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15 June 2007
Project No. 01LV

Jerry Wickham
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: First Quarter 2007 Status Report
1619 1st Street, Livermore, California
Tesoro No. 67076 (Former Beacon 3604); ACEH Case No. RO0000434

Dear Mr. Wickham:

Arctos Environmental (Arctos), on behalf of Tesoro Companies, Inc. (Tesoro), has prepared this letter report summarizing project activities for the first quarter 2007 at the subject site (Figure 1). From January through March 2007, Arctos completed the following tasks:

- Quarterly groundwater monitoring
- Groundwater assessment activities.

Groundwater Monitoring

Arctos performed groundwater monitoring at the site on 14 February 2007. Samples were collected from wells MW-1 through MW-10, VW-2, VW-3, TP-1, and TP-2 (Figure 2). Groundwater monitoring was performed in accordance with the guidelines of the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

Field Activities for Groundwater Sampling
The depth to groundwater of each well was measured and recorded on field data sheets before sampling (Appendix A). Depth to groundwater and groundwater elevations are summarized on Table 1.

During purging, pH, specific conductivity, and temperature were measured and recorded for the evacuated groundwater. Groundwater samples were collected after the temperature, pH, and specific conductivity of the groundwater had stabilized to within

approximately 10 percent of the previous reading and at least 3 casing volumes of groundwater were removed from the well, unless the well purged dry. Well purge water was stored temporarily on site in 55-gallon drums.

Analytical Program

The groundwater samples were analyzed by Kiff Analytical LLC (Kiff), a State-certified laboratory in Davis, California, for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tert-butyl ether (MTBE); and other oxygenates and alcohols using EPA Method 8260B.

In addition to the standard groundwater analyses, Kiff analyzed selected samples from groundwater wells located upgradient (wells MW-3 and MW-4) and through the centerline of the plume (wells MW-2, MW-6, and MW-9) for the natural attenuation and general groundwater chemistry parameters listed in Table 2.

Arctos, as Tesoro's Authorized Responsible Party for the site, also has electronically submitted the groundwater monitoring results to the State Water Resources Control Board (SWRCB). The data were submitted in the State-mandated Electronic Data Format (EDF), in accordance with Assembly Bill 2886 requirements for underground storage tank (UST) sites in California.

Summary of Groundwater Results

As indicated in Table 1, the depth to groundwater was approximately 30 to 34 feet below ground surface (436 to 444 feet above mean sea level). The water level data indicate that the general direction of water flow is toward the northwest with an estimated gradient of 0.02 (1 foot/50 feet; Figure 2).

The highest TPHg and benzene concentrations of 36,000 and 4,600 micrograms per liter (µg/l), respectively, were at well MW-2. The highest MTBE concentration of 53,000 µg/l was at well TP-2. Elevated benzene and MTBE concentrations in groundwater (480 and 1,600 µg/l, respectively) are also present approximately 140 feet downgradient of the site at well MW-6.

The following results for natural attenuation parameters show the presence of biological activity in the groundwater to potentially degrade TPHg, benzene, and MTBE:

- Decreasing concentrations of nitrate and sulfate in the source area (well MW-2) and downgradient (wells MW-6 and MW-9)
- Increasing concentrations of ferrous iron

- Decreasing values of ORP.

Historical analytical results for the groundwater samples are summarized in Table 3. Figures 3 and 4 show the isoconcentration contours for benzene and MTBE, respectively. The laboratory report and chain-of-custody form are in Appendix B.

Groundwater Assessment Activities

As requested in the Alameda County Environmental Health (ACEH) letter to Tesoro dated 23 June 2006, Arctos submitted a work plan, dated 30 September 2006 for lateral assessment of MTBE-impacted groundwater downgradient of boring DB-6. ACEH approved the work plan in a letter dated 9 October 2006.

To meet the objective of the groundwater assessment, Arctos installed boring DB-7 for delineation of MTBE-impacted groundwater (Figure 5). Arctos obtained boring permits from the Zone 7 Water Agency and notified Underground Service Alert to clear the boring locations for subsurface lines and utilities before drilling.

Drilling and Soil Sampling
One soil boring (designated as DB-7) was drilled off site on 4 January 2007 by Gregg Drilling and Testing, Inc., of Martinez, California, using a cone penetration test (CPT) rig. The boring was drilled off site northwest (downgradient) of the site and previously drilled boring DB-6 (Figure 2) and completed to approximately 90 feet below grade. The boring was logged continuously using measurements of cone bearing, sleeve friction, and pore water pressure. Appendix C contains the boring log; Appendix D presents the field investigation and quality assurance/quality control (QA/QC) procedures.

Grab Groundwater Sampling
Arctos attempted to collect three grab groundwater samples from coarse-grained soil layers identified in the boring. An insufficient amount of groundwater entered the sampling chamber from the sampling interval at 37 to 42 feet below grade. Samples were collected for sampling intervals at 49 to 54 and 62 to 67 feet below grade and submitted to Kiff for analysis of TPHg, BTEX, oxygenates, lead scavengers, methanol and ethanol by modified EPA Method 8260B. Appendix D presents the field investigation and QA/QC procedures.

Site Surveying
On 9 January 2007, Cross Land Surveying, Inc., of San Jose, California, surveyed the new boring. The boring location was measured to the nearest 1/10 foot and elevation to the nearest 1/100 foot relative to mean sea level (MSL) at the ground surface. The elevation was based on City of Livermore Benchmark K2-741 (elevation of 467.835 feet above

mean sea level [MSL]) at the intersection of South P Street and Railroad Avenue in the City of Livermore, California. The survey data are reflected on Figure 5. The site survey report is in Appendix E.

Groundwater Assessment Results

Soil Samples

The subsurface soil encountered during drilling generally consisted of sands and silty sand silty clays to sands from the surface to approximately 70 feet below grade with occasional layers of clayey silt. Stiff and cemented sands were identified from approximately 66 to 70 feet below grade. The regional aquitard was observed at an approximately depth of 70 feet grade consisting of increased silts and clays. This lithology was consistent with previous investigations.

Grab Groundwater Samples

Grab samples from both sampling intervals contained detectable concentrations of TPHg and benzene. MTBE and tert-butyl alcohol were not detected in the samples collected. The sampling interval from 62 to 67 feet below grade had the highest concentrations of TPHg and benzene at 6,800 and 150 µg/l, respectively. Table 4 summarizes the grab groundwater analytical results and the laboratory reports are in Appendix B. Figure 5 shows the groundwater concentrations for the current and previous delineation borings and groundwater monitoring wells.

If you have questions or comments, please call Mike Purchase at 510/525-2180 or Jeff Gwinn at 562/988-2755.

Very truly yours,

ARCTOS ENVIRONMENTAL

FOR

Michael P. Purchase
Senior Project Manager

Jeffrey P. Gwinn, P.E.
Vice President

REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. GWINN
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Copy: Jeffrey M. Baker, P.E. – Tesoro Companies, Inc.
Colleen Winey – Zone 7 Water Agency

Attachments: Table 1 – Well and Groundwater Elevations
Table 2 – Groundwater Natural Attenuation Parameters
Table 3 – Groundwater Monitoring Analytical Results
Table 4 – Grab Groundwater Analytical Results

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Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contours
Figure 3 – Benzene Concentration Contours
Figure 4 – MTBE Concentration Contour
Figure 5 – Downgradient Groundwater Sampling Location
Appendix A – Field Data Sheets
Appendix B – Laboratory Analytical Reports and Chain-of-Custody Forms
Appendix C – Boring Log
Appendix D – Field and QA/QC Procedures
Appendix E – Site Survey Report

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-1	6/1/1993	37.50	474.29	436.79
	6/22/1993	38.46		435.83
	10/6/1993	42.22		432.07
	1/13/1994	34.52		439.77
	3/30/1994	31.93		442.36
	4/25/1994	33.49		440.80
	8/12/1994	41.03		433.26
	12/14/1994	38.63		435.66
	2/10/1995	30.80		443.49
	6/15/1995	25.46		448.83
	9/26/1995	31.05		443.24
	12/15/1995	28.11		446.18
	3/21/1996	17.67		456.62
	6/13/1996	22.86		451.43
	9/16/1996	30.04		444.25
	12/2/1996	26.74		447.55
	3/7/1997	20.84		453.45
	6/12/1997	28.71		445.58
	9/29/1997	33.91		440.38
	12/1/1997	34.88		439.41
	3/19/1998	19.83		454.46
	5/29/1998	21.57		452.72
	9/15/1998	31.68		442.61
	11/30/1998	36.80		437.49
	1/17/1999	30.02		444.27
	6/10/1999	29.30		444.99
	9/7/1999	31.41		442.88
	12/13/1999	32.95		441.34
	3/13/2000	25.74		448.55
	6/12/2000	28.24		446.05
	11/10/2000	30.56		443.73
	12/31/2000	31.71		442.58
	3/27/2001	30.43		443.86
	6/30/2001	36.61		437.68
	9/26/2001	45.10		429.19

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-1	12/18/2001	39.39	474.29	434.90
(cont.)	3/18/2002	38.24		436.05
	8/21/2002	36.71		437.58
	12/3/2002	36.85		437.44
	3/4/2003	33.72		440.57
	6/10/2003	31.31		442.98
	9/9/2003	35.05		439.24
	12/23/2003	30.15		444.14
	3/23/2004	26.61		447.68
	5/10/2004	30.31		443.98
	8/4/2004	34.77		439.52
	11/4/2004	33.93		440.36
	1/12/2005	27.82		446.47
	5/2/2005	24.87		449.42
	7/19/2005	29.26		445.03
	11/21/2005	31.15		443.14
	2/9/2006	26.24		448.05
	5/16/2006	24.87		449.42
	8/9/2006	31.64		442.65
	11/8/2006	31.16		443.13
	2/14/2007	30.00		444.29
MW-2	6/1/1993	38.02	472.98	434.96
	6/22/1993	39.07		433.91
	10/6/1993	43.72		429.26
	1/13/1994	35.85		437.13
	3/30/1994	32.82		440.16
	4/25/1994	34.76		438.22
	8/12/1994	44.33		428.65
	12/14/1994	40.00		432.98
	2/10/1995	32.16		440.82
	6/15/1995	25.93		447.05
	9/26/1995	32.42		440.56
	12/15/1995	29.41		443.57
	3/21/1996	17.47		455.51
	6/13/1996	23.69		449.29

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-2	9/16/1996	31.24	472.98	441.74
(cont.)	12/2/1996	26.90		446.08
	3/7/1997	21.33		451.65
	6/12/1997	29.94		443.04
	9/29/1997	34.22		438.76
	12/1/1997	35.94		437.04
	3/19/1998	20.34		452.64
	5/29/1998	22.63		450.35
	9/15/1998	32.30		440.68
	11/30/1998	36.90		436.08
	1/17/1999	30.17		442.81
	6/10/1999	29.98		443.00
	9/7/1999	31.85		441.13
	12/13/1999	33.72		439.26
	3/13/2000	26.54		446.44
	6/12/2000	28.44		444.54
	11/10/2000	31.31		441.67
	12/31/2000	32.68		440.30
	3/27/2001	30.81		442.17
	6/30/2001	37.58		435.40
	9/26/2001	44.97		428.01
	12/18/2001	40.67		432.31
	3/18/2002	38.94		434.04
	6/5/2002	36.45		436.53
	8/21/2002	37.15		435.83
	12/3/2002	36.76		436.22
	3/4/2003	33.60		439.38
	6/10/2003	32.89		440.09
	9/9/2003	35.45		437.53
	12/23/2003	31.79		441.19
	3/23/2004	28.25		444.73
	5/10/2004	30.91		442.07
	8/4/2004	35.36		437.62
	11/4/2004	34.92		438.06
	1/12/2005	29.46		443.52

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Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-2	5/2/2005	25.61	472.98	447.37
(cont.)	7/19/2005	30.11		442.87
	11/21/2005	32.04		440.94
	2/9/2006	27.11		445.87
	5/17/2006	25.18		447.80
	8/9/2006	32.69		440.29
	11/8/2006	33.21		439.77
	2/14/2007	31.27		441.71
MW-3	6/1/1993	36.18	473.37	437.19
	6/22/1993	37.11		436.26
	10/6/1993	41.15		432.22
	1/13/1994	33.95		439.42
	3/30/1994	30.97		442.40
	4/25/1994	32.46		440.91
	8/12/1994	41.72		431.65
	12/14/1994	37.62		435.75
	2/10/1995	29.96		443.41
	6/15/1995	23.66		449.71
	9/26/1995	29.62		443.75
	12/15/1995	27.10		446.27
	3/21/1996	15.85		457.52
	6/13/1996	21.31		452.06
	9/16/1996	28.62		444.75
	12/2/1996	25.55		447.82
	3/7/1997	19.77		453.60
	6/12/1997	27.67		445.70
	9/29/1997	29.60		443.77
	12/1/1997	33.37		440.00
	3/19/1998	18.76		454.61
	5/29/1998	20.64		452.73
	9/15/1998	30.70		442.67
	11/30/1998	34.96		438.41
	1/17/1999	28.81		444.56
	6/10/1999	28.10		445.27
	9/7/1999	30.38		442.99

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Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-3	12/13/1999	31.46	473.37	441.91
(cont.)	3/13/2000	24.28		449.09
	6/12/2000	26.80		446.57
	11/10/2000	29.47		443.90
	12/31/2000	31.38		441.99
	3/27/2001	29.94		443.43
	6/30/2001	37.54		435.83
	9/26/2001	45.17		428.20
	12/18/2001	39.41		433.96
	3/18/2002	37.73		435.64
	6/5/2002	35.35		438.02
	8/21/2002	36.21		437.16
	12/3/2002	35.92		437.45
	3/4/2003	32.75		440.62
	6/10/2003	31.26		442.11
	9/9/2003	34.72		438.65
	12/23/2003	30.47		442.90
	3/23/2004	26.67		446.70
	5/10/2004	30.25		443.12
	8/4/2004	34.70		438.67
	11/4/2004	33.94		439.43
	1/12/2005	28.21		445.16
	5/2/2005	24.56		448.81
	7/19/2005	29.39		443.98
	11/21/2005	31.30		442.07
	2/9/2006	26.21		447.16
	5/16/2006	24.36		449.01
	8/9/2006	31.90		441.47
	11/8/2006	31.30		442.07
	2/14/2007	30.20		443.17
MW-4	3/30/1994	31.56	473.64	442.08
	4/25/1994	32.73		440.91
	8/12/1994	41.61		432.03
	12/14/1994	38.11		435.53
	2/10/1995	30.50		443.14

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Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-4	6/15/1995	23.63	473.64	450.01
(cont.)	9/26/1995	29.70		443.94
	12/15/1995	27.56		446.08
	3/21/1996	15.63		458.01
	6/13/1996	21.07		452.57
	9/16/1996	28.99		444.65
	12/2/1996	26.04		447.60
	3/7/1997	19.69		453.95
	6/12/1997	28.04		445.60
	9/29/1997	29.91		443.73
	12/1/1997	33.88		439.76
	3/19/1998	18.67		454.97
	5/29/1998	20.16		453.48
	9/15/1998	30.46		443.18
	11/30/1998	34.50		439.14
	1/17/1999	28.30		445.34
	6/10/1999	27.60		446.04
	9/7/1999	30.79		442.85
	12/13/1999	31.60		442.04
	3/13/2000	24.35		449.29
	6/12/2000	26.91		446.73
	11/10/2000	29.71		443.93
	12/31/2000	31.79		441.85
	3/27/2001	29.98		443.66
	6/30/2001	36.88		436.76
	9/26/2001	43.87		429.77
	12/18/2001	39.30		434.34
	3/18/2002	37.75		435.89
	6/5/2002	35.68		437.96
	8/21/2002	36.58		437.06
	12/3/2002	35.90		437.74
	3/4/2003	32.73		440.91
	6/10/2003	31.20		442.44
	9/9/2003	34.64		439.00
	12/23/2003	31.30		442.34

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WELL AND GROUNDWATER ELEVATIONS
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Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-4	3/23/2004	26.71	473.64	446.93
(cont.)	5/10/2004	30.33		443.31
	8/4/2004	34.87		438.77
	11/4/2004	34.28		439.36
	1/12/2005	28.67		444.97
	5/2/2005	24.46		449.18
	7/19/2005	29.36		444.28
	11/21/2005	31.80		441.84
	2/9/2006	26.34		447.30
	5/16/2006	24.30		449.34
	8/9/2006	32.05		441.59
	11/8/2006	32.85		440.79
	2/14/2007	30.46		443.18
MW-5	3/30/1994	32.07	472.67	440.60
	4/25/1994	33.65		439.02
	8/12/1994	42.73		429.94
	12/14/1994	38.89		433.78
	2/10/1995	31.44		441.23
	6/15/1995	24.99		447.68
	9/26/1995	30.20		442.47
	12/15/1995	28.56		444.11
	3/21/1996	16.82		455.85
	6/13/1996	22.61		450.06
	9/16/1996	29.78		442.89
	12/2/1996	26.51		446.16
	3/7/1997	21.91		450.76
	9/29/1997	31.74		440.93
	12/1/1997	34.05		438.62
	3/19/1998	20.93		451.74
	5/29/1998	21.30		451.37
	9/15/1998	31.32		441.35
	11/30/1998	35.44		437.23
	1/17/1999	29.59		443.08
	6/10/1999	28.05		444.62
	9/7/1999	31.11		441.56

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-5	12/13/1999	32.66	472.67	440.01
(cont.)	3/13/2000	25.87		446.80
	6/12/2000	28.15		444.52
	11/10/2000	30.05		442.62
	12/31/2000	31.81		440.86
	3/27/2001	30.57		442.10
	6/30/2001	37.24		435.43
	9/26/2001	44.53		428.14
	12/18/2001	40.65		432.02
	3/18/2002	38.75		433.92
	6/5/2002	36.21		436.46
	8/21/2002	36.76		435.91
	12/3/2002	36.12		436.55
	3/4/2003	32.90		439.77
	6/10/2003	33.04		439.63
	9/9/2003	34.20		438.47
	12/23/2003	31.38		441.29
	3/23/2004	27.51		445.16
	5/10/2004	31.12		441.55
	8/4/2004	35.09		437.58
	11/4/2004	34.34		438.33
	1/12/2005	29.19		443.48
	5/2/2005	25.31		447.36
	7/19/2005	30.49		442.18
	11/21/2005	32.35		440.32
	2/9/2006	27.19		445.48
	5/16/2006	25.30		447.37
	8/9/2006	32.68		439.99
	11/8/2006	32.22		440.45
	2/14/2007	34.00		438.67
MW-6	3/30/1994	33.38	471.93	438.55
	4/25/1994	35.49		436.44
	8/12/1994	45.14		426.79
	12/14/1994	40.99		430.94
	2/10/1995	33.34		438.59

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-6	6/15/1995	26.88	471.93	445.05
(cont.)	9/26/1995	33.55		438.38
	12/15/1995	30.32		441.61
	3/21/1996	18.89		453.04
	6/13/1996	24.62		447.31
	9/16/1996	32.64		439.29
	12/2/1996	27.42		444.51
	3/7/1997	22.13		449.80
	6/12/1997	31.02		440.91
	9/29/1997	35.77		436.16
	12/1/1997	37.14		434.79
	3/19/1998	21.10		450.83
	5/29/1998	23.26		448.67
	9/15/1998	33.50		438.43
	11/30/1998	38.73		433.20
	1/17/1999	32.05		439.88
	6/10/1999	31.44		440.49
	9/7/1999	33.94		437.99
	12/13/1999	35.84		436.09
	3/13/2000	28.45		443.48
	6/12/2000	30.52		441.41
	11/10/2000	32.99		438.94
	12/31/2000	34.95		436.98
	3/27/2001	32.72		439.21
	6/30/2001	39.86		432.07
	9/26/2001	Dry		Dry
	12/18/2001	43.36		428.57
	3/18/2002	41.29		430.64
	6/5/2002	38.35		433.58
	8/21/2002	39.02		432.91
	12/3/2002	38.76		433.17
	3/4/2003	35.13		436.80
	6/10/2003	34.15		437.78
	9/9/2003	37.66		434.27
	12/23/2003	33.43		438.50

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-6	3/23/2004	29.96	471.93	441.97
(cont.)	5/10/2004	32.98		438.95
	8/4/2004	37.02		434.91
	11/4/2004	37.03		434.90
	1/12/2005	32.01		439.92
	5/2/2005	27.30		444.63
	7/19/2005	32.27		439.66
	11/21/2005	33.23		438.70
	2/9/2006	29.07		442.86
	5/17/2006	27.23		444.70
	8/9/2006	35.22		436.71
	11/8/2006	33.41		438.52
	2/14/2007	33.43		438.50
MW-7	3/30/1994	31.98	472.33	440.35
	4/25/1994	33.56		438.77
	8/12/1994	43.35		428.98
	12/14/1994	39.34		432.99
	2/10/1995	32.11		440.22
	6/15/1995	25.51		446.82
	9/26/1995	31.43		440.90
	12/15/1995	28.97		443.36
	3/21/1996	17.36		454.97
	6/13/1996	23.47		448.86
	9/16/1996	31.35		440.98
	12/2/1996	27.11		445.22
	3/7/1997	21.33		451.00
	6/12/1997	29.90		442.43
	9/29/1997	34.37		437.96
	12/1/1997	36.46		435.87
	3/19/1998	20.33		452.00
	5/29/1998	22.30		450.03
	9/15/1998	32.54		439.79
	11/30/1998	37.96		434.37
	1/17/1999	31.04		441.29
	6/10/1999	29.89		442.44

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-7	9/7/1999	32.38	472.33	439.95
(cont.)	12/13/1999	33.98		438.35
	3/13/2000	27.09		445.24
	6/12/2000	28.76		443.57
	11/10/2000	31.54		440.79
	12/31/2000	32.76		439.57
	3/27/2001	30.97		441.36
	6/30/2001	37.50		434.83
	9/26/2001	45.11		427.22
	12/18/2001	41.13		431.20
	3/18/2002	39.22		433.11
	6/5/2002	36.55		435.78
	8/21/2002	36.81		435.52
	12/3/2002	36.52		435.81
	3/4/2003	32.60		439.73
	6/10/2003	31.33		441.00
	9/9/2003	34.71		437.62
	12/23/2003	30.80		441.53
	3/23/2004	26.41		445.92
	5/10/2004	29.86		442.47
	8/4/2004	34.06		438.27
	11/4/2004	34.12		438.21
	1/12/2005	28.83		443.50
	5/2/2005	24.66		447.67
	7/19/2005	29.07		443.26
	11/21/2005	30.42		441.91
	2/9/2006	26.15		446.18
	5/16/2006	24.44		447.89
	8/9/2006	31.77		440.56
	11/8/2006	31.14		441.19
	2/14/2007	30.39		441.94
MW-8	12/23/2003	32.01	471.18	439.17
	3/23/2004	28.50		442.68
	5/10/2004	31.44		439.74
	8/4/2004	35.11		436.07

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-8	11/4/2004	34.77	471.18	436.41
(cont.)	1/12/2005	29.66		441.52
	5/2/2005	25.91		445.27
	7/19/2005	30.56		440.62
	11/21/2005	32.48		438.70
	2/9/2006	27.40		443.78
	5/16/2006	25.60		445.58
	8/9/2006	32.77		438.41
	11/8/2006	32.10		439.08
	2/14/2007	30.94		440.24
MW-9	12/23/2003	34.03	470.78	436.75
	3/23/2004	30.01		440.77
	5/10/2004	33.61		437.17
	8/4/2004	37.47		433.31
	11/4/2004	37.44		433.34
	5/2/2005	27.73		443.05
	7/19/2005	32.90		437.88
	11/21/2005	34.15		436.63
	2/9/2006	29.44		441.34
	5/16/2006	27.50		443.28
	8/9/2006	35.85		434.93
	11/8/2006	34.18		436.60
	2/14/2007	34.00		436.78
MW-10	12/23/2003	33.80	471.63	437.83
	3/23/2004	28.68		442.95
	5/10/2004	32.15		439.48
	8/4/2004	36.40		435.23
	11/4/2004	36.21		435.42
	1/12/2005	31.64		439.99
	5/2/2005	27.01		444.62
	7/19/2005	31.59		440.04
	11/21/2005	32.96		438.67
	2/9/2006	28.36		443.27
	5/16/2006	26.83		444.80
	8/9/2006	34.37		437.26

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
MW-10	11/8/2006	33.41	471.63	438.22
(cont.)	2/14/2007	32.81		438.82
VW-2	8/4/2004	34.13	473.28	439.15
	11/4/2004	34.75		438.53
	1/12/2005	29.35		443.93
	5/2/2005	25.34		447.94
	7/19/2005	29.76		443.52
	11/21/2005	31.81		441.47
	2/9/2006	27.21		446.07
	5/17/2006	25.26		448.02
	8/9/2006	31.74		441.54
	11/8/2006	33.52		439.76
	2/14/2007	30.77		442.51
VW-3	8/4/2004	32.89	474.38	441.49
	11/4/2004	34.78		439.60
	1/12/2005	29.51		444.87
	5/2/2005	24.79		449.59
	7/19/2005	28.91		445.47
	11/21/2005	31.07		443.31
	2/9/2006	26.60		447.78
	5/16/2006	24.19		450.19
	8/9/2006	30.53		443.85
	11/8/2006	31.62		442.76
	2/14/2007	30.48		443.90
TP-1	7/19/2005	29.91	472.82	442.91
	11/21/2005	32.28		440.54
	2/9/2006	28.02		444.80
	5/17/2006	25.18		447.64
	8/9/2006	32.81		440.01
	11/8/2006	32.02		440.80
	2/14/2007	33.59		439.23
TP-2	7/19/2005	29.67	472.93	443.26
	11/21/2005	31.43		441.50
	2/9/2006	27.27		445.66
	5/17/2006	25.00		447.93

TABLE 1

WELL AND GROUNDWATER ELEVATIONS
TESORO - LIVERMORE, 67076

Monitoring Well	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation[(b)] (feet MSL)	Water Table Elevation[(c)] (feet MSL)
TP-2	8/9/2006	31.74	472.93	441.19
(cont.)	11/8/2006	32.80		440.13
	2/14/2007	30.32		442.61
MW-A	1/17/1999	30.13	NM[(d)]	NM
MW-B	1/17/1999	30.29	NM	NM
MW-C	1/17/1999	30.60	NM	NM
MW-D	1/17/1999	31.32	NM	NM
MW-E	1/17/1999	31.36	NM	NM
MW-W	1/17/1999	30.91	NM	NM

(a) Difference between Depth to Water and Depth to Free Product.

(b) Elevation of PVC well casing (north edge) surveyed relative to mean sea level (MSL).
Wells were surveyed by Cross Land Surveying, Inc., per AB 2886 requirements on 31 August 2005.
Benchmark K2-741, elevation is 467.835 feet above MSL.

(c) Potentiometric Surface Elevation = (Casing Elevation - Depth to Water) + (0.89)(Free Product Thickness)
assuming a free product specific gravity of 0.89.

(d) NM = Well not surveyed.

TABLE 2

GROUNDWATER NATURAL ATTENUATION PARAMETERS
TESORO - LIVERMORE, 67076

Monitoring Well	Location[a]	Sample Date	DO[b] (mg/l)	ORP[b] (mV)	Conductivity[b] (µS)	Temp[b] (°C)	pH[b]	TOC[c] (mg/l)	COD[d] (mg/l)	Alkalinity[e] (mg/l)	Chloride[f] (mg/l)	Ferrous Iron[g] (mg/l)	Nitrate[f] (mg/l)	Nitrite[f] (mg/l)	Sulfate[f] (mg/l)	Sulfide[h] (mg/l)	Phosphorus[i] (mg/l)	Carbon Dioxide[j] (mg/l)
MW-4	170 ft CG	2/9/2006	0.96	39	1,137	19.4	7.38	8.0	61	430	75	ND<0.1[k]	32	ND<0.1	70	ND<0.05	0.54	41
		8/9/2006	0.50	-8	1,013	23.1	8.20	--	46	400	--	ND<0.1	30	--	61	--	0.10	--
		11/8/2006	0.45	82	945	20.7	7.42	--	ND<7	440	--	ND<0.1	26	--	71	--	1.9	--
		2/14/2007	2.27	-25	1,007	20.2	7.40	--	130	382	--	ND<0.1	5.6	--	64	--	0.6	--
MW-3	80 ft CG	2/9/2006	0.90	35	1,052	19.6	7.31	7.0	56	390	98	ND<0.1	4.3	ND<0.1	57	ND<0.05	0.34	70
		8/9/2006	0.31	243	1,041	20.7	7.30	--	21	390	--	ND<0.1	15	--	61	--	0.06	--
		11/8/2006	0.40	58	914	20.4	7.70	--	ND<7	350	--	ND<0.1	13	--	73	--	0.91	--
		2/14/2007	1.73	69	1,069	19.9	7.20	--	24	386	--	ND<0.1	1.3	--	71	--	0.86	--
MW-2	source	2/9/2006	0.89	-82	1,133	19.5	7.07	37	150	530	72	1.4	0.65	ND<0.1	1.5	ND<0.05	0.27	99
		8/9/2006	0.23	-117	1,112	21.7	7.00	--	160	550	--	1.5	ND<0.5	--	1.8	--	0.16	--
		11/8/2006	0.19	-73	1,064	20.5	7.21	--	150	550	--	2.7	ND<0.5	--	0.9	--	0.94	--
		2/14/2007	0.78	-98	1,156	20.4	7.00	--	180	540	--	3.1	ND<0.1	--	1.4	--	0.49	--
MW-6	145 ft DG	2/9/2006	1.01	-53	1,182	20.1	6.97	21	110	550	68	0.87	ND<0.5	ND<0.1	ND<0.5	ND<0.05	0.62	130
		8/9/2006	0.92	-165	1,194	22.4	7.90	--	83	590	--	2.4	ND<0.5	--	ND<0.5	--	0.12	--
		11/8/2006	0.36	-53	1,046	19.9	7.35	--	44	550	--	1.2	ND<0.5	--	ND<0.5	--	1.2	--
		2/14/2007	1.10	-85	1,231	20.8	6.90	--	130	596	--	1.9	ND<0.1	--	1.0	--	0.48	--
MW-9	325 ft DG	2/9/2006	1.00	-51	1,159	22.2	7.32	12	87	450	94	0.20	ND<0.5	ND<0.1	11	ND<0.05	0.59	62
		8/9/2006	1.16	-294	1,014	23.0	8.00	--	110	450	--	0.35	ND<0.5	--	5.5	--	0.06	--
		11/8/2006	0.25	-56	937	21.1	7.31	--	24	450	--	0.36	ND<0.5	--	1.4	--	2.5	--
		2/14/2007	0.25	-100	1,021	21.2	7.20	--	120	428	--	0.40	ND<0.1	--	2.2	--	0.66	--

(a) Samples collected from wells MW-4 (170 feet cross gradient [CG] of source), MW-3 (80 feet CG of source), MW-2 (source area), MW-6 (145 feet downgradient [DG] of source), and MW-9 (325 feet DG of source).
(b) Dissolved oxygen (DO), oxidation reduction potential (ORP), conductivity, temperature, and pH measured using field instruments; reported in milligrams per liter (mg/l), millivolts, micro siemens, and degrees Celsius.
(c) Total organic carbon (TOC) analyzed by EPA Method 415.1.
(d) Chemical oxygen demand (COD) analyzed by EPA Method 410.4.
(e) Alkalinity analyzed by Method SM2320B.
(f) Chloride, nitrate (NO_3), nitrite (NO_2), and sulfate (SO_4) analyzed by EPA Method 300.
(g) Ferrous Iron analyzed by Method SM3500-Fe D.
(h) Sulfide (S_2) analyzed by EPA Method 376.2
(i) Phosphorus analyzed by EPA Method 365.3.
(j) Carbon Dioxide (CO_2) analyzed by Method SM 4500C.
(k) ND - Not detected at the reporting limit indicated.

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-1	6/1/1993	27,000	2,200	400	ND<0.5[d]	4,900	-[e]	-	-	-	-	-	-	-	-
	6/22/1993	87,000	8,000	10,000	260	10,000	-	-	-	-	-	-	-	-	-
	10/6/1993	40,000	4,700	6,500	740	5,300	-	-	-	-	-	-	-	-	-
	1/13/1994	9,400	1,300	9,500	110	850	-	-	-	-	-	-	-	-	-
	3/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/25/1994	11,000	1,500	1,800	290	1,700	-	-	-	-	-	-	-	-	-
	8/12/1994	11,000	550	330	260	1,400	-	-	-	-	-	-	-	-	-
	12/14/1994	11,000	1,000	1,200	320	1,500	-	-	-	-	-	-	-	-	-
	2/10/1995	9,300	1,200	1,500	280	1,500	-	-	-	-	-	-	-	-	-
	6/15/1995	140	5.6	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	9/26/1995	410	140	ND<0.5	ND<0.5	43	-	-	-	-	-	-	-	-	-
	12/15/1995	740	250	ND<1.3	ND<1.3	87	-	-	-	-	-	-	-	-	-
	3/21/1996	ND<50	0.52	ND<0.5	ND<0.5	0.51	-	-	-	-	-	-	-	-	-
	6/13/1996	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	9/16/1996	720	70	ND<0.5	1.0	5.1	ND<5	-	-	-	-	-	-	-	-
	12/2/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/7/1997	600	6.7	ND<0.5	1.2	1.8	ND<5	-	-	-	-	-	-	-	-
	6/12/1997	18,000	180	800	410	1,800	ND<5	-	-	-	-	-	-	-	-
	9/29/1997	350	120	1.5	ND<0.5	12	ND<5	-	-	-	-	-	-	-	-
	12/1/1997	ND<50	7.0	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/19/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	5/29/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	9/15/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	11/30/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	1/17/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	6/10/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	9/7/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	12/13/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/13/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	6/12/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-1	11/10/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
(cont.)	12/31/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	3/27/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	6/30/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	9/26/2001	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	12/18/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	11/4/2004	4,500	2.5	5.8	79	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	78	0.80	0.70	0.86	2.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<40	ND<5	ND<0.5	ND<0.5
	7/19/2005	290	ND<0.5	ND<0.5	4.0	4.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	370	ND<0.5	ND<0.5	0.75	1.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	140	ND<0.5	ND<0.5	0.67	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	400	ND<0.5	ND<0.5	1.7	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	410	ND<0.5	ND<0.5	2.2	2.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-2	6/1/1993	170,000	20,000	21,000	3,300	18,000	-	-	-	-	-	-	-	-	-
	6/22/1993	160,000	19,000	22,000	3,500	18,000	-	-	-	-	-	-	-	-	-
	10/6/1993	110,000	17,000	17,000	3,000	15,000	-	-	-	-	-	-	-	-	-
	1/13/1994	93,000	20,000	19,000	2,300	14,000	-	-	-	-	-	-	-	-	-
	3/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/25/1994	41,000	9,600	7,300	840	7,800	-	-	-	-	-	-	-	-	-
	8/12/1994	59,000	11,000	11,000	2,300	11,000	-	-	-	-	-	-	-	-	-
	12/14/1994	63,000	13,000	13,000	2,200	12,000	-	-	-	-	-	-	-	-	-
	2/10/1995	63,000	12,000	12,000	2,200	11,000	-	-	-	-	-	-	-	-	-
	6/15/1995	61,000	11,000	12,000	1,900	11,000	-	-	-	-	-	-	-	-	-
	9/26/1995	61,000	9,400	11,000	2,300	12,000	-	-	-	-	-	-	-	-	-
	12/15/1995	48,000	8,000	8,300	2,200	12,000	-	-	-	-	-	-	-	-	-
	3/21/1996	48,000	8,000	7,700	2,400	12,000	-	-	-	-	-	-	-	-	-
	6/13/1996	33,000	7,300	8,800	1,900	12,000	ND<250	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-2	9/16/1996	8,600	510	640	180	1,300	ND<250	-	-	-	-	-	-	-	-
(cont.)	12/2/1996	29,000	4,400	4,000	1,300	6,100	ND<130	-	-	-	-	-	-	-	-
	3/7/1997	13,000	1,800	1,100	270	2,000	ND<250	-	-	-	-	-	-	-	-
	6/12/1997	68,000	7,800	6,600	2,300	11,000	ND<500	-	-	-	-	-	-	-	-
	9/29/1997	15,000	1,500	97	740	1,800	ND<250	-	-	-	-	-	-	-	-
	12/1/1997	13,000	900	37	860	2,400	ND<250	-	-	-	-	-	-	-	-
	3/19/1998	42,000	5,000	3,600	2,000	8,300	ND<250	-	-	-	-	-	-	-	-
	5/29/1998	68,000	5,600	4,700	2,400	11,000	ND<250	-	-	-	-	-	-	-	-
	9/15/1998	36,000	3,900	1,200	1,400	7,800	ND<250	-	-	-	-	-	-	-	-
	11/30/1998	16,000	2,200	59	1,200	1,500	ND<250	-	-	-	-	-	-	-	-
	1/17/1999	30,000	4,000	2,200	2,100	9,500	ND<250	-	-	-	-	-	-	-	-
	6/10/1999	70,000	6,300	1,800	3,600	14,000	ND<500	-	-	-	-	-	-	-	-
	9/7/1999	42,000	3,800	840	1,900	8,000	150	-	-	-	-	-	-	-	-
	12/13/1999	14,000	1,400	87	690	110	34	-	-	-	-	-	-	-	-
	3/13/2000	38,000	2,400	2,300	1,600	6,400	2,400	-	-	-	-	-	-	-	-
	6/12/2000	56,000	4,000	950	2,300	7,200	ND<50	-	-	-	-	-	-	-	-
	11/10/2000	35,000	5,100	850	1,500	3,200	230	-	-	-	-	-	-	-	-
	12/31/2000	21,000	3,200	420	1,300	1,200	440	-	-	-	-	-	-	-	-
	3/27/2001	3,500	420	64	16	280	120	-	-	-	-	-	-	-	-
	6/30/2001	1,200	88	4.5	65	37	29	-	-	-	-	-	-	-	-
	9/26/2001	53,000	8,500	1,500	2,400	4,600	270	-	-	-	-	-	-	-	-
	12/18/2001	26,000	5,400	900	1,500	2,200	430	-	-	-	-	-	-	-	-
	1/22/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/18/2002	4,200	240	7.3	200	53	89	-	-	-	-	-	-	-	-
	6/5/2002	25,000	3,500	390	1,400	2,400	550	-	-	-	-	-	-	-	-
	8/21/2002	10,000	1,200	32	620	300	160	-	-	-	-	-	-	-	-
	12/3/2002	3,700	110	2.5	130	11	29	-	-	-	-	-	-	-	-
	3/4/2003	8,700	1,100	77	350	540	230	ND<0.5	ND<0.5	ND<10	21	ND<150	ND<5	ND<0.5	ND<0.5
	6/10/2003	6,300	660	35	190	120	410	ND<2.5	ND<2.5	ND<5	ND<25	ND<250	ND<25	ND<2.5	ND<2.5
	9/9/2003	6,900	500	ND<20	360	29	9,500	ND<20	ND<20	60	ND<200	ND<2,000	ND<200	ND<20	ND<20

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-2	12/23/2003	22,000	4,900	1,300	720	2,300	1,700	ND<20	ND<20	21	ND<200	ND<2,000	ND<200	ND<20	ND<20
(cont.)	3/23/2004	45,000	5,200	1,500	1,800	5,000	750	ND<20	ND<20	34	ND<200	ND<2,000	ND<200	ND<20	ND<20
	5/10/2004	7,300	1,000	51	240	290	1,800	ND<5	ND<5	14	ND<50	ND<500	ND<50	ND<5	ND<5
	8/4/2004	45,000	7,200	1,900	1,800	5,100	2,500	ND<25	ND<25	31	ND<250	ND<2,500	ND<250	ND<25	ND<25
	11/4/2004	27,000	4,400	1,100	840	2,200	3,500	ND<9	ND<9	29	ND<50	ND<900	ND<90	ND<9	ND<9
	1/12/2005	16,000	1,900	640	570	1,500	1,900	ND<4	ND<4	19	28[f]	ND<400	ND<40	ND<4	ND<4
	5/2/2005	44,000	5,200	1,100	1,800	4,800	2,200	ND<20	ND<20	30	ND<200	ND<2,000	ND<200	ND<20	ND<20
	7/20/2005	21,000	3,000	500	1,000	1,500	4,400	ND<7	ND<7	32	74[f]	ND<700	ND<70	ND<7	ND<7
	11/22/2005	33,000	4,400	880	1,200	2,600	2,200	ND<9	ND<9	19	480	ND<900	ND<90	ND<9	ND<9
	2/9/2006	25,000	3,300	720	1,300	2,200	2,500	ND<7	ND<7	27	490	ND<700	ND<70	ND<7	ND<7
	5/17/2006	22,000	3,200	240	1,200	2,100	4,600	ND<7	ND<7	46	1000	ND<700	ND<70	ND<7	ND<7
	8/9/2006	34,000	4,200	830	1,300	2,400	2,900	ND<9	ND<9	25	1600	ND<900	ND<90	ND<9	ND<9
	11/8/2006	27,000	3,600	300	1,200	1,800	1,500	ND<9	ND<9	15	1100	ND<900	ND<90	ND<9	ND<9
	2/14/2007	36,000	4,600	740	1,600	2,100	1,800	ND<5	ND<5	20	910	ND<700	ND<50	ND<5	ND<5
MW-3	6/1/1993	270	4.6	ND<0.5	ND<0.5	1.9	-	-	-	-	-	-	-	-	-
	6/22/1993	160	8.2	ND<0.5	ND<0.5	0.72	-	-	-	-	-	-	-	-	-
	10/6/093	740	57	110	24	120	-	-	-	-	-	-	-	-	-
	1/13/1994	83	2.6	0.67	0.78	4.2	-	-	-	-	-	-	-	-	-
	3/30/1994	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4/25/1994	60	0.75	3.2	0.50	3.6	-	-	-	-	-	-	-	-	-
	8/12/1994	310	7.3	14	2.6	13	-	-	-	-	-	-	-	-	-
	12/14/1994	75	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	2/10/1995	96	1.4	ND<0.5	ND<0.5	1.8	-	-	-	-	-	-	-	-	-
	6/15/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	9/26/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	12/15/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	11/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	140	ND<0.5	ND<0.5	ND<0.5	0.81	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/19/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-3	11/21/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
(cont.)	2/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.9	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-4	3/30/1994	120	4.2	15	2.5	26	-	-	-	-	-	-	-	-	-
	4/25/1994	65	ND<0.5	1.8	ND<0.5	2.1	-	-	-	-	-	-	-	-	-
	8/12/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	12/14/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	2/10/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	6/15/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	9/26/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	12/15/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-
	11/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	ND<50	1.8	1.1	1.4	4.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/19/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-5	3/30/1994	7,500	1,300	20	ND<13	160	-	-	-	-	-	-	-	-	-
	4/25/1994	6,500	1,100	41	130	740	-	-	-	-	-	-	-	-	-
	8/12/1994	4,000	420	2.9	41	98	-	-	-	-	-	-	-	-	-
	12/14/1994	4,800	660	ND<2.5	33	13	-	-	-	-	-	-	-	-	-
	2/10/1995	5,200	490	ND<13	23	19	-	-	-	-	-	-	-	-	-
	6/15/1995	460	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-5	9/26/1995	1,400	61	ND<0.5	3.1	ND<0.5	-	-	-	-	-	-	-	-	-
(cont.)	12/15/1995	2,100	77	1.5	10	1.5	-	-	-	-	-	-	-	-	-
	3/21/1996	930	35	2.0	2.0	18	-	-	-	-	-	-	-	-	-
	6/13/1996	610	38	0.72	1.9	2.0	ND<5	-	-	-	-	-	-	-	-
	9/16/1996	380	29	ND<0.5	0.95	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	12/2/1996	200	1.1	0.64	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/7/1997	520	74	ND<0.5	0.58	1.5	ND<5	-	-	-	-	-	-	-	-
	6/12/1997	140	5.3	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	9/29/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	12/1/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/19/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	5/29/1998	540	4.1	ND<0.5	ND<0.5	0.52	ND<5	-	-	-	-	-	-	-	-
	9/15/1998	67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	11/30/1998	430	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	1/17/1999	500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	6/10/1999	66	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	9/7/1999	820	46	1.7	10	21	ND<5	-	-	-	-	-	-	-	-
	12/13/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	3/13/2000	270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	6/12/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-	-	-	-	-
	11/10/2000	2,200	42	1.1	25	30	8.6	-	-	-	-	-	-	-	-
	12/31/2000	1,300	21	ND<0.5	4.3	2.6	10	-	-	-	-	-	-	-	-
	3/27/2001	1,200	11	ND<0.5	2.6	ND<0.5	21	-	-	-	-	-	-	-	-
	6/30/2001	1,400	4.8	ND<0.5	1.5	0.56	14	-	-	-	-	-	-	-	-
	9/26/2001	660	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	-	-	-	-	-	-	-	-
	12/18/2001	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	1/22/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/18/2002	890	0.65	ND<0.5	ND<0.5	ND<0.5	3.1	-	-	-	-	-	-	-	-
	6/5/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8/21/2002	2,100	20	ND<0.5	63	4	7	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-5	12/3/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(cont.)	3/4/2003	490	10	ND<0.5	2.2	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	6/10/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9/9/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	12/23/2003	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/23/2004	440	2.3	ND<0.5	1.0	5.9	2.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/10/2004	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8/4/2004	160	ND<0.5	ND<0.5	ND<0.5	0.71	0.94	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	290	0.74	ND<0.5	0.58	1.3	0.61	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	300	ND<0.5	ND<0.5	0.51	1.6	0.73	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/20/2005	330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	ND<50	ND<0.5	ND<0.5	0.63	1.0	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.79	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.8	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	200	ND<0.5	ND<0.5	ND<0.5	1.1	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-6	3/30/1994	63,000	21,000	8,600	1,700	12,000	-	-	-	-	-	-	-	-	-
	4/25/1994	77,000	22,000	12,000	2,300	16,000	-	-	-	-	-	-	-	-	-
	8/12/1994	65,000	12,000	8,100	2,200	16,000	-	-	-	-	-	-	-	-	-
	12/14/1994	65,000	18,000	9,500	2,200	14,000	-	-	-	-	-	-	-	-	-
	2/10/1995	63,000	21,000	8,400	2,000	14,000	-	-	-	-	-	-	-	-	-
	6/15/1995	75,000	20,000	11,000	2,100	15,000	-	-	-	-	-	-	-	-	-
	9/26/1995	62,000	15,000	9,600	1,700	12,000	-	-	-	-	-	-	-	-	-
	12/15/1995	61,000	15,000	9,000	2,300	15,000	-	-	-	-	-	-	-	-	-
	3/21/1996	65,000	18,000	9,800	2,400	16,000	-	-	-	-	-	-	-	-	-
	6/13/1996	29,000	8,600	3,300	2,200	12,000	ND<250	-	-	-	-	-	-	-	-
	9/16/1996	42,000	6,400	1,800	2,100	11,000	ND<250	-	-	-	-	-	-	-	-
	12/2/1996	28,000	3,000	1,100	970	8,300	ND<500	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-6	3/7/1997	12,000	2,000	190	520	2,300	ND<250	-	-	-	-	-	-	-	-
(cont.)	6/12/1997	37,000	3,900	470	1,600	6,200	ND<100	-	-	-	-	-	-	-	-
	9/29/1997	34,000	3,500	370	1,600	5,200	ND<100	-	-	-	-	-	-	-	-
	12/1/1997	20,000	2,100	ND<10	1,200	2,200	ND<100	-	-	-	-	-	-	-	-
	3/19/1998	24,000	2,900	460	1,100	3,400	ND<100	-	-	-	-	-	-	-	-
	5/29/1998	38,000	3,500	700	1,800	5,200	ND<100	-	-	-	-	-	-	-	-
	9/15/1998	22,000	1,900	110	1,400	3,000	ND<100	-	-	-	-	-	-	-	-
	11/30/1998	9,900	770	16	820	710	ND<100	-	-	-	-	-	-	-	-
	1/17/1999	14,000	2,200	160	1,700	3,600	ND<100	-	-	-	-	-	-	-	-
	6/10/1999	22,000	1,600	160	1,400	2,900	5.5	-	-	-	-	-	-	-	-
	9/7/1999	17,000	1,400	33	1,300	1,800	ND<50	-	-	-	-	-	-	-	-
	12/13/1999	16,000	790	9.2	840	780	ND<25	-	-	-	-	-	-	-	-
	3/13/2000	16,000	790	85	780	1,600	ND<25	-	-	-	-	-	-	-	-
	6/12/2000	24,000	1,100	150	1,300	2,300	5,600	-	-	-	-	-	-	-	-
	11/10/2000	13,000	440	7	760	350	1,000	-	-	-	-	-	-	-	-
	12/31/2000	12,000	680	8	820	190	1,400	-	-	-	-	-	-	-	-
	3/27/2001	14,000	330	17	940	670	380	-	-	-	-	-	-	-	-
	6/30/2001	750	45	0.93	47	14	54	-	-	-	-	-	-	-	-
	9/26/2001	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12/18/2001	43,000	3,800	350	1,900	3,000	900	-	-	-	-	-	-	-	-
	1/22/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/18/2002	33,000	2,600	120	1,800	2,800	740	-	-	-	-	-	-	-	-
	6/5/2002	10,000	1,100	16	700	180	600	-	-	-	-	-	-	-	-
	8/21/2002	10,000	1,200	23	710	290	370	-	-	-	-	-	-	-	-
	12/3/2002	16,000	1,700	63	970	630	1,500	-	-	-	-	-	-	-	-
	3/4/2003	16,000	1,700	25	1,200	40	7,700	ND<20	ND<20	ND<70	ND<200	ND<2,000	ND<200	ND<20	ND<20
	6/10/2003	9,500	860	15	380	47	2,600	ND<5	ND<5	18	ND<50	ND<500	ND<50	ND<5	ND<5
	9/9/2003	11,000	1,000	16	630	120	2,500	ND<5	ND<5	20	52	ND<500	ND<50	ND<5	ND<5
	12/23/2003	18,000	2,100	41	1,100	390	4,900	ND<10	ND<10	42	ND<100	ND<1,000	ND<100	ND<10	ND<10
	3/23/2004	24,000	1,400	71	1,500	2,000	7,500	ND<20	ND<20	66	ND<200	ND<2,000	ND<200	ND<20	ND<20

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-6	5/10/2004	6,500	550	<10	71	43	3,700	ND<10	ND<10	31	ND<100	ND<1,000	ND<100	ND<10	ND<10
(cont.)	8/4/2004	8,200	990	19	300	120	3,300	ND<5	ND<5	23	ND<50	ND<500	ND<50	ND<5	ND<5
	11/4/2004	9,600	1,100	30	320	160	2,200	ND<4	ND<4	18	22[f]	ND<400	ND<40	ND<4	ND<4
	1/12/2005	12,000	1,100	34	600	500	3,600	ND<4	ND<4	31	30[f]	ND<400	ND<40	ND<4	ND<4
	5/2/2005	14,000	630	22	610	920	4,000	ND<10	ND<10	32	120[f]	ND<3,000	ND<100	ND<10	ND<10
	7/20/2005	9,800	1,200	21	340	150	1,800	ND<2.5	ND<2.5	14	140	ND<500	ND<25	ND<2.5	ND<2.5
	11/21/2005	6,600	150	26	580	640	100	ND<1	ND<1	ND<1	13	ND<100	ND<10	ND<1	ND<1
	2/9/2006	7,100	340	11	370	360	910	ND<2	ND<2	9.3	120	ND<200	ND<20	ND<2	ND<2
	5/17/2006	7,100	270	5.1	320	290	930	ND<2	ND<2	8.4	260	ND<200	ND<20	ND<2	ND<2
	8/9/2006	5,800	440	7.5	120	45	670	ND<2	ND<2	7.3	380	ND<2,000	ND<50	ND<2	ND<2
	11/8/2006	9,200	990	37	390	140	310	ND<2	ND<2	3.2	110	ND<200	ND<20	ND<2	ND<2
	2/14/2007	5,900	480	10	73	23	1,600	ND<2	ND<2	14.0	1,100	ND<500	ND<20	ND<2	ND<2
MW-7	3/30/1994	43,000	7,200	2,400	1,600	11,000	-	-	-	-	-	-	-	-	-
	4/25/1994	30,000	3,900	1,000	940	6,900	-	-	-	-	-	-	-	-	-
	8/12/1994	30,000	3,800	1,400	1,300	7,500	-	-	-	-	-	-	-	-	-
	12/14/1994	31,000	3,600	1,200	900	6,400	-	-	-	-	-	-	-	-	-
	2/10/1995	27,000	4,000	900	890	5,100	-	-	-	-	-	-	-	-	-
	6/15/1995	17,000	920	680	740	4,100	-	-	-	-	-	-	-	-	-
	9/26/1995	7,000	200	150	170	810	-	-	-	-	-	-	-	-	-
	12/15/1995	11,000	350	170	540	1,900	-	-	-	-	-	-	-	-	-
	3/21/1996	12,000	320	100	730	2,500	-	-	-	-	-	-	-	-	-
	6/13/1996	5,900	98	19	370	620	ND<50	-	-	-	-	-	-	-	-
	9/16/1996	7,800	140	43	440	590	ND<25	-	-	-	-	-	-	-	-
	12/2/1996	6,300	87	29	290	430	ND<50	-	-	-	-	-	-	-	-
	3/7/1997	4,500	35	19	360	470	ND<25	-	-	-	-	-	-	-	-
	6/12/1997	3,900	29	5.2	170	48	ND<5	-	-	-	-	-	-	-	-
	9/29/1997	6,100	56	9	340	190	ND<25	-	-	-	-	-	-	-	-
	12/1/1997	6,500	24	ND<2.5	400	250	ND<25	-	-	-	-	-	-	-	-
	3/19/1998	2,000	20	ND<2.5	73	79	ND<25	-	-	-	-	-	-	-	-
	5/29/1998	5,700	22	7.3	290	350	ND<25	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-7	9/15/1998	1,700	15	ND<2.5	44	5.1	ND<25	-	-	-	-	-	-	-	-
(cont.)	11/30/1998	4,800	42	12	270	640	ND<25	-	-	-	-	-	-	-	-
	1/17/1999	3,400	33	ND<5	200	190	ND<50	-	-	-	-	-	-	-	-
	6/10/1999	1,700	7.8	1.5	23	4.1	ND<5	-	-	-	-	-	-	-	-
	9/7/1999	1,900	9.7	2.1	70	2.9	ND<5	-	-	-	-	-	-	-	-
	12/13/1999	1,900	8.0	1.1	10	1.1	ND<5	-	-	-	-	-	-	-	-
	3/13/2000	1,500	7.5	ND<0.5	6.7	2.9	ND<5	-	-	-	-	-	-	-	-
	6/12/2000	1,200	5.4	ND<0.5	5.2	1.0	ND<5	-	-	-	-	-	-	-	-
	11/10/2000	1,000	3.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	12/31/2000	620	1.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-	-	-	-	-	-
	3/27/2001	1,200	4.8	ND<0.5	6.7	0.94	ND<0.5	-	-	-	-	-	-	-	-
	6/30/2001	2,800	10	1.7	75	170	ND<0.5	-	-	-	-	-	-	-	-
	9/26/2001	1,900	16	0.89	2.3	25	ND<0.5	-	-	-	-	-	-	-	-
	12/18/2001	3,000	13	0.88	3.4	3.4	ND<0.5	-	-	-	-	-	-	-	-
	1/22/2002	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3/18/2002	3,100	7.3	1.5	38	110	ND<0.5	-	-	-	-	-	-	-	-
	6/5/2002	1,800	7.6	1.0	39	20	ND<0.5	-	-	-	-	-	-	-	-
	8/21/2002	3,300	7.6	0.7	85	36	ND<0.5	-	-	-	-	-	-	-	-
	12/3/2002	1,700	5.4	ND<0.5	15	5.5	ND<0.5	-	-	-	-	-	-	-	-
	3/4/2003	440	1.8	ND<0.5	0.54	2.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	6/10/2003	550	0.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	9/9/2003	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	12/23/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	3/23/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/10/2004	67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/4/2004	2,600	2.5	ND<0.5	36	31	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	1,600	2.0	ND<0.5	16	16	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	830	1.6	ND<0.5	15	12	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	710	ND<0.5	ND<0.5	0.75	0.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/20/2005	1,400	1.1	ND<0.5	9.2	8.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-7	11/21/2005	1,100	0.6	ND<0.5	3.4	23	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
(cont.)	2/9/2006	270	ND<0.5	ND<0.5	1.2	0.98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	930	0.84	ND<0.5	10	7.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	650	ND<0.5	ND<0.5	1.2	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	800	ND<0.5	ND<0.5	1.0	0.62	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-8	9/5/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-
	12/23/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	7.3	ND<0.5	ND<0.5
	3/23/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/10/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	0.86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/19/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	ND<50	1.2	1.9	ND<0.5	0.66	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-9	9/5/2003	3,400	23	1.5	110	10	10	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-
	12/23/2003	1,100	2.4	ND<0.5	0.8	0.8	2.1	ND<0.5	ND<0.5	ND<0.5	5.9	ND<50	ND<5	ND<0.5	ND<0.5
	3/23/2004	760	8.5	ND<0.5	4.9	0.95	18	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/10/2004	1,100	4.4	ND<0.5	1.3	0.67	11	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/4/2004	1,200	3.4	0.59	16	7.6	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	610	0.52	ND<0.5	1.3	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	1,400	1.6	0.55	5.5	1.1	2.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	1,500	10	0.55	6.7	1.1	27	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/20/2005	1,800	5.5	0.69	12	1.6	10	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-9	11/21/2005	1,200	0.94	ND<0.5	1.4	ND<0.5	3.3	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
(cont.)	2/9/2006	1,200	2.8	0.51	6.4	0.84	4.4	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	1,600	3.8	0.57	12	1.8	4.9	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	760	ND<0.5	ND<0.5	1.0	ND<0.5	2.6	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	1,700	1.7	0.53	6.7	1.4	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	1,000	ND<0.5	ND<0.5	0.51	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
MW-10	9/5/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	-	-	-	-
	12/23/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	3/23/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/10/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	0.61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/19/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
VW-2	8/4/2004	5,700	480	ND<20	600	ND<20	12,000	ND<20	ND<20	110	ND<90	ND<2,000	ND<200	ND<20	ND<20
	11/4/2004	5,800	340	ND<20	38	ND<20	10,000	ND<20	ND<20	120	ND<90	ND<2,000	ND<200	ND<20	ND<20
	1/12/2005	3,800	210	ND<5	90	54	2,900	ND<5	ND<5	33	26[f]	ND<500	ND<50	ND<5	ND<5
	5/2/2005	2,600	84	ND<2	13	7.0	960	ND<2	ND<2	12	57	ND<500	ND<20	ND<2	ND<2
	7/20/2005	6,200	240	13	290	480	6,600	ND<2	ND<2	56	59[f]	ND<2,000	ND<20	ND<2	ND<2
	11/21/2005	3,100	100	ND<9	22	10	5,300	ND<9	ND<9	54	76[f]	ND<900	ND<90	ND<9	ND<9
	2/9/2006	3,500	140	ND<25	130	36	12,000	ND<25	ND<25	65	2800	ND<2,500	ND<250	ND<25	ND<25
	5/17/2006	1,800	90	2.6	39	11	1,200	ND<2.5	ND<2.5	12	700	ND<250	ND<25	ND<2.5	ND<2.5
	8/9/2006	4,300	86	3.5	200	16	2,500	ND<2.5	ND<2.5	28	2800	ND<5,000	ND<25	ND<2.5	ND<2.5

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
VW-2	11/8/2006	3,200	46	3.1	10	4.8	1,500	ND<3	ND<3	11	7,100	ND<800	ND<30	ND<3	ND<3
(cont.)	2/14/2007	3,300	75	4.6	50	82	580	ND<2	ND<2	7.0	4,100	ND<500	ND<20	ND<2	ND<2
VW-3	8/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/4/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	1/12/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/2/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	7/20/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/21/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	5/16/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	8/9/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	11/8/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	2/14/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
TP-1	7/20/2005	42,000	2,800	1,100	1,700	4,800	12,000	ND<20	ND<20	92	130[f]	ND<2,000	ND<200	ND<20	ND<20
	11/22/2005	36,000	2,100	290	1,400	2,600	11,000	ND<20	ND<20	70	810	ND<2,000	ND<200	ND<20	ND<20
	2/9/2006	19,000	1,400	230	990	1,700	8,900	ND<15	ND<15	72	2,200	ND<1,500	ND<150	ND<15	ND<15
	5/17/2006	20,000	1,400	200	920	1,800	9,200	ND<20	ND<20	37	2,500	ND<10,000	ND<200	ND<20	ND<20
	8/9/2006	28,000	1,600	150	1,200	2,200	13,000	ND<15	ND<15	84	4,900	ND<2,500	ND<150	ND<15	ND<15
	11/8/2006	20,000	1,100	78	990	1,600	6,800	ND<15	ND<15	47	4,400	ND<8,000	ND<150	ND<15	ND<15
	2/14/2007	15,000	820	37	810	1,000	8,300	ND<15	ND<15	58	8,500	ND<4,000	ND<150	ND<15	ND<15
TP-2	7/20/2005	26,000	1,800	1,100	1,100	2,500	63,000	ND<150	ND<150	400	ND<700	ND<15,000	ND<1,500	ND<150	ND<150
	11/22/2005	16,000	1,200	140	840	820	52,000	ND<90	ND<90	340	1,200[f]	ND<9,000	ND<900	ND<90	ND<90
	2/9/2006	2,700	94	2.9	28	14	1,200	ND<2.5	ND<2.5	13	1,600	ND<250	ND<25	ND<2.5	ND<2.5
	5/17/2006	31,000	2,200	1,100	1,500	3,300	87,000	ND<90	ND<90	680	4,800	ND<15,000	ND<1,500	ND<90	ND<90
	8/9/2006	14,000	1,400	86	1,200	830	56,000	ND<2.5	ND<2.5	350	2,800	ND<4,000	ND<25	ND<2.5	ND<2.5
	11/8/2006	16,000	1,300	ND<90	930	370	38,000	ND<90	ND<90	280	3,600	ND<40,000	ND<900	ND<90	ND<90
	2/14/2007	22,000	1,900	230	1,700	1,600	53,000	ND<90	ND<90	400	2,800	ND<20,000	ND<900	ND<90	ND<90
MW-A	1/17/1999	5,800	1,700	85	65	320	ND<5	-	-	-	-	-	-	-	-
MW-B	1/17/1999	4,400	240	30	21	39	ND<5	-	-	-	-	-	-	-	-
MW-C	1/17/1999	1800	0.8	ND<0.5	ND<0.5	0.55	ND<5	-	-	-	-	-	-	-	-

TABLE 3

GROUNDWATER MONITORING ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Sample Date[a]	TPHg[b] (µg/l)	Benzene[b] (µg/l)	Toluene[b] (µg/l)	Ethylbenzene[b] (µg/l)	Xylenes[b] (µg/l)	MTBE[b] (µg/l)	DIPE[b] (µg/l)	ETBE[b] (µg/l)	TAME[b] (µg/l)	TBA[b] (µg/l)	Methanol[b] (µg/l)	Ethanol[b] (µg/l)	1,2-DCA[b] (µg/l)	EDB[b] (µg/l)
MW-D	1/17/1999	5,600	1,600	130	66	220	ND<5	-	-	-	-	-	-	-	-
MW-E	1/17/1999	5,700	1,600	180	180	310	ND<50	-	-	-	-	-	-	-	-
	6/10/1999	5,000	1,300	130	320	450	ND<25	-	-	-	-	-	-	-	-
MW-W	1/17/1999	23,000	7,600	760	1,400	5,000	ND<50	-	-	-	-	-	-	-	-
	6/10/1999	16,000	4,100	420	1,300	4,000	ND<50	-	-	-	-	-	-	-	-

(a) Samples collected before July 2005 collected by others; data provided by Delta Environmental Consultants, Inc., Second Quarter 2005 Groundwater Monitoring Report dated 31 July 2005.

(b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB) analyzed by EPA Method 8260; reported in micrograms per liter (µg/l).

(c) Field measurement, reported in milligrams per liter (mg/l).

(d) ND - Not detected at the reporting limit listed.

(e) "-" Not analyzed.

(f) TBA results may be biased slightly high. A fraction of MTBE (typically less than 10 percent) converts to TBA during the analysis of water samples. This conversion effect is considered to be mathematically significant in samples that contain MTBE/TBA ratios of over 20:1.

TABLE 4

GRAB GROUNDWATER ANALYTICAL RESULTS
TESORO - LIVERMORE, 67076

Monitoring Well	Depth (feet)	Sample Date	TPHg[(b)] (µg/l)	Benzene[(b)] (µg/l)	Toluene[(b)] (µg/l)	Ethylbenzene[(b)] (µg/l)	Xylenes[(b)] (µg/l)	MTBE[(b)] (µg/l)	DIPE[(b)] (µg/l)	ETBE[(b)] (µg/l)	TAME[(b)] (µg/l)	TBA[(b)] (µg/l)	Methanol[(b)] (µg/l)	Ethanol[(b)] (µg/l)	1,2-DCA[(b)] (µg/l)	EDB[(b)] (µg/l)
DB-1	50	1/27/2006	42,000	1,400	120	3,800	4,100	3,500	ND<10	ND<10	48	120	ND<2,000	ND<100	ND<10	ND<10
	60	1/27/2006	26,000	1,000	170	1,100	860	280	ND<5	ND<5	15	49	ND<500	ND<50	ND<5	ND<5
DB-2	45	1/26/2006	47,000	1,200	420	1,800	5,200	38,000	ND<10	ND<10	300	2,700	ND<30,000	ND<100	ND<10	ND<10
	55	1/26/2006	120,000	5,200	1,700	4,500	15,000	11,000	ND<10	ND<10	69	830	ND<8,000	ND<100	ND<10	ND<10
DB-3	50	1/26/2006	24,000	400	54	860	980	24,000	ND<10	ND<10	180	2,600	ND<25000	ND<100	ND<10	ND<10
DB-4	50	1/25/2006	550	2.0	0.64	5.1	18	510	ND<0.5	ND<0.5	4.4	80	ND<50	10	ND<0.5	ND<0.5
DB-5	40	2/3/2006	1,800	54	4.6	39	80	150	ND<0.5	ND<0.5	1.6	130	ND<50	ND<5	ND<0.5	ND<0.5
	53	2/3/2006	58,000	1,100	150	1,300	2,100	1,500	ND<10	ND<10	15	710	ND<1,000	ND<100	ND<10	ND<10
DB-6	40	2/3/2006	2,000	0.52	0.53	0.66	0.66	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	53	2/3/2006	1,100	13	2.7	8.0	4.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
DB-7	54	1/4/2007	160	1.4	0.54	5.4	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	ND<50	ND<5	ND<0.5	ND<0.5
	67	1/4/2007	6,800	150	710	3,700	1,700	ND<25	ND<25	ND<25	ND<25	ND<150	ND<2,500	ND<250	ND<25	ND<25

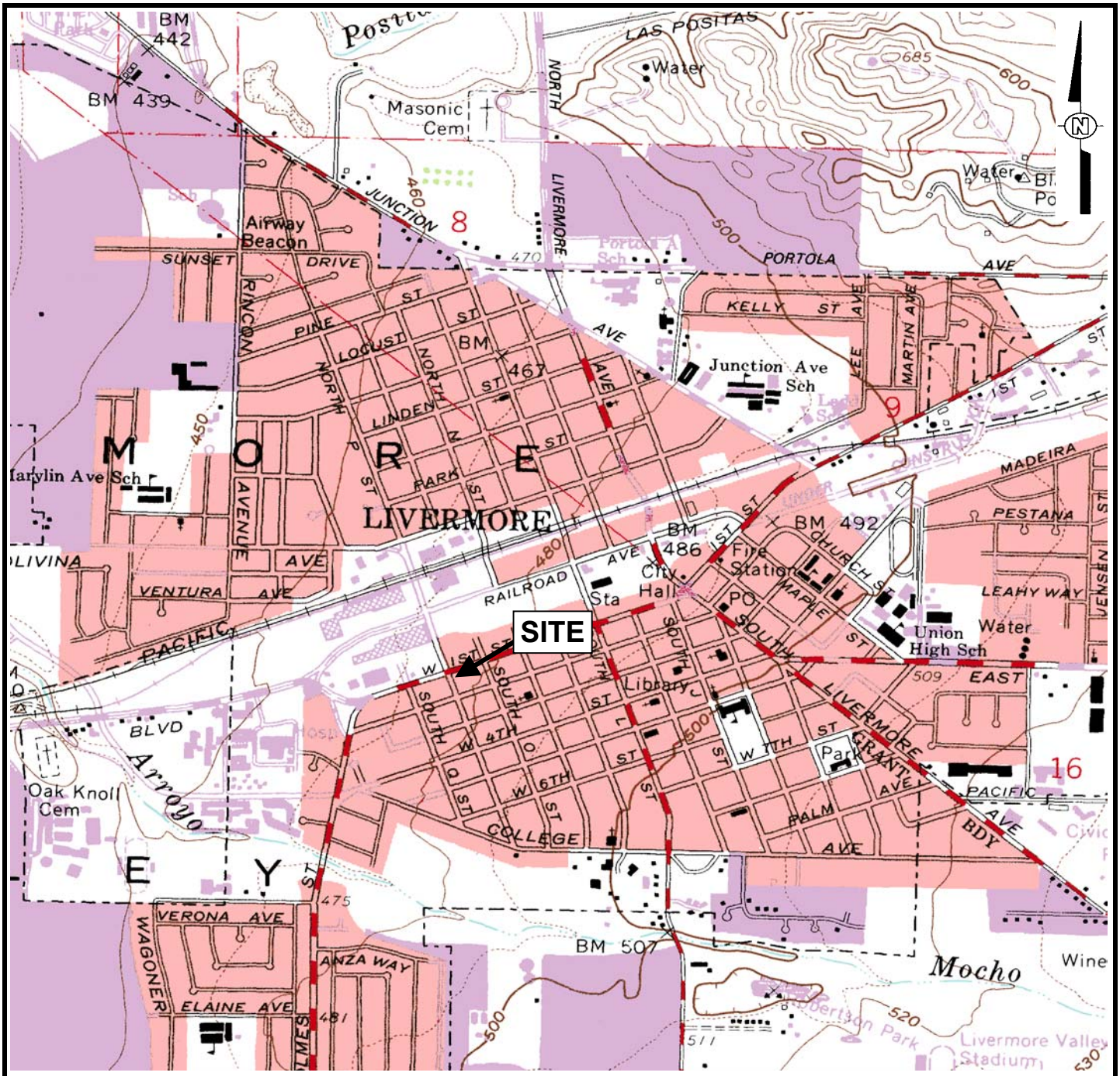
(a) Samples collected before July 2005 collected by others; data provided by Delta Environmental Consultants, Inc., Second Quarter 2005 Groundwater Monitoring Report dated 31 July 2005.

(b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB) analyzed by EPA Method 8260; reported in micrograms per liter (µg/l).

(d) ND - Not detected at the reporting limit listed.

(e) "-" Not analyzed.

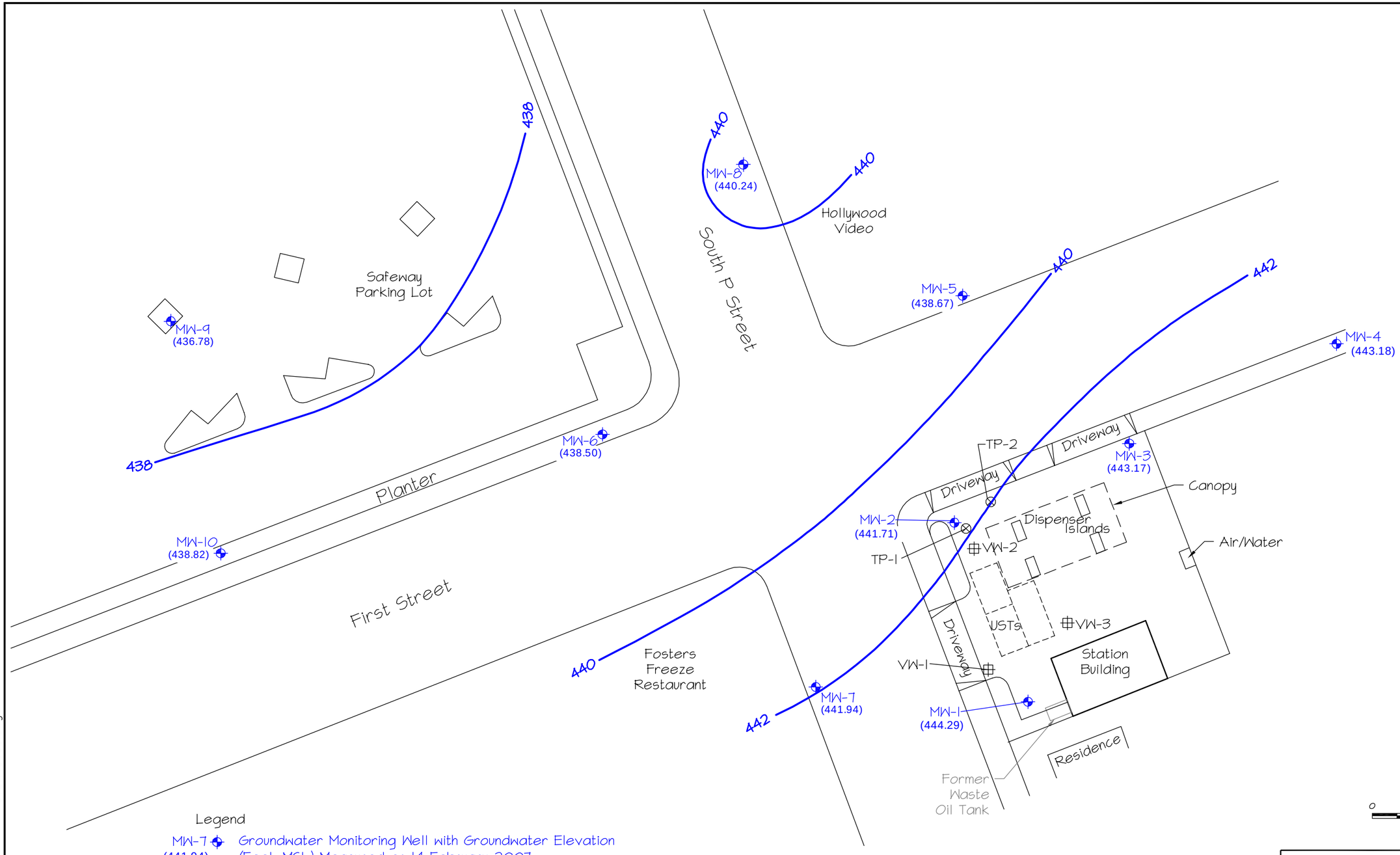
(f) TBA results may be biased slightly high. A fraction of MTBE (typically less than 10 percent) converts to TBA during the analysis of water samples. This conversion effect is considered to be mathematically significant in samples that contain MTBE/TBA ratios of over 20:1.



REFERENCE

7.5 MINUTE USGS TOPOGRAPHIC MAP OF
LIVERMORE, CALIFORNIA QUADRANGLE
DATE: 1961, PHOTOREVISED 1980
SCALE = 1:24,000

ARCTOS ENVIRONMENTAL			
TESORO - LIVERMORE			
SITE LOCATION MAP			
PROJECT NO. 01LV	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. Site Map.xls		**FIGURE 1**	



Legend

- MW-7 (441.94) — Groundwater Monitoring Well with Groundwater Elevation (Feet, MSL) Measured on 14 February 2007
- VW-2 — Vapor Extraction Well
- TP-2 — Temporary Monitoring Well
- 440 — Groundwater Elevation Contour (Dashed Where Inferred)

REVISION	NO.	BY	DATE	DESCRIPTION
6	0	MY	8/24/05	Third Quarter 2005 Monitoring Report
	1	MY	12/15/05	Fourth Quarter 2005 Monitoring Report
	2	MY	4/28/06	Investigation Report
	3	MY	7/15/06	Second Quarter 2006 Monitoring Report
	4	MY	12/15/06	Third Quarter 2006 Monitoring Report
	5	MY	3/13/07	Fourth Quarter 2006 Monitoring Report
	6	MY	5/15/07	First Quarter 2007 Monitoring Report

ARCTOS ENVIRONMENTAL

TESORO - LIVERMORE

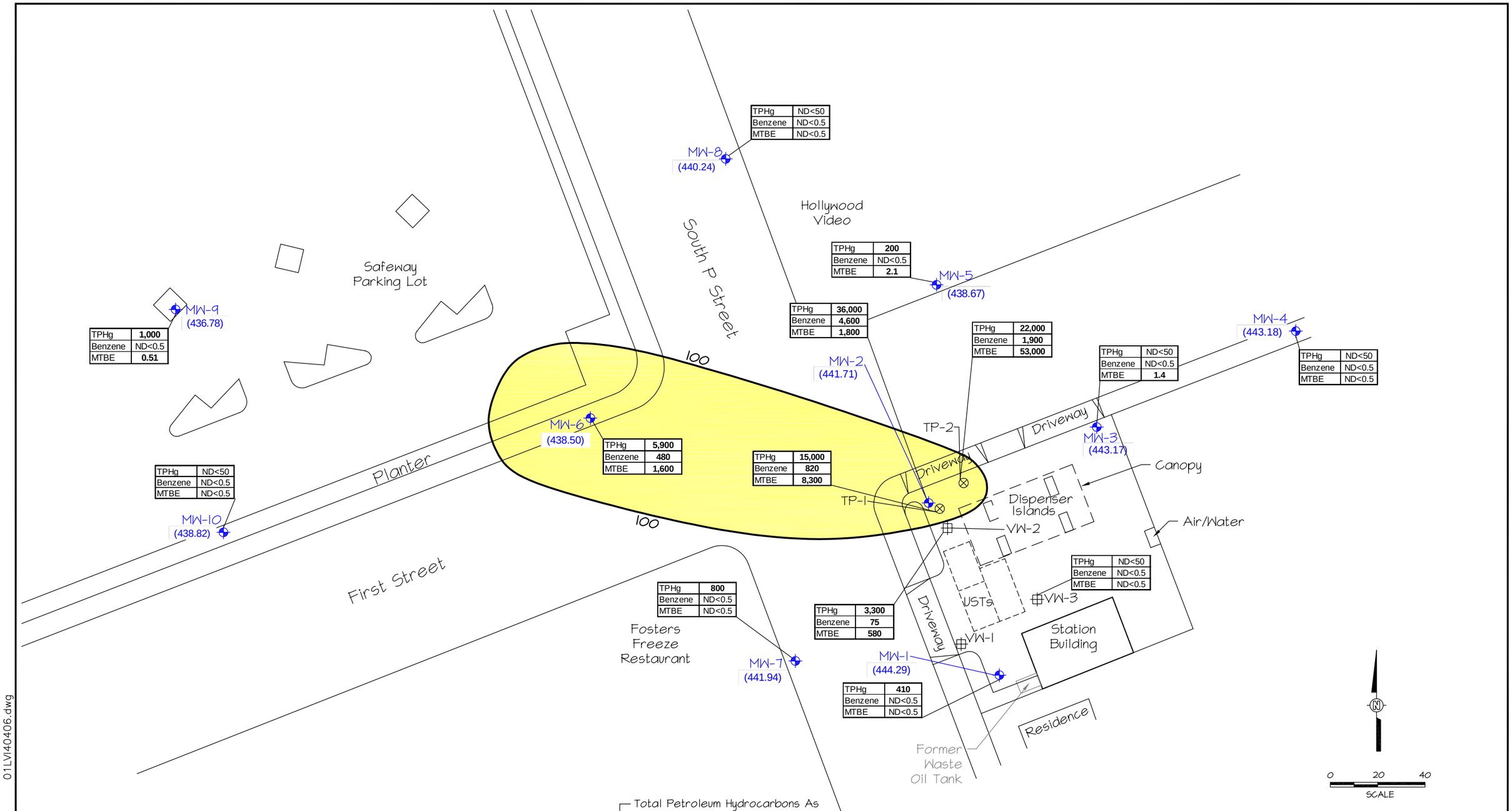
GROUNDWATER ELEVATION CONTOURS

PROJECT NO.	DRAWN BY	CHECKED BY	APPROVED BY
01LV	MY	MP	JPG

FILE NO. 01LV140606.DWG

FIGURE 2

6/20/2007 12:52PM 01LV140606.dwg



Legend

MW-7 (441.94) — Groundwater Monitoring Well with Groundwater Elevation (Feet, MSL) and 14 February 2007 Results

VW-2 — Vapor Extraction Well

TP-2 — Temporary Monitoring Well

ND — Not Detected at Reporting Limit Listed

TPHg 410
Benzene ND<0.5
MTBE ND<0.5

- Total Petroleum Hydrocarbons As Gasoline (THPg) (µg/l)
- Benzene (µg/l)
- Methyl Tert-Butyl Ether (MTBE) (µg/l)

100 — Benzene Concentration Contour (µg/l)

REVISION	NO.	BY	DATE	DESCRIPTION
5	0	MY	8/24/05	Third Quarter 2005 Monitoring Report
	1	MY	12/15/05	Fourth Quarter 2005 Monitoring Report
	2	MY	4/28/06	Investigation Report
	3	MY	7/15/06	Second Quarter 2006 Monitoring Report
	4	MY	12/5/06	Fourth Quarter 2006 Monitoring Report
	5	MY	12/15/06	Third Quarter 2006 Monitoring Report

ARCTOS ENVIRONMENTAL

TESORO - LIVERMORE

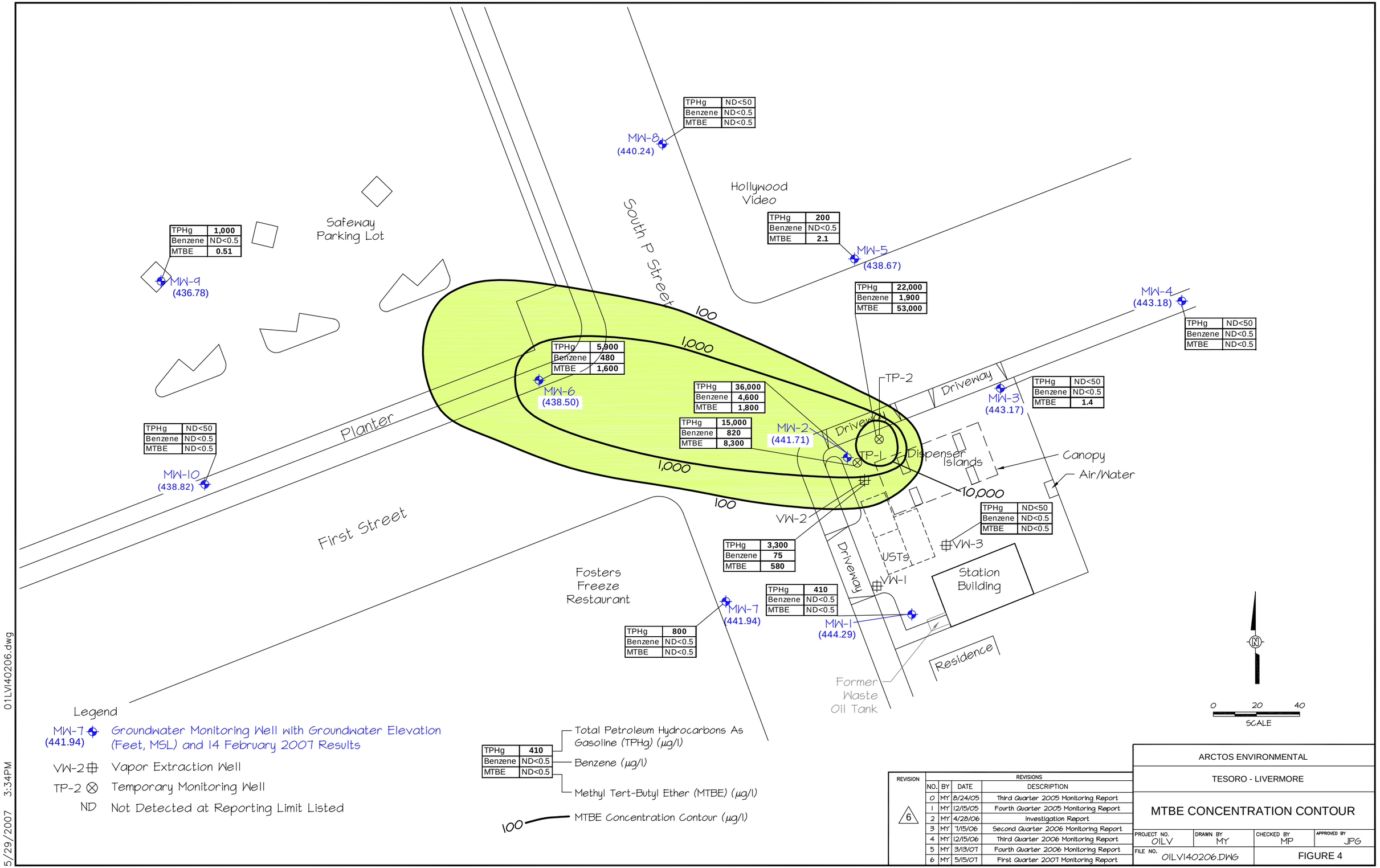
BENZENE CONCENTRATION CONTOURS

PROJECT NO.	DRAWN BY	CHECKED BY	APPROVED BY
01LV	MY	MP	JPG

FILE NO. 01LV140406.DWG

FIGURE 3

5/20/2007 5:19PM 01LV140406.dwg



REVISION	NO.	BY	DATE	DESCRIPTION
6	0	MY	8/24/05	Third Quarter 2005 Monitoring Report
	1	MY	12/15/05	Fourth Quarter 2005 Monitoring Report
	2	MY	4/28/06	Investigation Report
	3	MY	7/15/06	Second Quarter 2006 Monitoring Report
	4	MY	12/15/06	Third Quarter 2006 Monitoring Report
	5	MY	3/13/07	Fourth Quarter 2006 Monitoring Report
	6	MY	5/15/07	First Quarter 2007 Monitoring Report

ARCTOS ENVIRONMENTAL

TESORO - LIVERMORE

MTBE CONCENTRATION CONTOUR

PROJECT NO.	DRAWN BY	CHECKED BY	APPROVED BY
01LV	MY	MP	JPG

FILE NO. 01LV140206.DWG

FIGURE 4

5/29/2007 3:34PM 01LV140206.dwg

TPHg	6,800
Benzene	150
MTBE	ND<25

DB-1

TPHg	2,000
Benzene	0.52
MTBE	ND<0.5

DB-6

TPHg	1,000
Benzene	ND<0.5
MTBE	0.51

MW-9 (436.78)

Safeway Parking Lot

TPHg	58,000
Benzene	1,100
MTBE	1,500

DB-5

TPHg	ND<50
Benzene	ND<0.5
MTBE	ND<0.5

MW-10 (438.82)

TPHg	5,900
Benzene	480
MTBE	1,600

MW-6 (438.50)

Planter

TPHg	ND<50
Benzene	ND<0.5
MTBE	ND<0.5

MW-8 (440.24)

South P Street

Hollywood Video

TPHg	200
Benzene	ND<0.5
MTBE	2.1

MW-5 (438.67)

TPHg	22,000
Benzene	1,900
MTBE	53,000

MW-4 (443.18)

TPHg	ND<50
Benzene	ND<0.5
MTBE	ND<0.5

100

1,000

TPHg	36,000
Benzene	4,600
MTBE	1,800

TP-2

Driveway

MW-3 (443.17)

TPHg	ND<50
Benzene	ND<0.5
MTBE	1.4

TPHg	15,000
Benzene	820
MTBE	8,300

MW-2 (441.71)

Driveway

TP-1

Dispenser Islands

Canopy

Air/Water

10,000

11,000

100

VW-2

TPHg	ND<50
Benzene	ND<0.5
MTBE	ND<0.5

VW-3

TPHg	3,300
Benzene	75
MTBE	580

Fosters Freeze Restaurant

Driveway

USTs

VW-1

Station Building

MW-7 (441.94)

TPHg	800
Benzene	ND<0.5
MTBE	ND<0.5

MW-1 (444.29)

TPHg	410
Benzene	ND<0.5
MTBE	ND<0.5

Residence

Former Waste Oil Tank

First Street

N

Legend

MW-7 (441.94) — Groundwater Monitoring Well with Groundwater Elevation (Feet, MSL) and 14 February 2007 Results

DB-1 — Soil Boring and 3 February 2006 to 4 January 2007 Grab Groundwater Sampling Results

VW-2 — Vapor Extraction Well

TP-2 — Temporary Monitoring Well

ND — Not Detected at Reporting Limit Listed

TPHg	410
Benzene	ND<0.5
MTBE	ND<0.5

- TPHg: Total Petroleum Hydrocarbons As Gasoline (TPHg) (µg/l)
- Benzene (µg/l)
- MTBE: Methyl Tert-Butyl Ether (MTBE) (µg/l)

100 — MTBE Concentration Contour (µg/l)

0 30' 60'

SCALE

REVISION	NO.	BY	DATE	DESCRIPTION
1	0	MY	9/15/06	Second Quarter 2006 Status Report
	1	MY	3/12/07	First Quarter 2007 Status Report

ARCTOS ENVIRONMENTAL

TESORO - LIVERMORE

DOWNGRADIENT GROUNDWATER SAMPLING LOCATION

PROJECT NO.	DRAWN BY	CHECKED BY	APPROVED BY
01LV	MY	MP	JPG

FILE NO. 01LV140701.DWG

FIGURE 5

01LV140701.dwg 5/29/2007 1:02PM

APPENDIX A

FIELD DATA SHEETS

WELL GAUGING DATA

Project # 070245 R1 Date 2/14/07 Client Arcos Environmental

Site 1619, 1st St Livermore Tesoro

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
VW-3	809	~~2~~ 4					30.48	36.26		
MW-1	818	4					30.00	54.00		
MW-4	822	~~4~~ 2					30.46	46.80		
MW-8	932	2					30.94	44.45		
MW-10	827	2					32.81	45.13		
MW-3	845	~~2~~ 4					30.20	52.81		
MW-5	851	2					34.00	46.30		
MW-7	855	2					30.39	46.77		
MW-9	833	2					31.00	44.72		
MW-6	838	2	odor				33.43	47.58		
MW-2	901	~~2~~ 4	odor				31.27	54.00		
VW-2	905	2					30.77	36.73		
TP-1	915	2					33.59	43.21		
TP-2	922	2					30.32	42.00		

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos Enviro.
Sampler: E.M.	Date: 2/14/07
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 54.00	Depth to Water (DTW): 30.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 34.80	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
15.6 (Gals.) X	3	= 46.8 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1237	66.8	8.0	767	83	16.0	
1240	67.1	7.4	892	337	32.0	
1243	67.3	7.3	895	480	48.0	

Did well dewater? Yes (No) Gallons actually evacuated: 48.0

Sampling Date: 2/14/07 Sampling Time: 1245 Depth to Water: 33.85

Sample I.D.: MW-1 Laboratory: (Kiff) CalScience Other ____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Sow

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Enviro.
Sampler: EM	Date: 2/14/07
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 54.00	Depth to Water (DTW): 31.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.82	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; ~~Electric Submersible~~; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: ____

14.8 (Gals.) X 3 = 44.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1338	68.5	7.2	1185	359	15.0	
1341	68.8	7.0	1158	270	30.0	
1344	68.7	7.0	1156	259	45.0	

Did well dewater? Yes (No) Gallons actually evacuated: 45.0

Sampling Date: 2/14/07 Sampling Time: 1345 Depth to Water: 35.25

Sample I.D.: MW-2 Laboratory: (Kiff) CalScience Other____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Scw (N.A. analyses)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.78	mg/L *
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-98	mV *

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Enviro.
Sampler: E.M.	Date: 2/14/07
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 52.81	Depth to Water (DTW): 30.20
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 34.72	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; ~~Electric Submersible~~; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; ~~Disposable Baile~~; Extraction Port; Dedicated Tubing; Other: _____

1 Case Volume	Specified Volumes	Calculated Volume
14.7 (Gals.) X	3	= 44.1 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1300	67.3	7.4	973	151	15.0	
1303	67.7	7.2	1047	88	30.0	
1306	67.8	7.2	1069	71	45.0	

Did well dewater? Yes (No) Gallons actually evacuated: 45.0

Sampling Date: 2/14/07 Sampling Time: 1310 Depth to Water: 34.54

Sample I.D.: MW-3 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Sow (NA analysis)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.73	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	69	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos Envir.
Sampler: EM	Date: 2/14/07
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 46.80	Depth to Water (DTW): 30.46
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 33.73	

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: ____

2.6 (Gals.) X	3	= 7.8 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1154	67.9	7.5	1004	>1000	2.6	
1158	68.3	7.4	1000	>1000	5.2	
1202	68.4	7.4	1007	>1000	7.8	

Did well dewater? Yes (No) Gallons actually evacuated: 7.8

Sampling Date: 2/14/07 Sampling Time: 1205 Depth to Water: 31.38

Sample I.D.: MW-4 Laboratory: (Kiff) CalScience Other ____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SOW (N.A. Analytics)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	2.27	mg/L *
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-25	mV *

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Enviro.
Sampler: EM	Date: 2/14/07
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 46.30	Depth to Water (DTW): 34.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 36.46	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; ~~Disposable Bailer~~; Extraction Port; Dedicated Tubing; Other: _____

1.96 (Gals.) X 3 = 5.9 Gals.
1 Case Volume — Specified Volumes — Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1216	68.8	7.2	1232	>1000	2.0	
1224	69.3	7.0	1221	>1000	4.0	
1230	69.3	7.0	1225	>1000	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 2/14/07 Sampling Time: 1230 Depth to Water: 35.05

Sample I.D.: MW-5 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See San

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos
Sampler: EM	Date: 2/14/07
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 47.58	Depth to Water (DTW): 33.43
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 36.26	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: _____

2.25 (Gals.) X 3 = 6.75 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1120	69.1	7.1	1233	>1000	2.25	oder/grey water
1126	69.5	6.9	1230	>1000	4.50	" "
1132	69.4	6.9	1231	>1000	6.75	

Did well dewater? Yes (No) Gallons actually evacuated: 6.75

Sampling Date: 2/14/07 Sampling Time: 1135 Depth to Water: 35.81

Sample I.D.: MW-6 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Scan (N.A. analyses)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	1.10	mg/L ✱
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-85	mV ✱

WELL MONITORING DATA SHEET

Project #: 070214EM	Client: Arctas Enviro.
Sampler: E.M	Date: 2/14/07
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 46.77	Depth to Water (DTW): 30.39
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 33.67	

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

2.62 (Gals.) X 3 = 7.86 Gals.
1 Case Volume · Specified Volumes · Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1316	68.9	7.3	1059	>1000	2.75	
1321	68.4	7.2	1068	>1000	5.50	
1330	68.5	7.2	1081	>1000	8.25	

Did well dewater? Yes (No) Gallons actually evacuated: 8.25

Sampling Date: 2/14/07 Sampling Time: 1330 Depth to Water: 30.89

Sample I.D.: MW-7 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SOW

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Enviro.
Sampler: E.M.	Date: 2/14/07
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 44.45	Depth to Water (DTW): 30.94
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 33.64	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

2.15 (Gals.) X 3 = 6.45 Gals.
1 Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
939	68.2	7.26	1084	>1000	2.25	
946	69.7	7.18	1054	>1000	4.5	
951	69.6	7.15	1050	>1000	6.75	

Did well dewater? Yes (No) Gallons actually evacuated: 6.75

Sampling Date: 2/14/07 Sampling Time: 955 Depth to Water: 33.23

Sample I.D.: MW-8 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Ser

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos
Sampler: EM	Date: 2/14/07
Well I.D.: MW-9	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 44.72	Depth to Water (DTW): 34.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 36.14	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.71 (Gals.) X	3	= 5.15 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1102	69.4	7.4	1033	>1000	1.75	
1107	70.1	7.2	1023	>1000	3.5	
1111	70.2	7.2	1021	>1000	5.25	
	waited for 80%					

Did well dewater? Yes (No) Gallons actually evacuated: 5.25

Sampling Date: 2/14/07 Sampling Time: 1115 Depth to Water: 36.10

Sample I.D.: MW-9 Laboratory: (Kiff) CalScience Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Scw (Na. analyses)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	0.25	mg/L *
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	-100	mV *

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos
Sampler: EM	Date: 2/14/07
Well I.D.: MW-10	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 45.13	Depth to Water (DTW): 32.81
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.27	

Purge Method: Bailer (Disposable Bailer) Positive Air Displacement Electric Submersible | Waterra Peristaltic Extraction Pump | Other_____

Sampling Method: Bailer (Disposable Bailer) Extraction Port Dedicated Tubing | Other: _____

1.97 (Gals.) X	3	= 5.91 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1040	68.6	7.6	1304	>1000	2.0	
1047	69.1	7.6	1330	>1000	4.0	
1053	69.0	7.6	1329	>1000	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 2/14/07 Sampling Time: 1055 Depth to Water: 34.85

Sample I.D.: MW-10 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: SEE SOW

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arctos Enviro.
Sampler: EM.	Date: 2/14/07
Well I.D.: TP-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 43.21	Depth to Water (DTW): 33.59
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 35.51	

Purge Method: Bailer; ~~Disposable Bailer~~; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; ~~Disposable Bailer~~; Extraction Port; Dedicated Tubing; Other: _____

1.5 (Gals.) X	3	=	4.5 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1359	68.1	7.0	1273	>1000	1.5	odor
1403	68.8	6.9	1259	>1000	3.0	"
1407	68.8	6.9	1245	>1000	4.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 2/14/07 Sampling Time: 1410 Depth to Water: 35.08

Sample I.D.: TP-1 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Sow

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Enviro,
Sampler: E.M.	Date: 2/14/07
Well I.D.: TP-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 4.00	Depth to Water (DTW): 30.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 32.66	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

1.87 (Gals.) X	3	=	5.6 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1412	68.5	7.0	1173	>1000	2.0	
1417	68.9	6.9	1181	>1000	4.0	
1422	@ ~~68.1~~ 66.9	6.9	1197	>1000	6.0	

Did well dewater? Yes (No) Gallons actually evacuated: 6.0

Sampling Date: 2/14/07 Sampling Time: 1425 Depth to Water: 30.56

Sample I.D.: TP-2 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See SOW

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214EM1	Client: Arcos Envir.
Sampler: EM	Date: 2/14/07
Well I.D.: VW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 36.26	Depth to Water (DTW): 30.48
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: _____

No Purge

_____(Gals.) X _____ = _____ Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
810	67	7.0	1665	90	—	

Did well dewater? Yes ~~No~~ Gallons actually evacuated: —

Sampling Date: 2/14/07 Sampling Time: 810 Depth to Water: 30.48

Sample I.D.: VW-3 Laboratory: (Kiff) CalScience Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see ser

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 070214 EM1	Client: Ardos Envir.
Sampler: E. M.	Date: 2/14/07
Well I.D.: VW-2	Well Diameter (2) 3 4 6 8 ___
Total Well Depth (TD): 36.73	Depth to Water (DTW): 30.77
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: —	

Purge Method: Bailer / Disposable Bailer / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

no Purge

___ (Gals.) X	___	= ___ Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
905	67.1	6.3	X51	11	—	

Did well dewater? Yes ~~No~~ Gallons actually evacuated: —

Sampling Date: 2/14/07 Sampling Time: 905 Depth to Water: 30.77

Sample I.D.: VW-2 Laboratory: (Kiff) CalScience Other ____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Sch

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORM

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Confirmation Number: 8431950569
Date/Time of Submittal: 6/21/2007 12:54:35 PM
Facility Global ID: T0600101410
Facility Name: BEACON #3604
Submittal Title: 01LV 1Q07 Status Report
Submittal Type: Status Report

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BEACON #3604
1619 1ST
LIVERMORE, CA 94550

Regional Board - Case #: 01-1527
SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency (lead agency) - Case #: RO0000434
ALAMEDA COUNTY LOP - **(JTW)**

CONF #	TITLE	QUARTER
8431950569	01LV 1Q07 Status Report	Q1 2007

SUBMITTED BY	SUBMIT DATE	STATUS
Miguel Tseng	6/21/2007	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	14
# FIELD POINTS WITH DETECTIONS	10
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	9
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	Y

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE - NON-STANDARD SURROGATE USED	N

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Electronic Submittal Information

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Confirmation Number: 2535295367
Date/Time of Submittal: 6/21/2007 1:02:01 PM
Facility Global ID: T0600101410
Facility Name: BEACON #3604
Submittal Title: 01LV 1Q07 Status Report
Submittal Type: Status Report

Click here to view the detections report for this upload.

BEACON #3604
1619 1ST
LIVERMORE, CA 94550

Regional Board - Case #: 01-1527
SAN FRANCISCO BAY RWQCB (REGION 2)
Local Agency (lead agency) - Case #: RO0000434
ALAMEDA COUNTY LOP - **(JTW)**

CONF #	TITLE	QUARTER
2535295367	01LV 1Q07 Status Report	Q1 2007

SUBMITTED BY	SUBMIT DATE	STATUS
Miguel Tseng	6/21/2007	PENDING REVIEW

SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED	2
# FIELD POINTS WITH DETECTIONS	2
# FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL	2
SAMPLE MATRIX TYPES	WATER

METHOD QA/QC REPORT

METHODS USED	SW8260B
TESTED FOR REQUIRED ANALYTES?	Y
LAB NOTE DATA QUALIFIERS	N

QA/QC FOR 8021/8260 SERIES SAMPLES

TECHNICAL HOLDING TIME VIOLATIONS	0
METHOD HOLDING TIME VIOLATIONS	0
LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT	0
LAB BLANK DETECTIONS	0
DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING?	
- LAB METHOD BLANK	Y
- MATRIX SPIKE	Y
- MATRIX SPIKE DUPLICATE	Y
- BLANK SPIKE	Y
- SURROGATE SPIKE	Y

WATER SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	Y

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	Y
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%	Y
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	Y

SOIL SAMPLES FOR 8021/8260 SERIES

MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%	n/a
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%	n/a
SURROGATE SPIKES % RECOVERY BETWEEN 70-125%	n/a
BLANK SPIKE / BLANK SPIKE DUPLICATES % RECOVERY BETWEEN 70-130%	n/a

FIELD QC SAMPLES

SAMPLE	COLLECTED	DETECTIONS > REPDL
QCTB SAMPLES	N	0
QCEB SAMPLES	N	0
QCAB SAMPLES	N	0

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Your file has been successfully submitted!

Submittal Title:	**01LV 1Q07 Status Report**
Facility Global ID:	**T0600101410**
Facility Name:	**BEACON #3604**
Submittal Date/Time:	**6/21/2007 1:08:25 PM**
Confirmation Number:	**8502339243**

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CONTACT SITE ADMINISTRATOR.

KIFF Analytical LLC

Report Number : 54856
Date : 2/22/2007

Mike Purchase
Arctos Environmental
1332 Peralta Avenue
Berkeley, CA

Subject : 14 Water Samples
Project Name : Tesoro - Livermore
Project Number : 070214EM1

Dear Mr. Purchase,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 54856
Date : 2/22/2007

Subject : 14 Water Samples
Project Name : Tesoro - Livermore
Project Number : 070214EM1

Case Narrative

The Method Reporting Limit for Methanol has been increased due to the presence of an interfering compound for samples MW-6, VW-2, TP-1 and TP-2.

Approved By: Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **VW-3** Matrix : Water Lab Number : 54856-01

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.1		% Recovery	EPA 8260B	2/15/2007

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-1** Matrix : Water Lab Number : 54856-02

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**2.2**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**2.2**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**410**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.6		% Recovery	EPA 8260B	2/15/2007

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-4** Matrix : Water Lab Number : 54856-03

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	2/15/2007

Approved By: Joel Kiff

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KIFF Analytical LLC

Report Number : 54856
Date : 2/22/2007

Project Name : **Tesoro - Livermore**
Project Number : **070214EM1**

Sample : **MW-8** Matrix : Water Lab Number : 54856-04
Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.9		% Recovery	EPA 8260B	2/15/2007

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KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-10** Matrix : Water Lab Number : 54856-05

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	93.8		% Recovery	EPA 8260B	2/15/2007

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KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-3** Matrix : Water Lab Number : 54856-06

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**1.4**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.1		% Recovery	EPA 8260B	2/15/2007

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KIFF Analytical LLC

Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-5** Matrix : Water Lab Number : 54856-07

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**1.1**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**2.1**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**200**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	96.3		% Recovery	EPA 8260B	2/15/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-7** Matrix : Water Lab Number : 54856-08

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**800**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	2/15/2007

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KIFF Analytical LLC

Report Number : 54856
Date : 2/22/2007

Project Name : **Tesoro - Livermore**
Project Number : **070214EM1**

Sample : **MW-9** Matrix : Water Lab Number : 54856-09
Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**0.51**	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**0.51**	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**1000**	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.9		% Recovery	EPA 8260B	2/15/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-6** Matrix : Water Lab Number : 54856-10

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**480**	2.0	ug/L	EPA 8260B	2/15/2007
Toluene	**10**	2.0	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**73**	2.0	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**23**	2.0	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**1600**	2.5	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**14**	2.0	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**1100**	9.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 500**	500	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 20**	20	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**5900**	200	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	111		% Recovery	EPA 8260B	2/15/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **MW-2** Matrix : Water Lab Number : 54856-11

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**4600**	7.0	ug/L	EPA 8260B	2/22/2007
Toluene	**740**	5.0	ug/L	EPA 8260B	2/22/2007
Ethylbenzene	**1600**	5.0	ug/L	EPA 8260B	2/22/2007
Total Xylenes	**2100**	7.0	ug/L	EPA 8260B	2/22/2007
Methyl-t-butyl ether (MTBE)	**1800**	5.0	ug/L	EPA 8260B	2/22/2007
Diisopropyl ether (DIPE)	**< 5.0**	5.0	ug/L	EPA 8260B	2/22/2007
Ethyl-t-butyl ether (ETBE)	**< 5.0**	5.0	ug/L	EPA 8260B	2/22/2007
Tert-amyl methyl ether (TAME)	**20**	5.0	ug/L	EPA 8260B	2/22/2007
Tert-Butanol	**910**	25	ug/L	EPA 8260B	2/22/2007
Methanol	**< 700**	700	ug/L	EPA 8260B	2/22/2007
Ethanol	**< 50**	50	ug/L	EPA 8260B	2/22/2007
1,2-Dichloroethane	**< 5.0**	5.0	ug/L	EPA 8260B	2/22/2007
1,2-Dibromoethane	**< 5.0**	5.0	ug/L	EPA 8260B	2/22/2007
TPH as Gasoline	**36000**	500	ug/L	EPA 8260B	2/22/2007
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	2/22/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	2/22/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **VW-2** Matrix : Water Lab Number : 54856-12

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**75**	2.0	ug/L	EPA 8260B	2/15/2007
Toluene	**4.6**	2.0	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**50**	2.0	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**82**	2.0	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**580**	2.0	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**7.0**	2.0	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**4100**	8.0	ug/L	EPA 8260B	2/15/2007
Methanol	**< 500**	500	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 20**	20	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 2.0**	2.0	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**3300**	200	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	2/15/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **TP-1** Matrix : Water Lab Number : 54856-13

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**820**	15	ug/L	EPA 8260B	2/16/2007
Toluene	**37**	15	ug/L	EPA 8260B	2/16/2007
Ethylbenzene	**810**	15	ug/L	EPA 8260B	2/16/2007
Total Xylenes	**1000**	15	ug/L	EPA 8260B	2/16/2007
Methyl-t-butyl ether (MTBE)	**8300**	15	ug/L	EPA 8260B	2/16/2007
Diisopropyl ether (DIPE)	**< 15**	15	ug/L	EPA 8260B	2/16/2007
Ethyl-t-butyl ether (ETBE)	**< 15**	15	ug/L	EPA 8260B	2/16/2007
Tert-amyl methyl ether (TAME)	**58**	15	ug/L	EPA 8260B	2/16/2007
Tert-Butanol	**8500**	70	ug/L	EPA 8260B	2/16/2007
Methanol	**< 4000**	4000	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 150**	150	ug/L	EPA 8260B	2/16/2007
1,2-Dichloroethane	**< 15**	15	ug/L	EPA 8260B	2/16/2007
1,2-Dibromoethane	**< 15**	15	ug/L	EPA 8260B	2/16/2007
TPH as Gasoline	**15000**	1500	ug/L	EPA 8260B	2/16/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/16/2007
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	2/16/2007

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Report Number : 54856

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Sample : **TP-2** Matrix : Water Lab Number : 54856-14

Sample Date :2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1900**	90	ug/L	EPA 8260B	2/15/2007
Toluene	**230**	90	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	**1700**	90	ug/L	EPA 8260B	2/15/2007
Total Xylenes	**1600**	90	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	**53000**	90	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	**< 90**	90	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	**< 90**	90	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	**400**	90	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	**2800**	500	ug/L	EPA 8260B	2/15/2007
Methanol	**< 20000**	20000	ug/L	EPA 8260B	2/15/2007
Ethanol	**< 900**	900	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	**< 90**	90	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	**< 90**	90	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	**22000**	9000	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	109		% Recovery	EPA 8260B	2/15/2007

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Report Number : 54856

Date : 2/22/2007

QC Report : Method Blank Data

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	100		%	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	2/15/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/16/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/16/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/16/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/16/2007
Toluene - d8 (Surr)	98.5		%	EPA 8260B	2/16/2007
4-Bromofluorobenzene (Surr)	97.9		%	EPA 8260B	2/16/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/14/2007
Methanol	< 50	50	ug/L	EPA 8260B	2/14/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/14/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/14/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	2/14/2007
4-Bromofluorobenzene (Surr)	111		%	EPA 8260B	2/14/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2007
Methanol	< 50	50	ug/L	EPA 8260B	2/22/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	< 50	50	ug/L	EPA 8260B	2/15/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54856

Date : 2/22/2007

QC Report : Method Blank Data

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	104		%	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	2/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/21/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/21/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/21/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/21/2007
Toluene - d8 (Surr)	104		%	EPA 8260B	2/21/2007
4-Bromofluorobenzene (Surr)	99.5		%	EPA 8260B	2/21/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/14/2007
Methanol	< 50	50	ug/L	EPA 8260B	2/14/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/14/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/14/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/14/2007
Toluene - d8 (Surr)	102		%	EPA 8260B	2/14/2007
4-Bromofluorobenzene (Surr)	96.2		%	EPA 8260B	2/14/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
Methanol	< 50	50	ug/L	EPA 8260B	2/15/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	2/15/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/15/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/15/2007
Toluene - d8 (Surr)	101		%	EPA 8260B	2/15/2007
4-Bromofluorobenzene (Surr)	95.2		%	EPA 8260B	2/15/2007

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54856

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	54841-04	0.95	39.7	40.0	38.6	38.9	ug/L	EPA 8260B	2/15/07	94.8	94.8	0.0468	70-130	25
Toluene	54841-04	<0.50	39.7	40.0	40.6	40.6	ug/L	EPA 8260B	2/15/07	102	102	0.599	70-130	25
Tert-Butanol	54841-04	10	198	200	199	200	ug/L	EPA 8260B	2/15/07	95.4	95.1	0.335	70-130	25
Methyl-t-Butyl Ether	54841-04	3.5	39.7	40.0	43.7	44.5	ug/L	EPA 8260B	2/15/07	102	103	1.06	70-130	25
Benzene	54852-10	<0.50	39.9	39.9	41.6	41.3	ug/L	EPA 8260B	2/16/07	104	103	0.683	70-130	25
Toluene	54852-10	<0.50	39.9	39.9	39.9	40.0	ug/L	EPA 8260B	2/16/07	100	100	0.0765	70-130	25
Tert-Butanol	54852-10	<5.0	200	200	192	195	ug/L	EPA 8260B	2/16/07	96.3	97.7	1.38	70-130	25
Methyl-t-Butyl Ether	54852-10	4.8	39.9	39.9	47.6	47.3	ug/L	EPA 8260B	2/16/07	107	106	0.833	70-130	25
Benzene	54840-12	<0.50	40.0	40.0	39.7	38.8	ug/L	EPA 8260B	2/14/07	99.4	97.0	2.44	70-130	25
Toluene	54840-12	<0.50	40.0	40.0	41.0	39.9	ug/L	EPA 8260B	2/14/07	102	99.6	2.81	70-130	25
Tert-Butanol	54840-12	<5.0	200	200	213	212	ug/L	EPA 8260B	2/14/07	106	106	0.735	70-130	25
Methyl-t-Butyl Ether	54840-12	180	40.0	40.0	226	224	ug/L	EPA 8260B	2/14/07	122	116	5.00	70-130	25
Benzene	54863-01	14	40.0	40.0	54.4	50.6	ug/L	EPA 8260B	2/15/07	100	90.7	9.76	70-130	25
Toluene	54863-01	<0.50	40.0	40.0	41.8	39.0	ug/L	EPA 8260B	2/15/07	105	97.5	7.06	70-130	25
Tert-Butanol	54863-01	<5.0	200	200	216	196	ug/L	EPA 8260B	2/15/07	108	97.9	10.0	70-130	25
Methyl-t-Butyl Ether	54863-01	9.3	40.0	40.0	48.4	45.5	ug/L	EPA 8260B	2/15/07	97.8	90.6	7.70	70-130	25
Benzene	54951-06	<0.50	40.0	40.0	44.1	43.1	ug/L	EPA 8260B	2/21/07	110	108	2.32	70-130	25
Toluene	54951-06	<0.50	40.0	40.0	46.2	44.8	ug/L	EPA 8260B	2/21/07	115	112	2.91	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54856

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol	54951-06	<5.0	200	200	211	209	ug/L	EPA 8260B	2/21/07	106	104	1.10	70-130	25
Methyl-t-Butyl Ether	54951-06	<0.50	40.0	40.0	39.9	40.4	ug/L	EPA 8260B	2/21/07	99.8	101	1.12	70-130	25
Benzene	54840-08	<0.50	40.0	40.0	41.3	40.8	ug/L	EPA 8260B	2/14/07	103	102	1.32	70-130	25
Toluene	54840-08	<0.50	40.0	40.0	42.0	41.2	ug/L	EPA 8260B	2/14/07	105	103	1.93	70-130	25
Tert-Butanol	54840-08	<5.0	200	200	194	196	ug/L	EPA 8260B	2/14/07	97.0	97.8	0.865	70-130	25
Methyl-t-Butyl Ether	54840-08	<0.50	40.0	40.0	40.4	39.6	ug/L	EPA 8260B	2/14/07	101	99.0	2.15	70-130	25
Benzene	54863-09	<0.50	40.0	40.0	39.9	38.7	ug/L	EPA 8260B	2/15/07	99.9	96.7	3.19	70-130	25
Toluene	54863-09	<0.50	40.0	40.0	40.1	39.9	ug/L	EPA 8260B	2/15/07	100	99.8	0.374	70-130	25
Tert-Butanol	54863-09	<5.0	200	200	186	191	ug/L	EPA 8260B	2/15/07	93.2	95.6	2.45	70-130	25
Methyl-t-Butyl Ether	54863-09	<0.50	40.0	40.0	37.7	36.6	ug/L	EPA 8260B	2/15/07	94.4	91.5	3.07	70-130	25
Benzene	54972-15	22	40.0	40.0	60.9	61.3	ug/L	EPA 8260B	2/22/07	98.3	99.2	0.986	70-130	25
Toluene	54972-15	4.7	40.0	40.0	45.4	45.6	ug/L	EPA 8260B	2/22/07	102	102	0.358	70-130	25
Tert-Butanol	54972-15	<5.0	200	200	209	210	ug/L	EPA 8260B	2/22/07	104	105	0.730	70-130	25
Methyl-t-Butyl Ether	54972-15	9.4	40.0	40.0	50.0	49.8	ug/L	EPA 8260B	2/22/07	102	101	0.626	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54856

QC Report : Laboratory Control Sample (LCS)

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	2/15/07	94.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/15/07	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/15/07	93.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/15/07	99.9	70-130
Benzene	40.0	ug/L	EPA 8260B	2/16/07	103	70-130
Toluene	40.0	ug/L	EPA 8260B	2/16/07	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/16/07	94.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/16/07	101	70-130
Benzene	40.0	ug/L	EPA 8260B	2/14/07	84.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/14/07	89.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/14/07	91.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/14/07	90.6	70-130
Benzene	40.0	ug/L	EPA 8260B	2/15/07	88.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/15/07	94.5	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/15/07	85.8	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/15/07	87.4	70-130
Benzene	40.0	ug/L	EPA 8260B	2/21/07	105	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54856

QC Report : Laboratory Control Sample (LCS)

Date : 2/22/2007

Project Name : **Tesoro - Livermore**

Project Number : **070214EM1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Toluene	40.0	ug/L	EPA 8260B	2/21/07	114	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/21/07	100	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/21/07	97.1	70-130
Benzene	40.0	ug/L	EPA 8260B	2/14/07	95.1	70-130
Toluene	40.0	ug/L	EPA 8260B	2/14/07	96.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/14/07	88.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/14/07	89.4	70-130
Benzene	40.0	ug/L	EPA 8260B	2/15/07	91.9	70-130
Toluene	40.0	ug/L	EPA 8260B	2/15/07	94.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/15/07	87.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/15/07	84.9	70-130
Benzene	40.0	ug/L	EPA 8260B	2/22/07	98.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/22/07	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/22/07	102	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/22/07	104	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Calscience
Environmental
Laboratories, Inc.

February 22, 2007

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 07-02-0971**
Client Reference: Tesoro - Livermore

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/15/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 02/15/07
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-4	**07-02-0971-1**	**02/14/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	5.6	0.20	2		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	64	10	10		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	0.60	0.10	1		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	130	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	382	5.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-3	**07-02-0971-2**	**02/14/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	1.3	0.10	1		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	71	10	10		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	0.86	0.20	2		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	24	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	386	5.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-9	**07-02-0971-3**	**02/14/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	2.2	1.0	1		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	0.66	0.10	1		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	120	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	428	5.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	0.40	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 02/15/07
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-6	**07-02-0971-4**	**02/14/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	1.0	1.0	1		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	0.48	0.10	1		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	130	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	596	5.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	1.9	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

MW-2	**07-02-0971-5**	**02/14/07**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	1.4	1.0	1		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	0.49	0.10	1		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	180	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	540	5.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	3.1	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

Method Blank		**N/A**	**Aqueous**

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrate (as N)	ND	0.10	1		mg/L	N/A	02/15/07	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	02/15/07	EPA 300.0
Phosphorus, Total	ND	0.10	1		mg/L	N/A	02/16/07	EPA 365.3
Chemical Oxygen Demand	ND	20	1		mg/L	02/20/07	02/20/07	EPA 410.4
Alkalinity, Total (as CaCO3)	ND	1.0	1		mg/L	N/A	02/15/07	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	02/15/07	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Phosphorus, Total	EPA 365.3	MW-4	02/16/07	N/A	109	109	70-130	0	0-25	
Nitrate (as N)	EPA 300.0	07-02-0814-3	02/15/07	N/A	96	96	58-142	1	0-6	
Sulfate	EPA 300.0	07-02-0814-3	02/15/07	N/A	105	105	49-133	0	0-3	
Iron (II)	SM3500-FeD	MW-4	02/15/07	N/A	112	117	70-130	4	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Matrix: Aqueous

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO3)	SM 2320B	07-02-0864-1	02/15/07	102	104	2	0-25	
Chemical Oxygen Demand	EPA 410.4	MW-2	02/20/07	180	170	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Nitrate (as N)	EPA 300.0	099-05-118-3,792	N/A	02/15/07	95	95	87-111	0	0-12	
Sulfate	EPA 300.0	099-05-118-3,792	N/A	02/15/07	97	98	89-107	1	0-13	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Laboratory Control Sample

ACCREDITED IN ACCORDANCE WITH nelac

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 07-02-0971

Project: Tesoro - Livermore

Matrix : Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Phosphorus, Total	EPA 365.3	099-05-098-1,811	02/16/07	N/A	0.400	0.399	100	80-120	
Iron (II)	SM3500-FeD	099-05-111-2,460	02/15/07	N/A	1.00	1.01	101	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 07-02-0971

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

KIFF Analytical LLC

2795 Second Street, Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Cal Science Environmental
7440 Lincoln Way
Garden Grove, CA 92841
714-895-5494

Lab No. 0971

Page 1 of 1

Project Contact (Hardcopy or PDF to): Christie Dumas

EDF Report? _X_ Yes __No

Chain-of-Custody Record and Analysis Request

Company/Address: Kiff Analytical, LLC

Recommended but not mandatory to complete this section:

Sampling Company Log Code: BTSS

Phone No.: | FAX No.:

Global ID: T0600101410

Project Number: | P.O. No.: 54856

EDF Deliverable to (Email Address): inbox@kiffanalytical.com

Project Name: Tesoro - Livermore

E-mail address: inbox@kiffanalytical.com

Project Address:

Sample Designation	Sampling		Container					Preservative					Matrix			Analysis Request								Date due:	For Lab Use Only
	Date	Time	VOA	Poly	Sleeve	Amber	Glass	HNO_3	H_2SO_4	$Na_2S_2O_3$	$ZnAc_2$ & NaOH	NONE	WATER	SOIL	Air	Ferrous Iron (SM 3500-Fe D)	Nitrate, Sulfate (EPA 300.0)	Phosphorus (EPA 365.3)	Total Alkalinity (SM 2320B)	COD (EPA 410.4)					
MW-4	2/14/07	1205		4			2		2			4	X			X	X	X	X	X				X	
MW-3	2/14/07	1310		4			2		2			4	X			X	X	X	X	X				X	
MW-9	2/14/07	1115		4			2		2			4	X			X	X	X	X	X				X	
MW-6	2/14/07	1135		4			2		2			4	X			X	X	X	X	X				X	
MW-2	2/14/07	1345		4			2		2			4	X			X	X	X	X	X				X	

Relinquished by:	Date	Time	Received by:
Hardip Kandola Kiff Analytical	021407	1900	
Relinquished by:	Date	Time	Received by:
Relinquished by: CO	Date 2-15-07	Time 0800	Received by Laboratory: Wbath CEL

Remarks:

Bill to: Accounts Payable

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 07 - 02-0971

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF ANALYTICAL **DATE:** 2-15-07

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.

_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

3.1 °C Temperature blank.
_____ °C IR thermometer.
_____ Ambient temperature.

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ✓ No (Not Intact) : _____ Not Present: _____

Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC			✓
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)	✓		
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: WB

COMMENTS:

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #020214EM1

CLIENT: Arctos Environmental, Inc.

SITE: Tesoro - Livermore
1619 1st Street
Livermore, CA

CONDUCT ANALYSIS TO DETECT

LAB: KIFF 54856 DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
- [x] EPA
- [ ] LIA
- [ ] OTHER
- [ ] RWQCB REGION

Pg 1 of 2

SPECIAL INSTRUCTIONS

Invoice and Report to : Arctos Environmental, Inc.
Attn: Mike Purchase
1332 Peralta Ave. Berkeley, CA 94702
Ph. 510-525-2180
mpurchase@arctosenv.com

* all voas contain HCl preservative

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-G + BTEX + MTBE (8260)	(7) Oxygenates (8260)	Lead Scavengers	Ferrous Iron (24 hr. Hold time)	Nitrate, Sulfate, Phosphorous	Major anions (Chloride, Nitrite, Sulfide)	Total Alkalinity (SM2320B)	COD (410.4)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
VW-3	2/14	810	W	3	HCl Voas		X	X	X									01
MW-1	"	1245	"	3	"		X	X	X									02
MW-4	"	1205	"	9	Mixed		X	X	X	X	X		X	X				03
MW-8	"	955	"	3	HCl Voas		X	X	X									04
MW-10	"	1055	"	3	"		X	X	X									05
MW-3	"	1310	"	9	Mixed		X	X	X	X	X		X	X				06
MW-5	"	1230	"	3	HCl Voas		X	X	X									07
MW-7	"	1330	"	3	"		X	X	X									08
MW-9	"	1115	"	9	Mixed		X	X	X	X	X		X	X				09
MW-6	"	1135	"	9	"		X	X	X	X	X		X	X				10

SAMPLE RECEIPT
Temp °C 0.5 Therm. ID# B-5
Initial AX Date 021407
Time 1514 Coolant present: (Yes) No

SAMPLING COMPLETED DATE 2/14/07 TIME 1430

SAMPLING PERFORMED BY Eric Moore

RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Eric Moore	2/14/07				

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			Kiff Analytical	021407	1514

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS #070214EM1

CLIENT: Arctos Environmental, Inc.

SITE: Tesoro - Livermore
1619 1st Street
Livermore, CA

LAB: KIFF 54856 | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☒ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

Pg 2 of 2

SPECIAL INSTRUCTIONS

Invoice and Report to : Arctos Environmental, Inc.
Attn: Mike Purchase
1332 Peralta Ave. Berkeley, CA 94702
Ph. 510-525-2180
mpurchase@arctosenv.com

* All VOAs contain HCl *

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: TPH-G + BTEX + MTBE (8260)	(7) Oxygenates (8260)	Lead Scavengers	Ferrous Iron (24 hr. Hold time)	Nitrate, Sulfate, Phosphorous	Major anions (Chloride, Nitrite, Sulfide)	Total Alkalinity (SM2320B)	COD (410.4)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-2	2/14	1345	W	9	mixed		X	X	X	X	X		X	X				11
MW-2		905		3	40 VOAs		X	X	X									12
TP-1		1410		3			X	X	X									13
TP-2		1425		3			X	X	X									14

SAMPLING COMPLETED: DATE 2/14/07 TIME 1430
SAMPLING PERFORMED BY: Eric Horst

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Eric Horst	2/14/07				
			Kiff Analytical	021407	1514

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

KIFF Analytical LLC

Report Number : 54211
Date : 5/21/2007

Mike Purchase
Arctos Environmental
1332 Peralta Avenue
Berkeley, CA 94702

Subject : 2 Water Samples
Project Name : Tesoro - Livermore
Project Number : 67076
P.O. Number : 67076

Dear Mr. Purchase,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

KIFF Analytical LLC

Report Number : 54211

Date : 5/21/2007

Project Name : **Tesoro - Livermore**

Project Number : **67076**

Sample : **DB-7-54'** Matrix : Water Lab Number : 54211-01

Sample Date :1/4/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**1.4**	0.50	ug/L	EPA 8260B	1/6/2007
Toluene	**0.54**	0.50	ug/L	EPA 8260B	1/6/2007
Ethylbenzene	**5.4**	0.50	ug/L	EPA 8260B	1/6/2007
Total Xylenes	**11**	0.50	ug/L	EPA 8260B	1/6/2007
Methyl-t-butyl ether (MTBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
Diisopropyl ether (DIPE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
Ethyl-t-butyl ether (ETBE)	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
Tert-amyl methyl ether (TAME)	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
Tert-Butanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2007
Methanol	**< 50**	50	ug/L	EPA 8260B	1/6/2007
Ethanol	**< 5.0**	5.0	ug/L	EPA 8260B	1/6/2007
1,2-Dichloroethane	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
1,2-Dibromoethane	**< 0.50**	0.50	ug/L	EPA 8260B	1/6/2007
TPH as Gasoline	**160**	50	ug/L	EPA 8260B	1/6/2007
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	1/6/2007
4-Bromofluorobenzene (Surr)	94.9		% Recovery	EPA 8260B	1/6/2007

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

KIFF Analytical LLC

Report Number : 54211

Date : 5/21/2007

Project Name : **Tesoro - Livermore**

Project Number : **67076**

Sample : **DB-7-67'** Matrix : Water Lab Number : 54211-02

Sample Date :1/4/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**150**	25	ug/L	EPA 8260B	1/8/2007
Toluene	**710**	25	ug/L	EPA 8260B	1/8/2007
Ethylbenzene	**3700**	25	ug/L	EPA 8260B	1/8/2007
Total Xylenes	**1700**	25	ug/L	EPA 8260B	1/8/2007
Methyl-t-butyl ether (MTBE)	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Diisopropyl ether (DIPE)	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Ethyl-t-butyl ether (ETBE)	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Tert-amyl methyl ether (TAME)	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Tert-Butanol	**< 150**	150	ug/L	EPA 8260B	1/8/2007
Methanol	**< 2500**	2500	ug/L	EPA 8260B	1/8/2007
Ethanol	**< 250**	250	ug/L	EPA 8260B	1/8/2007
TPH as Gasoline	**6800**	2500	ug/L	EPA 8260B	1/8/2007
1,2-Dichloroethane	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Trichloroethene	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Tetrachloroethene	**< 25**	25	ug/L	EPA 8260B	1/8/2007
1,2-Dibromoethane	**< 25**	25	ug/L	EPA 8260B	1/8/2007
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	1/8/2007
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	1/8/2007
1,2-Dichloroethane-d4 (Surr)	99.3		% Recovery	EPA 8260B	1/8/2007

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Report Number : 54211

Date : 5/21/2007

QC Report : Method Blank Data

Project Name : **Tesoro - Livermore**

Project Number : **67076**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	1/8/2007
Methanol	< 50	50	ug/L	EPA 8260B	1/8/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	1/8/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/8/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Trichloroethene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Tetrachloroethene	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	1/8/2007
Toluene - d8 (Surr)	98.0		%	EPA 8260B	1/8/2007
4-Bromofluorobenzene (Surr)	106		%	EPA 8260B	1/8/2007
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	1/8/2007
Benzene	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Toluene	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	1/6/2007
Methanol	< 50	50	ug/L	EPA 8260B	1/6/2007
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	1/6/2007
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	1/6/2007
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	1/6/2007

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Toluene - d8 (Surr)	101		%	EPA 8260B	1/6/2007
4-Bromofluorobenzene (Surr)	94.1		%	EPA 8260B	1/6/2007

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54211

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 5/21/2007

Project Name : **Tesoro - Livermore**

Project Number : **67076**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
1,1-Dichloroethane	54220-01	<0.50	39.8	39.8	37.0	36.4	ug/L	EPA 8260B	1/8/07	92.9	91.3	1.70	70-130	25
Benzene	54220-01	11	39.8	39.8	46.6	45.9	ug/L	EPA 8260B	1/8/07	89.2	87.4	2.04	70-130	25
1,2-Dichloroethane	54220-01	<0.50	39.8	39.8	35.8	35.4	ug/L	EPA 8260B	1/8/07	89.9	88.9	1.11	70-130	25
Toluene	54220-01	4.3	39.8	39.8	41.6	41.3	ug/L	EPA 8260B	1/8/07	93.7	92.9	0.879	70-130	25
Chlorobenzene	54220-01	<0.50	39.8	39.8	39.9	39.5	ug/L	EPA 8260B	1/8/07	100	99.2	0.971	70-130	25
Tert-Butanol	54220-01	<5.0	199	199	181	180	ug/L	EPA 8260B	1/8/07	90.8	90.5	0.298	70-130	25
Methyl-t-Butyl Ether	54220-01	<0.50	39.8	39.8	36.3	35.6	ug/L	EPA 8260B	1/8/07	91.1	89.5	1.75	70-130	25
Benzene	54196-07	<0.50	40.0	40.0	38.3	37.7	ug/L	EPA 8260B	1/6/07	95.8	94.4	1.54	70-130	25
Toluene	54196-07	<0.50	40.0	40.0	38.3	37.9	ug/L	EPA 8260B	1/6/07	95.7	94.7	1.01	70-130	25
Tert-Butanol	54196-07	<5.0	200	200	191	194	ug/L	EPA 8260B	1/6/07	95.4	96.9	1.57	70-130	25
Methyl-t-Butyl Ether	54196-07	3.7	40.0	40.0	41.3	41.8	ug/L	EPA 8260B	1/6/07	93.9	95.2	1.31	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 54211

QC Report : Laboratory Control Sample (LCS)

Date : 5/21/2007

Project Name : **Tesoro - Livermore**

Project Number : **67076**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
1,1-Dichloroethane	40.0	ug/L	EPA 8260B	1/8/07	93.9	70-130
Benzene	40.0	ug/L	EPA 8260B	1/8/07	93.1	70-130
1,2-Dichloroethane	40.0	ug/L	EPA 8260B	1/8/07	88.8	70-130
Toluene	40.0	ug/L	EPA 8260B	1/8/07	97.0	70-130
Chlorobenzene	40.0	ug/L	EPA 8260B	1/8/07	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/8/07	89.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/8/07	89.2	70-130
Benzene	40.0	ug/L	EPA 8260B	1/6/07	98.0	70-130
Toluene	40.0	ug/L	EPA 8260B	1/6/07	98.2	70-130
Tert-Butanol	200	ug/L	EPA 8260B	1/6/07	97.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	1/6/07	98.7	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

KIFF ANALYTICAL LLC

2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

Lab No. 54211 Page ___ of ___

Chain-of-Custody Record and Analysis Request

Project Contact (Hardcopy or PDF To): Mike Purchase

California EDF Report? ☑ Yes ☐ No

Company / Address: Tesoro c/o Arctos Environmental, 1332 Peralta Ave, Berkeley, CA 94702

Phone No.: 510-525-2180 **Fax No.:** 510-525-2392

Project Number: 67076 **P.O. No.:** 67076

Project Name: Tesoro - Livermore

Project Address: 1619 1st Street, Livermore, California

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

Global ID: T0600101410

EDF Deliverable To (Email Address): mpurchase@arctosenv.com

Sampler Signature:

Sample Designation	Sampling: Date	Sampling: Time	Container: 40 ml VOA	Container: SLEEVE	Container: POLY	Container: AMBER	Container: TEDLAR	Preservative: HCl	Preservative: HNO_3	Preservative: ICE	Preservative: NONE	Preservative:	Matrix: WATER	Matrix: SOIL	Matrix: VAPOR	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas (8260B)	7 Oxygenates/TPH Gas (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL ☐ W.E.T. ☐				TAT	For Lab Use Only
DB-7-54'	1/4/07	0955	3					X					X							X				X	X								01
DB-7-67'	1/4/07	1020	3					X					X							X				X	X								02

TAT: 12hr ○ 24hr ○ 48hr ○ 72hr ○ 1wk ◉ 2wk ○

Relinquished by:	Date	Time	Received by:	Remarks:
M. Nelson Arctos	1/4/07	1044	M. Purchase Arctos	SAMPLE RECEIPT Temp °C 3.2 Therm ID# IR-5 Initial ADG Date 010507 Time 1617 Coolant present: (Yes) No
Relinquished by:	Date	Time	Received by:	
Relinquished by:	Date 010507	Time 1435	Received by Laboratory: Kiff Analytical	Bill to: Tesoro Companies, Inc.

Kiff ECOC 011204

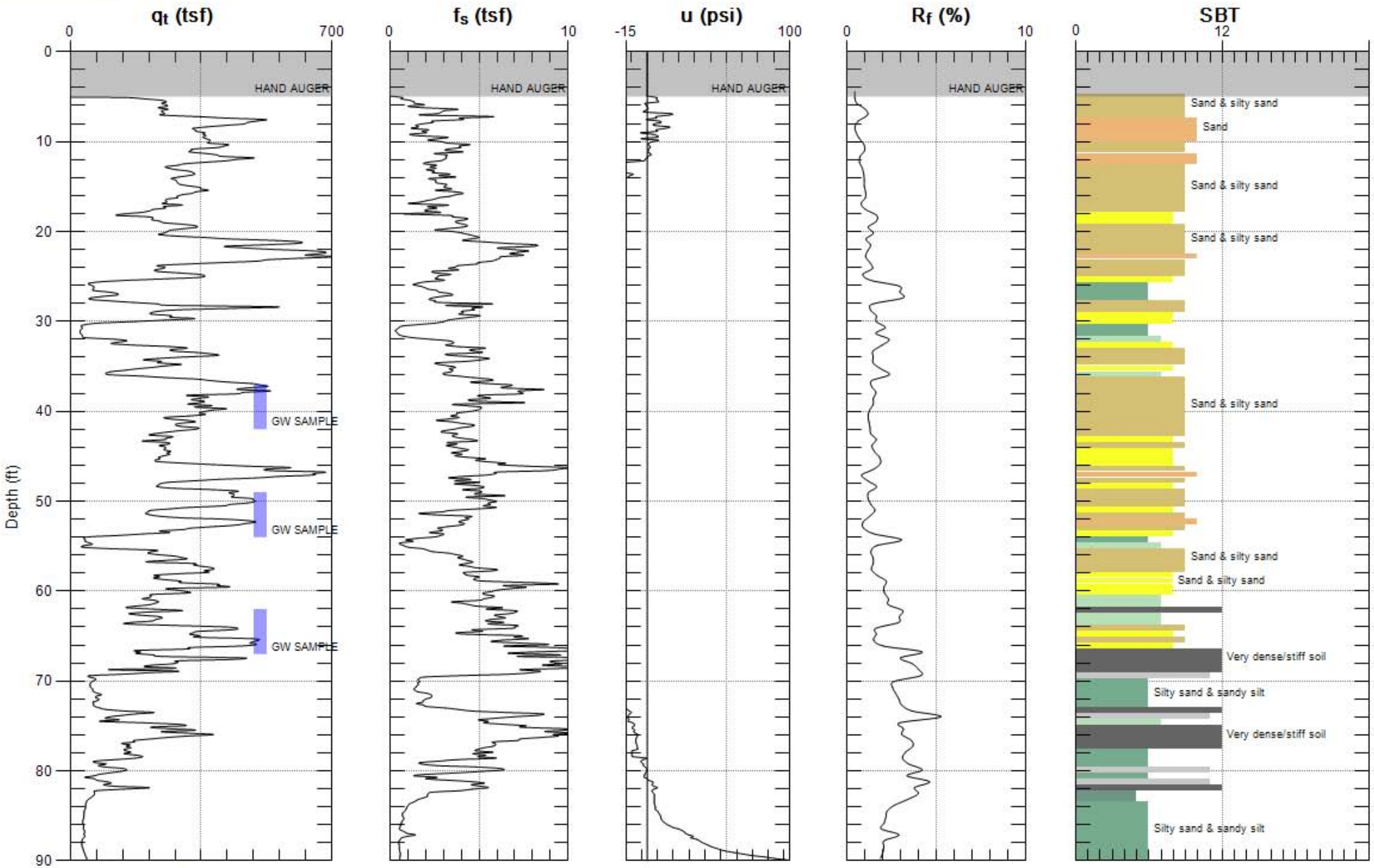
APPENDIX C

BORING LOG

GREGG ORION ENVIRONMENTAL

Site: TESORO
Sounding: CPT-DB-7

Engineer: M.PURCHASE
Date: 1/4/2007 07:09



Max. Depth: 90.060 (ft)
Avg. Interval: 0.656 (ft)

SBT: Soil Behavior Type (Robertson 1990)

APPENDIX D

FIELD AND QA/QC PROCEDURES

APPENDIX D
FIELD AND QA/QC PROCEDURES

Health and Safety

Before beginning work at the site, a site safety meeting was conducted. Field personnel reviewed the site-specific health and safety plan (HSP) and signed the accompanying acknowledgment form. Field personnel were required to comply with the HSP throughout performance of site assessment activities.

Based on the site history and potential chemicals of concern, field activities were initiated in Level D personal protective equipment (PPE). During field activities, the breathing zone of field personnel was monitored using a field photoionization detector (PID). If breathing zone PID readings indicated elevated levels of organic vapors, PPE was upgraded accordingly. Breathing zone readings were recorded on the boring logs.

Drilling and Soil Sampling Methods

Before initiating drilling activities, Arctos marked the boring location and contacted Underground Service Alert to clear the area of subsurface lines and utilities. Arctos also obtained boring and well permits from the Zone 7 Water Agency. CPT borings were advanced using a 20-ton capacity integrated electronic cone system advanced by direct-push using the weight of the rig. The cone takes measurements of cone bearing (qc), sleeve friction (fs), and dynamic pore water pressure (u2) at 5-centimeter intervals during penetration to provide a nearly continuous geologic log. Soil behavior type and stratigraphic interpretation is based on relationships between cone bearing, sleeve friction, and dynamic pore water pressure (reference: P.K. Robertson. "Soil Classification using the Cone Penetration Test," Canadian Geotechnical Journal, Volume 27, 1990). The boring and well logs are in Appendix C.

Grab Groundwater Sampling Procedures

A direct-push groundwater sampler (consisting of a 5-foot-long screen inside a metal sheath) was advanced hydraulically within the soil boring to the depth of permeable zones identified from soil sampling. The sampling tool was then retracted approximately 5 feet, exposing the inlet screen and allowing groundwater to enter the chamber. The sampling tool remained in the ground until a sufficient volume of water entered the chamber and a water sample could be collected.

The groundwater sample was collected using new 3/8-inch Teflon tubing equipped with a bottom check valve. The tubing was lowered into the well casing until it reached the water collected in the bottom of the well screen. The tubing was oscillated up and down, and the water sample was pushed upward into the tubing as the check valve repeatedly lifted and seated. When an adequate amount of water filled the tubing, the tubing was removed from the sampling tool.

Water was decanted from the tubing into a new 40-milliliter glass bottle with Teflon-lined caps provided by the analytical laboratory. The grab sample was collected so that no headspace was present in the bottle. The preservative necessary for the analyses performed was provided in the glass bottles by the analytical laboratory.

Preservation and Delivery of Samples

The collected soil and water samples were placed in sealable plastic bags and packed on ice in a portable ice chest immediately after collection. Samples were delivered within 24 to 48 hours to the analytical laboratory. Additional QA/QC procedures, including the use of sample identification labels and chain-of-custody forms, were followed to track sample collection and delivery.

Chain-of-Custody Records

Chain-of-custody records were completed before the samples were submitted to the laboratory. One copy of these records was placed in the project file. The second copy accompanied the samples during transportation to the laboratory. Analytical laboratory personnel accepted responsibility for the samples by signing and dating the form.

Equipment Decontamination Procedures

Soil sampling equipment was decontaminated between sampling events using the following procedures:

1. Rinse with water using a brush to remove soil and mud
2. Wash with non-phosphate detergent and water using a brush
3. Rinse with deionized water
4. Rinse again with deionized water
5. Air dry.

Documentation Procedures

Arctos personnel followed documentation procedures developed for site investigation work. The procedures serve to (1) provide a record of the activities performed in the field and (2) permit identification of samples and tracking of their status in the field, during shipment, and at the laboratory.

Arctos field personnel were on site to observe the progress of sampling and to log each boring. The information recorded on the boring log included drilling equipment used, boring location, nature of the materials encountered, sampling depth, time of day, and other pertinent data. The boring logs were drafted for presentation in this report.

Analytical QA/QC Procedures

Laboratory analytical QA/QC procedures followed for this drilling program included (1) preparing and analyzing laboratory samples to assess the performance of the analytical laboratory and (2) conducting data validation in accordance with the protocols described below. QA/QC samples prepared by the laboratory included method blanks, matrix spike and matrix spike duplicates, and laboratory control samples.

The laboratory results were reviewed in general accordance with EPA guidelines for data validation. The data validation process included reviewing laboratory results for the following parameters:

- ☐ Completeness of the data package
- ☐ Compliance with EPA-required holding times
- ☐ Agreement of dilution factors with reported detection limits
- ☐ Presence or absence of analytes in the method blanks
- ☐ Agreement of duplicate samples
- ☐ Percent recovery and relative percent difference results for matrix spike and matrix spike duplicate analyses
- ☐ Percent recovery results for laboratory control samples.

APPENDIX E

SITE SURVEY REPORT

CROSS LAND SURVEYING, INC.
Consulting Land Surveyors • GPS Control Surveys

KRISTINA D. COMERER, PLS 6766

2210 Mt. Pleasant Road
San Jose, CA 95148
(408) 274-7994
FAX (408) 270-8670

SOIL BORING REPORT
TESORO SITE
1619 WEST FIRST STREET
LIVERMORE, CALIFORNIA
MARCH 21, 2006
(UPDATED JANUARY 9, 2007)

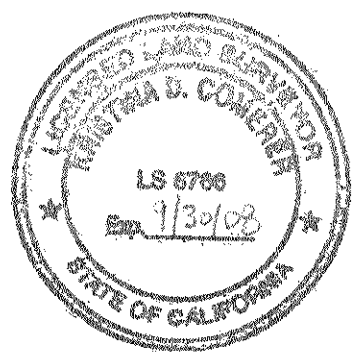
BORING	LATITUDE	LONGITUDE	BORING ELEV.
SG-1	37.6791912	121.7758364	474.41
SG-2	37.6792881	121.7757928	474.22
SG-3	37.6792864	121.7756919	474.46
SG-4	37.6793119	121.7758894	473.56
SG-5	37.6793315	121.7757811	474.12
SG-6	37.6793570	121.7756889	474.09
SG-7	37.6793620	121.7758664	473.56
SG-8	37.6793991	121.7757558	473.78
SG-9	37.6792596	121.7756289	474.80
DB-1	37.6793203	121.7759196	473.42
DB-2	37.6793686	121.7759036	473.27
DB-3	37.6793803	121.7758508	473.47
DB-4	37.6794084	121.7757639	473.61
DB-5	37.6795087	121.7765196	472.01
DB-6	37.6796013	121.7772700	469.35
DB-7	37.6796982	121.7778144	468.80

HORIZONTAL DATUM IS NAD83 DERIVED FROM A GPS FAST-STATIC SURVEY HOLDING CALIFORNIA HIGH PRECISION GEODETIC NETWORK DENSIFICATION (HPGN-D) POINTS CA 04-FK AND CA 04-FL FIXED HORIZONTALLY, AS PUBLISHED FOR EPOCH 1991.35, FROM THE NGS DATA SHEET, IN A LEAST SQUARES ADJUSTMENT OF THE GPS DATA.

VERTICAL DATUM IS NGVD29. FOUND CITY OF LIVERMORE BENCH MARK K2-741 BEING A BRASS PIN IN CONCRETE, DN. 0.4' IN EASTERLY MONUMENT WELL AT THE INTERSECTION OF S. "P" STREET AND RAILROAD AVENUE. PUBLISHED ELEVATION FOR K2-741 IS 467.835 FEET, NGVD29, ON FILE WITH THE CITY OF LIVERMORE.

Kristina D. Comerer

KRISTINA D. COMERER, PLS 6766
LICENSE EXPIRES: SEPTEMBER 30, 2008
DATE: January 9, 2007



MONITORING WELL SURVEY
TESORO SITE
1619 WEST FIRST STREET
LIVERMORE, CALIFORNIA
AUGUST 31, 2005
(REVISED JANUARY 9, 2007)
SCALE: 1" = 60'

TABLE OF BORING COORDINATE VALUES
HORIZONTAL DATUM–NAD83/VERTICAL DATUM–NGVD29

BORING	LATITUDE	LONGITUDE	BORING ELEV.
SG–1	37.6791912	121.7758364	474.41
SG–2	37.6792881	121.7757928	474.22
SG–3	37.6792864	121.7756919	474.46
SG–4	37.6793119	121.7758894	473.56
SG–5	37.6793315	121.7757811	474.12
SG–6	37.6793570	121.7756889	474.09
SG–7	37.6793620	121.7758664	473.56
SG–8	37.6793991	121.7757558	473.78
SG–9	37.6792596	121.7756289	474.80
DB–1	37.6793203	121.7759196	473.42
DB–2	37.6793686	121.7759036	473.27
DB–3	37.6793803	121.7758508	473.47
DB–4	37.6794084	121.7757639	473.61
DB–5	37.6795087	121.7765196	472.01
DB–6	37.6796013	121.7772700	469.35
DB–7	37.6796982	121.7778144	468.80

LEGEND

- MONITORING WELL
- SOIL BORING
- SET LEAD & TACK
- SURVEY CONTROL LINE
- BLOCK WALL

TABLE OF WELL COORDINATE VALUES
HORIZONTAL DATUM–NAD83/VERTICAL DATUM–NGVD29

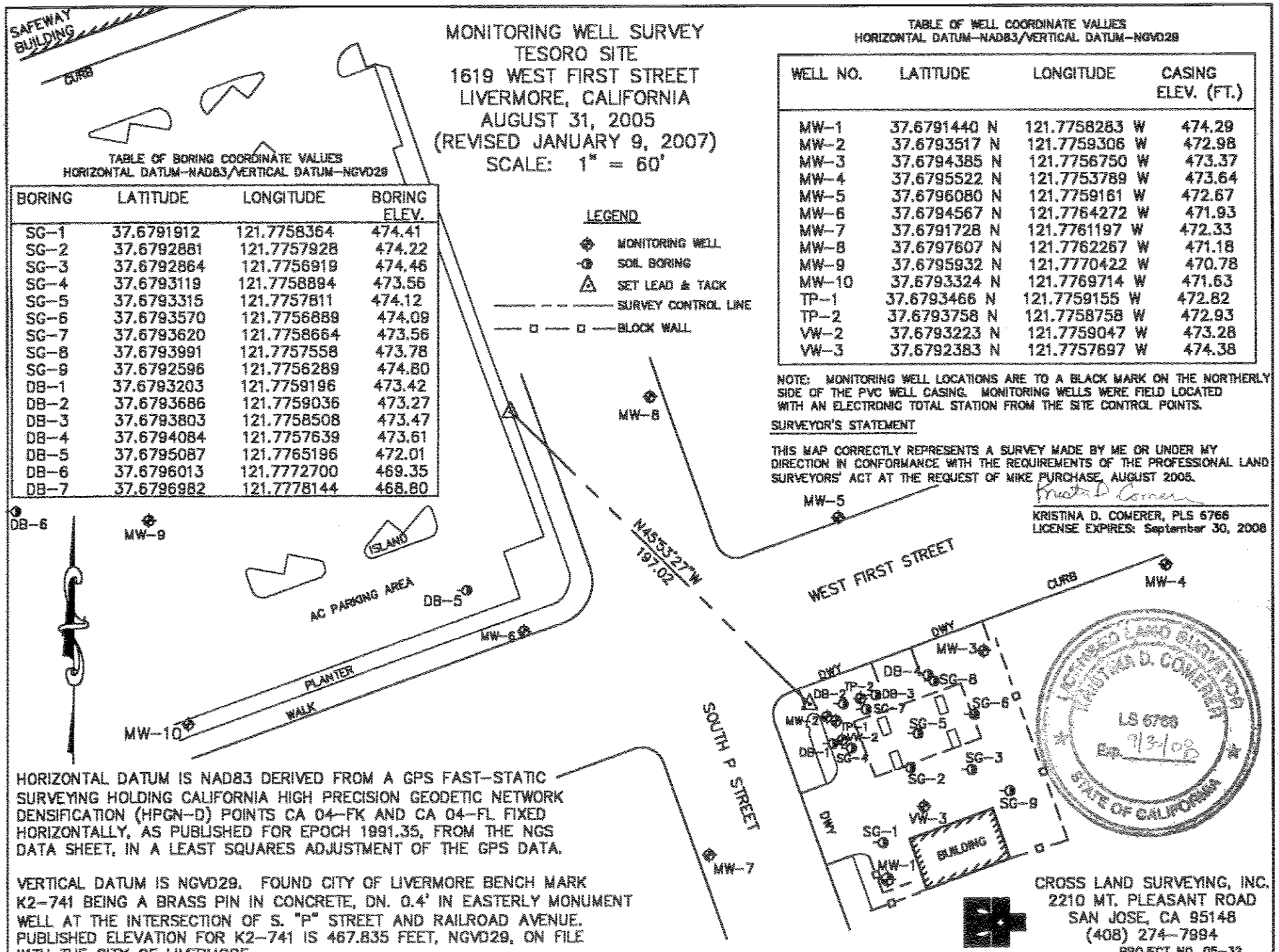
WELL NO.	LATITUDE	LONGITUDE	CASING ELEV. (FT.)
MW–1	37.6791440 N	121.7758283 W	474.29
MW–2	37.6793517 N	121.7759306 W	472.98
MW–3	37.6794385 N	121.7756750 W	473.37
MW–4	37.6795522 N	121.7753789 W	473.64
MW–5	37.6796080 N	121.7759161 W	472.67
MW–6	37.6794567 N	121.7764272 W	471.93
MW–7	37.6791728 N	121.7761197 W	472.33
MW–8	37.6797607 N	121.7762267 W	471.18
MW–9	37.6795932 N	121.7770422 W	470.78
MW–10	37.6793324 N	121.7769714 W	471.63
TP–1	37.6793466 N	121.7759155 W	472.82
TP–2	37.6793758 N	121.7758758 W	472.93
VW–2	37.6793223 N	121.7759047 W	473.28
VW–3	37.6792383 N	121.7757697 W	474.38

NOTE: MONITORING WELL LOCATIONS ARE TO A BLACK MARK ON THE NORTHERLY SIDE OF THE PVC WELL CASING. MONITORING WELLS WERE FIELD LOCATED WITH AN ELECTRONIC TOTAL STATION FROM THE SITE CONTROL POINTS.

SURVEYOR'S STATEMENT

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE PROFESSIONAL LAND SURVEYORS' ACT AT THE REQUEST OF MIKE PURCHASE, AUGUST 2005.

KRISTINA D. COMERER, PLS 6766
LICENSE EXPIRES: September 30, 2008



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LICENSED LAND SURVEYOR KRISTINA D. COMERER LS 6766 Exp. 9/30/08 STATE OF CALIFORNIA

CROSS LAND SURVEYING, INC.
2210 MT. PLEASANT ROAD
SAN JOSE, CA 95148
(408) 274–7994

PROJECT NO. 05–32