

Kellase 471259
Tosco #6380
Bellingham

DATE: October 8, 2003

**CONOCOPHILLIPS CORPORATION
GROUNDWATER MONITORING REPORT**

Site No.: 6380 Address: 200 South 36th Street, Bellingham, 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 - 2003]:

- Monitored, purged, and sampled 4 groundwater monitoring wells

RECEIVED

OCT 14 2003

DEPT OF ECOLOGY

WORK PROPOSED FOR NEXT QUARTER [Fourth - 2003]:

- Monitor, purge, and sample 4 groundwater monitoring wells

SUMMARY:

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>5 to 10 ft</u>	(Measured Feet)
Groundwater Gradient:	<u>Westerly</u>	(Direction)
	<u>0.005 ft/ft</u>	(Magnitude)
Maximum TPH-G/Benzene Concentrations:	<u>258/2.12</u>	(ppb)
Measurable Free Product Detected:	<u>None</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>Unknown</u>	(Distance &
Radius and Respective Direction:	<u>Unknown</u>	Direction)
Current Remedial Action:	<u>None</u>	(SVE/AS/P&T, etc.)
Permits for Discharge:	<u>None</u>	(NPDES, POTW, etc.)

DISCUSSION:

- 2 of 4 wells sampled contained total lead concentrations exceeding the MTCA Method A Cleanup Level.

ATTACHMENTS:

Plate 1: Groundwater Sample Analysis Map – 09/03/03
Table 1: Groundwater Analytical Results
Laboratory Reports and Chain of Custody Documentation
Field Data Records

Prepared By:

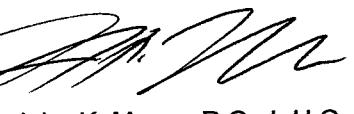


Yukiko Noguchi
Staff Scientist



JOHN K. MEYER

Reviewed By:


John K. Meyer, R.G., L.H.G.
Branch Manager

cc: LUST Coordinator, Washington State Department of Ecology, Northwest Regional Office
Mr. Frank Diehl, Keith Oil Corporation
Ms. Lisa Bona, GeoEngineers

entered
cm
10/14/03

31065.13.Q033

12/04/02	03/05/03	06/10/03	09/03/03
<50.0	<50.0	<50.0	<80.0
<250	<250	<284	<298
<500	<500	<568	<595
<0.500	<0.500	<0.500	0.829
<0.500	<0.500	1.36	1.25
<0.500	<0.500	<0.500	0.519
<1.00	<1.00	2.53	2.49
2.89	19.8	40.1	33.3

BILL McDONALD PARKWAY

Laboratory Results
in ug/L (ppb)

05/25/08
210
383
<500
<0.500
<0.500
3.04
40.6
--

Sample Date

Total Petroleum Hydrocarbons as Gasoline

Total Petroleum Hydrocarbons as Diesel

Total Petroleum Hydrocarbons as Oil

Benzene

Toluene

Ethylbenzene

Total Xylenes

Total Lead

Numbers in Red Exceed

MTCA Method A Cleanup Levels

-- = Not Analyzed or Sampled

< 1.00 = Less than the Stated Laboratory Reporting Limit

12/04/02	03/05/03	06/10/03	09/03/03
373	168	400	258
511	<250	<250	301
<568	<500	<500	<568
108	28.3	36.9	1.91
1.32	1.70	2.43	3.22
1.39	3.55	30.5	4.30
5.41	5.87	6.97	5.25
4.65	4.90	17.1	8.72

SAMISH WAY

12/04/02	03/05/03	06/10/03	09/03/03
<50.0	<50.0	<50.0	<80.0
<250	<284	<250	<312
<500	<568	<500	<625
<0.500	<0.500	<0.500	0.820
<0.500	<0.500	0.887	<0.500
<0.500	<0.500	<0.500	<0.500
<1.00	<1.00	1.26	<1.00
<1.00	6.81	10.5	2.75

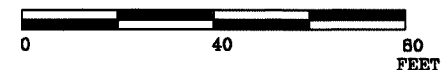
12/04/02	03/05/03	06/10/03	09/03/03
147	62.2	<50.0	<80.0
371	<250	<250	<250
<500	<500	<500	<500
<0.500	<0.500	<0.500	2.12
<0.500	<0.500	0.562	0.753
<0.500	<0.500	<0.500	<0.500
<1.00	<1.00	<1.00	<1.00
4.60	12.5	6.90	<1.00

MW3
92.18

SOUTH 36TH STREET

SOURCE: Modified
from maps provided by
ConocoPhillips Corporation

APPROXIMATE SCALE



FN 31065.13



GROUNDWATER SAMPLE ANALYSIS MAP - 09/03/03

TOSCO SITE NO. 6380
200 South 36th Street
Bellingham, Washington

EXPLANATION



MW3
92.65

Groundwater Monitoring Well
Groundwater Elevation

PROJECT NO.

31065

PLATE

1

YN: 09/30/03

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Site No. 6380
200 South 36th Street
Bellingham, Washington
Page 1 of 1

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Total Pb	Diss Pb
MW1 98.49	03/11/99	4.96	93.53	<50	<250	<750	<0.500	<0.500	<0.500	<1.00	2.41	--
	05/25/99	5.33	93.16	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	--
	08/12/99	6.66	91.83	<50.0	--	--	<0.500	<0.500	<0.500	<1.00	--	--
	12/07/99	6.10	92.39	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	6.18	--
	02/10/00	6.10	92.39	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	1.75	--
	02/02/01	5.17	93.32	<50.0	588	<750	12.4	1.02	1.10	2.77	--	<1.00
	02/08/02	5.77	92.72	638	1,600	<500	128	2.15	85.4	6.55	7.70	<1.00
	09/20/02	6.27	92.22	197	1,320	<588	1.82	<0.500	33.0	<1.00	<1.00	--
	12/04/02	7.05	91.44	373	511	<568	106	1.32	1.39	5.41	4.65	--
	03/05/03	5.70	92.79	168	<250	<500	28.3	1.70	3.55	5.87	4.90	--
	06/10/03	5.92	92.57	400	<250	<500	36.9	2.43	30.5	6.97	17.1	--
	09/03/03	6.30	92.19	258	301	<588	1.91	3.22	4.30	5.25	8.72	--
MW2 100.74	03/11/99	7.93	92.81	<50	<250	<750	<0.500	<0.500	<0.500	<1.00	162	--
	05/25/99	8.18	92.66	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	--
	08/12/99	8.94	91.80	<50.0	281	<750	<0.500	<0.500	<0.500	<1.00	--	--
	12/07/99	8.04	92.70	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	17.0	--
	02/10/00	8.32	92.42	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	49.1	--
	02/02/01	6.40	94.34	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	<1.00
	02/08/02	7.77	92.97	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	40.6	<1.00
	09/20/02	9.23	91.51	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--
	12/04/02	9.15	91.59	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	2.89	--
	03/05/03	8.28	92.46	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	19.8	--
	06/10/03	8.56	92.18	<50.0	<284	<568	<0.500	1.36	<0.500	2.53	40.1	--
	09/03/03	9.13	91.61	<80.0	<298	<595	0.829	1.25	0.519	2.49	33.3	--
MW3 97.84	03/11/99	4.93	92.91	<50	<250	<750	<0.500	<0.500	<0.500	<1.00	6.35	--
	05/25/99	5.19	92.65	210	383	<750	<0.500	<0.500	3.04	3.93	--	--
	08/12/99	5.70	92.14	56.3	<250	<750	<0.500	<0.500	0.732	1.84	--	--
	12/07/99	5.03	92.81	94.7	<250	<750	<0.500	0.598	<0.500	<1.00	4.40	--
	02/10/00	4.92	92.92	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	17.6	--
	02/02/01	4.76	93.08	63.0	413	<750	<0.500	<0.500	0.503	<1.00	--	<1.00
	02/08/02	4.59	93.25	91.5	410	<500	<0.500	<0.500	<0.500	<1.00	22.3	<1.00
	09/20/02	5.88	91.96	129	372	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--
	12/04/02	5.26	92.58	147	371	<500	<0.500	<0.500	<0.500	<1.00	4.60	--
	03/05/03	4.70	93.14	62.2	<250	<500	<0.500	<0.500	<0.500	<1.00	12.5	--
	06/10/03	5.31	92.53	<50.0	<250	<500	<0.500	0.562	<0.500	<1.00	6.90	--
	09/03/03	5.66	92.18	<80.0	<250	<500	2.12	0.753	<0.500	<1.00	<1.00	--
MW4 99.44	03/11/99	6.39	93.05	<50	<250	<750	<0.500	<0.500	<0.500	<1.00	29.0	--
	05/25/99	6.62	92.82	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	--
	08/12/99	7.31	92.13	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	--
	12/07/99	6.37	93.07	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	10.2	--
	02/10/00	6.48	92.96	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	23.6	--
	02/02/01	6.37	93.07	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--	<1.00
	02/08/02	6.03	93.41	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	3.30	<1.00
	09/20/02	7.37	92.07	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--
	12/04/02	7.03	92.41	<50.0	<250	<500	<0.500	<0.500	<0.500	<1.00	<1.00	--
	03/05/03	6.33	93.11	<50.0	<284	<568	<0.500	<0.500	<0.500	<1.00	6.81	--
	06/10/03	6.99	92.45	<50.0	<250	<500	<0.500	0.687	<0.500	1.26	10.5	--
	09/03/03	7.60	91.84	<80.0	<312	<625	0.620	<0.500	<0.500	<1.00	2.75	--

MTCA Method A Cleanup Levels

1,000*

5

40

30

20

5

5

EXPLANATION:

All concentrations are in ug/L (ppb).

Wellhead elevations were taken from prior consultants reports.

DTW = Depth to water in feet below top of casing

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

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

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

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

BTEX = Aromatic compounds by EPA Method 8021B

Total Pb = Total lead by EPA Method 6020, Diss Pb = Dissolved lead by EPA Method 6020

-- = Not Analyzed or Sampled

< = Less than the stated laboratory reporting limit

Shaded values equal or exceed MTCA Method A Cleanup Levels.

* Total Petroleum Hydrocarbons

Data collected before 05/25/99 were taken from prior consultants.



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18 September 2003

John Meyer
ERI
815 Industry Dr
Tukwila, WA/USA 98188
RE: TOSCO #6380

Enclosed are the results of analyses for samples received by the laboratory on 09/04/03 13:25. 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 #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW1	B3I0131-01	Water	09/03/03 12:00	09/04/03 13:25
MW2	B3I0131-02	Water	09/03/03 12:00	09/04/03 13:25
MW3	B3I0131-03	Water	09/03/03 12:00	09/04/03 13:25
MW4	B3I0131-04	Water	09/03/03 12:00	09/04/03 13:25

North Creek Analytical - Bothell

Amar Gill, 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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Environmental Laboratory Network

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ERI
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 Tukwila, WA/USA 98188

Project: TOSCO #6380
 Project Number: 031065
 Project Manager: John Meyer

Reported:
 09/18/03 16:11

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1 (B3I0131-01) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Diesel Range Hydrocarbons	0.301	0.294	mg/l	1	3108009	09/08/03	09/09/03	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.588	"	"	"	"	"	"	
Surrogate: 2-FBP	86.4 %	50-150			"	"	"	"	
Surrogate: Octacosane	81.9 %	50-150			"	"	"	"	
MW2 (B3I0131-02) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Diesel Range Hydrocarbons	ND	0.298	mg/l	1	3108009	09/08/03	09/09/03	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.595	"	"	"	"	"	"	
Surrogate: 2-FBP	85.0 %	50-150			"	"	"	"	
Surrogate: Octacosane	77.4 %	50-150			"	"	"	"	
MW3 (B3I0131-03) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Diesel Range Hydrocarbons	ND	0.250	mg/l	1	3108009	09/08/03	09/09/03	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.500	"	"	"	"	"	"	
Surrogate: 2-FBP	82.3 %	50-150			"	"	"	"	
Surrogate: Octacosane	89.9 %	50-150			"	"	"	"	
MW4 (B3I0131-04) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Diesel Range Hydrocarbons	ND	0.312	mg/l	1	3108009	09/08/03	09/09/03	NWTPH-Dx	
Lube Oil Range Hydrocarbons	ND	0.625	"	"	"	"	"	"	
Surrogate: 2-FBP	85.0 %	50-150			"	"	"	"	
Surrogate: Octacosane	92.0 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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Amar Gill, Project Manager

North Creek Analytical, Inc.
 Environmental Laboratory Network

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ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1 (B3I0131-01) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Lead	0.00872	0.00100	mg/l	1	3108029	09/08/03	09/09/03	EPA 6020	
MW2 (B3I0131-02) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Lead	0.0333	0.00100	mg/l	1	3108029	09/08/03	09/09/03	EPA 6020	
MW3 (B3I0131-03) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Lead	ND	0.00100	mg/l	1	3108029	09/08/03	09/09/03	EPA 6020	
MW4 (B3I0131-04) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Lead	0.00275	0.00100	mg/l	1	3108029	09/08/03	09/09/03	EPA 6020	

North Creek Analytical - Bothell

Amar Gill, Project Manager

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ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B
North Creek Analytical - Bend

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW1 (B3I0131-01) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Benzene	1.91	0.500	ug/l	1	0309057	09/14/03	09/15/03	8021B and NW-Gx	
Toluene	3.22	0.500	"	"	"	"	"	"	
Ethylbenzene	4.30	0.500	"	"	"	"	"	"	
Xylenes (total)	5.25	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	258	80.0	"	"	"	"	"	"	
Surrogate: a,a,a-TFT (FID)	120 %	50-150			"	"	"	"	
Surrogate: a,a,a-TFT (PID)	98.3 %	50-150			"	"	"	"	
MW2 (B3I0131-02) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Benzene	0.829	0.500	ug/l	1	0309057	09/14/03	09/15/03	8021B and NW-Gx	
Toluene	1.25	0.500	"	"	"	"	"	"	
Ethylbenzene	0.519	0.500	"	"	"	"	"	"	
Xylenes (total)	2.49	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	80.0	"	"	"	"	"	"	
Surrogate: a,a,a-TFT (FID)	110 %	50-150			"	"	"	"	
Surrogate: a,a,a-TFT (PID)	91.3 %	50-150			"	"	"	"	
MW3 (B3I0131-03) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Benzene	2.12	0.500	ug/l	1	0309057	09/14/03	09/15/03	8021B and NW-Gx	
Toluene	0.753	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	80.0	"	"	"	"	"	"	
Surrogate: a,a,a-TFT (FID)	116 %	50-150			"	"	"	"	
Surrogate: a,a,a-TFT (PID)	95.4 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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Environmental Laboratory Network

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ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B
North Creek Analytical - Bend

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW4 (B3I0131-04) Water Sampled: 09/03/03 12:00 Received: 09/04/03 13:25									
Benzene	0.620	0.500	ug/l	1	0309057	09/14/03	09/15/03	8021B and NW-Gx	
Toluene	ND	0.500	"	"	"	"	"	"	
Ethylbenzene	ND	0.500	"	"	"	"	"	"	
Xylenes (total)	ND	1.00	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	80.0	"	"	"	"	"	"	
Surrogate: a,a,a-TFT (FID)	112 %	50-150			"	"	"	"	
Surrogate: a,a,a-TFT (PID)	92.2 %	50-150			"	"	"	"	

North Creek Analytical - Bothell

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907.563.9200 fax 907.563.9210

ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

Semivolatile Petroleum Products by NWTPH-Dx with 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 3I08009: Prepared 09/08/03 Using EPA 3520C

Blank (3I08009-BLK1)

Diesel Range Hydrocarbons	ND	0.250	mg/l							
Lube Oil Range Hydrocarbons	ND	0.500	"							
Surrogate: 2-FBP	0.268		"	0.320		83.8	50-150			
Surrogate: Octacosane	0.158		"	0.160		98.8	50-150			

LCS (3I08009-BS1)

Diesel Range Hydrocarbons	1.71	0.250	mg/l	2.00		85.5	45-105			
Surrogate: 2-FBP	0.300		"	0.320		93.8	50-150			

LCS Dup (3I08009-BSD1)

Diesel Range Hydrocarbons	1.63	0.250	mg/l	2.00		81.5	45-105	4.79	50	
Surrogate: 2-FBP	0.280		"	0.320		87.5	50-150			

North Creek Analytical - Bothell

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ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 3I08029: Prepared 09/08/03 Using EPA 3020A									
Blank (3I08029-BLK1)									
Lead	ND	0.00100	mg/l						
LCS (3I08029-BS1)									
Lead	0.0781	0.00100	mg/l	0.0800		97.6	80-120		
LCS Dup (3I08029-BSD1)									
Lead	0.0754	0.00100	mg/l	0.0800		94.2	80-120	3.52	20
Matrix Spike (3I08029-MS1)					Source: B3I0131-01				
Lead	0.0876	0.00100	mg/l	0.0800	0.00872	98.6	75-125		
Matrix Spike Dup (3I08029-MSD1)					Source: B3I0131-01				
Lead	0.0865	0.00100	mg/l	0.0800	0.00872	97.2	75-125	1.26	20
Post Spike (3I08029-PS1)					Source: B3I0131-01				
Lead	0.103	0.00100	mg/l	0.100	0.00872	94.3	75-125		

North Creek Analytical - Bothell

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ERI
 815 Industry Dr
 Tukwila, WA/USA 98188

Project: TOSCO #6380
 Project Number: 031065
 Project Manager: John Meyer

Reported:
 09/18/03 16:11

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B - Quality Control
North Creek Analytical - Bend

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0309057: Prepared 09/14/03 Using EPA 5030

Blank (0309057-BLK1)

Benzene	ND	0.500	ug/l							
Toluene	ND	0.500	"							
Ethylbenzene	ND	0.500	"							
Xylenes (total)	ND	1.00	"							
Gasoline Range Hydrocarbons	ND	80.0	"							
Surrogate: a,a,a-TFT (FID)	107		"	100		107	50-150			
Surrogate: a,a,a-TFT (PID)	90.2		"	100		90.2	50-150			

LCS (0309057-BS1)

Benzene	19.2	0.500	ug/l	20.0		96.0	79.4-131			
Toluene	19.5	0.500	"	20.0		97.5	84.6-127			
Ethylbenzene	19.9	0.500	"	20.0		99.5	75.8-129			
Xylenes (total)	58.2	1.00	"	60.0		97.0	82-128			
Surrogate: a,a,a-TFT (PID)	90.2		"	100		90.2	50-150			

LCS (0309057-BS2)

Gasoline Range Hydrocarbons	530	80.0	ug/l	500		106	80-120			
Surrogate: a,a,a-TFT (FID)	114		"	100		114	50-150			

Duplicate (0309057-DUP1)

Source: C309074-02

Gasoline Range Hydrocarbons	108	80.0	ug/l		ND				50	
Surrogate: a,a,a-TFT (FID)	125		"	100		125	50-150			

Duplicate (0309057-DUP2)

Source: C309074-04

Gasoline Range Hydrocarbons	ND	80.0	ug/l		ND			NA	50	
Surrogate: a,a,a-TFT (FID)	114		"	100		114	50-150			

Matrix Spike (0309057-MS1)

Source: C309074-01

Benzene	19.4	0.500	ug/l	20.0	ND	97.0	71.4-135			
Toluene	19.5	0.500	"	20.0	ND	97.5	75.4-131			
Ethylbenzene	19.9	0.500	"	20.0	ND	99.5	68.5-133			
Xylenes (total)	58.4	1.00	"	60.0	ND	97.3	74.2-130			
Surrogate: a,a,a-TFT (PID)	91.5		"	100		91.5	50-150			

North Creek Analytical - Bothell

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Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

Gasoline Hydrocarbons per NW TPH-Gx Method and BTEX per EPA Method 8021B - Quality Control
North Creek Analytical - Bend

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

Batch 0309057: Prepared 09/14/03 Using EPA 5030

Matrix Spike Dup (0309057-MSD1)

Source: C309074-01

Benzene	19.8	0.500	ug/l	20.0	ND	99.0	71.4-135	2.04	35	
Toluene	19.9	0.500	"	20.0	ND	99.5	75.4-131	2.03	35	
Ethylbenzene	20.2	0.500	"	20.0	ND	101	68.5-133	1.50	35	
Xylenes (total)	59.6	1.00	"	60.0	ND	99.3	74.2-130	2.03	35	
Surrogate: a,a,a-TFT (PID)	92.9		"	100		92.9	50-150			

North Creek Analytical - Bothell

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ERI
815 Industry Dr
Tukwila, WA/USA 98188

Project: TOSCO #6380
Project Number: 031065
Project Manager: John Meyer

Reported:
09/18/03 16:11

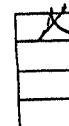
Notes and Definitions

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

Amar Gill, Project Manager

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TOSCO CHAIN OF CUSTODY REPORT

B3ID 131

TOSCO INFORMATION	
Facility Number:	031065
Site Address:	200 S. 36th St.
City, State, ZIP:	Bellingham, WA
Project/AWO Code	6388
Tosco Manager:	Tim Johnson
FACILITY TYPE: (check one) ☐ BP/☒ ☐ Terminal/Bulk Plant	
☐ Brown Bear ☒ Former 76 Site ☐ Other	

CONSULTANT INFORMATION	
Firm:	ERI
Project#	031065
Address: 815 Industry Drive Tukwila, WA	
Phone:	206 575-6226
Fax:	K6423
Project Manager:	James Matthias
Sample Collection by:	Adam Best

Quality Assurance Data Level:	
☒ A	☐ B
A: Standard Summary	
B: Standard + Chromatograms	
Laboratory Turnaround Days:	
☒ 10	☐ 5 ☐ 3 ☐ 2 ☐ 1
10 Day - Standard	

SAMPLE IDENTIFICATION	SAMPLING DATE / TIME	MATRIX (W,S,O)	# OF CONTAINERS
1. MW1	9/3/03	W	5
2. MW2			5
3. MW3			5
4. MW4			5
5.			
6.			
7.			
8.			
9.			
10.			

	☐ OR	☐ WA	☐ AK	☒ NW Series	☐ ID
TPH-HCID					
TPH-Gas					
BTEX					
EPA 8021 Mod.					
TPH-Gas + BTEX		X			
TPH-Diesel					
TPH-Diesel Extended					
TPH-Diesel-Ext. w/SG Cleanup		X			
Halogen. Volatiles					
EPA 8021					
Pesticides/PCBs or PCBs Only					
GC/MS Volatiles					
EPA 8260					
GC/MS Semi Vols.					
EPA 8270					
PAH's:					
8270 SIM or 8310					
Lead:					
Total or Dissolved					
TCLP or RCRA					
Metals (8)					
Total Pb's		X	X	X	X

NCA SAMPLE NUMBER
01
02
03
04

Relinquished by:	Firm:	Date & Time	Received by:	Firm:	Date & Time
1. Adam Best	ERI	9/4/03 8:30am	John Holden	NCA	9/4/03 11:02am
2. John Holden	NCA	9/4/03 1325	Cathy Gumbel	NCA	9/4/03 1525
3.					

Comments:
w/o

ENVIRONMENTAL RESOLUTIONS, INC.

ERI Job No. 031065 Date: 9/3/03 Page 1 of 1
Field Cleaning Performed: _____
Analysis: _____
* - Case Volume = (d - d) x s where

* - Case Volume = $(d_{\text{case}} - d_{\text{casing}}) \times X \times F$ where $F =$
 0.103 for a 2" inside diameter well casing
 0.652 for a 4" inside diameter well casing
 1.467 for a 6" inside diameter well casing

[illegible]

Revised 7/20/96

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