 10-19-98		RECEIVED BY (Signature): S. Widen		DATE: 10/20/98	
PRINT NAME: PAUL CRAIG		FIRM: GCI		TIME: 1550		PRINT NAME: S. Widen	
FIRM: ARA		TIME: 12:15					
RELINQUISHED BY (Signature):		DATE:		RECEIVED BY (Signature):		DATE:	
PRINT NAME:		FIRM:		TIME:		PRINT NAME:	
FIRM:		TIME:					
ADDITIONAL REMARKS:							
wics 7.2							



**NORTH
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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 10/20/98
Received: 10/21/98
Reported: 10/22/98 13:34

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E-11-13-11	B810478-01	Soil	10/20/98
E-11-16-10.5	B810478-02	Soil	10/20/98
E-11-BF-1	B810478-03	Soil	10/20/98
E-11-BF-2	B810478-04	Soil	10/20/98
E-11-BF-3	B810478-05	Soil	10/20/98
E-11-17-8.5	B810478-06	Soil	10/20/98
E-11-18-7.5	B810478-07	Soil	10/20/98
E-11-19-7.5	B810478-08	Soil	10/20/98

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.*

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 10/20/98
Received: 10/21/98
Reported: 10/22/98 13:34

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Note
E-11-13-11								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-01			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	160	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	530	"	
						75.7	%	
E-11-16-10.5								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-02			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	189	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	470	"	
						65.8	%	
E-11-BF-1								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-03			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	26.1	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	50.8	"	
						73.7	%	
E-11-BF-2								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-04			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	20.0	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	ND	"	
						71.9	%	
E-11-BF-3								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-05			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	96.0	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	72.7	"	
						79.5	%	
E-11-17-8.5								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-06			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	201	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	522	"	
						69.1	%	
E-11-18-7.5								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-07			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	346	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	1250	"	
						52.5	%	
E-11-19-7.5								
Diesel Range Hydrocarbons	1080752	10/21/98	10/22/98	B810478-08			Soil	
Lube Oil Range Hydrocarbons	"	"	"		10.0	217	mg/kg dry	
Surrogate: 2-FBP	"	"	"	50.0-150	25.0	571	"	
						73.3	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 10/20/98
Received: 10/21/98
Reported: 10/22/98 13:34

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E-11-13-11	B810478-01	Soil	61.7	%
E-11-16-10.5	B810478-02	Soil	53.7	%
E-11-BF-1	B810478-03	Soil	89.7	%
E-11-BF-2	B810478-04	Soil	90.6	%
E-11-BF-3	B810478-05	Soil	90.8	%
E-11-17-8.5	B810478-06	Soil	56.0	%
E-11-18-7.5	B810478-07	Soil	57.4	%
E-11-19-7.5	B810478-08	Soil	60.9	%

North Creek Analytical - Bothell


Steve Davis, Project Manager

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: Grady Way Complex Project Number: 186-407-00 Project Manager: Steve Woodward	Sampled: 10/20/98 Received: 10/21/98 Reported: 10/22/98 13:34

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080752										
Blank										
Date Prepared: 10/21/98										
1080752-BLK1										
Extraction Method: EPA 3550B										
Diesel Range Hydrocarbons	10/22/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		7.75	"	50.0-150	72.4			
LCS										
1080752-BS1										
Diesel Range Hydrocarbons	10/22/98	66.7		65.8	mg/kg dry	60.0-140	98.7			
Surrogate: 2-FBP	"	10.7		8.85	"	50.0-150	82.7			
Duplicate										
1080752-DUP2 B810478-03										
Diesel Range Hydrocarbons	10/22/98		26.1	23.8	mg/kg dry			50.0	9.22	
Lube Oil Range Hydrocarbons	"		50.8	ND	"			50.0		
Surrogate: 2-FBP	"	11.9		8.31	"	50.0-150	69.8			



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PORTLAND ■ (503) 906-9200 ■ FAX 906-9211

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: Grady Way Complex
Project Number: 186-407-00
Project Manager: Steve Woodward

Sampled: 10/20/98
Received: 10/21/98
Reported: 10/22/98 13:34

Notes and Definitions

#	Note
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

C - 434

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9405 S.W. Nimbus Avenue, Bend, OR 97702-7100

Quantitation Report

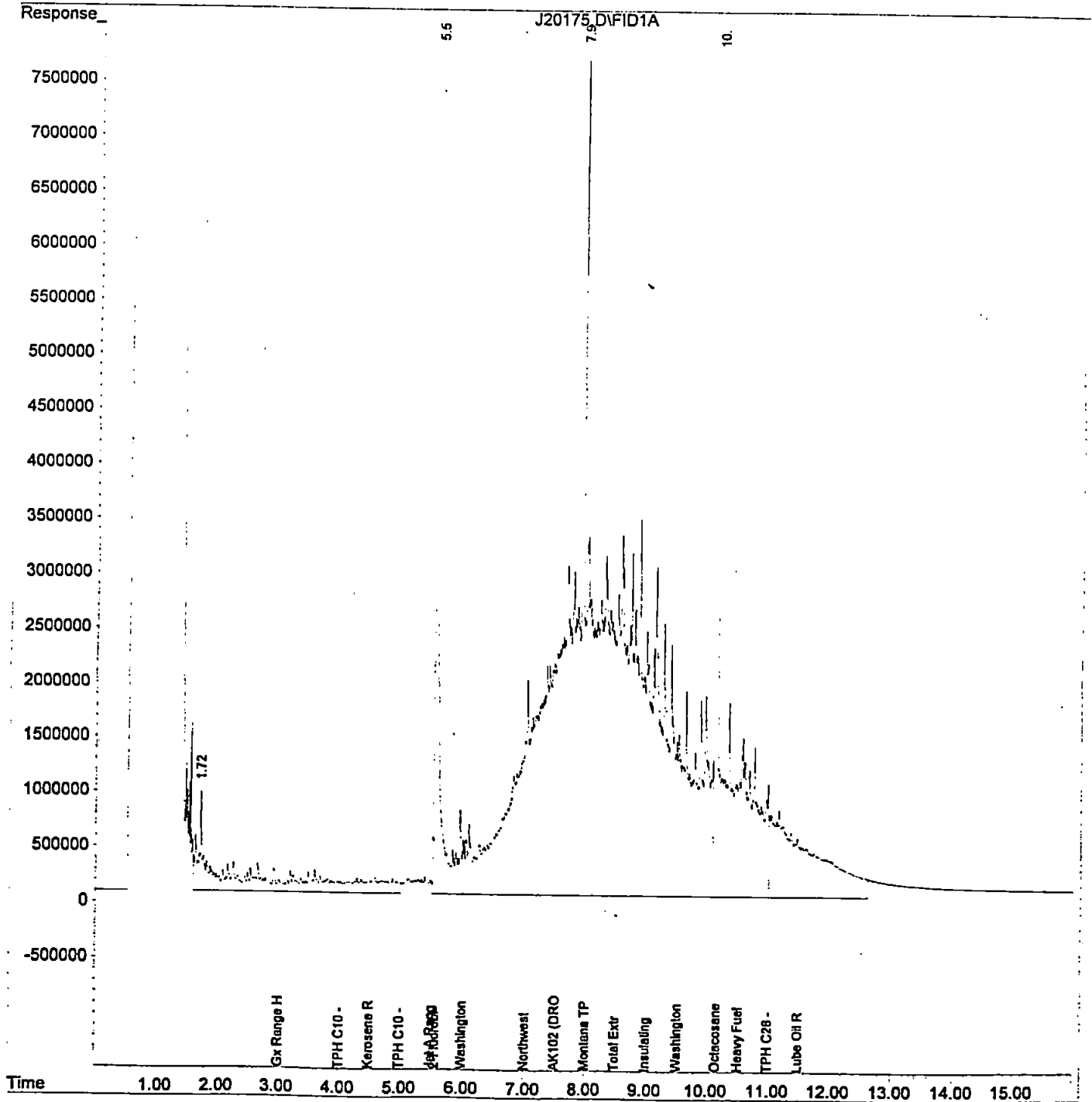
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 Sample : b810478-05
 Misc : s
 IntFile : SURR.E

Vial: 31
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Time: Oct 22 8:01 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Oct 02 11:08:58.1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

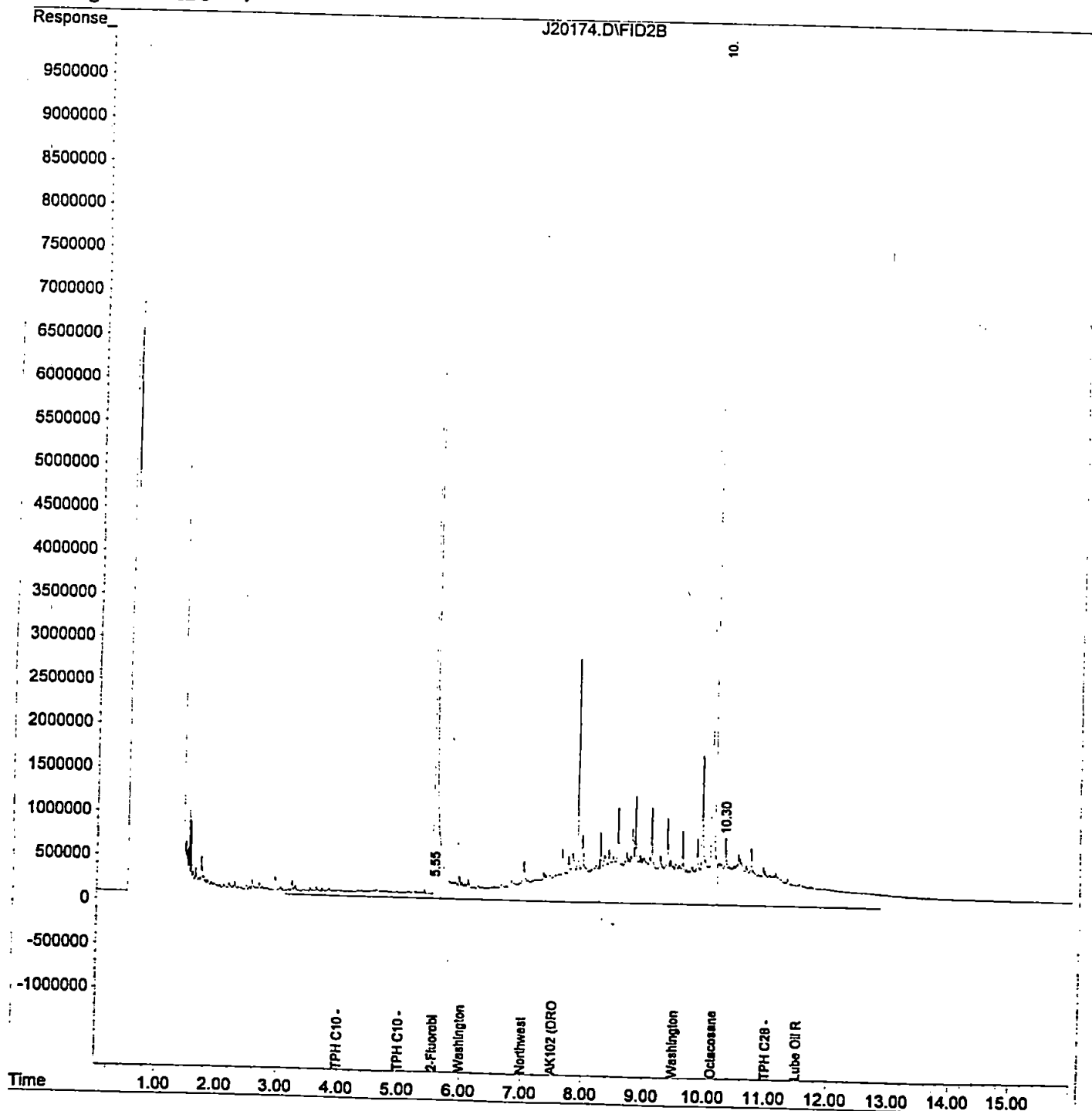
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 Sample : b810478-04
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 22 8:25 1998

Vial: 30
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J20171.D

Vial: 29

Acq On : 10-22-98 3:55:15 AM

Operator: lac

Sample : b810478-03

Inst : GC #7

Misc : s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Oct 22 8:00 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

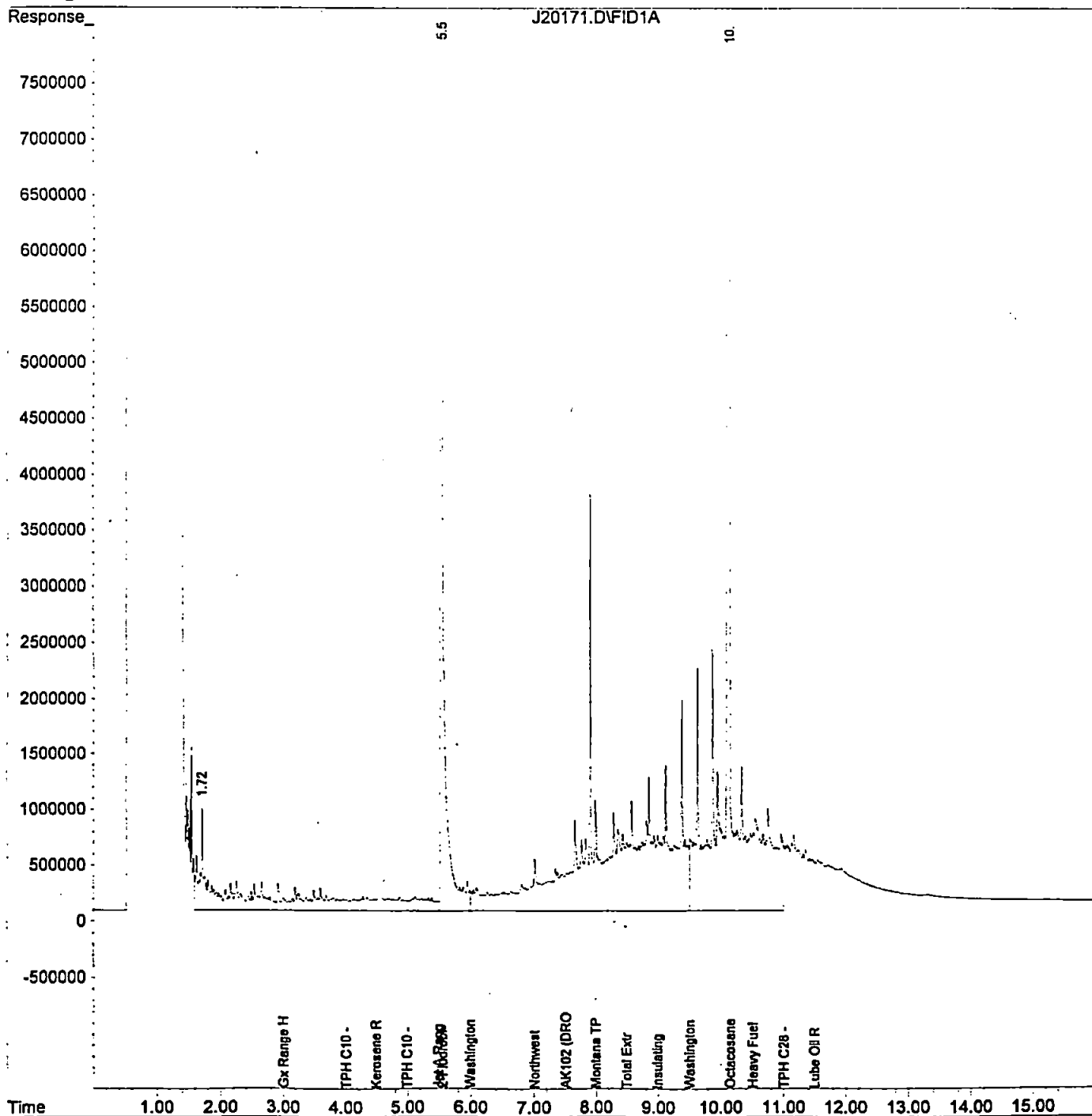
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

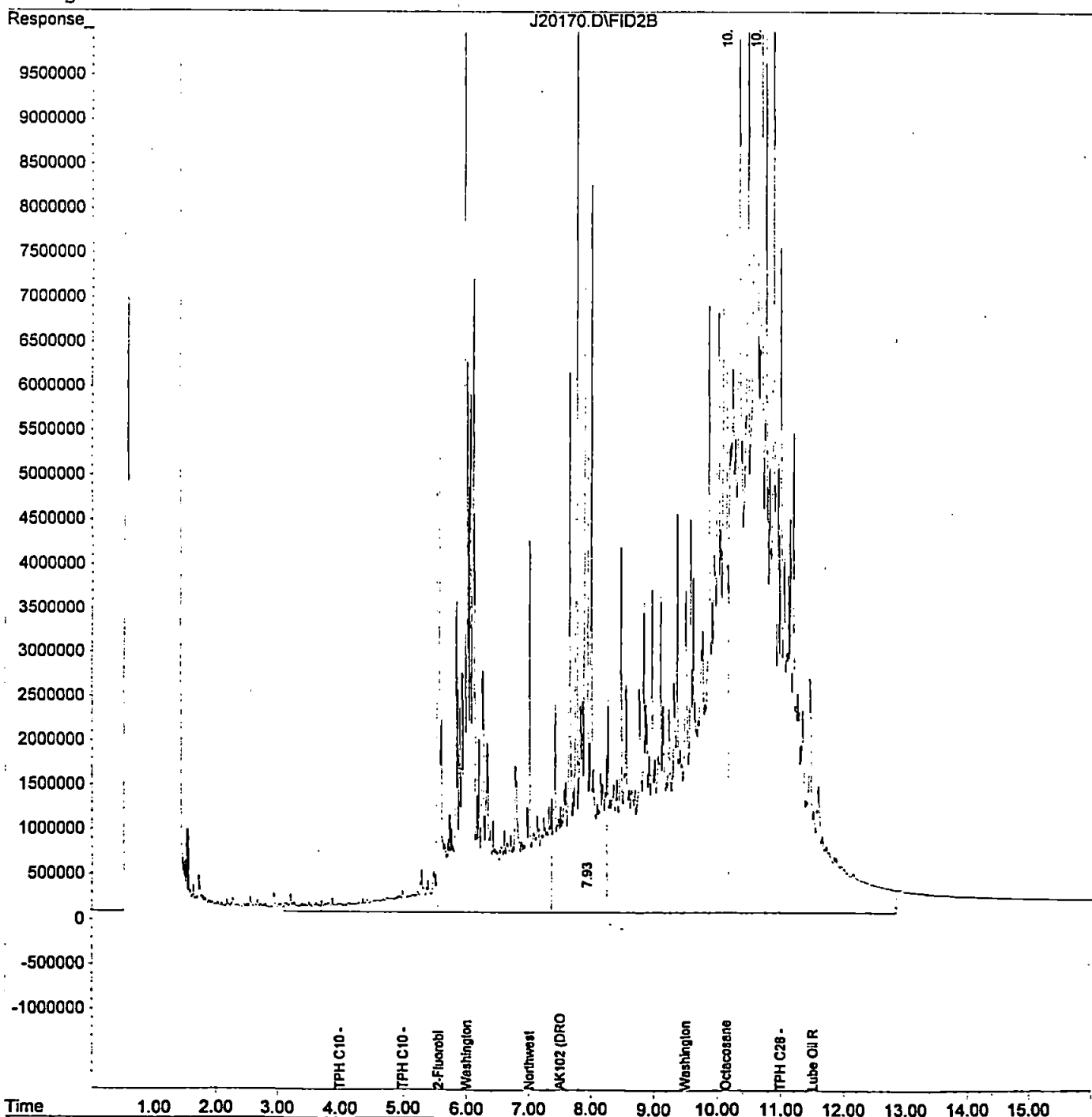
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 Sample : b810478-02
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 22 8:24 1998

Vial: 28
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\J20169.D

Acq On : 10-22-98 3:32:23 AM

Sample : b810478-01

Misc : s

IntFile : SURR.E

Quant Time: Oct 22 8:00 1998 Quant Results File: TPHD.RES

Vial: 27

Operator: lac

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Oct 02 11:08:58 1998

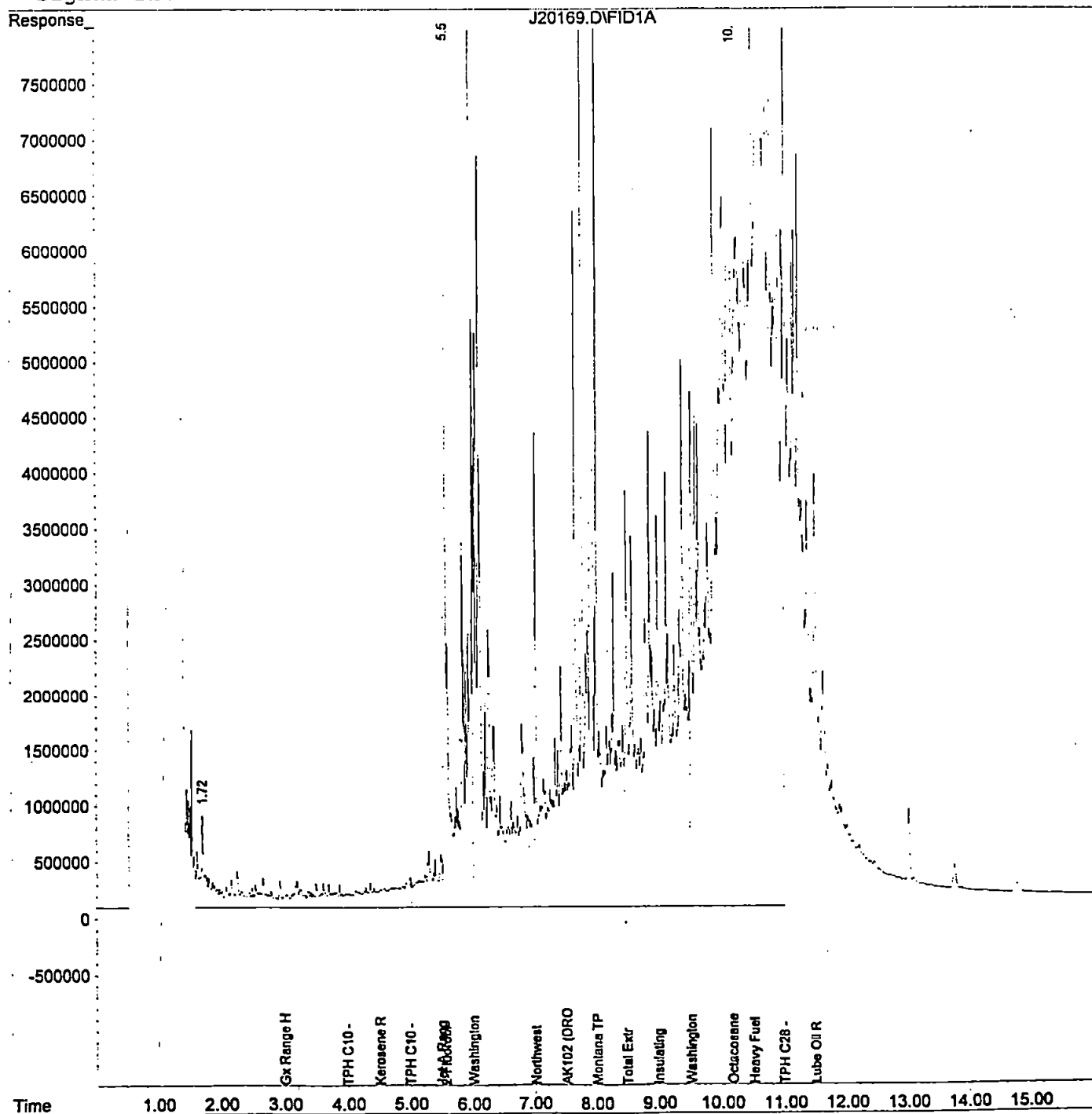
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

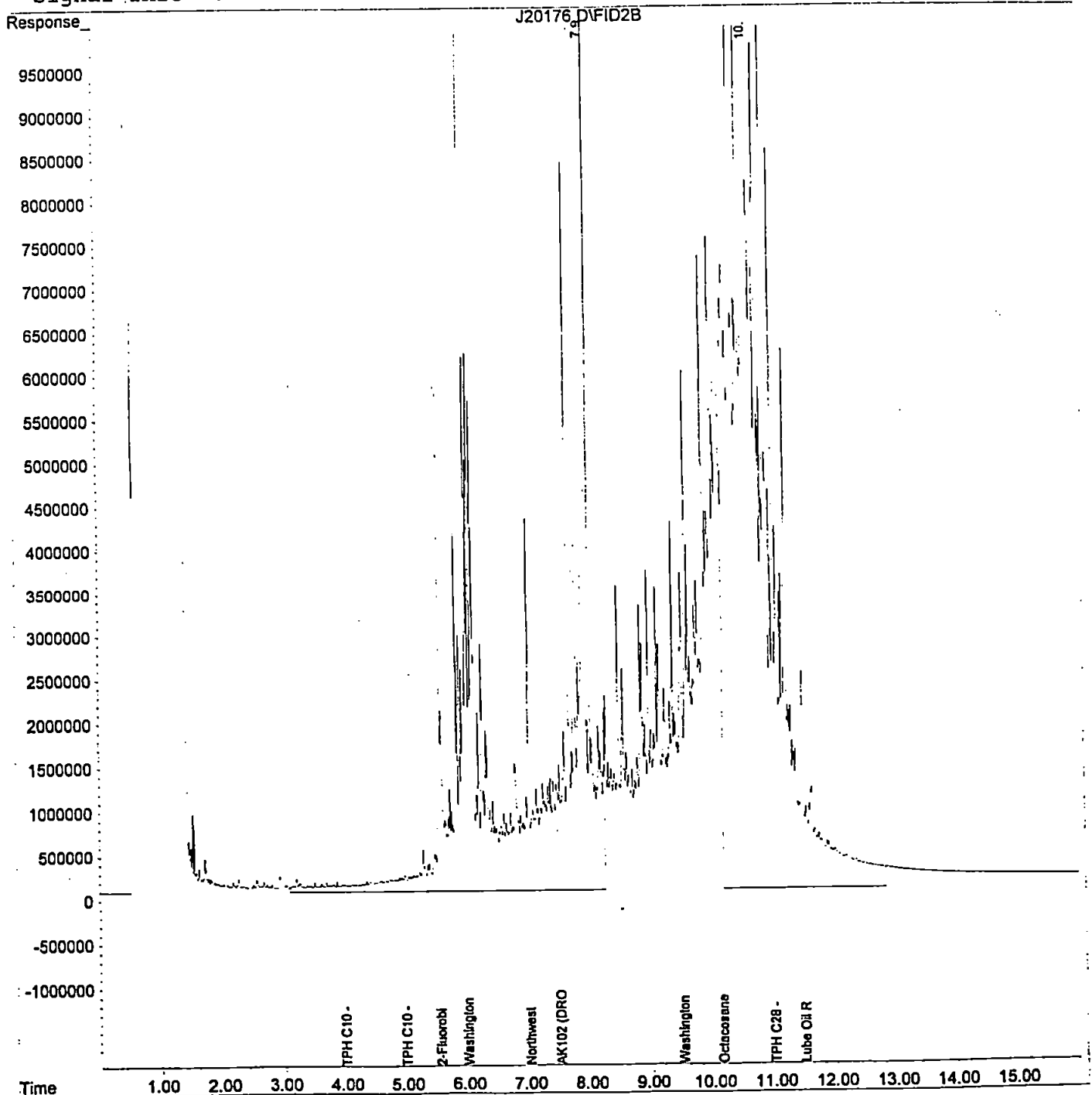
Data File : C:\HPCHEM\4\DATA.SEC\J20176.D
 Acq On : 10-22-98 5:03:26 AM
 Sample : b810478-06
 Misc : s
 IntFile : SURR.E
 Quant Time: Oct 22 8:25 1998

Vial: 32
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

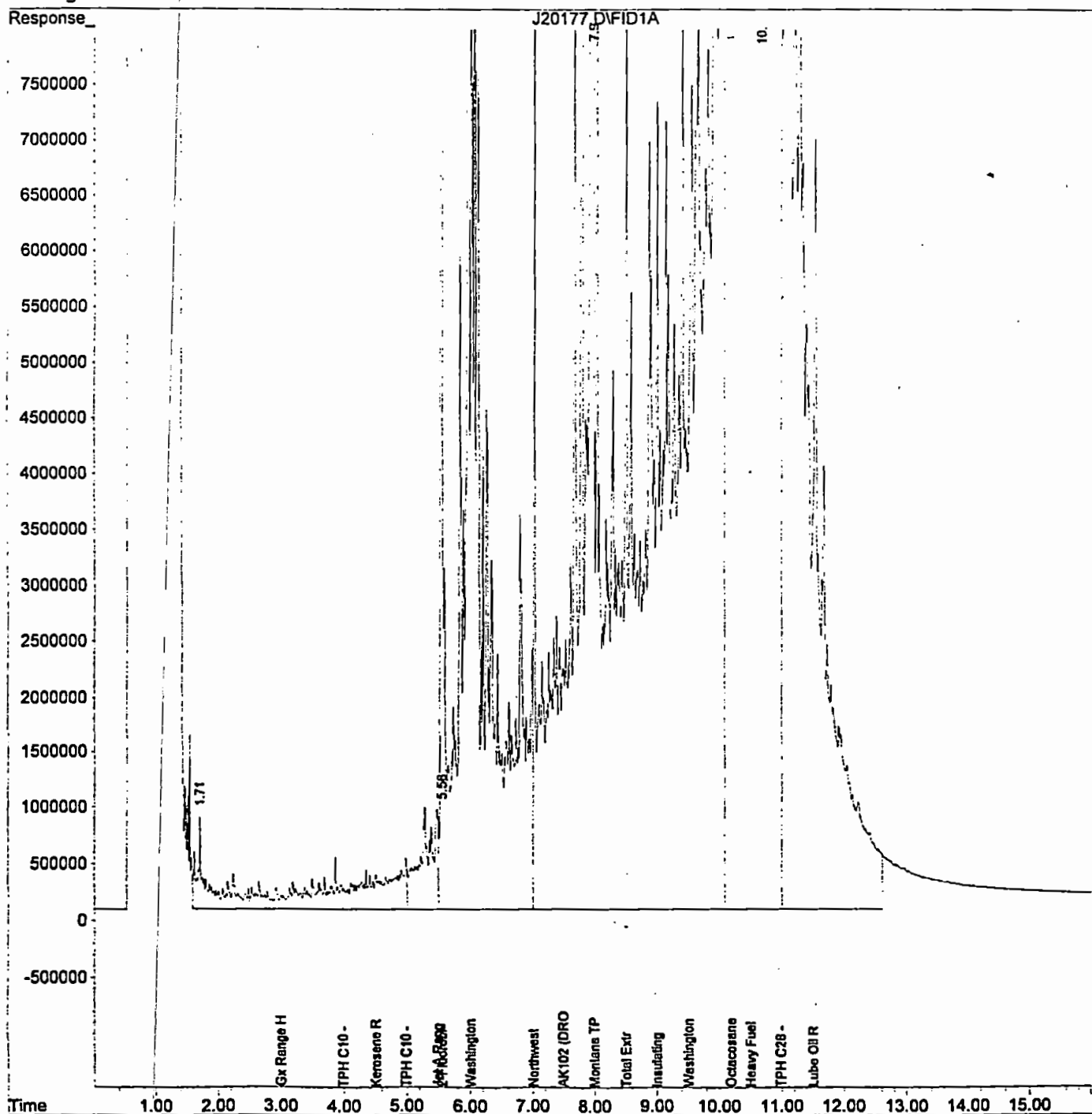
Data File : C:\HPCHEM\4\DATA\J20177.D
 Acq On : 10-22-98 5:03:26 AM
 Sample : b810478-07
 Misc : s
 IntFile : SURR.E

Vial: 33
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Time: Oct 22 8:02 1998 Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Oct 02 11:08:58 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

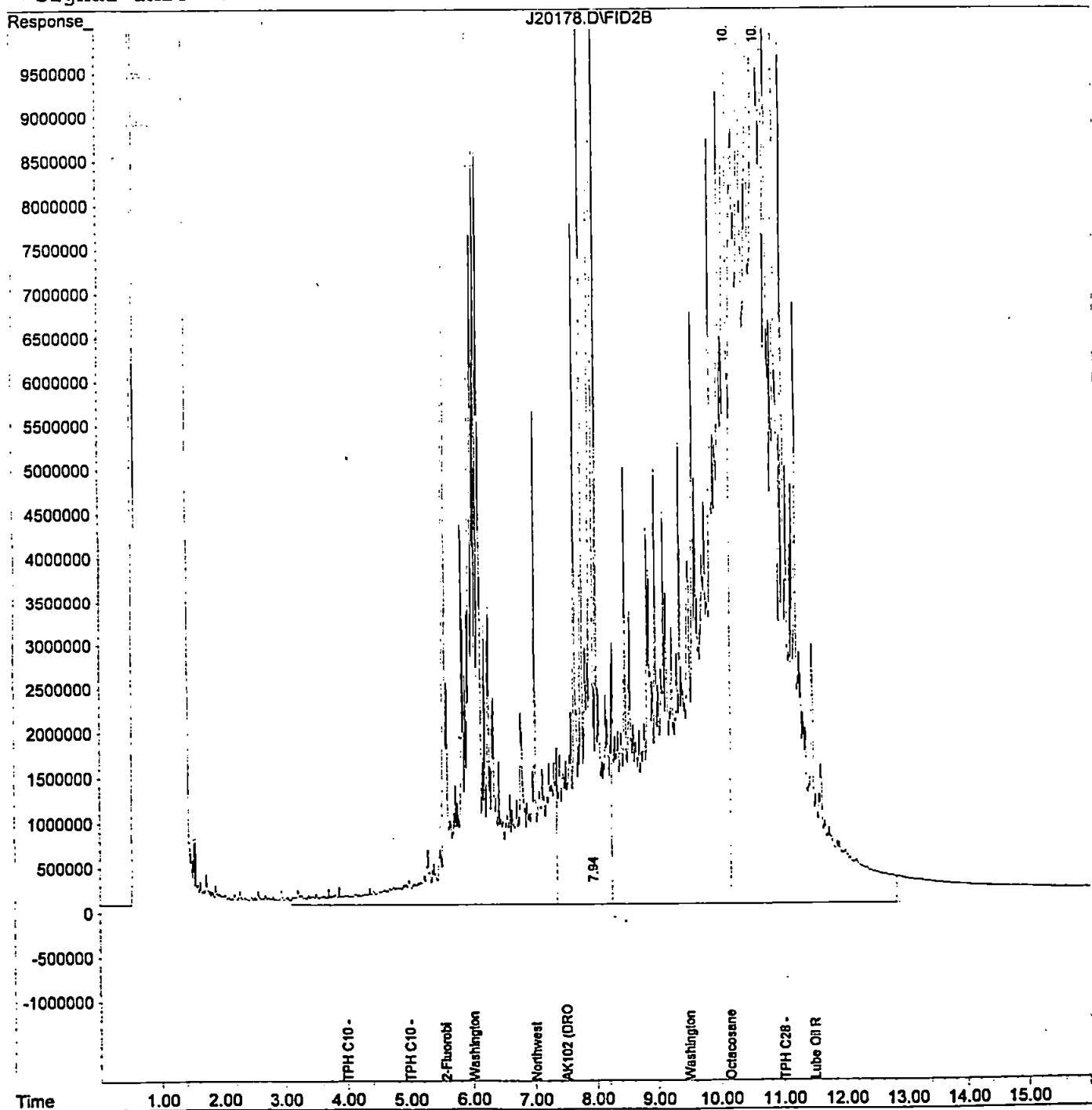
Data File : C:\HPCHEM\4\DATA.SEC\J20178.D
 Acq On : 10-22-98 5:26:27 AM
 Sample : b810478-08
 Misc : S
 IntFile : SURR.E
 Quant Time: Oct 22 8:26 1998

Vial: 34
 Operator: lac
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 02 11:09:47 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



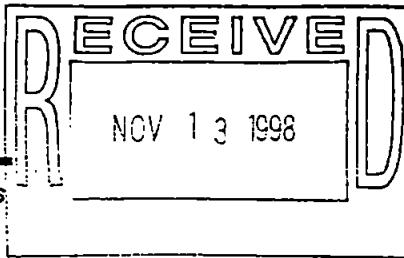
CHAIN OF CUSTODY REPORT

Work Order # B810478

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * <table border="1" style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> </tr> <tr> <td>☐ 10</td> <td>☐ 7</td> <td>☐ 5</td> <td>☐ 4</td> <td>☐ 3</td> <td>☐ 2</td> <td>☒ Same Day</td> </tr> <tr> <td colspan="7">Standard</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> </tr> <tr> <td>☐ 5</td> <td>☐ 3-4</td> <td>☐ 2</td> <td>☒ Same Day</td> <td colspan="2"></td> </tr> <tr> <td colspan="7">Standard</td> </tr> </table> OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☐ 2	☒ Same Day	Standard							Fuels & Hydrocarbon Analyses						☐ 5	☐ 3-4	☐ 2	☒ Same Day			Standard						
Organic & Inorganic Analyses																																															
☐ 10	☐ 7	☐ 5	☐ 4	☐ 3	☐ 2				☒ Same Day																																						
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☐ 5	☐ 3-4	☐ 2	☒ Same Day																																												
Standard																																															
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lomberg</u>																																												
ADDRESS: <u>600 Stewart St Ste 1215</u>			ADDRESS: <u>PSE - P.O. Box 97634-MER-01</u>																																												
<u>Seattle WA, 98101</u>			<u>Bellevue, WA 98007</u>																																												
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____																																												
PROJECT NAME: <u>Grady Way</u>			Analysis Request: <u>PAHs by 8270</u> <u>PCBs by 8082</u> <u>MWTPH DA</u>																																												
PROJECT NUMBER: <u>186-407-00</u>																																															
SAMPLED BY: <u>Tony Orsini</u>																																															
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																																						
1. <u>E-11-13-11</u>		<u>10-20-98 1135</u>	<u>B810478-01</u>	X			<u>S</u>	<u>1</u>																																							
2. _____																																															
3. _____																																															
4. <u>E-11-16-10.5</u>		<u>1150</u>	<u>-02</u>	X																																											
5. <u>E-11-BF-1</u>		<u>1210</u>	<u>-03</u>	X																																											
6. <u>E-11-BF-2</u>		<u>1215</u>	<u>-04</u>	X																																											
7. <u>E-11-BF-3</u>		<u>1220</u>	<u>-05</u>	X																																											
8. <u>E-11-17-8.5</u>		<u>1435</u>	<u>-06</u>	X																																											
9. <u>E-11-18-7.5</u>		<u>1440</u>	<u>-07</u>	X																																											
10. <u>E-11-19-7.5</u>		<u>1445</u>	<u>-08</u>	X																																											
RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>10/29/98</u>	RECEIVED BY (Signature): <u>S. Wideen</u>			DATE: <u>10/21/99</u>																																								
PRINT NAME: <u>PHIL CRAIG</u>			FIRM: <u>GEI</u>	TIME: <u>1600</u>	PRINT NAME: <u>S. Wideen</u>			FIRM: <u>ALCA</u>	TIME: <u>1730</u>																																						
RELINQUISHED BY (Signature): _____			DATE: _____	RECEIVED BY (Signature): _____			DATE: _____																																								
PRINT NAME: _____			FIRM: _____	TIME: _____	PRINT NAME: _____			FIRM: _____	TIME: _____																																						
ADDITIONAL REMARKS:																																															
<u>11.3° w/cd</u> PAGE 1 OF 1																																															



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
Baker Tank 10/23/98	B810554-01	Water	10/23/98
Treatment Tank 10/23/98	B810554-02	Soil	10/23/98

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.*

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Steve Davis, Project Manager

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600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
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Reported: 11/9/98 17:41

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Treatment Tank 10/23/98</u>				<u>B810554-02</u>			<u>Soil</u>	
Gasoline Range Hydrocarbons	1080870	10/25/98	10/25/98		16.6	252	mg/kg dry	1
Benzene	"	"	"		0.166	ND	"	
Toluene	"	"	"		0.166	0.538	"	
Ethylbenzene	"	"	"		0.166	0.248	"	
Xylenes (total)	"	"	"		0.332	2.00	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		39.2	%	2
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		36.4	"	2

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Treatment Tank 10/23/98</u>				<u>B810554-02</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1080842	10/23/98	10/24/98		3350	124000	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		8370	9530	"	
Surrogate: 2-FBP	"	"	"	50.0-150		92.1	%	

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Batch: 1080827</u>										
<u>Blank</u>										
<u>Date Prepared: 10/23/98</u>										
<u>Extraction Method: EPA 3510C/600 Series</u>										
<u>1080827-BLK1</u>										
Aroclor 1016	10/26/98			ND	ug/l	0.100				
Aroclor 1221	"			ND	"	0.100				
Aroclor 1232	"			ND	"	0.100				
Aroclor 1242	"			ND	"	0.100				
Aroclor 1248	"			ND	"	0.100				
Aroclor 1254	"			ND	"	0.100				
Aroclor 1260	"			ND	"	0.100				
Aroclor 1262	"			ND	"	0.100				
Aroclor 1268	"			ND	"	0.100				
Surrogate: TCX	"	0.200		0.221	"	40.0-130	110			
<u>LCS</u>										
<u>1080827-BS1</u>										
Aroclor 1260	10/26/98	10.0		8.96	ug/l	33.0-122	89.6			
Surrogate: TCX	"	0.200		0.293	"	40.0-130	147			9
<u>LCS Dup</u>										
<u>1080827-BSD1</u>										
Aroclor 1260	10/26/98	20.0		15.6	ug/l	33.0-122	78.0	21.0	13.8	10
Surrogate: TCX	"	0.400		0.517	"	40.0-130	129			10
<u>Batch: 1081000</u>										
<u>Blank</u>										
<u>Date Prepared: 10/29/98</u>										
<u>Extraction Method: EPA 3510C/600 Series</u>										
<u>1081000-BLK1</u>										
Aroclor 1016	10/29/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.30	"	40.0-130	109			
<u>LCS</u>										
<u>1081000-BS1</u>										
Aroclor 1260	10/29/98	333		191	ug/kg dry	44.0-123	57.4			
Surrogate: TCX	"	6.67		7.31	"	40.0-130	110			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>LCS Dup</u>	<u>1081000-BSD1</u>									
Aroclor 1260	10/29/98	333		191	ug/kg dry	44.0-123	57.4	23.0	0	
Surrogate: TCX	"	6.67		7.94	"	40.0-130	119			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080843	Date Prepared: 10/23/98			Extraction Method: EPA 3550B						
Blank	1080843-BLK1									
Acenaphthene	10/23/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.62	"	30.0-150	97.0			
Surrogate: Nitrobenzene-d5	"	1.67		1.82	"	30.0-150	109			
Surrogate: p-Terphenyl-d14	"	1.67		2.03	"	30.0-150	122			
LCS	1080843-BS1									
Chrysene	10/23/98	0.333		0.298	mg/kg dry	10.0-125	89.5			
Fluorene	"	0.333		0.295	"	11.0-116	88.6			
Indeno (1,2,3-cd) pyrene	"	0.333		0.301	"	10.0-147	90.4			
Surrogate: 2-FBP	"	1.67		1.56	"	30.0-150	93.4			
Surrogate: Nitrobenzene-d5	"	1.67		1.85	"	30.0-150	111			
Surrogate: p-Terphenyl-d14	"	1.67		1.87	"	30.0-150	112			
LCS Dup	1080843-BSD1									
Chrysene	10/23/98	0.333		0.281	mg/kg dry	10.0-125	84.4	28.0	5.87	
Fluorene	"	0.333		0.286	"	11.0-116	85.9	32.0	3.09	
Indeno (1,2,3-cd) pyrene	"	0.333		0.302	"	10.0-147	90.7	34.0	0.331	
Surrogate: 2-FBP	"	1.67		1.54	"	30.0-150	92.2			
Surrogate: Nitrobenzene-d5	"	1.67		1.79	"	30.0-150	107			
Surrogate: p-Terphenyl-d14	"	1.67		1.79	"	30.0-150	107			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 1080858										
Duplicate										
pH										
		Date Prepared: 10/23/98		Extraction Method: General Preparation						
		1080858-DUP1		B810555-01						
		10/23/98	8.26	8.20	pH Units			10.0	0.729	
Batch: 1080875										
Blank										
		Date Prepared: 10/26/98		Extraction Method: EPA 418.1						
		1080875-BLK1								
		10/26/98		ND	mg/l	1.00				
		"		ND	"	1.00				
		"		0.0819	"					
LCS										
		1080875-BS1								
		10/26/98	2.40	2.42	mg/l	65.8-123	101			
		"	2.40	1.92	"	65.8-123	80.0			
LCS Dup										
		1080875-BSD1								
		10/26/98	2.40	1.76	mg/l	65.8-123	73.3	60.0	31.8	
		"	2.40	1.60	"	65.8-123	66.7	60.0	18.1	
Duplicate										
		1080875-DUP1		B810524-01						
		10/26/98		ND	mg/l			60.0		
		"		ND	"			60.0		
Batch: 1080895										
Blank										
		Date Prepared: 10/26/98		Extraction Method: General Preparation						
		1080895-BLK1								
		10/26/98		ND	mg/l	0.0100				
LCS										
		1080895-BS1								
		10/26/98	0.0500	0.0469	mg/l	62.0-136	93.8			
Duplicate										
		1080895-DUP1		B810554-01						
		10/26/98		ND	mg/l			21.0		

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Notes and Definitions

#	Note

- 1 The chromatogram for this sample does not resemble a typical gasoline pattern. Please refer to the sample chromatogram.
 - 2 Percent solids less than 50% introduced a dilution during the extraction which caused low surrogate recoveries.
 - 3 The reporting limit for this analyte has been raised to account for background noise.
 - 4 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
 - 5 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
 - 6 Visual examination indicates the RPD and/or matrix spike recovery is outside the control limit due to a non-homogeneous sample matrix.
 - 7 Post-digestion Matrix Spike.
 - 8 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
 - 9 The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates the recovery for this surrogate does not represent an out-of-control condition.
 - 10 The BSD has double spike and surrogate.
- 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
- Recov. Recovery
- RPD Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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Quantitation Report

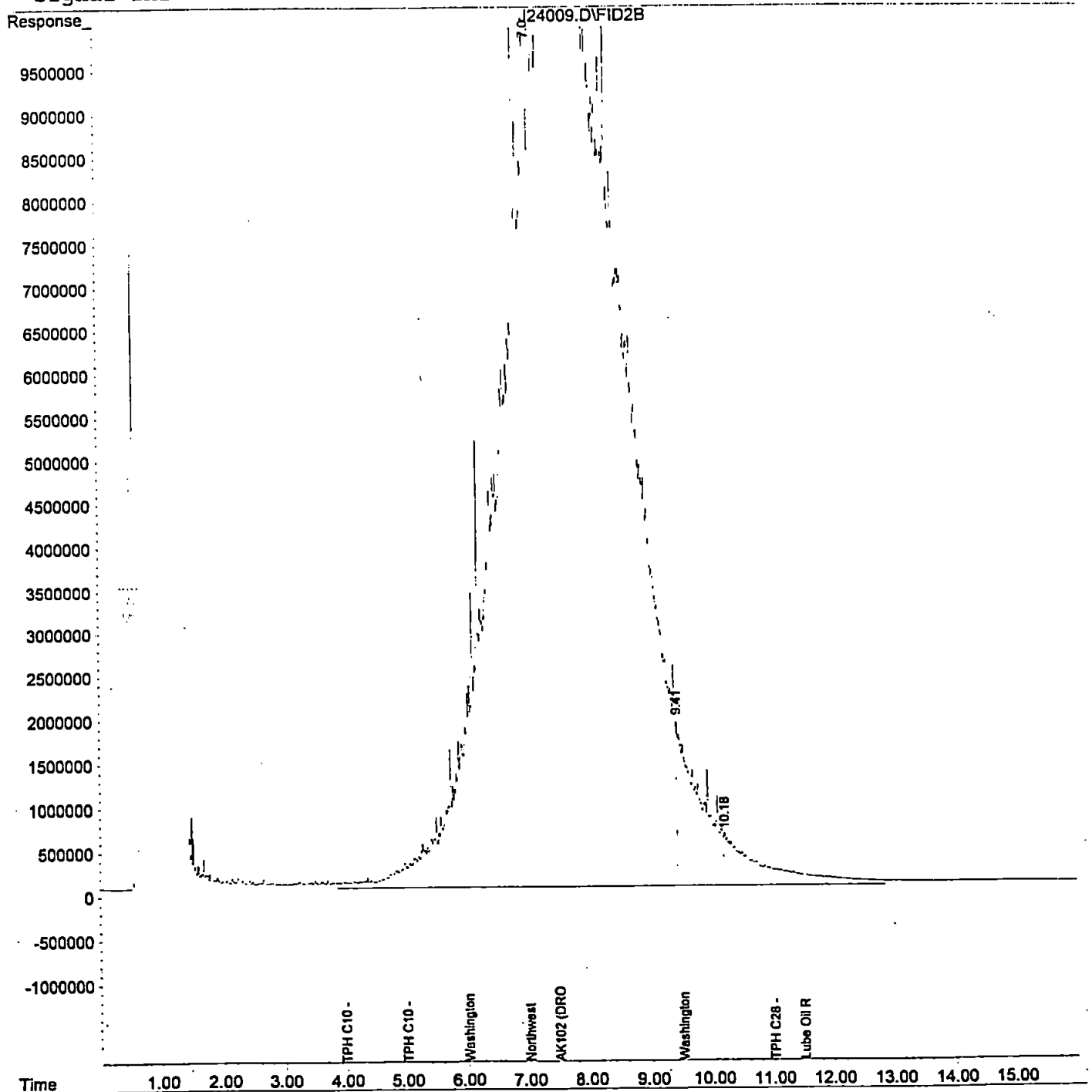
Data File : C:\HPCHEM\4\DATA\102498\J24009.D
 Acq On : 10-24-98 2:07:24 PM
 Sample : b810554-02 r1
 Misc : 101x s
 IntFile : SURR.E
 Quant Time: Oct 26 8:08 1998

Vial: 6
 Operator: CC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Fri Oct 23 11:18:21 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\1\DATA\J25015.D\FID1A.CH
 Acq On : 25 Oct 1998 10:47 pm
 Sample : b810554-02
 Misc : 100 ul, S
 IntFile : SURR.E

Vial: 15
 Operator: jaz
 Inst : GC #2
 Multiplr: 1.00

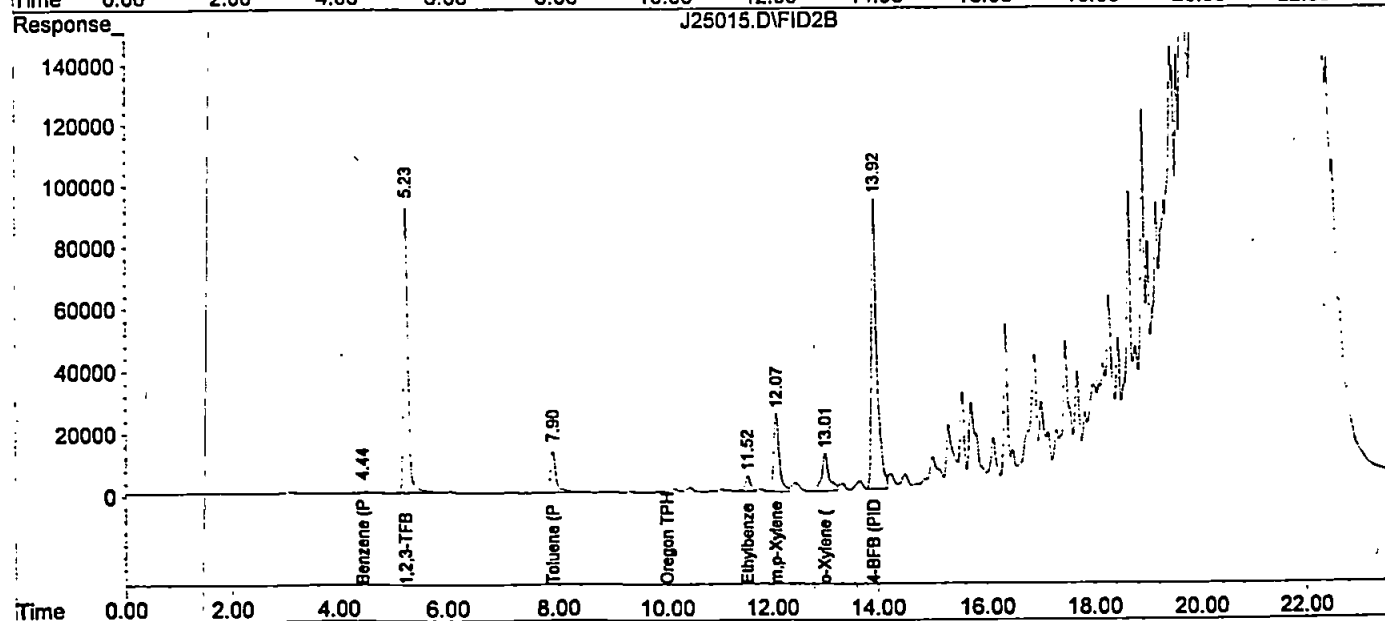
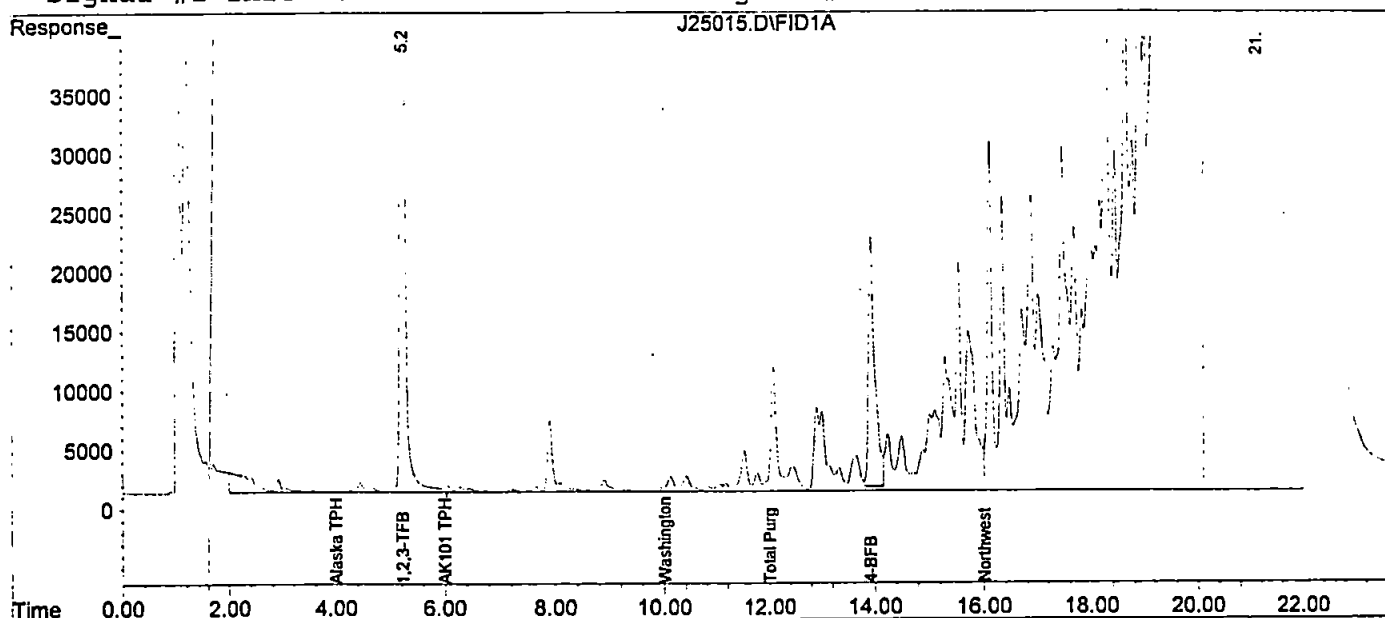
Data File : C:\HPCHEM\1\DATA\J25015.D\FID2B.CH
 Acq On : 25 Oct 98 10:47 pm
 Sample : b810554-02
 Misc : 100 ul, S
 IntFile : SURR2.E

Vial: 15
 Operator: jaz
 Inst : GC #2
 Multiplr: 1.00

Quant Time: Oct 25 23:12 1998 Quant Results File: TPHG.RES

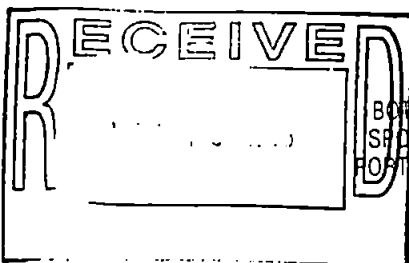
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 Last Update : Mon Oct 19 10:32:13 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :





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ANALYTICAL**
Environmental Laboratory Services



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

ANALYTICAL REPORT FOR SAMPLES:

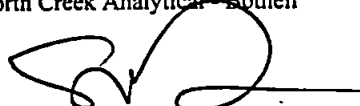
Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GMW-1	B811048-01	Water	11/3/98
GMW-2A	B811048-02	Water	11/3/98
GMW-3A	B811048-03	Water	11/3/98
GMW-4A	B811048-04	Water	11/3/98
GMW-5	B811048-05	Water	11/3/98
GMW-6	B811048-06	Water	11/3/98
GMW-7	B811048-07	Water	11/3/98
GMW-8	B811048-08	Water	11/3/98
GMW-9	B811048-09	Water	11/3/98
GMW-10	B811048-10	Water	11/3/98
GMW-11	B811048-11	Water	11/3/98
GMW- 12a	B811048-12	Water	11/3/98
MW-4	B811048-13	Water	11/3/98
MW-10	B811048-14	Water	11/3/98
MW-20	B811048-15	Water	11/3/98
B-1A-5.0	B811048-16	Soil	11/3/98
B-2A-5.0	B811048-17	Soil	11/3/98
B-3A-5.0	B811048-18	Soil	11/3/98
B-4A-3.5	B811048-19	Soil	11/3/98

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.*

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Steve Davis, Project Manager



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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4				B811048-13			Water	
Gasoline Range Hydrocarbons	1180066	11/3/98	11/4/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		93.5	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		99.4	"	
MW-10				B811048-14			Water	
Gasoline Range Hydrocarbons	1180066	11/3/98	11/4/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		90.6	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		99.2	"	
MW-20				B811048-15			Water	
Gasoline Range Hydrocarbons	1180066	11/3/98	11/3/98		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		92.5	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		99.4	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-1 <u>B811048-01</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		52.9	%	
GMW-2A <u>B811048-02</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		59.6	%	
GMW-3A <u>B811048-03</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		52.3	%	
GMW-4A <u>B811048-04</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	0.802	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	1.52	"	
Surrogate: 2-FBP	"	"	"	50.0-150		55.4	%	
GMW-5 <u>B811048-05</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		51.1	%	
GMW-6 <u>B811048-06</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		59.3	%	
GMW-7 <u>B811048-07</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		2.75	9.43	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		5.50	15.8	"	
Surrogate: 2-FBP	"	"	"	50.0-150		71.4	%	
GMW-8 <u>B811048-08</u> <u>Water</u>								
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	0.385	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	0.942	"	
Surrogate: 2-FBP	"	"	"	50.0-150		55.0	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/3/98 Received: 11/3/98 Reported: 11/12/98 16:51

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-9				B811048-09			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		55.7	%	
GMW-10				B811048-10			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		54.7	%	
GMW-11				B811048-11			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		56.0	%	
GMW-12a				B811048-12			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		53.5	%	
MW-4				B811048-13			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		54.4	%	
MW-10				B811048-14			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		58.3	%	
MW-20				B811048-15			Water	
Diesel Range Hydrocarbons	1180134	11/4/98	11/5/98		0.250	ND	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		55.7	%	
B-1A-5.0				B811048-16			Soil	
Diesel Range Hydrocarbons	1180115	11/4/98	11/5/98		10.0	86.6	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	115	"	
Surrogate: 2-FBP	"	"	"	50.0-150		79.4	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Semivolatile Petroleum Products by NWTPh-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-2A-5.0				B811048-17			Soil	
Diesel Range Hydrocarbons	1180115	11/4/98	11/5/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	47.7	"	
Surrogate: 2-FBP	"	"	"	50.0-150		85.0	%	
B-3A-5.0				B811048-18			Soil	
Diesel Range Hydrocarbons	1180115	11/4/98	11/5/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		91.1	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
GMW-3A								
				B811048-03				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.0152	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00105	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
GMW-8								
				B811048-08				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00228	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	ND	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
GMW-9								
				B811048-09				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00287	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	ND	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
GMW-10								
				B811048-10				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00515	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00138	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
GMW-11								
				B811048-11				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00122	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00109	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
GMW-12a								
				B811048-12				Water
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00846	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>GMW- 12a (continued)</u>				<u>B811048-12</u>			<u>Water</u>	
Lead	1180249	11/6/98	11/11/98	EPA 6020	0.00100	ND	mg/l	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
<u>MW-4</u>				<u>B811048-13</u>			<u>Water</u>	
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.0121	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00142	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
<u>MW-10</u>				<u>B811048-14</u>			<u>Water</u>	
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	ND	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	ND	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	
<u>MW-20</u>				<u>B811048-15</u>			<u>Water</u>	
Arsenic	1180249	11/6/98	11/11/98	EPA 6020	0.00100	0.00170	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	ND	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Mercury	1180405	11/11/98	11/12/98	EPA 7470A	0.00100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Halogenated Volatile Organics by EPA Method 8021B (modified) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-20</u>			<u>B811048-15</u>				<u>Water</u>	
Bromodichloromethane	1180121	11/4/98	11/5/98		1.00	ND	ug/l	
Bromoform	"	"	"		1.00	ND	"	
Bromomethane	"	"	"		1.00	ND	"	
Carbon tetrachloride	"	"	"		1.00	ND	"	
Chlorobenzene	"	"	"		1.00	ND	"	
Chloroethane	"	"	"		1.00	ND	"	
Chloroform	"	"	"		1.00	ND	"	
Chloromethane	"	"	"		1.00	ND	"	
Dibromochloromethane	"	"	"		1.00	ND	"	
1,2-Dichlorobenzene	"	"	"		1.00	ND	"	
1,3-Dichlorobenzene	"	"	"		1.00	ND	"	
1,4-Dichlorobenzene	"	"	"		1.00	ND	"	
1,1-Dichloroethane	"	"	"		1.00	ND	"	
1,2-Dichloroethane	"	"	"		1.00	ND	"	
1,1-Dichloroethene	"	"	"		1.00	ND	"	
cis-1,2-Dichloroethene	"	"	"		1.00	ND	"	
trans-1,2-Dichloroethene	"	"	"		1.00	ND	"	
1,2-Dichloropropane	"	"	"		1.00	ND	"	
cis-1,3-Dichloropropene	"	"	"		1.00	ND	"	
trans-1,3-Dichloropropene	"	"	"		1.00	ND	"	
Methylene chloride	"	"	"		5.00	ND	"	
1,1,2,2-Tetrachloroethane	"	"	"		1.00	ND	"	
Tetrachloroethene	"	"	"		1.00	ND	"	
1,1,1-Trichloroethane	"	"	"		1.00	ND	"	
1,1,2-Trichloroethane	"	"	"		1.00	ND	"	
Trichloroethene	"	"	"		1.00	ND	"	
Trichlorofluoromethane	"	"	"		1.00	ND	"	
Vinyl chloride	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (ELCD)	"	"	"	50.0-150		92.7	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-1				B811048-01			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		78.3	%	
GMW-2A				B811048-02			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		115	%	
GMW-3A				B811048-03			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		94.7	%	
GMW-4A				B811048-04			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/3/98 Received: 11/3/98 Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-4A (continued)				B811048-04			Water	
Aroclor 1232	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1242	"	"	"		0.100	0.506	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		106	%	
GMW-5				B811048-05			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		121	%	
GMW-6				B811048-06			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		120	%	
GMW-7				B811048-07			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-7 (continued)			B811048-07				Water	
Aroclor 1248	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		88.9	%	
GMW-8			B811048-08				Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		46.0	%	
GMW-9			B811048-09				Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		103	%	
GMW-10			B811048-10				Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-10 (continued)				B811048-10			Water	
Aroclor 1260	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		114	%	
GMW-11				B811048-11			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		87.3	%	
GMW-12a				B811048-12			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		101	%	
MW-10				B811048-14			Water	
Aroclor 1016	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>MW-10 (continued)</u>				<u>B811048-14</u>			<u>Water</u>	
Aroclor 1268	1180161	11/5/98	11/6/98		0.100	ND	ug/l	
Surrogate: TCX	"	"	"	40.0-130		113	%	
<u>B-1A-5.0</u>				<u>B811048-16</u>			<u>Soil</u>	
Aroclor 1016	1180132	11/4/98	11/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		75.1	%	
<u>B-2A-5.0</u>				<u>B811048-17</u>			<u>Soil</u>	
Aroclor 1016	1180132	11/4/98	11/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		126	%	
<u>B-3A-5.0</u>				<u>B811048-18</u>			<u>Soil</u>	
Aroclor 1016	1180132	11/4/98	11/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		97.9	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
B-4A-3.5				B811048-19			Soil	
Aroclor 1016	1180132	11/4/98	11/9/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	164	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	ND	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		85.0	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/3/98 Received: 11/3/98 Reported: 11/12/98 16:51

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-4A				B811048-04			Water	
Acenaphthene	1180259	11/9/98	11/9/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		59.3	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		63.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		122	"	
GMW-5				B811048-05			Water	
Acenaphthene	1180259	11/9/98	11/9/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		66.5	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

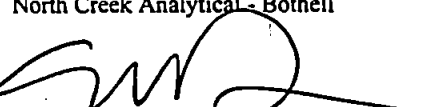
Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Baker Tank 10/23/98</u>				<u>B810554-01</u>			<u>Water</u>	
Aroclor 1016	1080827	10/23/98	10/26/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	ND	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	ND	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		81.1	%	
<u>Treatment Tank 10/23/98</u>				<u>B810554-02</u>			<u>Soil</u>	
Aroclor 1016	1081000	10/29/98	10/29/98		166	ND	ug/kg dry	
Aroclor 1221	"	"	"		166	ND	"	
Aroclor 1232	"	"	"		166	ND	"	
Aroclor 1242	"	"	"		166	ND	"	
Aroclor 1248	"	"	"		166	ND	"	
Aroclor 1254	"	"	"		166	ND	"	
Aroclor 1260	"	"	"		166	ND	"	
Aroclor 1262	"	"	"		166	ND	"	
Aroclor 1268	"	"	"		166	ND	"	
Surrogate: TCX	"	"	"	40.0-130		NR	%	4

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*Refer to end of report for text of notes and definitions.


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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Treatment Tank 10/23/98				B810554-02			Soil	
Acenaphthene	1080843	10/23/98	10/24/98		3.32	ND	mg/kg dry	
Acenaphthylene	"	"	"		3.32	ND	"	
Anthracene	"	"	"		3.32	ND	"	
Benzo (a) anthracene	"	"	"		3.32	ND	"	
Benzo (a) pyrene	"	"	"		3.32	ND	"	
Benzo (b) fluoranthene	"	"	"		3.32	ND	"	
Benzo (ghi) perylene	"	"	"		3.32	ND	"	
Benzo (k) fluoranthene	"	"	"		3.32	ND	"	
Chrysene	"	"	"		3.32	ND	"	
Dibenz (a,h) anthracene	"	"	"		3.32	ND	"	
Fluoranthene	"	"	"		3.32	ND	"	
Fluorene	"	"	"		3.32	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		3.32	ND	"	
Naphthalene	"	"	"		3.32	ND	"	
Phenanthrene	"	"	"		3.32	7.08	"	
Pyrene	"	"	"		3.32	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		68.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		64.0	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		104	"	



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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-5 (continued)				B811048-05			Water	
Surrogate: Nitrobenzene-d5	1180259	11/9/98	11/9/98	30.0-150		72.9	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		125	"	
GMW-6				B811048-06			Water	
Acenaphthene	1180259	11/9/98	11/9/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		61.4	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		67.6	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		121	"	
GMW-10				B811048-10			Water	
Acenaphthene	1180259	11/9/98	11/10/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-10 (continued)				B811048-10			Water	
Naphthalene	1180259	11/9/98	11/10/98		0.300	ND	ug/l	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		52.1	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		69.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		113	"	
GMW-11				B811048-11			Water	
Acenaphthene	1180259	11/9/98	11/10/98		0.100	ND	ug/l	
Acenaphthylene	"	"	"		0.100	ND	"	
Anthracene	"	"	"		0.100	ND	"	
Benzo (a) anthracene	"	"	"		0.100	ND	"	
Benzo (a) pyrene	"	"	"		0.100	ND	"	
Benzo (b) fluoranthene	"	"	"		0.100	ND	"	
Benzo (ghi) perylene	"	"	"		0.100	ND	"	
Benzo (k) fluoranthene	"	"	"		0.100	ND	"	
Chrysene	"	"	"		0.100	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.100	ND	"	
Fluoranthene	"	"	"		0.300	ND	"	
Fluorene	"	"	"		0.100	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.100	ND	"	
Naphthalene	"	"	"		0.300	ND	"	
Phenanthrene	"	"	"		0.100	ND	"	
Pyrene	"	"	"		0.300	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		78.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		86.2	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		116	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>GMW-1</u> pH	1180112	11/3/98	11/3/98	<u>B811048-01</u> EPA 150.1		6.46	<u>Water</u> pH Units	
<u>GMW-2A</u> pH	1180112	11/3/98	11/3/98	<u>B811048-02</u> EPA 150.1		6.98	<u>Water</u> pH Units	
<u>GMW-3A</u> pH	1180112	11/3/98	11/3/98	<u>B811048-03</u> EPA 150.1		6.40	<u>Water</u> pH Units	
<u>GMW-4A</u> pH	1180112	11/3/98	11/3/98	<u>B811048-04</u> EPA 150.1		6.30	<u>Water</u> pH Units	
<u>GMW-5</u> pH	1180112	11/3/98	11/3/98	<u>B811048-05</u> EPA 150.1		6.30	<u>Water</u> pH Units	
<u>GMW-6</u> pH	1180112	11/3/98	11/3/98	<u>B811048-06</u> EPA 150.1		6.47	<u>Water</u> pH Units	
<u>GMW-7</u> pH	1180112	11/3/98	11/3/98	<u>B811048-07</u> EPA 150.1		6.52	<u>Water</u> pH Units	
<u>GMW-8</u> pH	1180112	11/3/98	11/3/98	<u>B811048-08</u> EPA 150.1		6.44	<u>Water</u> pH Units	
<u>GMW-9</u> pH	1180112	11/3/98	11/3/98	<u>B811048-09</u> EPA 150.1		6.75	<u>Water</u> pH Units	
<u>GMW-10</u> pH	1180112	11/3/98	11/3/98	<u>B811048-10</u> EPA 150.1		6.41	<u>Water</u> pH Units	
<u>GMW-11</u> pH	1180112	11/3/98	11/3/98	<u>B811048-11</u> EPA 150.1		6.42	<u>Water</u> pH Units	
<u>GMW-12a</u> pH	1180112	11/3/98	11/3/98	<u>B811048-12</u> EPA 150.1		6.56	<u>Water</u> pH Units	
<u>MW-4</u> pH	1180112	11/3/98	11/3/98	<u>B811048-13</u> EPA 150.1		6.56	<u>Water</u> pH Units	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager



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Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>MW-10</u> pH	1180112	11/3/98	11/3/98	<u>B811048-14</u> EPA 150.1		6.54	<u>Water</u> pH Units	
<u>MW-20</u> pH	1180112	11/3/98	11/3/98	<u>B811048-15</u> EPA 150.1		6.63	<u>Water</u> pH Units	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

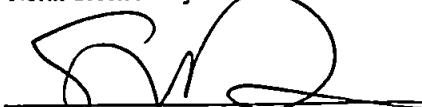
Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
B-1A-5.0	B811048-16	Soil	82.2	%
B-2A-5.0	B811048-17	Soil	89.4	%
B-3A-5.0	B811048-18	Soil	87.5	%
B-4A-3.5	B811048-19	Soil	82.6	%

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180066		Date Prepared: 10/3/98		Extraction Method: EPA 5030B (P/T)						
Blank		1180066-BLK1								
Gasoline Range Hydrocarbons	11/3/98			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	1.00				
Surrogate: 4-BFB (FID)	"	48.0		45.1	"	50.0-150	94.0			
Surrogate: 4-BFB (PID)	"	48.0		46.6	"	50.0-150	97.1			
LCS		1180066-BS1								
Gasoline Range Hydrocarbons	11/3/98	500		457	ug/l	70.0-130	91.4			
Surrogate: 4-BFB (FID)	"	48.0		47.0	"	50.0-150	97.9			
Duplicate		1180066-DUP1		B810535-01						
Gasoline Range Hydrocarbons	11/3/98		15600	16000	ug/l			25.0	2.53	
Surrogate: 4-BFB (FID)	"	48.0		49.6	"	50.0-150	103			
Matrix Spike		1180066-MS1		B810535-03						
Benzene	11/3/98	10.0	ND	8.66	ug/l	70.0-130	86.6			
Toluene	"	10.0	ND	8.86	"	70.0-130	88.6			
Ethylbenzene	"	10.0	ND	8.87	"	70.0-130	88.7			
Xylenes (total)	"	30.0	ND	26.2	"	70.0-130	87.3			
Surrogate: 4-BFB (PID)	"	48.0		44.2	"	50.0-150	92.1			
Matrix Spike Dup		1180066-MSD1		B810535-03						
Benzene	11/4/98	10.0	ND	8.99	ug/l	70.0-130	89.9	15.0	3.74	
Toluene	"	10.0	ND	9.27	"	70.0-130	92.7	15.0	4.52	
Ethylbenzene	"	10.0	ND	9.17	"	70.0-130	91.7	15.0	3.33	
Xylenes (total)	"	30.0	ND	27.3	"	70.0-130	91.0	15.0	4.15	
Surrogate: 4-BFB (PID)	"	48.0		46.2	"	50.0-150	96.3			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180115		Date Prepared: 11/4/98		Extraction Method: EPA 3550B						
Blank		1180115-BLK1								
Diesel Range Hydrocarbons	11/4/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		5.85	"	50.0-150	54.7			
LCS		1180115-BS1								
Diesel Range Hydrocarbons	11/5/98	66.7		60.3	mg/kg dry	60.0-140	90.4			
Surrogate: 2-FBP	"	10.7		9.74	"	50.0-150	91.0			
Duplicate		1180115-DUP1 B811018-09								
Diesel Range Hydrocarbons	11/5/98		119	109	mg/kg dry			50.0	8.77	
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	11.6		7.56	"	50.0-150	65.2			
Batch: 1180134		Date Prepared: 11/4/98		Extraction Method: EPA 3510C/600 Series						
Blank		1180134-BLK1								
Diesel Range Hydrocarbons	11/5/98			ND	mg/l	0.250				
Lube Oil Range Hydrocarbons	"			ND	"	0.500				
Surrogate: 2-FBP	"	0.322		0.178	"	50.0-150	55.3			
LCS		1180134-BS1								
Diesel Range Hydrocarbons	11/5/98	2.00		1.59	mg/l	60.0-140	79.5			
Surrogate: 2-FBP	"	0.322		0.208	"	50.0-150	64.6			
LCS Dup		1180134-BSD1								
Diesel Range Hydrocarbons	11/5/98	2.00		1.64	mg/l	60.0-140	82.0	40.0	3.10	
Surrogate: 2-FBP	"	0.322		0.214	"	50.0-150	66.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/3/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/3/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/12/98 16:51

Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180249										
Blank										
Date Prepared: 11/6/98										
1180249-BLK1										
Arsenic	11/10/98			ND	mg/l	0.00100				
Cadmium	"			ND	"	0.00100				
Chromium	"			ND	"	0.00100				
Lead	"			ND	"	0.00100				
LCS										
1180249-BS1										
Arsenic	11/10/98	0.200		0.210	mg/l	80.0-120	105			
Cadmium	"	0.200		0.204	"	80.0-120	102			
Chromium	"	0.200		0.227	"	80.0-120	113			
Lead	"	0.200		0.212	"	80.0-120	106			
Duplicate										
1180249-DUP1 B811036-01										
Arsenic	11/10/98		ND	ND	mg/l				20.0	
Cadmium	"		ND	ND	"				20.0	
Chromium	"		ND	ND	"				20.0	
Lead	"		ND	ND	"				20.0	
Matrix Spike										
1180249-MS1 B811036-01										
Arsenic	11/10/98	0.200	ND	0.209	mg/l	75.0-125	105			
Cadmium	"	0.200	ND	0.200	"	75.0-125	100			
Chromium	"	0.200	ND	0.223	"	75.0-125	112			
Lead	"	0.200	ND	0.213	"	75.0-125	106			
Batch: 1180405										
Blank										
Date Prepared: 11/11/98										
1180405-BLK1										
Mercury	11/12/98			ND	mg/l	0.00100				
LCS										
1180405-BS1										
Mercury	11/12/98	0.00500		0.00533	mg/l	70.0-130	107			
Matrix Spike										
1180405-MS1 B811048-15										
Mercury	11/12/98	0.00500	ND	0.00540	mg/l	75.0-125	108			
Matrix Spike Dup										
1180405-MSD1 B811048-15										
Mercury	11/12/98	0.00500	ND	0.00540	mg/l	75.0-125	108	20.0		0

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Halogenated Volatile Organics by EPA Method 8021B (modified)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180121		Date Prepared: 11/4/98			Extraction Method: EPA 5030B [P/T]					
Blank		1180121-BLK1								
Bromodichloromethane	11/4/98			ND	ug/l	1.00				
Bromoform	"			ND	"	1.00				
Bromomethane	"			ND	"	1.00				
Carbon tetrachloride	"			ND	"	1.00				
Chlorobenzene	"			ND	"	1.00				
Chloroethane	"			ND	"	1.00				
Chloroform	"			ND	"	1.00				
Chloromethane	"			ND	"	1.00				
Dibromochloromethane	"			ND	"	1.00				
1,2-Dichlorobenzene	"			ND	"	1.00				
1,3-Dichlorobenzene	"			ND	"	1.00				
1,4-Dichlorobenzene	"			ND	"	1.00				
1,1-Dichloroethane	"			ND	"	1.00				
1,2-Dichloroethane	"			ND	"	1.00				
1,1-Dichloroethene	"			ND	"	1.00				
cis-1,2-Dichloroethene	"			ND	"	1.00				
trans-1,2-Dichloroethene	"			ND	"	1.00				
1,2-Dichloropropane	"			ND	"	1.00				
cis-1,3-Dichloropropene	"			ND	"	1.00				
trans-1,3-Dichloropropene	"			ND	"	1.00				
Methylene chloride	"			ND	"	5.00				
1,1,2,2-Tetrachloroethane	"			ND	"	1.00				
Tetrachloroethene	"			ND	"	1.00				
1,1,1-Trichloroethane	"			ND	"	1.00				
1,1,2-Trichloroethane	"			ND	"	1.00				
Trichloroethene	"			ND	"	1.00				
Trichlorofluoromethane	"			ND	"	1.00				
Vinyl chloride	"			ND	"	1.00				
Surrogate: 4-BFB (ELCD)	"	10.0		9.43	"	50.0-150	94.3			
LCS		1180121-BS1								
Chlorobenzene	11/7/98	5.00		5.62	ug/l	70.0-130	112			
1,1-Dichloroethene	"	5.00		4.80	"	70.0-130	96.0			
Trichloroethene	"	5.00		5.76	"	70.0-130	115			
Surrogate: 4-BFB (ELCD)	"	10.0		9.16	"	50.0-150	91.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Halogenated Volatile Organics by EPA Method 8021B (modified)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike		1180121-MS1	B810568-01							
Chlorobenzene	11/4/98	10.0	ND	10.1	ug/l	70.0-130	101			
1,1-Dichloroethene	"	10.0	ND	5.36	"	70.0-130	53.6			
Trichloroethene	"	10.0	ND	9.98	"	70.0-130	99.8			
Surrogate: 4-BFB (ELCD)	"	10.0		9.01	"	50.0-150	90.1			
Matrix Spike Dup		1180121-MSD1	B810568-01							
Chlorobenzene	11/4/98	10.0	ND	10.1	ug/l	70.0-130	101	20.0	0	
1,1-Dichloroethene	"	10.0	ND	10.0	"	70.0-130	100	20.0	60.4	2
Trichloroethene	"	10.0	ND	10.3	"	70.0-130	103	20.0	3.16	
Surrogate: 4-BFB (ELCD)	"	10.0		9.12	"	50.0-150	91.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180132 Date Prepared: 11/4/98 Extraction Method: EPA 3550B										
Blank 1180132-BLK1										
Aroclor 1016	11/6/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		7.07	"	40.0-130	106			
LCS 1180132-BS1										
Aroclor 1260	11/6/98	333		256	ug/kg dry	44.0-123	76.9			
Surrogate: TCX	"	6.67		8.26	"	40.0-130	124			
Matrix Spike 1180132-MS1 B810584-34										
Aroclor 1260	11/6/98	402	ND	307	ug/kg dry	28.0-132	76.4			
Surrogate: TCX	"	8.04		9.42	"	40.0-130	117			
Matrix Spike Dup 1180132-MSD1 B810584-34										
Aroclor 1260	11/6/98	402	ND	320	ug/kg dry	28.0-132	79.6	23.0	4.10	
Surrogate: TCX	"	8.04		9.22	"	40.0-130	115			
Batch: 1180161 Date Prepared: 11/5/98 Extraction Method: EPA 3510C/600 Series										
Blank 1180161-BLK1										
Aroclor 1016	11/6/98			ND	ug/l	0.100				
Aroclor 1221	"			ND	"	0.100				
Aroclor 1232	"			ND	"	0.100				
Aroclor 1242	"			ND	"	0.100				
Aroclor 1248	"			ND	"	0.100				
Aroclor 1254	"			ND	"	0.100				
Aroclor 1260	"			ND	"	0.100				
Aroclor 1262	"			ND	"	0.100				
Aroclor 1268	"			ND	"	0.100				
Surrogate: TCX	"	0.200		0.213	"	40.0-130	106			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>LCS</u>	<u>1180161-BS1</u>									
Aroclor 1260	11/6/98	10.0		6.62	ug/l	33.0-122	66.2			
Surrogate: TCX	"	0.200		0.230	"	40.0-130	115			
<u>LCS Dup</u>	<u>1180161-BSD1</u>									
Aroclor 1260	11/6/98	10.0		6.48	ug/l	33.0-122	64.8	21.0	2.14	
Surrogate: TCX	"	0.200		0.202	"	40.0-130	101			

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180259		Date Prepared: 11/9/98		Extraction Method: EPA 3510C/600 Series						
Blank		1180259-BLK1								
Acenaphthene	11/9/98			ND	ug/l	0.100				
Acenaphthylene	"			ND	"	0.100				
Anthracene	"			ND	"	0.100				
Benzo (a) anthracene	"			ND	"	0.100				
Benzo (a) pyrene	"			ND	"	0.100				
Benzo (b) fluoranthene	"			ND	"	0.100				
Benzo (ghi) perylene	"			ND	"	0.100				
Benzo (k) fluoranthene	"			ND	"	0.100				
Chrysene	"			ND	"	0.100				
Dibenz (a,h) anthracene	"			ND	"	0.100				
Fluoranthene	"			ND	"	0.300				
Fluorene	"			ND	"	0.100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.100				
Naphthalene	"			ND	"	0.300				
Phenanthrene	"			ND	"	0.100				
Pyrene	"			ND	"	0.300				
Surrogate: 2-FBP	"	50.0		28.4	"	30.0-150	56.8			
Surrogate: Nitrobenzene-d5	"	50.0		31.9	"	30.0-150	63.8			
Surrogate: p-Terphenyl-d14	"	50.0		51.8	"	30.0-150	104			
LCS		1180259-BS1								
Chrysene	11/9/98	10.0		6.28	ug/l	50.0-150	62.8			
Fluorene	"	10.0		5.98	"	50.0-150	59.8			
Indeno (1,2,3-cd) pyrene	"	10.0		7.92	"	50.0-150	79.2			
Surrogate: 2-FBP	"	50.0		37.2	"	30.0-150	74.4			
Surrogate: Nitrobenzene-d5	"	50.0		39.1	"	30.0-150	78.2			
Surrogate: p-Terphenyl-d14	"	50.0		58.8	"	30.0-150	118			
LCS Dup		1180259-BSD1								
Chrysene	11/9/98	10.0		6.46	ug/l	50.0-150	64.6	25.0	2.83	
Fluorene	"	10.0		5.24	"	50.0-150	52.4	25.0	13.2	
Indeno (1,2,3-cd) pyrene	"	10.0		7.88	"	50.0-150	78.8	25.0	0.506	
Surrogate: 2-FBP	"	50.0		30.0	"	30.0-150	60.0			
Surrogate: Nitrobenzene-d5	"	50.0		33.0	"	30.0-150	66.0			
Surrogate: p-Terphenyl-d14	"	50.0		58.0	"	30.0-150	116			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180112										
<u>Date Prepared: 11/3/98</u>										
<u>Extraction Method: General Preparation</u>										
<u>Duplicate</u>	<u>1180112-DUP1</u>	<u>B811048-01</u>								
pH	11/3/98		6.46	6.49	pH Units			10.0	0.463	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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Steve Davis, Project Manager

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600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/3/98
Received: 11/3/98
Reported: 11/12/98 16:51

Notes and Definitions

#	Note
1	The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
2	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Quantitation Report

Data File : C:\HPCHEM\4\DATA\K03041.D\FID1A.CH
 Acq On : 4 Nov 1998 3:48 am
 Sample : b811048-15
 Misc : 5 mL
 IntFile : SURR.E

Vial: 41
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

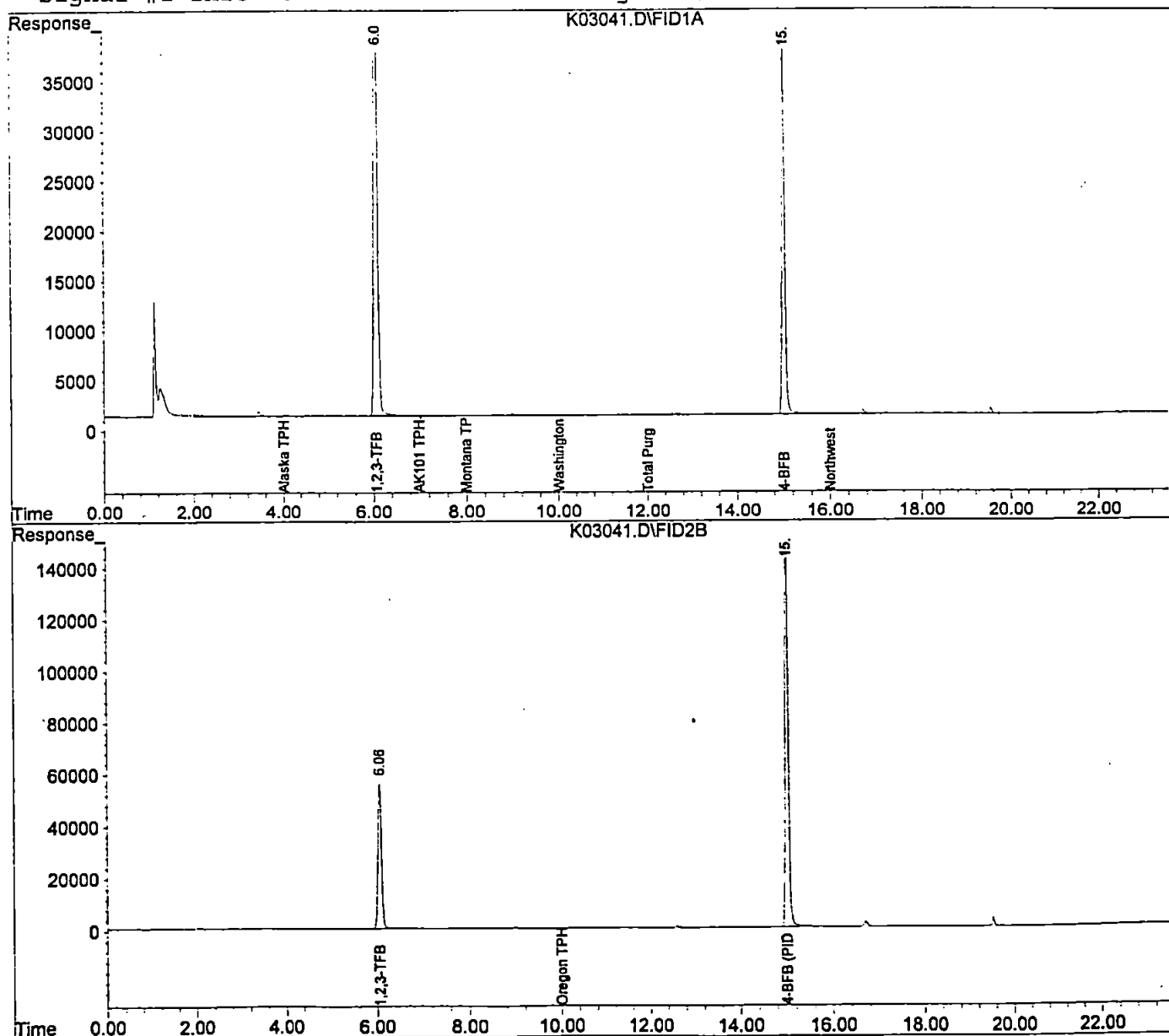
Data File : C:\HPCHEM\4\DATA\K03041.D\FID2B.CH
 Acq On : 4 Nov 98 3:48 am
 Sample : b811048-15
 Misc : 5 mL
 IntFile : SURR2.E

Vial: 41
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Nov 4 7:30 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Mon Nov 02 14:46:59 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K03040.D\FID1A.CH
 Acq On : 4 Nov 1998 3:19 am
 Sample : b811048-14
 Misc : 5 mL
 IntFile : SURR.E

Vial: 40
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

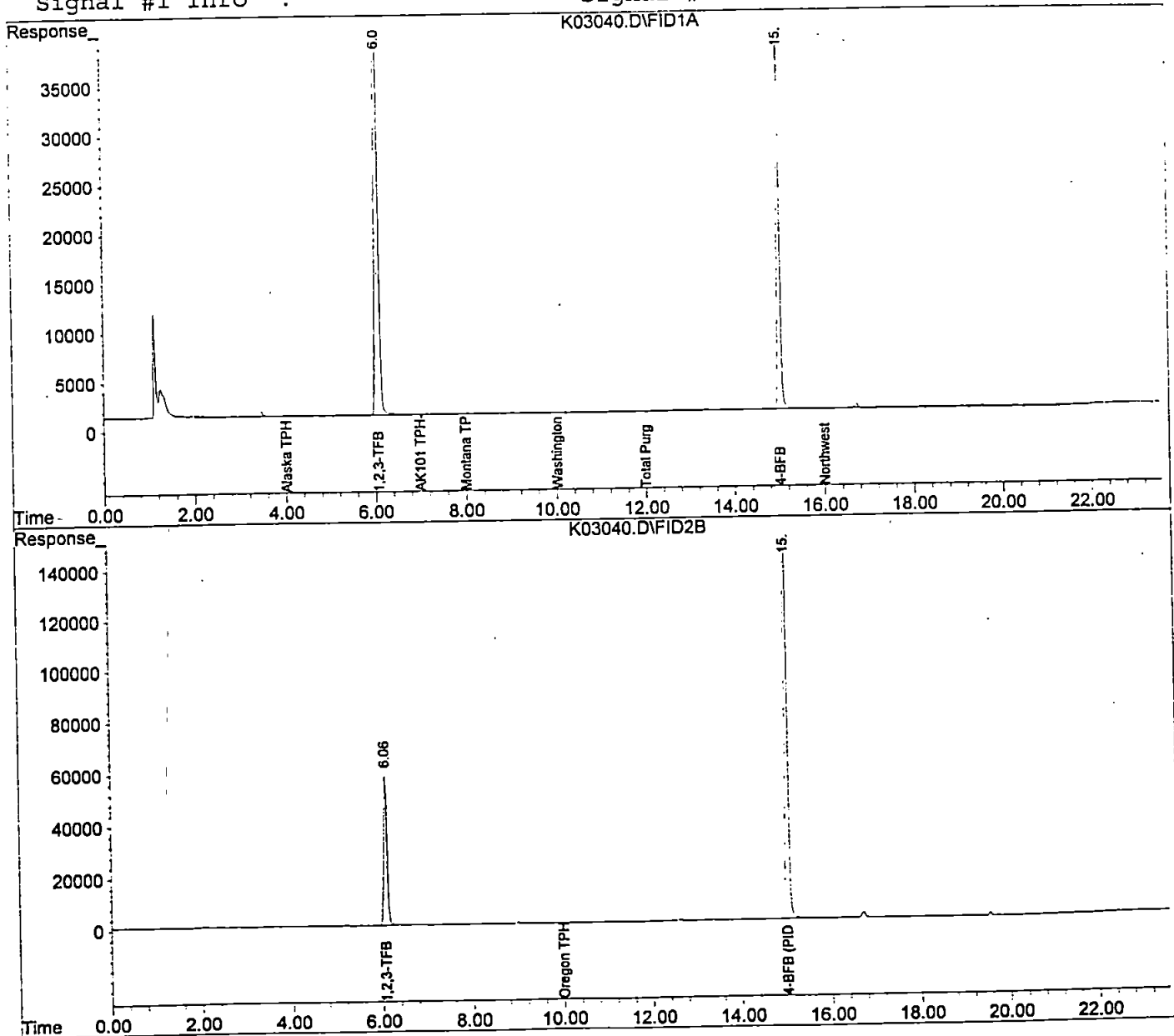
Data File : C:\HPCHEM\4\DATA\K03040.D\FID2B.CH
 Acq On : 4 Nov 98 3:19 am
 Sample : b811048-14
 Misc : 5 mL
 IntFile : SURR2.E
 Quant Time: Nov 4 7:30 1998

Vial: 40
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Mon Nov 02 14:46:59 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase :
 Signal #1 Info :
 Signal #2 Phase :
 Signal #2 Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K03039.D\FID1A.CH
 Acq On : 4 Nov 1998 2:49 am
 Sample : b811048-13
 Misc : 5 mL
 IntFile : SURR.E

Vial: 39
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

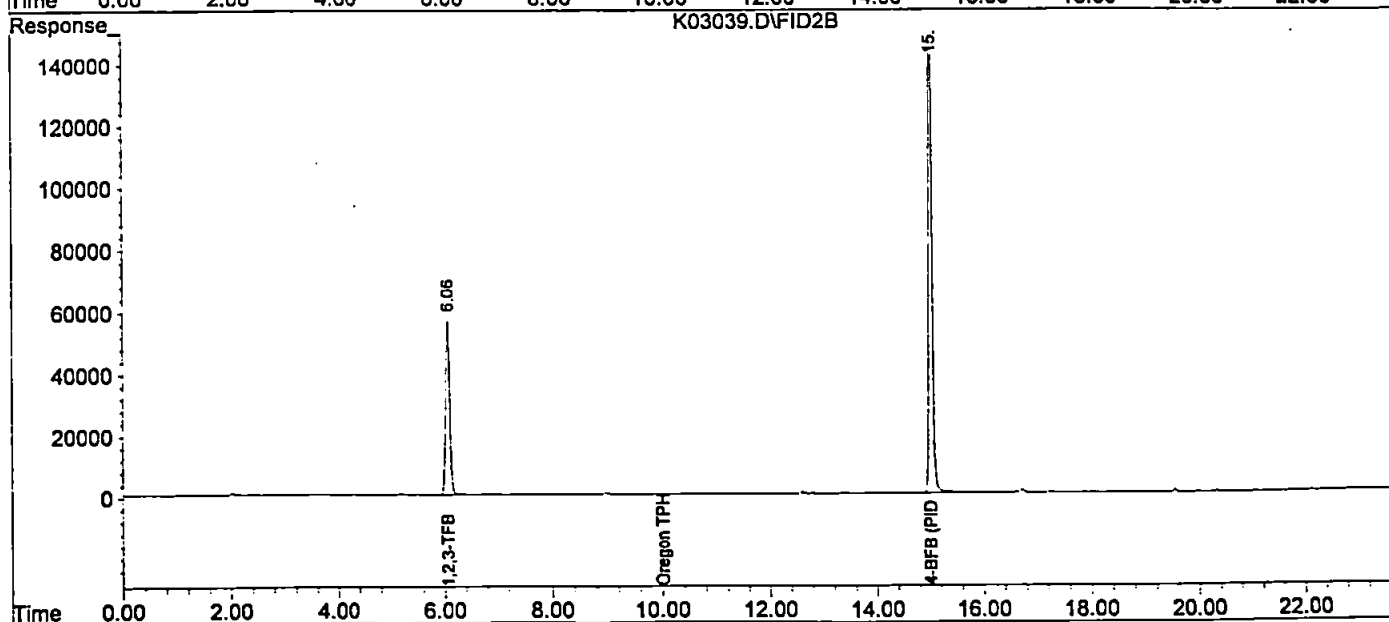
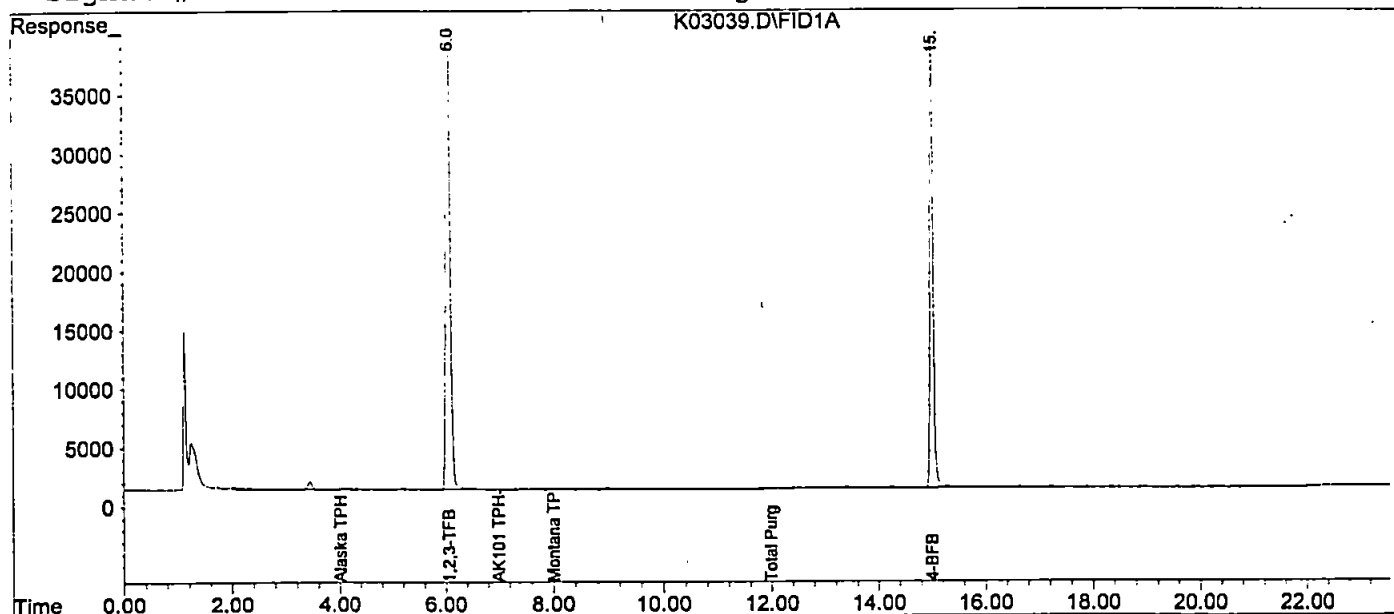
Data File : C:\HPCHEM\4\DATA\K03039.D\FID2B.CH
 Acq On : 4 Nov 98 2:49 am
 Sample : b811048-13
 Misc : 5 mL
 IntFile : SURR2.E

Vial: 39
 Operator: la
 Inst : GC #8
 Multiplr: 1.00

Quant Time: Nov 4 7:30 1998 Quant Results File: TPHG0908.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHG0908.M (Chemstation Integrator)
 Title : TPH-G Water Method
 Last Update : Mon Nov 02 14:46:59 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHG0908.M

Volume Inj. :
 Signal #1 Phase : Signal #2 Phase:
 Signal #1 Info : Signal #2 Info :



Quantitation Report

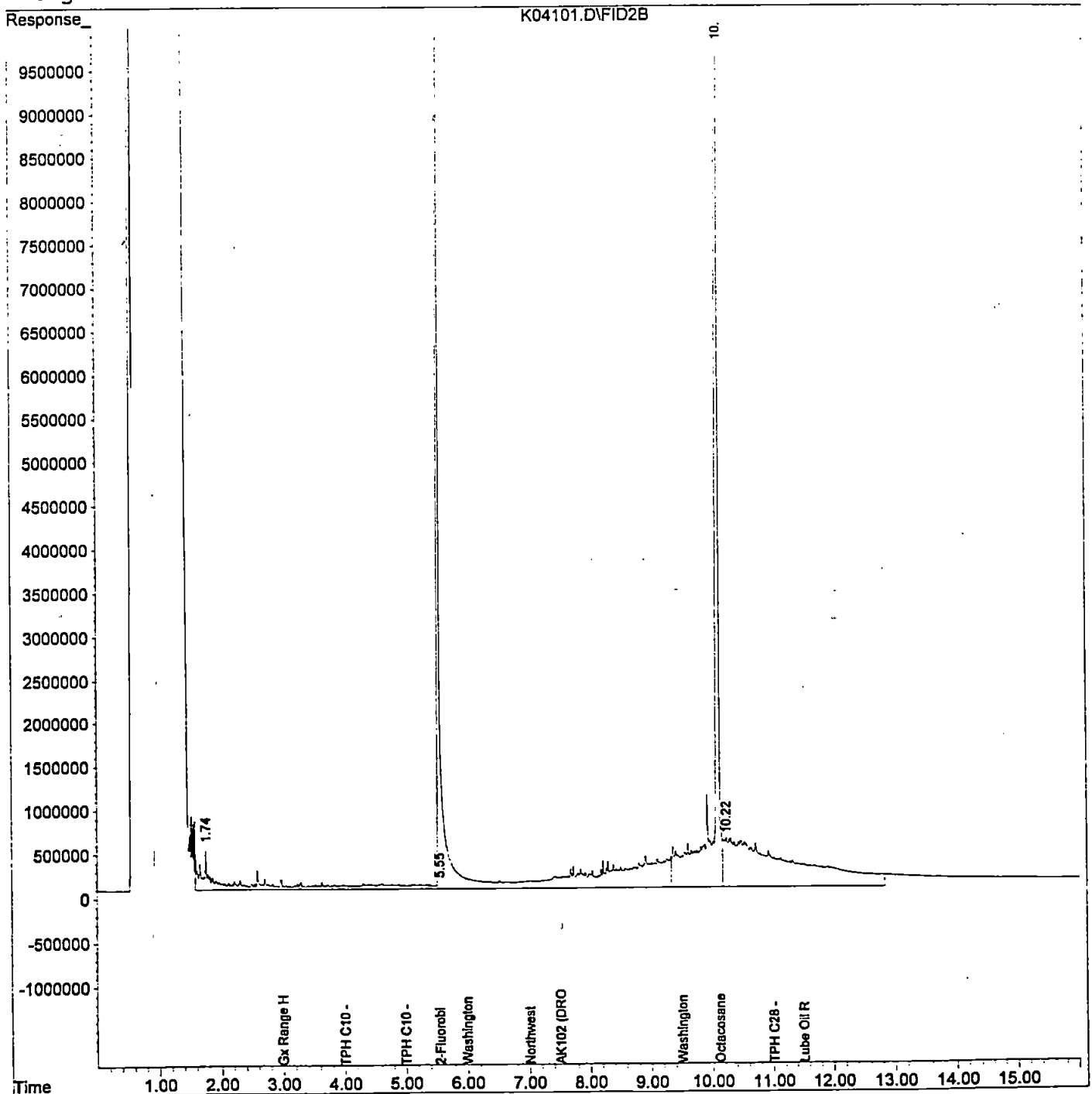
Data File : C:\HPCHEM\4\DATA.SEC\K04101.D
 Acq On : 11-5-98 4:26:46 AM
 Sample : b811048-18
 Misc : s
 IntFile : SURR.E
 Quant Time: Nov 5 8:50 1998

Vial: 63
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

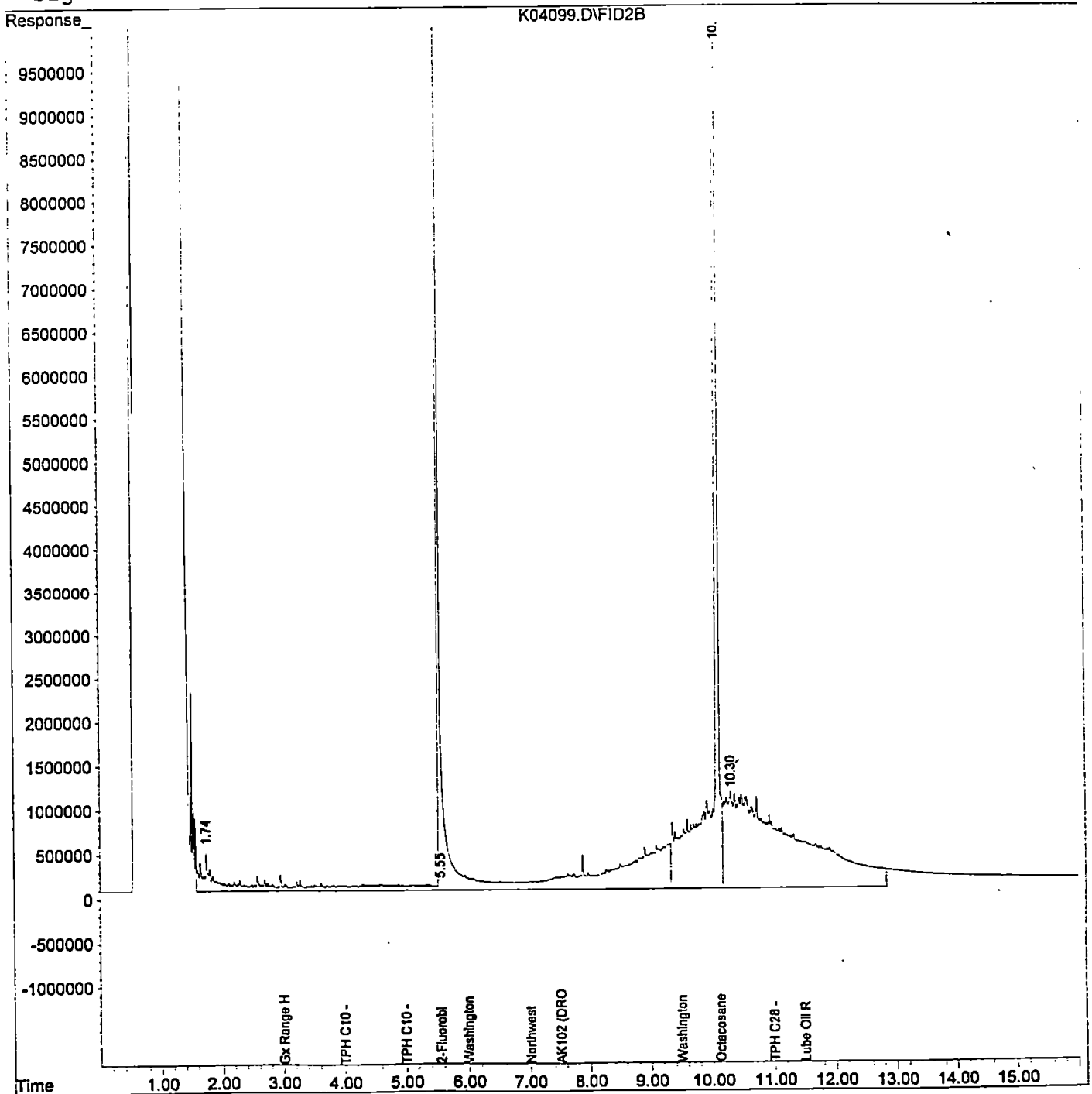
Data File : C:\HPCHEM\4\DATA.SEC\K04099.D
 Acq On : 11-5-98 4:03:23 AM
 Sample : b811048-17
 Misc : s
 IntFile : SURR.E
 Quant Time: Nov 5 8:50 1998

Vial: 61
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

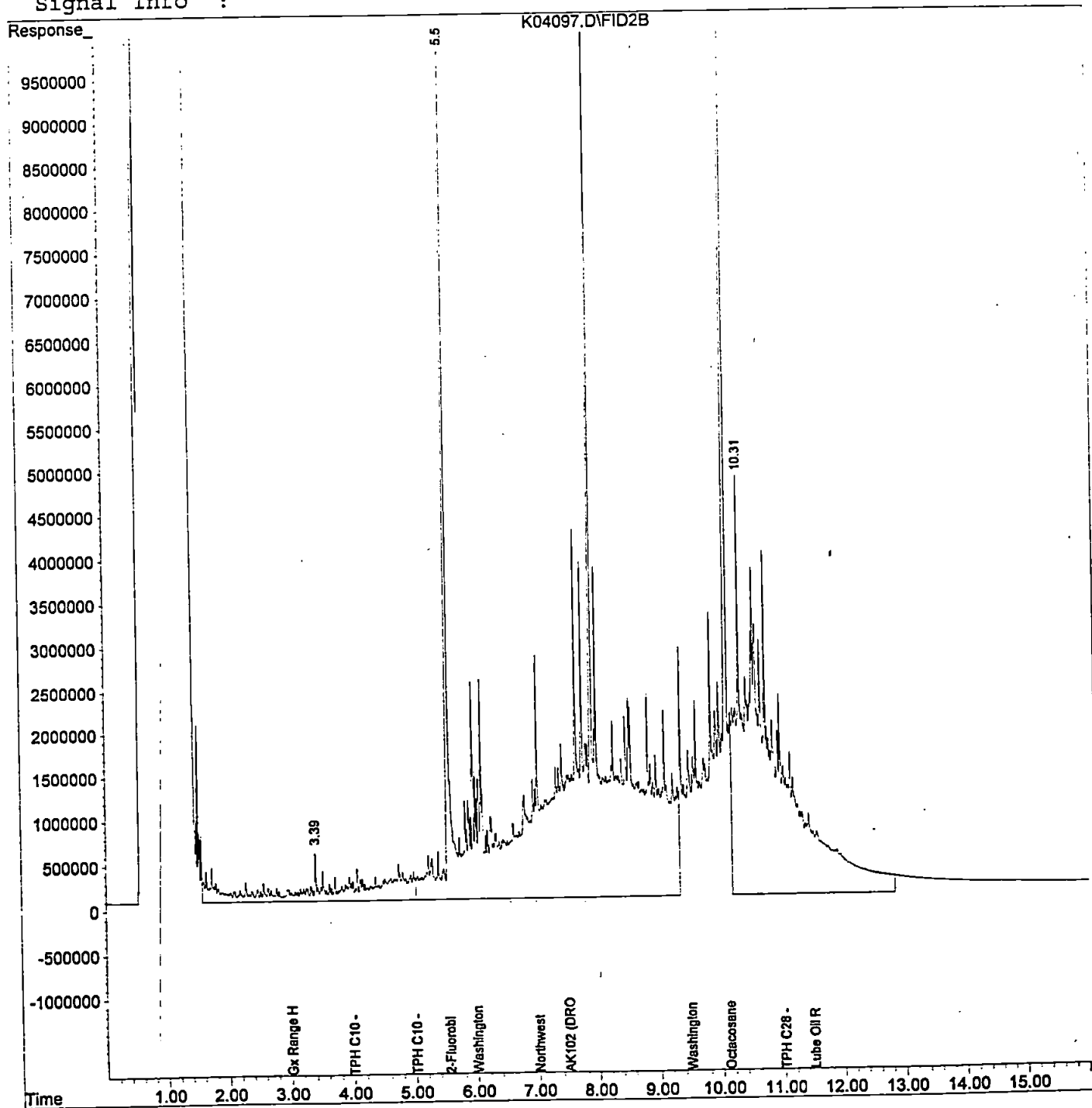
Data File : C:\HPCHEM\4\DATA.SEC\K04097.D
 Acq On : 11-5-98 3:40:08 AM
 Sample : b811048-16
 Misc : s
 IntFile : SURR.E
 Quant Time: Nov 5 8:49 1998

Vial: 60
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05054.D

Acq On : 11-5-98 8:07:28 PM

Sample : b811048-15

Misc : w

IntFile : SURR.E

Quant Time: Nov 6 7:52 1998 Quant Results File: TPHD.RES

Vial: 41

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

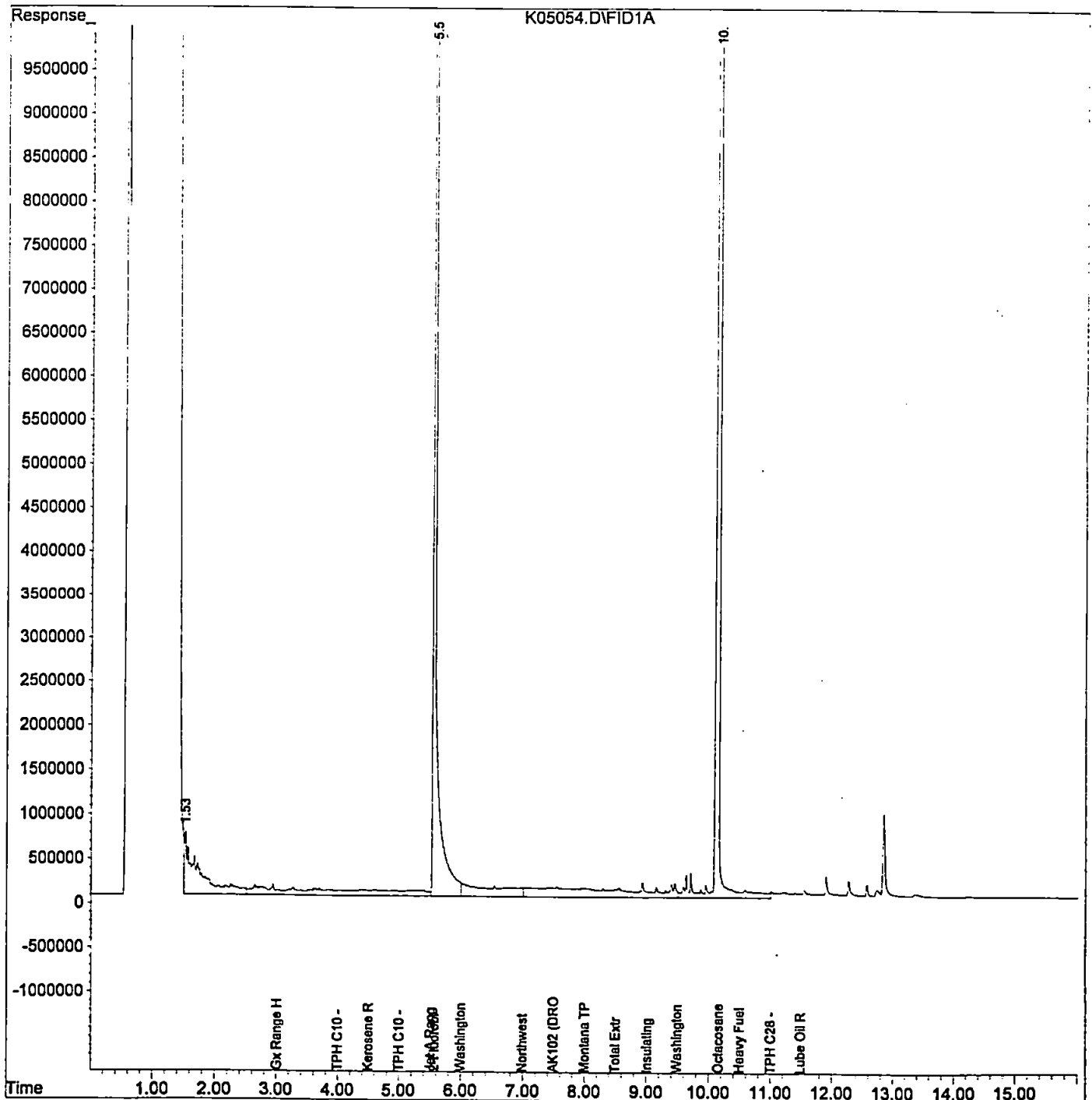
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



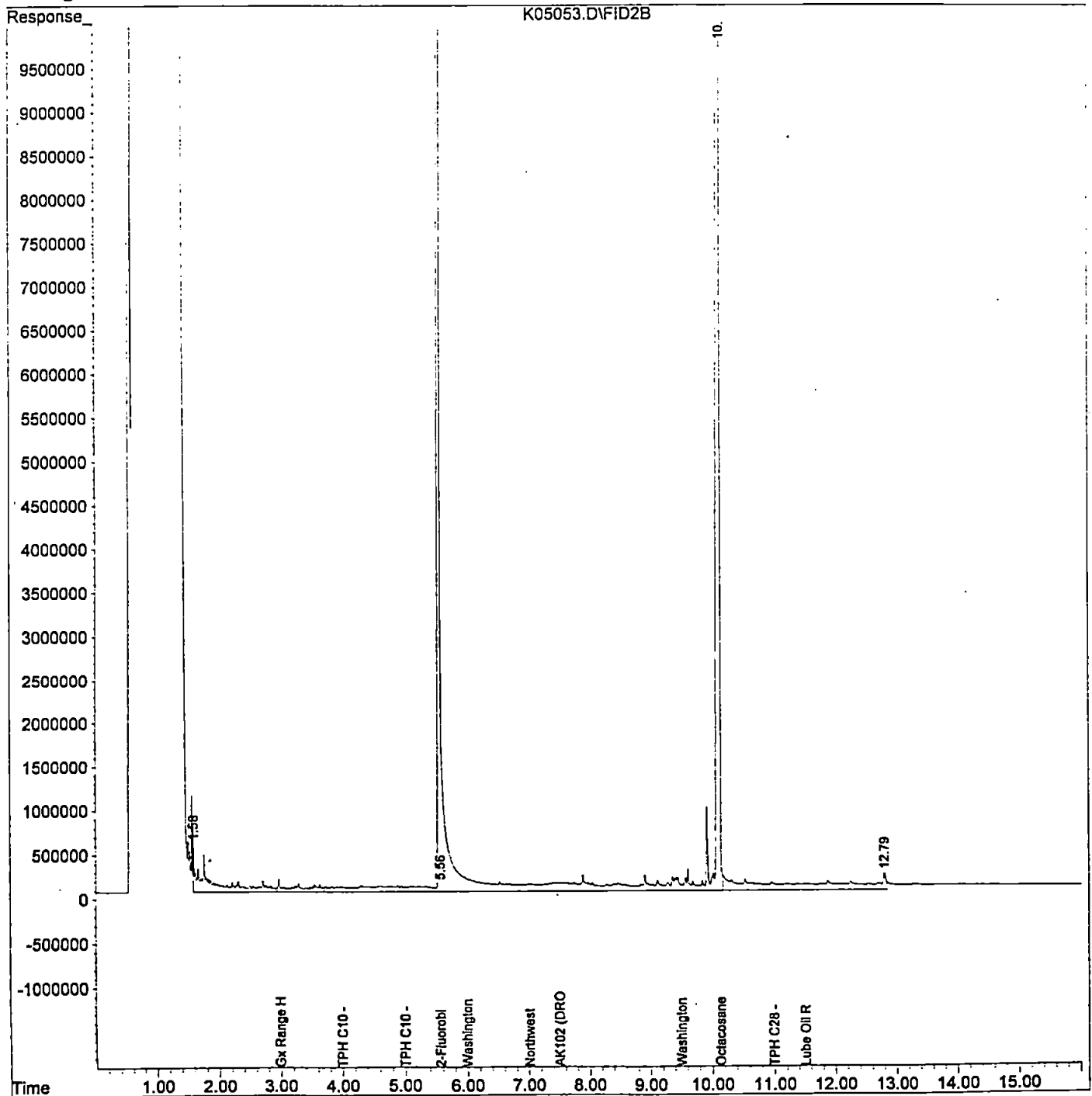
Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\K05053.D
Acq On : 11-5-98 8:07:28 PM
Sample : b811048-14
Misc : w
IntFile : SURR.E
Quant Time: Nov 6 8:14 1998 Quant Results File: TPHD2.RES

Vial: 40
Operator: LAC
Inst : GC #7
Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
Title : TPH-D Rear Method
Last Update : Thu Nov 05 08:22:27 1998
Response via : Multiple Level Calibration
DataAcq Meth : TPHD.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05052.D

Acq On : 11-5-98 7:44:00 PM

Sample : b811048-13

Misc : w

IntFile : SURR.E

Quant Time: Nov 6 7:51 1998 Quant Results File: TPHD.RES

Vial: 39

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

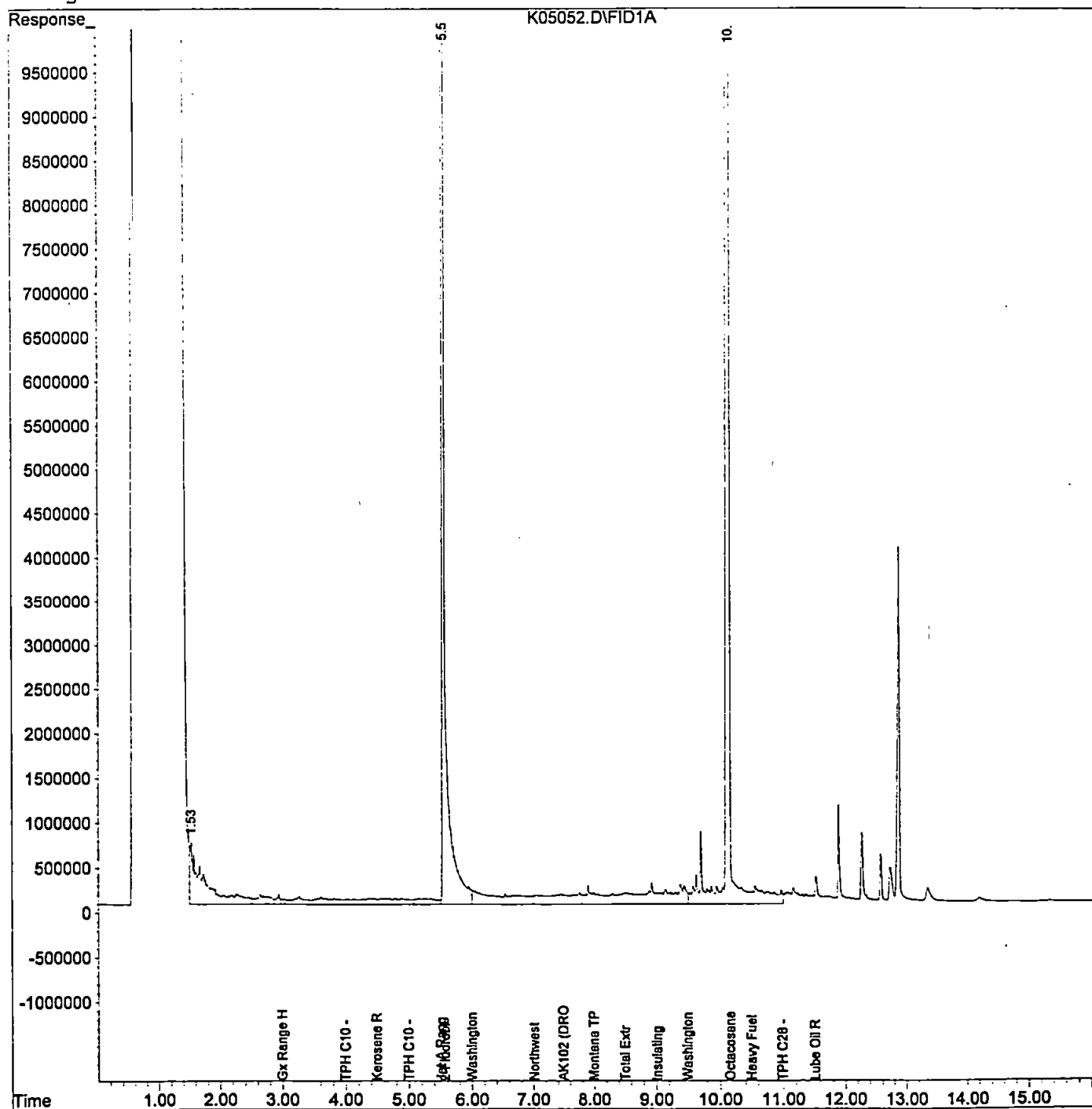
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

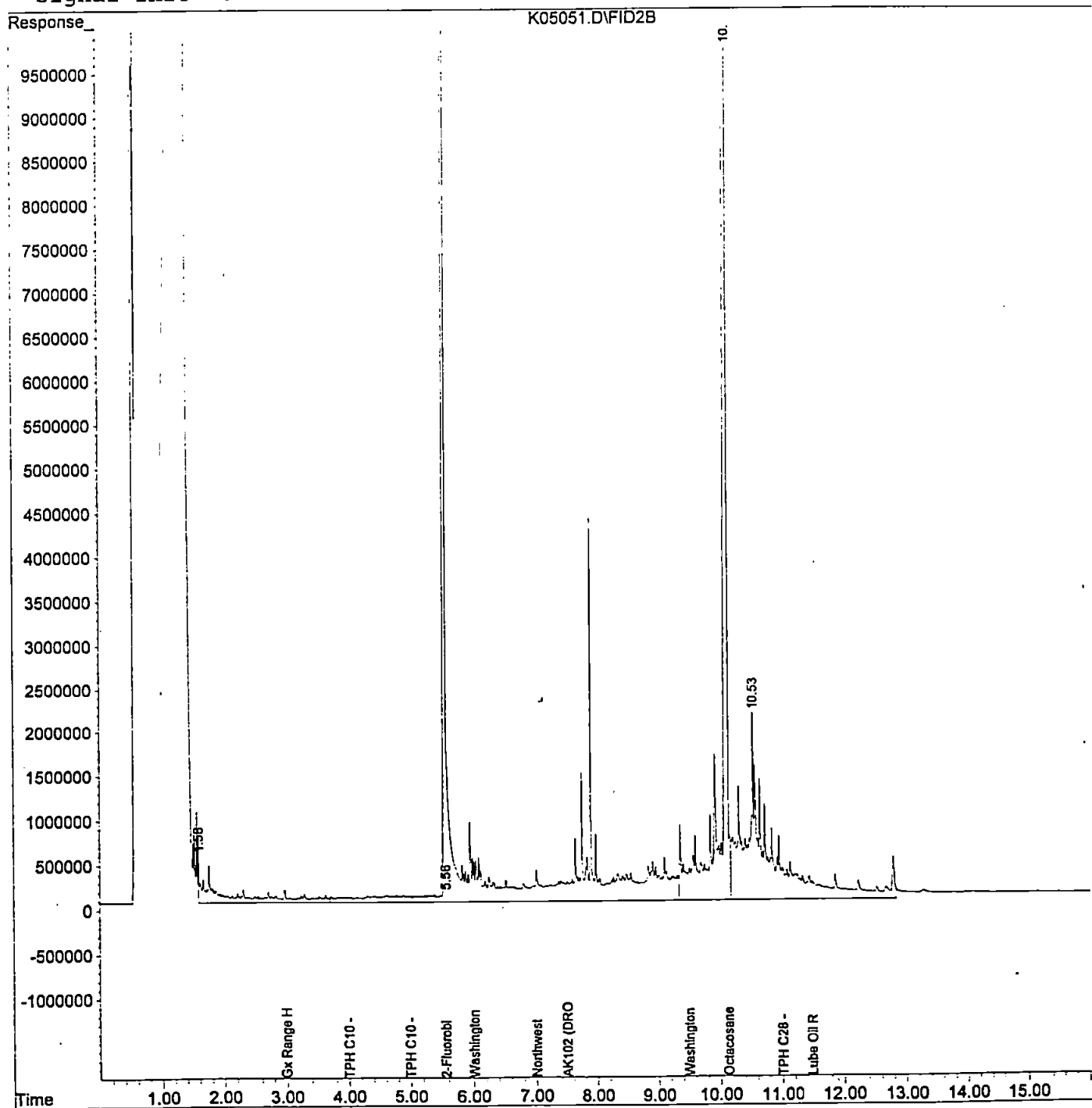
Data File : C:\HPCHEM\4\DATA.SEC\K05051.D
 Acq On : 11-5-98 7:44:00 PM
 Sample : b811048-12
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 8:13 1998

Vial: 38
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05050.D

Acq On : 11-5-98 7:20:36 PM

Sample : b811048-11

Misc : w

IntFile : SURR.E

Quant Time: Nov 6 7:50 1998 Quant Results File: TPHD.RES

Vial: 37

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

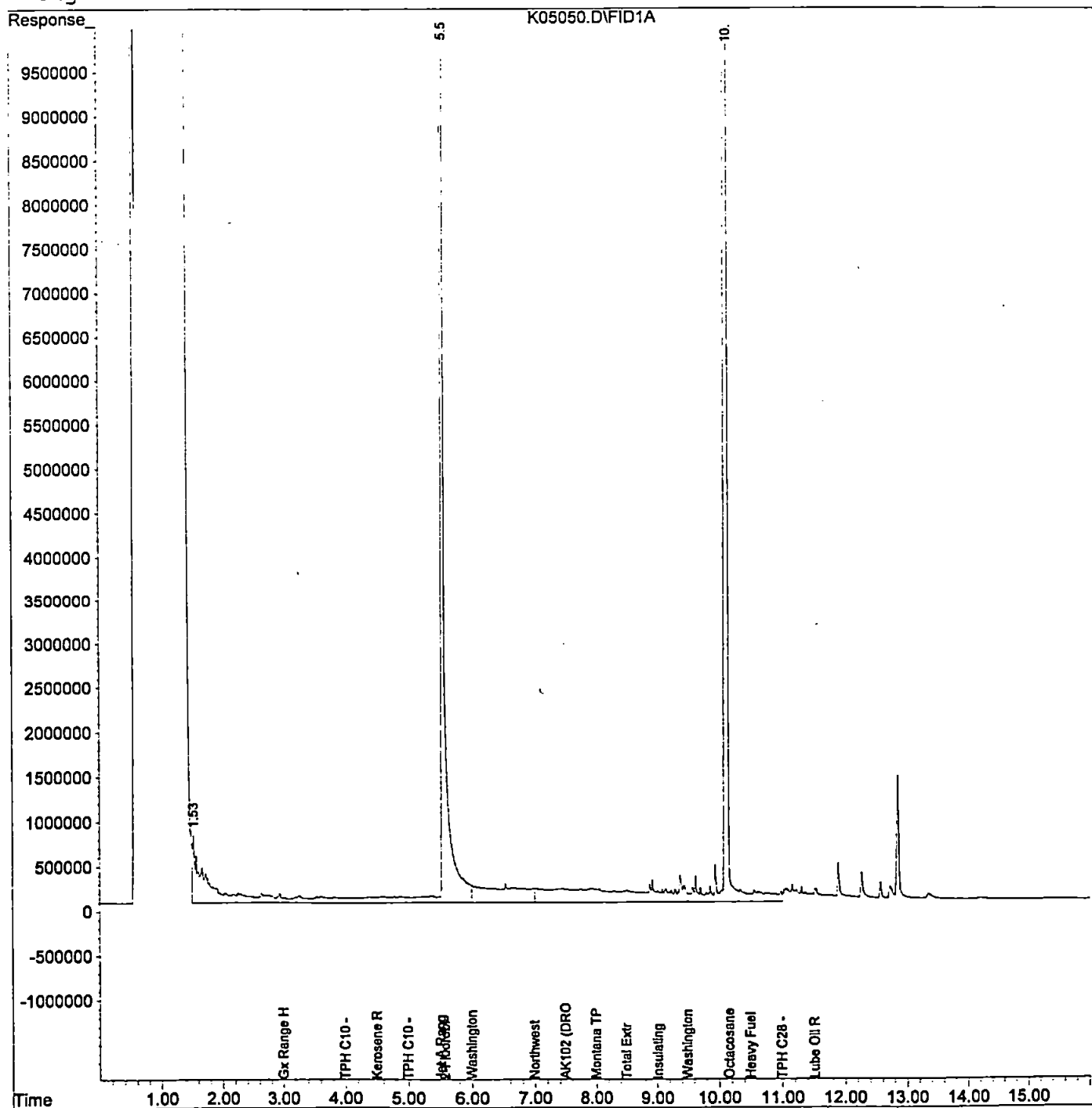
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\K05049.D

Vial: 36

Acq On : 11-5-98 7:20:36 PM

Operator: LAC

Sample : b811048-10

Inst : GC #7

Misc : w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 6 8:13 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Thu Nov 05 08:22:27 1998

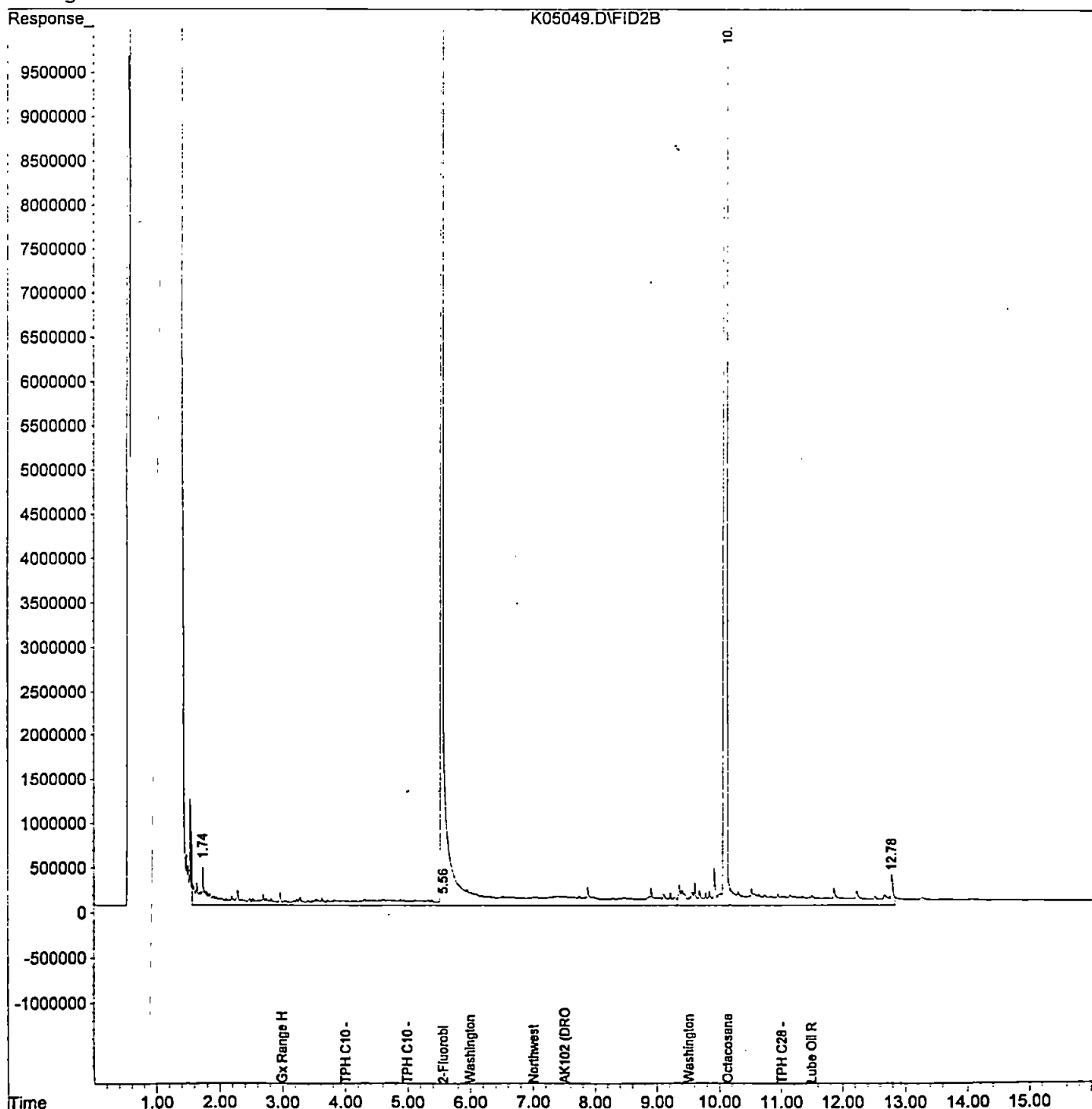
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

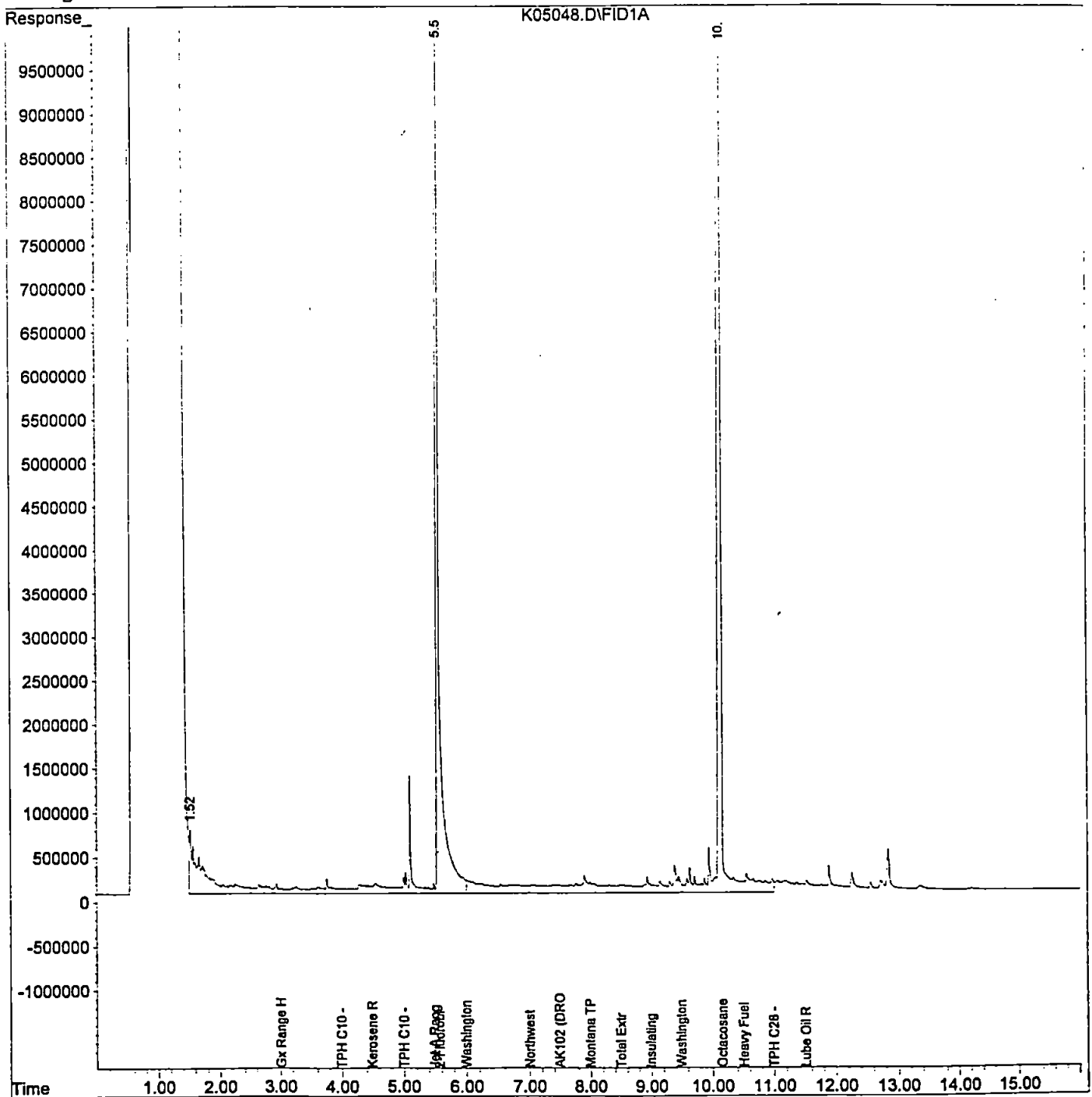
Data File : C:\HPCHEM\4\DATA\K05048.D
 Acq On : 11-5-98 6:57:05 PM
 Sample : b811048-09
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 7:50 1998

Vial: 35
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Thu Oct 29 09:09:31 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

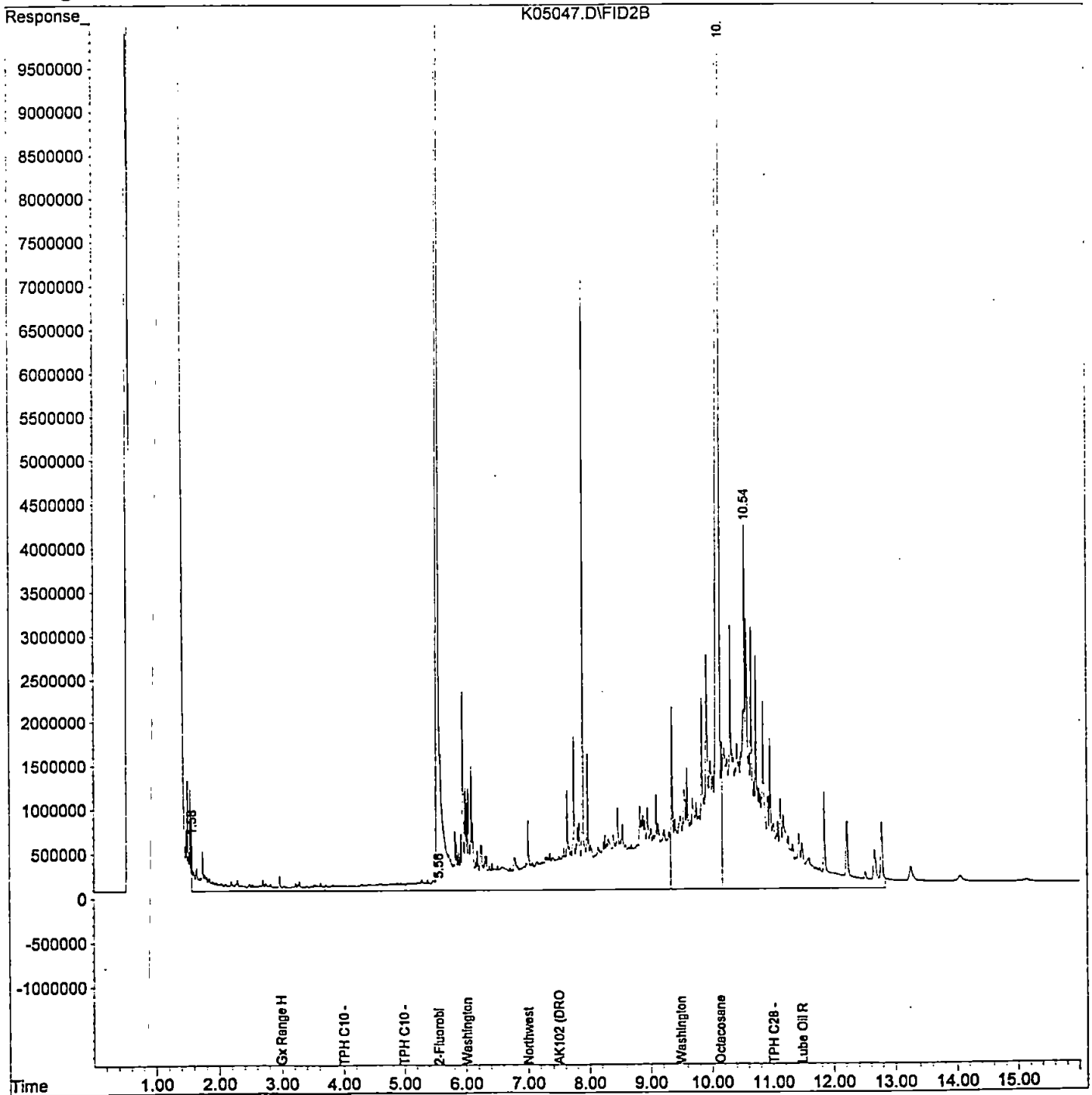
Data File : C:\HPCHEM\4\DATA.SEC\K05047.D
 Acq On : 11-5-98 6:57:05 PM
 Sample : b811048-08
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 8:31 1998

Vial: 34
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05044.D

Acq On : 11-5-98 6:10:19 PM

Sample : b811048-07

Misc : 11x w

IntFile : SURR.E

Quant Time: Nov 6 7:49 1998 Quant Results File: TPHD.RES

Vial: 33

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

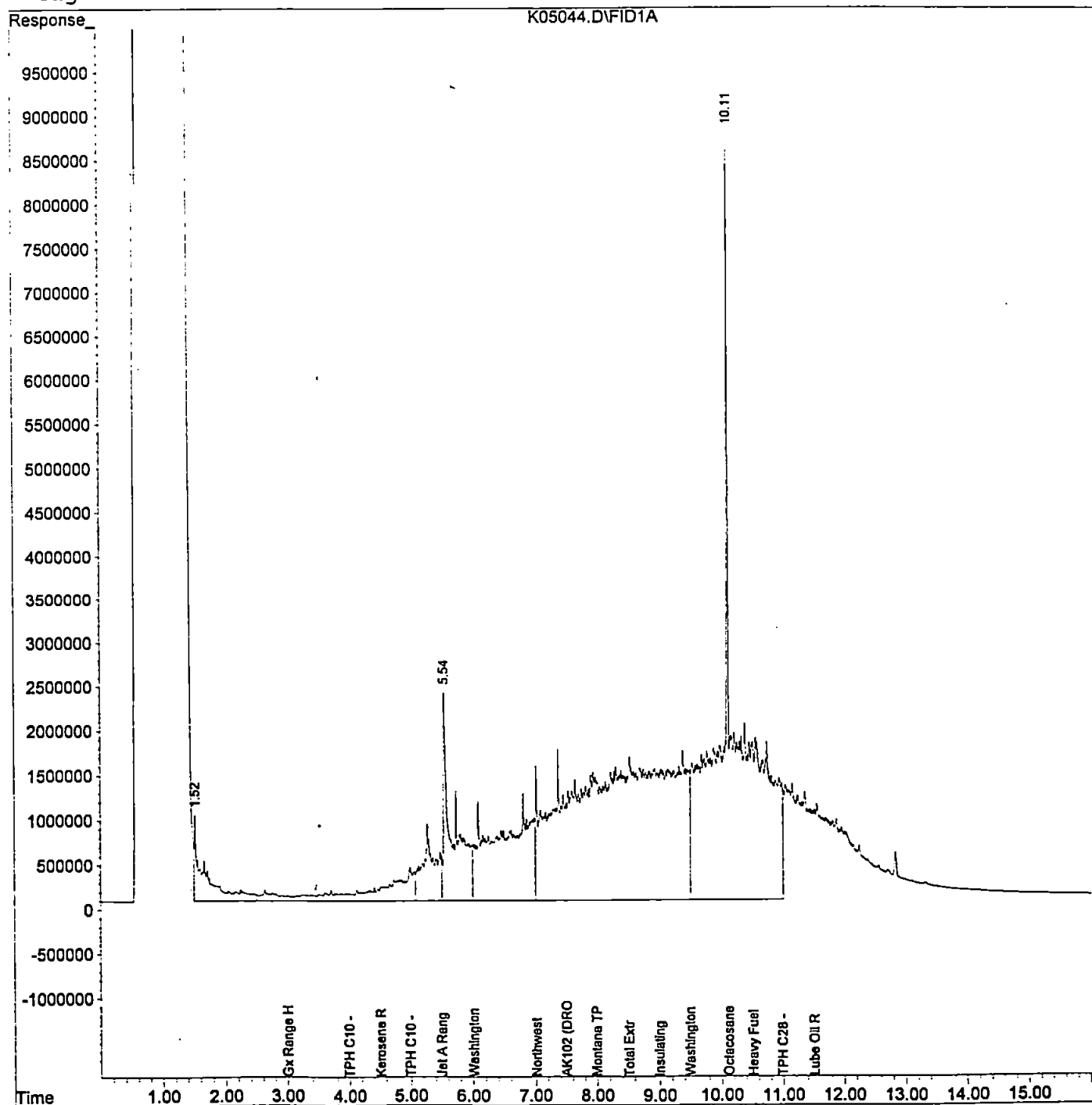
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

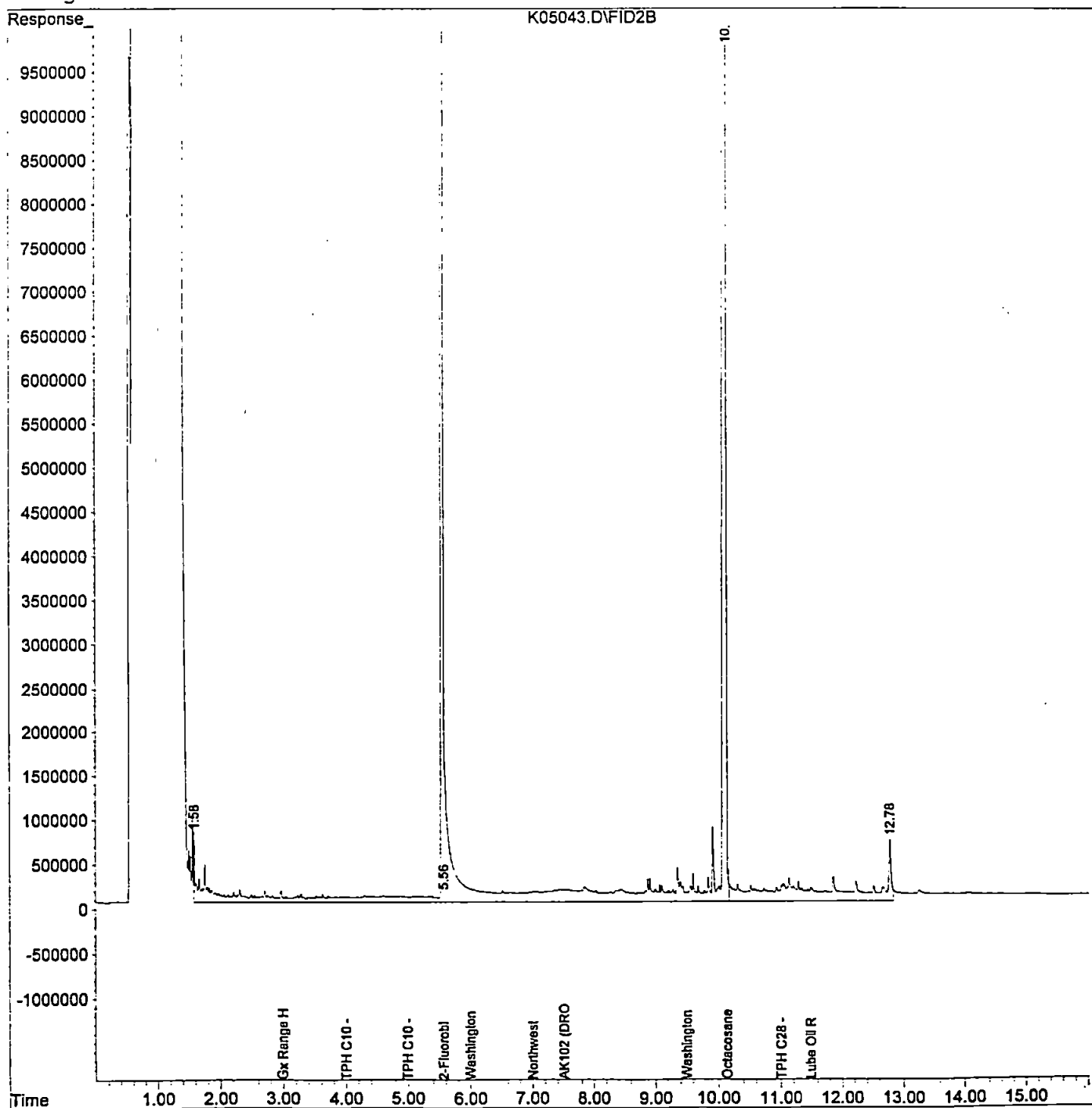
Data File : C:\HPCHEM\4\DATA.SEC\K05043.D
 Acq On : 11-5-98 6:10:18 PM
 Sample : b811048-06
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 8:29 1998

Vial: 32
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

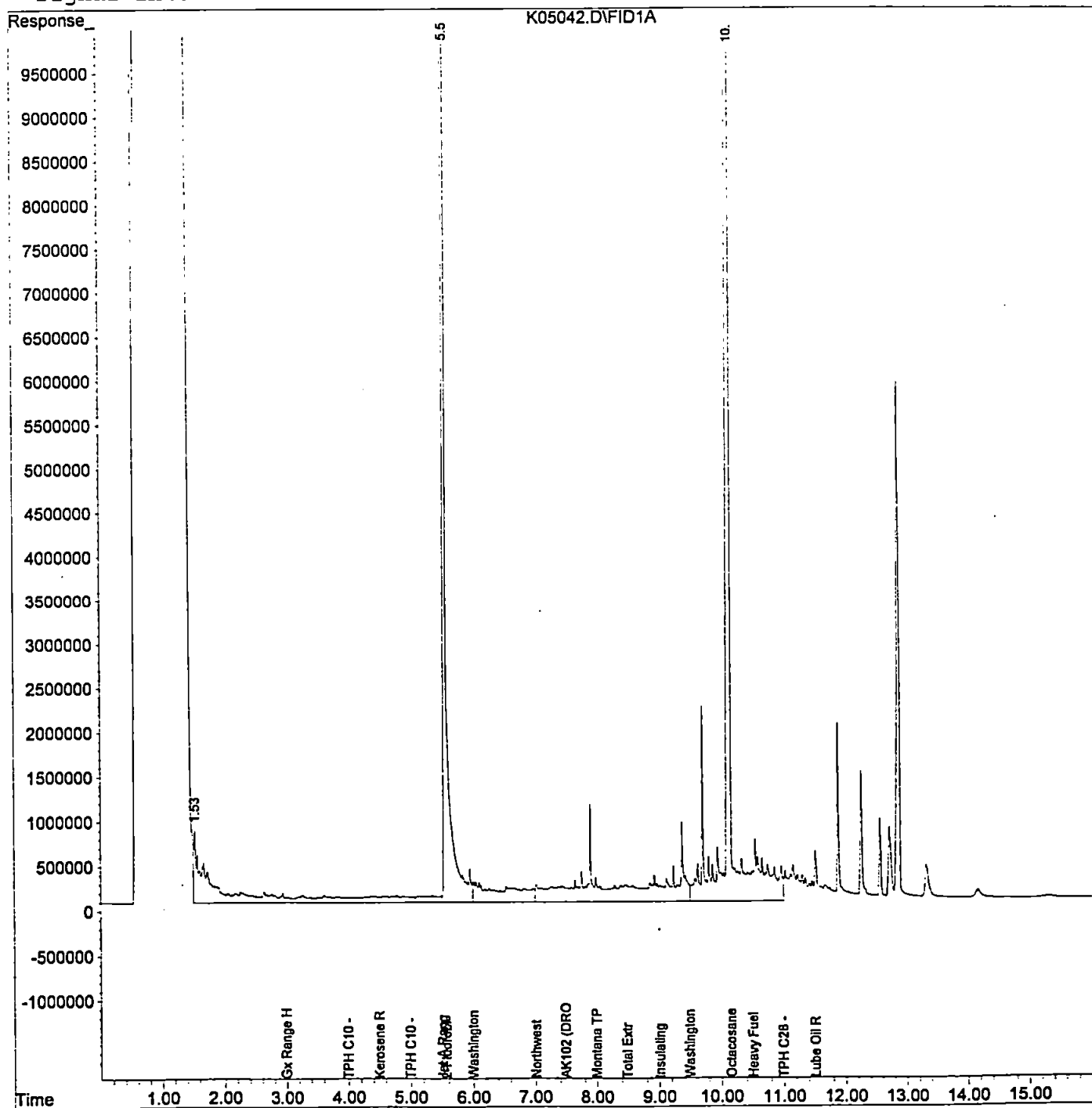
Data File : C:\HPCHEM\4\DATA\K05042.D
 Acq On : 11-5-98 5:46:50 PM
 Sample : b811048-05
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 7:48 1998

Vial: 31
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Thu Oct 29 09:09:31 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

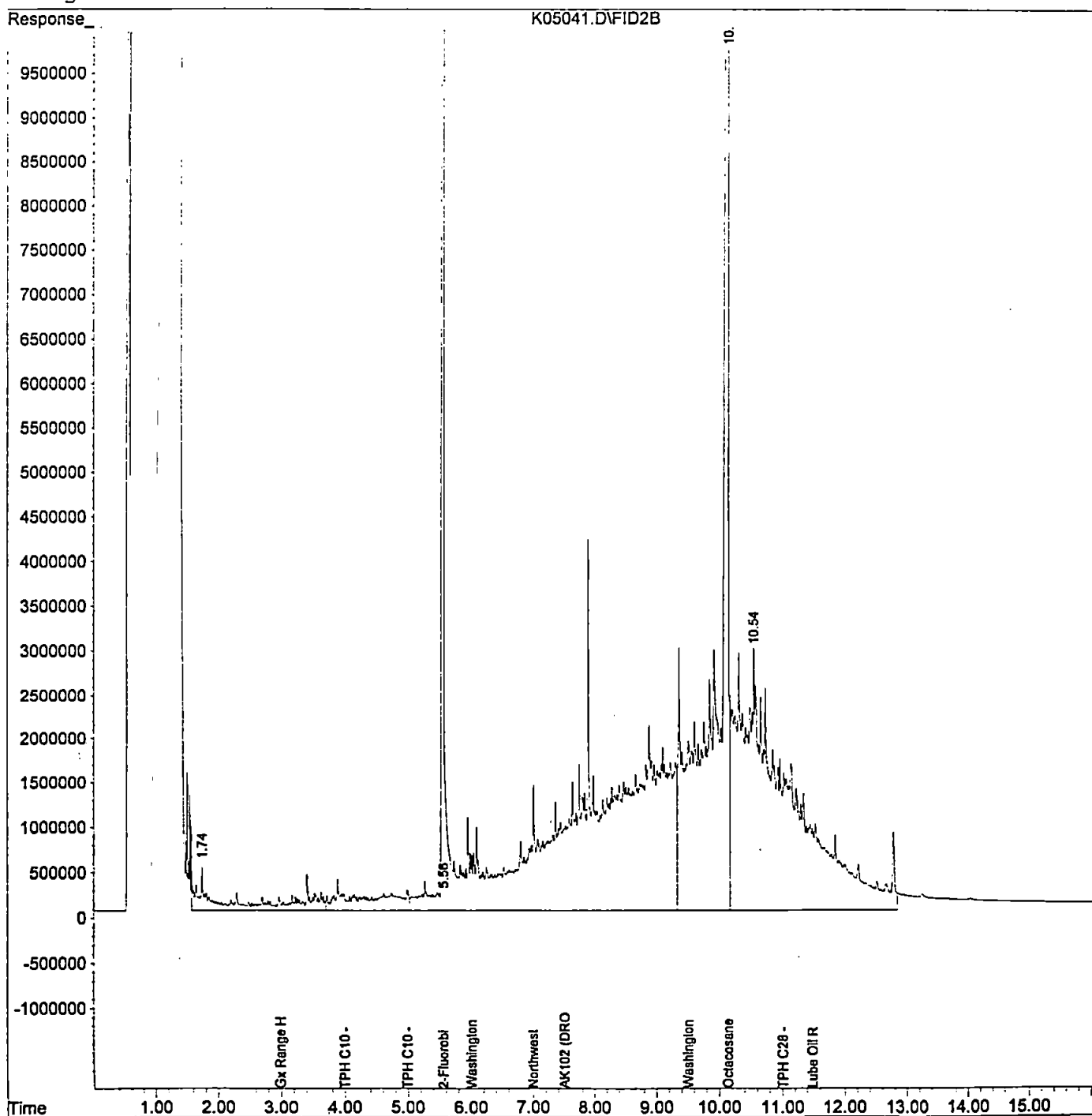
Data File : C:\HPCHEM\4\DATA.SEC\K05041.D
 Acq On : 11-5-98 5:46:50 PM
 Sample : b811048-04
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 8:28 1998

Vial: 30
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05040.D

Acq On : 11-5-98 5:23:21 PM

Sample : b811048-03

Misc : w

IntFile : SURR.E

Quant Time: Nov 6 7:47 1998 Quant Results File: TPHD.RES

Vial: 29

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

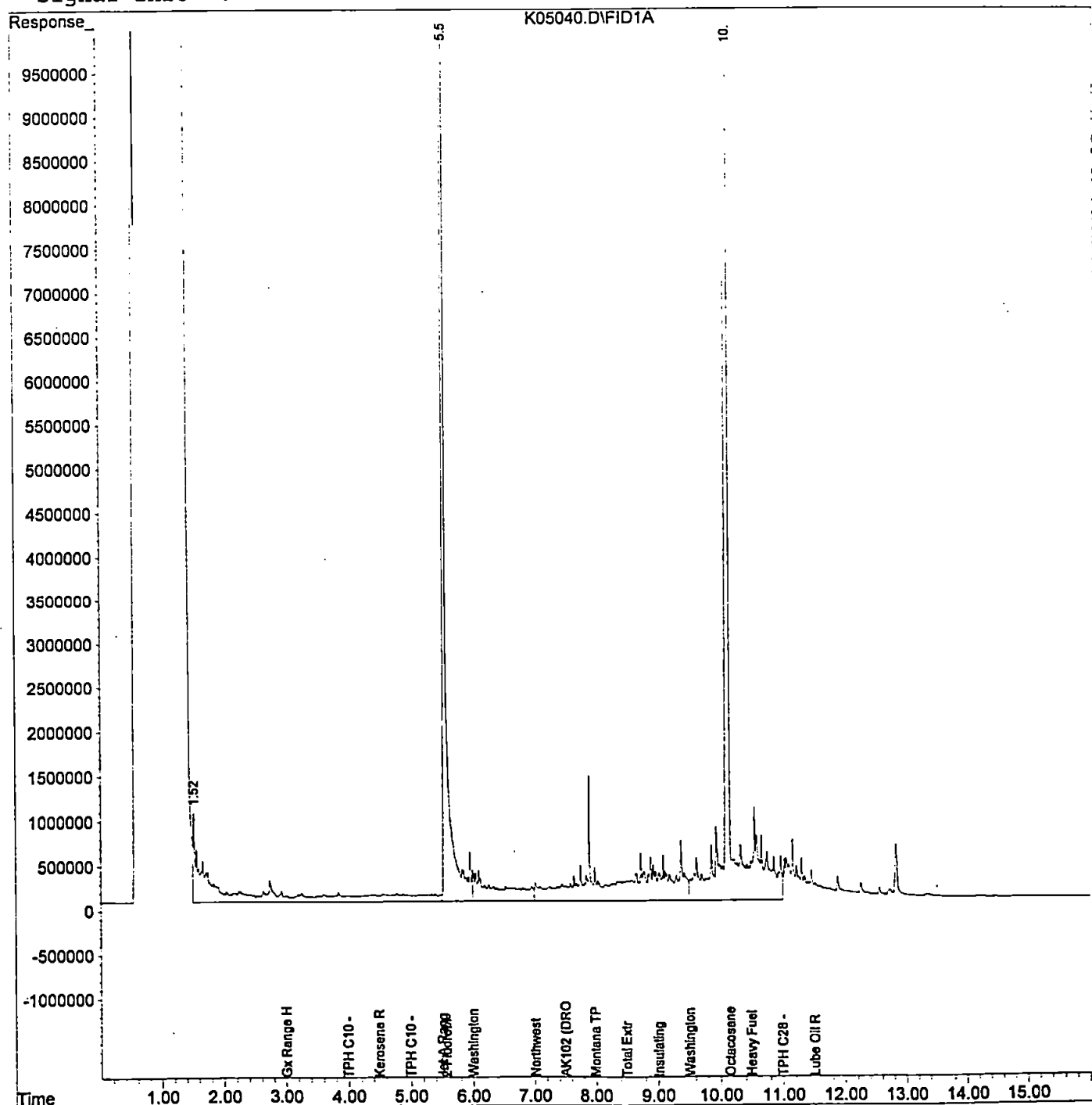
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

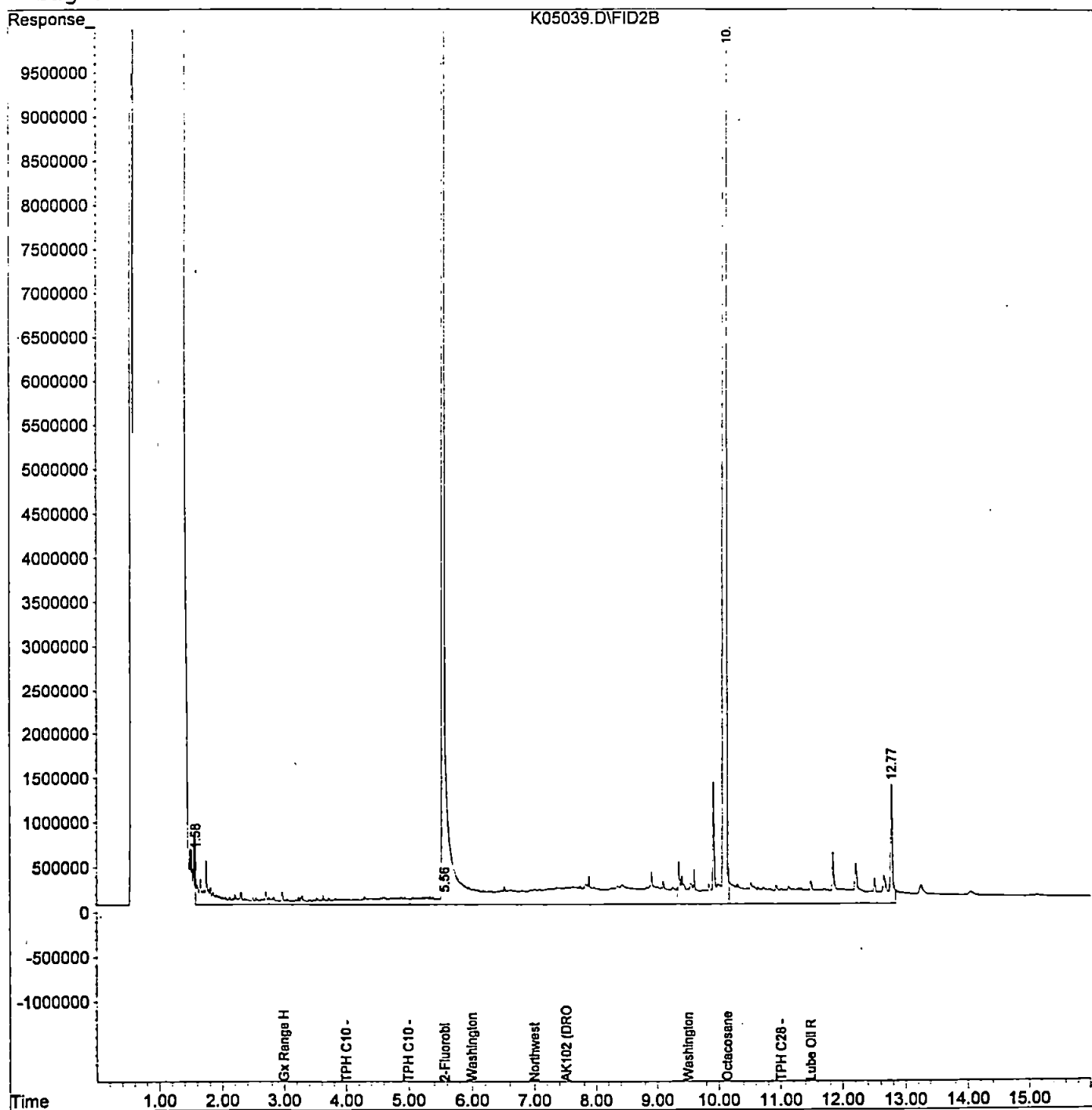
Data File : C:\HPCHEM\4\DATA.SEC\K05039.D
 Acq On : 11-5-98 5:23:21 PM
 Sample : b811048-02
 Misc : w
 IntFile : SURR.E
 Quant Time: Nov 6 8:27 1998

Vial: 28
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K05038.D

Acq On : 11-5-98 5:00:05 PM

Sample : b811048-01

Misc : w

IntFile : SURR.E

Quant Time: Nov 6 7:46 1998 Quant Results File: TPHD.RES

Vial: 27

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

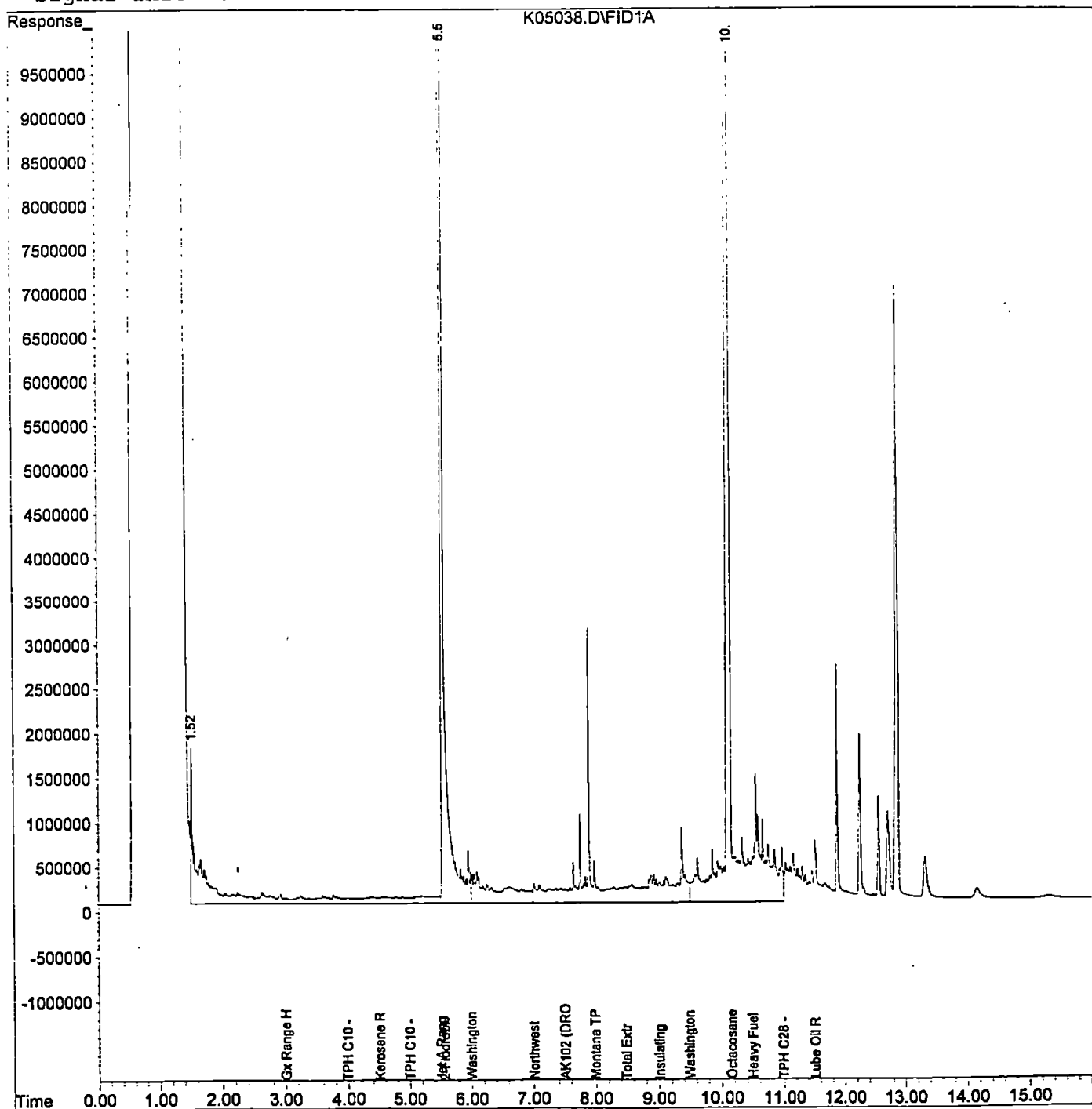
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

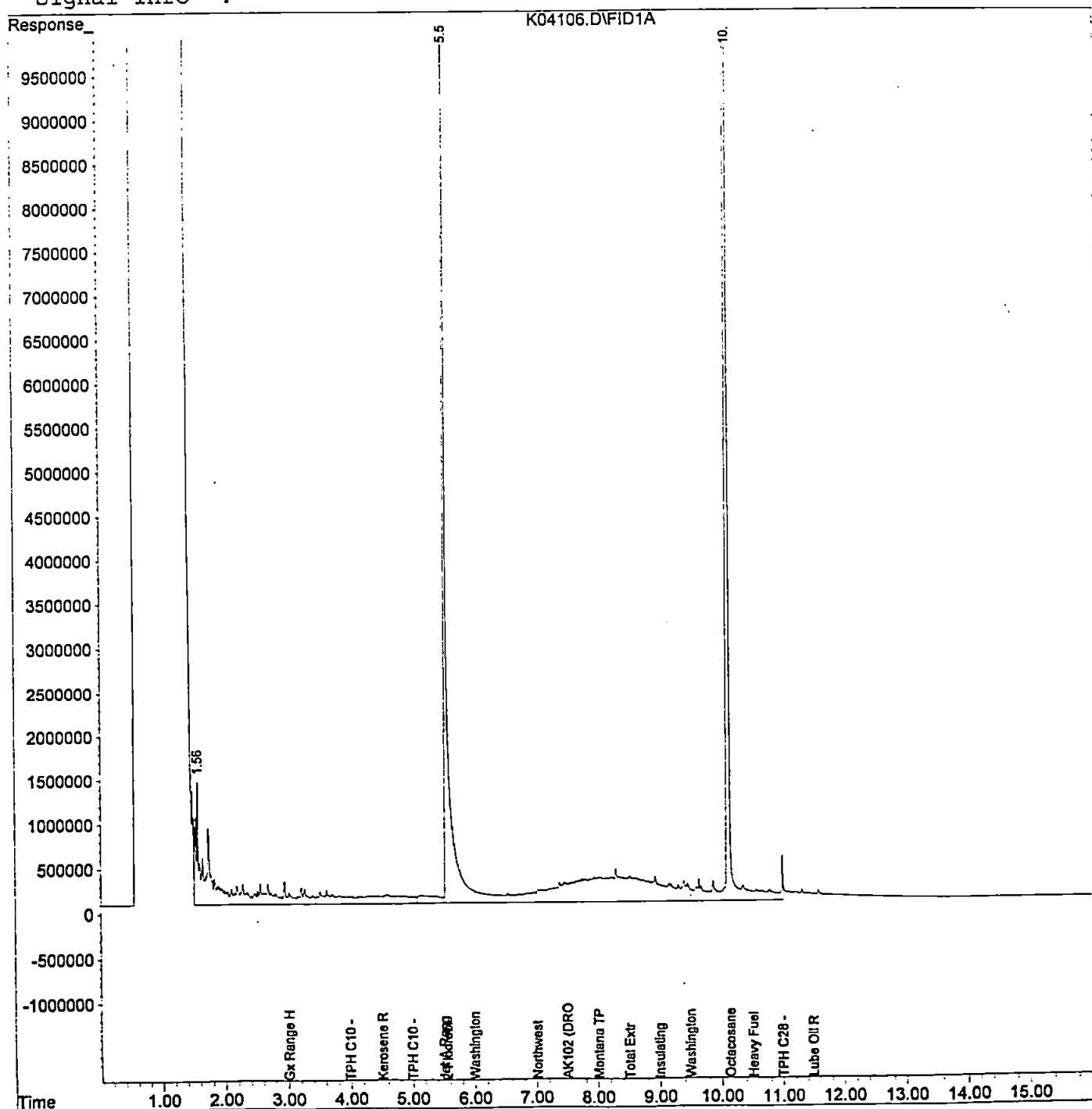
Data File : C:\HPCHEM\4\DATA\K04106.D
 Acq On : 11-5-98 5:13:17 AM
 Sample : b810584-26
 Misc : S
 IntFile : SURR.E
 Quant Time: Nov 5 8:06 1998

Vial: 66
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Thu Oct 29 09:09:31 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K04108.D

Acq On : 11-5-98 5:36:37 AM

Sample : b810584-39

Misc : S

IntFile : SURR.E

Quant Time: Nov 5 8:06 1998 Quant Results File: TPHD.RES

Vial: 67

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Thu Oct 29 09:09:31 1998

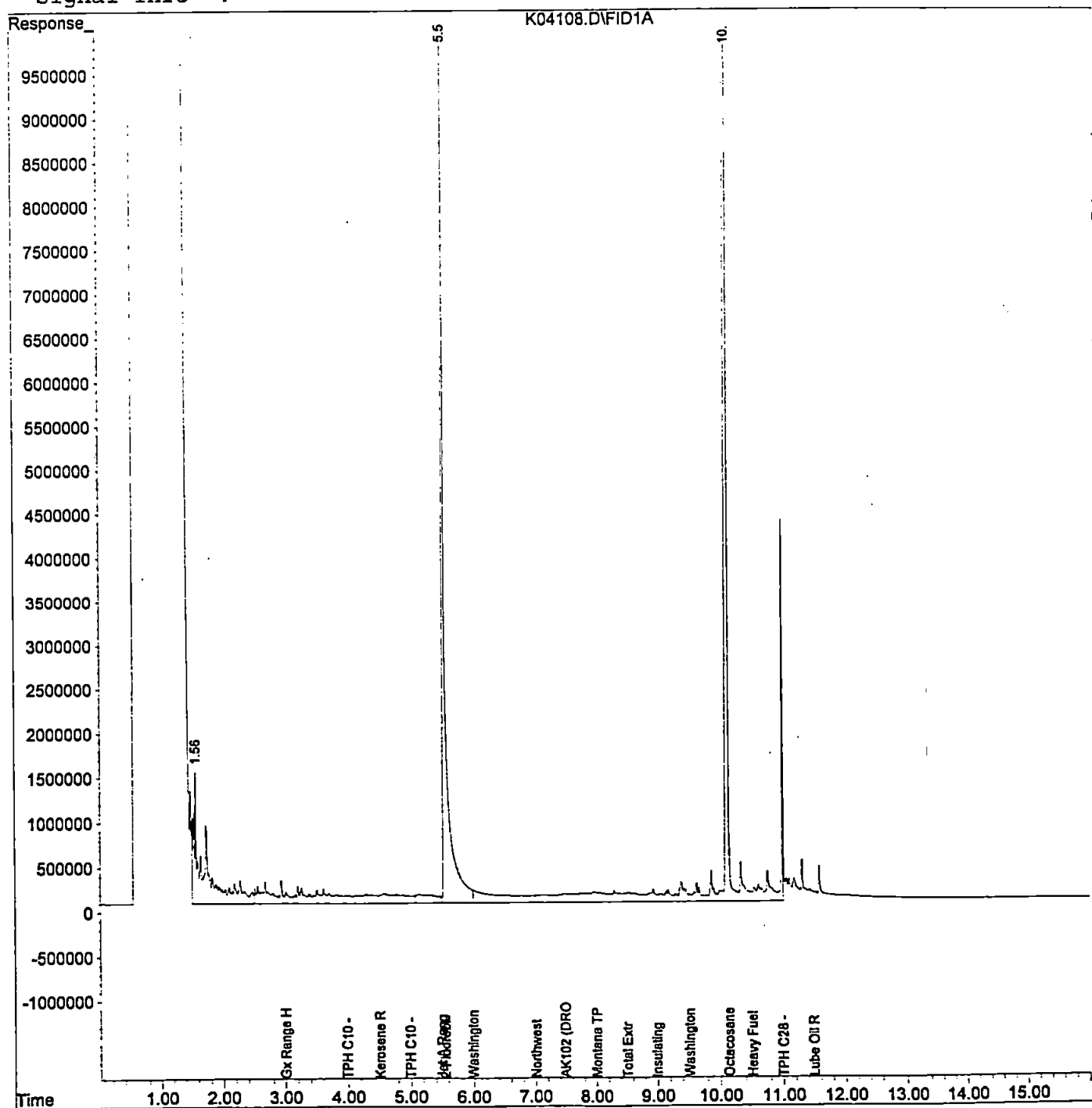
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>Baker Tank 10/23/98</u>				<u>B810554-01</u>			<u>Water</u>	
pH	1080858	10/23/98	10/23/98	EPA 150.1		6.22	pH Units	
Cyanide (total)	1080895	10/26/98	10/26/98	EPA 335.2	0.0100	ND	mg/l	
Fats, Oil & Grease (total)	1080875	"	"	EPA 418.1/413.2	1.00	ND	"	
Fats, Oil & Grease (non-polar)	"	"	"	EPA 418.1/413.2	1.00	ND	"	
Fats, Oil & Grease (polar)	"	"	"	EPA 418.1/413.2		ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-451

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
Treatment Tank 10/23/98	B810554-02	Soil	30.2	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C-452

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue Beaverton OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Volatile Petroleum Products and BTEX by NWTPH-Gx and EPA 8021B/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080870										
Date Prepared: 10/25/98										
Extraction Method: EPA 5030B (P/T)										
Blank										
1080870-BLK1										
Gasoline Range Hydrocarbons	10/25/98			ND	mg/kg dry	5.00				
Benzene	"			ND	"	0.0500				
Toluene	"			ND	"	0.0500				
Ethylbenzene	"			ND	"	0.0500				
Xylenes (total)	"			ND	"	0.100				
Surrogate: 4-BFB (FID)	"	4.00		3.37	"	50.0-150	84.2			
Surrogate: 4-BFB (PID)	"	4.00		3.83	"	50.0-150	95.7			
LCS										
1080870-BS1										
Gasoline Range Hydrocarbons	10/25/98	25.0		24.5	mg/kg dry	70.0-130	98.0			
Surrogate: 4-BFB (FID)	"	4.00		3.86	"	50.0-150	96.5			
Duplicate										
1080870-DUP1 B810554-02										
Gasoline Range Hydrocarbons	10/25/98		252	343	mg/kg dry			50.0	30.6	1
Surrogate: 4-BFB (FID)	"	13.3		7.84	"	50.0-150	58.9			
Matrix Spike										
1080870-MS1 B810520-02										
Benzene	10/25/98	0.532	ND	0.522	mg/kg dry	60.0-140	98.1			
Toluene	"	0.532	ND	0.567	"	60.0-140	107			
Ethylbenzene	"	0.532	ND	0.501	"	60.0-140	94.2			
Xylenes (total)	"	1.59	ND	1.67	"	60.0-140	105			
Surrogate: 4-BFB (PID)	"	4.25		4.31	"	50.0-150	101			
Matrix Spike Dup										
1080870-MSD1 B810520-02										
Benzene	10/25/98	0.532	ND	0.533	mg/kg dry	60.0-140	100	20.0	1.92	
Toluene	"	0.532	ND	0.550	"	60.0-140	103	20.0	3.81	
Ethylbenzene	"	0.532	ND	0.498	"	60.0-140	93.6	20.0	0.639	
Xylenes (total)	"	1.59	ND	1.63	"	60.0-140	103	20.0	1.92	
Surrogate: 4-BFB (PID)	"	4.25		4.25	"	50.0-150	100			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080842		Date Prepared: 10/23/98		Extraction Method: EPA 3550B						
Blank		1080842-BLK1								
Diesel Range Hydrocarbons	10/24/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		10.6	"	50.0-150	99.1			
LCS		1080842-BS1								
Diesel Range Hydrocarbons	10/26/98	66.7		41.3	mg/kg dry	60.0-140	61.9			
Surrogate: 2-FBP	10/26/98	10.7		9.20	"	50.0-150	86.0			
Duplicate		1080842-DUP1		B810554-02						
Diesel Range Hydrocarbons	10/24/98		124000	95100	mg/kg dry			50.0	26.4	
Lube Oil Range Hydrocarbons	"		9530	11900	"			50.0	22.1	
Surrogate: 2-FBP	"	35.4		23.8	"	50.0-150	67.2			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

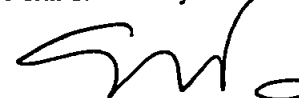
Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1080847										
Date Prepared: 10/23/98										
Extraction Method: EPA 7471A										
Blank 1080847-BLK1										
Mercury	10/26/98			ND	mg/kg dry	0.100				
LCS 1080847-BS1										
Mercury	10/26/98	1.75		1.79	mg/kg dry	80.0-120	102			
Matrix Spike 1080847-MS1 B810554-02										
Mercury	10/26/98	0.727	1.48	2.35	mg/kg dry	80.0-120	120			
Matrix Spike Dup 1080847-MSD1 B810554-02										
Mercury	10/26/98	0.669	1.48	2.21	mg/kg dry	80.0-120	109	20.0	9.61	
Batch: 1080860										
Date Prepared: 10/23/98										
Extraction Method: EPA 3050B										
Blank 1080860-BLK1										
Arsenic	10/31/98			ND	mg/kg dry	0.500				
Cadmium	"			ND	"	0.500				
Chromium	"			ND	"	0.500				
Copper	"			ND	"	0.500				
Lead	"			ND	"	0.500				
Nickel	"			ND	"	0.500				
Silver	"			ND	"	0.500				
Zinc	"			ND	"	5.00				
LCS 1080860-BS1										
Arsenic	10/31/98	50.0		57.5	mg/kg dry	70.0-130	115			
Cadmium	"	50.0		54.5	"	70.0-130	109			
Chromium	"	50.0		60.0	"	80.0-120	120			
Copper	"	50.0		52.0	"	80.0-120	104			
Lead	"	50.0		59.0	"	80.0-120	118			
Nickel	"	50.0		53.0	"	80.0-120	106			
Silver	"	50.0		53.5	"	80.0-120	107			
Zinc	"	50.0		47.0	"	70.0-130	94.0			
Duplicate 1080860-DUP1 B810480-02										
Arsenic	10/31/98		37.0	30.4	mg/kg dry			20.0	19.6	
Cadmium	"		0.900	1.50	"			20.0	50.0	5
Chromium	"		17.7	16.1	"			20.0	9.47	
Copper	"		91.2	104	"			20.0	13.1	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate (continued)</u>	<u>1080860-DUP1</u>		<u>B810480-02</u>							
Lead	10/31/98		135	92.5	mg/kg dry			20.0	37.4	6
Nickel	"		128	74.6	"			20.0	52.7	
Silver	"		ND	0.936	"			20.0		
Zinc	"		82.6	74.6	"			20.0	10.2	
<u>Matrix Spike</u>	<u>1080860-MS1</u>		<u>B810480-02</u>							
Arsenic	10/31/98	52.6	37.0	79.9	mg/kg dry	70.0-130	81.6			
Cadmium	"	52.6	0.900	54.7	"	70.0-130	102			
Chromium	"	52.6	17.7	73.6	"	70.0-130	106			
Copper	"	52.6	91.2	207	"	70.0-130	NR			
Lead	11/6/98	52.6	135	408	"	70.0-130	NR			6
Nickel	10/31/98	52.6	128	106	"	70.0-130	NR			
Silver	"	52.6	ND	49.7	"	70.0-130	94.5			
Zinc	"	52.6	82.6	147	"	70.0-130	122			
<u>Matrix Spike</u>	<u>1080860-MS2</u>		<u>B810480-02</u>							
Copper	11/2/98	566	91.2	620	mg/kg dry	70.0-130	93.4			
Lead	"	566	135	702	"	70.0-130	100			7
Nickel	"	566	128	651	"	70.0-130	92.4			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*

Batch: 1080850

Date Prepared: 10/23/98

Extraction Method: EPA 7470A

Blank

1080850-BLK1

Mercury 10/26/98 ND mg/l 0.00100

LCS

1080850-BS1

Mercury 10/26/98 0.00500 0.00563 mg/l 70.0-130 113

Matrix Spike

1080850-MS1

B810554-01

Mercury 10/26/98 0.00500 ND 0.00571 mg/l 75.0-125 114

Matrix Spike Dup

1080850-MSD1

B810554-01

Mercury 10/26/98 0.00500 ND 0.00589 mg/l 75.0-125 118 20.0 3.45

Batch: 1080853

Date Prepared: 10/23/98

Extraction Method: EPA 3005A

Blank

1080853-BLK1

Arsenic 10/31/98 ND mg/l 0.00100

Cadmium " ND " 0.00100

Chromium " ND " 0.00100

Copper " ND " 0.00100

Lead " ND " 0.00100

Nickel " ND " 0.0150

Silver " ND " 0.00100

Zinc " ND " 0.0100

LCS

1080853-BS1

Arsenic 10/31/98 0.200 0.211 mg/l 80.0-120 105

Cadmium " 0.200 0.212 " 80.0-120 106

Chromium " 0.200 0.205 " 80.0-120 102

Copper " 0.200 0.220 " 80.0-120 110

Lead " 0.200 0.225 " 80.0-120 112

Nickel " 0.200 0.224 " 80.0-120 112

Silver " 0.200 0.202 " 80.0-120 101

Zinc " 0.200 0.226 " 80.0-120 113

Duplicate

1080853-DUP1

B810554-01

Arsenic 10/31/98 0.00132 0.00118 mg/l 20.0 11.2

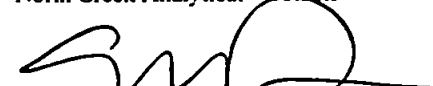
Cadmium " ND ND " 20.0

Chromium " 0.00127 0.00120 " 20.0 5.67

Copper " 0.00193 0.00182 " 20.0 5.87

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 11/9/98 17:41

Dissolved Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<u>Duplicate (continued)</u>										
	<u>1080853-DUP1</u>		<u>B810554-01</u>							
Lead	10/31/98		ND	ND	mg/l				20.0	
Nickel	"		ND	ND	"				20.0	
Silver	"		ND	ND	"				20.0	
Zinc	"		ND	ND	"				20.0	
<u>Matrix Spike</u>										
	<u>1080853-MS1</u>		<u>B810554-01</u>							
Arsenic	10/31/98	0.200	0.00132	0.230	mg/l	75.0-125	114			
Cadmium	"	0.200	ND	0.219	"	75.0-125	109			
Chromium	"	0.200	0.00127	0.192	"	75.0-125	95.4			
Copper	"	0.200	0.00193	0.218	"	75.0-125	108			
Lead	"	0.200	ND	0.233	"	75.0-125	116			
Nickel	"	0.200	ND	0.224	"	75.0-125	112			
Silver	"	0.200	ND	0.192	"	75.0-125	96.0			
Zinc	"	0.200	ND	0.267	"	75.0-125	133			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition.

Steve Davis, Project Manager

C - 458

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

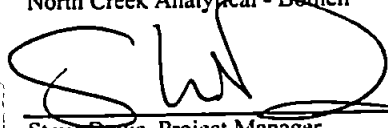
Sampled: 10/7/98
Received: 10/7/98
Reported: 10/12/98 16:59

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup	1080341-MSD1	B810058-02								
Chrysene	10/11/98	0.387	ND	0.260	mg/kg dry	10.0-125	67.2	28.0	7.04	
Fluorene	"	0.387	0.868	0.844	"	10.0-154	NR	32.0	-200	1
Indeno (1,2,3-cd) pyrene	"	0.387	ND	0.318	"	10.0-144	82.2	47.0	0	
Surrogate: 2-FBP	"	1.94		1.63	"	30.0-150	84.0			
Surrogate: Nitrobenzene-d5	"	1.94		1.39	"	30.0-150	71.6			
Surrogate: p-Terphenyl-d14	"	1.94		1.54	"	30.0-150	79.4			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.


Steve Davis, Project Manager

C-377

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 10/7/98 Received: 10/7/98 Reported: 10/12/98 16:59

Notes and Definitions

#	Note
1	The percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell


Steve Davis, Project Manager

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CHAIN OF CUSTODY REPORT

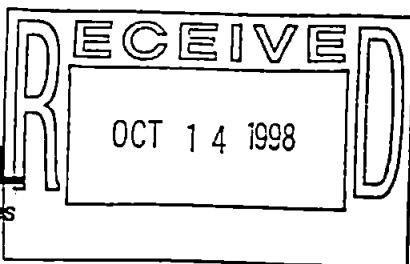
Work Order #

B810190

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *					
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard			Organic & Inorganic Analyses ☐ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☒ Same Day					
ADDRESS: 600 Stewart St. Ste 1215			ADDRESS: RSE - P.O. Box 97034-MER-09			Fuels & Hydrocarbon Analyses ☐ 5 ☐ 3-4 ☐ 2 ☒ Same Day					
Seattle WA, 98101			Bellevue, WA 98007			OTHER Specify: _____					
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ NCA QUOTE #: _____			* Turnaround Requests less than standard may incur Rush Charges.					
PROJECT NAME: Grady Way			Analysis Request: PAHs by GC/MS PCBs by GC/MS WWTPA DA			MATRIX (W, S, A, O)					
PROJECT NUMBER: 186-407-00						# OF CONTAINERS			COMMENTS		
SAMPLED BY: Tony Orme											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)									
1. E10-13-2.5	10/7/98 1400	B810190-01	X	X			S	1			
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
RELINQUISHED BY (Signature):			DATE: 10/7/98			RECEIVED BY (Signature):					
PRINT NAME: Tony Orme			FIRM: GEI			DATE: 10/7/98					
RELINQUISHED BY (Signature):			DATE: 10/7/98			RECEIVED BY (Signature):					
PRINT NAME: Tony Orme			FIRM: NCT			DATE: 10/7/98					
RELINQUISHED BY (Signature):			DATE: 10/7/98			RECEIVED BY (Signature):					
PRINT NAME: D. HEAR			FIRM: NCA			DATE: 10/7/98					
RELINQUISHED BY (Signature):			DATE: 10/7/98			RECEIVED BY (Signature):					
PRINT NAME: D. HEAR			FIRM: NCA-B			DATE: 10/7/98					
ADDITIONAL REMARKS:			13.4 w/6			PAGE 1 OF 1					



**NORTH
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ANALYTICAL**
Environmental Laboratory Services



BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/9/98
Received: 10/9/98
Reported: 10/12/98 14:17

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
Vault - 1	B810235-01	Water	10/9/98

North Creek Analytical - Bothell

Steve Davis, 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.*

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/9/98
Received: 10/9/98
Reported: 10/12/98 14:17

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>Vault - 1</u>				<u>B810235-01</u>			<u>Water</u>	
Aroclor 1016	1080368	10/10/98	10/12/98		0.100	ND	ug/l	
Aroclor 1221	"	"	"		0.100	ND	"	
Aroclor 1232	"	"	"		0.100	ND	"	
Aroclor 1242	"	"	"		0.100	ND	"	
Aroclor 1248	"	"	"		0.100	3.17	"	
Aroclor 1254	"	"	"		0.100	ND	"	
Aroclor 1260	"	"	"		0.100	0.874	"	
Aroclor 1262	"	"	"		0.100	ND	"	
Aroclor 1268	"	"	"		0.100	ND	"	
Surrogate: TCX	"	"	"	40.0-130		59.5	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

C - 381

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/9/98
Received: 10/9/98
Reported: 10/12/98 14:17

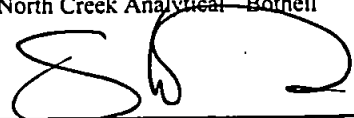
Conventional Chemistry Parameters by APHA/EPA Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>Vault - 1</u> pH	1080361	10/9/98	10/9/98	<u>B810235-01</u> EPA 150.1		8.43	<u>Water</u> pH Units	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

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NORTH CREEK ANALYTICAL

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Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/9/98
Received: 10/9/98
Reported: 10/12/98 14:17

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	RPD %
Batch: 1080368		Date Prepared: 10/10/98		Extraction Method: EPA 3510C/600 Series						
Blank		1080368-BLK1								
Aroclor 1016	10/12/98			ND	ug/l	0.100				
Aroclor 1221	"			ND	"	0.100				
Aroclor 1232	"			ND	"	0.100				
Aroclor 1242	"			ND	"	0.100				
Aroclor 1248	"			ND	"	0.100				
Aroclor 1254	"			ND	"	0.100				
Aroclor 1260	"			ND	"	0.100				
Aroclor 1262	"			ND	"	0.100				
Aroclor 1268	"			ND	"	0.100				
Surrogate: TCX	"	0.200		0.184	"	40.0-130	92.0			
LCS		1080368-BS1								
Aroclor 1260	10/12/98	10.0		5.88	ug/l	33.0-122	58.8			
Surrogate: TCX	"	0.200		0.178	"	40.0-130	89.0			
LCS Dup		1080368-BSD1								
Aroclor 1260	10/12/98	10.0		6.16	ug/l	33.0-122	61.6	21.0	4.65	
Surrogate: TCX	"	0.200		0.197	"	40.0-130	98.5			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

C - 383

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/9/98
Received: 10/9/98
Reported: 10/12/98 14:17

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 1080361										
Duplicate										
pH	10/9/98		8.43	8.19	pH Units			10.0	2.89	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

C - 384

Steve Davis, Project Manager

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Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 10/9/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 10/9/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 10/12/98 14:17

Notes and Definitions

#	Note

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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Steve Davis, Project Manager

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**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

(425) 420-9200 FAX 420-9210
(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

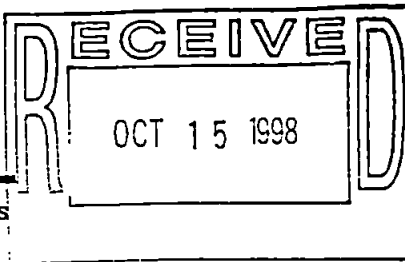
B810235

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST In Business Days * Organic & Inorganic Analyses <table border="1"> <tr><td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td><td>☒</td><td>Same Day</td></tr> </table> Standard Fuels & Hydrocarbon Analyses <table border="1"> <tr><td>5</td><td>3-4</td><td>2</td><td>☒</td><td>Same Day</td></tr> </table> Standard OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			10	7	5	4	3	2	☒	Same Day	5	3-4	2	☒	Same Day
10	7	5	4	3	2				☒	Same Day											
5	3-4	2	☒	Same Day																	
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombard</u>																		
ADDRESS: <u>600 Stewart St Ste 1215</u>			ADDRESS: <u>RSE - P.O. Box 97634-MER-04</u>																		
<u>Seattle WA 98101</u>			<u>Bellevue, WA 98007</u>																		
PHONE: <u>(206) 728-2674</u> FAX: <u>(206) 728-2732</u>			P.O. NUMBER: _____ NCA QUOTE #: _____																		
PROJECT NAME: <u>Grady Way</u>			PAHs by GC/MS PCBs by GC/MS HWPB DX PH																		
PROJECT NUMBER: <u>186-407-00</u>																					
SAMPLED BY: <u>Tony Orme</u>																					
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)			MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS													
1. <u>Uau/T-1</u>		<u>10/9/98 1150</u>	<u>B810235-01</u>			<u>W</u>	<u>2</u>														
2.																					
3.																					
4.																					
5.																					
6.																					
7.																					
8.																					
9.																					
10.																					
RELINQUISHED BY (Signature): <u>S. Wicleen</u>			DATE: <u>10/9/98</u>		RECEIVED BY (Signature): <u>S. Wicleen</u>			DATE: <u>10/9/98</u>													
PRINT NAME: <u>S. Wicleen</u>			FIRM: <u>NCA</u>		PRINT NAME: <u>S. Wicleen</u>			FIRM: <u>NCA</u>													
RELINQUISHED BY (Signature): <u>Tony Orme</u>			DATE: <u>10/9/98</u>		RECEIVED BY (Signature): <u>D. Hewitt</u>			DATE: <u>10/9/98</u>													
PRINT NAME: <u>Tony Orme</u>			FIRM: <u>CEI</u>		PRINT NAME: <u>D. Hewitt</u>			FIRM: <u>NCA B</u>													
ADDITIONAL REMARKS:																					

W10
12.4



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E13-1-6.0	B810268-01	Soil	10/12/98
E13-2-6.0	B810268-02	Soil	10/12/98
E13-3-6.0	B810268-03	Soil	10/12/98

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.*


Steve Davis, Project Manager

C - 387

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NORTH CREEK ANALYTICAL

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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/12/98
Received: 10/12/98
Reported: 10/13/98 16:47

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units
<u>E13-1-6.0</u>							
Diesel Range Hydrocarbons	1080414	10/12/98	10/13/98		10.0	150	Soil mg/kg dry
Lube Oil Range Hydrocarbons	"	"	"		25.0	119	"
Surrogate: 2-FBP	"	"	"	50.0-150		85.0	%
<u>E13-2-6.0</u>							
Diesel Range Hydrocarbons	1080414	10/12/98	10/13/98		10.0	191	Soil mg/kg dry
Lube Oil Range Hydrocarbons	"	"	"		25.0	349	"
Surrogate: 2-FBP	"	"	"	50.0-150		78.5	%
<u>E13-3-6.0</u>							
Diesel Range Hydrocarbons	1080414	10/12/98	10/13/98		10.0	46.1	Soil mg/kg dry
Lube Oil Range Hydrocarbons	"	"	"		25.0	68.1	"
Surrogate: 2-FBP	"	"	"	50.0-150		82.2	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

*Refer to end of report for text of notes and definitions

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Total Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>Treatment Tank 10/23/98</u>				<u>B810554-02</u>			<u>Soil</u>	
Arsenic	1080860	10/23/98	10/31/98	EPA 6020	1.66	19.0	mg/kg dry	
Cadmium	"	"	"	EPA 6020	1.66	6.69	"	
Chromium	"	"	"	EPA 6020	1.66	56.9	"	
Copper	"	"	11/2/98	EPA 6020	16.6	829	"	
Lead	"	"	10/31/98	EPA 6020	1.66	280	"	
Nickel	"	"	"	EPA 6020	1.66	44.0	"	
Silver	"	"	"	EPA 6020	1.66	ND	"	
Zinc	"	"	11/6/98	EPA 6020	332	3220	"	
Mercury	1080847	"	10/26/98	EPA 7471A	0.332	1.48	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C-447

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

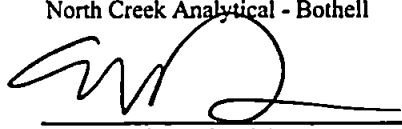
Sampled: 10/23/98
Received: 10/23/98
Reported: 11/9/98 17:41

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>Baker Tank 10/23/98</u>				<u>B810554-01</u>			<u>Water</u>	
Arsenic	1080853	10/23/98	10/31/98	EPA 6020	0.00100	0.00132	mg/l	
Cadmium	"	"	"	EPA 6020	0.00100	ND	"	
Chromium	"	"	"	EPA 6020	0.00100	0.00127	"	
Copper	"	"	"	EPA 6020	0.00100	0.00193	"	
Lead	"	"	"	EPA 6020	0.00100	ND	"	
Nickel	"	"	"	EPA 6020	0.0150	ND	"	3
Silver	"	"	"	EPA 6020	0.00100	ND	"	
Zinc	"	"	"	EPA 6020	0.0100	ND	"	
Mercury	1080850	"	10/26/98	EPA 7470A	0.00100	ND	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions


Steve Davis, Project Manager

C - 448

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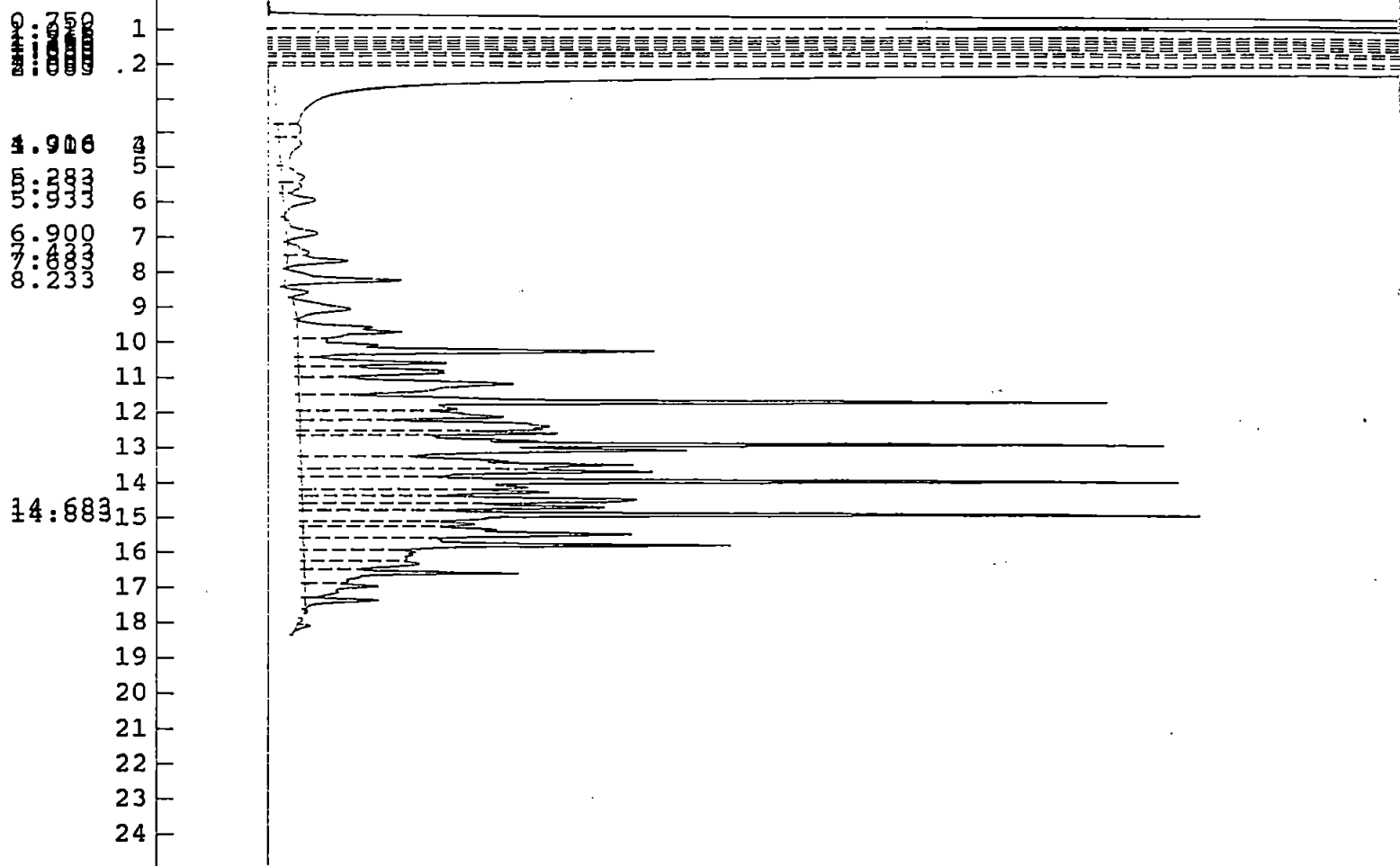
Page 5 of 2

Lab name: tegnw
 Client: GeoEngineers, Inc.
 Analysis date: 12/03/1998 11:49:02
 Description: Ch. 2 gc3 fid2
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch2det7.CHR ()
 Sample: ttp3-8-3.0 msd
 Operator: slc

-40.000mV

400.000mV

Retention



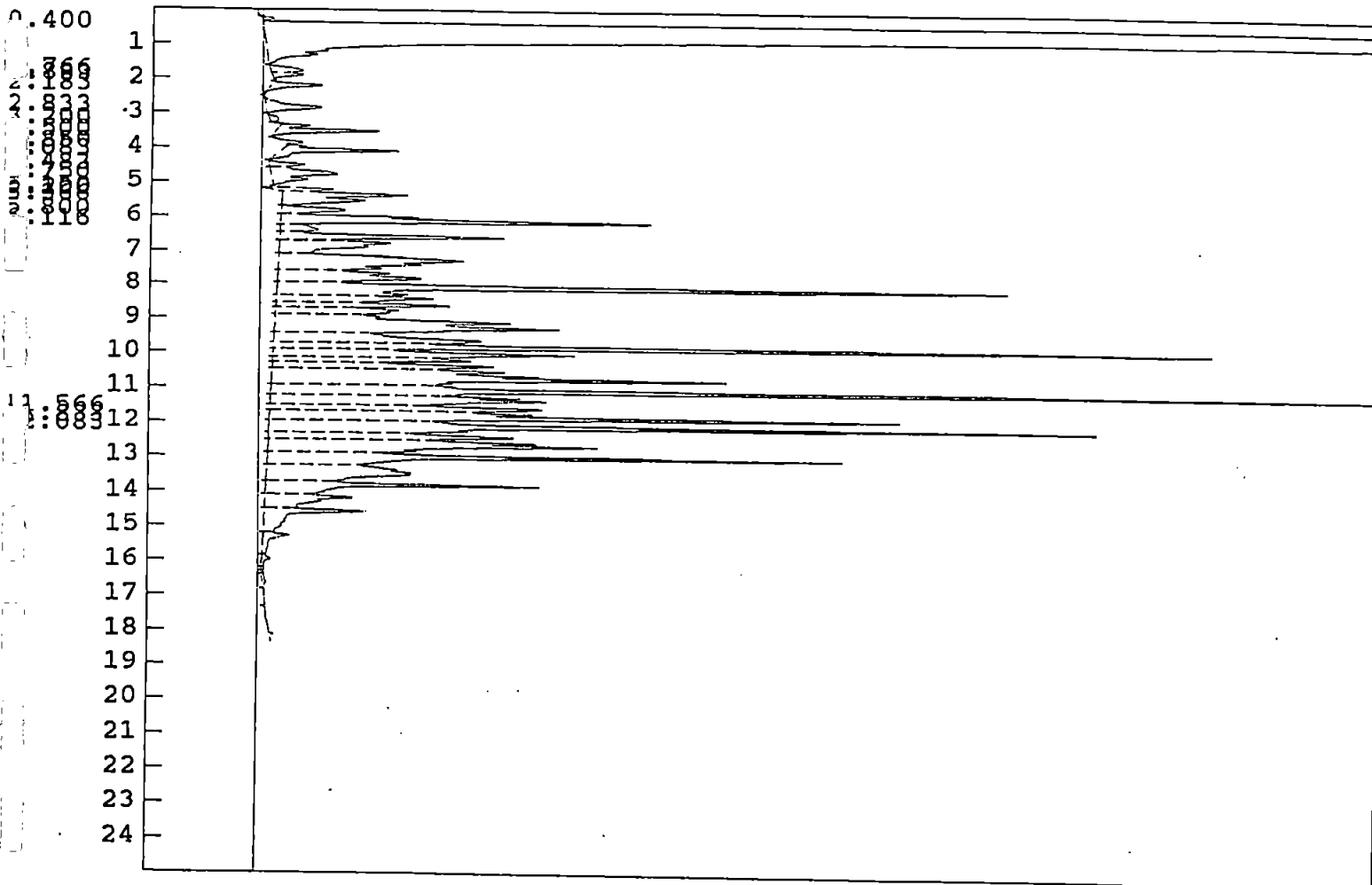
Component	Retention	Area	External	Units
Diesel	8.233	29759.377	1205.75	ppm
FluoroBiphenyl	14.683	938.382	33.64	ppm
FluoroBiphenyl	14.883	2221.454	79.64	ppm
		32919.213	1319.03	

Lab name: SRI Instruments
 Client: GeoEngineers
 Analysis date: 12/03/1998 11:49:02
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: chldet6.CHR ()
 Sample: ttp3-8-3.0 ms

-40.000mV

400.000mV

Retention

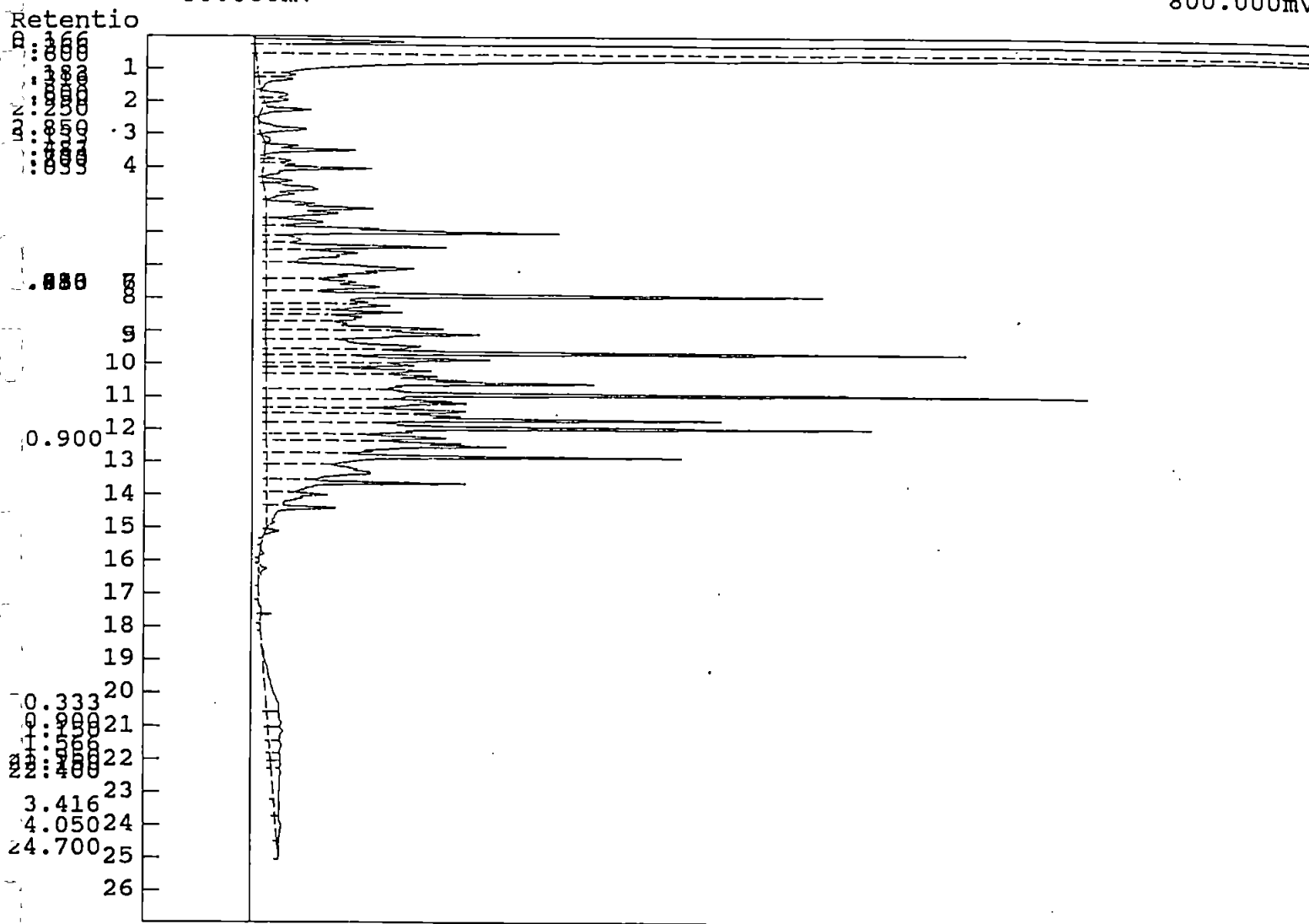


Component	Retention	Area	External	Units
IESEL	6.116	31901.678	1251.36	PPM
Fluorobiphenyl	11.566	806.639	28.51	ppm
Fluorobiphenyl	11.833	1839.521	65.02	ppm
Fluorobiphenyl	12.083	2209.574	78.10	ppm
		36757.412	1423.00	

Lab name: tegnw
 Client: GeoEngineers
 Analysis date: 12/03/1998 09:43:53
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: chldet3.CHR ()
 Sample: kerosene lcs

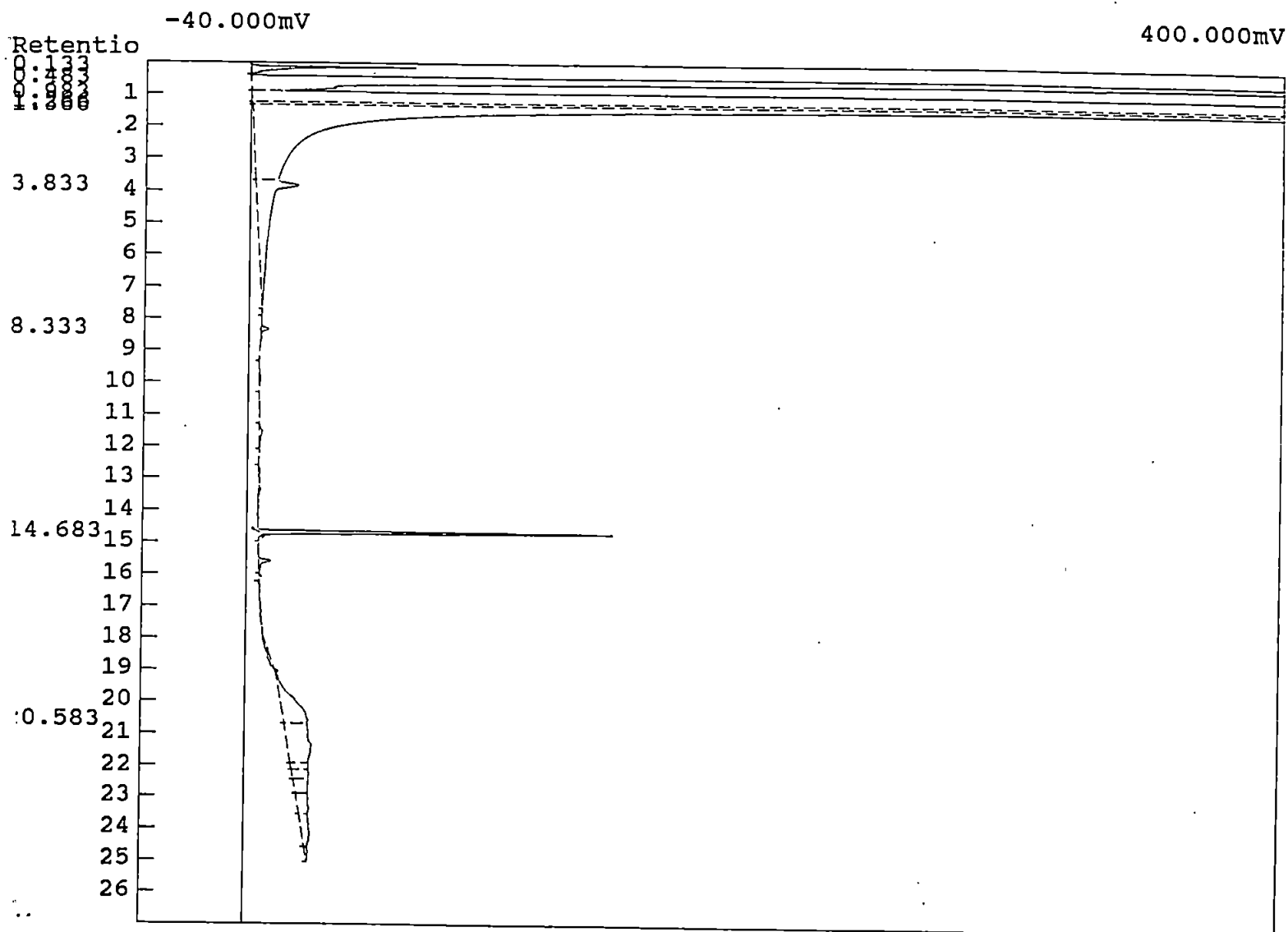
-80.000mV

800.000mV



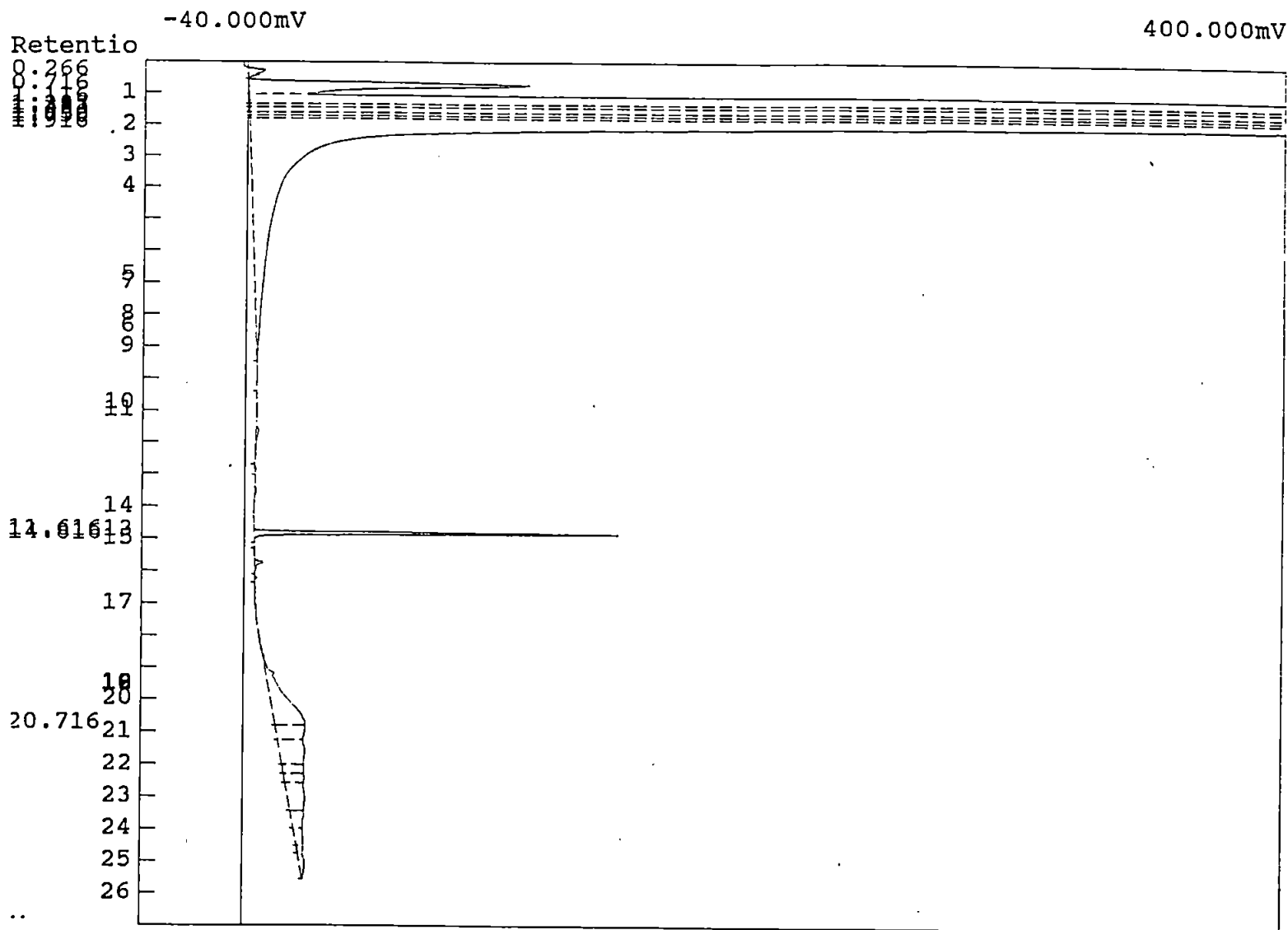
Component	Retention	Area	External	Units
IESEL	6.233	47761.928	1873.49	PPM
fluorobiphenyl	10.900	3646.755	8.83	ppm
		51408.683	1882.32	

Lab name: tegnw
 Client: GeoEngineers, Inc.
 Analysis date: 12/03/1998 09:43:53
 Description: Ch. 2 gc3 fid2
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch2det3.CHR ()
 Sample: m blank
 Operator: slc



Component	Retention	Area	External	Units
iesel	8.333	643.931	26.09	ppm
luoroBiphenyl	14.683	549.778	19.71	ppm
il	20.583	1778.742	69.74	ppm
		2972.451	115.54	

Lab name: tegnw
 Client: GeoEngineers, Inc.
 Analysis date: 12/03/1998 10:17:12
 Description: Ch. 2 gc3 fid2
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch2det4.CHR ()
 Sample: ttp3-8-3.0
 Operator: slc



Component	Retention	Area	External	Units
Diesel	11.616	634.215	25.70	ppm
Fluorobiphenyl	14.816	583.352	20.91	ppm
oil	20.716	2339.755	91.73	ppm
		3557.322	138.34	

Lab name: SRI Instruments

Client: GeoEngineers

Analysis date: 12/03/1998 10:17:12

Description: Ch. 1 gc3fid1

Column: RESTEK 15METER MXT-1

Carrier: HELIUM AT 300 ON DIAL

Data file: ch1det3.CHR ()

Sample: ttp3-7-3.0

-20.000mV

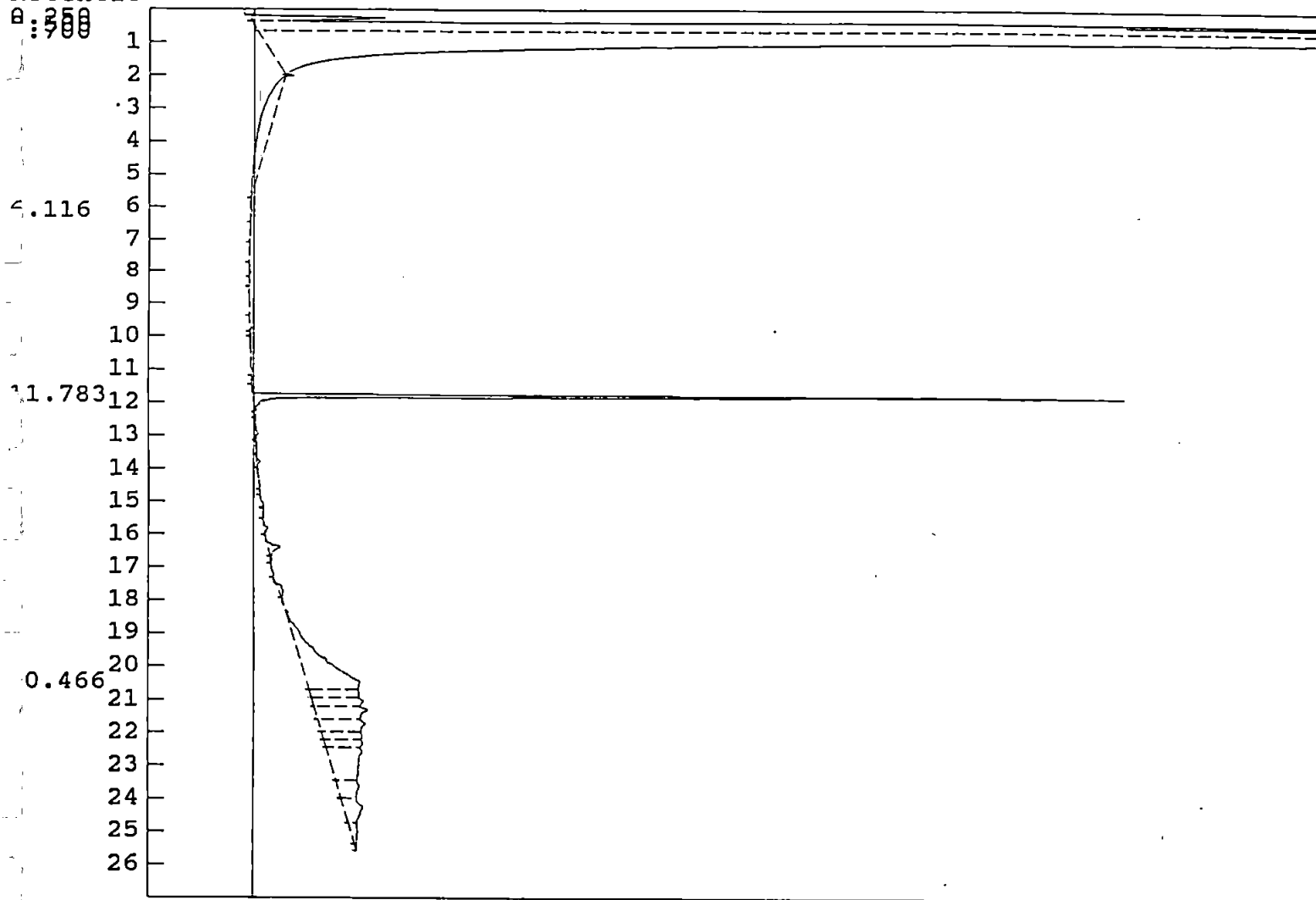
200.000mV

Retention

6.116

11.783

20.466



Component

Retention

Area

External

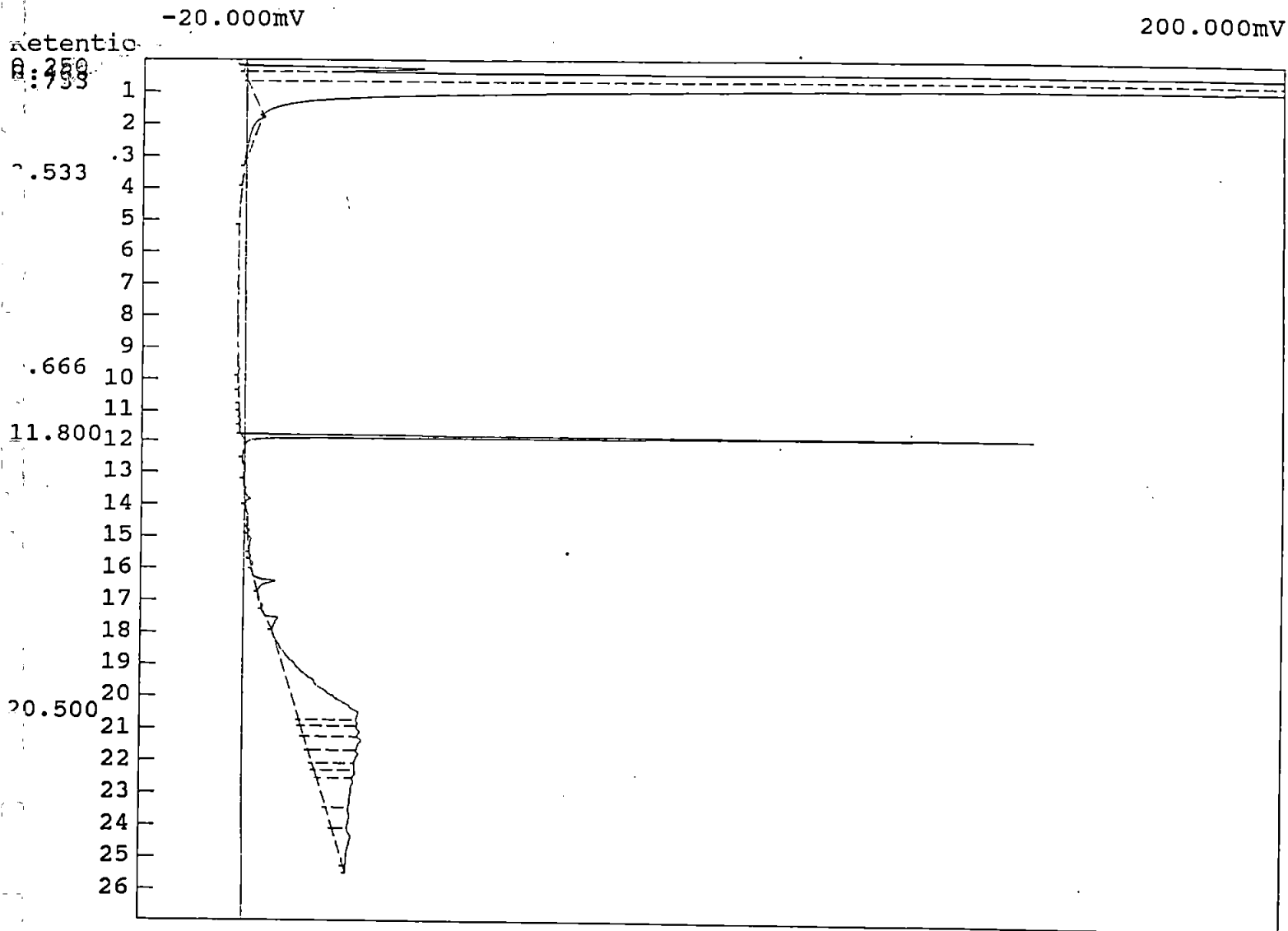
Units

IESEL	6.116	667.755	26.19	PPM
fluorobiphenyl	11.783	591.194	20.90	ppm
oil	20.466	2020.089	79.24	

3279.038

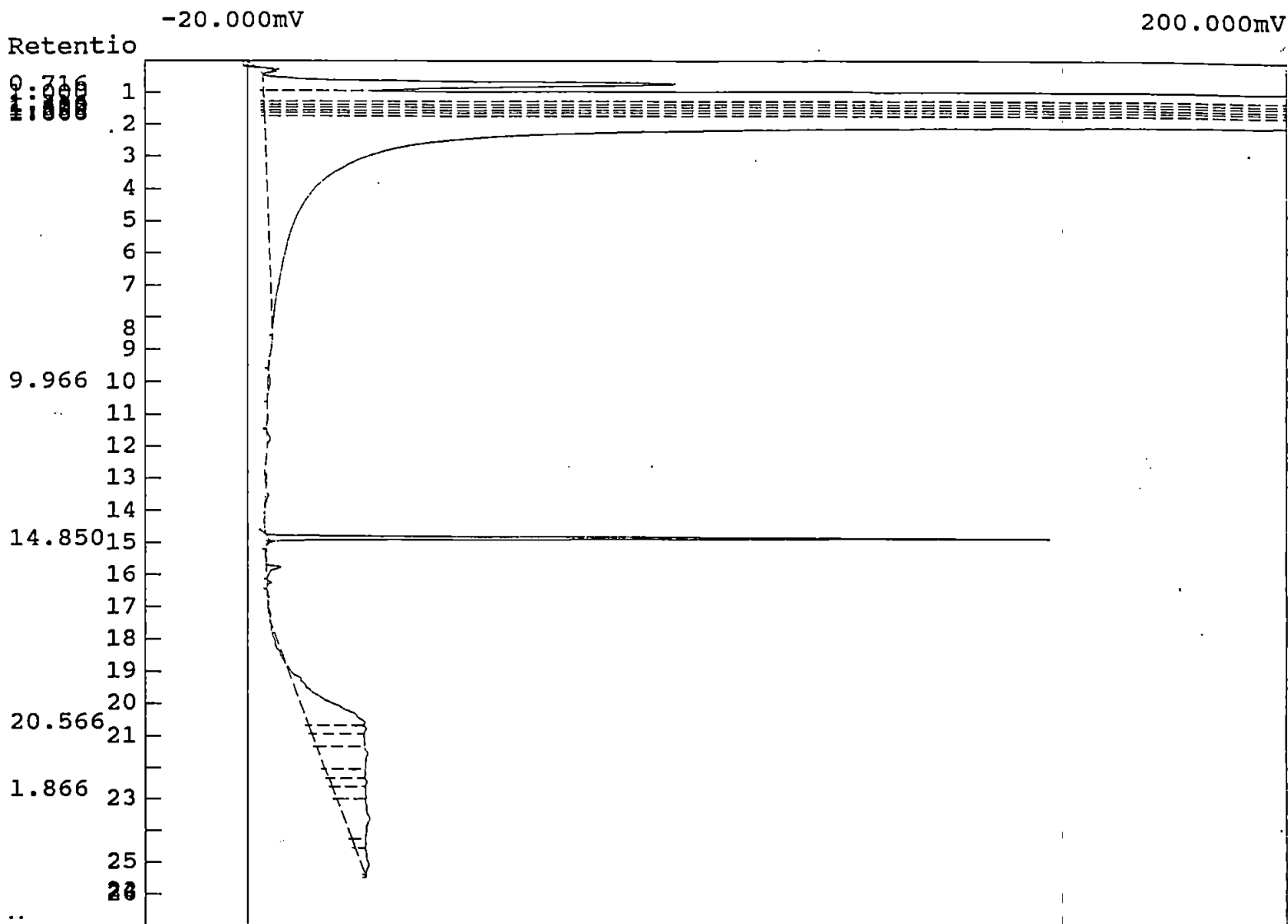
126.33

Lab name: SRI Instruments
 Client: GeoEngineers
 Analysis date: 12/03/1998 10:47:14
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: chldet4.CHR ()
 Sample: ttp3-9-3.0



Component	Retention	Area	External	Units
DIESEL	9.666	649.873	25.49	PPM
fluorobiphenyl	11.800	543.425	19.21	ppm
oil	20.500	2385.092	93.56	
		3578.390	138.26	

Lab name: tegnw
 Client: GeoEngineers, Inc.
 Analysis date: 12/03/1998 10:47:14
 Description: Ch. 2 gc3 fid2
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch2det5.CHR ()
 Sample: ttp3-10-3.0
 Operator: slc



Component	Retention	Area	External	Units
Diesel	9.966	633.525	25.67	ppm
FluoroBiphenyl	14.850	599.156	21.48	ppm
oil	20.566	2104.358	82.50	ppm
		3337.039	129.65	



CHAIN OF CUSTODY REPORT

Work Order # **B811048**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> <td rowspan="2">Same Day</td> </tr> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> <td rowspan="2">Same Day</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td colspan="3"></td> </tr> </table>			Organic & Inorganic Analyses						Same Day	10	7	5	4	3	2	Fuels & Hydrocarbon Analyses						Same Day	5	3-4	2			
Organic & Inorganic Analyses									Same Day																									
10	7	5	4	3	2																													
Fuels & Hydrocarbon Analyses									Same Day																									
5	3-4	2																																
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																															
ADDRESS: 600 Stewart St. Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97634-MER-0 Bellevue, WA * 98009																															
PHONE: (206) 728-2674 FAX: (206) -728-2732			P.O. NUMBER:			QUOTE #:																												
PROJECT NAME: Grady Way			Analysis Request: PAHs by 8270 PCB by 8082 MWTPH DX Encl. 7000-37 Pb, Ag, Cd, Hg PH HVOC EPA 8010B GLBETX																															
PROJECT NUMBER: 186-407-00																																		
SAMPLED BY: Tony Orsini																																		
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)					MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																								
1. GMW-1			B811048-01		X	X	X	W	3																									
2. GMW-2A		11/3/98 800	02		X	X	X	W	24																									
3. GMW-3A		830	03		X	X	X	W	4	Not Field Filtered																								
4. GMW-4A		845	04		X	X	X	W	4																									
5. GMW-5		915	05		X	X	X	W	4	1 Jar collected 11/3/98																								
6. GMW-6		945	06		X	X	X	W	4	1 Jar collected 11/3/98																								
7. GMW-7			07		X	X	X	W	3																									
8. GMW-8		1115	08		X	X	X	W	4	Not Field Filtered																								
9. GMW-9		1045	09		X	X	X	W	4	Not Field Filtered																								
10. GMW-10		945	10		X	X	X	W	5	Not Field Filtered																								
RELINQUISHED BY (Signature)			DATE:			RECEIVED BY (Signature) S. Wideen			DATE: 11/3/98																									
PRINT NAME:			FIRM:			PRINT NAME: S. Wideen			FIRM: NCA																									
RELINQUISHED BY (Signature)			DATE:			RECEIVED BY (Signature)			DATE:																									
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:																									
ADDITIONAL REMARKS: * Need Method Detection Limits less than MTEA Method A cleanup levels. Please use same analytical procedures previously used for project. * Samples were not field filtered. Please filter in Lab.										PAGE 1 OF																								



CHAIN OF CUSTODY REPORT

Work Order #

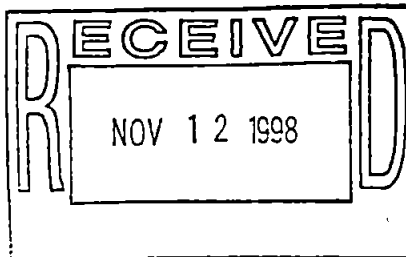
8821048

REPORT TO:			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 ☒ Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 ☒ Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges																			
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard																													
ADDRESS: 600 Stewart St, Ste 1215 Seattle WA, 98101			ADDRESS: PSE - P.O. Box 97034-MER-01 Bellevue, WA 98009																													
PHONE: (206) 728-2674 FAX: (206) 728-2732			P.O. NUMBER: _____ QUOTE #: _____																													
PROJECT NAME: Grady Way			PAHs by 8270 PCBs by 9282 HWPB DX Pb, Ar, Cd, Cr, Hg PH HVC EPA 8210B G/BETA 8211B																													
PROJECT NUMBER: 186-407-00																																
IMPLIED BY: Tony Orme			PAHs by 8270 PCBs by 9282 HWPB DX Pb, Ar, Cd, Cr, Hg PH HVC EPA 8210B G/BETA 8211B																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr><td>GMW-11</td><td>11/3/98 945</td><td>-11</td></tr> <tr><td>GMW-12A</td><td>11/3/98 1100</td><td>-12</td></tr> <tr><td>MW-4</td><td>1300</td><td>-13</td></tr> <tr><td>MW-10</td><td>1200</td><td>14</td></tr> <tr><td>MW-20</td><td>1230</td><td>15</td></tr> <tr><td>B-1A-5.0</td><td>11/2/98 1500</td><td>16</td></tr> <tr><td>B-2A-5.0</td><td>11/2/98 1545</td><td>17</td></tr> <tr><td>B-3A-5.0</td><td>11/2/98 1630</td><td>18</td></tr> <tr><td>B-4A-3.5</td><td>11/3/98 1200</td><td>19</td></tr> </tbody> </table>													CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	GMW-11	11/3/98 945	-11	GMW-12A	11/3/98 1100	-12	MW-4	1300	-13	MW-10	1200	14	MW-20	1230	15	B-1A-5.0	11/2/98 1500
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)																														
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MW-4	1300	-13																														
MW-10	1200	14																														
MW-20	1230	15																														
B-1A-5.0	11/2/98 1500	16																														
B-2A-5.0	11/2/98 1545	17																														
B-3A-5.0	11/2/98 1630	18																														
B-4A-3.5	11/3/98 1200	19																														
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MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS																														
W	5	Not Field Filtered																														
W	54	Not Field Filtered																														
W	56	Not Field Filtered																														
W	6	Not Field Filtered																														
W	7	Not Field Filtered																														
S	1																															
S	1																															
S	1																															
S	1																															

RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature): S. Wideen			DATE: 11/3/98		
FIRM:			TIME:			PRINT NAME: S. Wideen			FIRM: NCA		
RELINQUISHED BY (Signature):			DATE:			RECEIVED BY (Signature):			DATE:		
FIRM:			TIME:			PRINT NAME:			FIRM:		
ADDITIONAL REMARKS:											



**NORTH
CREEK
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Environmental Laboratory Services



BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/4/98
Received: 11/5/98
Reported: 11/9/98 12:13

ANALYTICAL REPORT FOR SAMPLES:

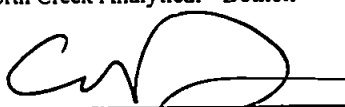
Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
E14-1-4.0	B811090-01	Soil	11/4/98
E14-4-4.5	B811090-04	Soil	11/4/98
E14-5-4.0	B811090-05	Soil	11/4/98
E14-6-4.5	B811090-06	Soil	11/4/98
E11-20-6.0	B811090-07	Soil	11/4/98
E11-21-6.0	B811090-08	Soil	11/4/98
E11-22-7.0	B811090-09	Soil	11/4/98

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.*

C - 521

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9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132


Steve Davis, Project Manager



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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

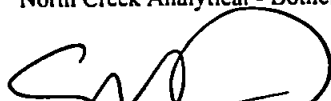
Sampled: 11/4/98
Received: 11/5/98
Reported: 11/9/98 12:13

Semivolatle Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<u>E14-1-4.0</u>				<u>B811090-01</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		56.6	%	
<u>E14-4-4.5</u>				<u>B811090-04</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	114	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	224	"	
Surrogate: 2-FBP	"	"	"	50.0-150		64.7	%	
<u>E14-5-4.0</u>				<u>B811090-05</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	22.6	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		53.4	%	
<u>E14-6-4.5</u>				<u>B811090-06</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	29.4	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	29.9	"	
Surrogate: 2-FBP	"	"	"	50.0-150		57.5	%	
<u>E11-20-6.0</u>				<u>B811090-07</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	94.1	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	271	"	
Surrogate: 2-FBP	"	"	"	50.0-150		63.8	%	
<u>E11-21-6.0</u>				<u>B811090-08</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	13.7	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		57.8	%	
<u>E11-22-7.0</u>				<u>B811090-09</u>			<u>Soil</u>	
Diesel Range Hydrocarbons	1180187	11/5/98	11/6/98		10.0	59.2	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	153	"	
Surrogate: 2-FBP	"	"	"	50.0-150		68.2	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition


Steve Davis, Project Manager

C - 522

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East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
6405 S.W. Myrtle Avenue, Portland, OR 97209-7122



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/4/98
Received: 11/5/98
Reported: 11/9/98 12:13

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
E14-1-4.0	B811090-01	Soil	83.5	%
E14-4-4.5	B811090-04	Soil	52.7	%
E14-5-4.0	B811090-05	Soil	77.3	%
E14-6-4.5	B811090-06	Soil	78.9	%
E11-20-6.0	B811090-07	Soil	69.5	%
E11-21-6.0	B811090-08	Soil	75.9	%
E11-22-7.0	B811090-09	Soil	62.1	%

North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 523

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NORTH CREEK ANALYTICAL

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600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/4/98
Received: 11/5/98
Reported: 11/9/98 12:13

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180187										
Blank										
			Date Prepared: 11/5/98		Extraction Method: EPA 3550B					
			1180187-BLK1							
Diesel Range Hydrocarbons	11/6/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		6.01	"	50.0-150	56.2			
LCS										
			1180187-BS1							
Diesel Range Hydrocarbons	11/6/98	66.7		62.0	mg/kg dry	60.0-140	93.0			
Surrogate: 2-FBP	"	10.7		7.62	"	50.0-150	71.2			
Duplicate										
			1180187-DUP1		B311090-01					
Diesel Range Hydrocarbons	11/6/98		ND	ND	mg/kg dry				50.0	
Lube Oil Range Hydrocarbons	"		ND	ND	"				50.0	
Surrogate: 2-FBP	"	12.9		8.05	"	50.0-150	62.4			
Duplicate										
			1180187-DUP2		B311096-01					
Diesel Range Hydrocarbons	11/6/98		233	204	mg/kg dry				50.0	13.3
Lube Oil Range Hydrocarbons	"		ND	ND	"				50.0	
Surrogate: 2-FBP	"	12.6		9.49	"	50.0-150	75.3			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definition

Steve Davis, Project Manager

C - 524

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Page 4 of 4



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/4/98
Received: 11/5/98
Reported: 11/9/98 12:13

Notes and Definitions

#	Note

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

Recov.	Recovery

RPD	Relative Percent Difference

North Creek Analytical - Bothell

C - 525


Steve Davis, Project Manager

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Quantitation Report

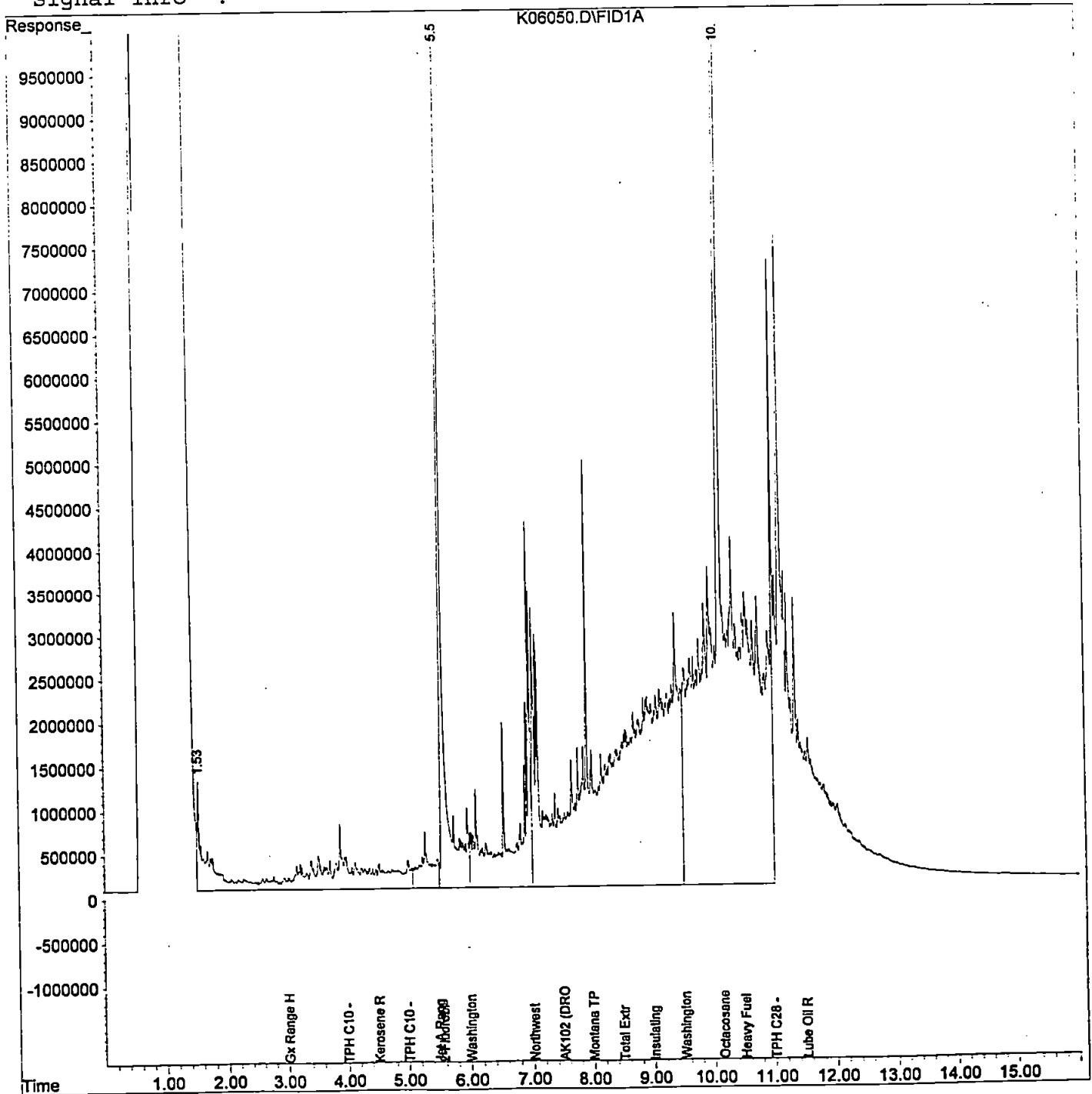
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 Sample : b811090-07
 Misc : S
 IntFile : SURR.E
 Quant Time: Nov 9 8:25 1998

Vial: 43
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)
 Title : TPH-D Front Method
 Last Update : Fri Nov 06 13:31:22 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

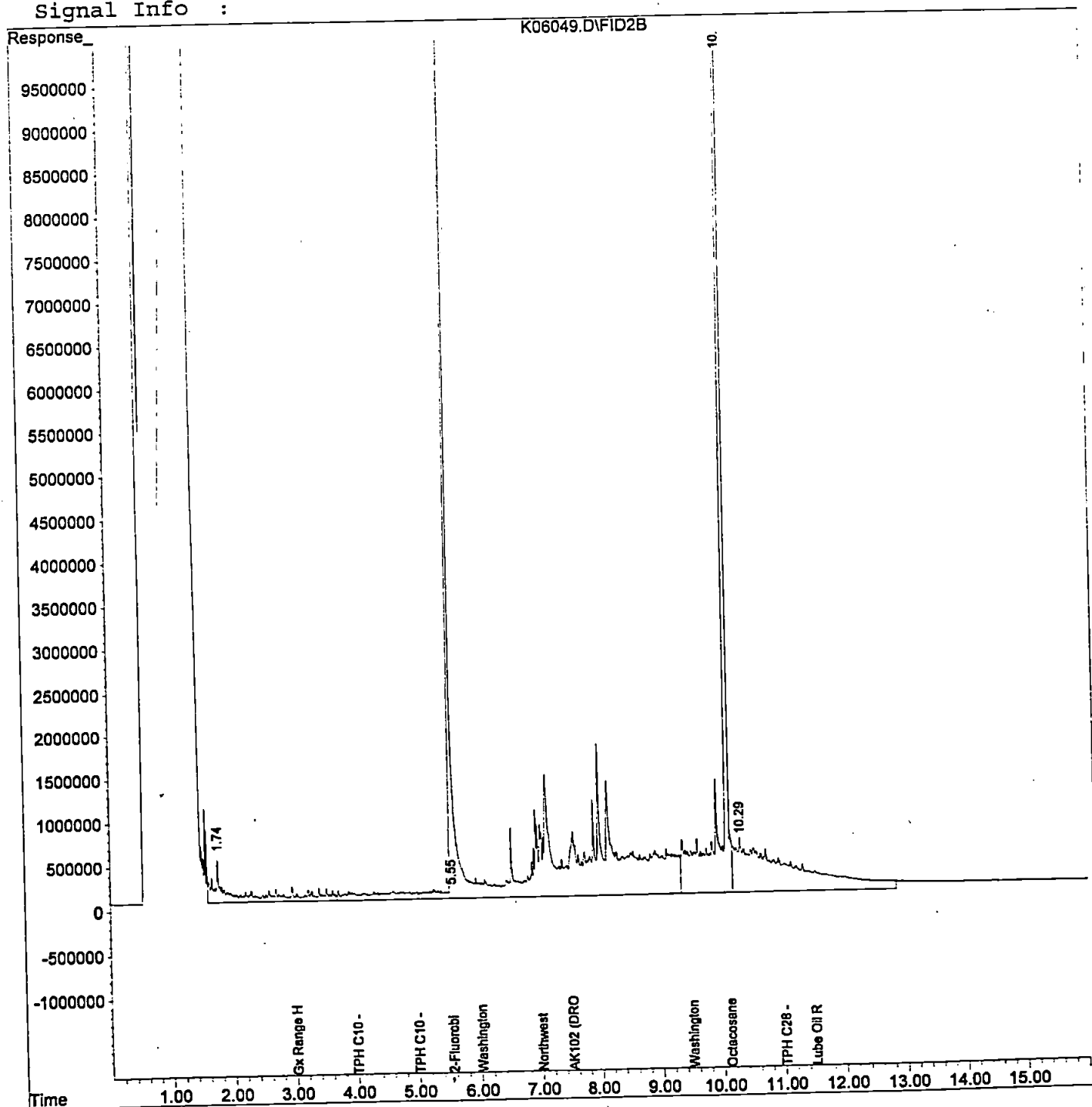
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 Sample : b811090-06
 Misc : S
 IntFile : SURR.E
 Quant Time: Nov 9 7:53 1998

Vial: 42
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K06048.D

Acq On : 11-6-98 6:05:38 PM

Sample : b811090-05

Misc : s

IntFile : SURR.E

Quant Time: Nov 9 8:24 1998 Quant Results File: TPHD.RES

Vial: 41

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 06 13:31:22 1998

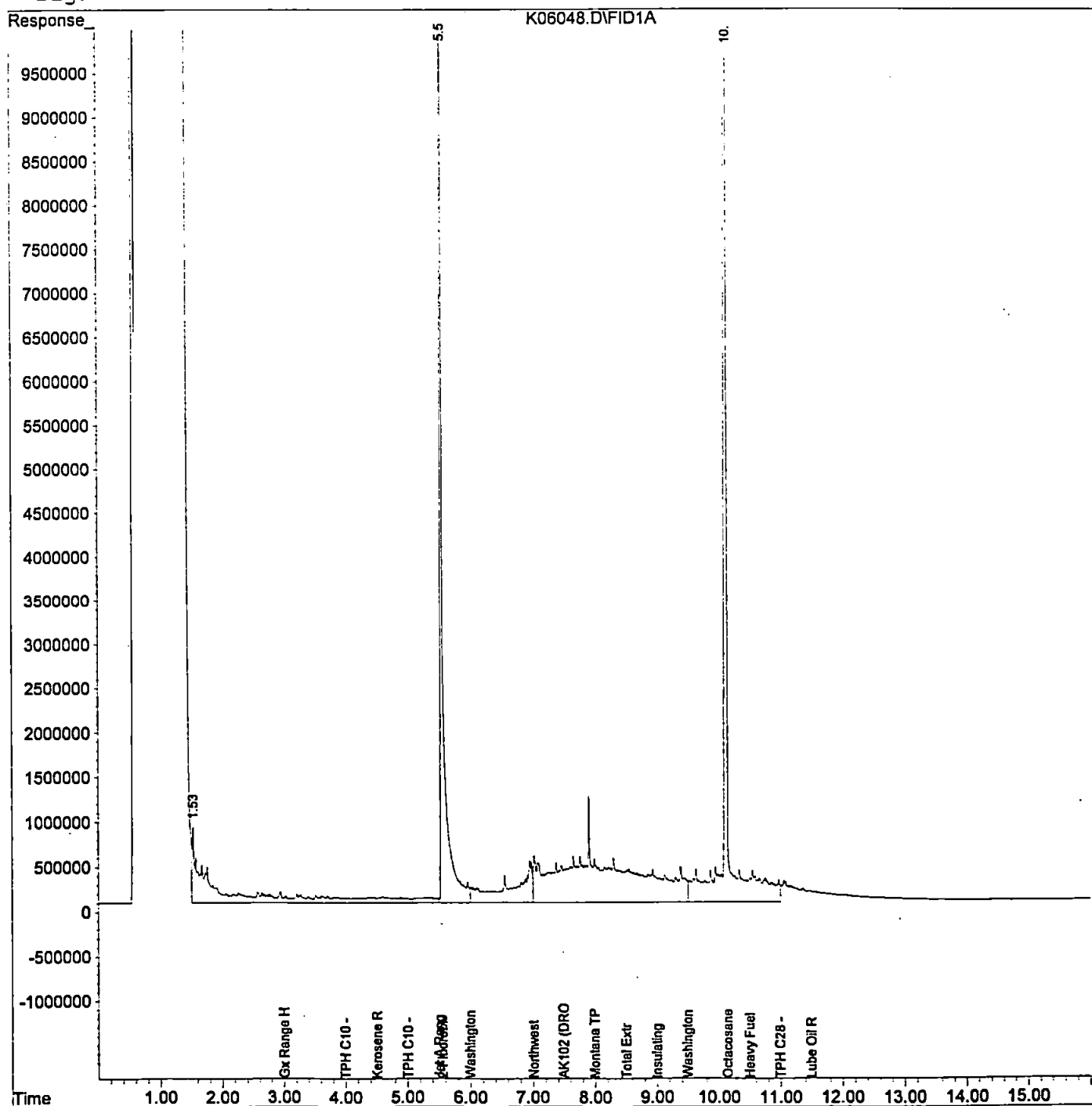
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\K06057.D

Acq On : 11-6-98 8:14:36 PM

Sample : b811090-08

Misc : s

IntFile : SURR.E

Quant Time: Nov 9 7:56 1998 Quant Results File: TPHD2.RES

Vial: 44

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Thu Nov 05 08:22:27 1998

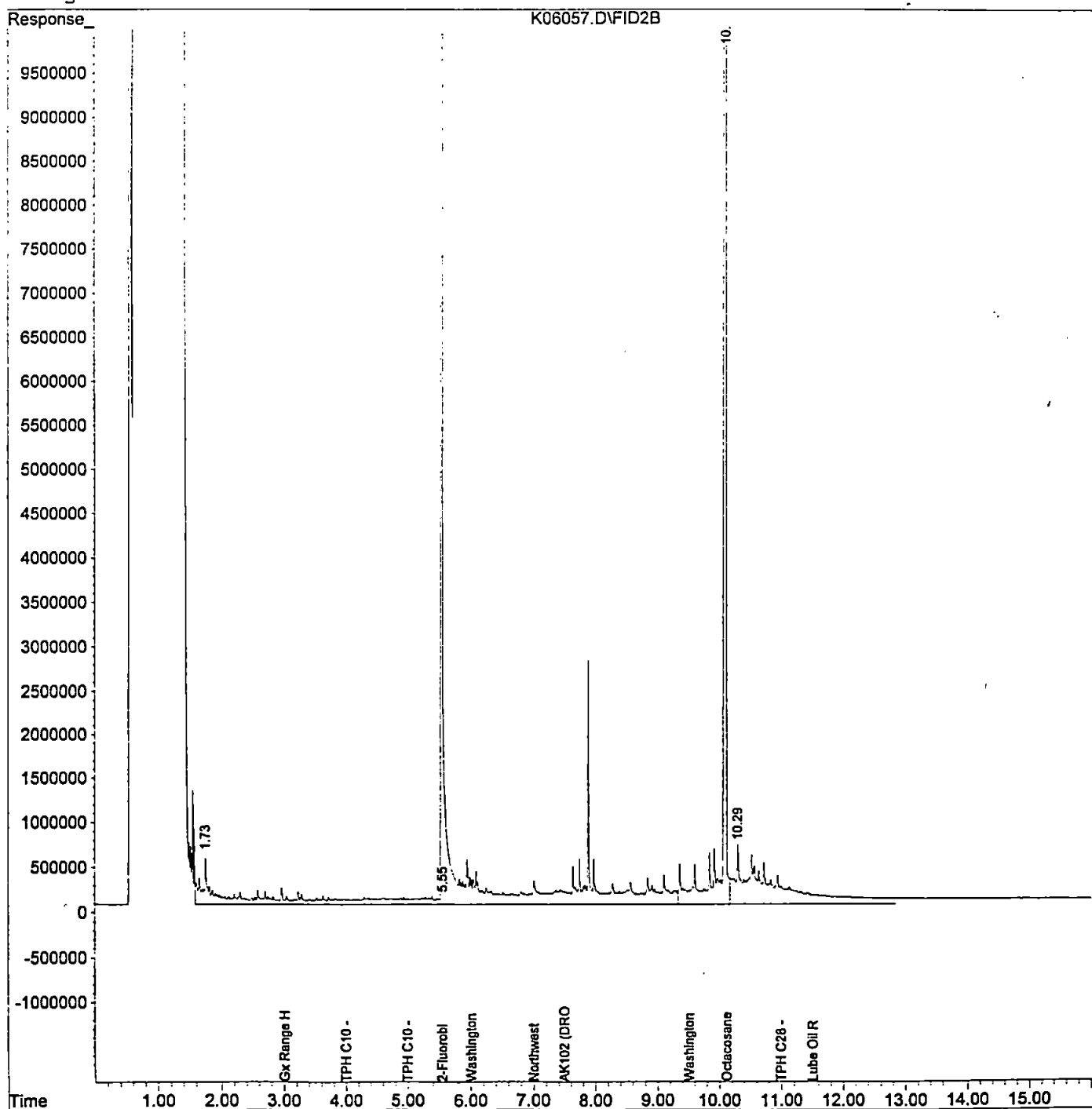
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K06058.D

Acq On : 11-6-98 8:14:36 PM

Sample : b811090-09

Misc : s

IntFile : SURR.E

Quant Time: Nov 9 8:27 1998 Quant Results File: TPHD.RES

Vial: 45

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 06 13:31:22 1998

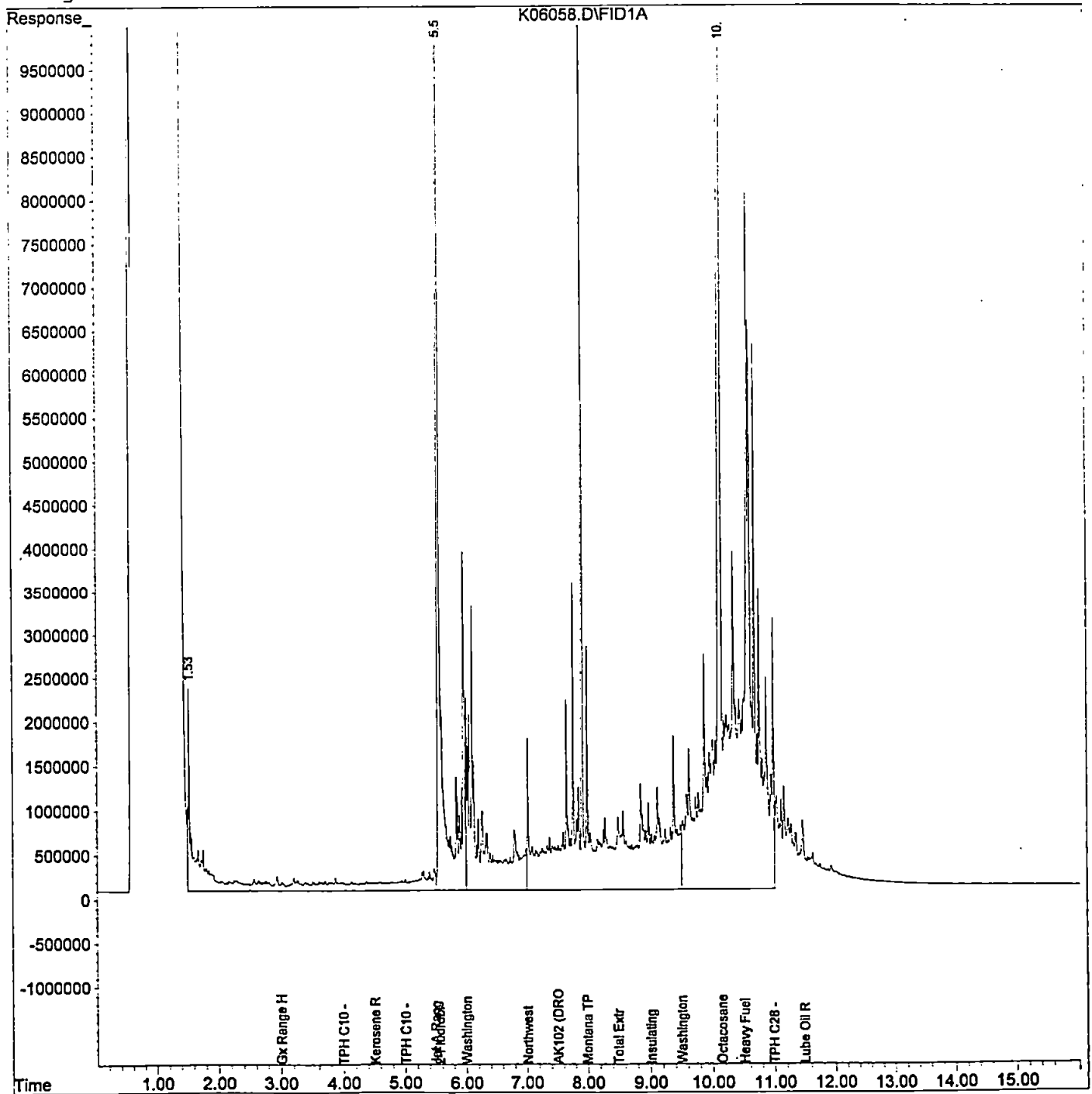
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





**NORTH
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Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

Work Order #

Est B811090

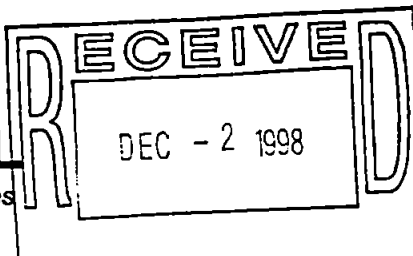
REPORT TO:			INVOICE TO:										TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses 10 7 5 4 3 2 1 Same Day Fuels & Hydrocarbon Analyses 5 3-4 2 Same Day OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.					
ATTENTION: <i>Steve Woodward</i>			ATTENTION: <i>Barry Lombard</i>															
ADDRESS: <i>600 Syme St. Ste 1215</i>			ADDRESS: <i>PSE</i>															
<i>Seattle WA 98101</i>																		
PHONE: <i>(206)-728-2674</i> FAX: <i>(206)-728-2732</i>			P.O. NUMBER: _____ NCA QUOTE #: _____															
PROJECT NAME: <i>Grady Hwy</i>			<i>WWTW DX</i>															
PROJECT NUMBER: <i>186-4107-00</i>																		
SAMPLED BY: <i>TNO</i>																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)											MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS			
1. <i>E14-1-4.0</i>	<i>11/4/98 1000</i>	<i>B811090-01</i>	<i>X</i>										<i>S</i>	<i>1</i>				
2. <i>E14-2-3.5</i>	<i>1300</i>	<i>02</i>											<i>S</i>	<i>1</i>	<i>Hold</i>			
3. <i>E14-3-4.0</i>	<i>1345</i>	<i>03</i>											<i>S</i>	<i>1</i>	<i>Hold</i>			
4. <i>E14-4-4.5</i>	<i>1415</i>	<i>04</i>	<i>X</i>										<i>S</i>	<i>2</i>				
5. <i>E14-5-4.0</i>	<i>1530</i>	<i>05</i>	<i>X</i>										<i>S</i>	<i>2</i>				
6. <i>E14-6-4.5</i>	<i>1345</i>	<i>06</i>	<i>X</i>										<i>S</i>	<i>2</i>				
7. <i>E11-20-6.0</i>	<i>1500</i>	<i>07</i>	<i>X</i>										<i>S</i>	<i>2</i>				
8. <i>E11-21-6.0</i>	<i>1430</i>	<i>08</i>	<i>X</i>										<i>S</i>	<i>1</i>				
9. <i>E11-22-7.0</i>	<i>1330</i>	<i>09</i>	<i>X</i>										<i>S</i>	<i>1</i>				
10.																		
RELINQUISHED BY (Signature): <i>Tony Orme</i>			DATE: <i>11/4/98</i>		RECEIVED BY (Signature): <i>Cathy Nichols</i>										DATE: <i>11/5/98</i>			
PRINT NAME: <i>Tony Orme</i>			FIRM: <i>GEI</i>		TIME: <i>1800</i>		PRINT NAME: <i>ACM</i>										TIME: <i>9:20</i>	
RELINQUISHED BY (Signature): _____			DATE: _____		RECEIVED BY (Signature): _____										DATE: _____			
PRINT NAME: _____			FIRM: _____		TIME: _____		PRINT NAME: _____										TIME: _____	
ADDITIONAL REMARKS:																		

C-533

7.2 w/CS



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services



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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/24/98
Received: 11/25/98
Reported: 11/30/98 12:25

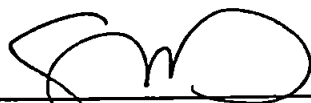
ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
GMW-8	B811505-01	Water	11/24/98
GMW-13	B811505-02	Water	11/24/98
GMW-14	B811505-03	Water	11/24/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Steve Davis, Project Manager

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Quantitation Report

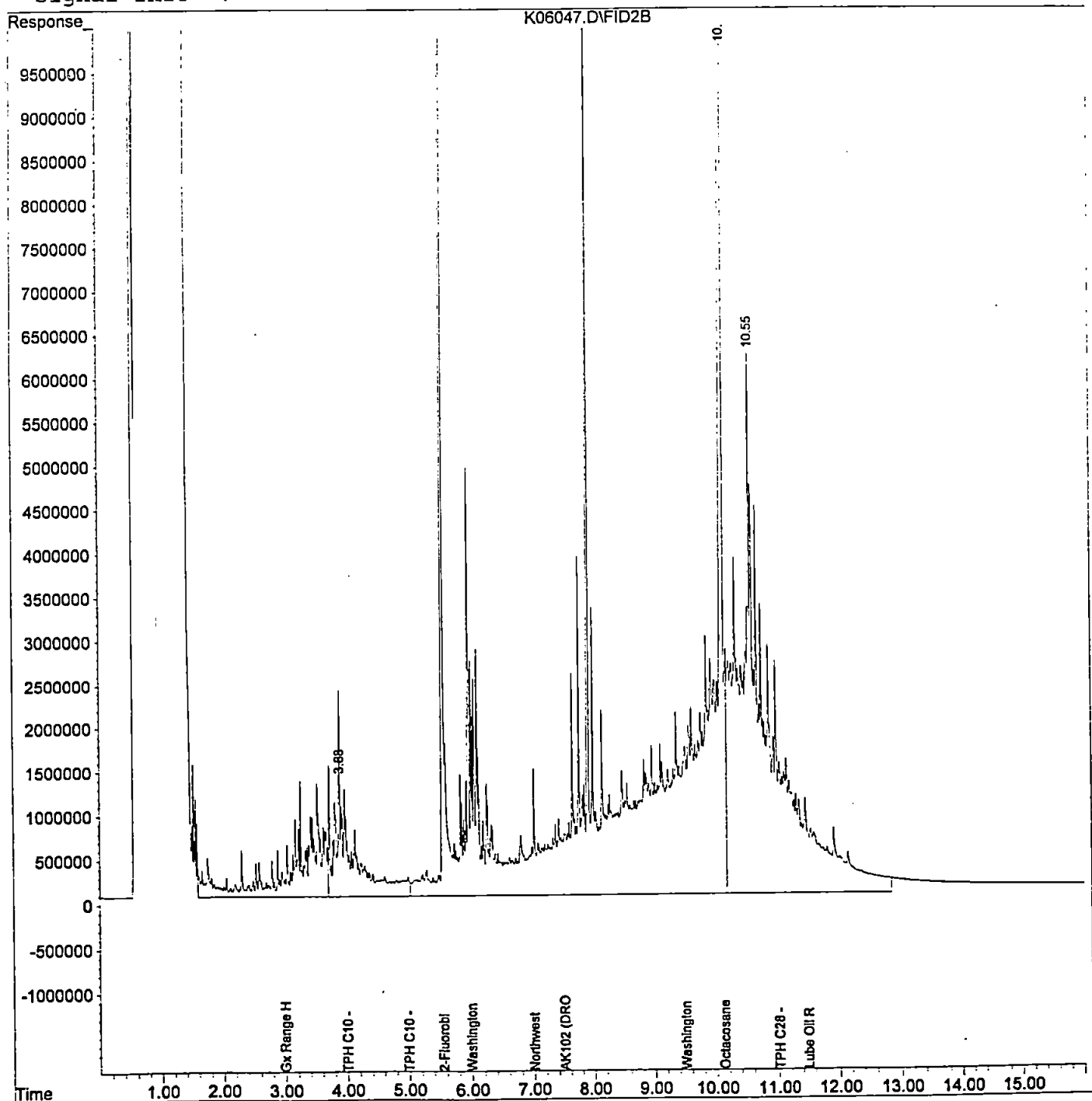
Data File : C:\HPCHEM\4\DATA.SEC\K06047.D
 Acq On : 11-6-98 6:05:38 PM
 Sample : b811090-04
 Misc : S
 IntFile : SURR.E
 Quant Time: Nov 9 7:53 1998

Vial: 40
 Operator: LAC
 Inst : GC #7
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Thu Nov 05 08:22:27 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA\K06046.D

Acq On : 11-6-98 5:42:19 PM

Sample : b811090-01

Misc : s

IntFile : SURR.E

Quant Time: Nov 9 8:24 1998 Quant Results File: TPHD.RES

Vial: 39

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 06 13:31:22 1998

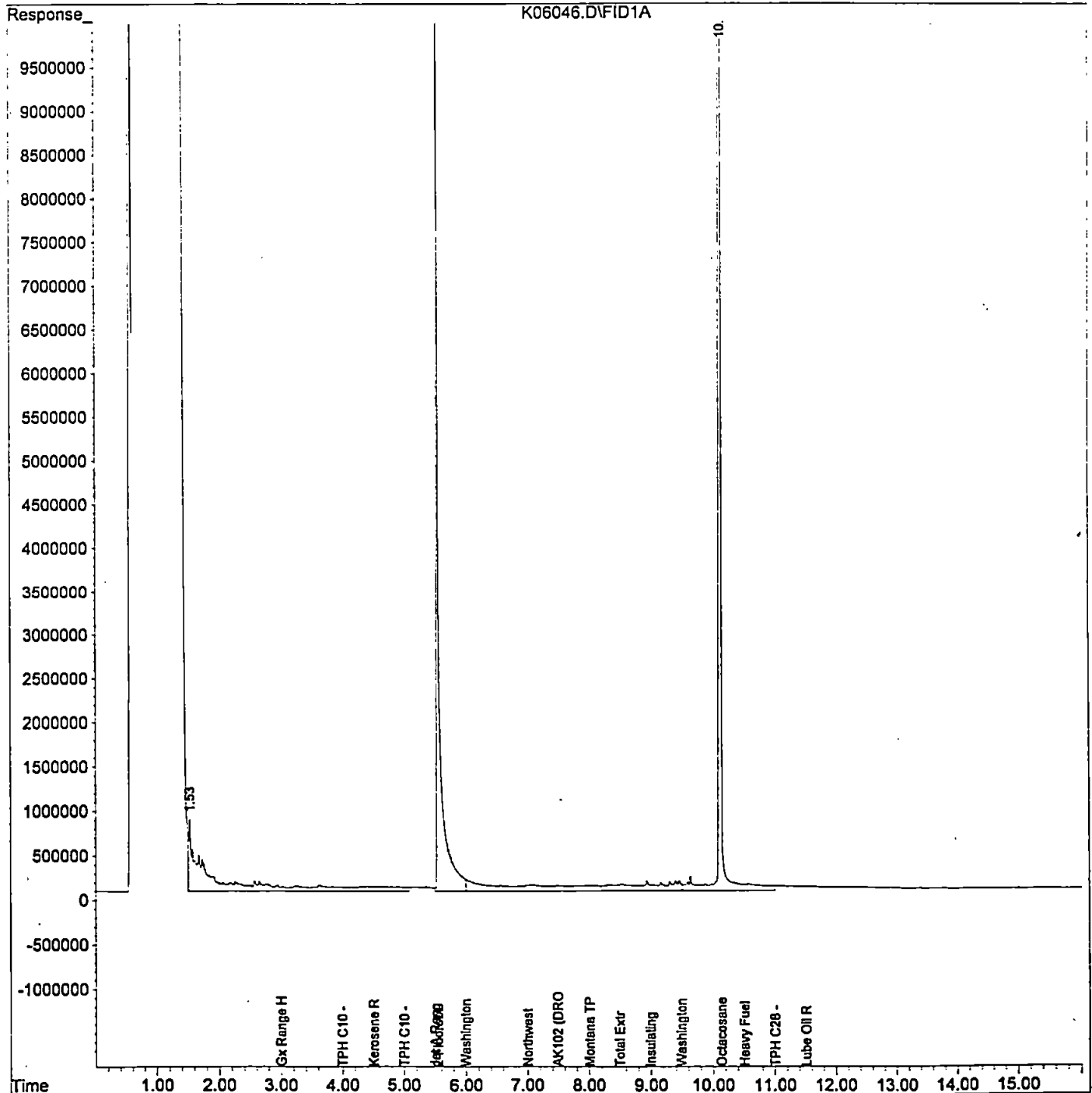
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/24/98 Received: 11/25/98 Reported: 11/30/98 12:25

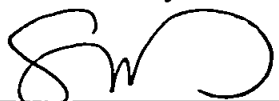
Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
GMW-8				B811505-01			Water	
Diesel Range Hydrocarbons	1180906	11/25/98	11/27/98		0.250	1.84	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	5.13	"	
Surrogate: 2-FBP	"	"	"	50.0-150		73.9	%	
GMW-13				B811505-02			Water	
Diesel Range Hydrocarbons	1180906	11/25/98	11/27/98		0.250	0.472	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	1.21	"	
Surrogate: 2-FBP	"	"	"	50.0-150		70.7	%	
GMW-14				B811505-03			Water	
Diesel Range Hydrocarbons	1180906	11/25/98	11/27/98		0.250	1.06	mg/l	
Lube Oil Range Hydrocarbons	"	"	"		0.500	2.98	"	
Surrogate: 2-FBP	"	"	"	50.0-150		61.6	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/24/98
Received: 11/25/98
Reported: 11/30/98 12:25

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes
Batch: 1180906										
Blank										
Date Prepared: 11/25/98										
Extraction Method: EPA 3510C/600 Series										
1180906-BLK1										
Diesel Range Hydrocarbons	11/27/98			ND	mg/l	0.250				
Lube Oil Range Hydrocarbons	"			ND	"	0.500				
Surrogate: 2-FBP	"	0.322		0.185	"	50.0-150	57.5			
LCS										
1180906-BS1										
Diesel Range Hydrocarbons	11/27/98	2.00		1.38	mg/l	60.0-140	69.0			
Surrogate: 2-FBP	"	0.322		0.196	"	50.0-150	60.9			
LCS Dup										
1180906-BSD1										
Diesel Range Hydrocarbons	11/27/98	2.00		1.40	mg/l	60.0-140	70.0	40.0	1.44	
Surrogate: 2-FBP	"	0.322		0.203	"	50.0-150	63.0			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

Steve Davis, Project Manager

C - 536

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/24/98 Received: 11/25/98 Reported: 11/30/98 12:25

Notes and Definitions

#	Note

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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

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Steve Davis, Project Manager

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Page 4 of 4

Quantitation Report

Data File : D:\HPCHEM\1\DATA\112798\K27012.D

Vial: 9

Acq On : 27 Nov 1998 7:16 pm

Operator: cc

Sample : b811505-03

Inst : GC#1

Misc : 1x w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 30 8:24 1998 Quant Results File: TPHD.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 13 13:08:06 1998

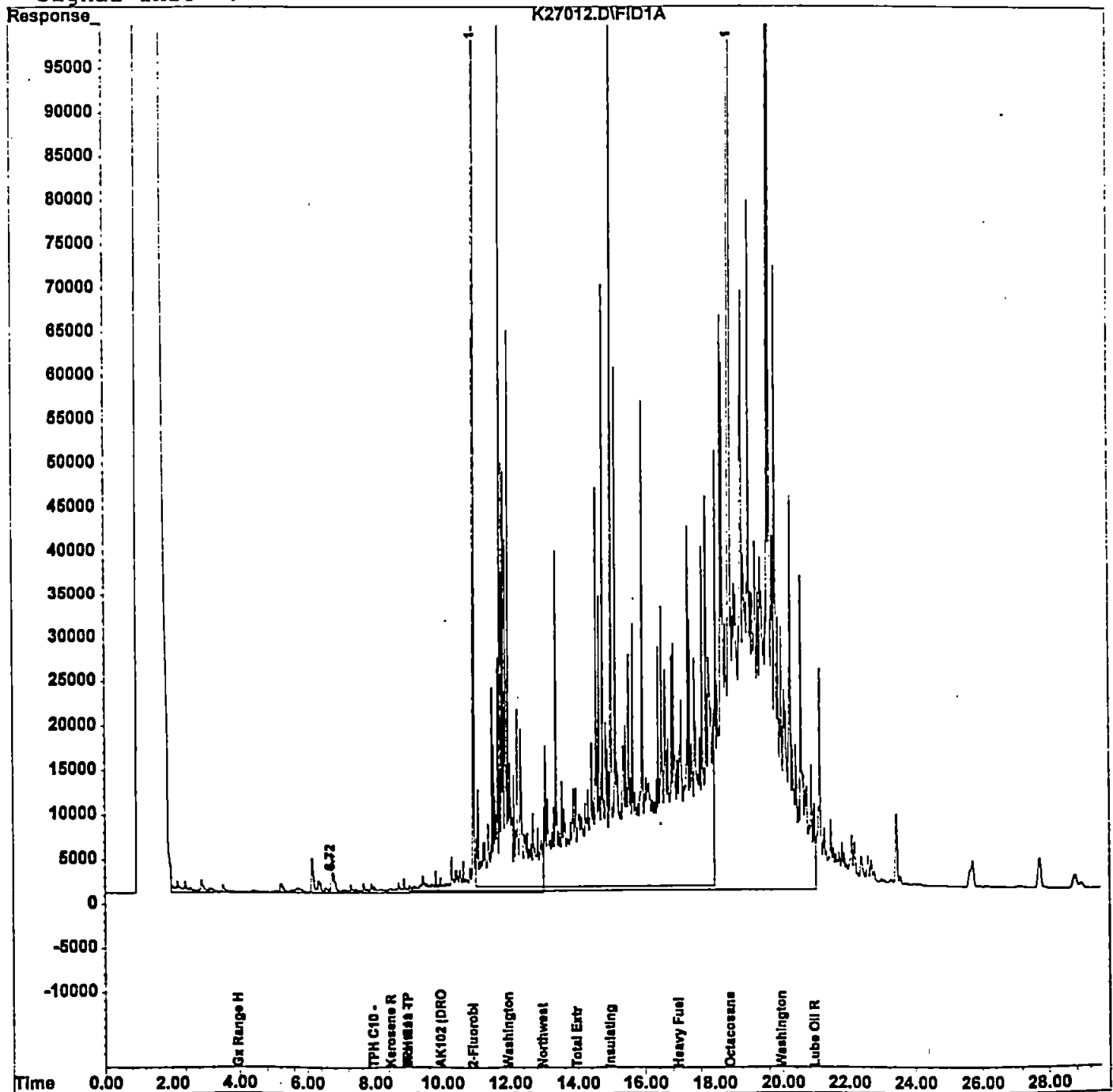
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : D:\HPCHEM\1\DATA\112798\K27011.D

Vial: 8

Acq On : 27 Nov 1998 7:16 pm

Operator: cc

Sample : b811505-02

Inst : GC#1

Misc : 1x w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 30 8:13 1998 Quant Results File: TPHD2.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Tue Nov 10 18:40:50 1998

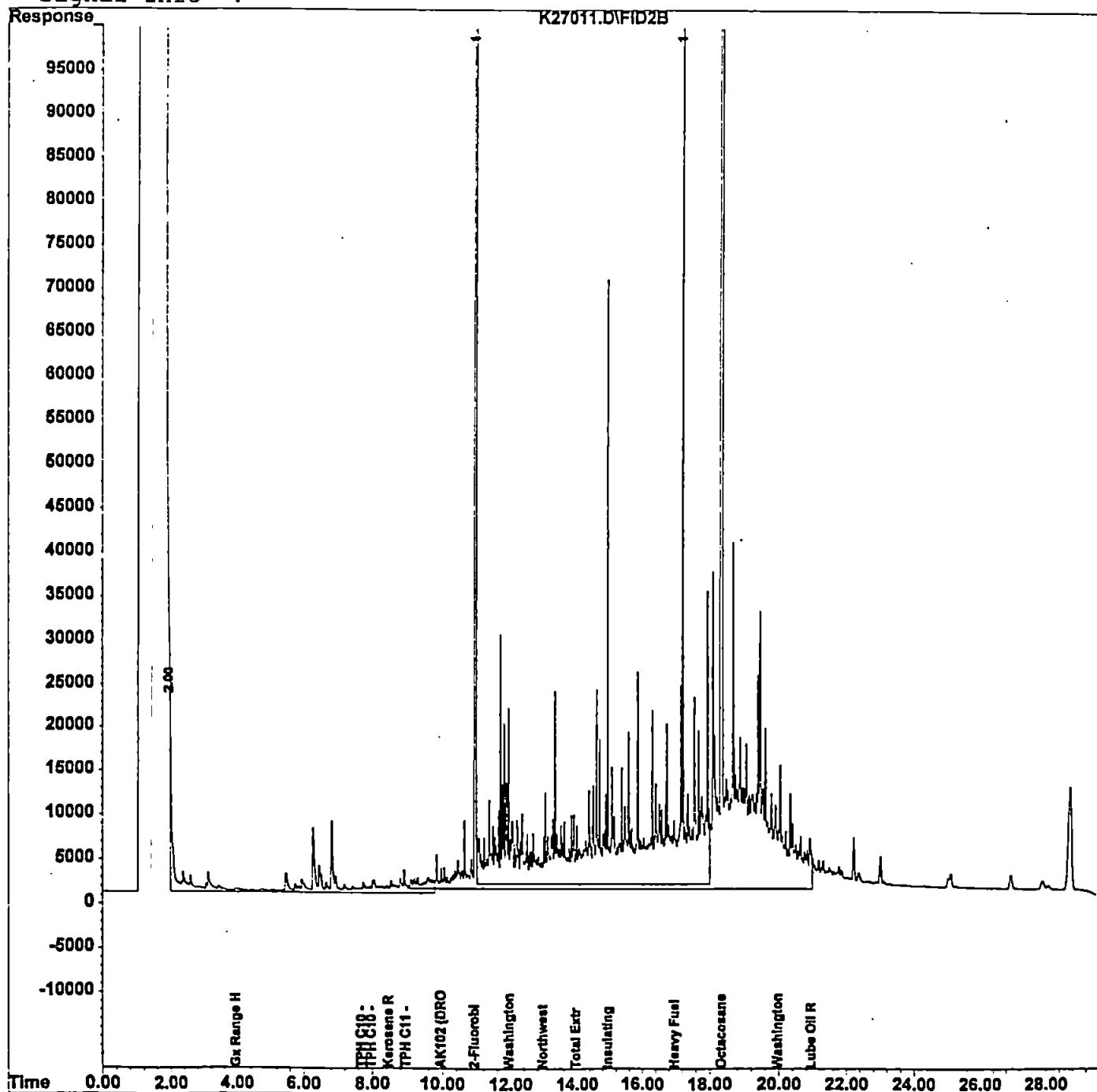
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : D:\HPCHEM\1\DATA\112798\K27010.D

Vial: 7

Acq On : 27 Nov 1998 6:38 pm

Operator: cc

Sample : b811505-01

Inst : GC#1

Misc : 1x w

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 30 8:24 1998 Quant Results File: TPHD.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 13 13:08:06 1998

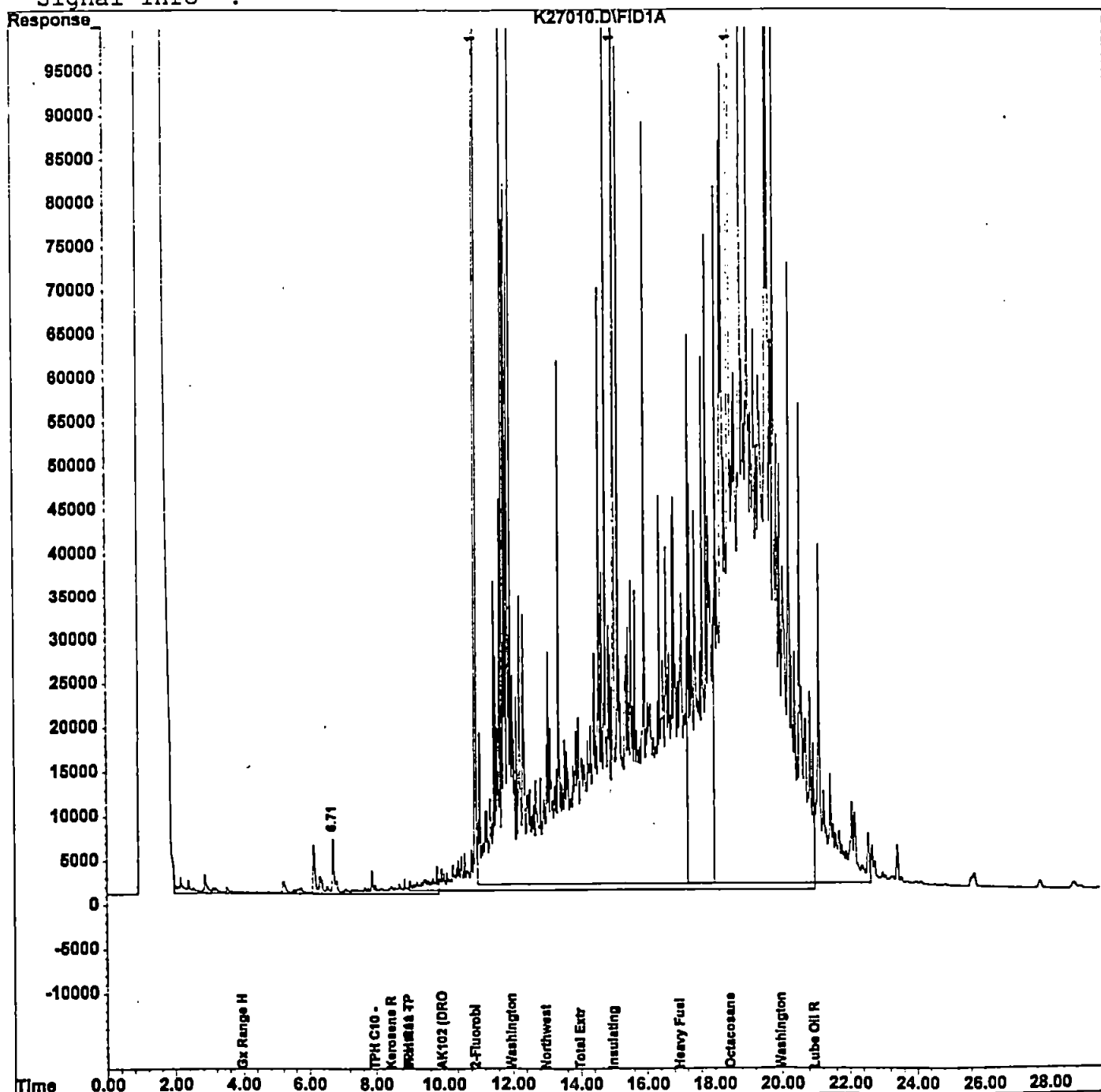
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :





NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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(425) 420-9200 FAX 420-9210
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(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

B811505

REPORT TO: GEI			INVOICE TO: PSE			TURNAROUND REQUEST in Business Days * Organic & Inorganic Analyses ☐ 10 ☐ 7 ☐ 5 ☐ 4 ☐ 3 ☐ 2 ☐ 1 ☐ Same Day Fuels & Hydrocarbon Analyses ☐ 5 ☐ 3-4 ☐ 2 ☐ 1 ☒ Rush OTHER: _____ * Turnaround Requests less than standard may incur Rush Charges.		
ATTENTION: Steve Woodward			ATTENTION: Barry Lombard					
ADDRESS: Seattle Wa			ADDRESS: 815 Mercer St, MER-046 Seattle Wa 98109					
PHONE: (206) 728-2674 FAX:			P.O. NUMBER: NCA QUOTE #:					
PROJECT NAME: PSE Grady Way			Analysis Request: <i>WUTPH-DX</i>					
PROJECT NUMBER: 0186-407-00								
SAMPLED BY: Brick Spangler								
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)				MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS
1. GMW-8	11/24/98 1230	B811505.01	X			W	1	24 Hr
2. GMW-13	1300	02	X			W	1	24 Hr
3. GMW-14	1330	03	X			W	1	24 Hr
4.								
5.								
6.								
7.								
8.								
9.								
10.								
RELINQUISHED BY: <i>Brick Spangler</i>			DATE: 11/24/98			RECEIVED BY: <i>K Barker</i>		
PRINT NAME: Brick Spangler FIRM: GEI			TIME: 1600			PRINT NAME: K Barker FIRM: NCA		
RELINQUISHED BY: _____			DATE: _____			RECEIVED BY: _____		
PRINT NAME: _____ FIRM: _____			TIME: _____			PRINT NAME: _____ FIRM: _____		
ADDITIONAL REMARKS:								PAGE 1 OF 1
9.3 W/CS								



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TTP3-1-3.0	B811463-01	Soil	11/23/98
TTP3-2-3.0	B811463-02	Soil	11/23/98
TTP3-3-8.0	B811463-03	Soil	11/23/98
TTP3-4-3.0	B811463-04	Soil	11/23/98
TTP3-5-3.0	B811463-05	Soil	11/23/98
TTP3-6-3.0	B811463-06	Soil	11/23/98

North Creek Analytical - Bothell

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) North Creek Analytical - Bothell

Sample	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TTP3-1-3.0				B811463-01			Soil	
Diesel Range Hydrocarbons	1180869	11/24/98	11/25/98		110	11600	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		275	1280	"	
Surrogate: 2-FBP	"	"	"	50.0-150		71.3	%	
TTP3-2-3.0				B811463-02			Soil	
Diesel Range Hydrocarbons	1180904	11/25/98	11/27/98		10.0	ND	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		86.5	%	
TTP3-3-8.0				B811463-03			Soil	
Diesel Range Hydrocarbons	1180904	11/25/98	11/27/98		10.0	58.3	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	128	"	
Surrogate: 2-FBP	"	"	"	50.0-150		83.8	%	
TTP3-4-3.0				B811463-04			Soil	
Diesel Range Hydrocarbons	1180816	11/23/98	11/24/98		10.0	15.0	mg/kg dry	1
Lube Oil Range Hydrocarbons	"	"	"		25.0	77.2	"	
Surrogate: 2-FBP	"	"	"	50.0-150		67.0	%	
TTP3-5-3.0				B811463-05			Soil	
Diesel Range Hydrocarbons	1180904	11/25/98	11/30/98		210	9840	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		525	1210	"	2
Surrogate: 2-FBP	"	"	"	50.0-150		63.6	%	
TTP3-6-3.0				B811463-06			Soil	
Diesel Range Hydrocarbons	1180904	11/25/98	11/28/98		10.0	40.8	mg/kg dry	
Lube Oil Range Hydrocarbons	"	"	"		25.0	87.5	"	
Surrogate: 2-FBP	"	"	"	50.0-150		81.7	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C - 543

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Polychlorinated Biphenyls by EPA Method 8082 North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes
TTP3-1-3.0				B811463-01			Soil	
Aroclor 1016	1180858	11/24/98	11/29/98		50.0	ND	ug/kg dry	
Aroclor 1221	"	"	"		50.0	ND	"	
Aroclor 1232	"	"	"		50.0	ND	"	
Aroclor 1242	"	"	"		50.0	ND	"	
Aroclor 1248	"	"	"		50.0	ND	"	
Aroclor 1254	"	"	"		50.0	112	"	
Aroclor 1260	"	"	"		50.0	ND	"	
Aroclor 1262	"	"	"		50.0	ND	"	
Aroclor 1268	"	"	"		50.0	ND	"	
Surrogate: TCX	"	"	"	40.0-130		49.1	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

C - 544

Steve Davis, Project Manager

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Page 3 of 1



NORTH CREEK ANALYTICAL

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TTP3-1-3.0		B811463-01				Soil		
Acenaphthene	1180892	11/25/98	11/25/98		0.0500	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.0500	0.262	"	
Anthracene	"	"	"		0.0500	ND	"	
Benzo (a) anthracene	"	"	"		0.0500	ND	"	
Benzo (a) pyrene	"	"	"		0.0500	ND	"	
Benzo (b) fluoranthene	"	"	"		0.0500	ND	"	
Benzo (ghi) perylene	"	"	"		0.0500	ND	"	
Benzo (k) fluoranthene	"	"	"		0.0500	ND	"	
Chrysene	"	"	"		0.0500	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.0500	ND	"	
Fluoranthene	"	"	"		0.0500	ND	"	
Fluorene	"	"	"		0.0500	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.0500	ND	"	
Naphthalene	"	"	"		0.0500	ND	"	
Phenanthrene	"	"	"		0.0500	0.201	"	
Pyrene	"	"	"		0.0500	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		57.0	%	
Surrogate: Nitrobenzene-d5	"	"	"	30.0-150		61.1	"	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		80.3	"	
TTP3-4-3.0		B811463-04				Soil		
Acenaphthene	1180805	11/23/98	11/24/98		0.200	ND	mg/kg dry	
Acenaphthylene	"	"	"		0.200	ND	"	
Anthracene	"	"	"		0.200	ND	"	
Benzo (a) anthracene	"	"	"		0.200	ND	"	
Benzo (a) pyrene	"	"	"		0.200	ND	"	
Benzo (b) fluoranthene	"	"	"		0.200	ND	"	
Benzo (ghi) perylene	"	"	"		0.200	ND	"	
Benzo (k) fluoranthene	"	"	"		0.200	ND	"	
Chrysene	"	"	"		0.200	ND	"	
Dibenz (a,h) anthracene	"	"	"		0.200	ND	"	
Fluoranthene	"	"	"		0.200	ND	"	
Fluorene	"	"	"		0.200	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		0.200	ND	"	
Naphthalene	"	"	"		0.200	ND	"	
Phenanthrene	"	"	"		0.200	ND	"	
Pyrene	"	"	"		0.200	ND	"	
Surrogate: 2-FBP	"	"	"	30.0-150		83.4	%	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
TTP3-4-3.0 (continued)				B811463-04			Soil	
Surrogate: Nitrobenzene-d5	1180805	11/23/98	11/24/98	30.0-150	-	51.2	%	
Surrogate: p-Terphenyl-d14	"	"	"	30.0-150		105	"	

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

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Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

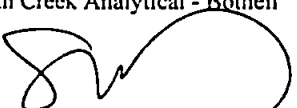
BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/23/98 Received: 11/23/98 Reported: 12/1/98 16:38

Dry Weight Determination North Creek Analytical - Bothell

Sample Name	Lab ID	Matrix	Result	Units
TTP3-1-3.0	B811463-01	Soil	86.4	%
TTP3-2-3.0	B811463-02	Soil	85.1	%
TTP3-3-8.0	B811463-03	Soil	79.1	%
TTP3-4-3.0	B811463-04	Soil	86.4	%
TTP3-5-3.0	B811463-05	Soil	85.2	%
TTP3-6-3.0	B811463-06	Soil	82.1	%

North Creek Analytical - Bothell


Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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Geo Engineers - Seattle
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Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180816										
Blank										
Date Prepared: 11/23/98			Extraction Method: EPA 3550B							
1180816-BLK1										
Diesel Range Hydrocarbons	11/24/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		6.70	"	50.0-150	62.6			
LCS										
1180816-BS1										
Diesel Range Hydrocarbons	11/24/98	66.7		60.7	mg/kg dry	60.0-140	91.0			
Surrogate: 2-FBP	"	10.7		7.45	"	50.0-150	69.6			
Duplicate										
1180816-DUP1			B811449-02							
Diesel Range Hydrocarbons	11/24/98		6700	4810	mg/kg dry			50.0	32.8	
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	11.8		12.1	"	50.0-150	103			
Batch: 1180869										
Blank										
Date Prepared: 11/24/98			Extraction Method: EPA 3550B							
1180869-BLK1										
Diesel Range Hydrocarbons	11/25/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				
Surrogate: 2-FBP	"	10.7		5.76	"	50.0-150	53.8			
LCS										
1180869-BS1										
Diesel Range Hydrocarbons	11/25/98	66.7		69.3	mg/kg dry	60.0-140	104			
Surrogate: 2-FBP	"	10.7		8.28	"	50.0-150	77.4			
Duplicate										
1180869-DUP1			B811280-12							
Diesel Range Hydrocarbons	11/25/98				mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"				"			50.0		
Surrogate: 2-FBP	"				"	50.0-150				
Duplicate										
1180869-DUP2			B811496-03							
Diesel Range Hydrocarbons	11/25/98		ND	ND	mg/kg dry			50.0		
Lube Oil Range Hydrocarbons	"		ND	ND	"			50.0		
Surrogate: 2-FBP	"	12.2		6.60	"	50.0-150	54.1			
Batch: 1180904										
Blank										
Date Prepared: 11/25/98			Extraction Method: EPA 3550B							
1180904-BLK1										
Diesel Range Hydrocarbons	11/27/98			ND	mg/kg dry	10.0				
Lube Oil Range Hydrocarbons	"			ND	"	25.0				

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

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Steve Davis, Project Manager

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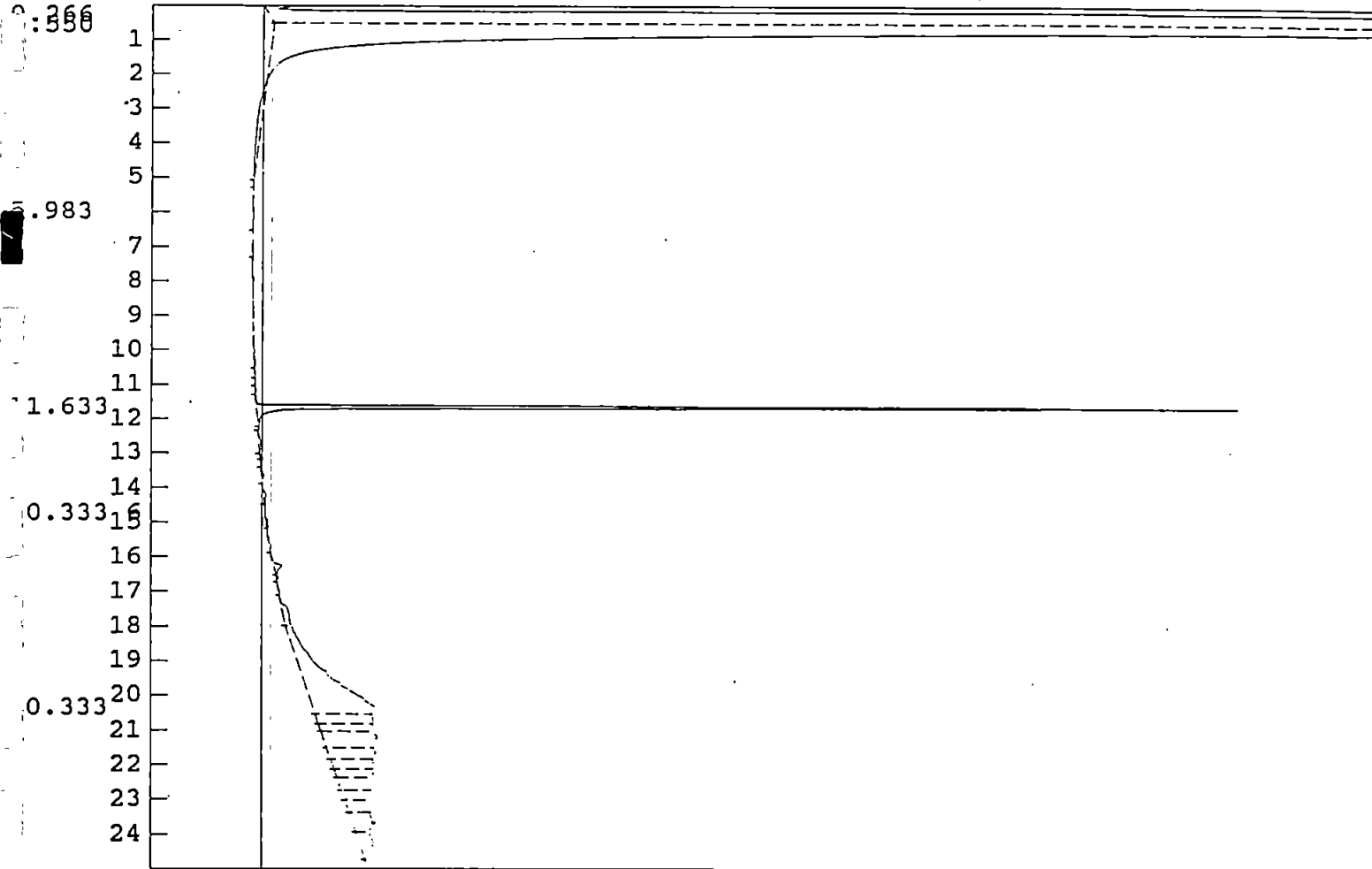
Page 7 of 13

Lab name: SRI Instruments
 Client: GeoEngineers
 Analysis date: 12/03/1998 11:19:05
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch1det5.CHR ()
 Sample: m blank

-20.000mV

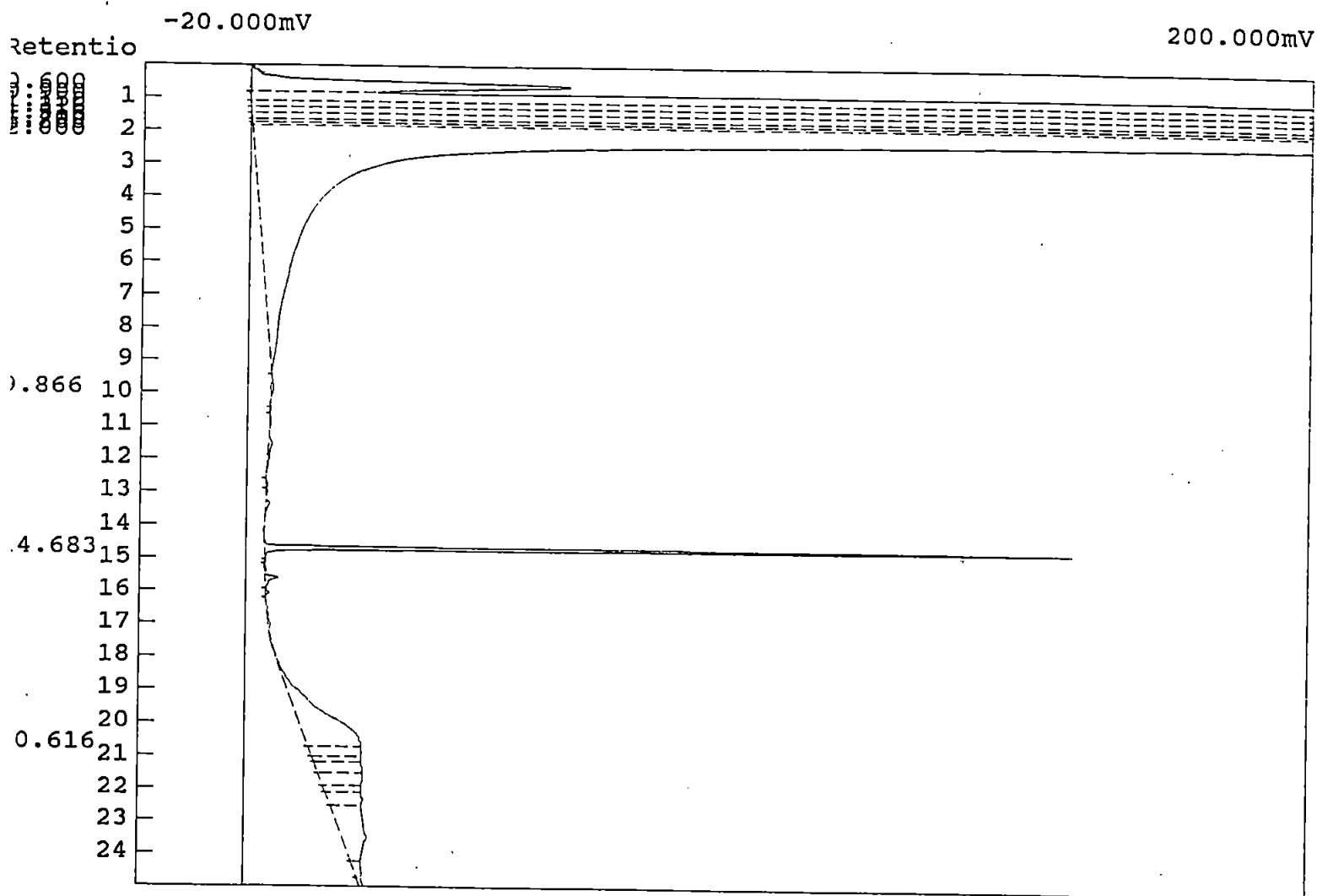
200.000mV

Retention



Component	Retention	Area	External	Units
DIESEL	10.333	757.038	29.70	PPM
fluorobiphenyl	11.633	681.974	24.11	ppm
oil	20.333	2191.515	85.96	
		3630.527	139.76	

Lab name: tegnw
 Client: GeoEngineers, Inc.
 Analysis date: 12/03/1998 11:19:05
 Description: Ch. 2 gc3 fid2
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch2det6.CHR ()
 Sample: ttp3-10-3.0 dup
 Operator: slc



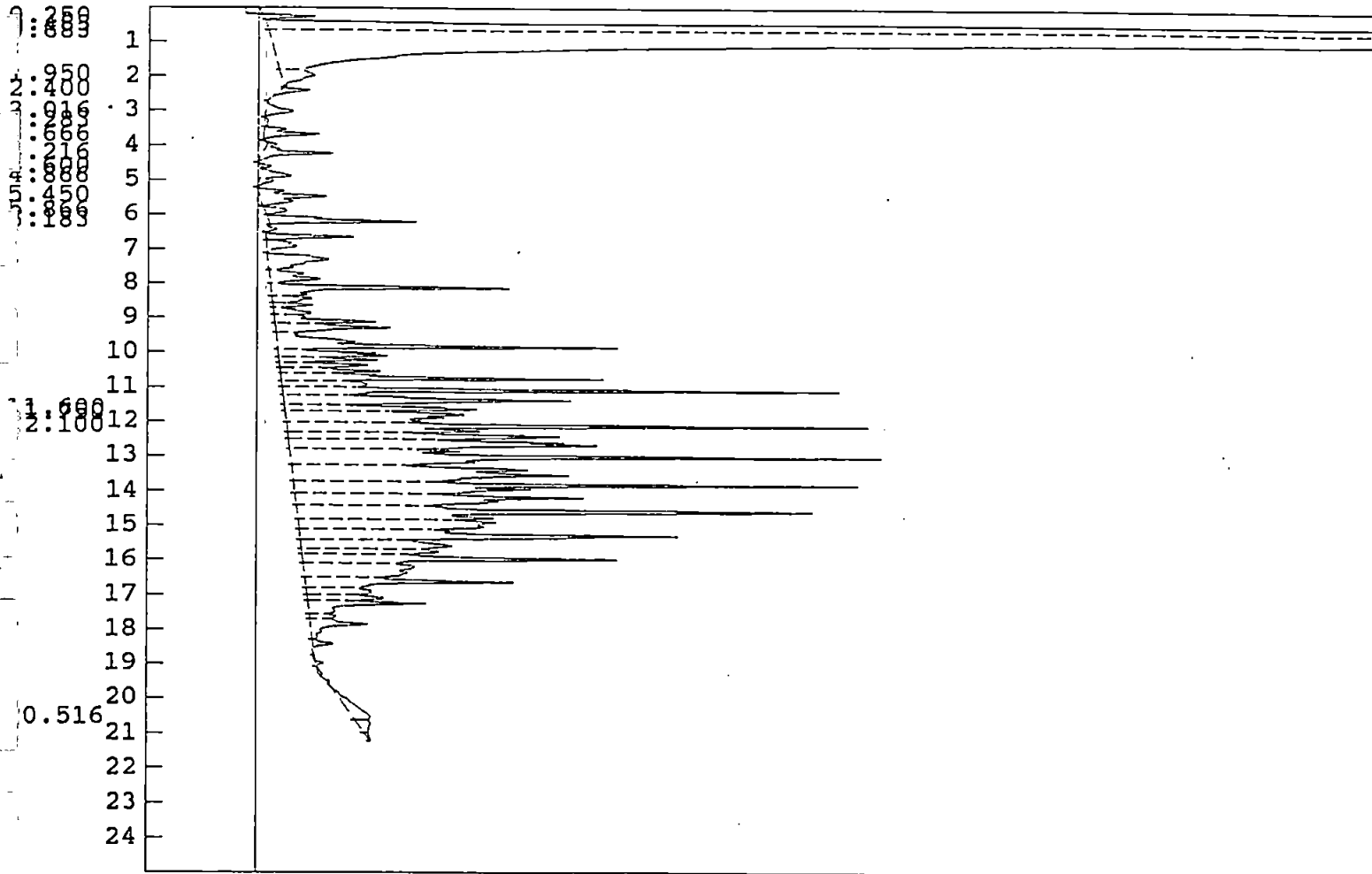
Component	Retention	Area	External	Units
iesel	9.866	676.372	27.40	ppm
luoroBiphenyl	14.683	624.472	22.39	ppm
il	20.616	2103.580	82.47	ppm
		3404.424	132.26	

Lab name: SRI Instruments
 Client: GeoEngineers
 Analysis date: 12/03/1998 12:12:23
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: ch1det7.CHR ()
 Sample: 500 ppm diesel' ccv

-20.000mV

200.000mV

Retention



Component	Retention	Area	External	Units
DIESEL	6.183	14302.451	561.02	PPM
luorobiphenyl	11.600	257.716	9.11	ppm
luorobiphenyl	11.750	491.032	17.36	ppm
fluorobiphenyl	12.100	737.021	26.05	ppm
il	20.516	120.980	4.75	
		15909.199	618.29	

CHAIN-OF-CUSTODY RECORD

CLIENT: GeoEngineers, Inc.

ADDRESS: _____

PHONE _____ FAX: _____

CLIENT PROJECT #: 186-407-00 PROJECT MANAGER: SLW

DATE: 12-3-98 PAGE 1 OF 1

PROJECT NAME: PSE Grady Way

LOCATION: Renton

COLLECTOR: TWO DATE OF COLLECTION 12-3-98

[illegible]

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

[Signature] 12-3-98

RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

1. *Chlorophyll a* (Chl *a*)

SAMPLE DISPOSAL INSTRUCTIONS

☐ JTEG DISPOSAL @ \$2.00 each ☐ Return ☐ Pickup

SAMPLE RECEIPT

TOTAL NUMBER OF CONTAINERS

CHAIN OF CUSTODY SEALS Y/N/NA

SEALS INTACT? Y/N/NA

RECEIVED GOOD COND./COLD

NOTES:

LABORATORY NOTES:



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)										
1180904-BLK1										
Surrogate: 2-FBP	11/27/98	10.7		8.04	mg/kg dry	50.0-150	75.1			
LCS										
1180904-BS1										
Diesel Range Hydrocarbons	11/27/98	66.7		60.3	mg/kg dry	60.0-140	90.4			
Surrogate: 2-FBP	"	10.7		8.49	"	50.0-150	79.3			
Duplicate										
1180904-DUP1 B811506-02										
Diesel Range Hydrocarbons	11/27/98		24.1	23.6	mg/kg dry			50.0	2.10	
Lube Oil Range Hydrocarbons	"		57.6	61.6	"			50.0	6.71	
Surrogate: 2-FBP	"	12.1		11.7	"	50.0-150	96.7			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Polychlorinated Biphenyls by EPA Method 8082/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180858		Date Prepared: 11/24/98			Extraction Method: EPA 3550B					
Blank		1180858-BLK1								
Aroclor 1016	11/29/98			ND	ug/kg dry	50.0				
Aroclor 1221	"			ND	"	50.0				
Aroclor 1232	"			ND	"	50.0				
Aroclor 1242	"			ND	"	50.0				
Aroclor 1248	"			ND	"	50.0				
Aroclor 1254	"			ND	"	50.0				
Aroclor 1260	"			ND	"	50.0				
Aroclor 1262	"			ND	"	50.0				
Aroclor 1268	"			ND	"	50.0				
Surrogate: TCX	"	6.67		5.98	"	40.0-130	89.7			
LCS		1180858-BS1								
Aroclor 1260	11/29/98	333		173	ug/kg dry	44.0-123	52.0			
Surrogate: TCX	"	6.67		6.34	"	40.0-130	95.1			
Matrix Spike		1180858-MS1		B811373-02						
Aroclor 1260	11/29/98	359	ND	178	ug/kg dry	28.0-132	49.6			
Surrogate: TCX	"	7.18		5.18	"	40.0-130	72.1			
Matrix Spike Dup		1180858-MSD1		B811373-02						
Aroclor 1260	11/29/98	359	ND	173	ug/kg dry	28.0-132	48.2	23.0	2.86	
Surrogate: TCX	"	7.18		4.42	"	40.0-130	61.6			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions

C - 550

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle	Project: PSE-Grady Way	Sampled: 11/23/98
600 Stewart Street, Suite 1215	Project Number: 0186-407-00	Received: 11/23/98
Seattle, WA 98101	Project Manager: Steve Woodward	Reported: 12/1/98 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1180805		Date Prepared: 11/23/98		Extraction Method: EPA 3550B						
Blank		1180805-BLK1								
Acenaphthene	11/24/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		1.18	"	30.0-150	70.7			
Surrogate: Nitrobenzene-d5	"	1.67		1.07	"	30.0-150	64.1			
Surrogate: p-Terphenyl-d14	"	1.67		1.40	"	30.0-150	83.8			
LCS		1180805-BS1								
Chrysene	11/24/98	0.333		0.286	mg/kg dry	10.0-125	85.9			
Fluorene	"	0.333		0.232	"	11.0-116	69.7			
Indeno (1,2,3-cd) pyrene	"	0.333		0.249	"	10.0-147	74.8			
Surrogate: 2-FBP	"	1.67		1.37	"	30.0-150	82.0			
Surrogate: Nitrobenzene-d5	"	1.67		1.19	"	30.0-150	71.3			
Surrogate: p-Terphenyl-d14	"	1.67		1.55	"	30.0-150	92.8			
Matrix Spike		1180805-MS1		B811193-03						
Chrysene	11/24/98	0.357	0.272	0.500	mg/kg dry	10.0-125	63.9			
Fluorene	"	0.357	ND	0.222	"	10.0-154	62.2			
Indeno (1,2,3-cd) pyrene	"	0.357	0.336	0.529	"	10.0-144	54.1			
Surrogate: 2-FBP	"	1.79		1.72	"	30.0-150	96.1			
Surrogate: Nitrobenzene-d5	"	1.79		0.757	"	30.0-150	42.3			
Surrogate: p-Terphenyl-d14	"	1.79		1.68	"	30.0-150	93.9			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

C - 551

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

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Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
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Reported: 12/1/98 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup		1180805-MSD1	B811193-03							
Chrysene	11/24/98	0.357	0.272	0.493	mg/kg dry	10.0-125	61.9	28.0	3.18	
Fluorene	"	0.357	ND	0.214	"	10.0-154	59.9	32.0	3.77	
Indeno (1,2,3-cd) pyrene	"	0.357	0.336	0.493	"	10.0-144	44.0	47.0	20.6	
Surrogate: 2-FBP	"	1.79		1.55	"	30.0-150	86.6			
Surrogate: Nitrobenzene-d5	"	1.79		0.722	"	30.0-150	40.3			
Surrogate: p-Terphenyl-d14	"	1.79		1.59	"	30.0-150	88.8			
Batch: 1180892		Date Prepared: 11/25/98		Extraction Method: EPA 3550B						
Blank		1180892-BLK1								
Acenaphthene	11/25/98			ND	mg/kg dry	0.0100				
Acenaphthylene	"			ND	"	0.0100				
Anthracene	"			ND	"	0.0100				
Benzo (a) anthracene	"			ND	"	0.0100				
Benzo (a) pyrene	"			ND	"	0.0100				
Benzo (b) fluoranthene	"			ND	"	0.0100				
Benzo (ghi) perylene	"			ND	"	0.0100				
Benzo (k) fluoranthene	"			ND	"	0.0100				
Chrysene	"			ND	"	0.0100				
Dibenz (a,h) anthracene	"			ND	"	0.0100				
Fluoranthene	"			ND	"	0.0100				
Fluorene	"			ND	"	0.0100				
Indeno (1,2,3-cd) pyrene	"			ND	"	0.0100				
Naphthalene	"			ND	"	0.0100				
Phenanthrene	"			ND	"	0.0100				
Pyrene	"			ND	"	0.0100				
Surrogate: 2-FBP	"	1.67		0.882	"	30.0-150	52.8			
Surrogate: Nitrobenzene-d5	"	1.67		0.853	"	30.0-150	51.1			
Surrogate: p-Terphenyl-d14	"	1.67		0.959	"	30.0-150	57.4			
LCS		1180892-BS1								
Chrysene	11/25/98	0.333		0.186	mg/kg dry	10.0-125	55.9			
Fluorene	"	0.333		0.163	"	11.0-116	48.9			
Indeno (1,2,3-cd) pyrene	"	0.333		0.151	"	10.0-147	45.3			
Surrogate: 2-FBP	"	1.67		0.849	"	30.0-150	50.8			
Surrogate: Nitrobenzene-d5	"	1.67		0.841	"	30.0-150	50.4			
Surrogate: p-Terphenyl-d14	"	1.67		0.873	"	30.0-150	52.3			

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

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SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle
600 Stewart Street, Suite 1215
Seattle, WA 98101

Project: PSE-Grady Way
Project Number: 0186-407-00
Project Manager: Steve Woodward

Sampled: 11/23/98
Received: 11/23/98
Reported: 12/1/98 16:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike	1180892-MS1	B811463-01								
Chrysene	11/25/98	0.386	ND	0.212	mg/kg dry	10.0-125	54.9			
Fluorene	"	0.386	ND	0.247	"	10.0-154	64.0			
Indeno (1,2,3-cd) pyrene	"	0.386	ND	0.185	"	10.0-144	47.9			
Surrogate: 2-FBP	"	1.93		1.36	"	30.0-150	70.5			
Surrogate: Nitrobenzene-d5	"	1.93		1.22	"	30.0-150	63.2			
Surrogate: p-Terphenyl-d14	"	1.93		1.94	"	30.0-150	101			
Matrix Spike Dup	1180892-MSD1	B811463-01								
Chrysene	11/25/98	0.386	ND	0.204	mg/kg dry	10.0-125	52.8	28.0	3.90	
Fluorene	"	0.386	ND	0.231	"	10.0-154	59.8	32.0	6.79	
Indeno (1,2,3-cd) pyrene	"	0.386	ND	0.174	"	10.0-144	45.1	47.0	6.02	
Surrogate: 2-FBP	"	1.93		0.00772	"	30.0-150	NR			3
Surrogate: Nitrobenzene-d5	"	1.93		0.00772	"	30.0-150	NR			3
Surrogate: p-Terphenyl-d14	"	1.93		0.0270	"	30.0-150	1.40			3

North Creek Analytical - Bothell

*Refer to end of report for text of notes and definitions.

Steve Davis, Project Manager

C - 553

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
6405 S.W. Nimbus Avenue, Des Moines, IA 50323-3400



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 420-9200 ■ FAX 420-9210
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 906-9200 ■ FAX 906-9210

Geo Engineers - Seattle 600 Stewart Street, Suite 1215 Seattle, WA 98101	Project: PSE-Grady Way Project Number: 0186-407-00 Project Manager: Steve Woodward	Sampled: 11/23/98 Received: 11/23/98 Reported: 12/1/98 16:38

Notes and Definitions

#	Note
1	Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
2	The heavy oil range organics present are due to hydrocarbons eluting primarily in the diesel range.
3	Due to an extraction anomaly no surrogate was added to this sample. Does not indicate an out-of-control condition for the batch.
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
Recov.	Recovery
RPD	Relative Percent Difference

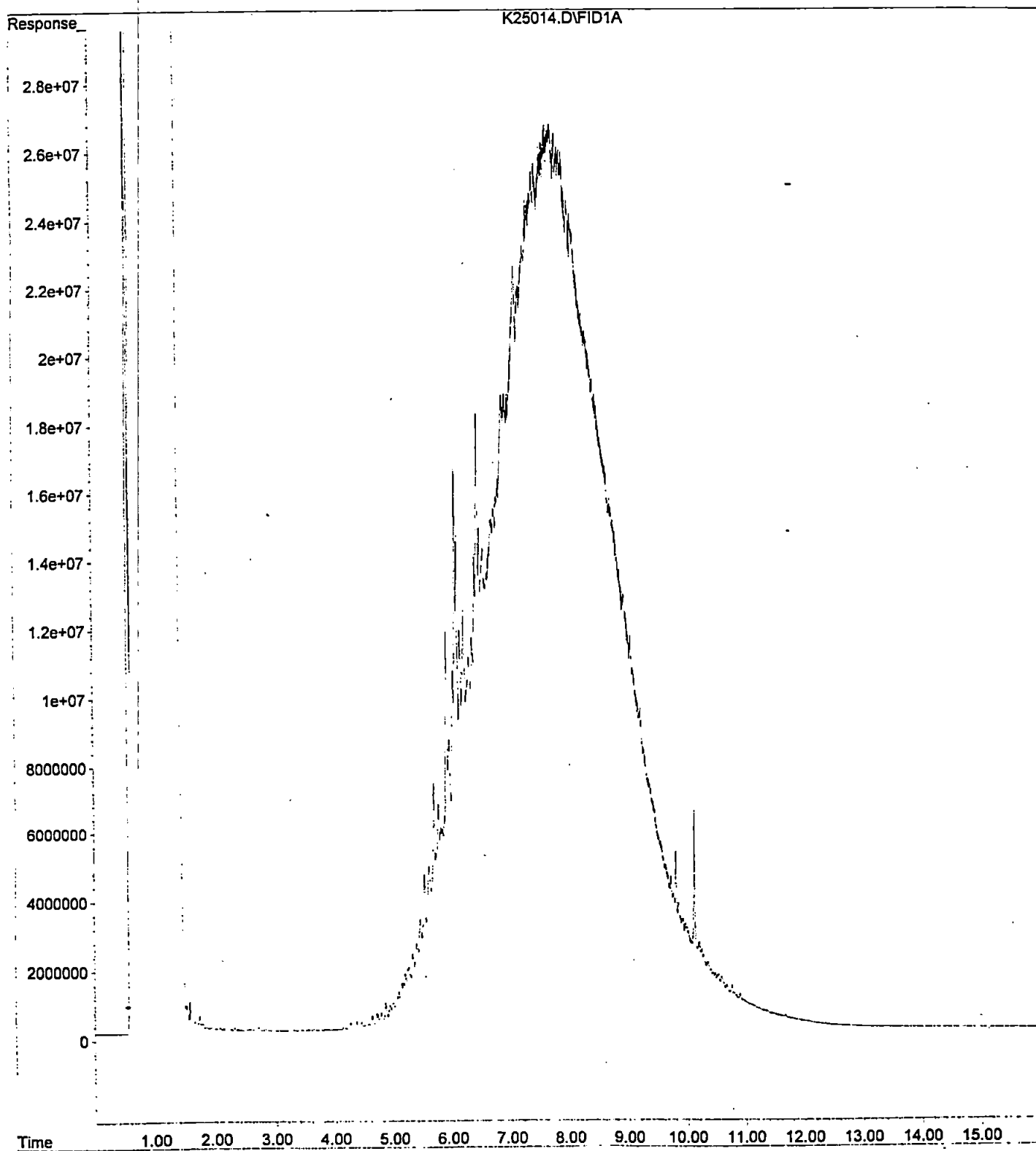
North Creek Analytical - Bothell

Steve Davis, Project Manager

C - 554

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
0405 S.W. Montrose Avenue, Portland, OR 97208-7100

File : C:\HPCHEM\4\DATA\K25014.D
Operator : LAC
Acquired : 11-25-98 10:18:18 AM using AcqMethod TPHD.M
Instrument : GC #7
Sample Name: b811463-01
Misc Info : 11x s
Vial Number: 11



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\K23079.D

Acq On : 11-24-98 2:34:51 AM

Sample : b811463-04

Misc : S

IntFile : SURR.E

Quant Time: Nov 24 7:56 1998 Quant Results File: TPHD2.RES

Vial: 54

Operator: LAC

Inst : GC #7

Multiplr: 1.00

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Thu Nov 19 12:52:29 1998

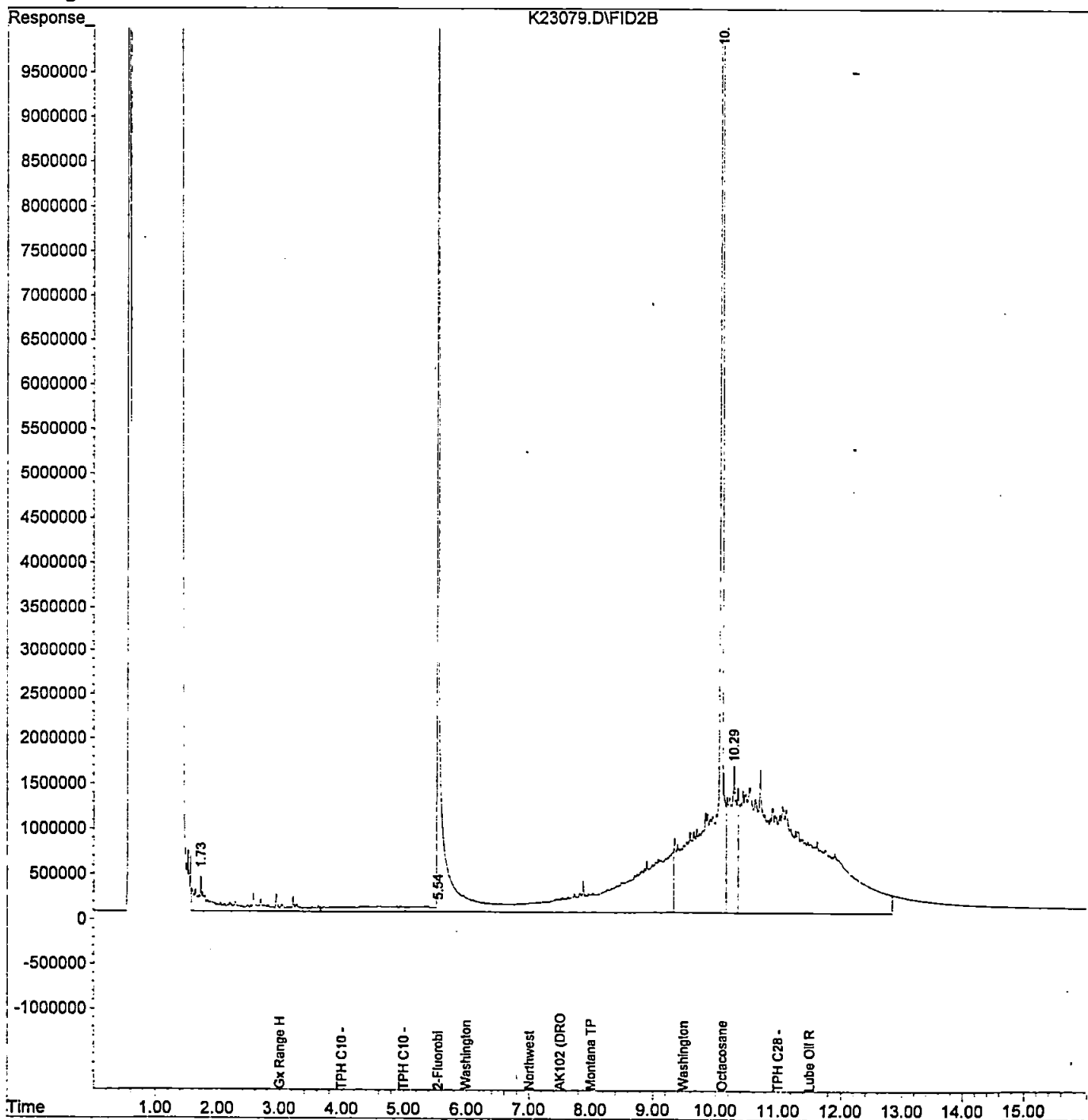
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

Data File : D:\HPCHEM\1\DATA\112798\K27024.D

Vial: 19

Acq On : 27 Nov 1998 11:04 pm

Operator: cc

Sample : b811463-02

Inst : GC#1

Misc : 1x s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 30 8:27 1998 Quant Results File: TPHD.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD.M (Chemstation Integrator)

Title : TPH-D Front Method

Last Update : Fri Nov 13 13:08:06 1998

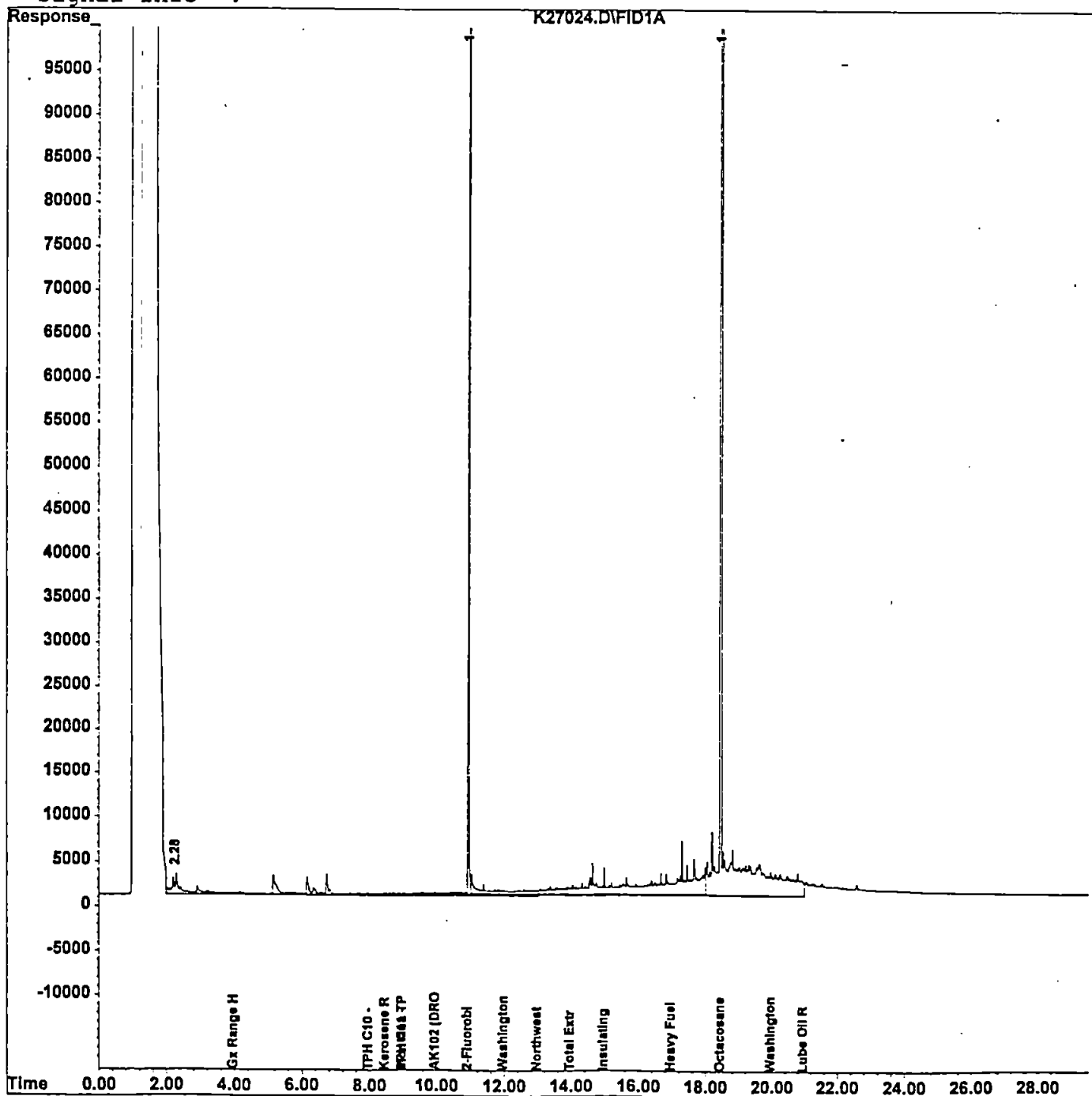
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

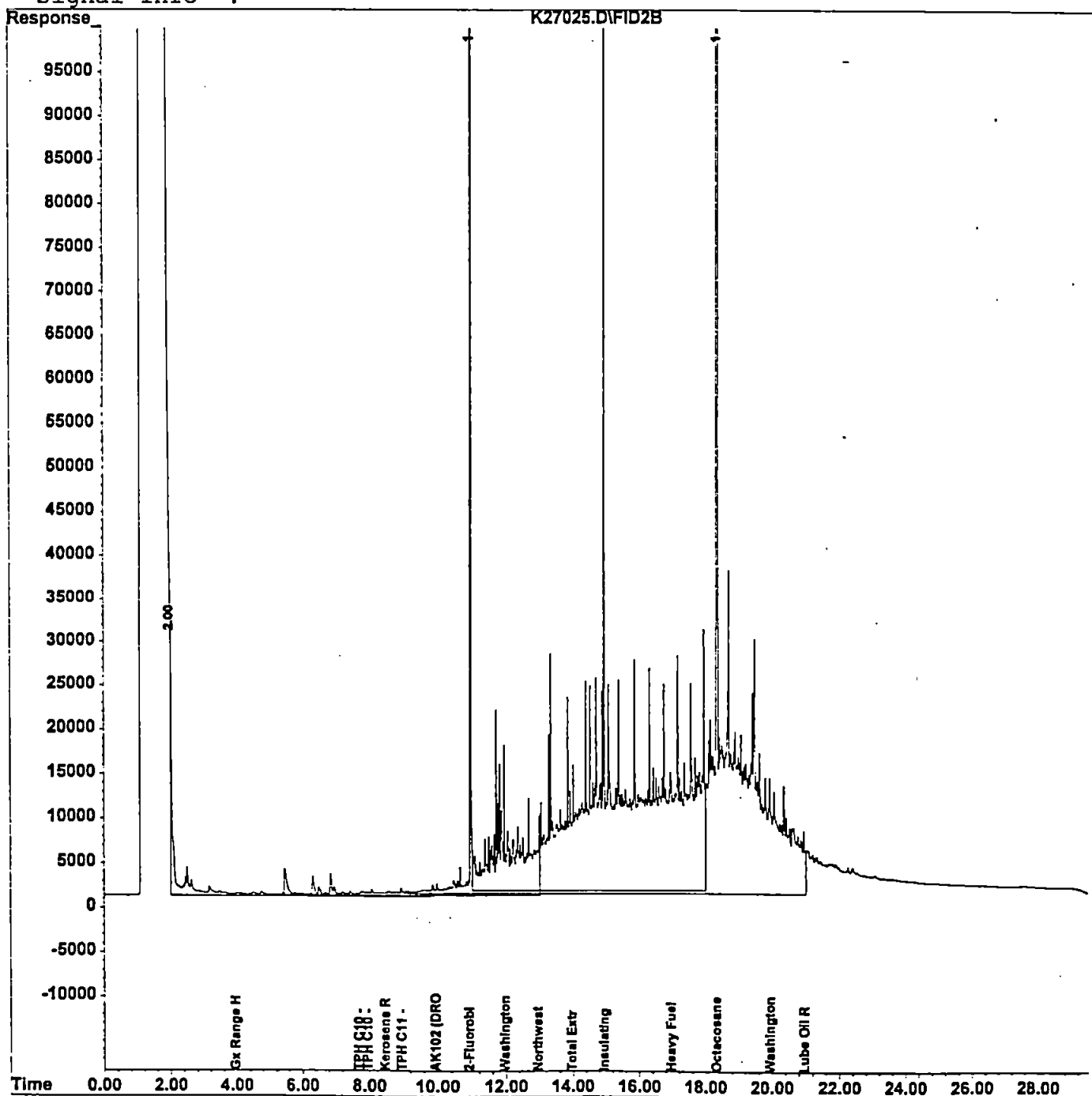
Data File : D:\HPCHEM\1\DATA\112798\K27025.D
 Acq On : 27 Nov 1998 11:42 pm
 Sample : b811463-03
 Misc : 1x s
 IntFile : SURR.E
 Quant Time: Nov 30 8:15 1998

Vial: 20
 Operator: cc
 Inst : GC#1
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Tue Nov 10 18:40:50 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\4\DATA.SEC\K30015.D

Vial: 5

Acq On : 11-30-98 12:15:19 PM

Operator: LAC

Sample : b811463-05 r1

Inst : GC #7

Misc : 21x s

Multiplr: 1.00

IntFile : SURR.E

Quant Time: Nov 30 12:37 1998 Quant Results File: TPHD2.RES

Quant Method : C:\HPCHEM\4\METHODS\TPHD2.M (Chemstation Integrator)

Title : TPH-D Rear Method

Last Update : Thu Nov 19 12:52:29 1998

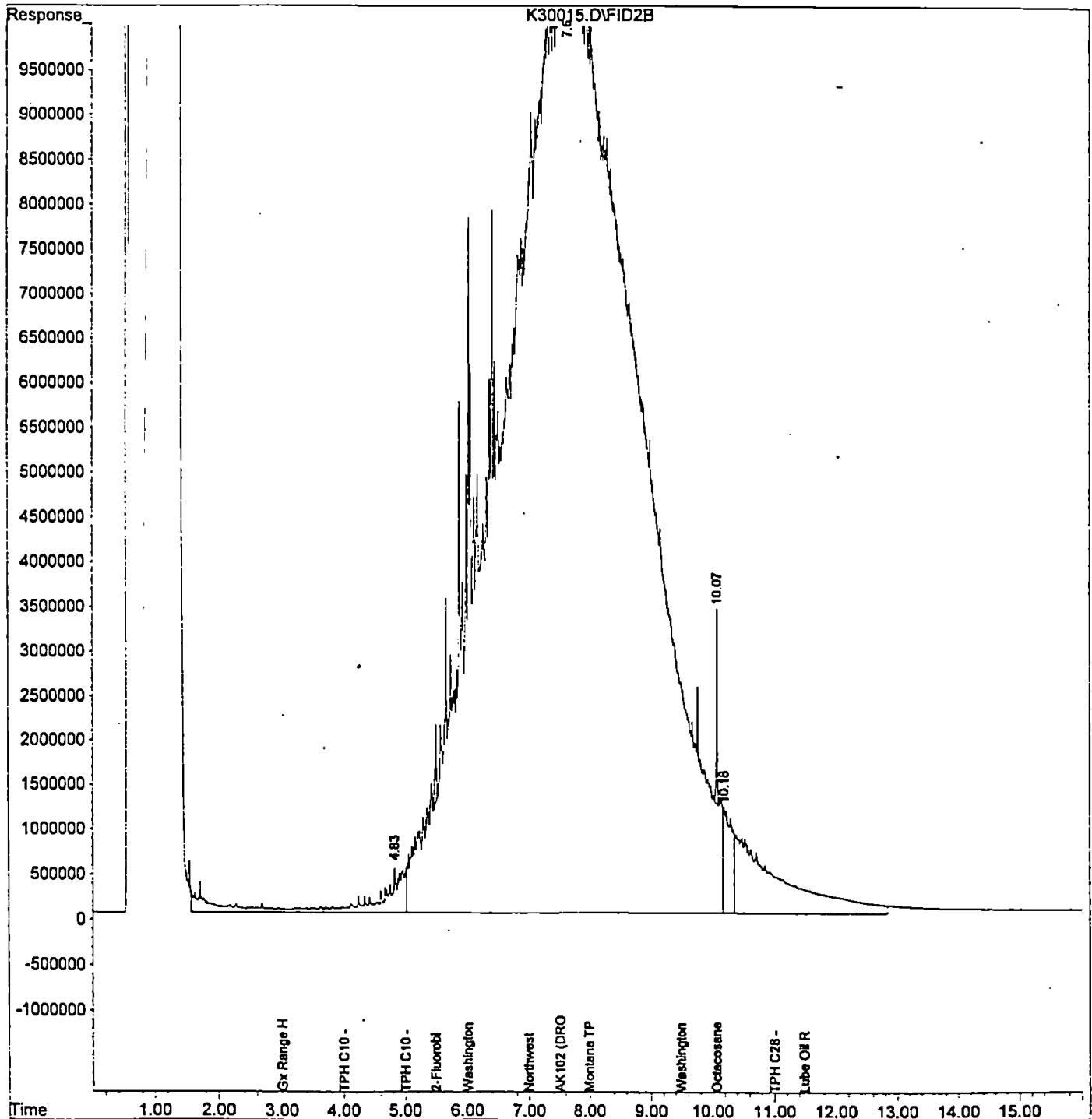
Response via : Multiple Level Calibration

DataAcq Meth : TPHD.M

Volume Inj. :

Signal Phase :

Signal Info :



Quantitation Report

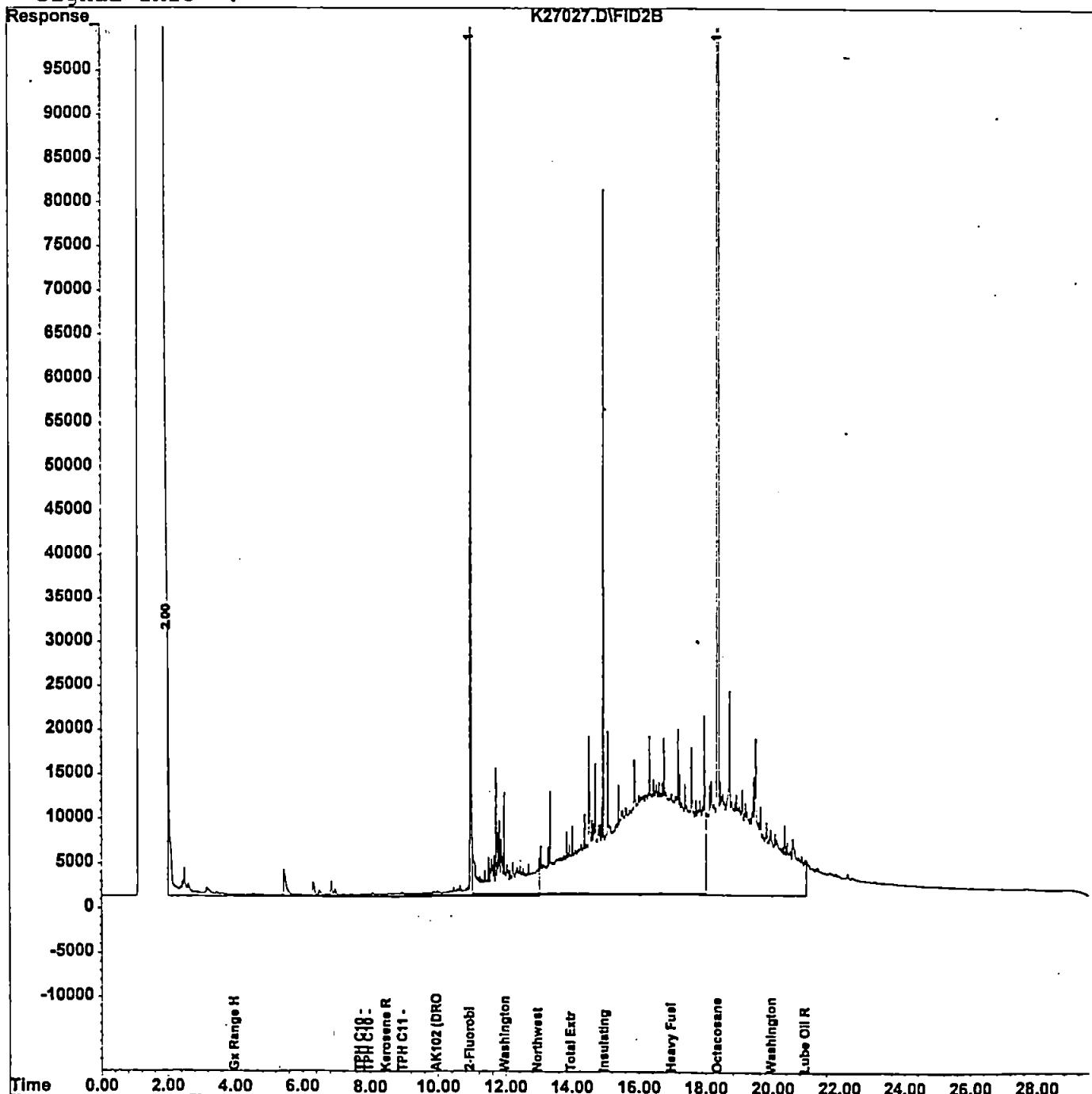
Data File : D:\HPCHEM\1\DATA\112798\K27027.D
 Acq On : 28 Nov 1998 12:19 am
 Sample : b811463-06
 Misc : 1x s
 IntFile : SURR.E
 Quant Time: Nov 30 8:16 1998

Vial: 22
 Operator: cc
 Inst : GC#1
 Multiplr: 1.00

Quant Results File: TPHD2.RES

Quant Method : D:\HPCHEM\1\METHODS\TPHD2.M (Chemstation Integrator)
 Title : TPH-D Rear Method
 Last Update : Tue Nov 10 18:40:50 1998
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHD.M

Volume Inj. :
 Signal Phase :
 Signal Info :





**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779
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(425) 420-9200 FAX 420-9210
(509) 924-9200 FAX 924-9290
(503) 906-9200 FAX 906-9210



CHAIN OF CUSTODY REPORT

Work Order #

B811463

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *																																																																	
ATTENTION: <u>Steve Woodward</u>			ATTENTION: <u>Barry Lombardi</u>			Organic & Inorganic Analyses																																																																	
ADDRESS: <u>GeoEngineers (Seattle)</u>			ADDRESS: <u>PGE</u>			<table border="1"> <tr> <td>10</td> <td>7</td> <td>5</td> <td>4</td> <td>3</td> <td>2</td> <td>☒</td> <td>Same Day</td> </tr> <tr> <td colspan="7">Standard</td> <td></td> </tr> </table>			10	7	5	4	3	2	☒	Same Day	Standard																																																						
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Standard																																																																							
PHONE: <u>(206)-728-2674</u> FAX:			P.O. NUMBER:			Fuels & Hydrocarbon Analyses																																																																	
PROJECT NAME: <u>Grady Van</u>			NCA QUOTE #:			<table border="1"> <tr> <td>5</td> <td>3-4</td> <td>2</td> <td>☒</td> <td>Same Day</td> </tr> <tr> <td colspan="4">Standard</td> <td></td> </tr> </table>			5	3-4	2	☒	Same Day	Standard																																																									
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PROJECT NUMBER: <u>156-407-02</u>			Analysis Request:			OTHER Specify:																																																																	
SAMPLED BY: <u>TUC</u>			<u>PCBs</u> <u>PAHs</u> <u>NWPH-DA</u> <u>Added 11/24</u> <u>24 hr Rush</u>			* Turnaround Requests less than standard may incur Rush Charges.																																																																	
<table border="1"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> <th>MATRIX (W, S, A, O)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr> <td>1. TTP3-1-3.0</td> <td>11/23/98 1125</td> <td>B811463-01</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>2. TTP3-2-3.0</td> <td>1130</td> <td>02</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>3. TTP3-3-8.0</td> <td>1330</td> <td>03</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>4. TTP3-4-3.0</td> <td>1415</td> <td>04</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>5. TTP3-5-3.0</td> <td>1420</td> <td>05</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>6. TTP3-6-3.0</td> <td>1425</td> <td>06</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>7. TTP2-1-2.0</td> <td>1430</td> <td>07</td> <td></td> <td></td> <td>Hold</td> </tr> <tr> <td>8.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS	1. TTP3-1-3.0	11/23/98 1125	B811463-01			Hold	2. TTP3-2-3.0	1130	02			Hold	3. TTP3-3-8.0	1330	03			Hold	4. TTP3-4-3.0	1415	04			Hold	5. TTP3-5-3.0	1420	05			Hold	6. TTP3-6-3.0	1425	06			Hold	7. TTP2-1-2.0	1430	07			Hold	8.						9.						10.					
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RELINQUISHED BY (Signature): <u>[Signature]</u>			DATE: <u>11/23/98</u>			RECEIVED BY (Signature): <u>[Signature]</u>																																																																	
PRINT NAME: <u>D. W. Widen</u>			FIRM: <u>CEI</u>			DATE: <u>11/23</u>																																																																	
RELINQUISHED BY (Signature): <u>S. Widen</u>			DATE: <u>11/23/98</u>			RECEIVED BY (Signature): <u>[Signature]</u>																																																																	
PRINT NAME: <u>S. Widen</u>			FIRM: <u>NCA</u>			DATE: <u>11/23</u>																																																																	
ADDITIONAL REMARKS:			PRINT NAME: <u>K. Barker</u>			FIRM: <u>NCA</u>																																																																	
<u>Analyses by same methods previously used on Project</u>			<u>11-7</u>			PAGE 1 OF 1																																																																	

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST, INC.

7110 38th Drive SE
Lacey, Washington 98503

Mobile Environmental Laboratories
Environmental Sampling Services

Telephone: 360-459-4670
Fax: 360-459-3432

December 3, 1998

Steve Woodward
GeoEngineers, Inc.
Plaza 600 Bldg.
600 Stewart St., Ste. 1215
Seattle, WA 98101

Dear Mr. Woodward:

Please find enclosed the analytical data report for the PSE-Grady Way Project in Renton, Washington. Mobile Laboratory services were conducted on December 3, 1998. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended.

The results of these analyses are summarized in the attached table. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

TEG Northwest appreciates the opportunity to have provided analytical services to GeoEngineers for this project. It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,



Michael A. Korosec
President

QA/QC FOR ANALYTICAL METHODS

GENERAL

The TEG Northwest Laboratory quality assurance and quality control (QA/QC) procedures are conducted following the guidelines and objectives which meet or exceed certification/-accreditation requirements of California DOHS, Washington DOE, and Oregon DEQ. The Quality Control Program is a consistent set of procedures which assures data quality through the use of appropriate blanks, replicate analyses, surrogate spikes, and matrix spikes, and with the use of reference standards that meet or exceed EPA standards.

When analyses are taking place on-site with the mobile lab, the need for Field Blanks or Travel/Trip Blanks is eliminated. If there is going to be a delay before sample preparation for analysis, the sample is stored at 4° C.

ANALYTICAL METHODS

TEG Northwest Labs use analytical methodologies which are in conformity with U. S. Environmental Protection Agency (EPA), Washington DOE, and Oregon DEQ methodologies. When necessary and appropriate due to the nature or composition of the sample, TEG may use variations of the methods which are consistent with recognized standards or variations used by the industry and government laboratories.

TPH-Gasoline, TPH-Diesel

(Gasoline and/or Diesel, Modified EPA 8015, NWTPH-Gx and NWTPH-Dx)

A check standard is run at the beginning of the day. 1) A close standard is run at the end of the day. 2) Both open and close standards must be within 15% of the continuing calibration curve value. All samples are prepared with a surrogate spike, and the recovery must be between 65% and 135% unless high sample concentrations interfere with the determination of the recovery percentage. A duplicate sample is run at a rate of 1 per 10 samples. At least 1 method blank is run per 20 samples analyzed.

GeoEngineers, Inc. PROJECT #186-407-00
Puget Sound Energy Grady Way
Renton, Washington

TEG Project #981203

Diesel and Oil by NWTPH-Dx/Dx Extended ANALYSES OF SOILS

SAMPLE NUMBER	DILUTION	DATE COLLECTED	DATE EXTRACTED	DATE ANALYZED	TPH-DIESEL (mg/kg)	TPH-OIL (mg/kg)	2-Fluorobiphenyl SURROGATE (%REC)
METHOD BLANK		12/03/98	12/03/98	12/03/98	ND	ND	120%
TT3-7-3.0		12/03/98	12/03/98	12/03/98	ND	ND	105%
TT3-8-3.0		12/03/98	12/03/98	12/03/98	ND	ND	105%
TT3-9-3.0		12/03/98	12/03/98	12/03/98	ND	ND	96%
TT3-10-3.0		12/03/98	12/03/98	12/03/98	ND	ND	107%
TT3-10-3.0 DUP		12/03/98	12/03/98	12/03/98	ND	ND	112%

Method Quantitation Limits

20

40

65%-135%

ND INDICATES NOT DETECTED AT LISTED DETECTION LIMITS

ACCEPTABLE RPD IS 30%

ANALYSES PERFORMED BY: Sherry Chilcutt

DATA REVIEWED BY:

GeoEngineers, Inc. PROJECT #186-407-00

-- Puget Sound Energy Grady Way

Renton, Washington

TEG Project #981203

Diesel and Oil by NWTPH-Dx/Dx Extended ANALYSES OF SOILS

SAMPLE NUMBER	DILUTION	DATE COLLECTED	DATE EXTRACTED	DATE ANALYZED	TPH-DIESEL	TPH-OIL	2-Fluorobiphenyl SURROGATE (%REC)
LCS		12/03/98	12/03/98	12/03/98	94%	*	INT
TTP3-8-3.0 MS		12/03/98	12/03/98	12/03/98	125%	*	INT
TTP3-8-3.0 MSD		12/03/98	12/03/98	12/03/98	121%	*	INT
TTP3-8-3.0 RPD					4%		

Method Quantitation Limits

65%-135%

65%-135%

ND INDICATES NOT DETECTED AT LISTED DETECTION LIMITS

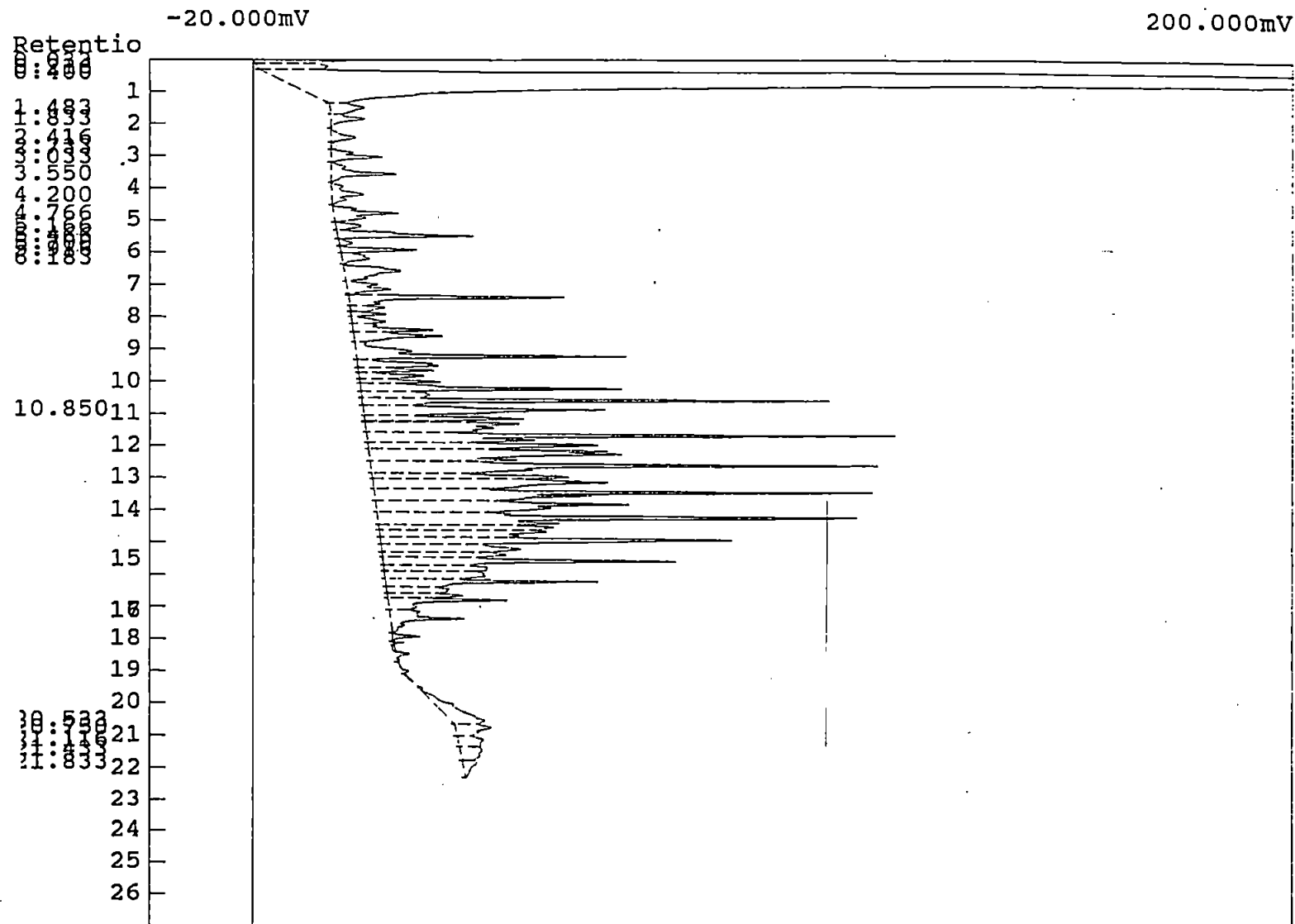
ACCEPTABLE RPD IS 30%

ANALYSES PERFORMED BY: Sherry Chilcutt

DATA REVIEWED BY:

* INDICATES THAT THE PRODUCT IS KEROSENE

Lab name: SRI Instruments
 Client: GeoEngineers
 Analysis date: 12/03/1998 09:16:00
 Description: Ch. 1 gc3fid1
 Column: RESTEK 15METER MXT-1
 Carrier: HELIUM AT 300 ON DIAL
 Data file: chldet2.CHR ()
 Sample: 500 ppm diesel



Component	Retention	Area	External	Units
DIESEL	6.183	13449.839	527.58	PPM
fluorobiphenyl	10.850	437.194	1.06	ppm
		13887.034	528.64	