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ENVIRONMENTAL DEPARTMENT  
NORTHWEST REGION

DATE: November 19, 2002

**CONOCOPHILLIPS CORPORATION  
GROUNDWATER MONITORING REPORT**

Site No.: 5353 Address: 600 Westlake Avenue North, Seattle, Washington  
ConocoPhillips Site Manager: Timothy D. Johnson  
Consultant/Contact Person: Environmental Resolutions, Inc./James S. Matthiessen  
Primary Agency/Regulatory ID No.: Washington State Department of Ecology

**WORK PERFORMED THIS QUARTER(S) [Third - 2002]:**

- Monitored 18, purged 13, and sampled 14 groundwater monitoring wells

**WORK PROPOSED FOR NEXT QUARTER [Fourth - 2002]:**

- Monitor, purge, and sample 9 groundwater monitoring wells

**SUMMARY:**

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>8 to 13 feet</u>	(Measured Feet)
Groundwater Gradient:	<u>0.002 ft/ft</u>	(Direction)
	<u>Northerly and Easterly</u>	(Magnitude)
Maximum TPH-G/Benzene Concentrations:	<u>13,800/5,840</u>	(ppb)
Measurable Free Product Detected:	<u>Yes - MW33</u>	(Yes - ID well(s)/No)
Free Product Recovered This Quarter:	<u>Unknown</u>	(gallons)
Cumulative Free Product Recovered to Date:	<u>Unknown</u>	(gallons)
Bulk Soil Removed This Quarter:	<u>None</u>	(cubic yards)
Water Wells or Surface Waters w/in 2,000 ft:	<u>Lake Union, 400 ft</u>	(Distance &
Radius and Respective Direction:	<u>North</u>	Direction)
Current Remedial Action:	<u>VES/EFRT</u>	(SVE/AS/P&T etc.)
Permits for Discharge:	<u>PSAPCA No. 4397</u>	(NPDES, POTW, etc.)

**DISCUSSION:**

- 9 of 14 wells sampled contained hydrocarbon concentrations exceeding MTCA Method A Cleanup Levels.
- The laboratory report notes that the chromatographic pattern for the TPH-D analysis does not resemble the fuel standard used for quantitations; chromatographs are attached.

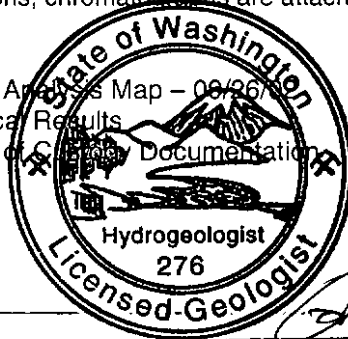
**ATTACHMENTS:**

- Plate 1: Groundwater Sample Analysis Map - 08/26/02
- Table 1: Groundwater Analytical Results
- Laboratory Reports and Chain of Custody Documentation
- Field Data Records

Prepared By:

*John K. Meyer*

Yukiko Noguchi  
Staff Scientist



**JOHN K. MEYER**

Reviewed By:

*John K. Meyer*

John K. Meyer, R.G.  
Branch Manager

cc: Washington State Department of Ecology, Northwest Regional Office  
GeoEngineers, Dave Cook



SOURCES Modified by  
from maps provided by  
Cannon/Phillips Corporation  
EN 31120.13

# GROUNDWATER SAMPLE ANALYSIS MAP - 09/26/02

TOSCO SITE NO. 5353  
600 Westlake Avenue North  
Seattle, Washington

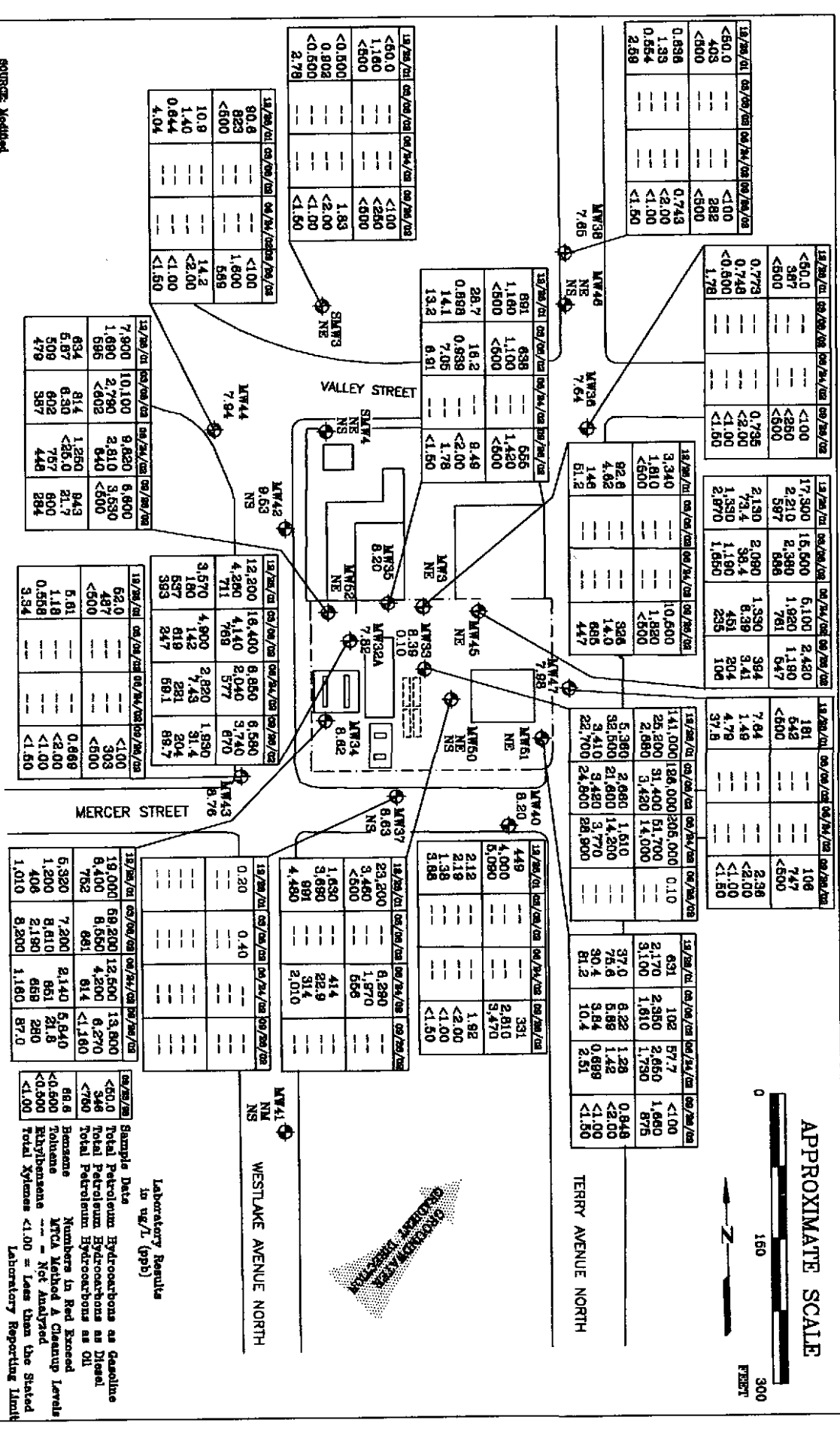
## EXPLANATION

- MW37 Groundwater Monitoring Well
- 5.70 Groundwater Elevation
- 0.01 Free Product Thickness In Feet
- NM Not Measured
- NE Not Established
- NS Not Sampled
- Groundwater elevation corrected for free product, where applicable.

PROJECT NO.  
31020

PLATE  
1

YN: 10/24/02



APPROXIMATE SCALE



0

150

300  
FEET

GROUNDWATER MONITORING WELL

Laboratory Results  
in ug/L (ppb)

Sample Date	Total Petroleum Hydrocarbons as Gasoline	Total Petroleum Hydrocarbons as Diesel	Total Petroleum Hydrocarbons as Oil	Numbers in Red Exceed	MTCA Method A Cleanup Levels	--- = Not Analyzed	Total Xylenes <1.00 = Less than the Stated
19/09/01	88.200	12.500	13.800	0	68.6		
05/09/02	8.650	4.200	6.270	0	34.8		
08/01/02	8.61	8.14	<1.160	0	76.0		
07/20/02	2.140	5.840		0	68.6		
08/10/02	8.61	8.61	21.8	0	<0.600		
02/19/02	2.180	6.8	2.80	0	<0.600		
03/20/02	8.200	1.160	87.0	0	<1.00		

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 1 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
SMW3 NE	03/08/95	10.25	0.00	--	<50	490	2,500	<0.5	<0.5	<0.5	<1.0
	06/06/95	10.23	0.00	--	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	09/07/95	10.89	0.00	--	<50	300	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	10.36	0.00	--	<50	300	<750	<0.5	<0.5	<0.5	<1.0
	04/01/96	10.07	0.00	--	34,000	4,000	2,300	8,400	42	2,100	3,000
	06/25/96	10.19	0.00	--	<50.0	320	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	11.12	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	10.19	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	10.14	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	10.85	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	9.67	0.00	--	<50.0	521	<750	<0.500	<0.500	<0.500	<1.00
	03/16/98 <sup>NP</sup>	9.28	0.00	--	50.1	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/26/98 <sup>NP</sup>	8.87	0.00	--	<50.0	500	<750	<0.500	<0.500	<0.500	<1.00
	09/23/98 <sup>NP</sup>	9.88	0.00	--	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	9.22	0.00	--	<50.0	293	<750	<0.500	<0.500	<0.500	<1.00
	03/31/99 <sup>NP</sup>	9.01	0.00	--	<50.0	360	<750	<0.500	<0.500	0.526	4.97
	06/30/99 <sup>NP</sup>	9.55	0.00	--	<50.0	639	<750	<0.500	0.609	<0.500	1.32
	12/08/99 <sup>NP</sup>	8.75	0.00	--	<50.0	<484	<1,450	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	8.89	0.00	--	<50.0	<250	<750	<0.500	0.585	<0.500	1.86
	12/19/00	NM	--	--	--	--	--	--	--	--	--
	06/15/01 <sup>NP</sup>	7.23	0.00	--	<50.0	368	<666	<0.500	<0.500	<0.500	<1.00
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01 <sup>NP</sup>	9.19	0.00	--	<50.0	385	<571	<0.500	<0.500	<0.500	<1.00
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	8.89	0.00	--	<50.0	1,180	<500	<0.500	0.902	<0.500	2.78	
03/08/02	NM	--	--	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02	10.32	0.00	--	<100	<250	<500	1.83	<2.00	<1.00	<1.50	
SMW4 NE	03/08/95	8.14	0.00	--	39,000	4,100	5,100	13,000	<250	2,400	3,200
	06/06/95	8.90	0.00	--	41,000	5,500	<750	8,400	44	2,700	4,900
	09/07/95	8.99	0.00	--	--	--	--	--	--	--	--
	12/08/95	7.56	0.00	--	40,000	1,500	920	8,100	57	2,600	3,800
	04/01/96	8.13	0.00	--	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	8.20	0.00	--	28,000	2,680	830	3,900	81.4	1,710	1,710
	09/27/96	8.62	0.00	--	28,800	2,460	<750	6,090	<0.500	2,080	1,730
	03/28/97	8.20	0.00	--	--	--	--	--	--	--	--
	06/30/97	8.06	0.00	--	--	--	--	--	--	--	--
	09/08/97	9.00	0.00	--	--	--	--	--	--	--	--
	12/19/97	9.41	0.04	LPH Present	--	--	--	--	--	--	--
	03/16/98	9.09	0.00	--	--	--	--	--	--	--	--
	06/26/98	8.76	Trace	LPH Present	--	--	--	--	--	--	--
	09/23/98	9.96	0.05	LPH Present	--	--	--	--	--	--	--
	12/17/98	10.22	Trace	LPH Present	--	--	--	--	--	--	--
	03/31/99	8.70	Trace	LPH Present	--	--	--	--	--	--	--
	06/30/99	8.20	Trace	LPH Present	--	--	--	--	--	--	--
	12/08/99	Inaccessible	--	--	--	--	--	--	--	--	--
	06/20/00	Inaccessible	--	--	--	--	--	--	--	--	--
	12/19/00	Inaccessible	--	--	--	--	--	--	--	--	--
	06/15/01	Inaccessible	--	--	--	--	--	--	--	--	--
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	Inaccessible	--	--	--	--	--	--	--	--	--
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	Inaccessible	--	--	--	--	--	--	--	--	--	
03/08/02	NM	--	--	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02	NM	--	--	--	--	--	--	--	--	--	
MW3 NE	10/10/01	10.11	0.00	--	14,100	4,060	1,990	1,070	<25.0	1,040	292
	12/28/01	9.61	0.00	--	3,340	1,810	<500	92.6	4.62	146	51.2
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02 <sup>b</sup>	10.96	--	--	10,500	1,820	<500	326	14.0	685	447
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>	5	40	30	20		

Continued on page 2

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
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Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	
MW32A 20.70	03/08/95	11.29	0.00	9.69	21,000	2,300	2,300	5,800	1,700	990	2,900	
	06/06/95	--	--	--	--	--	--	--	--	--	--	
	09/07/95	11.27	--	9.43	20,000	2,500	1,800	4,200	470	730	2,000	
	12/08/95	10.61	--	10.06	11,000	1,200	<750	1,600	86	420	910	
	04/01/96	10.90	--	9.80	7,900	1,400	1,000	2,200	88	300	480	
	06/25/96	10.98	--	9.72	7,500	1,250	<750	1,200	60.4	217	435	
	09/27/96	11.37	--	9.61	7,050	1,040	<750	1,570	37.4	264	416	
	03/28/97	11.26	--	9.72	--	--	--	--	--	--	--	
	06/30/97	10.89	--	--	--	--	--	--	--	--	--	
	09/08/97	11.67	0.00	9.31	--	--	--	--	--	--	--	
	12/19/97	11.42	0.00	9.28	--	--	--	--	--	--	--	
	03/16/98	11.30	0.00	9.40	--	--	--	--	--	--	--	
	06/26/98	11.29	0.00	9.41	--	--	--	--	--	--	--	
	09/23/98	11.97	0.00	8.73	--	--	--	--	--	--	--	
	12/17/98	11.09	0.00	9.61	--	--	--	--	--	--	--	
	03/31/99	10.47	0.00	10.23	--	--	--	--	--	--	--	
	06/30/99	9.60	0.00	11.10	--	--	--	--	--	--	--	
	12/08/99	11.07	0.00	9.63	--	--	--	--	--	--	--	
	06/20/00	11.40	0.00	9.30	--	--	--	--	--	--	--	
	12/19/00 <sup>NP</sup>	10.90	0.00	9.80	7,010	1,740	<750	4,430	136	438	182	
	06/15/01 <sup>NP</sup>	11.31	0.00	9.39	13,700	2,810	<846	2,370	11.2	272	31.1	
	06/26/01 <sup>NP</sup>	11.85	0.00	8.85	15,500	1,620	<750	3,780	1,110	1,230	1,020	
	09/07/01 <sup>NP</sup>	10.81	0.00	9.89	17,100	4,220	822	5,870	19.9	684	110	
10/10/01	NM	--	--	--	--	--	--	--	--	--		
12/28/01	11.29	0.00	9.41	12,200	4,280	711	3,670	180	537	393		
03/08/02	11.49	0.00	9.21	16,400	4,140	789	4,900	142	619	247		
06/24/02	11.56	0.00	9.14	8,850	2,040	677	2,820	7.43	221	59.1		
09/26/02 <sup>B</sup>	12.88	0.00	7.82	8,680	3,740	870	1,930	31.4	204	89.7		
MW33 20.75	03/08/95	11.16	0.00	9.73	4,900	1,400	2,000	650	<25	320	420	
	06/06/95	--	--	--	--	--	--	--	--	--		
	09/07/95	11.20	0.00	9.55	9,700	1,400	820	560	140	230	620	
	12/08/95	--	--	--	13,000	1,900	1,900	800	240	280	760	
	04/01/96	11.00	0.00	9.75	5,200	960	<750	630	33	130	270	
	06/25/96	11.05	0.00	9.70	2,700	1,030	<750	230	24.6	46.5	61.1	
	09/27/96	11.13	0.00	9.76	6,150	1,190	<750	1,190	237	86.3	272	
	03/28/97	11.19	0.00	9.70	--	--	--	--	--	--	--	
	06/30/97	10.66	0.00	10.23	--	--	--	--	--	--	--	
	09/08/97	10.48	0.00	10.41	--	--	--	--	--	--	--	
	12/19/97	--	--	--	--	--	--	--	--	--	--	
	03/16/98	--	--	--	--	--	--	--	--	--	--	
	06/26/98	11.18	0.00	9.57	--	--	--	--	--	--	--	
	09/23/98	11.90	0.00	8.85	--	--	--	--	--	--	--	
	12/17/98	11.03	0.00	9.72	--	--	--	--	--	--	--	
	03/31/99	10.38	0.00	10.37	--	--	--	--	--	--	--	
	06/30/99	9.52	0.00	11.23	--	--	--	--	--	--	--	
	12/08/99	10.97	0.00	9.78	--	--	--	--	--	--	--	
	06/20/00	11.33	0.00	9.42	--	--	--	--	--	--	--	
	12/19/00	Inaccessible	--	--	--	--	--	--	--	--	--	
	06/15/01	12.72	2.60	10.16	LPH Present							
	06/26/01	NM	--	--	--	--	--	--	--	--	--	
	09/07/01	NM	0.3	--	LPH Present							
10/10/01	NM	--	--	--	--	--	--	--	--	--		
12/28/01	11.21	0.00	9.54	141,000	25,200	2,680	6,360	32,500	3,410	22,700		
03/08/02	11.37	0.00	9.38	128,000	31,400	3,420	2,680	21,600	3,420	24,800		
06/24/02	11.36	0.00	9.39	205,000	61,700	14,000	1,510	14,200	3,770	28,900		
09/26/02	12.45	0.10	8.39	LPH Present								
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>	5	40	30	20			

Continued on page 3

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 3 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	
MW34	03/08/95	11.62	0.00	10.08	8,200	1,100	480	2,400	1,800	250	1,300	
21.42	06/06/95	11.73	0.00	9.97	9,100	2,300	<750	4,200	1,000	330	1,200	
	09/07/95	11.57	0.00	9.85	18,000	1,800	930	4,800	2,300	680	2,000	
	12/08/95	10.92	0.00	10.50	68,000	2,900	1,600	12,000	9,200	1,200	5,500	
	04/01/96	11.21	0.00	10.21	10,000	1,900	<750	5,800	580	520	1,200	
	06/25/96	11.19	0.00	10.23	13,700	1,160	<750	4,180	1,110	393	1,740	
	09/27/96	11.58	0.00	10.12	18,300	1,030	<750	5,010	2,520	541	1,310	
	03/28/97	11.47	0.00	10.23	--	--	--	--	--	--	--	
	06/30/97 <sup>NP</sup>	11.19	0.00	10.51	2,970	311	<750	1,930	15.7	271	631	
	09/08/97 <sup>NP</sup>	11.74	0.00	9.96	8,380	485	<750	3,920	645	587	1,270	
	12/19/97	NM	--	--	--	--	--	--	--	--	--	
	03/16/98	NM	--	--	--	--	--	--	--	--	--	
	06/26/98 <sup>NP</sup>	11.42	0.00	10.00	76,900	3,090	<750	13,400	11,100	2,310	9,080	
	09/23/98 <sup>NP</sup>	12.23	0.00	9.19	9,040	3,000	799	3,540	243	636	1,550	
	12/17/98 <sup>NP</sup>	11.35	0.00	10.07	80,900	5,470	1,380	14,200	10,800	3,110	11,800	
	03/31/99 <sup>NP</sup>	10.85	0.00	10.57	33,400	1,910	<750	5,970	1,740	1,400	3,820	
	06/30/99 <sup>NP</sup>	10.18	0.00	11.24	28,600	4,840	894	4,340	1,320	1,480	3,610	
	12/08/99 <sup>NP</sup>	11.33	0.00	10.09	62,400	2,500	<1,360	12,900	7,440	3,240	9,210	
	06/20/00 <sup>NP</sup>	11.68	0.00	9.74	25,000	<250	<750	8,380	480	2,190	3,938	
	12/19/00	NM	--	--	--	--	--	--	--	--	--	
	06/15/01 <sup>NP</sup>	11.85	0.00	9.57	25,800	4,780	<883	5,300	90.0	1,930	2,190	
	06/26/01	NM	--	--	--	--	--	--	--	--	--	
	09/07/01 <sup>NP</sup>	11.86	0.00	9.56	17,800	4,410	722	3,540	44.9	1,510	2,180	
	10/10/01	NM	--	--	--	--	--	--	--	--	--	
	12/28/01	11.46	0.00	9.96	19,000	5,400	782	8,320	1,200	406	1,010	
	03/08/02	11.70	0.00	9.72	58,200	8,550	661	7,200	8,610	2,190	8,200	
	06/24/02	11.91	0.00	9.51	12,600	4,200	614	2,140	651	659	1,160	
	09/26/02 <sup>b</sup>	12.80	0.00	8.62	13,800	8,270	<1,160	5,840	21.8	280	87.0	
MW35	03/08/95	10.67	0.00	9.80	2,800	1,200	1,300	400	<25	120	83	
20.10	06/06/95	10.67	0.00	9.60	810	1,000	830	52	1.4	27	36	
	09/07/95	10.87	0.00	9.43	--	--	--	--	--	--	--	
	12/08/95	--	--	--	--	--	--	--	--	--	--	
	04/01/96	--	--	--	--	--	--	--	--	--	--	
	06/25/96	11.11	0.00	8.99	1,620	950	<750	88.2	1.11	26.7	17.6	
	09/27/96	10.64	0.00	9.63	959	524	<750	38.8	0.990	10.4	6.18	
	03/28/97 <sup>NP</sup>	11.28	0.00	8.99	1,370	333	<750	161	2.35	31.8	10.7	
	03/28/97	11.28	0.00	8.99	1,800	<250	<750	250	2.62	48.1	8.04	
	06/30/97 <sup>NP</sup>	10.19	0.00	10.08	1,900	<250	<750	348	<2.50	85	7.31	
	09/08/97 <sup>NP</sup>	10.86	0.00	9.41	4,200	<250	<750	1,460	16.2	231	68.2	
	12/19/97	NM	--	--	--	--	--	--	--	--	--	
	03/16/98 <sup>NP</sup>	10.64	0.00	9.46	906	361	<750	410	4.24	<2.50	<5.00	
	06/26/98 <sup>NP</sup>	10.65	0.00	9.45	1,300	682	<750	500	<10.0	48.1	<20.0	
	09/23/98 <sup>NP</sup>	11.38	0.00	8.72	665	689	<750	243	<2.50	<2.50	<5.00	
	12/17/98 <sup>NP</sup>	10.49	0.00	9.61	699	672	<750	402	<2.50	10.8	9.99	
	03/31/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	06/30/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	12/08/99	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	06/20/00	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	12/19/00	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	06/15/01	NM	--	--	--	--	--	--	--	--	--	
	06/26/01 <sup>NP</sup>	10.60	0.00	9.50	504	464	<750	11.3	27.5	5.52	28.4	
	09/04/01 <sup>NP</sup>	10.54	0.00	9.56	283	903	<564	2.36	<0.500	<0.500	<1.00	
	10/10/01	NM	--	--	--	--	--	--	--	--	--	
	12/28/01	10.54	0.00	9.56	691	1,160	<500	28.7	0.898	14.1	13.2	
	03/08/02	10.72	0.00	9.38	638	1,100	<500	16.2	0.939	7.05	6.91	
	09/26/02	--	--	--	--	--	--	--	--	--	--	
	06/24/02	Obstructed by vehicle	--	--	--	--	--	--	--	--	--	
	09/26/02 <sup>b</sup>	11.90	0.00	8.20	885	1,420	<500	8.48	<2.00	1.78	<1.50	
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>		5	40	30	20		

Continued on page 4

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
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Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW36	03/08/95	9.07	0.00	8.97	<50	550	1,200	2.6	<0.5	<0.5	<1.0
17.50	06/06/95	7.92	0.00	10.12	<50	<250	<750	1	<0.5	<0.5	<1.0
	09/07/95	8.11	0.00	9.69	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	9.00	0.00	8.80	<50	510	1,200	1.1	<0.5	<0.5	<1.0
	04/01/96	9.00	0.00	8.80	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	8.97	0.00	--	<50.0	<250	<750	0.58	0.500	<0.500	<1.00
	09/27/96	7.53	0.00	10.51	<50.0	<250	<750	1.18	<0.500	<0.500	<1.00
	03/28/97	9.21	0.00	8.83	<50.0	<250	<750	0.810	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	6.88	0.00	11.16	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	9.21	0.00	8.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	10.09	0.00	7.71	<50.0	<250	<750	0.606	<0.500	<0.500	<1.00
	03/16/98 <sup>NP</sup>	9.29	0.00	8.51	56.6	287	<750	<0.500	<0.500	<0.500	<1.00
	06/26/98 <sup>NP</sup>	8.47	0.00	9.33	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/23/98 <sup>NP</sup>	9.89	0.00	7.91	<50.0	<250	<750	0.737	<0.500	<0.500	1.13
	12/17/98 <sup>NP</sup>	10.00	0.00	7.80	<50.0	288	<750	0.533	<0.500	<0.500	<1.00
	03/31/99 <sup>NP</sup>	8.96	0.00	8.84	<50.0	321	<750	0.759	<0.500	<0.500	<1.00
	06/30/99 <sup>NP</sup>	8.44	0.00	9.36	<50.0	<250	<750	1.29	<0.500	<0.500	<1.00
	12/08/99 <sup>NP</sup>	10.05	0.00	7.75	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	8.47	0.00	9.33	172	<250	<750	<0.500	0.583	1.78	11.1
	12/19/00 <sup>NP</sup>	9.50	0.00	8.30	106	<250	<750	0.529	1.51	1.08	7.14
	06/15/01 <sup>NP</sup>	8.00	0.00	9.80	<50.0	298	<750	0.691	0.648	0.530	1.53
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01 <sup>NP</sup>	8.70	0.00	9.10	<50.0	<250	<500	0.897	<0.500	<0.500	<1.00
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	9.57	0.00	8.23	<50.0	387	<500	0.773	0.748	<0.500	1.78
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02	10.16	0.00	7.64	<100	<250	<500	0.735	<2.00	<1.00	<1.50
MW37	03/08/95	11.94	0.00	9.24	34	3,200	1,400	3,100	2,400	1,200	6,700
21.01	06/06/95	11.76	0.01	9.43	45	4,600	2,500	3,700	2,400	1,300	7,900
	06/06/95	11.76	0.01	9.43	90	--	--	5,100	6,000	2,400	14,000
	09/07/95	11.17	0.00	9.84	--	--	--	--	--	--	--
	12/08/95	10.22	0.00	10.79	--	--	--	--	--	--	--
	04/01/96	10.79	0.02	10.22	LPH Present						
	06/25/96	10.82	0.20	10.19	LPH Present						
	09/27/96	11.47	0.05	9.75	LPH Present						
	03/28/97 <sup>NP</sup>	11.14	0.25	10.40	60,100	7,570	789	1,530	2,180	1,650	7,440
	03/28/97	11.14	0.25	10.40	297,000	45,100	<8,250	6,570	13,200	4,930	22,900
	06/30/97	10.80	0.02	10.23	LPH Present						
	09/08/97	11.41	0.23	9.77	LPH Present						
	12/19/97	11.28	0.02	9.75	LPH Present						
	03/16/98	11.11	0.01	9.91	LPH Present						
	06/26/98	11.32	0.01	9.70	LPH Present						
	09/23/98	12.01	0.03	9.03	LPH Present						
	12/17/98	11.00	Trace	10.01	LPH Present						
	03/31/99	--	Trace	--	LPH Present						
	06/30/99	DRY	0.30	--	LPH Present						
	12/08/99	11.11	--	9.90	--	--	--	--	--	--	--
	06/20/00	11.50	--	9.51	--	--	--	--	--	--	--
	12/19/00	11.50	0.60	9.94	LPH Present						
	06/15/01 <sup>NP</sup>	11.35	0.03	9.68	LPH Present						
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01 <sup>NP</sup>	11.43	0.00	9.58	159,000	22,100	14,800	3,420	12,800	4,440	27,000
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01 <sup>NP</sup>	11.00	0.20	10.18	LPH Present						
	03/08/02	11.61	0.40	9.74	LPH Present						
	06/24/02	Inaccessible	--	--	--	--	--	--	--	--	--
	09/26/02	12.38	0.00	8.63	--	--	--	--	--	--	--

MTCA Method A Cleanup Levels 1,000<sup>a</sup> 5 40 30 20  
Continued on page 5

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 5 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW38	03/08/95	--	--	--	--	--	--	--	--	--	--
16.52	06/06/95	--	--	--	--	--	--	--	--	--	--
	09/07/95	--	--	--	--	--	--	--	--	--	--
	12/08/95	--	--	--	--	--	--	--	--	--	--
	04/01/96	--	--	--	--	--	--	--	--	--	--
	06/25/96	--	--	--	--	--	--	--	--	--	--
	09/27/96	--	--	--	--	--	--	--	--	--	--
	03/28/97	9.23	0.00	7.60	<50	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98	NM	--	--	--	--	--	--	--	--	--
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
	12/08/99	NM	--	--	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00	NM	--	--	--	--	--	--	--	--	--
	06/15/01	NM	--	--	--	--	--	--	--	--	--
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	NM	--	--	--	--	--	--	--	--	--
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	8.96	0.00	7.56	<50.0	403	<500	0.636	1.33	0.554	2.59
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02 <sup>b</sup>	8.87	0.00	7.65	<100	282	<500	0.743	<2.00	<1.00	<1.50
MW40	03/08/95	10.98	0.00	10.14	980	2,600	2,600	11	<0.5	11	<1.0
20.89	06/06/95	11.18	0.00	9.94	1,500	2,300	1,800	6.8	4.3	4.1	21
	09/07/95	11.08	0.00	9.81	660	13,000	66,000	11	0.91	0.57	<1.0
	12/08/95	10.30	0.00	10.59	500	1,400	4,800	2.7	3	<0.5	<1.0
	04/01/96	10.56	0.00	10.33	520	3,200	13,000	1.2	<0.5	0.55	<1.0
	06/25/96	10.69	0.00	10.20	500	2,700	9,480	<0.500	9.82	<0.500	<1.00
	09/27/96	10.95	0.00	10.17	602	3,650	9,860	0.604	41.1	0.525	<1.0
	03/28/97	10.92	0.00	10.20	--	--	--	--	--	--	--
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97 <sup>HP</sup>	11.11	0.00	9.78	325	3,260	12,600	<0.500	0.504	0.663	2.44
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>HP</sup>	10.86	0.00	10.03	384	2,840	9,620	<0.500	<0.500	<0.500	<1.00
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
	12/08/99	NM	--	--	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/09/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00	NM	--	--	--	--	--	--	--	--	--
	06/15/01	NM	--	--	--	--	--	--	--	--	--
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	NM	--	--	--	--	--	--	--	--	--
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	10.75	0.00	10.14	448	4,000	5,090	2.12	2.19	1.38	3.88
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02	12.69	0.00	8.20	331	2,810	3,470	1.92	<2.00	<1.00	<1.50
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>			5	40	30	20

Continued on page 6

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
500 Westlake Avenue North  
Seattle, Washington  
Page 6 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW41 27.00	03/08/95	14.72	--	12.48	<50	<250	<750	1.6	<0.5	<0.5	<1.0
	06/06/95	15.02	--	12.18	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	09/07/95	15.00	--	12.00	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	16.30	--	10.70	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	04/01/96	15.02	--	11.98	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	15.07	--	11.93	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	15.42	0.00	11.78	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	15.27	0.00	11.93	--	--	--	--	--	--	--
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98	NM	--	--	--	--	--	--	--	--	--
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
	12/08/99	NM	--	--	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00	NM	--	--	--	--	--	--	--	--	--
	06/15/01	NM	--	--	--	--	--	--	--	--	--
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	NM	--	--	--	--	--	--	--	--	--
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	NM	--	--	--	--	--	--	--	--	--	
03/08/02	NM	--	--	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02	NM	--	--	--	--	--	--	--	--	--	
MW42 20.34	03/08/95	9.45	0.00	10.91	130	670	1,200	790	<25	<25	<50
	06/06/95	9.37	0.00	10.89	120	820	1,500	500	<0.56	<0.5	<1.0
	09/07/95	9.50	0.00	10.84	3,000	780	1,200	210	4.1	42	230
	12/08/95	8.95	0.00	11.39	200	1,300	1,900	380	<2.0	<2.0	<4.0
	04/01/96	9.03	0.00	11.31	180	650	<750	280	0.52	<0.5	<1.0
	06/25/96	9.07	0.00	11.27	150	720	<750	160	<0.500	<0.500	<1.00
	09/27/96	9.12	0.00	11.24	<250	534	<750	226	<2.50	<2.50	<5.00
	03/28/97	9.09	0.00	11.27	--	--	--	--	--	--	--
	06/30/97	8.92	0.00	11.44	--	--	--	--	--	--	--
	09/08/97	9.57	0.00	10.79	--	--	--	--	--	--	--
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98	9.53	0.00	10.81	--	--	--	--	--	--	--
	06/26/98	9.51	0.00	10.83	--	--	--	--	--	--	--
	09/23/98	9.96	0.00	10.38	--	--	--	--	--	--	--
	12/17/98	9.10	0.00	11.24	--	--	--	--	--	--	--
	03/31/99	9.00	0.00	11.34	--	--	--	--	--	--	--
	06/30/99	8.60	0.00	11.74	--	--	--	--	--	--	--
	12/09/99	8.00	0.00	12.34	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00	NM	--	--	--	--	--	--	--	--	--
	06/15/01	9.41	0.00	10.93	--	--	--	--	--	--	--
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	9.66	0.00	10.68	--	--	--	--	--	--	--
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	10.28	0.00	10.06	--	--	--	--	--	--	--	
03/08/02	9.75	0.00	10.59	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02	10.81	0.00	9.53	--	--	--	--	--	--	--	
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>	5	40	30	20		

Continued on page 7



TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 7 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW43	03/08/95	11.35	0.00	9.94	<50	650	2,400	25	<0.5	<0.5	<1.0
21.04	06/06/95	11.45	0.00	9.84	<50	690	1,500	8.2	<0.5	<0.5	<1.0
	09/07/95	11.14	0.00	9.90	<50	<250	850	10	<0.5	<0.5	<1.0
	12/08/95	10.85	0.00	10.19	<50	980	3,100	37	<0.5	<0.5	<1.0
	04/01/96	10.98	0.00	10.06	<50	300	<750	4.5	<0.5	<0.5	<1.0
	06/25/96	11.06	0.00	9.98	<50.0	370	<750	2.57	<0.500	<0.500	<1.00
	09/27/96	11.33	0.00	9.96	<50.0	339	<750	4.4	<0.5	<0.500	<1.00
	03/28/97	11.13	0.00	9.98	<50.0	<250	<750	5.89	0.884	<0.500	2.47
	06/30/97 <sup>NP</sup>	7.08	0.00	14.21	<50.0	<250	<750	59.2	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	11.46	0.00	9.83	83	<250	<750	35.5	<0.500	2.10	3.08
	12/19/97	NM	--	--	--	--	--	--	--	--	--
	03/16/98 <sup>NP</sup>	11.09	0.00	9.95	76.3	408	<750	28.5	<0.500	<0.500	<1.00
	06/26/98 <sup>NP</sup>	11.26	0.00	9.78	<50.0	346	<750	69.8	<0.500	<0.500	<1.00
	09/23/98 <sup>NP</sup>	11.75	0.00	9.29	<50.0	267	<750	9.08	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	11.07	0.00	9.97	<50.0	<250	<750	33.0	<0.500	<0.500	<1.00
	03/31/99 <sup>NP</sup>	10.97	0.00	10.07	<50.0	267	<750	9.84	<0.500	0.782	2.47
	06/30/99 <sup>NP</sup>	9.97	0.00	11.07	146	253	<750	28.2	7.47	2.95	17.5
	12/08/99 <sup>NP</sup>	11.05	0.00	9.98	<50.0	<250	<750	20.5	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	11.40	0.00	9.64	<50.0	<250	<750	3.79	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	11.40	0.00	9.64	55.9	253	<749	2.97	0.948	0.730	4.78
	06/15/01 <sup>NP</sup>	11.32	0.00	9.72	<50.0	405	<750	0.670	<0.500	<0.500	1.22
	06/26/01	NM	--	--	--	--	--	--	--	--	--
09/07/01 <sup>NP</sup>	11.46	0.00	9.58	<50.0	<293	<587	<0.500	<0.500	<0.500	<1.00	
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	11.17	0.00	9.87	52.0	487	<500	5.81	1.18	0.558	3.34	
03/08/02	NM	--	--	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02 <sup>b</sup>	12.28	0.00	8.76	<100	303	<500	0.669	<2.00	<1.00	<1.50	
MW44	03/08/95	9.44	0.00	10.46	<50	290	840	<0.5	<0.5	<0.5	<1.0
18.73	06/06/95	8.28	0.00	10.62	<50	<250	820	<0.5	<0.5	<0.5	1.6
	09/07/95	7.94	0.00	10.79	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	12/08/95	8.09	0.00	10.64	<50	620	2,500	<0.5	<0.5	<0.5	<1.0
	04/01/96	7.98	0.00	10.75	<50	<250	<750	<0.5	<0.5	<0.5	<1.0
	06/25/96	7.90	0.00	10.63	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/27/96	8.28	0.00	10.59	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/28/97	8.07	0.00	10.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/97 <sup>NP</sup>	7.84	0.00	11.06	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/08/97 <sup>NP</sup>	8.65	0.00	10.25	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/97 <sup>NP</sup>	8.51	0.00	10.22	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/16/98 <sup>NP</sup>	8.43	0.00	10.30	60.0	310	<750	<0.500	<0.500	<0.500	<1.00
	06/26/98 <sup>NP</sup>	8.37	0.00	10.36	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	09/23/98 <sup>NP</sup>	9.30	0.00	9.43	<50.0	343	<750	<0.500	<0.500	<0.500	<1.00
	12/17/98 <sup>NP</sup>	8.10	0.00	10.63	<50.0	271	<750	<0.500	<0.500	<0.500	<1.00
	03/31/99 <sup>NP</sup>	8.18	0.00	10.55	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	06/30/99 <sup>NP</sup>	8.03	0.00	10.70	<50.0	393	<750	<0.500	0.619	<0.500	1.21
	12/08/99 <sup>NP</sup>	8.52	0.00	10.21	<50.0	281	<750	<0.500	<0.500	<0.500	<1.00
	06/20/00 <sup>NP</sup>	9.53	0.00	9.20	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	9.20	0.00	9.53	301	330	<750	<0.500	1.64	2.76	22.1
	06/15/01 <sup>NP</sup>	8.44	0.00	10.29	<50.0	468	<841	<0.500	<0.500	<0.500	<1.00
	06/26/01	NM	--	--	--	--	--	--	--	--	--
09/07/01 <sup>NP</sup>	9.48	0.00	9.25	10,300	4,250	849	1,080	6.97	9.45	81.0	
10/10/01	NM	--	--	--	--	--	--	--	--	--	
12/28/01	9.31	0.00	9.42	90.6	823	<500	10.9	1.40	0.644	4.04	
03/08/02	NM	--	--	--	--	--	--	--	--	--	
06/24/02	NM	--	--	--	--	--	--	--	--	--	
09/26/02 <sup>b</sup>	10.79	0.00	7.94	<100	1,500	869	14.2	<2.00	<1.00	<1.50	
MTCA Method A Cleanup Levels						1,000 <sup>a</sup>	5	40	30	20	

Continued on page 8

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
600 Westlake Avenue North  
Seattle, Washington  
Page 8 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW45	09/07/01 <sup>NP</sup>	9.80	0.00	--	<50.0	375	<606	<0.500	<0.500	<0.500	<1.00
NE	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	9.03	0.00	--	17,300	2,210	697	2,130	73.4	1,330	2,970
	03/08/02	9.12	0.00	--	15,600	2,380	688	2,090	38.2	1,190	1,650
	06/24/02	9.00	0.00	--	5,100	1,920	761	1,330	6.39	461	235
	09/26/02 <sup>b</sup>	10.20	0.00	--	2,420	1,190	547	394	3.41	204	106
MW46	03/08/95	8.00	0.00	8.91	<50	1,720	3,600	<0.5	<0.5	<0.5	<1.0
16.91	06/06/95	7.30	0.00	10.01	<50	<250	1,400	<0.5	<0.5	<0.5	<1.0
	09/07/95	7.80	0.00	8.93	<50	710	6,600	<0.5	<0.5	<0.5	<1.0
	12/08/95	8.32	0.00	8.59	<50	1,400	14,000	<0.5	<0.5	<0.5	<1.0
	04/01/96	7.04	0.00	9.87	<50	<400	2,800	<0.5	<0.5	<0.5	<1.0
	06/25/96	7.85	0.00	9.06	<50.0	440	2,090	<0.500	<0.500	<0.500	<1.00
	09/27/96	7.57	0.00	9.74	<50.0	287	<750	0.518	<0.500	<0.500	<1.00
	03/28/97	7.25	0.00	10.06	<50.0	<250	<750	<0.500	1.25	<0.500	2.06
	06/30/97	7.12	0.00	10.19	--	--	--	--	--	--	--
	09/08/97	8.82	0.00	8.49	--	--	--	--	--	--	--
	12/19/97 <sup>NP</sup>	9.40	0.00	7.51	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00
	03/16/98	NM	--	--	--	--	--	--	--	--	--
	06/26/98	NM	--	--	--	--	--	--	--	--	--
	09/23/98	NM	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>NP</sup>	9.20	0.00	7.71	<50.0	354	<750	<0.500	<0.500	<0.500	<1.00
	03/31/99	NM	--	--	--	--	--	--	--	--	--
	06/30/99	NM	--	--	--	--	--	--	--	--	--
	12/08/99	NM	--	--	--	--	--	--	--	--	--
	06/20/00	NM	--	--	--	--	--	--	--	--	--
	12/19/00*	12.70	0.00	4.21	226	277	<750	<0.500	2.18	2.53	18.0
	06/15/01 <sup>NP</sup>	7.19	0.00	9.72	<50.0	295	<750	<0.500	<0.500	<0.500	1.39
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01	NM	--	--	--	--	--	--	--	--	--
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	Covered by asphalt	--	--	--	--	--	--	--	--	--
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02	Unable to locate	--	--	--	--	--	--	--	--	--
MW47	03/08/95	10.88	0.00	9.16	<50	330	1,600	5.3	<0.5	<0.5	<1.0
19.83	06/06/95	10.91	0.00	9.13	70	380	780	15	0.59	<0.5	2.3
	09/07/95	10.76	0.00	9.07	<50	260	<750	1.7	<0.5	<0.5	<1.0
	12/08/95	10.40	0.00	9.43	740	580	2,000	<0.5	<0.5	<0.5	<1.0
	04/01/96	10.67	0.00	9.16	<50	<250	<750	4.4	<0.5	<0.5	<1.0
	06/25/96	10.71	0.00	9.12	110	400	<750	14.4	<0.500	<0.500	<1.00
	09/27/96	10.85	0.00	9.19	<50.0	<250	<750	4.34	<0.500	<0.500	<1.00
	03/28/97 <sup>NP</sup>	10.92	0.00	9.12	64.5	<250	<750	7.61	<0.500	<0.500	1.57
	03/28/97	10.92	0.00	9.12	177	<250	<750	52.6	<0.500	<0.500	<1.00
	06/30/97	--	--	--	--	--	--	--	--	--	--
	09/08/97	--	--	--	--	--	--	--	--	--	--
	12/19/97	--	--	--	--	--	--	--	--	--	--
	03/16/98	--	--	--	--	--	--	--	--	--	--
	06/26/98 <sup>NP</sup>	10.78	0.00	9.05	<50.0	356	<750	27.3	<0.500	<0.500	<1.00
	09/23/98	--	--	--	--	--	--	--	--	--	--
	12/17/98 <sup>NP</sup>	10.61	0.00	9.22	<50.0	<250	<750	3.34	<0.500	<0.500	1.12
	03/31/99	9.65	0.00	10.18	--	--	--	--	--	--	--
	06/30/99	--	0.00	--	--	--	--	--	--	--	--
	12/08/99	--	--	--	--	--	--	--	--	--	--
	06/20/00 <sup>NP</sup>	10.94	0.00	8.89	<50.0	<250	<750	<1.30	<0.500	<0.500	<1.00
	12/19/00 <sup>NP</sup>	11.20	0.00	8.63	1,310	367	<750	<0.500	6.10	10.6	77.3
	06/15/01	10.98	0.00	8.85	<50.0	591	<952	0.709	0.504	<0.500	1.18
	06/26/01	NM	--	--	--	--	--	--	--	--	--
	09/07/01 <sup>NP</sup>	11.14	0.00	8.69	<50.0	356	<500	<0.500	<0.500	<0.500	<1.00
	10/10/01	NM	--	--	--	--	--	--	--	--	--
	12/28/01	10.90	0.00	8.93	181	542	<500	7.64	1.49	4.79	37.8
	03/08/02	NM	--	--	--	--	--	--	--	--	--
	06/24/02	NM	--	--	--	--	--	--	--	--	--
	09/26/02 <sup>b</sup>	11.85	0.00	7.98	106	747	<500	2.36	<2.00	<1.00	<1.50
MTCA Method A Cleanup Levels						1,000*	5	40	30	20	

Continued on page 9

TABLE 1  
GROUNDWATER ANALYTICAL RESULTS  
Tosco Site No. 5353  
500 Westlake Avenue North  
Seattle, Washington  
Page 9 of 9

Well Name	Sample Date	DTW	LPH	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X
MW50	10/10/01	11.11	0.00	--	8,970	2,200	<606	674	221	362	779
NE	12/28/01	10.45	0.00	--	23,200	3,460	<500	1,630	3,690	991	4,480
	03/08/02	Obstructed by vehicle		--	--	--	--	--	--	--	--
	06/24/02	10.84	0.00	--	8,280	1,970	666	414	22.9	314	2,010
	09/26/02	Obstructed by vehicle		--	--	--	--	--	--	--	--
MW51	10/10/01	11.68	0.00	--	671	11,700	2,160	16.1	10.4	7.75	16.6
NE	12/28/01	11.20	0.00	--	631	2,170	3,100	37.0	75.6	30.3	61.2
	03/08/02	11.38	0.00	--	102	2,360	1,610	6.22	5.89	3.84	10.4
	06/24/02	11.60	0.00	--	57.7	2,680	1,730	1.28	1.42	0.699	2.51
	09/26/02 <sup>b</sup>	12.18	0.00	--	<100	1,860	875	0.848	<2.00	<1.00	<1.50
MW52	10/10/01	10.79	0.00	--	13,400	1,480	<582	1,150	<10.0	827	793
NE	12/28/01	10.22	0.00	--	7,900	1,690	595	633	5.87	609	479
	03/08/02	10.42	0.00	--	10,100	2,790	<602	814	6.30	602	387
	06/24/02	10.58	0.00	--	9,820	2,810	640	1,250	<25.0	757	448
	09/26/02 <sup>b</sup>	11.51	0.00	--	6,600	3,530	<500	843	21.7	600	264
MTCA Method A Cleanup Levels					1,000 <sup>a</sup>			5	40	30	20

EXPLANATION:

All concentrations are in ug/L (ppb).

Wellhead elevations were taken from prior consultant's reports.

DTW = Depth to water in feet below top of casing except where noted in prior reports

LPH = Liquid-phase petroleum hydrocarbon thickness in feet

GW Elev. = Groundwater elevation relative to DTW data; corrected for LPH where applicable using a specific gravity of 0.85

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

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

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

BTEX = Aromatic compounds by EPA Method 8021B

< = Less than the stated laboratory reporting limit

NE = Not Established; NM = Not Measured; -- = Not Analyzed or Sampled

<sup>NP</sup> Not purged

<sup>a</sup> Total Petroleum Hydrocarbons

<sup>b</sup> TPH-D & TPH-O did not resemble chromatogram used for quantitation.

Shaded values equal or exceed MTCA Method A Cleanup Levels.

Data collected before 12/19/97 are taken from prior consultants.

\*MW46 identified as MW9 on chain of custody and official laboratory report

\*\*SMW3 identified as SMW2 on chain of custody and official laboratory report



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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW 3	B2I0598-01	Water	09/26/02 12:00	09/26/02 16:25
MW 32A	B2I0598-02	Water	09/26/02 12:00	09/26/02 16:25
MW 34	B2I0598-03	Water	09/26/02 12:00	09/26/02 16:25
MW 35	B2I0598-04	Water	09/26/02 12:00	09/26/02 16:25
MW 36	B2I0598-05	Water	09/26/02 12:00	09/26/02 16:25
MW 38	B2I0598-06	Water	09/26/02 12:00	09/26/02 16:25
MW 40	B2I0598-07	Water	09/26/02 12:00	09/26/02 16:25
MW 43	B2I0598-08	Water	09/26/02 12:00	09/26/02 16:25
MW 44	B2I0598-09	Water	09/26/02 12:00	09/26/02 16:25
MW 45	B2I0598-10	Water	09/26/02 12:00	09/26/02 16:25
MW 47	B2I0598-11	Water	09/26/02 12:00	09/26/02 16:25
MW 51	B2I0598-12	Water	09/26/02 12:00	09/26/02 16:25
MW 52	B2I0598-13	Water	09/26/02 12:00	09/26/02 16:25
SMW 3	B2I0598-14	Water	09/26/02 12:00	09/26/02 16:25

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.*

Amar Gill, Project Manager

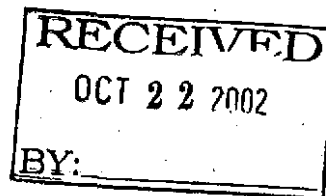
North Creek Analytical, Inc.  
Environmental Laboratory Network



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14 October 2002

John Meyer  
ERI  
815 Industry Dr  
Tukwila, WA/USA 98188  
RE: TOSCO #5353



Enclosed are the results of analyses for samples received by the laboratory on 09/26/02 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Amar Gill  
Project Manager



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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 3 (B2I0598-01) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	1.82	0.250	mg/l	1	2J01007	10/01/02	10/02/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	87.3 %	52-126			"	"	"	"	
Surrogate: Octacosane	92.1 %	53-122			"	"	"	"	
<b>MW 32A (B2I0598-02) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	3.74	0.250	mg/l	1	2J01007	10/01/02	10/02/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	0.670	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	92.2 %	52-126			"	"	"	"	
Surrogate: Octacosane	92.2 %	53-122			"	"	"	"	
<b>MW 34 (B2I0598-03) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	6.27	0.581	mg/l	2	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	1.16	"	"	"	"	"	"	
Surrogate: 2-FBP	117 %	52-126			"	"	"	"	
Surrogate: Octacosane	95.7 %	53-122			"	"	"	"	
<b>MW 35 (B2I0598-04) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	1.42	0.250	mg/l	1	2J01007	10/01/02	10/02/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	85.9 %	52-126			"	"	"	"	
Surrogate: Octacosane	95.9 %	53-122			"	"	"	"	
<b>MW 36 (B2I0598-05) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	2J01007	10/01/02	10/02/02	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	72.4 %	52-126			"	"	"	"	
Surrogate: Octacosane	91.1 %	53-122			"	"	"	"	

North Creek Analytical - Bothell

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 Amar Gill, Project Manager



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ERI Project: TOSCO #5353  
 815 Industry Dr Project Number: 1020  
 Tukwila WA/USA, 98188 Project Manager: John Meyer  
 Reported: 10/14/02 09:09

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 38 (B2I0598-06) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Diesel Range Hydrocarbons	0.282	0.250	mg/l	1	2J01007	10/01/02	10/02/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	78.1 %	52-126			"	"	"	"	
Surrogate: Octacosane	96.8 %	53-122			"	"	"	"	
<b>MW 40 (B2I0598-07) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Diesel Range Hydrocarbons	2.81	1.25	mg/l	5	2J01007	10/01/02	10/02/02	NWTPH-Dx	
Lube Oil Range Hydrocarbons	3.47	2.50	"	"	"	"	"	"	
Surrogate: 2-FBP	52.0 %	52-126			"	"	"	"	
Surrogate: Octacosane	68.5 %	53-122			"	"	"	"	
<b>MW 43 (B2I0598-08) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Diesel Range Hydrocarbons	0.303	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	78.9 %	52-126			"	"	"	"	
Surrogate: Octacosane	92.4 %	53-122			"	"	"	"	
<b>MW 44 (B2I0598-09) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Diesel Range Hydrocarbons	1.60	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	0.569	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	80.1 %	52-126			"	"	"	"	
Surrogate: Octacosane	92.1 %	53-122			"	"	"	"	
<b>MW 45 (B2I0598-10) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Diesel Range Hydrocarbons	1.19	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	0.547	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	80.4 %	52-126			"	"	"	"	
Surrogate: Octacosane	92.3 %	53-122			"	"	"	"	

North Creek Analytical - Bothell

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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up)**  
**North Creek Analytical - Bothell**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 47 (B2I0598-11) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	0.747	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	"
Surrogate: 2-FBP	83.4 %	52-126			"	"	"	"	
Surrogate: Octacosane	94.7 %	53-122			"	"	"	"	
<b>MW 51 (B2I0598-12) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	1.66	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	0.875	0.500	"	"	"	"	"	"	D-06
Surrogate: 2-FBP	70.3 %	52-126			"	"	"	"	
Surrogate: Octacosane	85.5 %	53-122			"	"	"	"	
<b>MW 52 (B2I0598-13) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	3.53	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	D-06
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	"
Surrogate: 2-FBP	98.7 %	52-126			"	"	"	"	
Surrogate: Octacosane	90.3 %	53-122			"	"	"	"	
<b>SMW 3 (B2I0598-14) Water</b> <b>Sampled: 09/26/02 12:00</b> <b>Received: 09/26/02 16:25</b>									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	2J01007	10/01/02	10/03/02	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	59.3 %	52-126			"	"	"	"	
Surrogate: Octacosane	73.0 %	53-122			"	"	"	"	

North Creek Analytical - Bothell

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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW 3 (B2I0598-01) Water Sampled: 09/26/02 12:00 Received: 09/26/02 16:25

Gasoline Range Hydrocarbons	10500	500	ug/l	5	2100022	10/09/02	10/10/02	NWTPH-G/8021B	
Benzene	326	2.50	"	"	"	"	"	"	
Toluene	14.0	10.0	"	"	"	"	"	"	
Ethylbenzene	685	5.00	"	"	"	"	"	"	
Xylenes (total)	447	7.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	280 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	189 %	53-142			"	"	"	"	S-02

MW 32A (B2I0598-02) Water Sampled: 09/26/02 12:00 Received: 09/26/02 16:25

Gasoline Range Hydrocarbons	6580	1000	ug/l	10	2100022	10/09/02	10/10/02	NWTPH-G/8021B	
Benzene	1930	5.00	"	"	"	"	"	"	
Toluene	31.4	20.0	"	"	"	"	"	"	
Ethylbenzene	204	10.0	"	"	"	"	"	"	
Xylenes (total)	89.7	15.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	152 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	145 %	53-142			"	"	"	"	S-02

MW 34 (B2I0598-03) Water Sampled: 09/26/02 12:00 Received: 09/26/02 16:25

Gasoline Range Hydrocarbons	13800	5000	ug/l	50	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	5840	25.0	"	"	"	"	"	"	
Toluene	21.8	2.00	"	1	"	"	"	"	
Ethylbenzene	280	50.0	"	50	"	"	"	"	
Xylenes (total)	87.0	1.50	"	1	"	"	"	"	
Surrogate: 4-BFB (FID)	96.4 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	115 %	53-142			"	"	"	"	

North Creek Analytical - Bothell

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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 35 (B2I0598-04) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	555	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	9.49	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	1.78	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	187 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	156 %	53-142			"	"	"	"	S-02
<b>MW 36 (B2I0598-05) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	0.735	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	91.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	106 %	53-142			"	"	"	"	
<b>MW 38 (B2I0598-06) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	0.743	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	78.4 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	89.2 %	53-142			"	"	"	"	

North Creek Analytical - Bothell

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ERI  
 815 Industry Dr  
 Tukwila WA/USA, 98188

Project: TOSCO #5353  
 Project Number: 1020  
 Project Manager: John Meyer

Reported:  
 10/14/02 09:09

**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 40 (B2I0598-07) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	331	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	1.92	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	210 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	180 %	53-142			"	"	"	"	S-02
<b>MW 43 (B2I0598-08) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	0.669	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	82.4 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	117 %	53-142			"	"	"	"	
<b>MW 44 (B2I0598-09) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	14.2	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	85.6 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	111 %	53-142			"	"	"	"	

North Creek Analytical - Bothell

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ERI Project: TOSCO #5353  
 815 Industry Dr Project Number: 1020  
 Tukwila WA/USA, 98188 Project Manager: John Meyer  
 Reported: 10/14/02 09:09

**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 45 (B2I0598-10) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	2420	500	ug/l	5	2100022	10/09/02	10/10/02	NWTPH-G/8021B	
Benzene	394	2.50	"	"	"	"	"	"	
Toluene	3.41	2.00	"	1	"	"	"	"	
Ethylbenzene	204	5.00	"	5	"	"	"	"	
Xylenes (total)	106	7.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	129 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	120 %	53-142			"	"	"	"	
<b>MW 47 (B2I0598-11) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	106	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	2.36	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	80.0 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	110 %	53-142			"	"	"	"	
<b>MW 51 (B2I0598-12) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/09/02	NWTPH-G/8021B	
Benzene	0.848	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	84.4 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	112 %	53-142			"	"	"	"	

North Creek Analytical - Bothell

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ERI Project: TOSCO #5353  
 815 Industry Dr Project Number: 1020  
 Tukwila WA/USA, 98188 Project Manager: John Meyer  
 Reported: 10/14/02 09:09

**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B**  
**North Creek Analytical - Spokane**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW 52 (B2I0598-13) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	6600	1000	ug/l	10	2100022	10/09/02	10/10/02	NWTPH-G/8021B	
Benzene	943	5.00	"	"	"	"	"	"	
Toluene	21.7	20.0	"	"	"	"	"	"	
Ethylbenzene	600	10.0	"	"	"	"	"	"	
Xylenes (total)	284	15.0	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	163 %	50-150			"	"	"	"	S-02
Surrogate: 4-BFB (PID)	135 %	53-142			"	"	"	"	
<b>SMW 3 (B2I0598-14) Water</b> Sampled: 09/26/02 12:00 Received: 09/26/02 16:25									
Gasoline Range Hydrocarbons	ND	100	ug/l	1	2100022	10/09/02	10/10/02	NWTPH-G/8021B	
Benzene	1.83	0.500	"	"	"	"	"	"	
Toluene	ND	2.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Xylenes (total)	ND	1.50	"	"	"	"	"	"	
Surrogate: 4-BFB (FID)	74.0 %	50-150			"	"	"	"	
Surrogate: 4-BFB (PID)	114 %	53-142			"	"	"	"	

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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Semivolatile Petroleum Products by NWTPH-Dx (w/o Acid/Silica Gel Clean-up) - Quality Control**  
**North Creek Analytical - Bothell**

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

**Batch 2J01007: Prepared 10/01/02 Using EPA 3520C**

**Blank (2J01007-BLK1)**

Diesel Range Hydrocarbons	ND	0.250	mg/l							
Lube Oil Range Hydrocarbons	ND	0.500	"							
Surrogate: 2-FBP	0.253		"	0.320		79.1	52-126			
Surrogate: Octacosane	0.289		"	0.320		90.3	53-122			

**LCS (2J01007-BS1)**

Diesel Range Hydrocarbons	1.65	0.250	mg/l	2.00		82.5	60-122			
Surrogate: 2-FBP	0.256		"	0.320		80.0	52-126			

**LCS Dup (2J01007-BSD1)**

Diesel Range Hydrocarbons	1.71	0.250	mg/l	2.00		85.5	60-122	3.57	40	
Surrogate: 2-FBP	0.268		"	0.320		83.8	52-126			

North Creek Analytical - Bothell

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Amar Gill, Project Manager

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



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 541.383.9310 fax 541.382.7588

ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B - Quality Control  
 North Creek Analytical - Spokane**

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

**Batch 2100022: Prepared 10/09/02 Using GC Volatiles**

**Blank (2100022-BLK1)**

Gasoline Range Hydrocarbons	ND	100	ug/l							
Benzene	ND	0.500	"							
Toluene	ND	2.00	"							
Ethylbenzene	ND	1.00	"							
Xylenes (total)	ND	1.50	"							
Surrogate: 4-BFB (FID)	23.9		"	25.0		95.6	50-150			
Surrogate: 4-BFB (PID)	26.5		"	25.0		106	53-142			

**LCS (2100022-BS1)**

Gasoline Range Hydrocarbons	1020	100	ug/l	1000		102	85-115			
Surrogate: 4-BFB (FID)	30.8		"	25.0		123	50-150			

**LCS (2100022-BS2)**

Benzene	22.1	0.500	ug/l	20.0		110	85-115			
Toluene	20.8	2.00	"	20.0		104	85-115			
Ethylbenzene	20.2	1.00	"	20.0		101	85-115			
Xylenes (total)	61.0	1.50	"	60.0		102	85-115			
Surrogate: 4-BFB (PID)	29.0		"	25.0		116	53-142			

**Duplicate (2100022-DUP1)**

Source: B2I0598-05

Gasoline Range Hydrocarbons	ND	100	ug/l		ND			NA	50	
Benzene	ND	0.500	"		0.735				50	
Toluene	ND	2.00	"		ND			NA	50	
Ethylbenzene	ND	1.00	"		ND			NA	50	
Xylenes (total)	ND	1.50	"		ND			NA	50	
Surrogate: 4-BFB (FID)	22.3		"	25.0		89.2	50-150			
Surrogate: 4-BFB (PID)	26.6		"	25.0		106	53-142			

North Creek Analytical - Bothell

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Amar Gill, Project Manager

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Page 11 of 13



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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Gasoline Hydrocarbons by NWTPH-Gx and BTEX by EPA Method 8021B - Quality Control  
 North Creek Analytical - Spokane**

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

**Batch 2100022: Prepared 10/09/02 Using GC Volatiles**

Duplicate (2100022-DUP2)				Source: S210023-02						
Gasoline Range Hydrocarbons	ND	100	ug/l		ND			NA	50	
Benzene	0.664	0.500	"		0.507			26.8	50	
Toluene	ND	2.00	"		ND			NA	50	
Ethylbenzene	ND	1.00	"		ND			NA	50	
Xylenes (total)	ND	1.50	"		ND			NA	50	
Surrogate: 4-BFB (FID)	20.6		"	25.0		82.4	50-150			
Surrogate: 4-BFB (PID)	27.5		"	25.0		110	53-142			

Matrix Spike (2100022-MS1)				Source: B210598-05						
Gasoline Range Hydrocarbons	1020	100	ug/l	1000	ND	96.8	70-130			
Surrogate: 4-BFB (FID)	30.0		"	25.0		120	50-150			

Matrix Spike (2100022-MS2)				Source: B210598-05						
Benzene	23.3	0.500	ug/l	20.0	0.735	113	54-143			
Toluene	21.6	2.00	"	20.0	ND	108	48-145			
Ethylbenzene	20.9	1.00	"	20.0	ND	104	49-142			
Xylenes (total)	61.5	1.50	"	60.0	ND	102	55-140			
Surrogate: 4-BFB (PID)	27.0		"	25.0		108	53-142			

North Creek Analytical - Bothell

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ERI 815 Industry Dr Tukwila WA/USA, 98188	Project: TOSCO #5353 Project Number: 1020 Project Manager: John Meyer	Reported: 10/14/02 09:09
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**Notes and Definitions**

- D-06 The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds 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
- RPD Relative Percent Difference

North Creek Analytical - Bothell

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Amar Gill, Project Manager

Quantitation Report

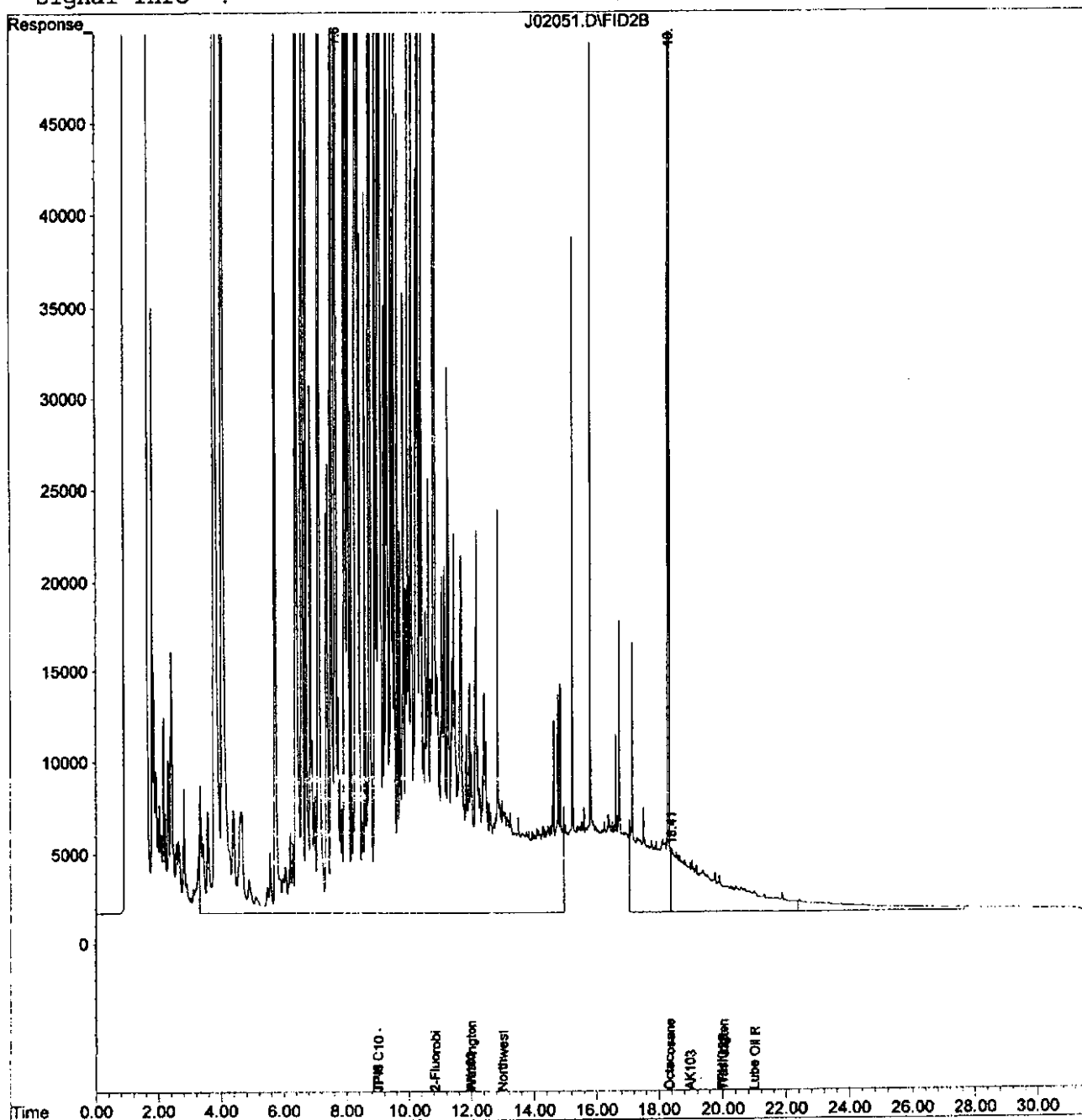
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Acq On : 2 Oct 2002 9:57 pm  
Sample : B2I0598-01  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 2 22:30 2002

Vial: 36  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2202T5R.RES

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
Last Update : Wed Sep 25 15:50:19 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

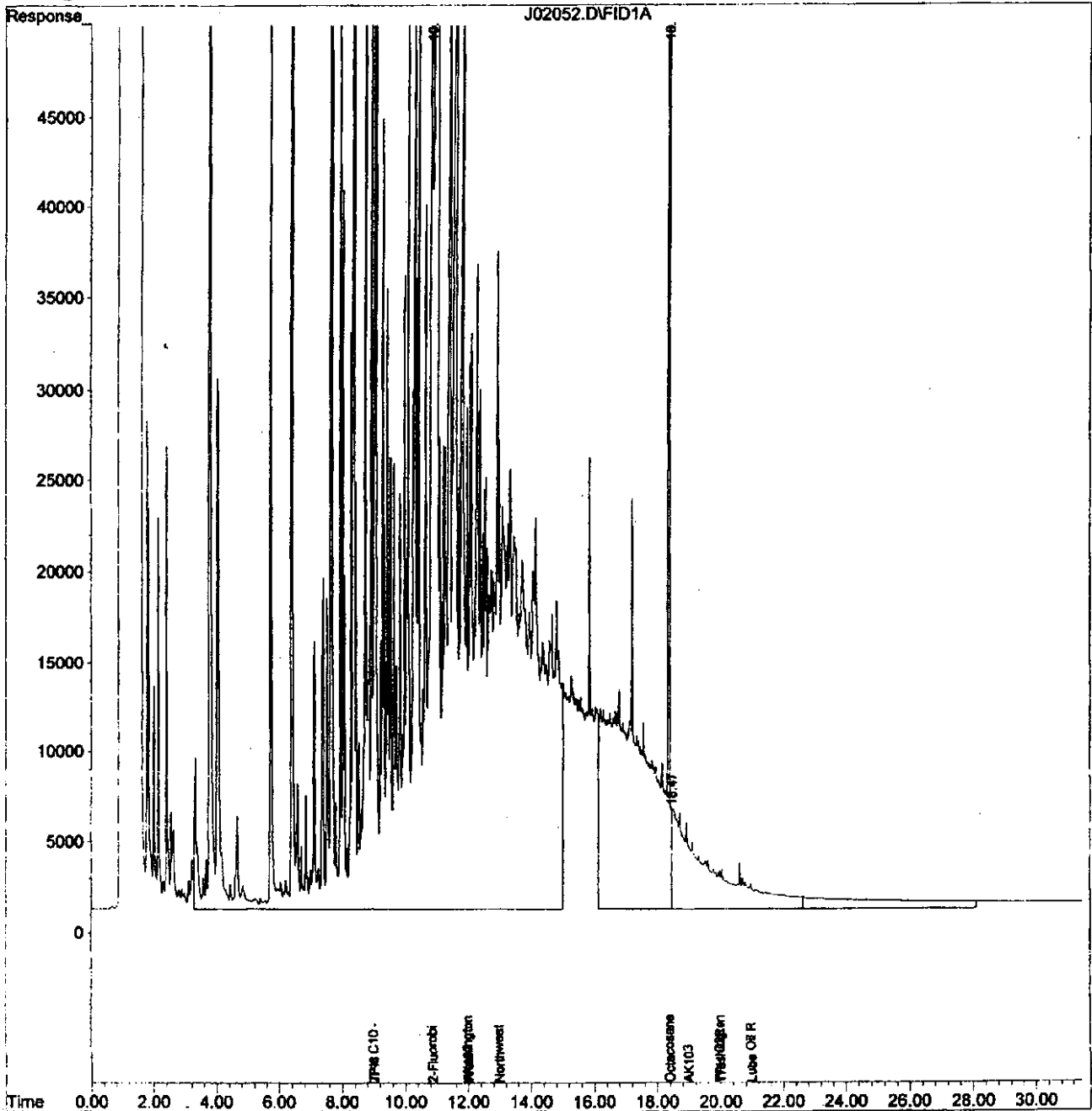
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Acq On : 2 Oct 2002 9:57 pm  
Sample : B2I0598-02  
Misc : lx w nw  
IntFile : SURR.E  
Quant Time: Oct 2 22:29 2002

Vial: 37  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

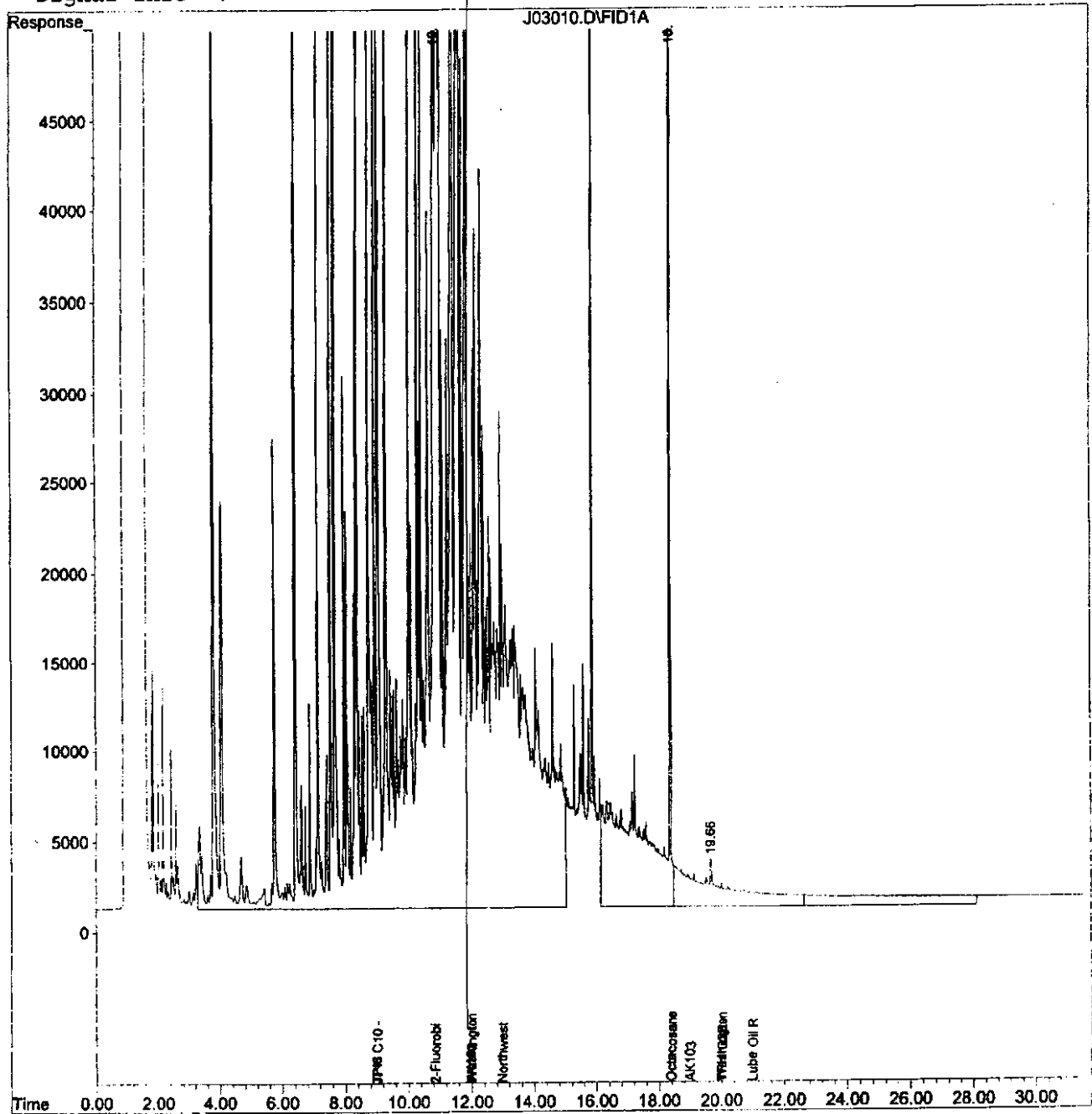
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Sample : B2I0598-03  
Misc : 2x w nw rl  
IntFile : SURR.E

Vial: 4  
Operator: GAP  
Inst : GC #5  
Multiplr: 1.00

Quant Time: Oct 3 11:24 2002 Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

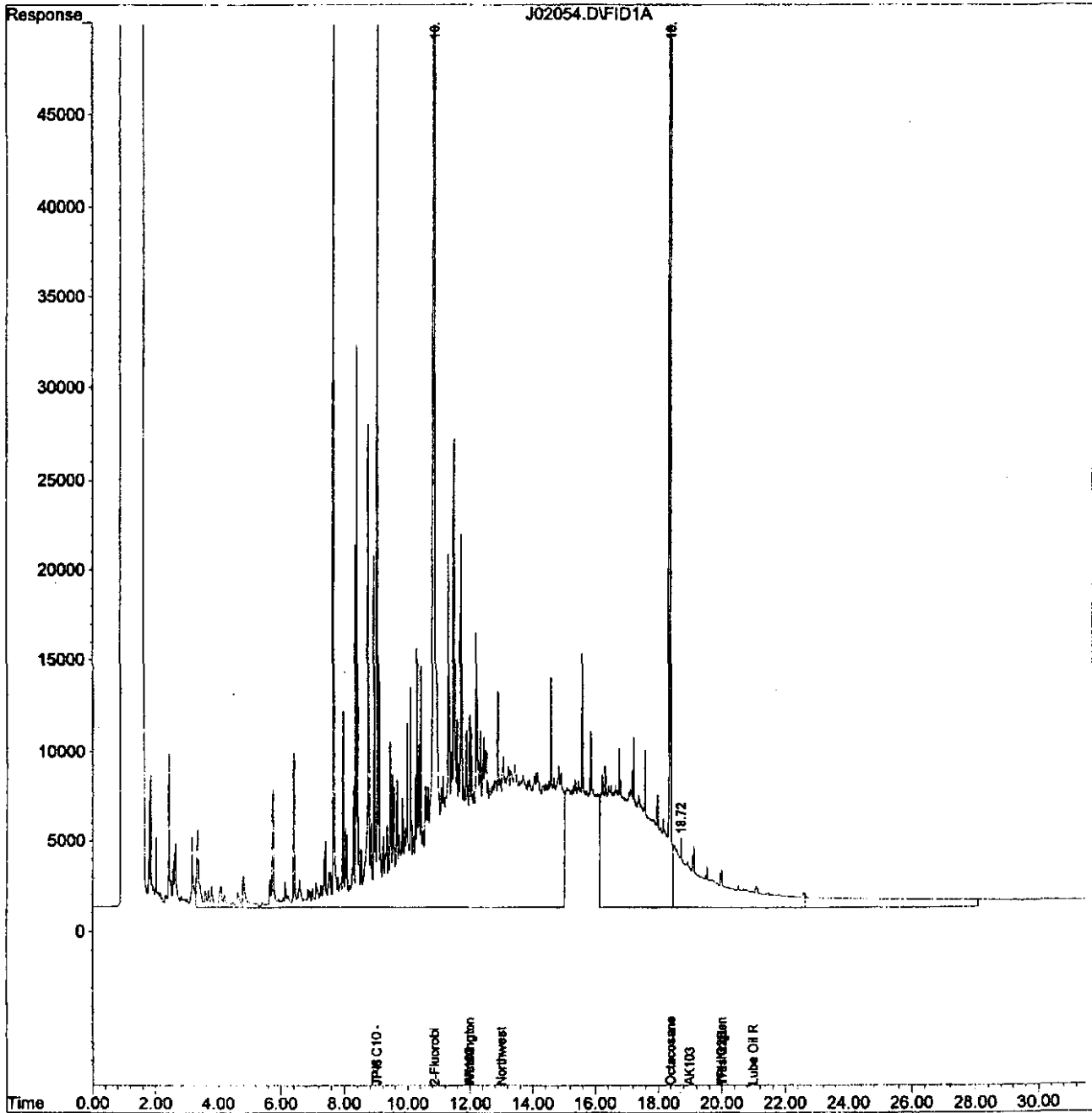
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Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 2 23:10 2002

Vial: 39  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

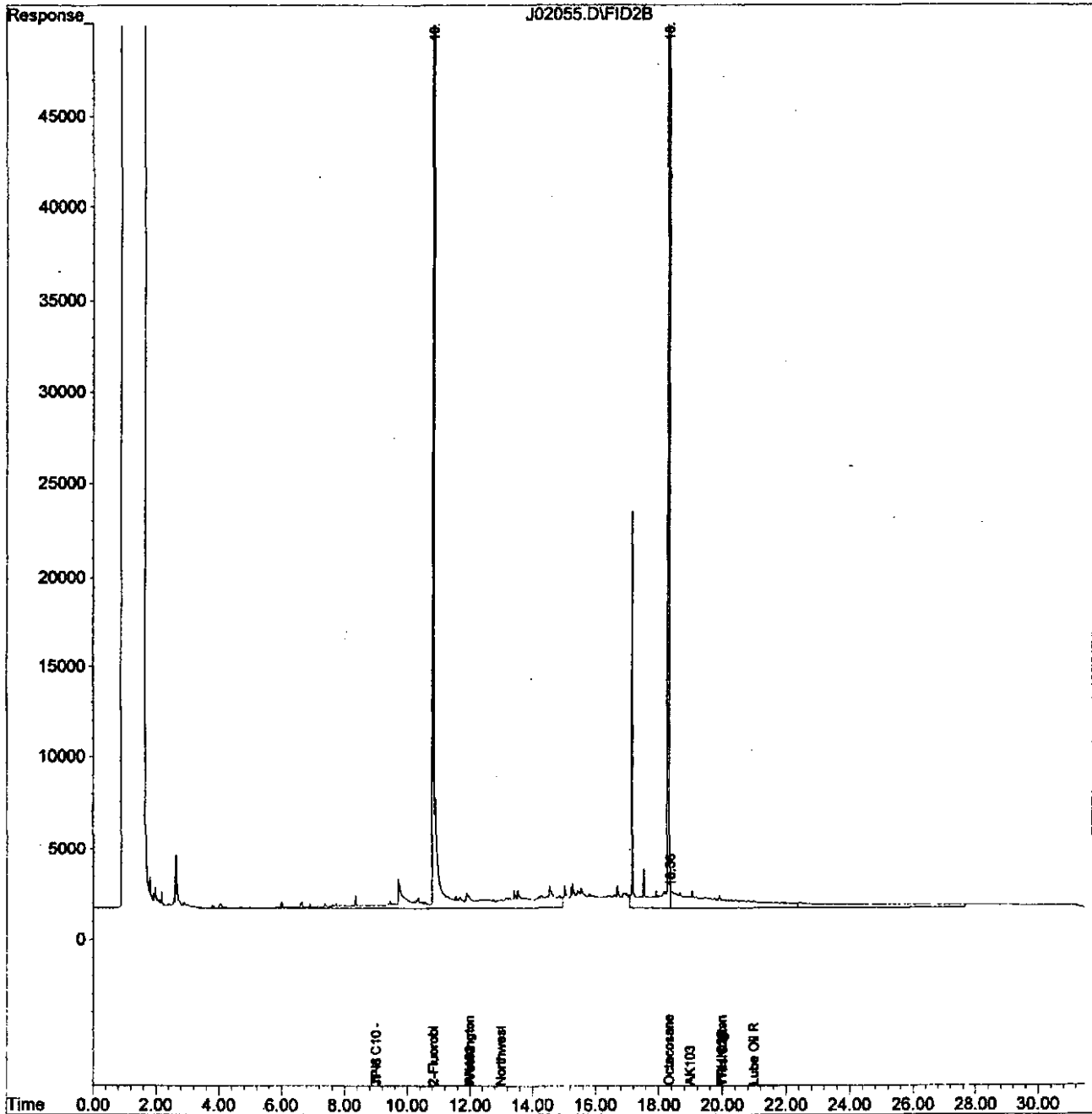
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Sample : B2I0598-05  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 2 23:51 2002

Vial: 40  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2202T5R.RES

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
Last Update : Wed Sep 25 15:50:19 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

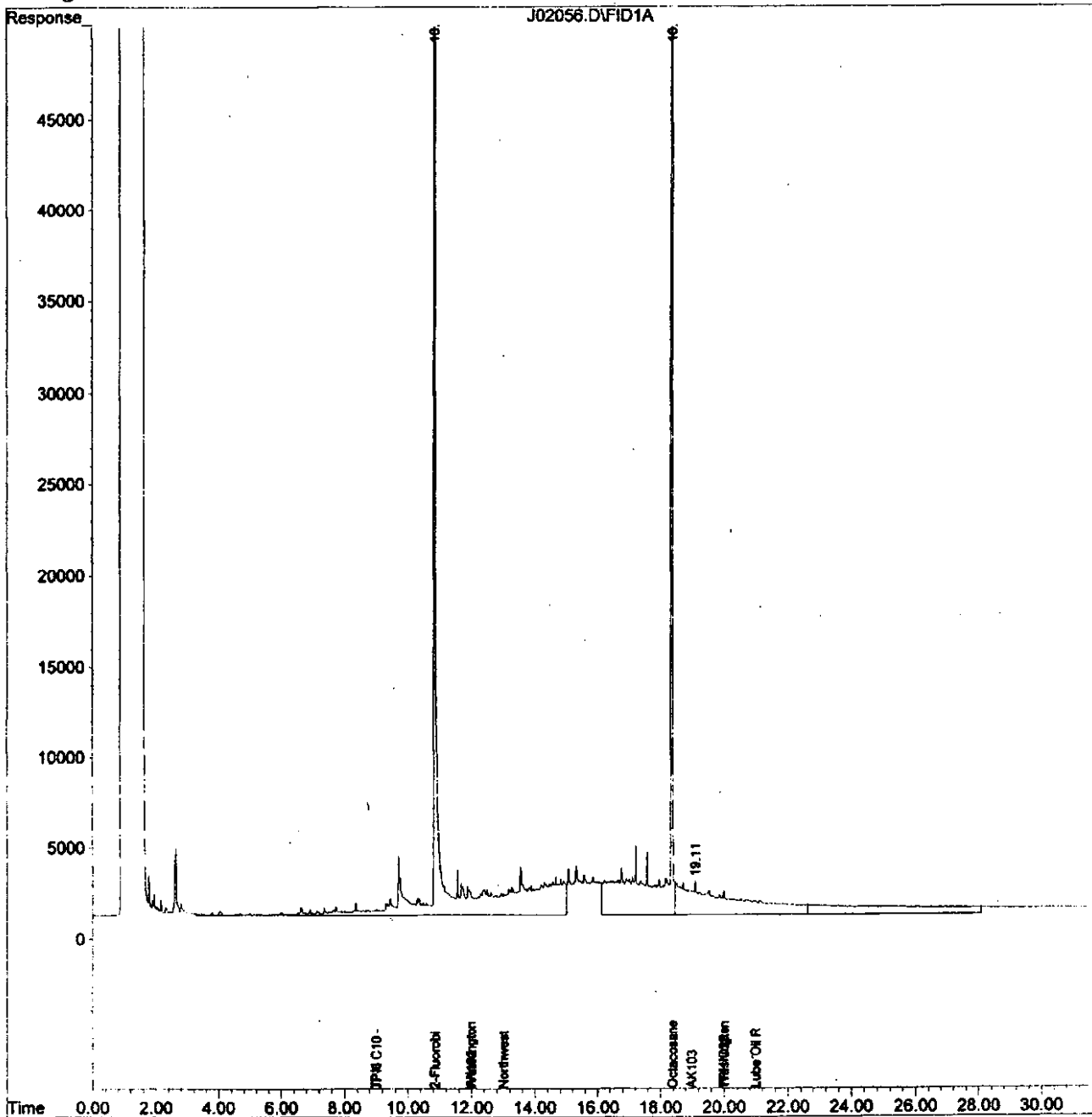
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Sample : B2I0598-06  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 2 23:50 2002

Vial: 41  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



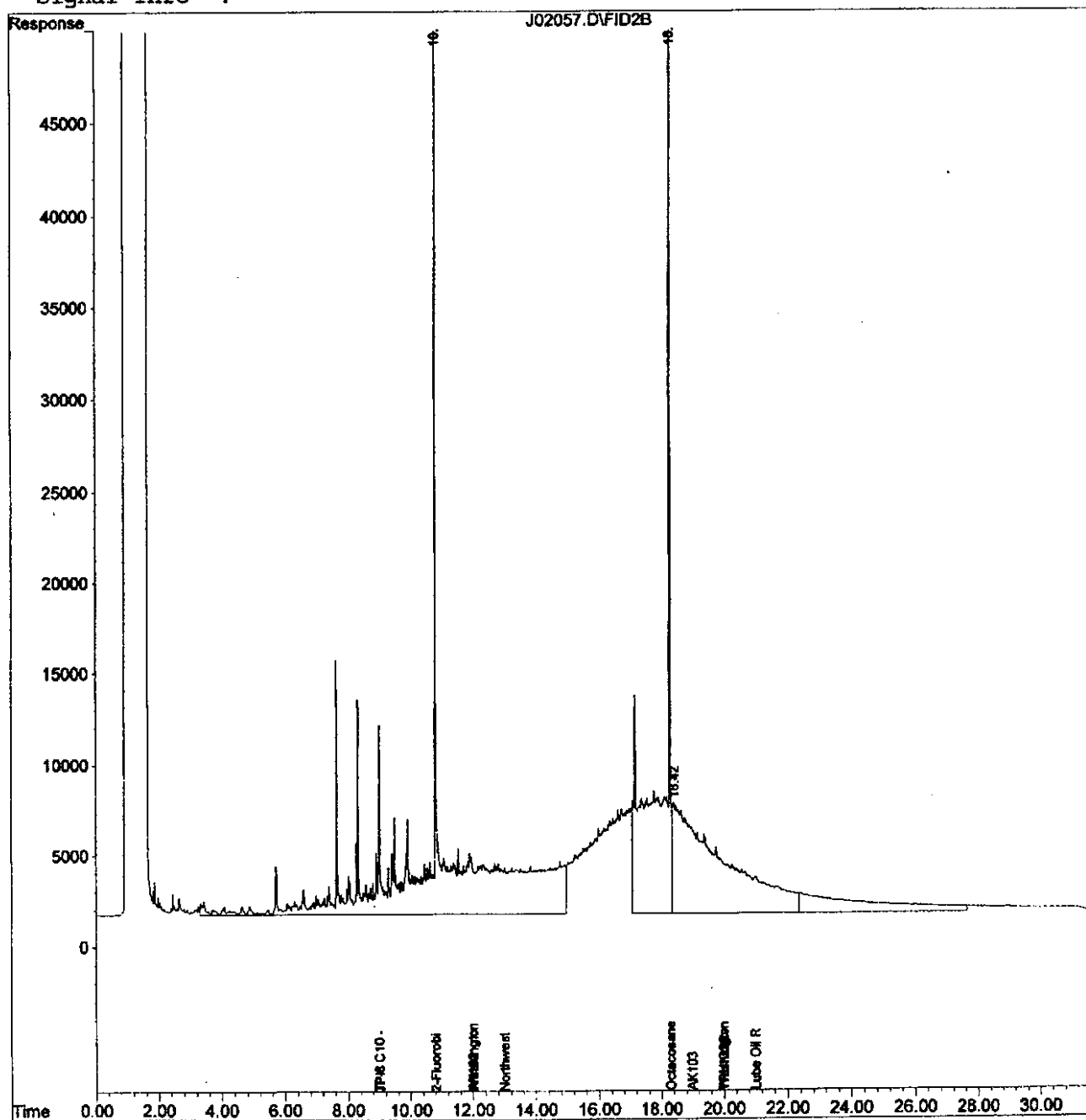
Quantitation Report

Data File : C:\HPCHEM\3\DATA.SEC\J02057.D  
Acq On : 2 Oct 2002 11:59 pm  
Sample : B2I0598-07  
Misc : 5x w nw  
IntFile : SURR.E  
Quant Time: Oct 3 9:25 2002

Vial: 42  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
Last Update : Wed Sep 25 15:50:19 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :





Quantitation Report

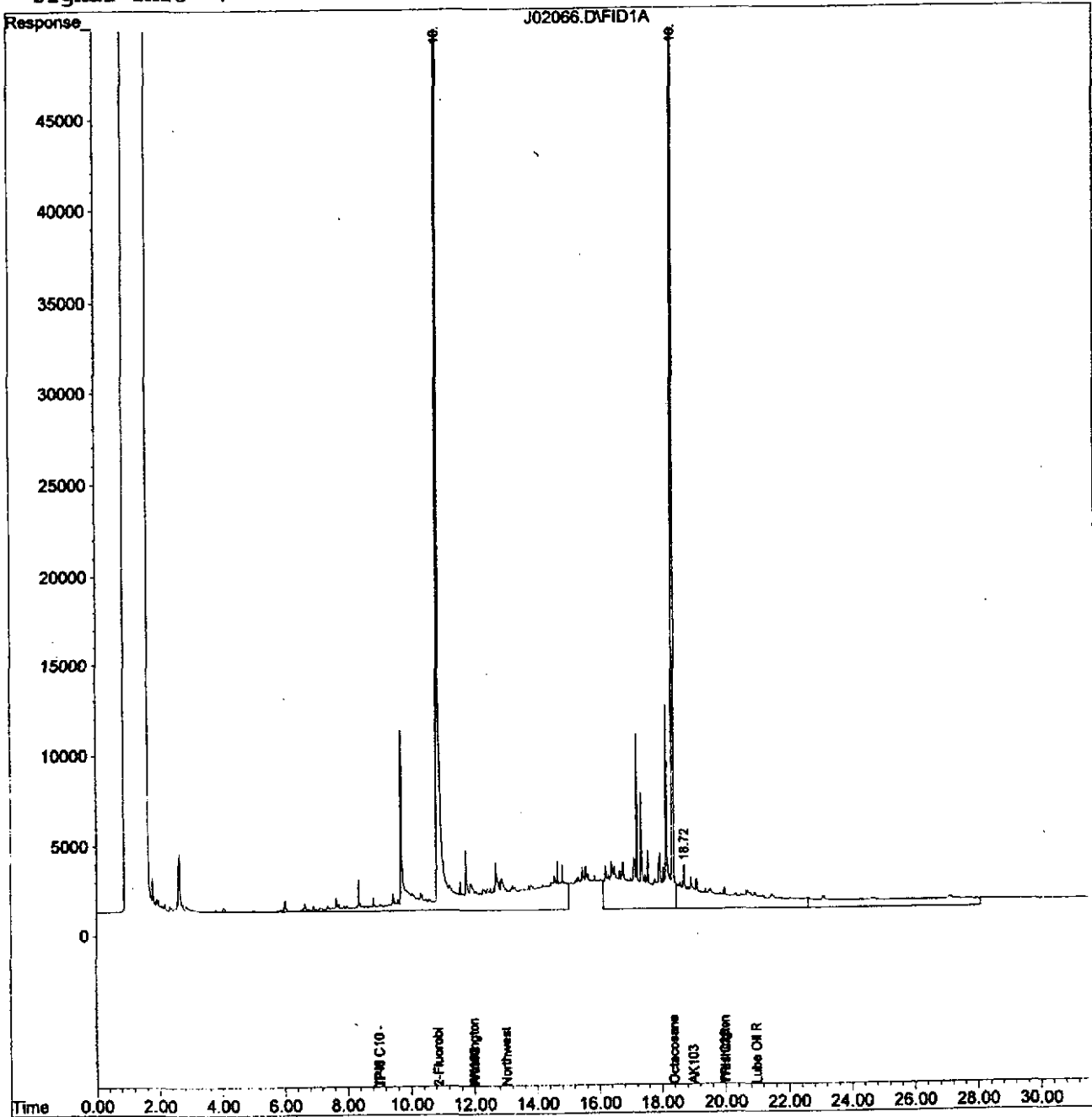
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Sample : B2I0598-08  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 3 3:14 2002

Vial: 43  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

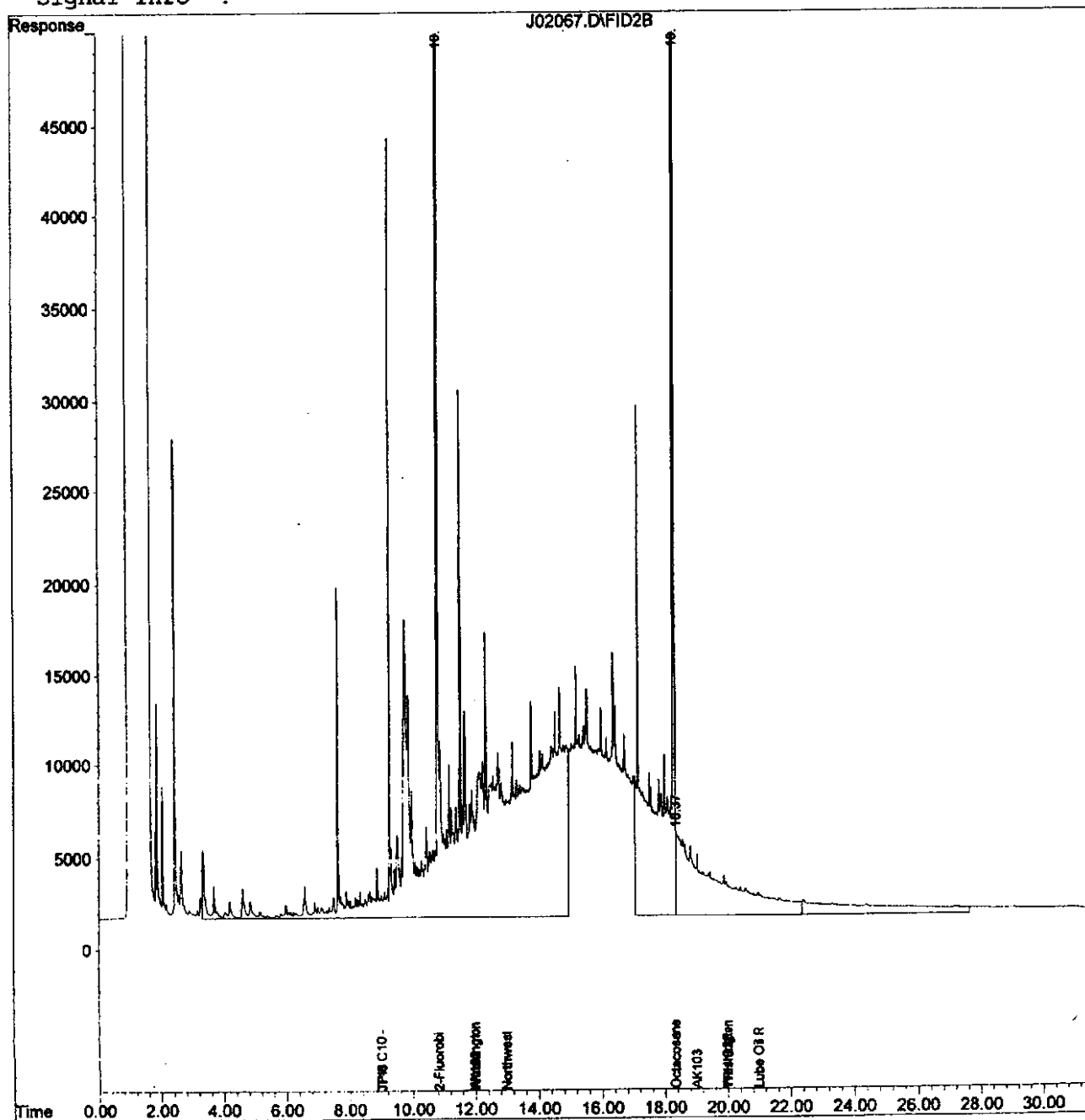
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Acq On : 3 Oct 2002 3:23 am  
Sample : B2I0598-09  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 3 3:55 2002

Vial: 44  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2202T5R.RES

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
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Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



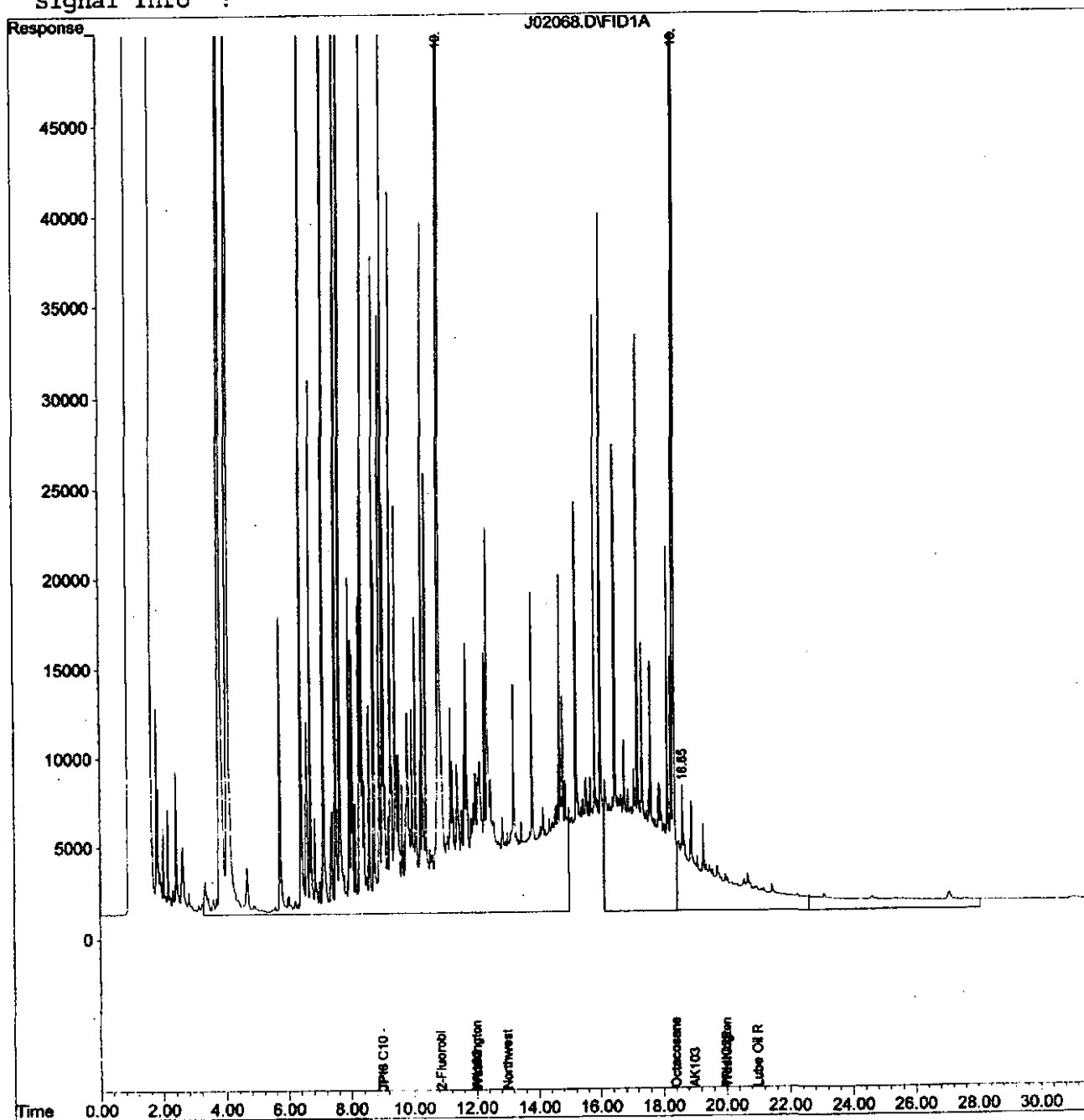
Quantitation Report

Data File : C:\HPCHEM\3\DATA\J02068.D  
Acq On : 3 Oct 2002 3:23 am  
Sample : B2I0598-10  
Misc : lx w nw  
IntFile : SURR.E  
Quant Time: Oct 3 3:55 2002 Quant Results File: H2102T5F.RES

Vial: 45  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

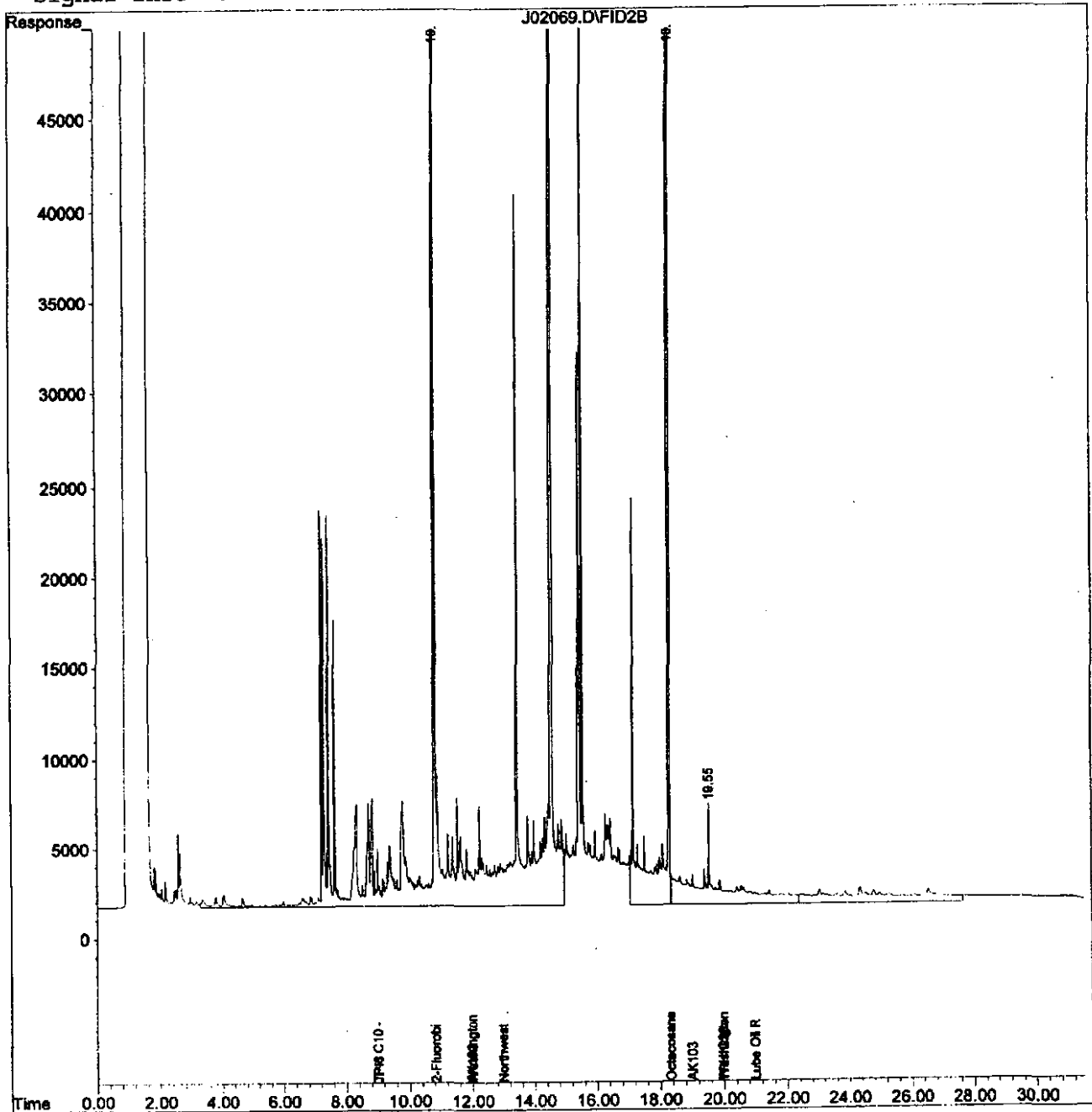
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Sample : B2I0598-11  
Misc : lx w nw  
IntFile : SURR.E  
Quant Time: Oct 3 4:36 2002

Vial: 46  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2202T5R.RES

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
Last Update : Wed Sep 25 15:50:19 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

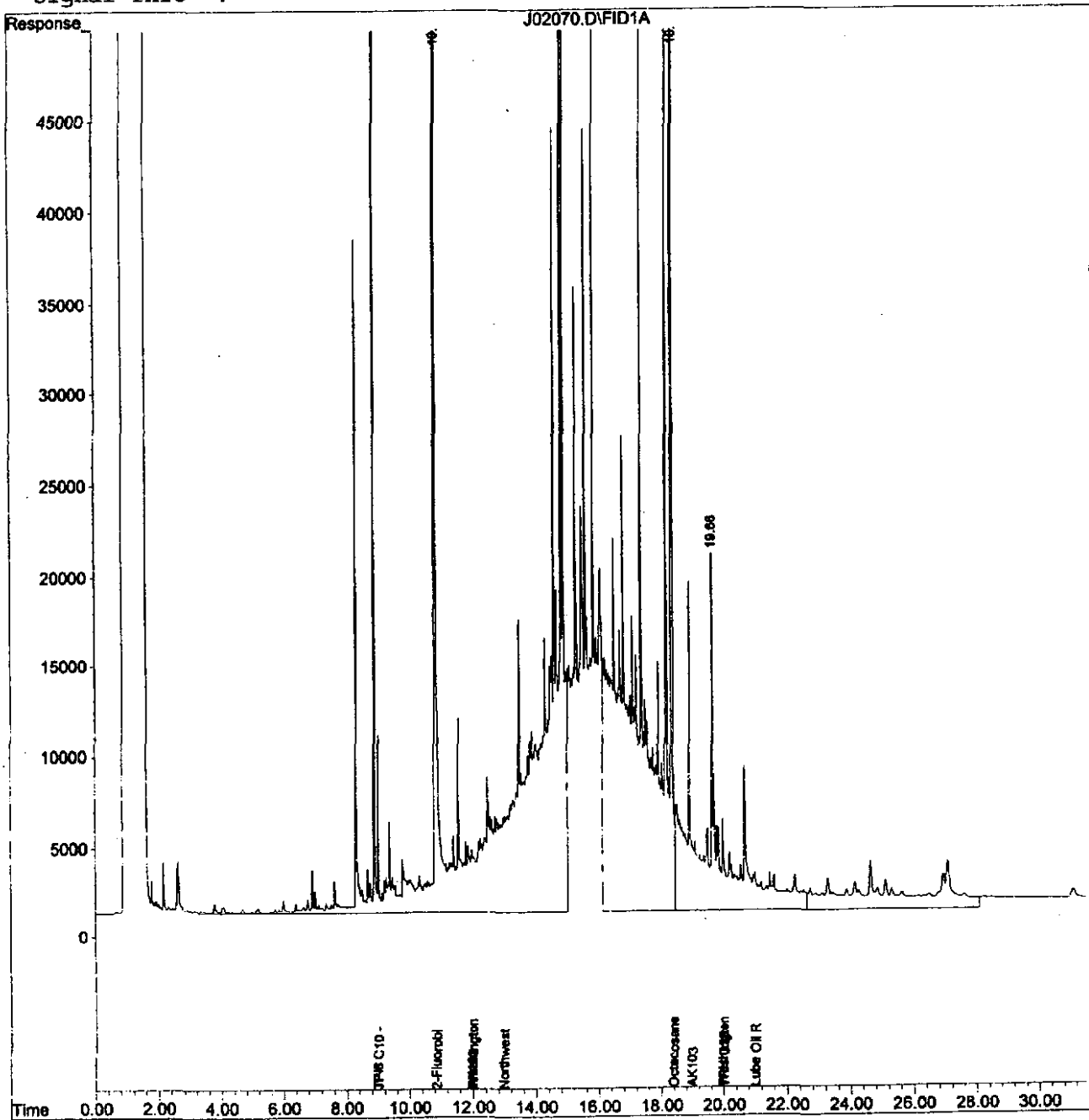
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Misc : 1x w nw  
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Quant Time: Oct 3 4:36 2002

Vial: 47  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
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Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



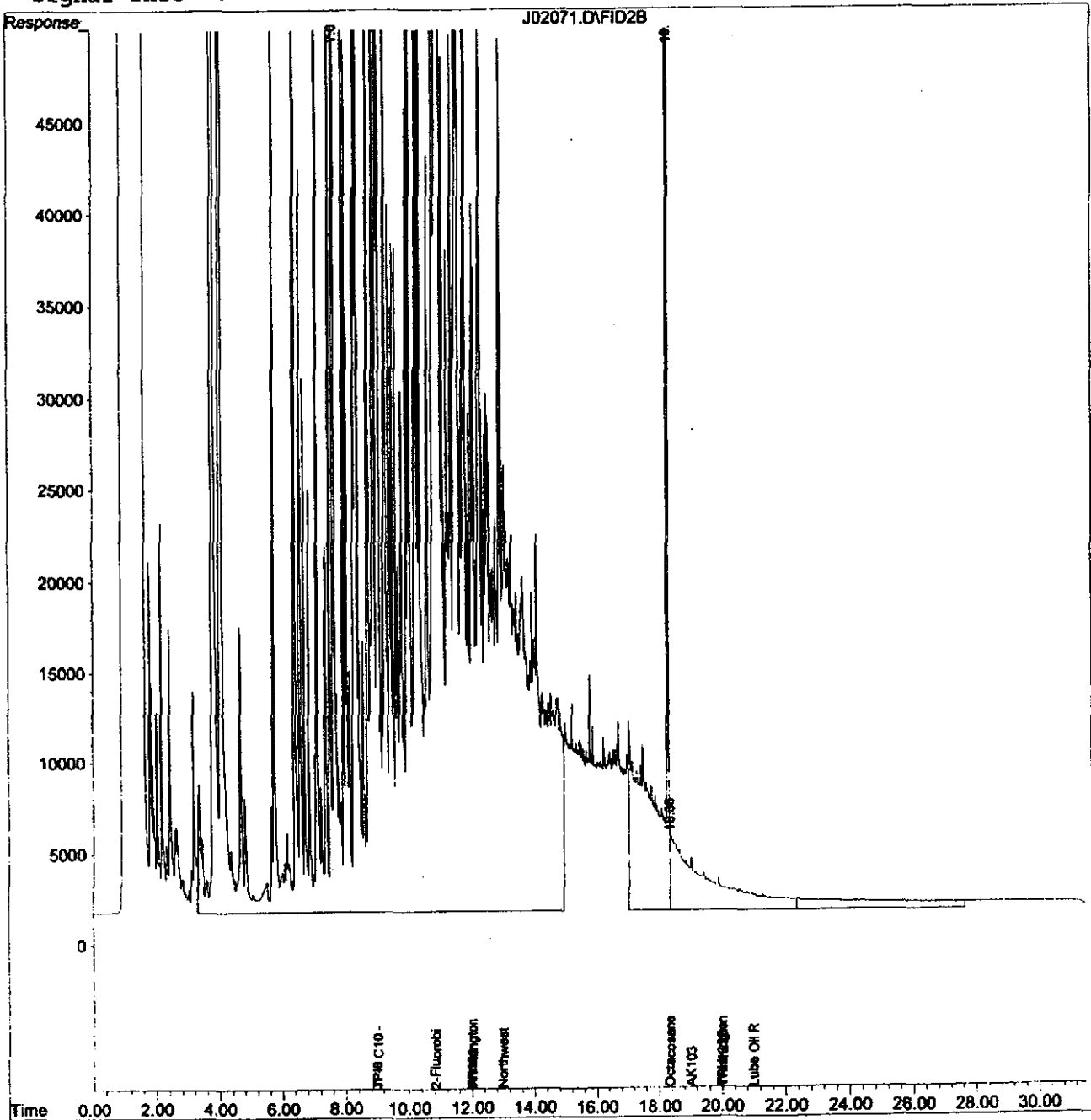
Quantitation Report

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Acq On : 3 Oct 2002 4:45 am  
Sample : B2I0598-13  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 3 5:17 2002

Vial: 48  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Method : C:\HPCHEM\3\METHODS\H2202T5R.M (Chemstation Integrator)  
Title : TPH-D Rear Method  
Last Update : Wed Sep 25 15:50:19 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

Volume Inj. :  
Signal Phase :  
Signal Info :



Quantitation Report

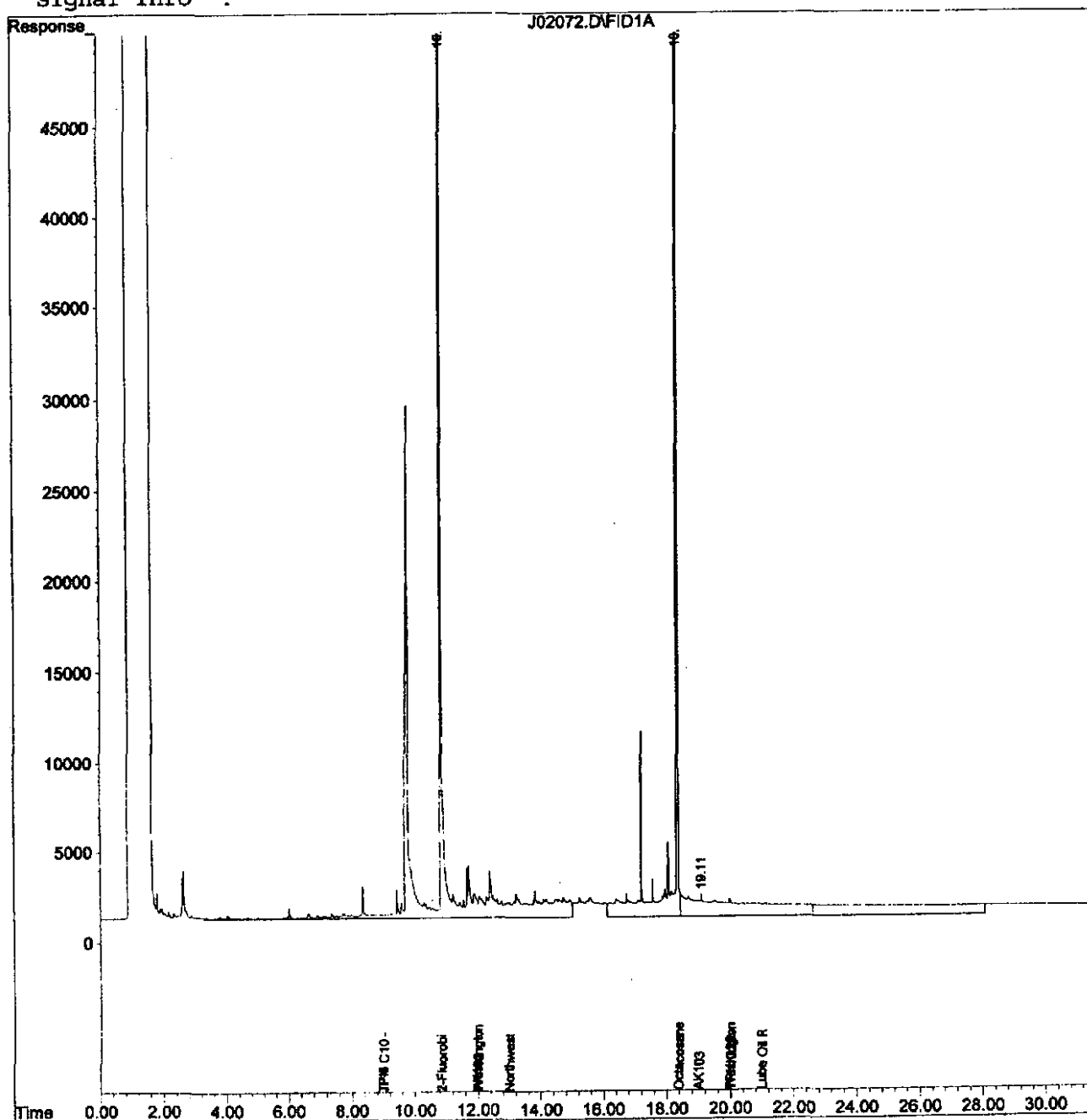
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Sample : B2I0598-14  
Misc : 1x w nw  
IntFile : SURR.E  
Quant Time: Oct 3 5:16 2002

Vial: 49  
Operator: EP  
Inst : GC #5  
Multiplr: 1.00

Quant Results File: H2102T5F.RES

Quant Method : C:\HPCHEM\3\METHODS\H2102T5F.M (Chemstation Integrator)  
Title : TPH-D Front Method  
Last Update : Wed Sep 25 15:49:23 2002  
Response via : Multiple Level Calibration  
DataAcq Meth : H2102T5F.M

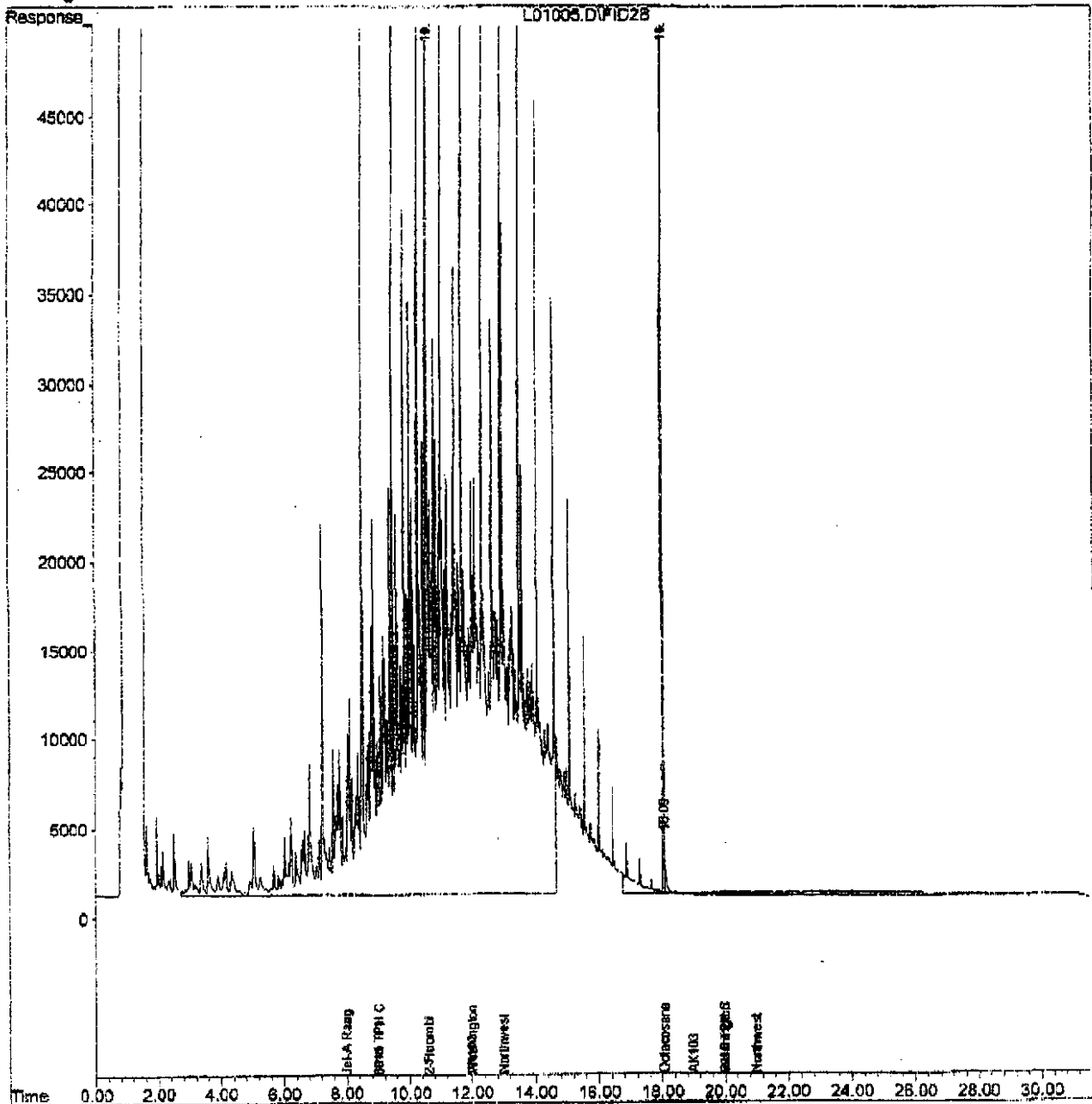
Volume Inj. :  
Signal Phase :  
Signal Info :



Data File : C:\HPCHEM\3\DATA.SEC\L01005.D Vial: 2  
 Acq On : 1 Dec 2002 11:37 am Operator: EDL  
 Sample : AK102 CCV Inst : GC #5  
 Misc : 125/2500ppm 2080186 Multiplr: 1.00  
 IntFile : SURR.E  
 Quant Time: Dec 1 12:09 2002 Quant Results File: J2302T5R.RES

Quant Method : C:\HPCHEM\3\METHODS\J2302T5R.M (Chemstation Integrator)  
 Title : TPH-D Rear Method  
 Last Update : Fri Oct 25 14:57:23 2002  
 Response via : Multiple Level Calibration  
 DataAcq Meth : J2302T5F.M

Volume Inj. :  
 Signal Phase :  
 Signal Info :









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(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210  
(541) 383-9310 FAX 382-7588

# TOSCO CHAIN OF CUSTODY REPORT B210598

**CLIENT INFORMATION**

Facility Number: 5553

Site Address: 600 WESTLAKE AVE

City, State, ZIP: SEATTLE, WA

Project/AWO Code: \_\_\_\_\_

Tosco Manager: \_\_\_\_\_

FACILITY TYPE: (check one)  BP/☉  Terminal/Bulk Plant  
 Brown Bear  Former 76 Site  Other

**CONSULTANT INFORMATION**

Firm: ELI Project # \_\_\_\_\_

Address: 815 INDUSTRY DR  
TRUKOILA, WA 98188

Phone: (206) 575-6200 Fax: X6423

Project Manager: \_\_\_\_\_ E-mail: \_\_\_\_\_

Sample Collection by: \_\_\_\_\_

Quality Assurance Data Level:  
 A: Standard Summary  
 B: Standard + Chromatograms

Laboratory Turnaround Days:  
 5  3  2  1  
 10 Day - Standard

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CON-TAINERS
1. <u>MW517</u>	<u>9/26/02</u>	<u>W</u>	<u>5</u>
2. <u>MW51</u>	<u>1</u>	<u>1</u>	<u>1</u>
3. <u>MW52</u>	<u>1</u>	<u>1</u>	<u>1</u>
4. <u>SMW3</u>			
5.			
6.			
7.			
8.			
9.			
10.			

OR	WA	AK	NW Series	ID
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
TPH-HCID				
TPH-Gas				
BTEX				
EPA 8021 Mod.				
TPH-Gas + BTEX				
TPH-Diesel				
TPH-Diesel Extended				
TPH-Diesel-Ext.				
W/S/G Cleanup				
Halogen Volatiles				
EPA 8021				
Pesticides/PCBs				
GC/MS Volatiles				
EPA 8260				
GC/MS Semi-Vols.				
EPA 8270				
PAH's				
8270 SIM or 8310				
Lead:				
Total or Dissolved				
TCDF or RCRA				
Metals (8)				

NCA SAMPLE NUMBER  
B210598-11  
12  
13  
14

Relinquished by: [Signature] Firm: NCA Date & Time: 9/26/02 13:30

Received by: [Signature] Firm: NCA Date & Time: 9/26/02 16:25

1. [Signature] NCA 9/26/02 13:30

2. [Signature] NCA 9/26/02 16:25

3.

Comments:  
no labels on some  
VOAS

32  
36  
192  
232  
512

GROUNDWATER SAMPLING - FIELD LOG

Client Name: TOSCO 5353  
 Location: WESTLAKE AVE  
 Field Crew: RM/SHM

ERI Job No. 1010  
 Field Cleaning Performed:  
 Analysis:

Date: 9/26/82 Page 1 of 1

• Case Volume =  $(d_{case} - d_{meter})^2 \times L \times F$  where F =  
 0.163 for a 2" inside diameter well casing  
 0.652 for a 4" inside diameter well casing  
 1.667 for a 6" inside diameter well casing

10  
x 6  
875  
1/3

Well No.	Time	Depth Water (ft.)	Depth Well (ft.)	Case Dia. (in)	Case Vol. gal	Purge Vol. (gal)	Conduct. AS/CH (x1000)	Temp. Deg F	pH	TURB. NTU	PID PPH	Comments
MW 37		12.38	0	2								
MW 40		12.69	18.40	2	1.5	10.5						NOT SAMPLED ERT
MW 47		11.55	19.08	2	1	3						
MW 36		10.16	11.30	2	.5	1.5						
MW 46				2								
MW 38		8.87	20.00	2	2	6						
MW 33		10.32	33.00	2	3.5	10.5						
MW 43		12.28	21.40	2	1.5	4.5						UNABLE TO LOCATE (PAVED OVER?)
MW 44		10.79	44.11	2	5	15						
MW 32		11.51	17.45	2	.5	1.5						
MW 34		12.88	21.38	2	1	3						
MW 35		12.80	21.40	2	1	3						
MW 35		12.45	14.57	2								
MW 35		11.90	22.80	2	6.5	19.5						OBJECT LPH - NOT SAMPLED
MW 35		10.96	13.18	2	.5	1.5						
MW 35		10.20	14.30	2	.5	1.5						Obstructed by vehicle
MW 35			17.26	2								
MW 35			15.00	2								
MW 35		10.81		2								
MW 35				2								