

unocal 5472
Lust 1975 unocal station #5472
ust 8459

DATE: July 8, 1999

**TOSCO MARKETING COMPANY
GROUNDWATER MONITORING REPORT**

RECEIVED

Site No.: 5472 Address: 3460 1st Avenue South, Seattle, WA JUL 14 1999
Tosco Project Manager: Timothy D. Johnson
Consultant /Contact Person: Environmental Resolutions, Inc./John Meyer
Primary Agency/Regulatory ID No.: Washington State Department of Ecology DEPT. OF ECOLOGY

WORK PERFORMED THIS QUARTER(S) [First - 1999]:

- Monitored, purged, and sampled 10 groundwater monitoring wells

WORK PROPOSED FOR NEXT QUARTER [Second - 1999]:

- Monitor, purge, and sample 11 groundwater monitoring wells

SUMMARY:

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>3 to 6 ft</u>	(Measured Feet)
Groundwater Gradient:	<u>Northerly and Westerly</u>	(Direction)
	<u>0.006 ft/ft</u>	(Magnitude)
Maximum TPH-G/Benzene Concentrations:	<u>2,490/261</u>	(ppb)
Measurable Free Product Detected:	<u>No</u>	(Yes - ID wells(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 a 2000'	<u>Unknown</u>	(Distance and)
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:

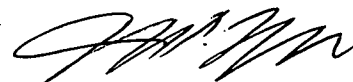
- 7 of 10 wells sampled contained TPH or benzene concentrations exceeding MTCA MCLs for Cleanup Levels
- MW-11 was obstructed by construction and could not be accessed

ATTACHMENTS:

Plate P-1 - Groundwater Sample Analyses Map, 3/26/99
Table 1 - Groundwater Analytical Results
Laboratory Reports and Chain of Custody Records
Field Data Records

DEPARTMENT OF ECOLOGY	
1975	
STATUS	CLEANUP REPORT ☒
STATUS	IDENTIFICATION ☐
STATUS	CLEANUP REPORT ☐
STATUS	OTHER ☐
AFFECTED MEDIA:	SOIL ☒
OTHER	GW ☒
INSPECTOR (INIT.)	DATE 10-23-99

Prepared By:



John K. Meyer, R.G.
Environmental Resolutions, Inc.

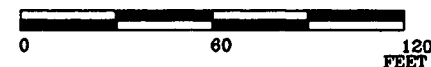
cc: Washington State Department of Ecology, NW Region
GeoEngineers, Dave Cook
Vasco Properties

◆ MW-15
93.87

6/24/98	9/18/98	12/14/98	3/28/99
74.0	ND	ND	59.8
477	646	ND	344
ND	ND	ND	ND
14.1	10.5	ND	2.86
1.03	0.676	ND	1.90
0.566	ND	ND	1.93
1.72	2.32	ND	3.28

6/24/98	9/18/98	12/14/98	3/28/99
301	ND	ND	331
376	292	363	300
ND	ND	ND	ND
453	1,000	477	261
3.33	ND	12.0	3.32
ND	ND	ND	ND
6.74	ND	29.2	6.30

APPROXIMATE SCALE



6/24/98	9/18/98	12/14/98	3/28/99
2,230	1,500	1,590	1,190
505	748	597	752
ND	ND	ND	ND
422	75.4	182	5.53
ND	ND	ND	ND
ND	ND	ND	ND
ND	13.3	9.39	4.84

◆ MW-14
93.74

1ST AVENUE SOUTH

◆ MW-13
93.94

6/24/98	9/18/98	12/14/98	3/28/99
815	889	853	685
802	1,130	508	839
ND	ND	ND	ND
ND	ND	1.68	ND
ND	ND	0.640	1.25
ND	ND	ND	ND
ND	3.51	3.43	4.38

VIKING FIRE SYSTEMS

◆ MW-10
94.56

6/24/98	9/18/98	12/14/98	3/28/99
2,650	1,940	---	1,340
1,700	ND	---	1,300
ND	ND	---	ND
2,230	779	---	27.7
ND	ND	---	ND
ND	ND	---	ND
ND	ND	---	ND

◆ MW-8
NM

◆ MW-9
95.05

◆ MW-7
95.06

◆ MW-1
95.02

◆ MW-12
95.01

6/24/98	9/18/98	12/14/98	3/28/99
2,490	848	4,730	1,980
1,260	ND	744	700
ND	ND	ND	ND
203	88.8	229	73.7
3.49	0.583	5.81	2.66
35.1	22.0	245	ND
11.4	16.5	196	35.8

◆ MW-6
95.08

6/24/98	9/18/98	12/14/98	3/28/99
ND	ND	ND	ND
257	2,320	ND	ND
ND	1,300	ND	776
ND	ND	ND	ND
ND	ND	ND	ND
0.580	ND	ND	ND
1.86	ND	1.06	ND

6/24/98	9/18/98	12/14/98	3/28/99
ND	ND	ND	---
ND	1,380	ND	---
ND	ND	ND	---
ND	ND	ND	---
ND	ND	ND	---
ND	ND	ND	---
ND	ND	ND	---

◆ MW-11
NM

SOUTH SPOKANE STREET

6/24/98	9/18/98	12/14/98	3/28/99
383	443	377	257
603	1,090	2,670	4,150
ND	ND	ND	820
155	188	3.27	1.66
3.68	ND	0.650	1.04
ND	ND	0.812	ND
ND	6.45	1.05	2.31

6/24/98	9/18/98	12/14/98	3/28/99
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND
ND	ND	ND	ND

6/24/98	9/18/98	12/14/98	3/28/99
1,950	1,890	2,840	2,490
1,340	ND	8,850	4,130
ND	ND	3,880	2,280
22.8	12.7	327	180
1.83	ND	ND	1.87
1.05	ND	11.7	20.6
3.33	ND	ND	6.13

Laboratory Results
in ug/L (ppb)

6/24/98	Sample Date
1,950	Total Petroleum Hydrocarbons as Gasoline
1,340	Total Petroleum Hydrocarbons as Diesel
ND	Total Petroleum Hydrocarbons as Oil
22.8	Benzene
1.83	Toluene
1.05	Ethylbenzene
3.33	Total Xylenes

Numbers in Red Exceed
MTCA Method A Cleanup Levels
ND = Not Detected
-- = Not Analyzed

SOURCE: Modified
from maps provided by
Tosco Marketing Company

FN 5472



GROUNDWATER SAMPLE ANALYSES MAP - 3/26/99

TOSCO FACILITY 5472

3460 1st Avenue South
Seattle, Washington

EXPLANATION

- ◆ MW-1 Groundwater Monitoring Well
- 93.27 Groundwater Elevation
- NM Not Measured

PROJECT NO.

31023

PLATE

P-1

DATE: 7/8/99

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 1 of 3

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-1 99.52	02/25/91	5.43	92.59	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/19/92	7.20	92.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	08/26/93	7.36	92.27	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/13/94	8.23	91.55	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	04/25/95	5.62	93.90	30,000	15,000	9,600	890	<4.0	340	290	--
	07/12/95	--	--	13,000	4,900	<8,000	1,000	<8.0	360	210	<2.0
	10/12/95	6.15	93.41	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	01/22/96	5.10	94.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	04/10/96	5.86	93.76	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	07/29/96	5.83	93.69	6,700	6,210	2,950	753	5.50	159	22.5	--
	10/25/96	6.32	93.37	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	03/05/97	4.96	94.56	4,240	3,860	2,100	114	<2.50	18.7	<5.00	--
	03/05/97 ^{NP}	4.96	94.56	8,150	534	<750	40.7	<2.50	58.9	15.3	--
	06/19/97	5.66	93.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	09/16/97	6.56	92.96	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/18/97	5.54	93.98	3,060	3,850	1,860	142	1.31	2.65	3.54	--
	3/11/98	5.14	94.38	2,720	5,930	3,890	120	2.77	4.23	5.20	--
	6/24/98	6.25	93.27	1,950	1,340	<750	22.8	1.83	1.05	3.33	--
	9/18/98	6.86	92.66	1,690	<250	<750	12.7	<2.50	<2.50	<5.00	--
	12/14/98	3.70	95.82	2,840	8,850	3,880	327	<5.00	11.7	<10.0	--
	3/26/99	4.50	95.02	2,490	4,130	2,280	180	1.87	20.6	6.13	--
MW-6 99.67	02/25/91	5.69	92.50	--	--	--	<1.0	<1.0	<1.0	<1.0	--
	10/19/92	7.64	92.03	<1,000	<250	--	19	<1.0	<1.0	<1.0	8
	08/26/93	6.33	93.34	<100	<250	<750	<0.50	<0.50	<0.50	<0.50	<3
	10/13/94	7.90	91.77	<50	450	<750	<0.50	<0.50	<0.50	<1.0	40
	04/25/95	5.63	94.04	<50	330	1,300	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	--	--	<50	550	1,200	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	6.50	93.17	<50	530	970	<0.50	<0.50	<0.50	<1.0	--
	01/22/96	5.08	94.59	<50	610	<750	<0.50	<0.50	<0.50	<1.0	--
	04/10/96	5.73	93.94	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	07/29/96	5.55	94.12	<5	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	10/25/96	6.25	93.42	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97	5.09	94.58	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	03/05/97 ^{NP}	5.52	94.15	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	06/19/97 ^{NP}	5.52	94.15	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	09/16/97 ^{NP}	6.35	93.32	<50	<250	<750	<0.5	<0.5	<0.5	<1.0	--
	12/18/97	5.72	93.95	<50.0	269	<750	<0.500	<0.500	<0.500	<1.00	--
	3/11/98	5.25	94.42	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	6/24/98	6.23	93.44	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	9/18/98	6.44	93.23	<50.0	2,320	1,300	<0.500	<0.500	<0.500	<1.00	--
	12/14/98	4.62	95.05	<50.0	<250	<750	<0.500	<0.500	<0.500	1.06	--
	3/26/99	4.59	95.08	<50.0	<250	775	<0.500	<0.500	<0.500	<1.00	--
MW-7 98.50	02/25/91	4.33	92.68	--	--	--	11	<1.0	<1.0	<1.0	--
	10/19/92	5.98	92.52	<1,000	620	--	6	<1.0	<1.0	<1.0	<5
	08/26/93	6.16	92.34	<100	<250	<750	12	<0.50	<0.50	<0.50	<3
	10/13/94	6.56	91.94	<50	540	<750	3.3	<0.50	<0.50	<1.0	110
	04/25/95	4.45	93.05	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	--	--	<50	2,000	2,100	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	4.90	93.60	<50	<250	950	<0.50	<0.50	<0.50	<1.0	--
	01/22/96	3.89	94.61	<50	520	<750	1.5	<0.50	<0.50	<1.0	--
	04/10/96	4.63	93.87	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	07/29/96	4.55	93.95	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	10/25/96	4.98	93.52	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97	3.94	94.56	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	03/05/97 ^{NP}	3.94	94.56	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	06/19/97 ^{NP}	4.57	93.93	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	09/16/97 ^{NP}	5.29	93.21	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	--
	12/18/97	4.43	94.07	<50.0	357	<750	<0.500	<0.500	<0.500	<1.00	--
	3/11/98	4.05	94.45	<50.0	<250	<750	0.875	<0.500	<0.500	<1.00	--
	6/24/98	4.91	93.59	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	9/18/98	5.67	92.83	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	12/14/98	3.57	94.93	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--
	3/26/99	3.44	95.06	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	--

MTCA Method A Cleanup Level
Continued on Page 2.

1,000^g

5

40

30

20

5

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 2 of 3

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-8 98.96	02/25/91	5.44	92.06	—	—	—	7	16	29	32	—
	10/19/92	7.17	91.79	4,900	330	—	7,200	32	510	1,500	<5
	08/26/93	6.91	92.05	7,500	660	—	16,000	410	800	670	<3
	10/13/94	7.40	91.56	2,200	740	1,200	19,000	<40	<40	63	4.6
	04/25/95	5.41	93.55	6,700	1,500	1,200	10,000	200	340	1,000	<2.0
	07/12/95	—	—	4,800	1,500	1,000	8,700	<8.0	130	690	<2.0
	10/12/95	6.48	92.48	3,500	1,500	1,100	11,000	16	18	59	—
	01/22/96	5.10	94.35	2,500	2,500	1,000	6,500	<20	<20	23	—
	04/10/96	5.63	93.33	2,300	2,000	750	3,400	<20	<20	21	—
	07/29/96	4.22	94.74	3,000	1,000	<750	8,550	<25.0	<25.0	<50.0	—
	10/25/96	6.03	92.93	3,500	<250	<750	3,500	<25.0	<25.0	50.3	—
	03/05/97	4.91	94.05	3,490	398	<750	3,970	<10.0	<10.0	<20.0	—
	03/05/97 ^{NP}	4.91	94.05	7,730	375	<750	830	<5.0	11.5	<10.0	—
	06/19/97 ^{NP}	5.48	93.50	6,220	621	<750	1,870	<12.5	13.1	<25.0	—
	09/16/97 ^{NP}	6.28	92.21	3,310	292	<750	4,380	<10	11.5	<20	—
	12/18/97	5.53	93.43	2,890	1,650	<750	4,890	<25.0	<25.0	<50.0	—
	3/11/98	5.14	93.82	<2,500	1,370	<750	2,640	<25.0	<25.0	<50.0	—
	6/24/98	6.15	92.81	2,650	1,700	<750	2,230	<25.0	<25.0	<50.0	—
	9/18/98	6.56	92.40	1,940	<250	<750	779	<12.5	<12.5	<25.0	—
	12/14/98	Obstructed by surface water			—	—	—	—	—	—	—
	3/26/99	—	—	1,340	1,300	<750	27.7	<2.50	<4.50	<8.50	—
MW-9 98.66	02/25/91	4.55	92.62	—	—	—	14,100	19,400	1,300	10,320	—
	10/19/92	8.47	92.19	5,800	35,000	—	6,000	150	350	1,500	<5
	08/26/93	6.48	92.05	6,800	4,400	<750	7,100	100	630	1,300	<3
	10/13/94	7.00	91.66	2,700	4,100	<750	3,000	11	190	140	7.9
	04/25/95	4.70	93.96	6,300	2,500	1,000	350	3.7	210	310	<2.0
	07/12/95	—	—	1,600	2,600	1,300	68	<2.0	62	72	<2.0
	10/12/95	5.15	93.51	4,600	8,800	6,000	930	17	240	310	—
	01/22/96	4.06	94.60	4,000	9,200	1,900	110	<2.0	100	100	—
	04/10/96	4.86	93.80	3,800	3,000	1,000	170	<2.0	170	49	—
	07/29/96	4.71	93.95	1,600	990	890	1,060	<12.5	17.0	<25.0	—
	10/25/96	5.22	93.44	2,100	1,910	<750	687	9.31	9.91	<10.0	—
	03/05/97	4.11	94.55	1,030	22,400	2,240	49.4	<0.50	15.8	<1.0	—
	03/05/97 ^{NP}	4.11	94.55	2,120	8,150	1,060	48.4	<1.0	17.9	2.11	—
	06/19/97 ^{NP}	4.78	93.88	710	1,450	<750	104	<2.5	13.6	5.14	—
	09/16/97 ^{NP}	5.59	93.07	778	459	<750	664	6.27	2.27	4.61	—
	12/18/97	4.61	94.05	1,850	26,000	4,010	59.7	2.82	<2.50	<5.00	—
	3/11/98	4.19	94.47	215	2,180	<750	12.5	<0.500	0.761	<1.00	—
	6/24/98	5.04	93.62	383	603	<750	155	3.68	<2.50	<5.00	—
	9/18/98	6.02	92.64	443	1,090	<750	188	<2.50	<2.50	6.45	—
	12/14/98	3.94	94.72	377	2,670	<750	3.27	0.650	0.812	1.05	—
	3/26/99	3.61	95.05	257	4,150	820	1.66	1.04	<0.600	2.31	—
MW-10 99.62	02/25/91	—	—	4,200	<250	—	2,000	9.0	200	1,300	72
	10/19/92	7.52	92.10	—	—	—	—	—	—	—	—
	08/26/93	7.44	92.18	1,700	<250	<750	88	3.7	50	87	<3
	10/13/94	7.96	91.66	720	280	<750	730	6.1	1.1	150	25
	04/25/95	5.79	93.83	3,000	45	990	2,100	21	47	270	<2.0
	07/12/95	—	—	1,800	55	<750	2,300	27	<20	290	<2.0
	10/12/95	6.85	92.77	2,200	420	<750	2,100	19	7.8	99	—
	01/22/96	5.82	93.80	1,900	440	<750	1,200	12	23	39	—
	04/10/96	6.08	93.54	1,500	900	<750	920	19	15	50	—
	07/29/96	5.24	94.38	<2,500	260	<750	3,660	27.6	<25.0	<50.0	—
	10/25/96	—	—	—	—	—	—	—	—	—	—
	03/05/97	—	—	—	—	—	—	—	—	—	—
	06/19/97 ^{NP}	5.95	93.67	53	<250	<750	691	7.48	<5.0	20.3	—
	09/16/97 ^{NP}	6.80	92.82	736	<250	<750	1,170	9.747	3.11	18.2	—
	12/18/97	—	—	—	—	—	—	—	—	—	—
	3/11/98	—	—	—	—	—	—	—	—	—	—
	6/24/98	6.64	92.98	301	376	<750	453	3.33	<2.50	6.74	—
	9/18/98	7.19	92.43	<1,000	292	<750	1,000	<10.0	<10.0	<20.0	—
	12/14/98	5.41	94.21	<1,000	363	<750	477	12.0	<10.0	29.2	—
	3/26/99	5.06	94.56	331	300	<750	261	3.32	<2.50	8.30	—

MTCA Method A Cleanup Level

1,000^a

5

40

30

20

5

Continued on Page 3.

TABLE 1
GROUNDWATER ANALYTICAL RESULTS
Tosco Facility 5472
3460 1st Avenue South
Seattle, Washington
Page 3 of 3

Well Name	Sample Date	DTW	GW Elev.	TPH-G	TPH-D	TPH-O	B	T	E	X	Diss. Pb
MW-11 99.70	02/25/91	-	-	-	-	-	-	-	-	-	-
	10/19/92	7.97	91.73	<1,000	<250	-	<0.1	<1.0	<1.0	<1.0	<5
	08/26/93	7.59	92.11	<100	<250	<750	<0.50	<0.50	<0.50	<0.50	<3
	10/13/94	8.20	91.50	<50	300	1,100	<0.50	<0.50	<0.50	<1.0	<2.0
	04/25/95	8.00	93.70	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	07/12/95	-	-	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	<2.0
	10/12/95	7.0	92.70	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	01/22/96	-	-	-	-	-	-	-	-	-	-
	04/10/96	5.97	93.73	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	07/29/96	5.84	93.86	<50	<250	<750	<0.50	<0.50	<0.50	<0.10	-
	10/25/96	6.55	93.15	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	03/05/97	5.41	94.29	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	03/05/97 ^{SP}	5.41	94.29	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	08/19/97 ^{SP}	5.81	93.89	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	09/16/97 ^{SP}	6.31	93.39	<50	<250	<750	<0.50	<0.50	<0.50	<1.0	-
	12/18/97	6.21	93.49	<50.0	285	<750	<0.500	<0.500	<0.500	<1.00	-
	3/11/98	5.55	94.15	<50.0	297	<750	<0.500	<0.500	<0.500	<1.00	-
	6/24/98	6.32	93.38	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	-
	9/18/98	6.35	93.35	<50.0	1,380	<750	<0.500	<0.500	<0.500	<1.00	-
	12/14/98	4.90	94.80	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	-
	3/26/99	Obstructed by construction									
MW-12 100.32	02/25/91	-	-	-	-	-	-	-	-	-	-
	10/19/92	8.37	91.95	8,500	830	-	7,500	1,800	180	1,810	<5
	08/26/93	8.11	92.21	-	-	-	-	-	-	-	-
	10/13/94	8.66	91.66	18,000	3,000	<750	3,300	91	1,100	360	<2.0
	04/25/95	6.40	93.92	32,000	2,600	2,000	1,700	41	470	1,100	<2.0
	07/12/95	-	-	14,000	8,500	<8,000	3,500	100	1,000	2,100	<2.0
	10/12/95	7.45	92.87	7,400	2,800	1,300	940	7.5	310	740	-
	01/22/96	7.70	92.62	33,000	1,700	1,100	1,400	250	1,200	3,300	-
	04/10/96	6.53	93.79	20,000	1,300	<750	330	7.7	590	940	-
	07/29/96	6.24	94.08	15,100	1,400	<750	3,300	<25.0	535	1,320	-
	10/25/96	7.08	93.24	9,900	230	<750	2,660	<25.0	492	1,040	-
	03/05/97	5.78	94.54	17,900	372	<750	652	727	15	1,610	-
	03/05/97 ^{SP}	5.78	94.54	14,500	431	<750	637	<10.0	646	968	-
	08/19/97 ^{SP}	6.45	93.87	14,900	666	<750	335	<10.0	525	557	-
	09/16/97 ^{SP}	7.30	93.02	9,450	556	<750	585	<10.0	344	248	-
	12/18/97	6.48	93.84	9,390	1,480	916	490	10.8	362	565	-
	3/11/98	5.98	94.34	7,540	1,380	806	628	10.7	322	362	-
	6/24/98	7.15	93.17	2,490	1,260	<750	203	3.49	35.1	11.4	-
	9/18/98	7.49	92.83	848	<250	<750	88.8	0.583	22.0	16.5	-
	12/14/98	5.21	95.11	4,730	744	<750	229	5.81	245	196	-
	3/26/99	5.31	95.01	1,980	700	<750	73.7	2.66	<87.0	35.9	-
MW-13 100.24	6/24/98	7.80	92.44	815	802	<750	<2.50	<2.50	<2.50	<5.00	-
	9/18/98	8.16	92.08	889	1,130	<750	<2.25	<1.25	<1.25	3.51	-
	12/14/98	6.75	93.49	653	508	<750	1.68	0.640	<0.500	3.43	-
	3/26/99	6.30	93.94	685	639	<750	<2.50	1.25	<1.75	4.38	-
MW-14 99.94	6/24/98	7.60	92.34	2,230	505	<750	422	<10.0	<10.0	<20.0	-
	9/18/98	8.03	91.91	1,500	748	<750	75.4	<2.50	<2.50	13.3	-
	12/14/98	6.68	93.26	1,590	597	<750	182	<2.50	<2.50	9.39	-
	3/26/99	6.20	93.74	1,190	752	<750	5.53	<0.500	<0.900	4.84	-
MW-15 99.29	6/24/98	6.52	92.77	74.0	477	<750	14.1	1.03	0.566	1.72	-
	9/18/98	7.06	92.23	<50.0	646	<750	10.5	0.676	<0.500	2.32	-
	12/14/98	5.78	93.51	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	-
	3/26/99	5.42	93.87	59.8	344	<750	2.86	1.90	1.93	3.28	-
MTCA Method A Cleanup Level				1,000 ^a			5	40	30	20	5

EXPLANATION:

All concentrations in ug/L (ppb).

Wellhead elevations taken from prior consultant's reports.

DTW = Depth to water in feet below top of casing.

GW Elev. = Groundwater elevation relative to top of casing elevations; Corrected for free product where applicable using a specific gravity of 0.75.

TPH-G = Total Petroleum Hydrocarbons as Gasoline by Ecology Method WTPH-G.

TPH-D and TPH-O = Total Petroleum Hydrocarbons as Diesel and Oil, respectively, by Ecology Method WTPH-D (extended).

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

BTEX = Aromatic compounds by EPA Method 8020.

Diss. Pb = Dissolved Lead by EPA Method 7421.

LPH = Liquid-phase petroleum hydrocarbons present; no sample collected.

- = Not sampled.

< = Less than the stated laboratory reporting limit.

^{SP} = Sample collected without purging.

^a Total Petroleum Hydrocarbons.

Samples collected from MW-13, MW-14, and MW-15 on 6/24/98 identified as MW-B, MW-A, and MW-C, respectively, on laboratory report.

October 1994 results are for total lead.

Shaded values equal or exceed MTCA Method A Cleanup Levels.

Data collected before 12/18/97 are taken from prior consultants.



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ERI
1921 Edmonds Drive SE
Renton, WA 98055

Project: TOSCO #5472
Project Number: 31023
Project Manager: John Meyer

Sampled: 3/26/99
Received: 3/26/99
Reported: 4/6/99 08:17

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	B903640-01	Water	3/26/99
MW-6	B903640-02	Water	3/26/99
MW-7	B903640-03	Water	3/26/99
MW-8	B903640-04	Water	3/26/99
MW-9	B903640-05	Water	3/26/99
MW-10	B903640-06	Water	3/26/99
MW-12	B903640-07	Water	3/26/99
MW-13	B903640-08	Water	3/26/99
MW-14	B903640-09	Water	3/26/99
MW-15	B903640-10	Water	3/26/99

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*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
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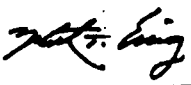
ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

**Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1				B903640-01			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		125	2490	ug/l	
Benzene	"	"	"		1.25	180	"	
Toluene	"	"	"		1.25	1.87	"	
Ethylbenzene	"	"	"		1.25	20.6	"	
Xylenes (total)	"	"	"		2.50	6.13	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		169	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		132	"	
MW-6				B903640-02			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/2/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		75.2	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		92.1	"	
MW-7				B903640-03			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/2/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		1.00	ND	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		72.9	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		90.4	"	
MW-8				B903640-04			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		50.0	1340	ug/l	
Benzene	"	"	"		0.500	27.7	"	
Toluene	"	"	"		2.50	ND	"	2
Ethylbenzene	"	"	"		4.50	ND	"	2
Xylenes (total)	"	"	"		8.50	ND	"	2
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		NR	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		161	"	1
MW-9				B903640-05			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		50.0	257	ug/l	
Benzene	"	"	"		0.500	1.66	"	

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


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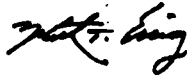
ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

**Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-9 (continued)				B903640-05		Water		
Toluene	0490066	4/2/99	4/3/99		0.500	1.04	ug/l	
Ethylbenzene	"	"	"		0.600	ND	"	2
Xylenes (total)	"	"	"		1.00	2.31	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		103	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		103	"	
MW-10				B903640-06		Water		
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		250	331	ug/l	
Benzene	"	"	"		2.50	261	"	
Toluene	"	"	"		2.50	3.32	"	
Ethylbenzene	"	"	"		2.50	ND	"	
Xylenes (total)	"	"	"		5.00	8.30	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		100	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		103	"	
MW-12				B903640-07		Water		
Gasoline Range Hydrocarbons	0490066	4/2/99	4/2/99		50.0	1980	ug/l	
Benzene	"	"	"		0.500	73.7	"	
Toluene	"	"	"		0.500	2.66	"	
Ethylbenzene	"	"	"		87.0	ND	"	2
Xylenes (total)	"	"	"		1.00	35.8	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		NR	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		159	"	1
MW-13				B903640-08		Water		
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		50.0	685	ug/l	
Benzene	"	"	"		2.50	ND	"	2
Toluene	"	"	"		0.500	1.25	"	
Ethylbenzene	"	"	"		1.75	ND	"	2
Xylenes (total)	"	"	"		1.00	4.38	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		175	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		139	"	
MW-14				B903640-09		Water		
Gasoline Range Hydrocarbons	0490066	4/2/99	4/3/99		50.0	1190	ug/l	
Benzene	"	"	"		0.500	5.53	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.900	ND	"	2

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**Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B
North Creek Analytical - Bothell**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-14 (continued)				B903640-09			Water	
Xylenes (total)	0490066	4/2/99	4/3/99		1.00	4.84	ug/l	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		160	%	1
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		137	"	
MW-15				B903640-10			Water	
Gasoline Range Hydrocarbons	0490066	4/2/99	4/5/99		50.0	59.8	ug/l	
Benzene	"	"	"		0.500	2.86	"	
Toluene	"	"	"		0.500	1.90	"	
Ethylbenzene	"	"	"		0.500	1.93	"	
Xylenes (total)	"	"	"		1.00	3.28	"	
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		89.4	%	
Surrogate: 4-BFB (PID)	"	"	"	50.0-150		102	"	

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ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1				B903640-01			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	4.13	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	2.28	"	
Surrogate: 2-FBP	"	"	"	50.0-150		83.1	%	
MW-6				B903640-02			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	ND	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	0.775	"	
Surrogate: 2-FBP	"	"	"	50.0-150		106	%	
MW-7				B903640-03			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	ND	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		87.3	%	
MW-8				B903640-04			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	1.30	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		109	%	
MW-9				B903640-05			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	4.15	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	0.820	"	
Surrogate: 2-FBP	"	"	"	50.0-150		86.4	%	
MW-10				B903640-06			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	0.300	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		98.1	%	
MW-12				B903640-07			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/3/99		0.250	0.700	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		72.4	%	
MW-13				B903640-08			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/4/99		0.250	0.839	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		98.7	%	

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ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)
North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-14				B903640-09			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/4/99		0.250	0.752	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		85.4	%	
MW-15				B903640-10			Water	
Diesel Range Hydrocarbons	0490004	4/1/99	4/4/99		0.250	0.344	mg/l	
Heavy Oil Range Hydrocarbons	"	"	"		0.750	ND	"	
Surrogate: 2-FBP	"	"	"	50.0-150		93.8	%	



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1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recovery Limits	Recovery %	RPD Limit	RPD %	Notes*
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Batch: 0490066

Date Prepared: 4/2/99

Extraction Method: EPA 5030B (P/T)

Blank

0490066-BLK1

Gasoline Range Hydrocarbons	4/2/99		ND	ug/l	50.0					
Benzene	"		ND	"	0.500					
Toluene	"		ND	"	0.500					
Ethylbenzene	"		ND	"	0.500					
Xylenes (total)	"		ND	"	1.00					
Surrogate: 4-BFB (FID)	"	48.0	39.0	"	50.0-150	81.3				
Surrogate: 4-BFB (PID)	"	48.0	45.8	"	50.0-150	95.4				

Blank

0490066-BLK2

Gasoline Range Hydrocarbons	4/3/99		ND	ug/l	50.0					
Benzene	"		ND	"	0.500					
Toluene	"		ND	"	0.500					
Ethylbenzene	"		ND	"	0.500					
Xylenes (total)	"		ND	"	1.00					
Surrogate: 4-BFB (FID)	"	48.0	41.6	"	50.0-150	86.7				
Surrogate: 4-BFB (PID)	"	48.0	46.0	"	50.0-150	95.8				

LCS

0490066-BS1

Gasoline Range Hydrocarbons	4/3/99	500	490	ug/l	70.0-130	98.0				
Surrogate: 4-BFB (FID)	"	48.0	47.0	"	50.0-150	97.9				
Surrogate: 4-BFB (PID)	"	48.0	41.5	"	50.0-150	86.5				

Duplicate

0490066-DUP1 B903640-04

Gasoline Range Hydrocarbons	4/3/99		1340	1650	ug/l			25.0	20.7	
Surrogate: 4-BFB (FID)	"	48.0		122	"	50.0-150	NR			1

Duplicate

0490066-DUP2 B903640-03

Gasoline Range Hydrocarbons	4/3/99		ND	ND	ug/l			25.0		
Surrogate: 4-BFB (FID)	"	48.0		39.3	"	50.0-150	81.9			

Matrix Spike

0490066-MS1 B903640-02

Benzene	4/2/99	10.0	ND	10.5	ug/l	70.0-130	105			
Toluene	"	10.0	ND	10.9	"	70.0-130	109			
Ethylbenzene	"	10.0	ND	11.0	"	70.0-130	110			
Xylenes (total)	"	30.0	ND	32.3	"	70.0-130	108			
Surrogate: 4-BFB (PID)	"	48.0		49.7	"	50.0-150	104			

North Creek Analytical - Bothell

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

Matthew Essig, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network



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ERI 1921 Edmonds Drive SE Renton, WA 98055	Project: TOSCO #5472 Project Number: 31023 Project Manager: John Meyer	Sampled: 3/26/99 Received: 3/26/99 Reported: 4/6/99 08:17
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Gasoline Hydrocarbons (Toluene to Dodecane) and BTEX by WTPH-G and EPA 8021B/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup		0490066-MSD1	B903640-02							
Benzene	4/3/99	10.0	ND	10.5	ug/l	70.0-130	105	15.0	0	
Toluene	"	10.0	ND	10.9	"	70.0-130	109	15.0	0	
Ethylbenzene	"	10.0	ND	11.2	"	70.0-130	112	15.0	1.80	
Xylenes (total)	"	30.0	ND	32.6	"	70.0-130	109	15.0	0.922	
Surrogate: 4-BFB (PID)	"	48.0		49.6	"	50.0-150	103			

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ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

Diesel Hydrocarbons (C12-C24) and Heavy Oil (C24-C40) by WTPH-D (extended)/Quality Control
North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0490004										
Blank										
0490004-BLK1										
Diesel Range Hydrocarbons	4/5/99			ND	mg/l	0.250				
Heavy Oil Range Hydrocarbons	"			ND	"	0.750				
Surrogate: 2-FBP	"	0.326		0.411	"	50.0-150	126			
LCS										
0490004-BS1										
Diesel Range Hydrocarbons	4/3/99	2.00		1.74	mg/l	60.0-140	87.0			
Heavy Oil Range Hydrocarbons	"			ND	"	60.0-140				
Surrogate: 2-FBP	"	0.326		0.279	"	50.0-150	85.6			
Duplicate										
0490004-DUP1 B903640-01										
Diesel Range Hydrocarbons	4/3/99		4.13	3.42	mg/l			44.0	18.8	
Heavy Oil Range Hydrocarbons	"		2.28	2.17	"			44.0	4.94	
Surrogate: 2-FBP	"	0.616		0.519	"	50.0-150	84.3			



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ERI	Project: TOSCO #5472	Sampled: 3/26/99
1921 Edmonds Drive SE	Project Number: 31023	Received: 3/26/99
Renton, WA 98055	Project Manager: John Meyer	Reported: 4/6/99 08:17

Notes and Definitions

#	Note
1	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
2	The reporting limit for this analyte has been raised to account for 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
Recov.	Recovery
RPD	Relative Percent Difference

North Creek Analytical - Bothell

Matthew Essig, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network



**NORTH
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Environmental Laboratory Services

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CHAIN OF CUSTODY REPORT

Work Order # **B903640**

REPORT TO: ER4			INVOICE TO: TOMO			TURNAROUND REQUEST in Business Days * <table border="1" style="width:100%; text-align: center;"> <tr> <td colspan="6">Organic & Inorganic Analyses</td> </tr> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>Same Day</td> </tr> <tr> <td colspan="8">Standard</td> </tr> <tr> <td colspan="6">Fuels & Hydrocarbon Analyses</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td>1</td><td colspan="2">Same Day</td> </tr> <tr> <td colspan="8">Standard</td> </tr> </table> OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.			Organic & Inorganic Analyses						10	7	5	4	3	2	1	Same Day	Standard								Fuels & Hydrocarbon Analyses						5	3-4	2	1	Same Day		Standard							
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ATTENTION: John Meyer			ATTENTION: Tim Johnson																																															
ADDRESS: 1924 Edwards Dr SE			ADDRESS: _____																																															
PHONE: (25) 227-0280 FAX: 80725			P.O. NUMBER: 7754722511/289/48102200000																																															
PROJECT NAME: TOMO 5422 INT			NCA QUOTE #: _____																																															
PROJECT NUMBER: 31023			Analysis Request: TR-6/BTEX TR-10 (EXT)																																															
SAMPLED BY: John Meyer																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> <tr> <td>1. MW-1</td> <td>3/26/99</td> <td>B903640-01</td> </tr> <tr> <td>2. MW-6</td> <td></td> <td>-02</td> </tr> <tr> <td>3. MW-7</td> <td></td> <td>-03</td> </tr> <tr> <td>4. MW-8</td> <td></td> <td>-04</td> </tr> <tr> <td>5. MW-9</td> <td></td> <td>-05</td> </tr> <tr> <td>6. MW-10</td> <td></td> <td>-06</td> </tr> <tr> <td>7. MW-12</td> <td></td> <td>-07</td> </tr> <tr> <td>8. MW-13</td> <td></td> <td>-08</td> </tr> <tr> <td>9. MW-14</td> <td></td> <td>-09</td> </tr> <tr> <td>10. MW-15</td> <td></td> <td>-10</td> </tr> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	1. MW-1	3/26/99	B903640-01	2. MW-6		-02	3. MW-7		-03	4. MW-8		-04	5. MW-9		-05	6. MW-10		-06	7. MW-12		-07	8. MW-13		-08	9. MW-14		-09	10. MW-15		-10												
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W	3																																																	
RELINQUISHED BY (Signature): [Signature] DATE: 3/26/99																																																		
RECEIVED BY (Signature): S. Wideen DATE: 3/26/99																																																		
PRINT NAME: John Meyer FIRM: B21 TIME: _____																																																		
PRINT NAME: S. Wideen FIRM: NCA TIME: 1645																																																		
RELINQUISHED BY (Signature): S. Wideen DATE: 3/26/99																																																		
RECEIVED BY (Signature): Adam Reed DATE: 3/26/99																																																		
PRINT NAME: S. Wideen FIRM: NCA TIME: 1755																																																		
PRINT NAME: Adam Reed FIRM: NCA-B TIME: 1755																																																		
ADDITIONAL REMARKS: wol 8.2 °C																																																		

GROUNDWATER SAMPLING - FIELD LOG

Client Name: Town 5472
Location: 1st n 3rd
Field Crew: 12

ERI Job No. 71023
Field Cleaning Performed:
Analysis:

Date: 31/2/22

Page 1 of 1

* - Case Volume = $(d_{\text{well}} - d_{\text{water}})_{\text{in ft}} \times F$ where $F =$

0.163	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

Well No.	Time	Depth Water (ft.)	Depth Well (ft.)	Case Dia. (in)	Case Vol. gal	Purge Vol. (gal)	Conduct. μS/CM (X1000)	Temp. Deg F	pH	TURB. NTU	PID PPM	Comments
14		6.20	15	2	2	6						
13		6.70	15	2	2	6						
7		3.44	17	2	2	6						
6		4.59	18	2	2	6						
9		3.61	20	2	2	9						
1		4.50	18	2	2	6						
12		5.71	20	4	10	30						
8		—	—	2	2	6						
15		5.42	20	2	2	3	Dry @ 36					PIL not record PIL
10		5.06	20	2	2	6						
11		OBRATED					By construction					
							44 28 <u>104</u> 6					
M		2	2	2	4	4	4					
		HH										
		111			1							

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ENVIRONMENTAL RESOLUTIONS, INC.