MISSION VALLEY / ROCK COMPANY
ASPHALT COMPANY
READY MIX COMPANY

7999 ATHENOUR WAY SUNOL, CA 94586 (925) 862-2257

August 15, 2003

Mr. Scott Seery
Alameda County Health Care Services
1131 Harbor Bay Parkway Suite 250
Alameda, CA 94502-6577

Dear Mr. Seery:

Submitted herewith is the Site Assessment and Second Quarter 2003 Groundwater Monitoring Report prepared by Mission Valley Rock Company's consultant, Tait Environmental Management Inc.(T.E.M). If you require further information or clarification please direct your correspondence to T.E.M with a copy to Mission Valley Rock Company at the above address.

Thank You,
MISSION VALLEY ROCK CO.

W. M. Calvert

W.M. Calvert

Groundwater Monitoring Report
Second Quarter 2003

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared by:
Tait Environmental Management, Inc.

July 28, 2003

July 28, 2003

Groundwater Monitoring Report
Second Quarter 2003

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared for:

Mr. Mort Calvert
Mission Valley Rock Company
7999 Athenour Way
Sunol, California 94586

Prepared by:

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Santa Ana, California 92705

Project No. EM-5009

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GROUNDWATER MONITORING REPORT - SECOND QUARTER 2003
MISSION VALLEY ROCK COMPANY
SUNOL, CALIFORNIA

1.0 INTRODUCTION

Tait Environmental Management, Inc. (TEM) is pleased to submit this Second Quarter 2003 Groundwater Monitoring Report for environmental services conducted at Mission Valley Rock Company (MVR) located at 7999 Athenour Way in Sunol, California (Site, see Figure 1). This report has been prepared by or under the direct supervision of a California Registered Geologist. The groundwater monitoring activities were conducted by TEM in accordance with the Alameda County Health Care Services Agency (ACHCSA) guidelines.

2.0 WORK CONDUCTED DURING PRESENT QUARTER

Work conducted by TEM during the Second Quarter of 2003 included:

- Measured depth-to-groundwater in all monitoring wells (MW-1, MW-2, and MW-3) for evaluation of groundwater flow direction and presence of liquid phase hydrocarbons (LPH).
- Collected groundwater samples from each well for analysis of total petroleum hydrocarbons as diesel and gasoline (TPHd and TPHg, respectively); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl-tert-butyl ether (MTBE).
- Submitted to the client, *Second Quarter Groundwater Monitoring Report*, July 28, 2003.

3.0 GROUNDWATER MONITORING ACTIVITIES

3.1 Groundwater Elevation Monitoring

On June 27, 2003 TEM measured and recorded static groundwater levels in three (3) groundwater monitoring wells using a product/water interface meter. The meter was decontaminated prior to use at each well using a mild detergent solution and two (2) de-ionized water rinses.

Water levels were measured from the top of the well casings representing the wellhead survey points. Liquid phase hydrocarbon (LPH) was not observed in monitoring wells MW-1, MW-2, or MW-3. LPH has historically been observed in monitoring well MW-2. A historical summary LPH thickness in well MW-2 is presented in Table 3 and plotted over time in Chart 6 (Appendix A).

Based on the data, the depth to groundwater measured at the Site averaged 3.62 feet below ground surface (bgs). The apparent groundwater flow direction is to the northeast with a groundwater gradient of approximately 0.023 ft/ft. Groundwater elevation data is summarized in Table 1 and shown on Figure 2. A historical summary of groundwater elevation data is summarized in Table 3 and shown in Chart 1 (Appendix A).

3.2 Groundwater Sampling

Prior to collecting samples, groundwater was purged using a 12-volt DC submersible pump for each well. The polyethylene tubing for the pump discharge was discarded and replaced for each well. The pump was decontaminated prior to pumping each well, with a detergent bath followed by two (2) de-ionized water rinses.

A minimum of three (3) casing volumes of water were purged from each of the monitoring wells until measurements of temperature, pH, electrical conductivity, turbidity, dissolved oxygen, and oxygen reduction potential (ORP) stabilized. Groundwater was allowed to recharge to at least 80 percent of the static level prior to collecting the groundwater samples. Copies of the well sampling field data sheets are presented in Appendix B.

Groundwater samples were collected using a new disposable bailer for each well. The groundwater samples were placed in chilled cooler and hand delivered to the laboratory using chain-of-custody procedures.

The purged groundwater and decontamination water was stored onsite in one (1) Department of Transportation (DOT) approved 55-gallon steel drum pending the results of the laboratory analysis.

4.0 LABORATORY ANALYSES

Groundwater samples collected from the groundwater monitoring wells were analyzed for:

- Volatile Organic Compounds (VOC's) using Method No. 8260B; and
- TPHd and TPHg using Method 8015B.

4.1 Groundwater Analytical Results

Laboratory analyses of the groundwater samples were conducted by Severn Trent Laboratories, Inc. (STL), a State-Certified laboratory located in Santa Ana, California. Second Quarter 2003 groundwater sample analytical results are summarized in Table 2 and contoured in Figure 3 (MTBE). Laboratory reports are presented in Appendix C. A historical summary of groundwater sample analytical results is summarized in Table 4. Charts 2 through 5 present historic measurements of TPHd, TPHg, MTBE, and benzene, respectively (Appendix A).

5.0 SUMMARY

Based upon the data presented in this report, previous investigations, current regulatory guidelines, and the judgment of TEM, the following summary of findings and conclusions are presented:

- Groundwater samples were collected from groundwater monitoring wells MW-1, MW-2, and MW-3. The samples were submitted to STL under chain of custody protocol;
- Based on the data, the depth to groundwater measured at the Site averaged 3.62 feet bgs. The groundwater flow direction is to the northeast with a groundwater gradient of approximately 0.023 ft/ft;
- Liquid phase hydrocarbon was not observed in monitoring well MW-2 this quarter. Due to the lack of LPH, removal was not performed this quarter. Should LPH be present next quarter tabulation of LPH removal will resume;

- The depth to static groundwater at the Site has declined since last quarter. Static groundwater this quarter was measured above the top of the screened interval in each well.

- TPHd concentrations (8.1 milligrams per Liter [mg/L] and 1.2 mg/L) were detected in groundwater samples collected from well MW-2 and MW-3, respectively. TPHg concentrations (0.61 mg/L and 0.36 mg/L) were detected in groundwater samples collected from wells MW-1 and MW-2, respectively;

- Benzene concentrations were not detected in samples from any of the three (3) groundwater monitoring wells at the SITE

- Concentrations of MTBE were reported in the groundwater samples collected from well MW-2 and MW-3 at 20 ug/L and 93 ug/L, respectively;

- Interpretations of Charts 2 through 5 indicate that concentrations of TPHd have shown an increase in wells MW-2 and MW-3 since the last quarter, but MW-1 continues to be non-detect. Concentrations of TPHg increased in MW-2, while concentrations in the other two wells remain constant. Concentrations of MTBE have remained non-detectable in well MW-1 since March of 2001, MW-2 has shown an increase, while concentrations in MW-3 have remained stable. Benzene was non-detect in all of the wells this quarter. In general, the compounds of concern have remained within historically reported ranges or have steadily decreased.

6.0 RECOMMENDATIONS

Based on the data obtained, current regulatory guidelines, and the professional judgment of TEM, the following recommendations are presented for your consideration:

- Continue quarterly groundwater monitoring of all existing and future wells for dissolved hydrocarbons, BTEX/MTBE, and presence of LPH.

7.0 QUALITY ASSURANCE/QUALITY CONTROL

To increase the confidence levels in the data obtained and minimize the likelihood that judgments were made from potentially erroneous data, a quality assurance/quality control (QA/QC) program was implemented. QA refers to management of actions designed to maintain precision, accuracy, completeness, and representativeness of the data developed from the project. QC refers to accepted formal procedures and activities specifically designed for the purpose of collecting data that are intended to be reliable and consistent for the Site conditions.

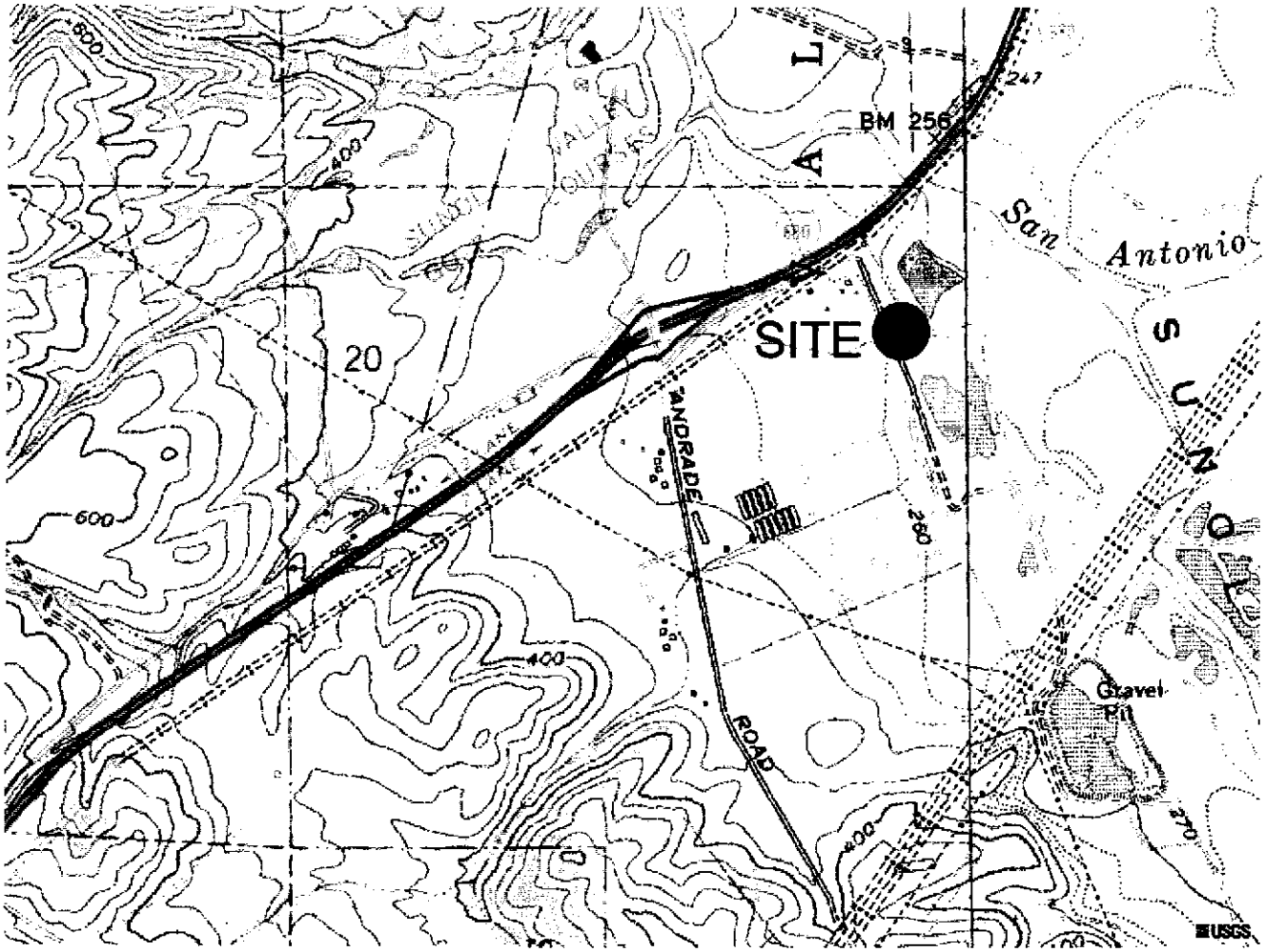
The laboratory reported all of the sample results to be within acceptable percent recoveries with no results exceeding the laboratory-established quality control parameters. The percent recoveries on the laboratory control sample (LCS) were well within the laboratories published QA/QC criteria. The results of the matrix spike (MS) and matrix spike duplicate (MSD) were also with acceptable limits. The samples arrived at the laboratory within the normal acceptable temperature range (4°C +/- 2°C) and were extracted and analyzed within acceptable holding times for each method and each sample. The QA/QC objectives for this project have been met.

8.0 LIMITATIONS

No investigation is considered thorough enough to exclude the presence of hazardous materials at a given site. Any opinions and/or recommendations presented apply to site conditions existing at the time of the performance of services.

TEM is unable to report on or accurately predict events that may impact the site following conduct of the described services, whether occurring naturally or caused by external forces. TEM assumes no responsibility for conditions that we were not authorized to investigate or conditions not generally recognized as environmentally unacceptable at the time services were performed.

Services hereunder were performed in accordance with our agreement and understanding with, and solely for the use of, Mission Valley Rock Company. We are not responsible for the subsequent separation, detachment or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.



NORTH

0 2000

1" = 2000'

NOTES:

BASE MAP TAKEN FROM TERRASERVER.COM, UNITED STATES GEOLOGICAL SURVEY (USGS), FREEMONT QUADRANGLE, ALAMEDA COUNTY, CALIFORNIA. PRINTED JULY 1, 1989.

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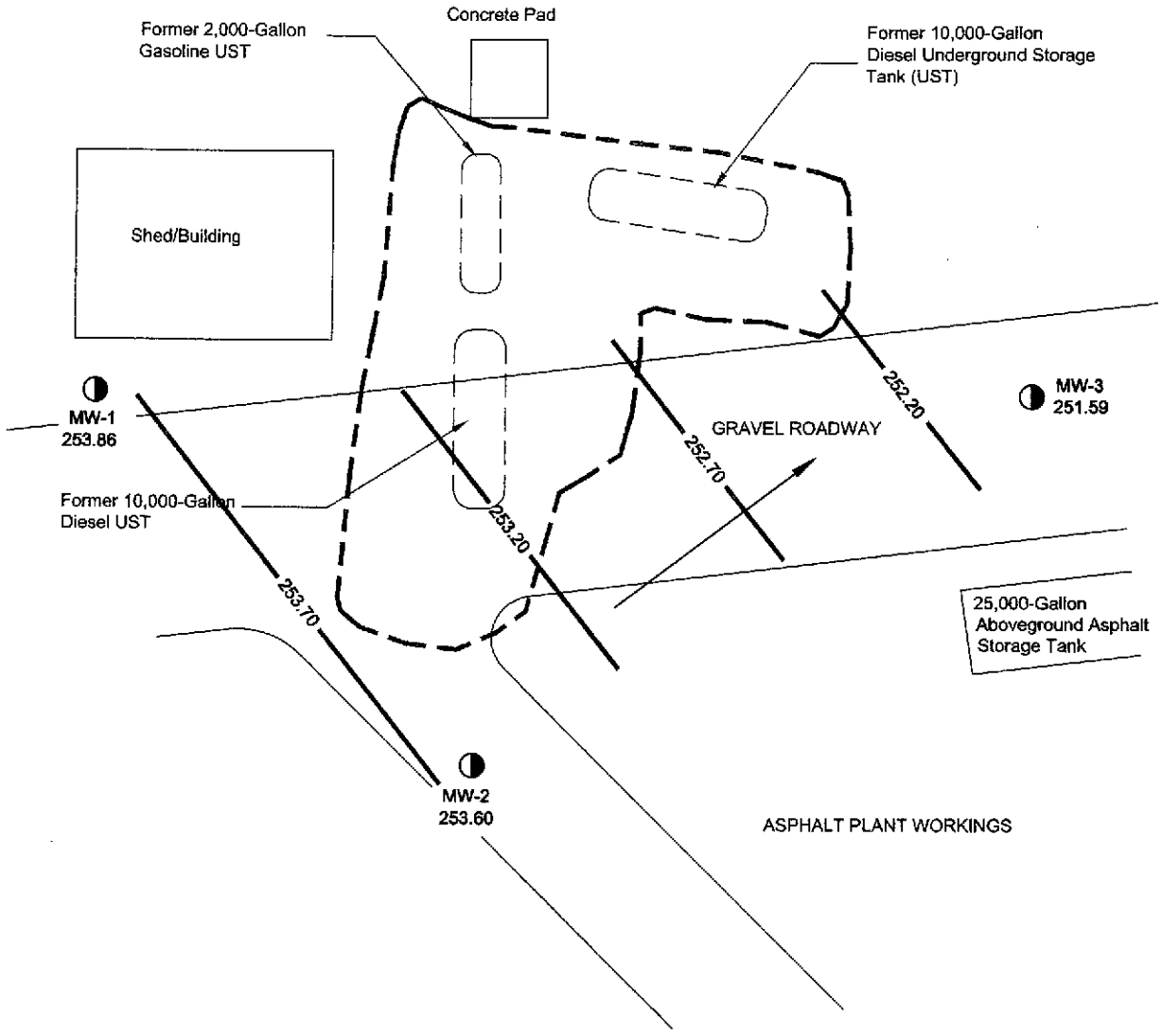
ENVIRONMENTAL MANAGEMENT, INC.

SITE VICINITY MAP

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009	FIGURE 1

M:Tem2\Clients\Mission Valley Rock\GW Monitoring 4th Qtr 2000\Mission Valley Rock - Figure 1



LEGEND

Base map referenced from Tank Protect Engineers

All locations and dimensions are approximate

MW-1
253.86 — Groundwater monitoring well location with groundwater elevation in feet above mean sea level (ft-msl)

253.70 — Groundwater elevation contour in feet-msl

General direction of groundwater flow

Approximate limits of former UST excavation

0 20

Scale (1" = 20')

North

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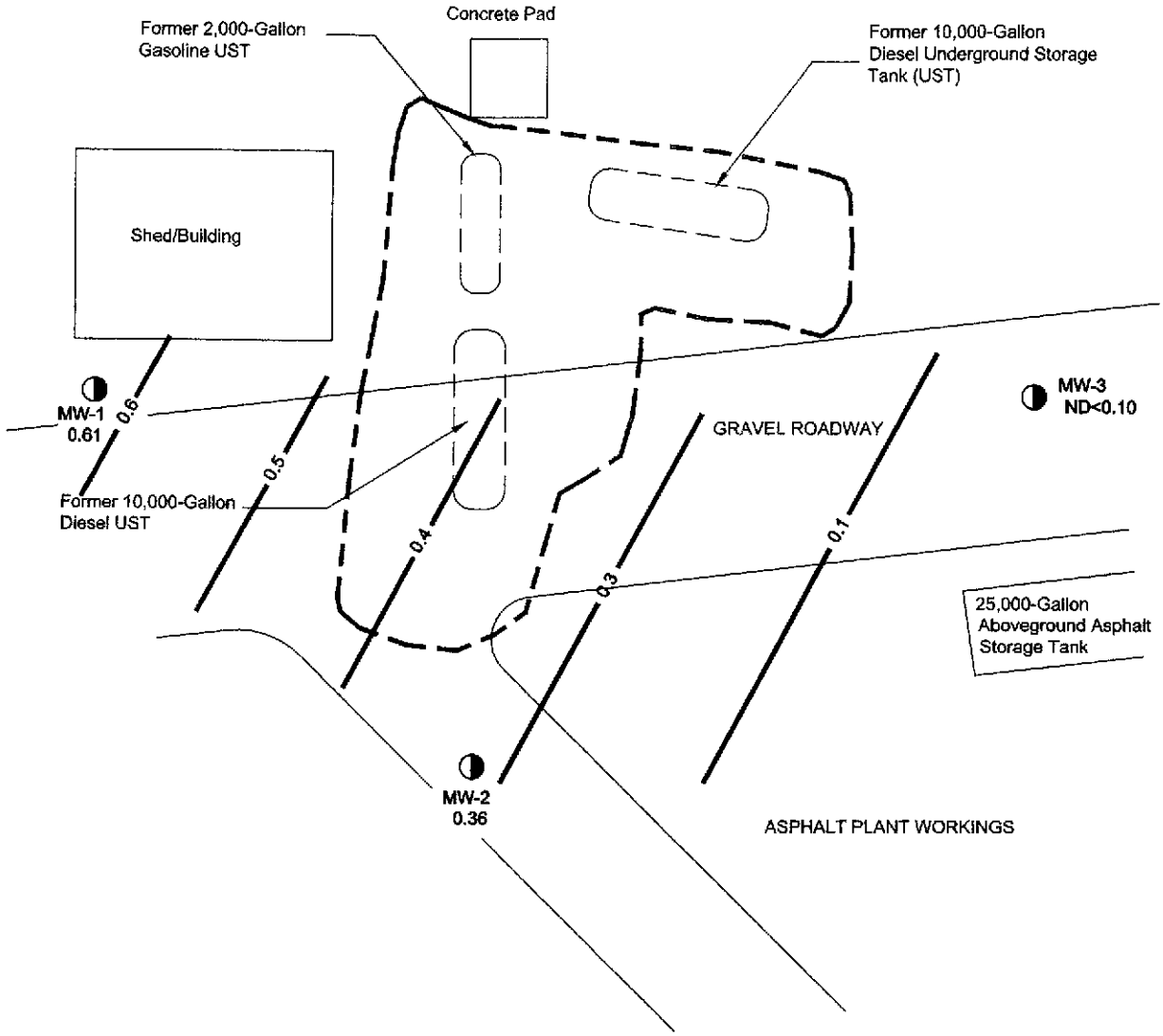
SITE PLAN WITH GROUNDWATER ELEVATION CONTOURS
SECOND QUARTER (JUNE 27, 2003)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009 | FIGURE 2



LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

Total petroleum hydrocarbons as gasoline (TPHg) concentrations reported in milligrams per Liter (mg/L).

MW-1
0.61 — Groundwater monitoring well location and designation with dissolved TPHg concentrations

0.6 — Dissolved TPHg concentration contours (contour interval 0.1 mg/L)

Approximate limits of former UST excavations

0 20

Scale (1" = 20')

North

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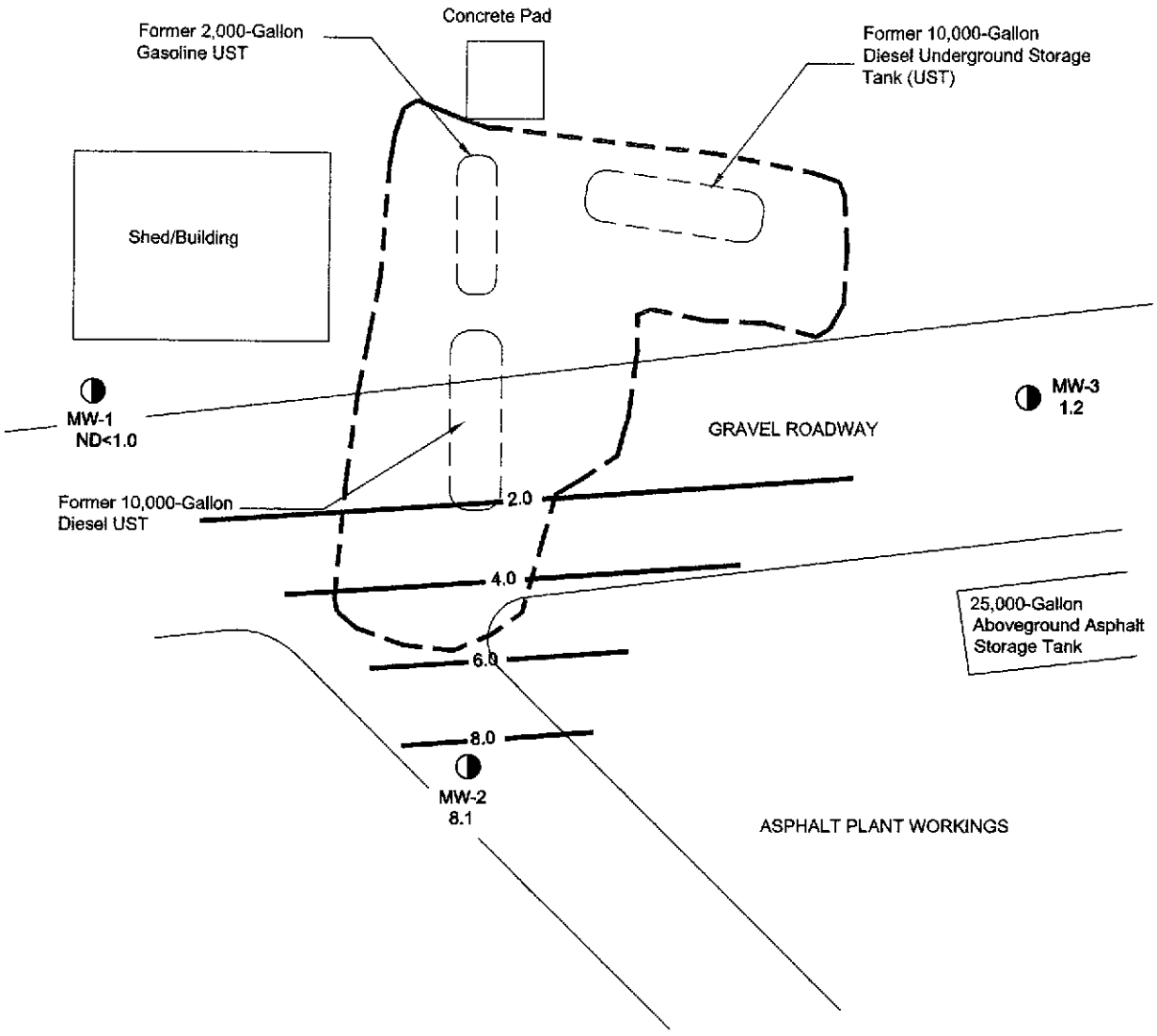
SITE PLAN WITH DISSOLVED THP-G CONTOURS
SECOND QUARTER (JUNE 27, 2003)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009 | FIGURE 3



LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

Total petroleum hydrocarbons as gasoline (TPHd) concentrations reported in milligrams per Liter (mg/L).

MW-2
8.1
Groundwater monitoring well location and designation with dissolved TPHd concentrations

8.0
Dissolved TPHd concentration contours (contour interval 2 mg/L)

Approximate limits of former UST excavations

0 20
Scale (1" = 20')

North

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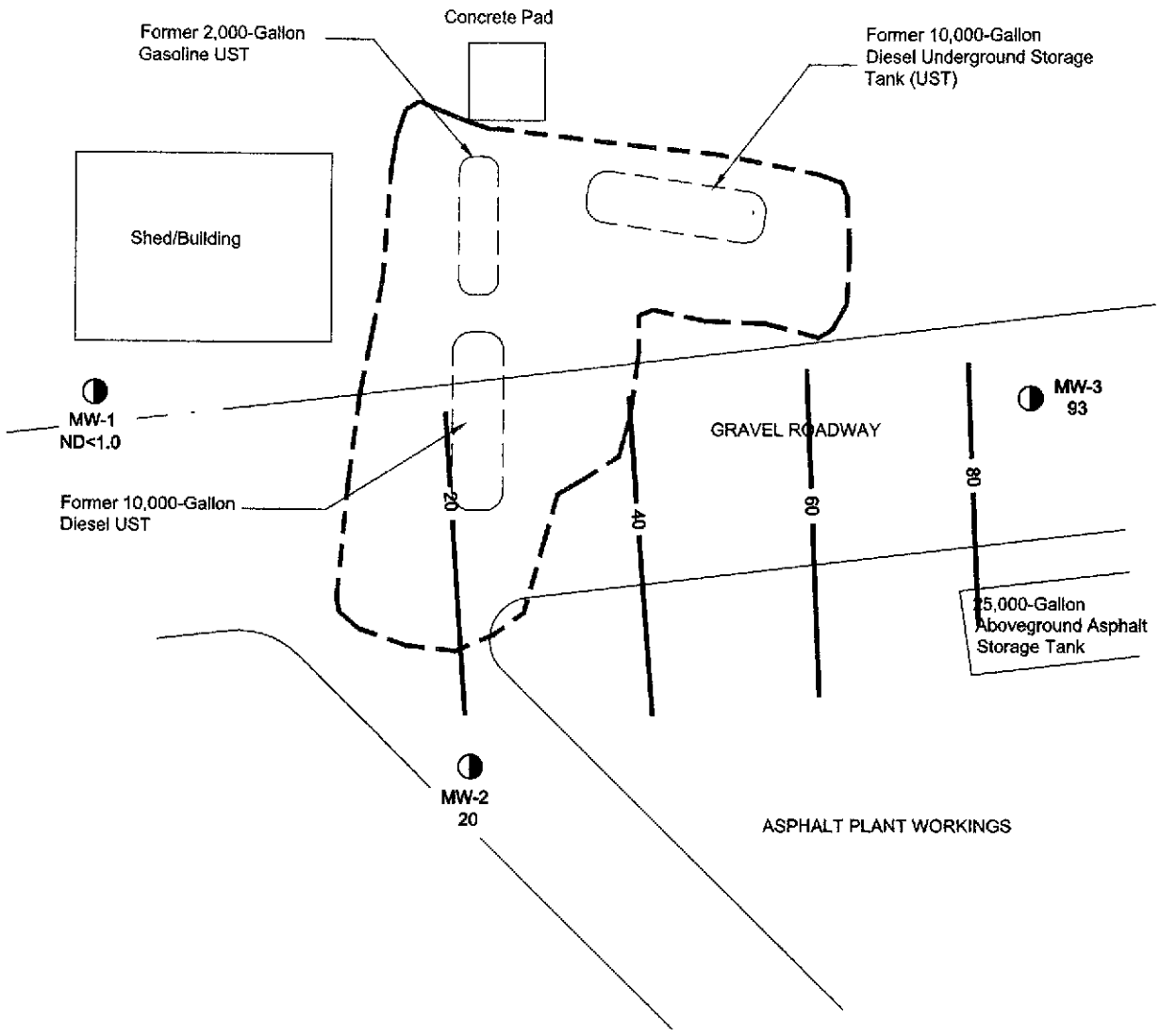
SITE PLAN WITH DISSOLVED THP-D CONTOURS
SECOND QUARTER (JUNE 27, 2003)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009 | FIGURE 4



LEGEND

Base map referenced from Tank Protect Engineers.

All locations and dimensions are approximate.

MTBE concentrations reported in micrograms per Liter (ug/L).

MW-2
20 — Groundwater monitoring well location and designation with dissolved MTBE concentrations

80 — Dissolved MTBE concentration contours (contour interval 20 ug/L)

Approximate limits of former UST excavations

0 20

Scale (1" = 20')

North

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SITE PLAN WITH DISSOLVED MTBE CONTOURS
THIRD QUARTER (SEPTEMBER 27, 2002)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009 | FIGURE 5

Table 1
Well Construction and Groundwater Elevation Data
Second Quarter 2003
Mission Valley Rock Company
Sunol, California

Well ID	Casing Diameter	Depth to LPH	Depth to Water	LPH Thickness	Total Depth	Screened Interval	Measuring Point Elevation	Groundwater Elevation	Comments
MW-1	2	ND	2.65	ND	17.70	5.0 - 20.0	256.51	253.86	Well Cover to be replaced
MW-2	2	ND	3.10	ND	17.80	5.0 - 20.0	256.70	253.60	Well Cover to be replaced
MW-3	2	ND	5.13	ND	16.75	5.0 - 20.0	256.72	251.59	Well Cover to be replaced

Screened intervals are approximated. Screened interval in wells is lower than the measured total depth due to silting in the bottom of wells.
The measurement point for the above three wells is the north side of the top of casing.
Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on June 27, 2003.
Casing diameter reported in inches (in); depth to LPH, depth to water, total depths, and screened interval reported in feet below measuring point (ft-bmp); LPH thickness reported in feet; measuring point elevation and groundwater elevations reported in feet above mean sea level.
Total depth and depth to water measurements taken by Tait Environmental Management from designated measurement point.
* Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75).
LPH = Liquid Phase Hydrocarbons
ND = Not Detected

Table 2
Groundwater Sample Analytical Data
2nd Quarter 2003
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd (mg/L)	TPHg (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	6/27/2003	ND<1.0	**0.61**	ND<1.0	ND<1.0	**5**	ND<1.0	ND<1.0
MW-2	6/27/2003	**8.1**	**0.36**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	**20**
MW-3	6/27/2003	**1.2**	ND<0.10	ND<2.0	ND<2.0	ND<2.0	ND<2.0	**93**

Notes:
Analyses for Total Petroleum Hydrocarbons as Gasoline and Diesel (TPHg and TPHd, respectively) were performed using EPA Method No. 8015M.
Analyses for benzene, toluene, ethylbenzene, total xylenes, and methyl-tert-butyl ether (MTBE) were performed using EPA Method No. 8260B.
Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on June 27, 2003.
Total xylene concentrations were determined by adding m,p-xylene and o-xylene from laboratory report.
* Only includes m,p-xylene, o-xylene was non-detect.
mg/L = Milligrams per Liter
ug/L = Micrograms per Liter
ND = Non-detect at or above corresponding laboratory reporting limit.

Table 3
Historical Groundwater Data
Second Quarter 2003
Mission Valley Rock Company
Sunol, California

Well	Date	Depth to Water	Groundwater Elevation	LPH Thickness
MW-1	Jun-98	1.32	255.19	ND
	Jan-99	2.28	254.23	ND
	Mar-99	1.88	254.63	ND
	Jun-99	3.35	253.16	ND
	Sep-99	3.66	252.85	ND
	Dec-99	2.94	253.57	ND
	Mar-00	2.72	253.79	Odor
	Jun-00	4.01	252.50	Slight Odor
	Sep-00	5.11	251.40	Slight Odor
	Dec-00	4.95	251.56	ND
	Mar-01	2.28	254.23	ND
	Jun-01	3.60	252.91	ND
	Sep-01	6.50	250.01	ND
	Dec-01	1.29	255.22	ND
	Mar-02	2.91	253.60	ND
	Jun-02	3.95	252.56	ND
	Sep-02	5.18	251.33	ND
	Dec-02	3.90	252.61	ND
	Mar-03	1.40	255.11	ND
	Jun-03	2.65	253.86	ND
MW-2	Jun-98	1.72	254.98	0.005
	Jan-99	2.69	254.01	4.00
	Mar-99	2.50	254.20	ND
	Jun-99	4.00	252.70	Sheen
	Sep-99	4.54	252.16	0.50
	Dec-99	3.85	252.85	0.13
	Mar-00	3.20	253.50	0.03
	Jun-00	4.62	252.08	0.02
	Sep-00	5.95	250.75	>0.01
	Dec-00	5.65	251.05	0.07
	Mar-01	3.21	253.57*	0.10
	Jun-01	3.31	253.44*	0.06
	Sep-01	7.08	249.88*	0.34
	Dec-01	2.18	254.72*	0.26
	Mar-02	3.40	253.98*	0.90
	Jun-02	4.35	252.33*	0.08
	Sep-02	5.54	251.16	ND
	Dec-02	4.30	252.40	ND
	Mar-03	1.78	254.92	ND
	Jun-03	3.10	253.60	ND
MW-3	Jun-98	2.66	254.06	ND
	Jan-99	4.47	252.25	Slight Odor
	Mar-99	3.96	252.76	Sheen
	Jun-99	5.54	251.18	ND
	Sep-99	6.18	250.54	Sheen
	Dec-99	5.52	251.20	Odor
	Mar-00	4.61	252.11	Odor
	Jun-00	6.35	250.37	Very Slight Odor
	Sep-00	7.30	249.42	Very Slight Odor
	Dec-00	7.29	249.43	ND
	Mar-01	4.73	251.99	ND

Table 3
Historical Groundwater Data
Second Quarter 2003
Mission Valley Rock Company
Sunol, California

Well	Date	Depth to Water	Groundwater Elevation	LPH Thickness
MW-3	Jun-01	NM	NM	NM
	Sep-01	7.89	248.83	ND
	Dec-01	3.77	252.95	ND
	Mar-02	5.12	251.60	ND
	Jun-02	6.52	250.20	ND
	Sep-02	7.28	249.44	ND
	Dec-02	6.40	250.32	ND
	3-Mar	4.01	252.71	ND
	Jun-03	5.13	251.59	ND

Depth to water and liquid phase hydrocarbon (LPH) thickness reported in feet below measurement point.
Groundwater elevations reported in feet above mean sea level (msl).
* Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75)
NM = Not Measured
ND = Not Detected

Table 4
Historical Groundwater Sample Analytical Results
Second Quarter 2003
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	Jun-98	0.1	3,100	19	2.3	91	48	110
	Oct-98	0.1	2,300	3.1	4.2	5.0	15	ND<0.50
	Dec-98	350	ND<50	12	7.5	20	6.2	ND<5.0
	Mar-99	190	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	210	1,800	1.2	0.9	1.5	4.6	ND<0.5
	Sep-99	62	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
	Dec-99	290	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	70	450	2.1	ND<0.5	2.1	1.4	7.6
	Sep-00	ND<50	850	5.4	ND<0.50	9.4	2.6	9.8
	Dec-00	ND<1.0*	0.37*	5.3	ND<1.0	2.7	ND<3.0	55
	Mar-01	ND<1.0*	0.7*	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0
	Jun-01	ND<1.0*	0.17*	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0
	Sep-01	ND<1.0*	0.73*	1.4	ND<1.0	7.6	1.2	ND<1.0
	Dec-01	1*	0.5*	15	ND<1.0	27	5.5	ND<1.0
	Mar-02	12*	29*	50	ND<25	960	290	ND<25
	Jun-02	ND<1.0*	1.4*	3.5	ND<1.0	42	7.9	ND<1.0
	Sep-02	1.4*	0.76*	ND<1.0	ND<1.0	4.3	1.1	ND<1.0
	Dec-02	ND<1.0*	1.6*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	Mar-03	ND<1.0*	0.62*	1.2	ND<1.0	12	ND<1.0	ND<1.0
	Jun-03	ND<1.0*	0.61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
MW-2	Jun-98	12,000	2,500	0.68	ND<0.50	1.2	0.57	14
	Oct-98	4,300	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	Dec-98	38,000	ND<5,000	ND<50	ND<50	51	190	ND<500
	Mar-99	580	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	4,500	24,000	38	27	41	98	ND<0.5
	Sep-99	24,000	1,400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	27
	Dec-99	2,300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	1,700	270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17
	Sep-00	5,800	130	ND<0.50	ND<0.50	ND<0.50	0.94	12
	Dec-00	19*	7.1*	ND<50	ND<50	ND<50	ND<150	ND<250
	Mar-01	610*	3.3*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	9.0
	Jun-01	8.8*	1.8*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	6.7
	Sep-01	530*	7.0*	ND<50	ND<50	ND<50	ND<50	ND<50
	Dec-01	27*	0.31*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	62
	Mar-02	65*	0.13*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	30
	Jun-02	130*	0.46*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24
	Sep-02	480*	0.29*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	16
	Dec-02	61*	1.8*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	10
	Mar-03	5.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	14
	Jun-03	8.1	0.36	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20
MW-3	Jun-98	12,000	300	0.80	ND<0.50	ND<0.50	ND<0.50	150
	Oct-98	6400	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
	Dec-98	5,600	ND<100	1.6	1.4	ND<1.0	ND<1.0	110
	Mar-99	150	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Sep-99	1,500	230	ND<0.50	ND<0.50	ND<0.50	ND<0.50	89
	Dec-99	58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5

Table 4
Historical Groundwater Sample Analytical Results
Second Quarter 2003
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	Mar-00	94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	240	170	ND<0.5	0.52	ND<0.5	ND<0.5	100
	Sep-00	850	170	0.81	ND<0.50	ND<0.50	ND<0.50	68
	Dec-00	1.6*	0.23*	ND<1.0	ND<1.0	ND<1.0	ND<3.0	80
	Mar-01	1.1*	0.14*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	83
	Jun-01	NS	NS	NS	NS	NS	NS	NS
	Sep-01	3.8*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	45
	Dec-01	3.1*	0.34*	1.4	1.1	10	3.8	45
	Mar-02	1.5*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	50
	Jun-02	ND<1.0*	0.16*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	36
	Sep-02	ND<1.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	43
	Dec-02	ND<1.0*	ND<0.10*	ND<1.0	ND<1.0	ND<1.0	ND<1.0	41
	Mar-03	ND<1.0*	ND<0.10*	ND<2.5	ND<2.5	ND<2.5	ND<2.5	92
	Jun-03	1.2	ND<0.10*	ND<2.0	ND<2.0	ND<2.0	ND<2.0	93

Concentrations reported in micrograms per Liter (ug/L).
*Concentrations reported in milligrams per Liter (mg/L).
MTBE = Methyl-tert-Butyl Ether
ND = Not Detected at or above corresponding reporting limit
NS = Not Sampled
TPHd = Total Petroleum Hydrocarbons as Diesel
TPHd = Total Petroleum Hydrocarbons as Gasoline

Chart 1
Groundwater Hydrograph - Second Quarter 2003
Mission Valley Rock Company
Sunol, California

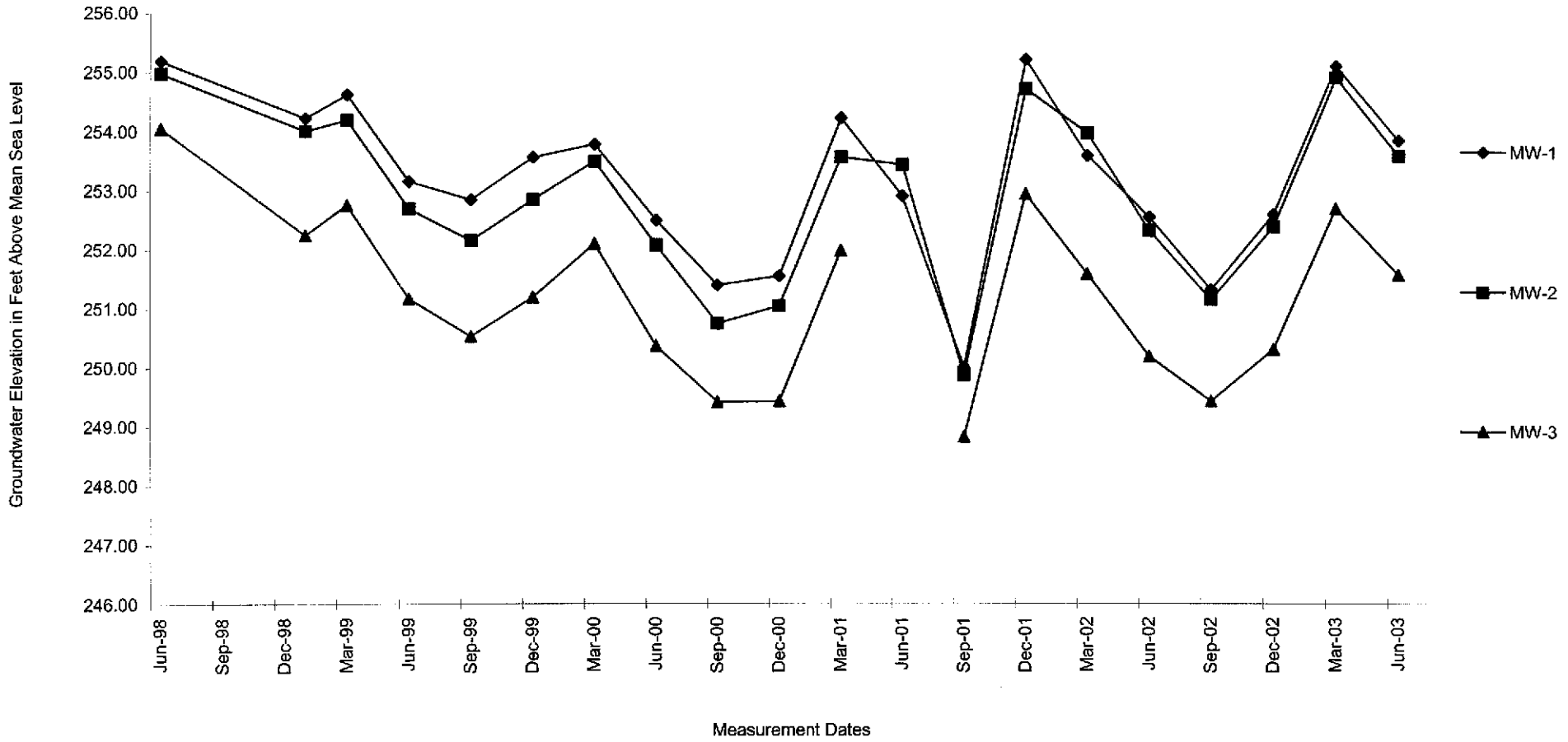


Chart 2
Historical TPHd Concentrations - Second Quarter 2003
Mission Valley Rock Company
Sunol, California

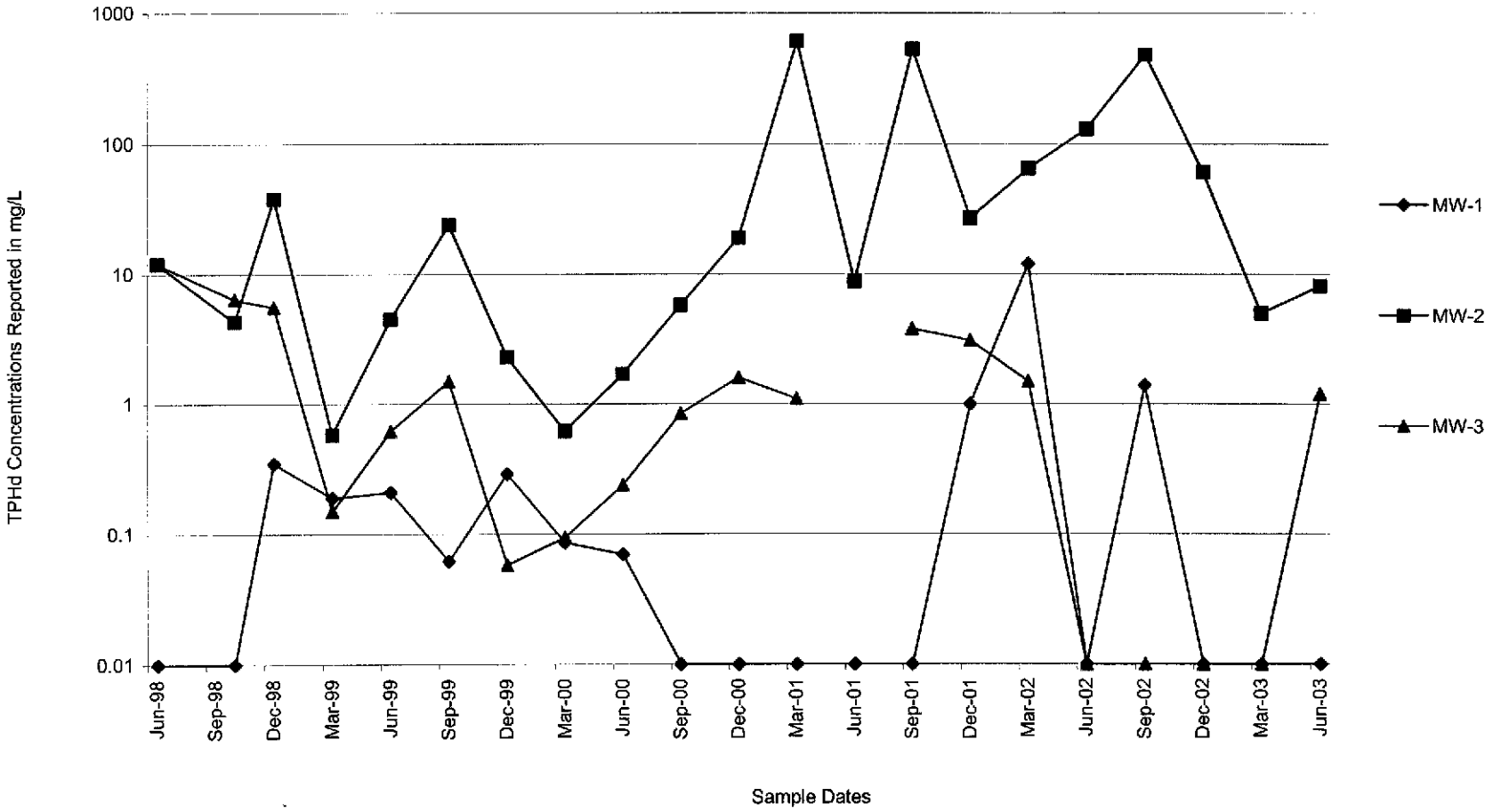


Chart 3
Historical TPHg Concentrations - Second Quarter 2003
Mission Valley Rock Company
Sunol, California

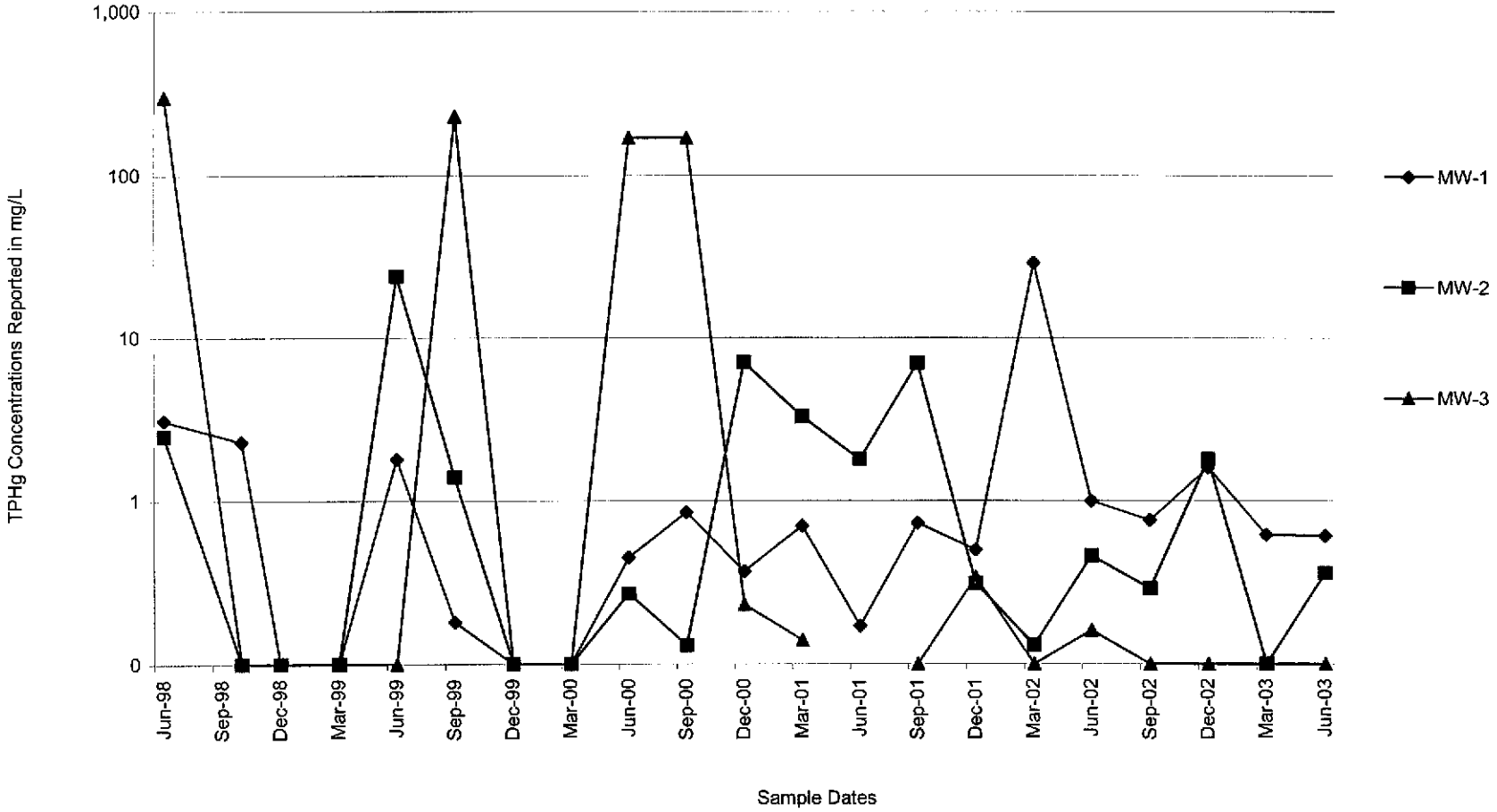


Chart 4
Historical MTBE Concentrations - Second Quarter 2003
Mission Valley Rock Company
Sunol, California

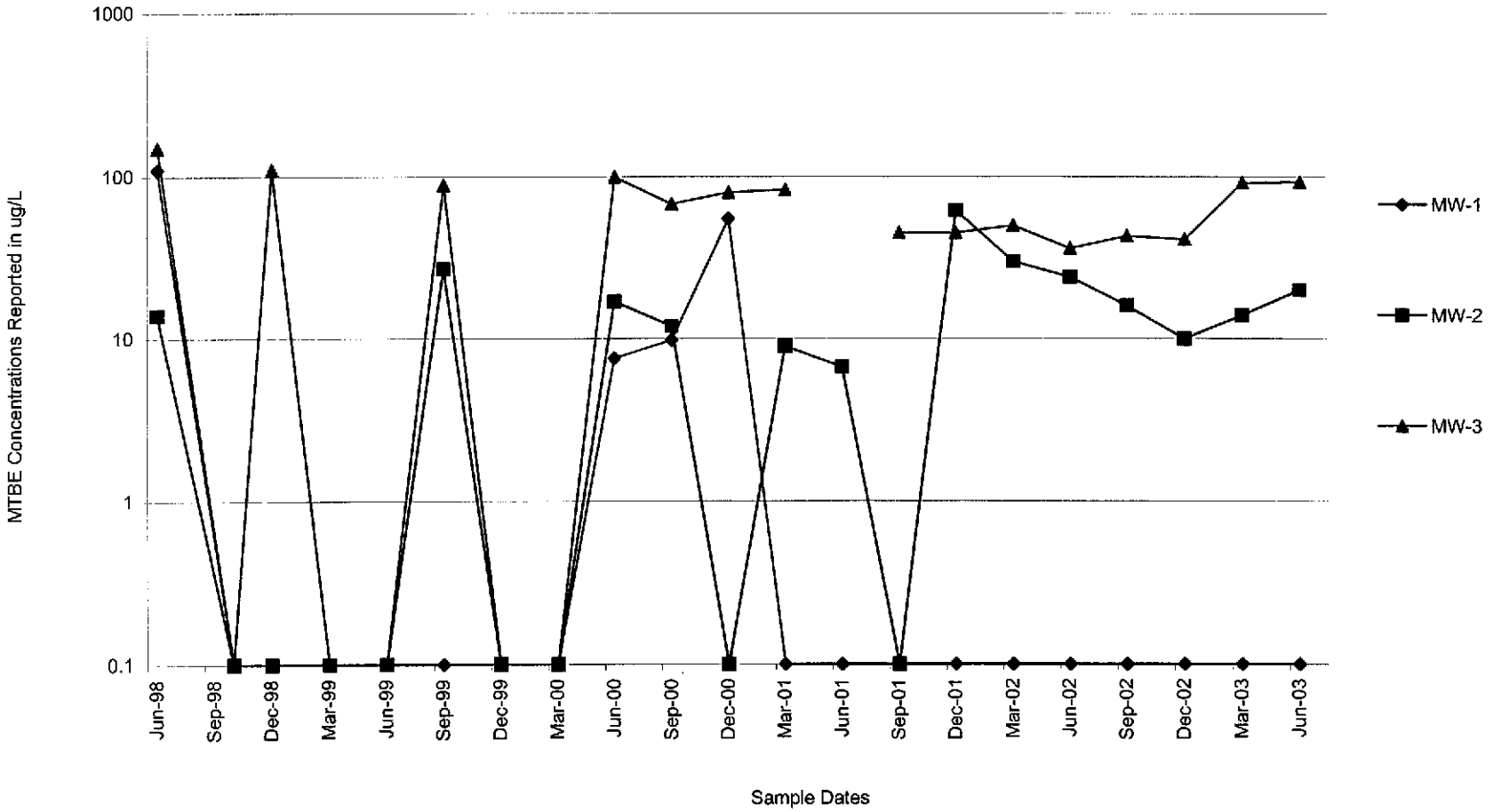


Chart 5
Historical Benzene Concentrations - Second Quarter 2003
Mission Valley Rock Company
Sunol, California

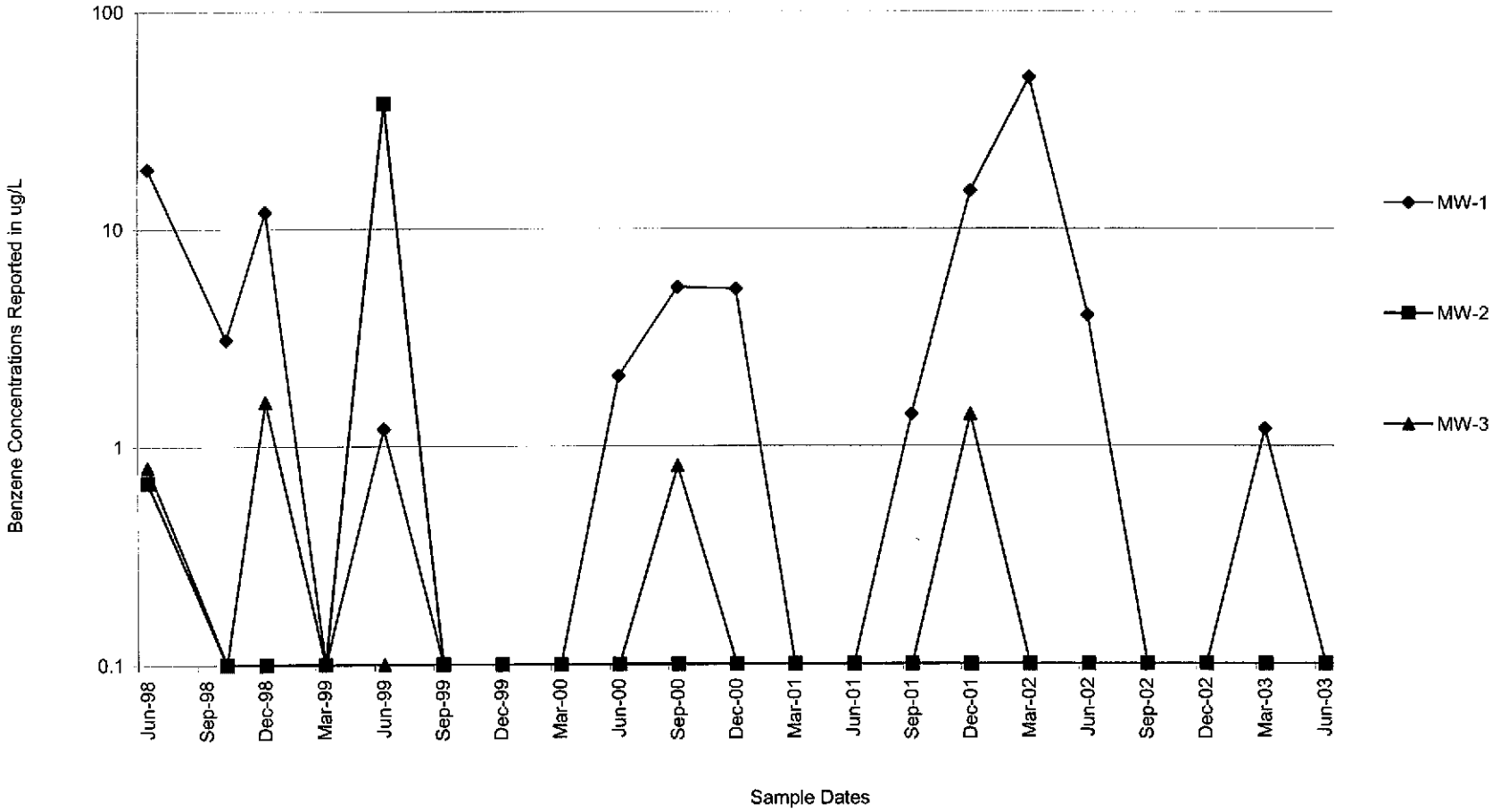
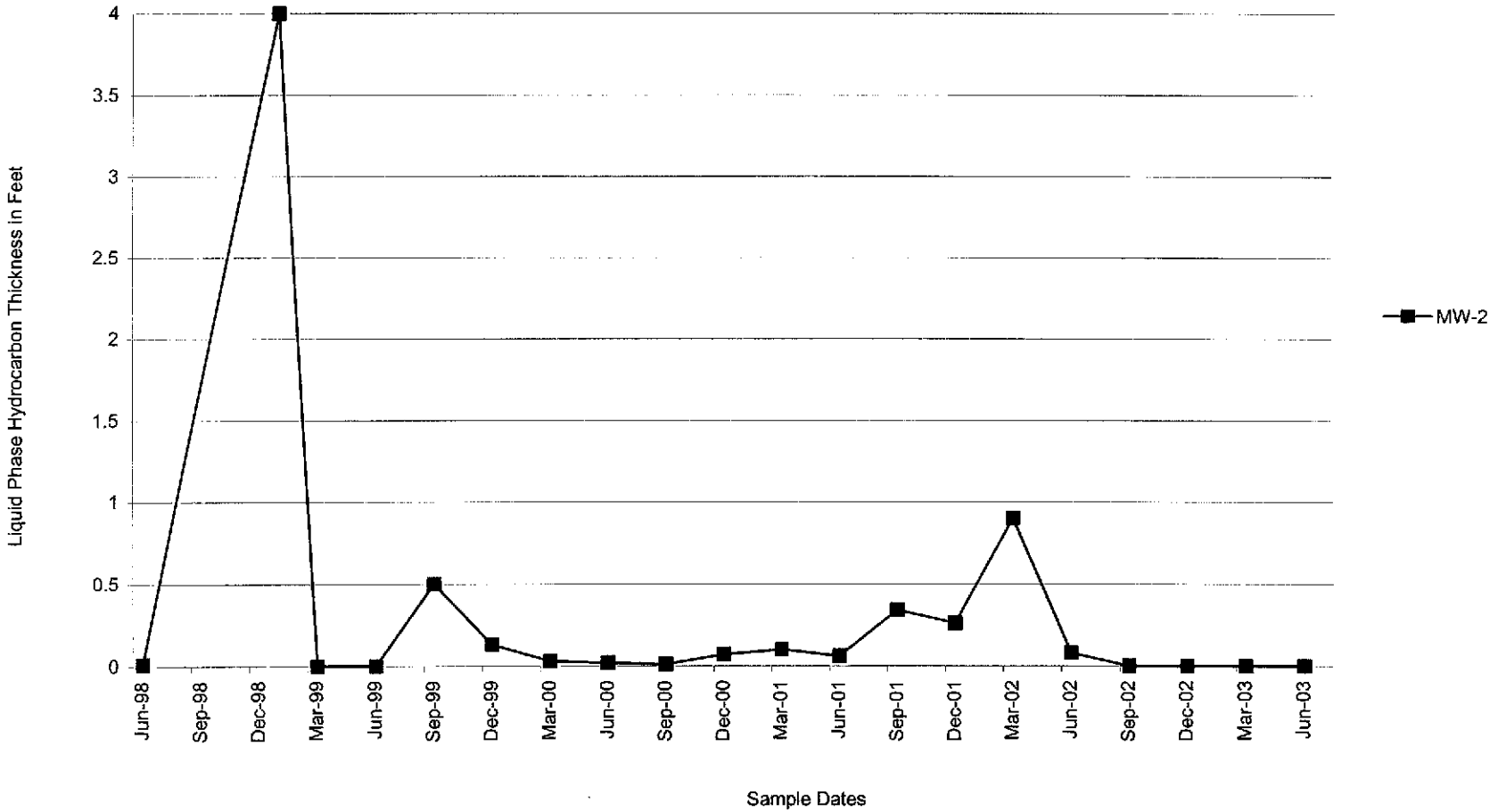


Chart 6
Historical Liquid Phase Hydrocarbon Thickness in Well MW-2 - Second Quarter 2003
Mission Valley Rock Company
Sunol, California



TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Project Name: Mission Valley Rock	**Date:** 06/27/2003
Project No.: EM-5009	**Prepared By:** Saeed Haider
Well Identification: MW-1	**Pump Intake Depth (ft-bmp):** ~10.00
Measurement Point Description: Top of casing at northside	

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft)	LNAPL Thickness (ft)	One (1) Casing Volume (gallons)	Three (3) Casing Volumes (gallons)
Not Detected	2.65	17.70	15.05	Not Detected	2.48	7.22

Well Diameter (in)				Gallons/Foot			
				0.75	2	4	6
0.75	**2**	4	6	0.02	**0.16**	0.65	1.47

Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter

Purge Method: 12-Volt DC Whale Pump

Well Condition: Well box damaged

Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
8:00	1	2.0	-	NA	8.7	19.2	177	4.45	1.58	NA	Dark Gray
8:04	2	4.0	-	NA	8.9	18.4	195	9.1	8.74	NA	Clear
8:15	3	8.0	-	NA	8.1	18.1	170	8.1	8.02	NA	Clear

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
7:58	8:15		8.0	3+	4.66	2.76	8:20	MW-1

Notes:
Well boxes needs to be replaced,

TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Project Name: Mission Valley Rock	**Date:** 06/27/2003
Project No.: EM-5009	**Prepared By:** Saeed Haider
Well Identification: MW-2	**Pump Intake Depth (ft-bmp):** ~10.00
Measurement Point Description: Top of casing at northside	

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft)	LNAPL Thickness (ft)	One (1) Casing Volume (gallons)	Three (3) Casing Volumes (gallons)
Not Detected	3.1	16.7	13.6	Not Detected	2.17	6.5

Well Diameter (in)				Gallons/Foot			
				0.75	2	4	6
0.75	**2**	4	6	0.02	**0.16**	0.65	1.47

Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter

Purge Method: 12-Volt DC Whale Pump

Well Condition: Well Box Cover Broken

Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
10:10	1	2	-	NA	9.0	22.0	>999	4.20	5.4	NA	Blackish, Silty
10:15	2	5	-	NA	9.2	20.06	922	2.83	4.7	NA	Blackish, Silty
10:20	3	8	-	NA	9.0	20.50	620	2.56	4.2	NA	Clear

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
10:08	10:20	-	8	3+	-	3.40	10:30	MW-2

Notes:
Well box needs to be replaced.

TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Project Name: Mission Valley Rock	**Date:** 06/27/2003
Project No.: EM-5009	**Prepared By:** Saeed Haider
Well Identification: MW-3	**Pump Intake Depth (ft-bmp):** ~10.00
Measurement Point Description: Top of casing at northside	

Depth to LNAPL (ft-bmp)	Depth to Static Water Level (ft-bmp)	Well Total Depth (ft-bmp)	Water Column Height (ft)	LNAPL Thickness (ft)	One (1) Casing Volume (gallons)	Three (3) Casing Volumes (gallons)
Not Detected	5.13	16.7	11.57	Not Detected	1.84	5.52

Well Diameter (in)				Gallons/Foot			
				0.75	2	4	6
0.75	**2**	4	6	0.02	**0.16**	0.65	1.47

Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter

Purge Method: 12-Volt DC Whale Pump

Well Condition: Well Box Damaged

Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
8:30	1	2.0	-	NA	9.5	21.1	197	4.82	3.9	NA	Muddy
8:34	2	5.0	-	NA	9.5	20.99	426	2.99	4.7	NA	Clear
8:41	3	8.0	-	NA	9.0	20.56	357	2.61	4.2	NA	Clear

Purge Start Time	Purge End Time	Average Flow (gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery Water Level Depth	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	Sample Identification
9:00	9:20	0.3	6.0	3	6.56	4.68	10:30	MW-3

Notes:

SEVERN TRENT STL

July 14, 2003

STL LOT NUMBER: **E3G010347**

Scott Ek
Tait Environmental
701 Park Center Dr
Santa Ana, CA 92705

Dear Mr. Ek,

This report contains the analytical results for the three samples received under chain of custody by STL Los Angeles on July 1, 2003. These samples are associated with your Mission Valley Rock - Sunnol project.

STL Los Angeles certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of the report. NELAP Certification Number for STL Los Angeles is 01118CA.

Any matrix related anomaly is footnoted within the report. A cooler receipt temperature between 2-6 degrees Celsius is within EPA acceptance criteria. The temperature(s) of the cooler received for this project can be found on the Project Receipt Checklist. Historical control limits for the LCS are used to define the estimate of uncertainty for a method. All applicable quality control procedures met method-specified acceptance criteria.

Preliminary results were sent via facsimile on Thursday, July 10, 2003.

This report contains **000039** pages.

If you have any questions, please feel free to call me at (714) 258-8610.

Sincerely,

Marisol Tabirara

Marisol Tabirara
Project Manager

cc: Project File

STL LOS ANGELES
PROJECT RECEIPT CHECKLIST

Date: 07/01/03

Quantims Lot #: 3G010347 Quote #:

Client Name: TAIT Project: Mission Valley Rock

Received by: RB Date/Time Received: 07/01/03 @ 1400

Delivered by : ☒Client ☐Airborne ☐Fed Ex ☐DHL ☐In-House Courier ☐Rey B.
☐UPS ☐DES ☐Other

	Initial / Date
Custody Seal Status: ☐Intact ☐Broken ☒None	BB 07/01/03
Custody Seal #(s): ☐No Seal #	
Sample Container(s): ☒STL-LA ☐Client ☐N/A	
Temperature(s) (Cooler/blank) in °C: 3.4 Correction factor -0.2°C (Corrected Temp.) 3.2	
Thermometer Used : ID: B ☒IR (Infra-red) ☐Digital (Probe)	
Samples: ☒Intact ☐Broken ☐Other	
Anomalies: ☒No ☐Yes (See Clouseau)	
Labeled by	
Labeling checked by	
Turn Around Time: ☐RUSH-24HR ☐RUSH-48HR ☐RUSH-72HR ☒NORMAL	
Short-Hold Notification: ☐Ph ☐Wet Chem ☐Metals (Filter/Pres) ☐Encore ☒N/A	

Outside Analysis(es) (Test/Lab/Date Sent Out) :

********** LEAVE NO BLANK SPACES ; USE N/A **********

Fraction	1	2	3								PH
VOAh /*	6	6	6								N/A
1 LAGTB	3	1	1								—

h:HCl na:Sodium Hydoxide zna:Zinc Acetate/Sodium Hydroxide s: H2SO4 n:HNO3 n/f:HNO3-Field filtered n/f/l:HNO3-Lab filtered

CGJ:Clear Glass Jar CGB:Clear Glass Bottle AGJ:Amber Glass Jar AGB:Amber Glass Bottle PB: Poly Bottle E:Encore Sampler V:VOA SL:Sleeve

* Number of VOA's w/ Headspace present

LOGGED BY/DATE: BB 07/01/03 REVIEWED BY/DATE: [signature] 7-1-03

SEVERN TRENT STL

Analytical Report

ANALYTICAL REPORT

PROJECT NO. EM-5009

Mission Valley Rock - Sunnol

Lot #: E3G010347

Scott Ek

Tait Environmental

SEVERN TRENT LABORATORIES, INC.

Marisol Tabirara
Project Manager

July 14, 2003

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...:	E3G010347-002	**Work Order #...:**	FRK5D1AD	**Matrix.....:**	WATER
Date Sampled...:	06/27/03 09:00	**Date Received..:**	07/01/03 14:00	**MS Run #.....:**	3183328
Prep Date.....:	07/01/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3184094	**Analysis Time..:**	02:16		
Dilution Factor:	2				
Analyst ID.....:	015590	**Instrument ID..:**	MSC		
		Method.....:	SW846 8260B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	20	ug/L
Benzene	ND	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromochloromethane	ND	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	4.0	ug/L
2-Butanone	ND	10	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon disulfide	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Dibromochloromethane	ND	2.0	ug/L
Bromodichloromethane	ND	2.0	ug/L
Chloroethane	ND	4.0	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	4.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	4.0	ug/L
1,2-Dibromoethane (EDB)	ND	2.0	ug/L
Dibromomethane	ND	2.0	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	4.0	ug/L
1,1-Dichloroethane	ND	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
1,1-Dichloroethene	ND	2.0	ug/L
cis-1,2-Dichloroethene	ND	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
1,1-Dichloropropene	ND	2.0	ug/L

(Continued on next page)

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #...: E3G010347-002 Work Order #...: FRK5D1AD Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,3-Dichloropropene	ND	2.0	ug/L
trans-1,3-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
Hexachlorobutadiene	ND	2.0	ug/L
2-Hexanone	ND	10	ug/L
Isopropylbenzene	ND	2.0	ug/L
p-Isopropyltoluene	ND	2.0	ug/L
Methylene chloride	ND	2.0	ug/L
4-Methyl-2-pentanone	ND	10	ug/L
Methyl tert-butyl ether	**93**	**2.0**	**ug/L**
Naphthalene	ND	2.0	ug/L
n-Propylbenzene	ND	2.0	ug/L
Styrene	ND	2.0	ug/L
1,1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,1,2,2-Tetrachloroethane	ND	2.0	ug/L
Tetrachloroethene	ND	2.0	ug/L
Toluene	ND	2.0	ug/L
1,2,3-Trichlorobenzene	ND	2.0	ug/L
1,2,4-Trichloro-benzene	ND	2.0	ug/L
1,1,1-Trichloroethane	ND	2.0	ug/L
1,1,2-Trichloroethane	ND	2.0	ug/L
Trichloroethene	ND	2.0	ug/L
Trichlorofluoromethane	ND	4.0	ug/L
1,2,3-Trichloropropane	ND	2.0	ug/L
1,1,2-Trichlorotrifluoro-ethane	ND	2.0	ug/L
1,2,4-Trimethylbenzene	ND	2.0	ug/L
1,3,5-Trimethylbenzene	ND	2.0	ug/L
Vinyl chloride	ND	4.0	ug/L
m-Xylene & p-Xylene	ND	2.0	ug/L
o-Xylene	ND	2.0	ug/L
Tert-amyl methyl ether	ND	4.0	ug/L
Tert-butyl ethyl ether	ND	4.0	ug/L
t-Butanol	ND	50	ug/L
Isopropyl ether	ND	4.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	112	(65 - 135)
Toluene-d8	95	(80 - 130)

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #...:	E3G010347-002	Work Order #...:	FRK5D1AC	Matrix.....:	WATER
Date Sampled...:	06/27/03 09:00	Date Received..:	07/01/03 14:00	MS Run #.....:	3184228
Prep Date.....:	07/02/03	Analysis Date..:	07/02/03		
Prep Batch #...:	3184447	Analysis Time..:	20:46		
Dilution Factor:	1				
Analyst ID.....:	001464	Instrument ID..:	G15		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	ND	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	80	(70 - 130)

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #...:	E3G010347-002	Work Order #...:	FRK5D1AA	Matrix.....:	WATER
Date Sampled...:	06/27/03 09:00	Date Received..:	07/01/03 14:00	MS Run #.....:	3183244
Prep Date.....:	07/02/03	Analysis Date..:	07/03/03		
Prep Batch #...:	3183485	Analysis Time..:	06:08		
Dilution Factor:	1				
Analyst ID.....:	356074	Instrument ID..:	G03		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	1.2	1.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	76	(70 - 125)

NOTE(S):

The pattern does not match diesel. C range-C10-beyond C24.

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: E3G010347-003 Work Order #...: FRK5E1AD Matrix.....: WATER
Date Sampled...: 06/27/03 10:30 Date Received..: 07/01/03 14:00 MS Run #.....: 3183328
Prep Date.....: 07/01/03 Analysis Date..: 07/02/03
Prep Batch #...: 3184094 Analysis Time..: 02:46
Dilution Factor: 1
Analyst ID.....: 015590 Instrument ID..: MSC
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone	ND	5.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L

(Continued on next page)

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #...: E3G010347-003 Work Order #...: FRK5E1AD Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	5.0	ug/L
Isopropylbenzene	**1.4**	**1.0**	**ug/L**
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Methyl tert-butyl ether	**20**	**1.0**	**ug/L**
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	**1.2**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
Tert-amyl methyl ether	ND	2.0	ug/L
Tert-butyl ethyl ether	ND	2.0	ug/L
t-Butanol	ND	25	ug/L
Isopropyl ether	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	113	(65 - 135)
Toluene-d8	98	(80 - 130)

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #...:	E3G010347-003	**Work Order #...:**	FRK5E1AC	**Matrix.....:**	WATER
Date Sampled...:	06/27/03 10:30	**Date Received..:**	07/01/03 14:00	**MS Run #.....:**	3184228
Prep Date.....:	07/02/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3184447	**Analysis Time..:**	21:13		
Dilution Factor:	1				
Analyst ID.....:	001464	**Instrument ID..:**	G15		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	**0.36**	**0.10**	**mg/L**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	76	(70 - 130)

NOTE(S):

Pattern resembles weathered gasoline and unknown hydrocarbons.

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC Semivolatiles

Lot-Sample #...:	E3G010347-003	Work Order #...:	FRK5E1AA	Matrix.....:	WATER
Date Sampled...:	06/27/03 10:30	Date Received..:	07/01/03 14:00	MS Run #.....:	3183244
Prep Date.....:	07/02/03	Analysis Date..:	07/03/03		
Prep Batch #...:	3183485	Analysis Time..:	06:46		
Dilution Factor:	1				
Analyst ID.....:	356074	Instrument ID..:	G03		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	8.1	1.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	69 I,*	(70 - 125)

NOTE(S):

I Matrix interference.

* Surrogate recovery is outside stated control limits.

The pattern consists of mixture of weathered diesel and unknown hydrocarbons. C range-C10 to beyond C24.

SEVERN TRENT STL

QA/QC

QC DATA ASSOCIATION SUMMARY

E3G010347

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8015B		3183485	3183244
	WATER	SW846 8015B		3184447	3184228
	WATER	SW846 8260B		3184094	3183328
002	WATER	SW846 8015B		3183485	3183244
	WATER	SW846 8015B		3184447	3184228
	WATER	SW846 8260B		3184094	3183328
003	WATER	SW846 8015B		3183485	3183244
	WATER	SW846 8015B		3184447	3184228
	WATER	SW846 8260B		3184094	3183328

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3G010347 Work Order #...: FRN1Q1AA Matrix.....: WATER
MB Lot-Sample #: E3G030000-094

Prep Date.....: 07/01/03 Analysis Time..: 19:11
Analysis Date..: 07/01/03 Prep Batch #...: 3184094 Instrument ID..: MSC
Dilution Factor: 1

Analyst ID.....: 015590

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acetone	ND	10	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	2.0	ug/L	SW846 8260B
2-Butanone	ND	5.0	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon disulfide	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Dibromochloromethane	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	2.0	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	2.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L	SW846 8260B
1,2-Dibromoethane (EDB)	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	2.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E3G010347 Work Order #...: FRN1Q1AA Matrix.....: WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
2-Hexanone	ND	5.0	ug/L	SW846 8260B
Isopropylbenzene	ND	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	1.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	1.0	ug/L	SW846 8260B
Naphthalene	ND	1.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,2,4-Trichloro-benzene	ND	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	2.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	2.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	ND	1.0	ug/L	SW846 8260B
o-Xylene	ND	1.0	ug/L	SW846 8260B
Tert-amyl methyl ether	ND	2.0	ug/L	SW846 8260B
Tert-butyl ethyl ether	ND	2.0	ug/L	SW846 8260B
t-Butanol	ND	25	ug/L	SW846 8260B
Isopropyl ether	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	95	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	100	(80 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: E3G010347
MB Lot-Sample #: E3G030000-447
Work Order #...: FRQ2H1AA
Matrix.....: WATER
Prep Date.....: 07/02/03
Analysis Time..: 13:32
Analysis Date..: 07/02/03
Prep Batch #...: 3184447
Instrument ID..: G15
Dilution Factor: 1
Analyst ID.....: 001464

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Gasoline)	ND	0.10	mg/L	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	81	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: E3G010347 Work Order #...: FRM8Q1AA Matrix.....: WATER
MB Lot-Sample #: E3G020000-485

Prep Date.....: 07/02/03 Analysis Time..: 02:53
Analysis Date..: 07/03/03 Prep Batch #...: 3183485 Instrument ID..: G03
Dilution Factor: 1

Analyst ID.....: 356074

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
TPH (as Diesel)	ND	1.0	mg/L	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	99	(70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: E3G010347 Work Order #...: FRN1Q1AC Matrix.....: WATER
LCS Lot-Sample#: E3G030000-094
Prep Date.....: 07/01/03 Analysis Date..: 07/01/03
Prep Batch #...: 3184094 Analysis Time..: 18:42
Dilution Factor: 1 Instrument ID..: MSC
Analyst ID.....: 015590

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzene	**101**	**(75 - 125)**	**SW846 8260B**
Chlorobenzene	**99**	**(75 - 125)**	**SW846 8260B**
1,1-Dichloroethene	**107**	**(65 - 135)**	**SW846 8260B**
Toluene	**98**	**(75 - 125)**	**SW846 8260B**
Trichloroethene	**109**	**(75 - 135)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	103	(80 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: E3G010347 Work Order #...: FRN1Q1AC Matrix.....: WATER
LCS Lot-Sample#: E3G030000-094
Prep Date.....: 07/01/03 Analysis Date..: 07/01/03
Prep Batch #...: 3184094 Analysis Time..: 18:42
Dilution Factor: 1 Instrument ID..: MSC
Analyst ID.....: 015590

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzene	**10.0**	**10.1**	**ug/L**	**101**	**SW846 8260B**
Chlorobenzene	**10.0**	**9.93**	**ug/L**	**99**	**SW846 8260B**
1,1-Dichloroethene	**10.0**	**10.7**	**ug/L**	**107**	**SW846 8260B**
Toluene	**10.0**	**9.82**	**ug/L**	**98**	**SW846 8260B**
Trichloroethene	**10.0**	**10.9**	**ug/L**	**109**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	99	(75 - 130)
1,2-Dichloroethane-d4	105	(65 - 135)
Toluene-d8	103	(80 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: E3G010347 **Work Order #...:** FRQ2H1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3G030000-447
Prep Date.....: 07/02/03 **Analysis Date..:** 07/02/03
Prep Batch #...: 3184447 **Analysis Time..:** 13:59
Dilution Factor: 1 **Instrument ID..:** G15
Analyst ID.....: 001464

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Gasoline)	**114**	**(70 - 140)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	109	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: E3G010347 **Work Order #...:** FRQ2H1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3G030000-447
Prep Date.....: 07/02/03 **Analysis Date..:** 07/02/03
Prep Batch #...: 3184447 **Analysis Time..:** 13:59
Dilution Factor: 1 **Instrument ID..:** G15
Analyst ID.....: 001464

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH (as Gasoline)	**1.00**	**1.14**	**mg/L**	**114**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	109	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: E3G010347	**Work Order #...:** FRM8Q1AC	**Matrix.....:** WATER
LCS Lot-Sample#: E3G020000-485		
Prep Date.....: 07/02/03	**Analysis Date..:** 07/03/03	
Prep Batch #...: 3183485	**Analysis Time..:** 03:32	
Dilution Factor: 1	**Instrument ID..:** G03	
Analyst ID.....: 356074		

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Diesel)	**96**	**(70 - 125)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	101	(70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: E3G010347 **Work Order #...:** FRM8Q1AC **Matrix.....:** WATER
LCS Lot-Sample#: E3G020000-485
Prep Date.....: 07/02/03 **Analysis Date..:** 07/03/03
Prep Batch #...: 3183485 **Analysis Time..:** 03:32
Dilution Factor: 1 **Instrument ID..:** G03
Analyst ID.....: 356074

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH (as Diesel)	**5.00**	**4.78**	**mg/L**	**96**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	101	(70 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...:	E3G010347	**Work Order #...:**	FRKL91AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3G010269-004		FRKL91AD-MSD		
Date Sampled...:	06/26/03 10:34	**Date Received..:**	07/01/03 10:00	**MS Run #.....:**	3183328
Prep Date.....:	07/02/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3183629	**Analysis Time..:**	14:42		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSC

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**101**	**(75 - 125)**			**SW846 8260B**
	97	**(75 - 125)**	**4.2**	**(0-25)**	**SW846 8260B**
Chlorobenzene	**81**	**(75 - 125)**			**SW846 8260B**
	83	**(75 - 125)**	**2.6**	**(0-25)**	**SW846 8260B**
1,1-Dichloroethene	**112**	**(65 - 135)**			**SW846 8260B**
	118	**(65 - 135)**	**5.3**	**(0-25)**	**SW846 8260B**
Toluene	**81**	**(75 - 125)**			**SW846 8260B**
	82	**(75 - 125)**	**1.3**	**(0-25)**	**SW846 8260B**
Trichloroethene	**110**	**(75 - 135)**			**SW846 8260B**
	113	**(75 - 135)**	**3.1**	**(0-25)**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	87	(75 - 130)
	93	(75 - 130)
1,2-Dichloroethane-d4	125	(65 - 135)
	102	(65 - 135)
Toluene-d8	88	(80 - 130)
	94	(80 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...:	E3G010347	**Work Order #...:**	FRKL91AC-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3G010269-004		FRKL91AD-MSD		
Date Sampled...:	06/26/03 10:34	**Date Received..:**	07/01/03 10:00	**MS Run #.....:**	3183328
Prep Date.....:	07/02/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3183629	**Analysis Time..:**	14:42		
Dilution Factor:	1	**Analyst ID.....:**	015590	**Instrument ID..:**	MSC

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Benzene	ND	10.0	10.1	ug/L	101		SW846 8260B
	ND	10.0	9.72	ug/L	97	4.2	SW846 8260B
Chlorobenzene	ND	10.0	8.12	ug/L	81		SW846 8260B
	ND	10.0	8.33	ug/L	83	2.6	SW846 8260B
1,1-Dichloroethene	ND	10.0	11.2	ug/L	112		SW846 8260B
	ND	10.0	11.8	ug/L	118	5.3	SW846 8260B
Toluene	ND	10.0	8.13	ug/L	81		SW846 8260B
	ND	10.0	8.24	ug/L	82	1.3	SW846 8260B
Trichloroethene	ND	10.0	11.8	ug/L	110		SW846 8260B
	ND	10.0	12.1	ug/L	113	3.1	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	87	(75 - 130)
	93	(75 - 130)
1,2-Dichloroethane-d4	125	(65 - 135)
	102	(65 - 135)
Toluene-d8	88	(80 - 130)
	94	(80 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...:	E3G010347	**Work Order #...:**	FRL191AE-MS FRL191AF-MSD	**Matrix.....:**	WATER
MS Lot-Sample #:	E3G020164-005				
Date Sampled...:	06/30/03 15:15	**Date Received..:**	07/01/03 19:40	**MS Run #.....:**	3184228
Prep Date.....:	07/02/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3184447	**Analysis Time..:**	14:55		
Dilution Factor:	1	**Analyst ID.....:**	001464	**Instrument ID..:**	G15

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
TPH (as Gasoline)	**84**	**(70 - 140)**			**SW846 8015B**
	84	**(70 - 140)**	**0.39**	**(0-25)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	104	(70 - 130)
	111	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

Client Lot #...:	E3G010347	**Work Order #...:**	FRL191AE-MS	**Matrix.....:**	WATER
MS Lot-Sample #:	E3G020164-005		FRL191AF-MSD		
Date Sampled...:	06/30/03 15:15	**Date Received..:**	07/01/03 19:40	**MS Run #.....:**	3184228
Prep Date.....:	07/02/03	**Analysis Date..:**	07/02/03		
Prep Batch #...:	3184447	**Analysis Time..:**	14:55		
Dilution Factor:	1	**Analyst ID.....:**	001464	**Instrument ID..:**	G15

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
TPH (as Gasoline)	**ND**	**1.00**	**0.844**	**mg/L**	**84**		**SW846 8015B**
	ND	**1.00**	**0.841**	**mg/L**	**84**	**0.39**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	104	(70 - 130)
	111	(70 - 130)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

EXECUTIVE SUMMARY - Detection Highlights

E3G010347

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-1 06/27/03 08:10 001				
TPH (as Gasoline)	0.61	0.10	mg/L	SW846 8015B
Ethylbenzene	5.4	1.0	ug/L	SW846 8260B
n-Propylbenzene	1.3	1.0	ug/L	SW846 8260B
MW-3 06/27/03 09:00 002				
TPH (as Diesel)	1.2	1.0	mg/L	SW846 8015B
Methyl tert-butyl ether	93	2.0	ug/L	SW846 8260B
MW-2 06/27/03 10:30 003				
TPH (as Diesel)	8.1	1.0	mg/L	SW846 8015B
TPH (as Gasoline)	0.36	0.10	mg/L	SW846 8015B
Isopropylbenzene	1.4	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether	20	1.0	ug/L	SW846 8260B
n-Propylbenzene	1.2	1.0	ug/L	SW846 8260B

METHODS SUMMARY

E3G010347

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Extractable Petroleum Hydrocarbons	SW846 8015B	SW846 3510
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826
Volatile Petroleum Hydrocarbons	SW846 8015B	SW846 5030

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

E3G010347

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
FRK5C	001	MW-1	06/27/03	08:10
FRK5D	002	MW-3	06/27/03	09:00
FRK5E	003	MW-2	06/27/03	10:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: E3G010347-001 **Work Order #...:** FRK5C1AD **Matrix.....:** WATER
Date Sampled...: 06/27/03 08:10 **Date Received..:** 07/01/03 14:00 **MS Run #.....:** 3183328
Prep Date.....: 07/01/03 **Analysis Date..:** 07/02/03
Prep Batch #...: 3184094 **Analysis Time..:** 01:46
Dilution Factor: 1
Analyst ID.....: 015590 **Instrument ID..:** MSC
Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromochloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone	ND	5.0	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon disulfide	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Dibromochloromethane	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Chloroethane	ND	2.0	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-propane	ND	2.0	ug/L
1,2-Dibromoethane (EDB)	ND	1.0	ug/L
Dibromomethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L

(Continued on next page)

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #...: E3G010347-001 **Work Order #...:** FRK5C1AD **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	**5.4**	**1.0**	**ug/L**
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	5.0	ug/L
Isopropylbenzene	ND	1.0	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	1.0	ug/L
4-Methyl-2-pentanone	ND	5.0	ug/L
Methyl tert-butyl ether	ND	1.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	**1.3**	**1.0**	**ug/L**
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	1.0	ug/L
1,2,4-Trichloro-benzene	ND	1.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	2.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichlorotrifluoro-ethane	ND	1.0	ug/L
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	ND	1.0	ug/L
o-Xylene	ND	1.0	ug/L
Tert-amyl methyl ether	ND	2.0	ug/L
Tert-butyl ethyl ether	ND	2.0	ug/L
t-Butanol	ND	25	ug/L
Isopropyl ether	ND	2.0	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Bromofluorobenzene	96	(75 - 130)
1,2-Dichloroethane-d4	121	(65 - 135)
Toluene-d8	98	(80 - 130)

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #...:	E3G010347-001	Work Order #...:	FRK5C1AC	Matrix.....:	WATER
Date Sampled...:	06/27/03 08:10	Date Received..:	07/01/03 14:00	MS Run #.....:	3184228
Prep Date.....:	07/02/03	Analysis Date..:	07/02/03		
Prep Batch #...:	3184447	Analysis Time..:	20:19		
Dilution Factor:	1				
Analyst ID.....:	001464	Instrument ID..:	G15		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Gasoline)	0.61	0.10	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
a,a,a-Trifluorotoluene (TFT)	94	(70 - 130)

NOTE(S):

The gasoline pattern appears degraded.

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #...:	E3G010347-001	Work Order #...:	FRK5C1AA	Matrix.....:	WATER
Date Sampled...:	06/27/03 08:10	Date Received..:	07/01/03 14:00	MS Run #.....:	3183244
Prep Date.....:	07/02/03	Analysis Date..:	07/03/03		
Prep Batch #...:	3183485	Analysis Time..:	04:11		
Dilution Factor:	1				
Analyst ID.....:	356074	Instrument ID..:	G03		
		Method.....:	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	1.0	mg/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Benzo(a)pyrene	92	(70 - 125)

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

Client	Project Manager	Date	Chain of Custody Number
TAIT ENV. MANAGEMENT.	CURT CONNER	6/27/03	106169
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
701 N. PARK CTR. DR.	714-560-8200	~~E360~~10847	
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
SANTA ANA / CA	SAEED	DIANE	
Project Name and Location (State)	**Carrier/Waybill Number**		
MISSION VALLEY ROCK - SUNNOL			
Contract/Purchase Order/Quote No.			
EM-5009			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	3	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: 8260 (DWG)	8015 (DWG)	Special Instructions/ Conditions of Receipt
MW-1	6/27	8:10		✓			~~2~~ 6				6			✓	✓	
MW-3	6/27	9:00		✓				1			6			✓	✓	
MW-2	6/27	10:30		✓				1			6			✓	✓	

Possible Hazard Identification

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other Normal

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
2. Relinquished By	Date	Time	2. Received By	Date	Time
	7/1/03	1460		7/1/03	1450
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

NLC