

MISSION VALLEY / ROCK COMPANY ASPHALT COMPANY READY MIX COMPANY

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

August 2, 2002

AUG 06 2002

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 second quarter 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

AUG 06 2002

**Groundwater Monitoring Report
Second Quarter 2002**

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared by:
Tait Environmental Management, Inc.

July 17, 2002

July 17, 2002

**Groundwater Monitoring Report
Second Quarter 2002**

Mission Valley Rock Company
7999 Athenour Way
Sunol, California

Prepared for:

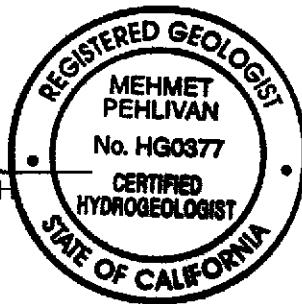
Mr. Mort Calvert
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Project No. EM-5009

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	WORK CONDUCTED DURING PRESENT QUARTER.....	1
3.0	GROUNDWATER MONITORING ACTIVITIES.....	1
3.1	<i>GROUNDWATER ELEVATION MONITORING</i>	1
3.2	<i>GROUNDWATER SAMPLING</i>	2
4.0	LABORATORY ANALYSES	2
4.1	<i>GROUNDWATER ANALYTICAL RESULTS</i>	2
5.0	SUMMARY	2
6.0	RECOMMENDATIONS.....	3
7.0	QUALITY ASSURANCE/QUALITY CONTROL.....	3
8.0	LIMITATIONS.....	4

FIGURES

1. Site Vicinity Map
2. Site Plan with Groundwater Contours (June 13, 2002)
3. Site Plan with Dissolved TPHg Contours (June 13, 2002)
4. Site Plan with Dissolved MTBE Contours (June 13, 2002)

TABLES

1. Well Construction and Groundwater Elevation Data (June 13, 2002)
2. Groundwater Analysis Summary (June 13, 2002)
3. Historical Summary of Groundwater Data
4. Historical Summary of Groundwater Sample Analytical Results

APPENDICES

- A. Charts
- B. Well Sampling Field Data Sheets
- C. Analytical Laboratory Reports



Tait Environmental Management, Inc.
Engineering • Environmental • Compliance

GROUNDWATER MONITORING REPORT - SECOND QUARTER 2002
MISSION VALLEY ROCK COMPANY
SUNOL, CALIFORNIA

1.0 INTRODUCTION

Tait Environmental Management, Inc. (TEM) is pleased to submit this Second Quarter 2002 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 First Quarter of 2002 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, *Groundwater Monitoring Report, First Quarter 2002*.
- Preparing workplan for additional site assessment and well maintenance activities per the ACHCSA letter dated June 3, 2002.

3.0 GROUNDWATER MONITORING ACTIVITIES

3.1 Groundwater Elevation Monitoring

On June 13, 2002 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 hydrocarbons (0.08') was observed in monitoring well MW-2. No LPH was observed in monitoring wells MW-1 and MW-3. A historical summary LPH thickness 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 4.97 feet below ground surface (bgs). The apparent groundwater flow direction is to the East with a groundwater gradient of approximately 0.02 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).



July 17, 2002
Groundwater Monitoring Report – Second Quarter 2002
Mission Valley Rock, Sunol, California

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 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:

- BTEX and MTBE 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 2002 groundwater sample analytical results are summarized in Table 2 and contoured in Figures 3 and 4 (TPHg and 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 4.97 feet bgs. The groundwater flow direction is to the East with a groundwater gradient of approximately 0.02 ft/ft;
- Liquid phase hydrocarbons (0.08') was observed in monitoring well MW-2. The LPH thickness in MW-2 has shown a decrease since the last sampling event in March 2002. Liquid phase hydrocarbon removal was not performed this quarter due to the minimal thickness, therefore tabulation of LPH removal will resume next quarter;



July 17, 2002
Groundwater Monitoring Report – Second Quarter 2002
Mission Valley Rock, Sunol, California

- The depth to static groundwater at the Site has decreased this quarter. The wells at the Site are screened below the water table. Therefore, the observed LPH in well MW-2 may be a reflection of a greater LPH thickness within the formation.
- The only TPHd concentration (130 milligrams per Liter [mg/L]) was detected in the groundwater sample collected from well MW-2. The highest TPHg concentration (1 mg/L) was detected in the groundwater sample collected from well MW-1;
- The only benzene concentration was reported in the groundwater sample collected from well MW-1 at 4 micrograms per Liter ($\mu\text{g}/\text{L}$);
- MTBE concentrations were reported in the groundwater samples collected from well MW-2 and MW-3 at 24 $\mu\text{g}/\text{L}$ and 36 $\mu\text{g}/\text{L}$, respectively;
- Interpretation of Charts 2 through 5 indicate that well MW-1 has shown a decrease in TPHd concentrations (ND>1 mg/L), a decrease in TPHg concentrations (from 29mg/L in March 2002 to 1.4 mg/L in June 2002) and a decrease benzene concentrations (from 50 $\mu\text{g}/\text{L}$ in March 2002 to 4 $\mu\text{g}/\text{L}$ in June 2002).
- Groundwater monitoring well MW-2 has shown a increase in TPHd concentrations (from 65 mg/L in March 2002 to 130 mg/L in June 2002), a slight increase in TPHg concentrations (0.33 mg/L), and decreasing concentrations of MTBE (from 30 $\mu\text{g}/\text{L}$ in March 2002 to 24 $\mu\text{g}/\text{L}$ in June 2002); and
- Concentrations of TPHg (0.16 $\mu\text{g}/\text{L}$) were detected in MW-3 for the first time since 4th Quarter 2001, while MTBE concentrations have shown a slight decrease (from 50 $\mu\text{g}/\text{L}$ in March 2002 to 36 $\mu\text{g}/\text{L}$ in June 2002).

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.



July 17, 2002

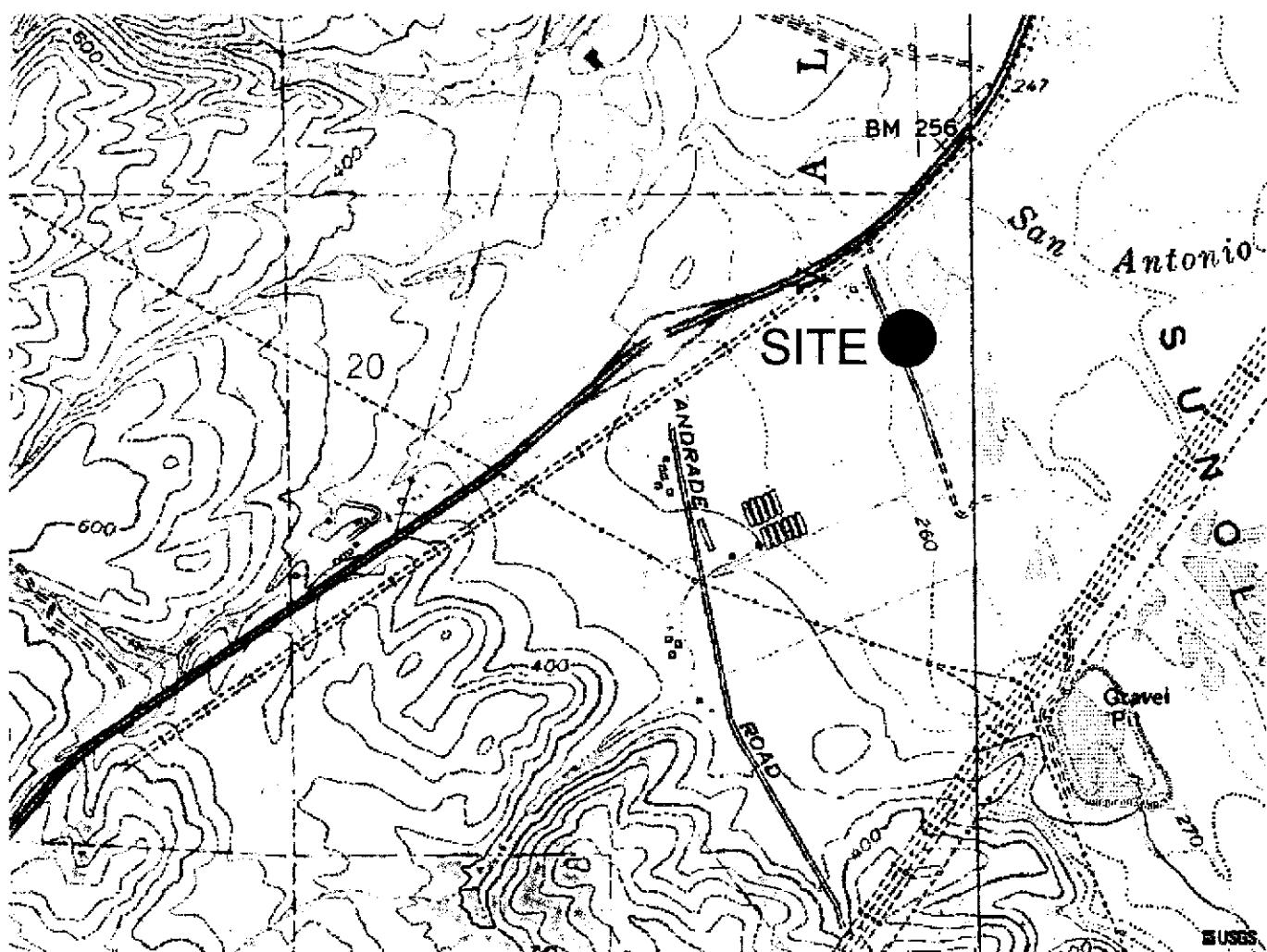
Groundwater Monitoring Report – Second Quarter 2002
Mission Valley Rock, Sunol, California

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 which 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



1" = 2000'



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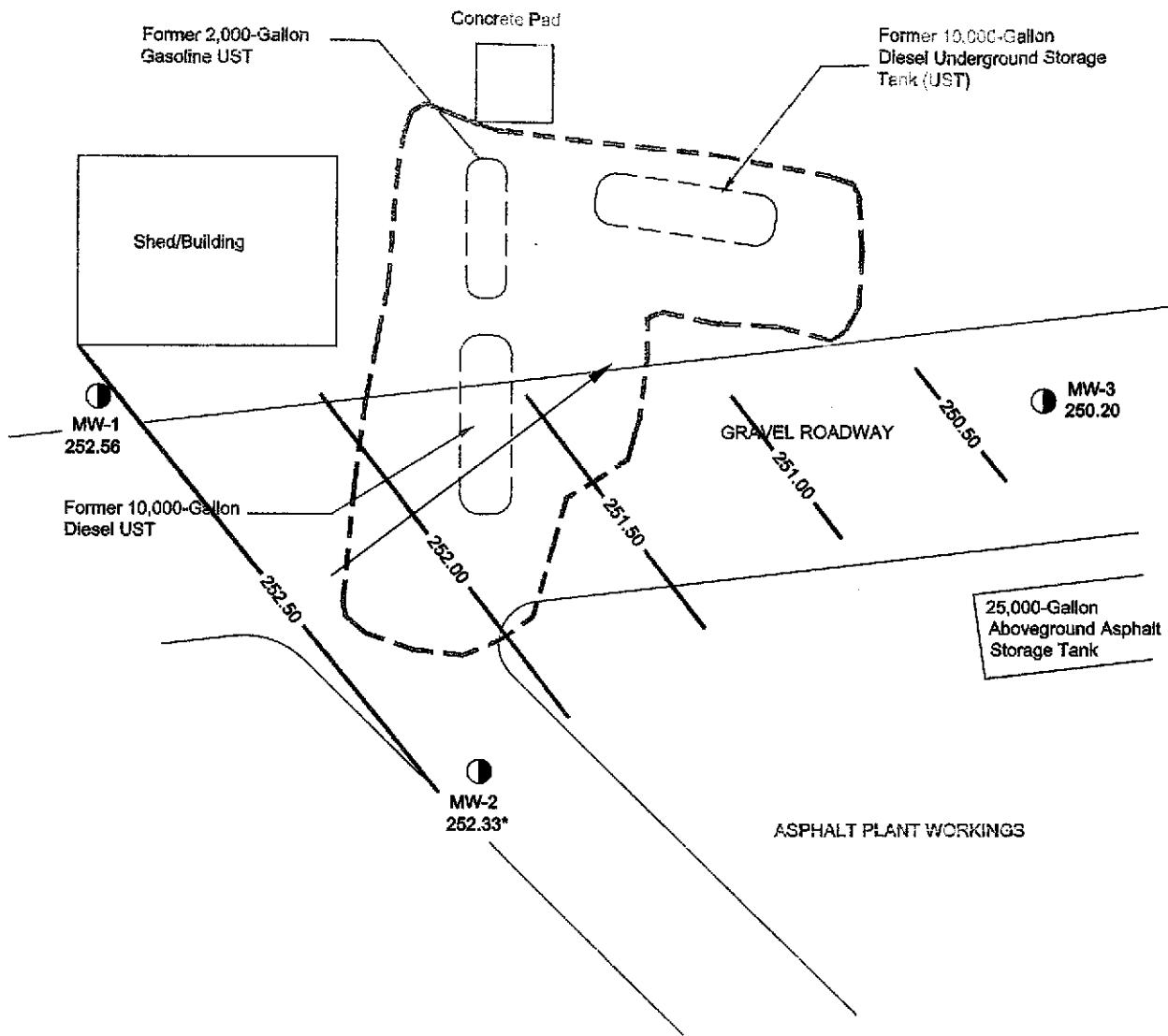
SITE VICINITY MAP
MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 1

NOTES:

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

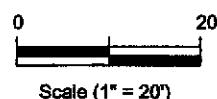


LEGEND

Base map referenced from Tank Protect Engineers

All locations and dimensions are approximate

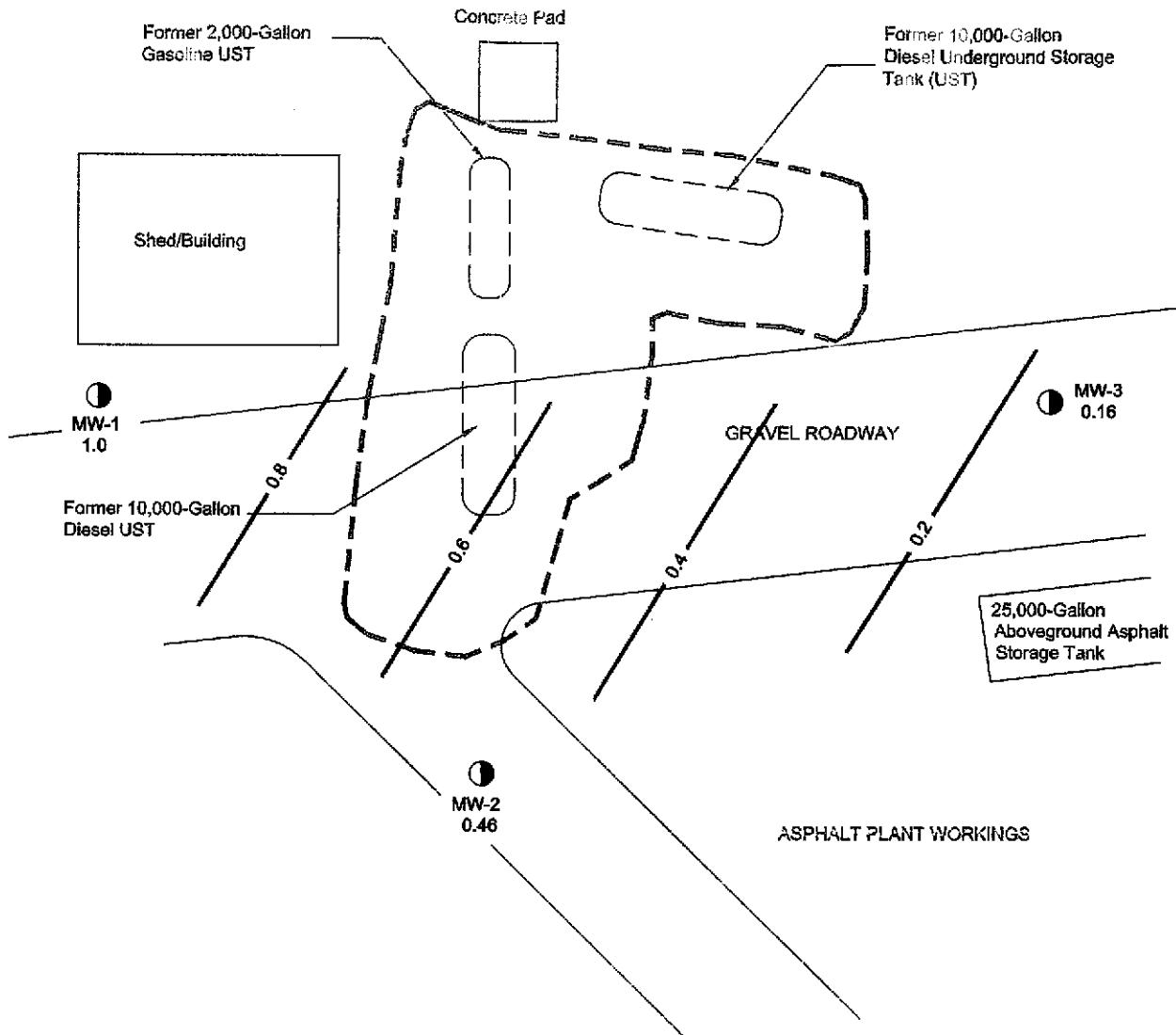
- MW-1 Groundwater monitoring well location with groundwater elevation in feet above mean sea level (ft-msl)
252.56
- 250.50 — Groundwater elevation contour in feet-msl
- General direction of groundwater flow
- - - - Approximate limits of former UST excavation
- 252.33* Corrected groundwater elevation



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SITE PLAN WITH GROUNDWATER ELEVATION CONTOURS
(JUNE 13, 2002)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA



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).



Scale (1" = 20')

MW-1 1.0 Groundwater monitoring well location and designation with dissolved TPHg concentrations

0.8 Dissolved TPHg concentration contours (contour interval 5 mg/L)

Approximate limits of former UST excavations

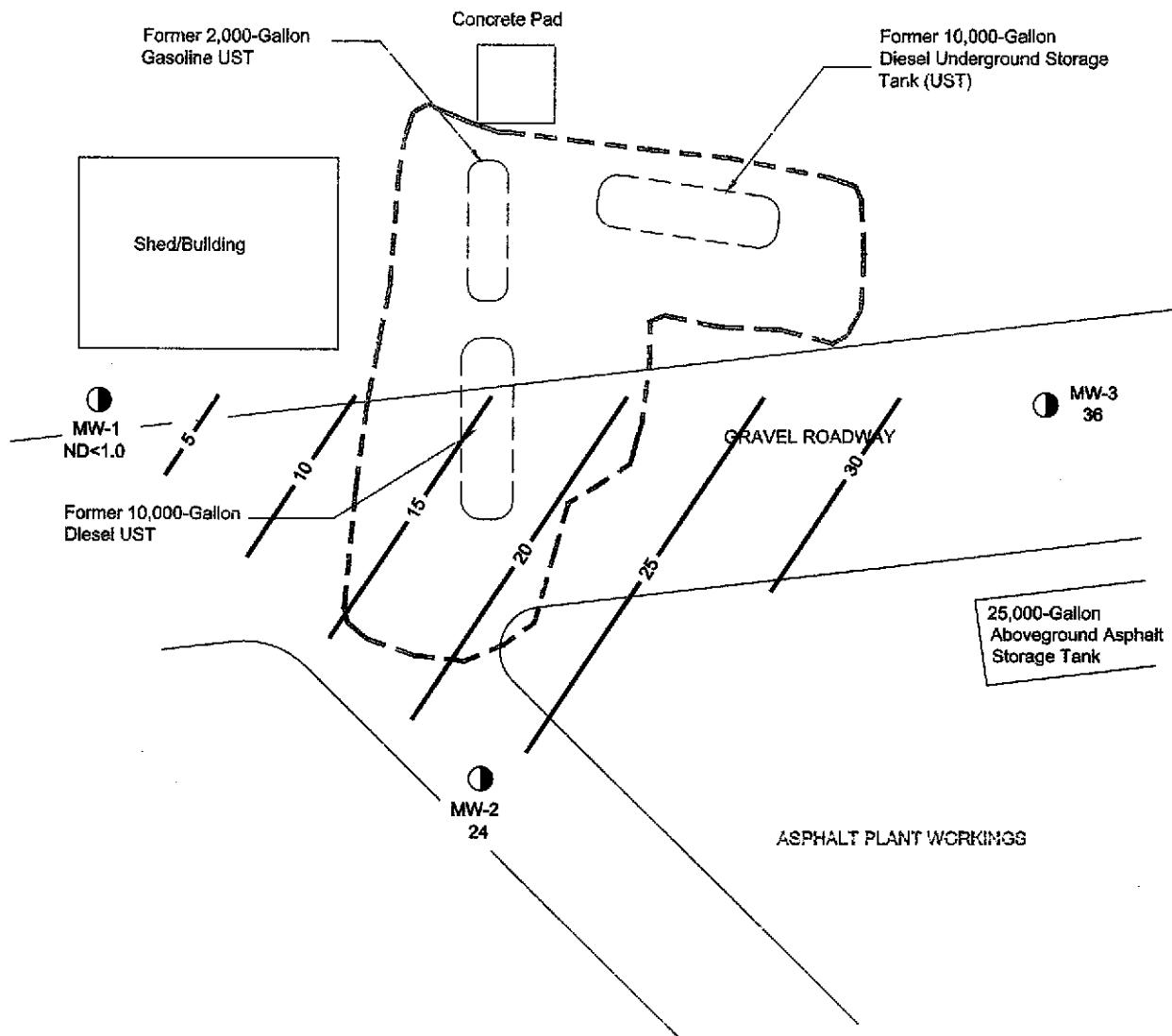
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SITE PLAN WITH DISSOLVED TPHg CONTOURS
(JUNE 13, 2002)

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.

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



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

— 15 — Dissolved MTBE concentration contours (contour interval 10 ug/L)

— - - - - Approximate limits of former UST excavations

0 20
Scale (1" = 20')



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SITE PLAN WITH DISSOLVED MTBE CONTOURS
(JUNE 13, 2002)

MISSION VALLEY ROCK CO.
7999 ATHENOUR WAY
SUNOL, CALIFORNIA

Table 1
Well Construction and Groundwater Elevation Data
Second Quarter 2002
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	3.95	ND	17.48	5.0 - 20.0	256.51	252.56	Well in poor condition.
MW-2	2	4.35	4.43	0.08	19.03	5.0 - 20.0	256.70	252.33	Well cover damaged.
MW-3	2	ND	6.52	ND	17.30	5.0 - 20.0	256.72	250.20	Well cover damaged.

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 13, 2002.

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
Second Quarter 2002
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	06/13/02	ND<1.0	1	4	ND<1.0	42	7.9*	ND<1.0
MW-2	06/13/02	130	0.46	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24
MW-3	06/13/02	ND<1.0	0.16	ND<1.0	ND<1.0	ND<1.0	ND<1.0	36

Notes:

Analyses for Total Petroleum Hydrocarbons as Gasoline and Diesel (TPHg and TPHd, respectively) were performed using EPA Method No. 8015B.

Analyses for benzene, toluene, ethylbenzene, total xylenes, and methyl-tert-butyl ether (MTBE) were performed using EPA Method No. 8260B.

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 2002
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
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

Table 3
Historical Groundwater Data
Second Quarter 2002
Mission Valley Rock Company
Sunol, California

Well	Date	Depth to Water	Groundwater Elevation*	LPH Thickness
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
	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

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 2002
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*	4	ND<1.0	42	7.9*	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

Table 4
Historical Groundwater Sample Analytical Results
Second Quarter 2002
Mission Valley Rock Company
Sunol, California

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
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
	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

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

Chart 1
Groundwater Hydrograph - Second Quarter 2002
Mission Valley Rock Company
Sunol, California

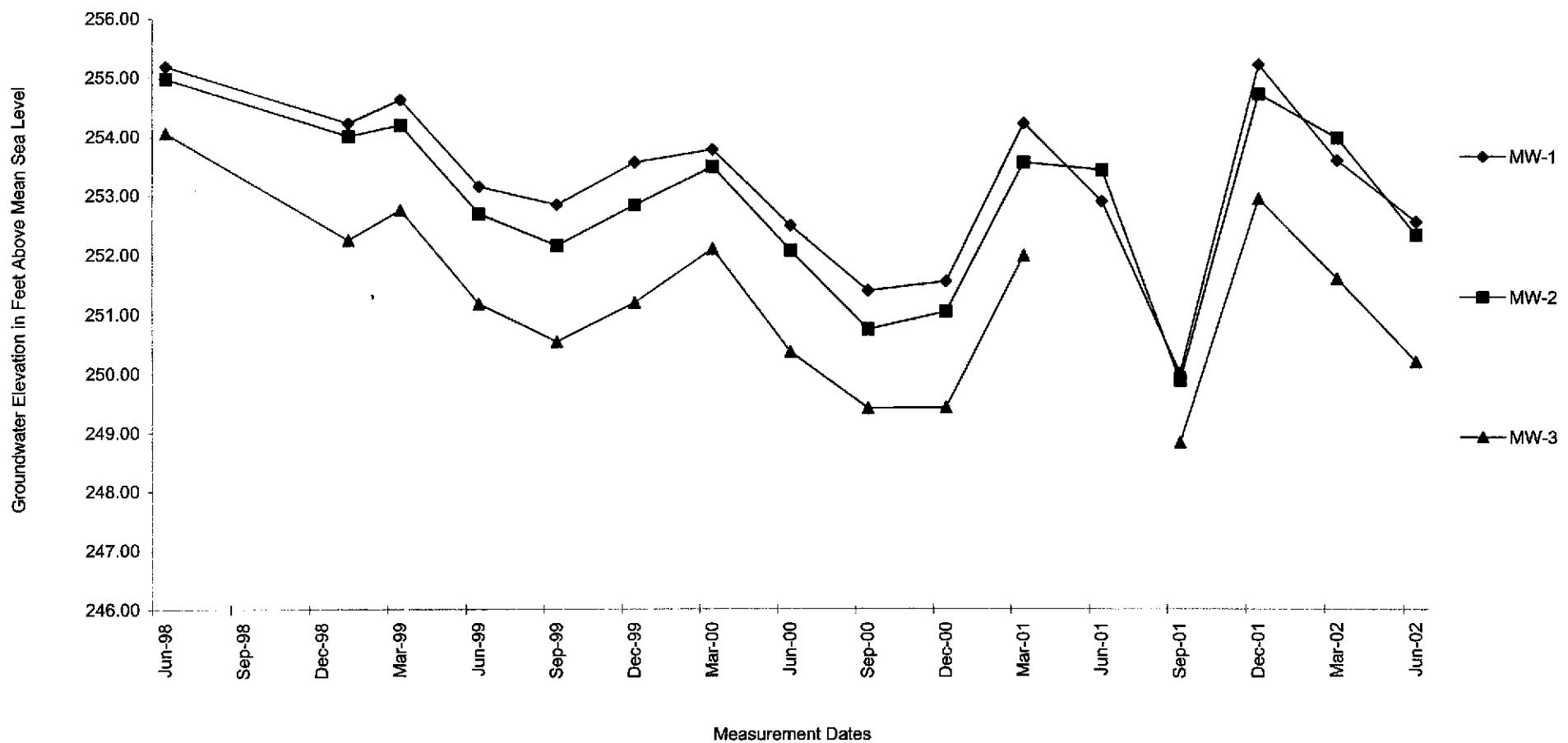


Chart 2
Historical TPHd Concentrations - Second Quarter 2002
Mission Valley Rock Company
Sunol, California

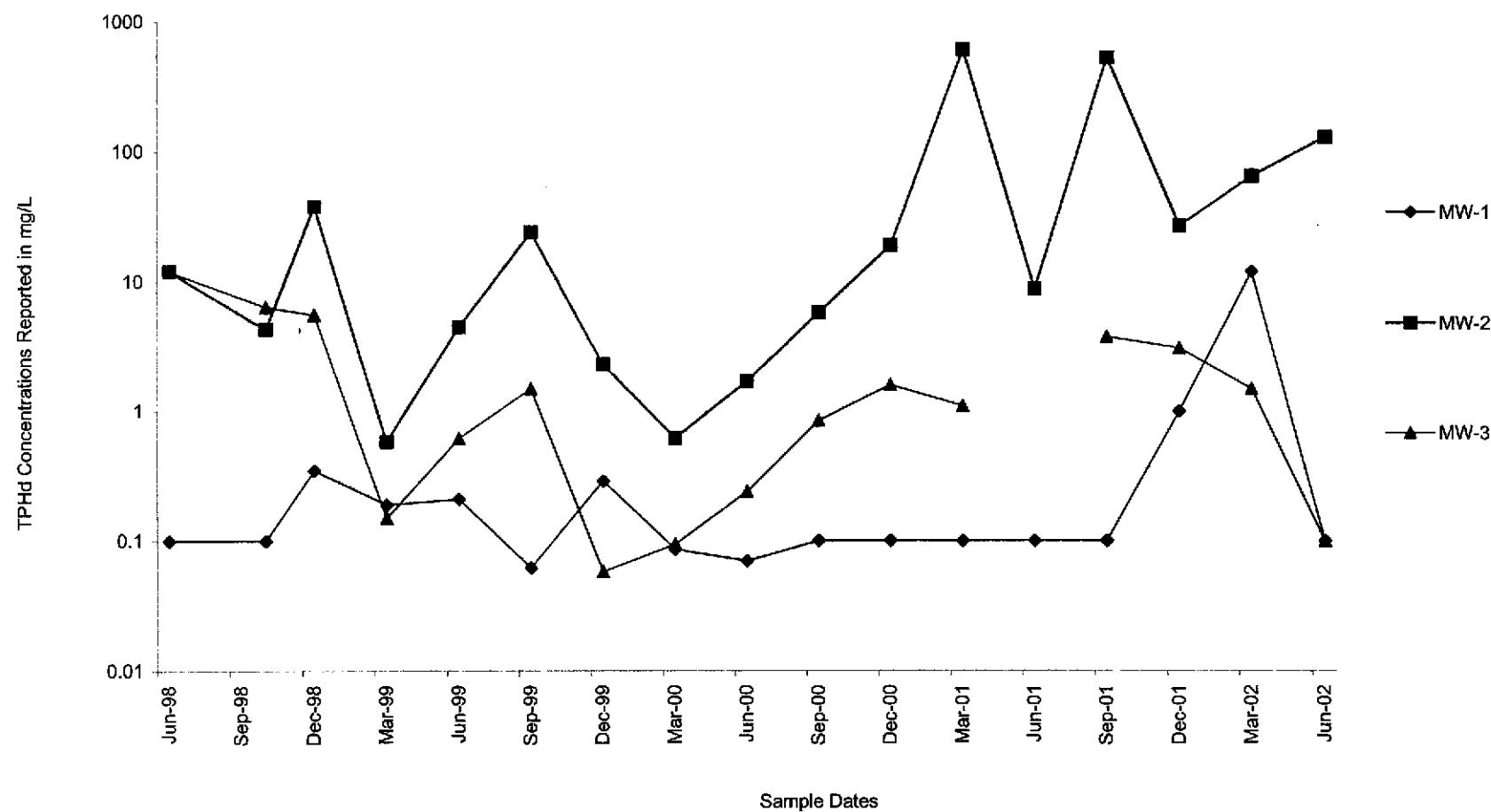


Chart 3
Historical TPHg Concentrations - Second Quarter 2002
Mission Valley Rock Company
Sunol, California

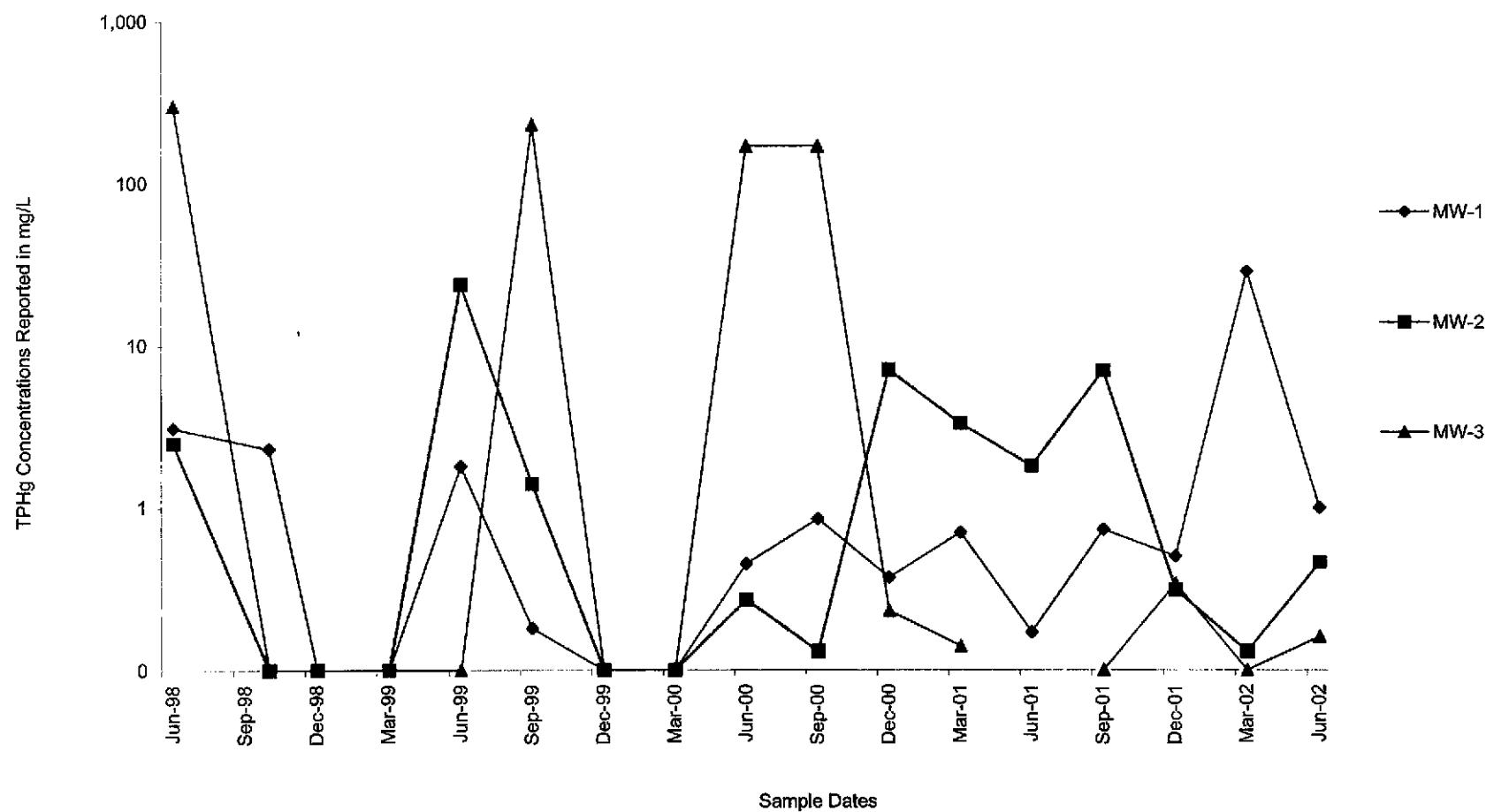


Chart 4
Historical MTBE Concentrations - Second Quarter 2002
Mission Valley Rock Company
Sunol, California

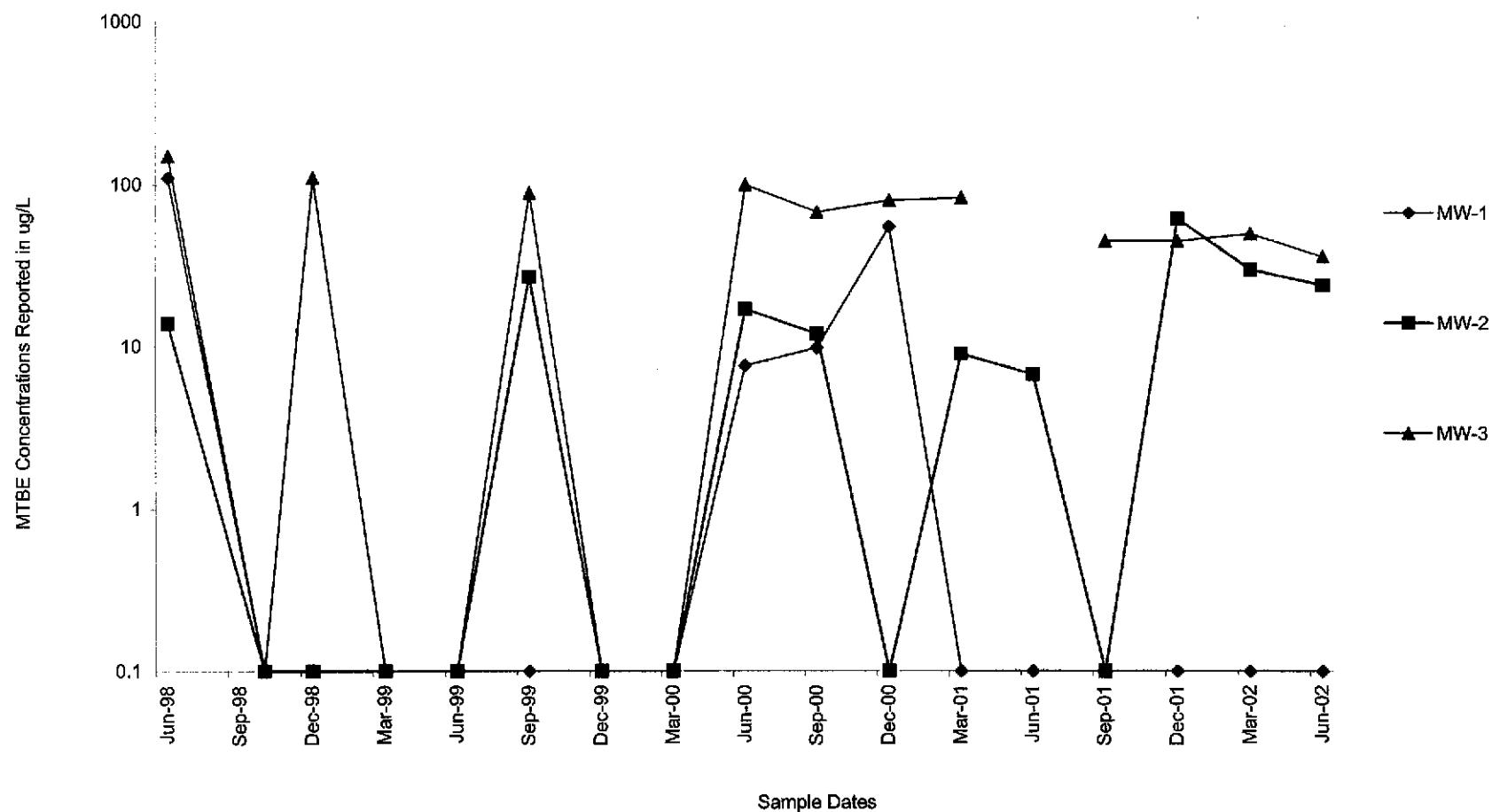


Chart 5
Historical Benzene Concentrations - Second Quarter 2002
Mission Valley Rock Company
Sunol, California

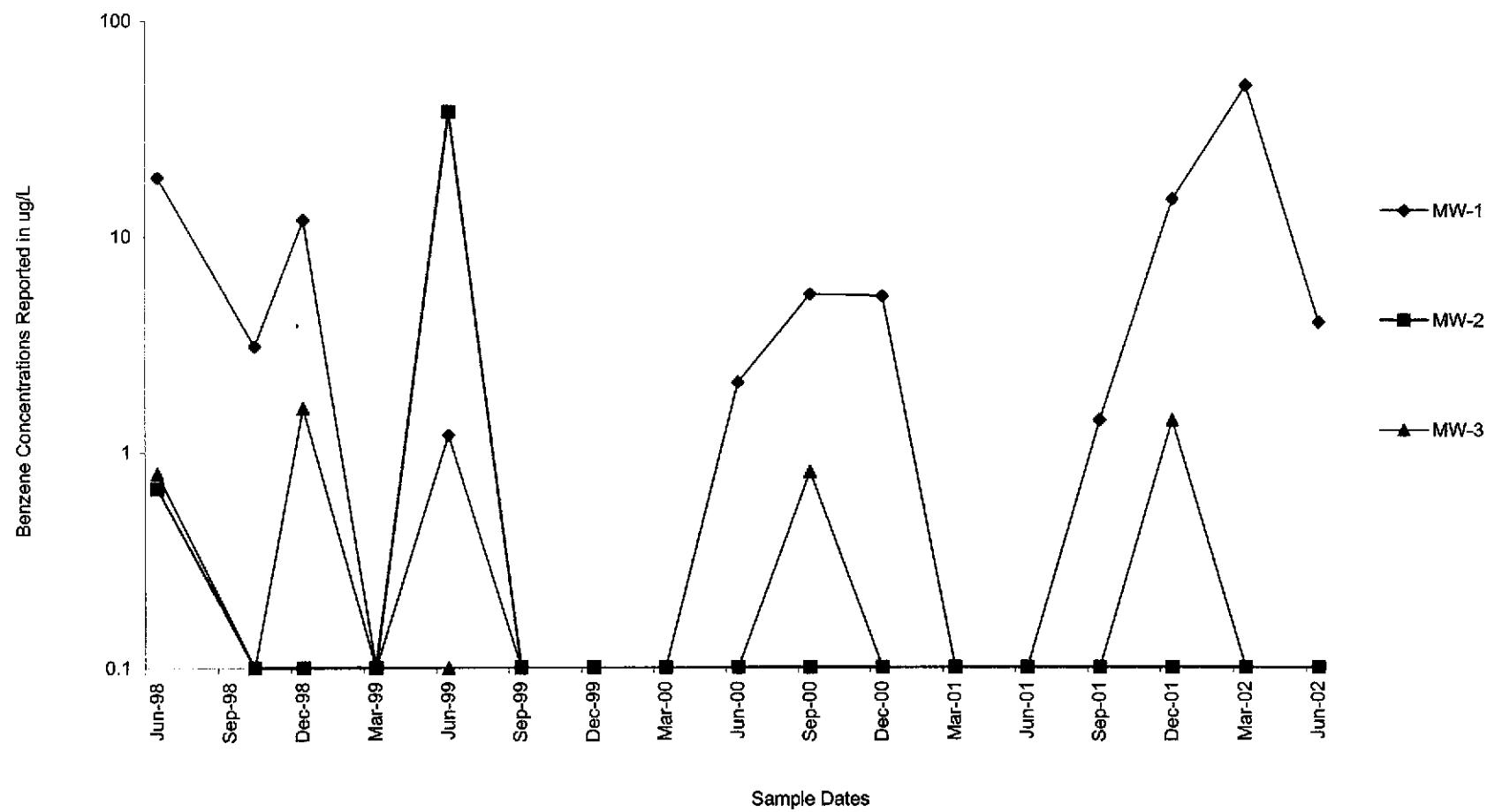
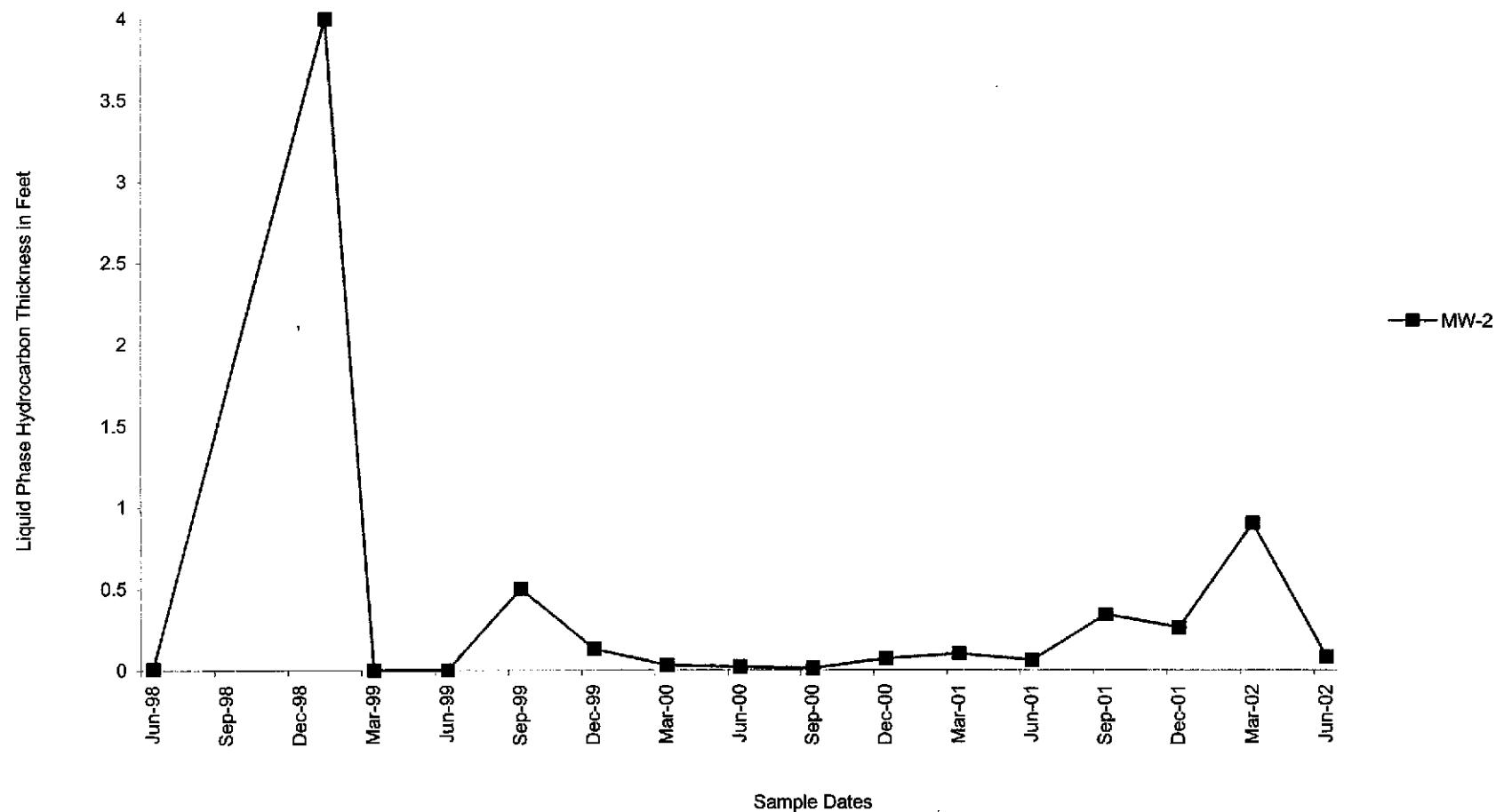


Chart 6
Historical Liquid Phase Hydrocarbon Thickness in Well MW-2 - Second Quarter 2002
Mission Valley Rock Company
Sunol, California





TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Page 1 of 3

Project Name: Mission Valley Rock							Date: 06/13/02								
Project No.: EM-5009							Prepared By: Richard Kinder								
Well Identification: MW-1							Pump Intake Depth (ft-bmp): ~17.00								
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)					
Not Detected		3.95		17.48		13.53		Not Detected		2.0					
Well Diameter (in)			Gallons/Foot				Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter								
			0.75	2	4	6	Purge Method: 12-Volt DC Whale Pump								
0.75	2	4	6	0.02	0.16	0.65	1.47	Well Condition: Poor							
Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (m/Sm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations				
7:47	1	2.0	1.0	NA	5.93	17.08	990	2.31	2.08	-148	Gray				
7:49	2	4.0	1.0	NA	6.23	16.95	990	2.49	4.77	-155	Gray				
7:51	3	6.0	1.0	NA	6.44	16.82	990	2.61	4.29	-149	Clearing				
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							
7:45	7:51	1.0	6.0	3	6.65	3.95	8:00	MW-1							

Notes:



TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Page 2 of 3

Project Name: Mission Valley Rock						Date: 06/13/02									
Project No.: EM-5009						Prepared By: Richard Kinder									
Well Identification: MW-2						Pump Intake Depth (ft-bmp): ~18.00									
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)					
4.35		4.43		19.03		14.6		0.08		2.3					
Well Diameter (in)			Gallons/Foot				Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter								
			0.75	2	4	6	Purge Method: 12-Volt DC Whale Pump								
0.75	2	4	6	0.02	0.16	0.65	1.47	Well Condition: Poor, Well Box Damaged							
Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	pH	Temperature (°C)	Turbidity (NTU)	Conductivity (m/Sm)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations				
8:57	1	2.5	0.8	NA	6.71	19.85	990	0.487	8.91	-131	Fuel Odor				
8:59	2	5.0	0.8	NA	6.38	19.46	990	0.700	2.35	-121	Silty				
9:01	3	7.5	0.8	NA	6.45	19.87	990	0.687	2.73	-126	Brown, Clearing				
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							
8:55	9:01	0.8	7.5	3+	7.35	4.43	9:15	MW-2							

Notes:



TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

Page 3 of 3

Project Name: Mission Valley Rock						Date: 06/13/02									
Project No.: EM-5009						Prepared By: Richard Kinder									
Well Identification: MW-3						Pump Intake Depth (ft-bmp): ~17.00									
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	6.52		17.30		10.78		Not Detected		1.7		5.1				
Well Diameter (in)			Gallons/Foot			Field Equipment: Solinst Interface Meter; Horiba U-22 Water Parameter Meter									
			0.75	2	4	6	Purge Method: 12-Volt DC Whale Pump								
0.75	2	4	6	0.02	0.16	0.65	1.47	Well Condition: Poor, Well Box Damaged							
Time	Casing Volumes Purged	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conductivity (S/m)	Dissolved Oxygen (mg/L)	ORP (mV)	Observations				
8:20	1	2.0	1.0	NA	6.96	18.72	990	1.36	6.00	-148	Silty Gray				
8:22	2	4.0	1.0	NA	6.79	19.12	990	0.743	2.53	-166	Silty Gray				
8:24	3	6.0	1.0	NA	6.75	19.18	990	0.715	1.60	-174	Clearing				
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							
8:18	8:24	1.0	6.0	3+	8.67	6.52	8:30	MW-3							

Notes:

SEVERN
TRENT
SERVICES

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705-4808

Tel: 714 258 8610
Fax: 714 258 0921
www.stl-inc.com

June 26, 2002

STL LOT NUMBER: **E2F140140**

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

Dear Mr. Ek:

This report contains the analytical results for the four samples received under chain of custody by STL Los Angeles on June 14, 2002. These samples are associated with your **Mission Valley Rock, CA** 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 of the cooler received for this project can be found on the Project Receipt Checklist. All applicable quality control procedures met method-specified acceptance criteria except as noted on the following page.

Preliminary results were sent via facsimile on June 24, 2002.

This report shall not be reproduced except in full, without the written approval of the laboratory.

000045
This report contains _____ pages.

000001

STL Los Angeles is a part of Severn Trent Laboratories, Inc.

S E V E R N
T R E N T
S E R V I C E S

STL Los Angeles
1721 South Grand Avenue
Santa Ana, CA 92705-4808

Tel: 714 258 8610
Fax: 714 258 0921
www.stl-inc.com

CASE NARRATIVE

Trip Blank was received in the laboratory but not listed on the chain of custody. Per your request on June 18, 2002, this was analyzed for method 8260B.

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

000002

**Chain of
Custody Record**

STL-4124 (0901)

SEVERN
TRENT
SERVICES

Severn Trent Laboratories, Inc.

Client TAIT		Project Manager Scott EK		Date 6/11/02	Chain of Custody Number 142919
Address 701 N. Parkcenter Drive		Telephone Number (Area Code)/Fax Number (714) 560-8694		Lab Number	
City Santa Ana	State CA	Zip Code 92705	Site Contact M. Tabirara	Analysis (Attach list if more space is needed)	

Project Name and Location (State)
Mission Valley Rock, CA

Contract/Purchase Order/Quote No.

Carrier/Waybill Number

Special Instructions/
Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives						
			Air	Aqueous	Sed.	Soil	Unpres.	H ₂ SO ₄	HNO ₃	HCl	NaOH	
MW-1	6-13-2	8:00	X					5		2	X X X	
MW-3		8:30	X					5		2	X X X	
MW-2		9:15	X					5		2	X X X	
TRIP BLANK												
X ADDED PWR SCOTT EK INT 6/18/02												

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)	
<input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		

Turn Around Time Required

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

QC Requirements (Specify)

1. Relinquished By 	Date 6-14-2	Time 7:50	1. Received By 06-1-DR -	Date 6-14-02	Time 7:50 AM
------------------------	-----------------------	---------------------	------------------------------------	------------------------	------------------------

2. Relinquished By	Date	Time	2. Received By	Date	Time
--------------------	------	------	----------------	------	------

3. Relinquished By	Date	Time	3. Received By	Date	Time
--------------------	------	------	----------------	------	------

Comments

**STL LOS ANGELES
PROJECT RECEIPT CHECKLIST**

Date: 6-14-02

Quantims Lot #: ELF 140140

Client Name: TAT

Received by: MCT

Delivered by : Client Airborne Fed Ex
 UPS DES Other

Quote #:

Project: Mission Valley Rock

Date/Time Received: 6-14-02 7:50

DHL In-House Courier Rey B.

Initial / Date

Custody Seal Status: Intact Broken None BLT 6-14-02

Custody Seal #(s): No Seal #

Sample Container(s): STL-LA Client N/A

Temperature(s) (Cooler/blank) in °C: 2.91 Correction factor - 0.12 (Corrected Temp.) 2.79

Thermometer Used : ID: B IR (Infra-red) Digital (Probe)

Samples: Intact Broken Other

Anomalies: No (m) 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	<u>A>3</u>	<u>4-TB</u>								<u>PH</u>
VOAh /*	<u>5</u>	<u>3</u>								<u>N/A</u>
1L AGB	<u>2</u>									

h:HCl	na:Sodium Hydroxide	znna: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: MS OG/14/02 REVIEWED BY/DATE: MR 6/18/02

SEVERN
TRENT
SERVICES

Analytical Report

000005

ANALYTICAL REPORT

Mission Valley Rock, CA

Lot #: E2F140140

Scott Ek

Tait Environmental

SEVERN TRENT LABORATORIES, INC.

**Marisol Tabirara
Project Manager**

June 26, 2002

000006

EXECUTIVE SUMMARY - Detection Highlights

E2F140140

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
MW-1 06/13/02 08:00 001				
TPH (as Gasoline)	1.4	0.10	mg/L	SW846 8015B
Benzene	3.5	1.0	ug/L	SW846 8260B
n-Butylbenzene	5.7	1.0	ug/L	SW846 8260B
sec-Butylbenzene	2.6	1.0	ug/L	SW846 8260B
Ethylbenzene	42	1.0	ug/L	SW846 8260B
Isopropylbenzene	8.6	1.0	ug/L	SW846 8260B
p-Isopropyltoluene	3.1	1.0	ug/L	SW846 8260B
Naphthalene	7.0	1.0	ug/L	SW846 8260B
n-Propylbenzene	26	1.0	ug/L	SW846 8260B
1,2,4-Trimethylbenzene	59	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	15	1.0	ug/L	SW846 8260B
m-Xylene & p-Xylene	7.9	1.0	ug/L	SW846 8260B
MW-3 06/13/02 08:30 002				
TPH (as Gasoline)	0.16	0.10	mg/L	SW846 8015B
tert-Butylbenzene	1.0	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether	36	1.0	ug/L	SW846 8260B
MW-2 06/13/02 09:15 003				
TPH (as Diesel)	130	10	mg/L	SW846 8015B
TPH (as Gasoline)	0.46	0.10	mg/L	SW846 8015B
Acetone	20	10	ug/L	SW846 8260B
n-Butylbenzene	1.6	1.0	ug/L	SW846 8260B
Isopropylbenzene	1.2	1.0	ug/L	SW846 8260B
Methyl tert-butyl ether	24	1.0	ug/L	SW846 8260B
Naphthalene	1.1	1.0	ug/L	SW846 8260B
n-Propylbenzene	2.2	1.0	ug/L	SW846 8260B

000007

METHODS SUMMARY

E2F140140

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
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.

000008

SAMPLE SUMMARY

E2F140140

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
E22X5	001	MW-1	06/13/02	08:00
E22X9	002	MW-3	06/13/02	08:30
E220A	003	MW-2	06/13/02	09:15
E220G	004	TRIP BLANK	06/10/02	

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.

000009

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #....: E2F140140-001 Work Order #....: E22X51AD Matrix.....: WATER
 Date Sampled....: 06/13/02 08:00 Date Received...: 06/14/02 07:50 MS Run #.....: 2168324
 Prep Date.....: 06/14/02 Analysis Date...: 06/15/02
 Prep Batch #....: 2168607 Analysis Time...: 02:53
 Dilution Factor: 1
 Analyst ID.....: 015590 Instrument ID...: MSC
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	ND	10	ug/L
Benzene	3.5	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	5.7	1.0	ug/L
sec-Butylbenzene	2.6	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-chloropropane	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)

000010

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC/MS Volatiles

Lot-Sample #....: E2F140140-001 Work Order #....: E22X51AD Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
cis-1,3-Dichloropropene	ND	1.0	ug/L
trans-1,3-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	42	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
2-Hexanone	ND	5.0	ug/L
Isopropylbenzene	8.6	1.0	ug/L
p-Isopropyltoluene	3.1	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	7.0	1.0	ug/L
n-Propylbenzene	26	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	59	1.0	ug/L
1,3,5-Trimethylbenzene	15	1.0	ug/L
Vinyl chloride	ND	2.0	ug/L
m-Xylene & p-Xylene	7.9	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
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	95	(75 - 130)	
1,2-Dichloroethane-d4	115	(65 - 135)	
Toluene-d8	95	(80 - 130)	

000011

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC Volatiles

Lot-Sample #....: E2F140140-001 Work Order #....: E22X51AC Matrix.....: WATER
Date Sampled....: 06/13/02 08:00 Date Received...: 06/14/02 07:50 MS Run #.....: 2170236
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 17:31
Dilution Factor: 1
Analyst ID.....: 001464 Instrument ID...: G13
 Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Gasoline)	1.4	0.10	mg/L
SURROGATE	PERCENT	RECOVERY	
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS	
	114	(60 - 130)	

000012

TAIT ENVIRONMENTAL

Client Sample ID: MW-1

GC Semivolatiles

Lot-Sample #....: E2F140140-001 Work Order #....: E22X51AA Matrix.....: WATER
Date Sampled....: 06/13/02 08:00 Date Received...: 06/14/02 07:50 MS Run #.....:
Prep Date.....: 06/18/02 Analysis Date...: 06/19/02
Prep Batch #....: 2169449 Analysis Time...: 20:41
Dilution Factor: 1
Analyst ID.....: 356074 Instrument ID...: G02
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING	
		LIMIT	UNITS
TPH (as Diesel)	ND	1.0	mg/L
SURROGATE	PERCENT	RECOVERY	
	RECOVERY	LIMITS	
Benzo(a)pyrene	91	(65 - 135)	

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC/MS Volatiles

Lot-Sample #....: E2F140140-002 Work Order #....: E22X91AD Matrix.....: WATER
 Date Sampled...: 06/13/02 08:30 Date Received...: 06/14/02 07:50 MS Run #.....: 2168324
 Prep Date.....: 06/14/02 Analysis Date...: 06/15/02
 Prep Batch #....: 2168607 Analysis Time...: 01:54
 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	1.0	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-3

GC/MS Volatiles

Lot-Sample #...: E2F140140-002 Work Order #...: E22X91AD Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
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	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	36	1.0	ug/L
Naphthalene	ND	1.0	ug/L
n-Propylbenzene	ND	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
α -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

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	98	(75 - 130)
1,2-Dichloroethane-d4	132	(65 - 135)
Toluene-d8	88	(80 - 130)

000015

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC Volatiles

Lot-Sample #....: E2F140140-002 Work Order #....: E22X91AC Matrix.....: WATER
Date Sampled...: 06/13/02 08:30 Date Received...: 06/14/02 07:50 MS Run #.....: 2170236
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 17:59
Dilution Factor: 1
Analyst ID.....: 001464 Instrument ID...: G13
Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Gasoline)	0.16	0.10	mg/L
SURROGATE	PERCENT	RECOVERY	LIMITS (60 - 130)
	RECOVERY	LIMITS	
a,a,a-Trifluorotoluene (TFT)	90		

000016

TAIT ENVIRONMENTAL

Client Sample ID: MW-3

GC Semivolatiles

Lot-Sample #....: E2F140140-002 Work Order #....: E22X91AA Matrix.....: WATER
Date Sampled...: 06/13/02 08:30 Date Received...: 06/14/02 07:50 MS Run #.....:
Prep Date.....: 06/18/02 Analysis Date...: 06/19/02
Prep Batch #....: 2169449 Analysis Time...: 21:20
Dilution Factor: 1
Analyst ID.....: 356074 Instrument ID...: G02
Method.....: SW846 8015B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
TPH (as Diesel)	ND	1.0	mg/L
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
Benzo (a) pyrene	93	(65 - 135)	

000017

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #....: E2F140140-003 Work Order #....: E220A1AD Matrix.....: WATER
 Date Sampled....: 06/13/02 09:15 Date Received...: 06/14/02 07:50 MS Run #.....: 2169259
 Prep Date.....: 06/17/02 Analysis Date...: 06/18/02
 Prep Batch #....: 2169466 Analysis Time...: 04:56
 Dilution Factor: 1
 Analyst ID.....: 015590 Instrument ID...: MSC
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Acetone	20	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	1.6	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

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TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC/MS Volatiles

Lot-Sample #....: E2F140140-003 Work Order #....: E220A1AD Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
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	1.2	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	24	1.0	ug/L
Naphthalene	1.1	1.0	ug/L
n-Propylbenzene	2.2	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
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Bromofluorobenzene	94	(75 - 130)	
1,2-Dichloroethane-d4	111	(65 - 135)	
Toluene-d8	.90	(80 - 130)	

000019

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC Volatiles

Lot-Sample #....: E2F140140-003 Work Order #....: E220A1AC Matrix.....: WATER
Date Sampled....: 06/13/02 09:15 Date Received...: 06/14/02 07:50 MS Run #.....: 2170236
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 18:27
Dilution Factor: 1
Analyst ID.....: 001464 Instrument ID...: G13
Method.....: SW846 8015B

PARAMETER	REPORTING		
	RESULT	LIMIT	UNITS
TPH (as Gasoline)	0.46	0.10	mg/L
SURROGATE	PERCENT	RECOVERY	
a,a,a-Trifluorotoluene (TFT)	RECOVERY	LIMITS	
	84	(60 - 130)	

000020

TAIT ENVIRONMENTAL

Client Sample ID: MW-2

GC Semivolatiles

Lot-Sample #....: E2F140140-003 Work Order #....: E220A1AA Matrix.....: WATER
Date Sampled....: 06/13/02 09:15 Date Received...: 06/14/02 07:50 MS Run #.....:
Prep Date.....: 06/18/02 Analysis Date...: 06/20/02
Prep Batch #....: 2169449 Analysis Time...: 15:47
Dilution Factor: 10
Analyst ID.....: 356074 Instrument ID...: G02
 Method.....: SW846 8015B

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>
TPH (as Diesel)	130	10	mg/L
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	
Benzo (a) pyrene	103	(65 - 135)	

NOTE(S) :

Suspected weathered diesel. C range-C10 to beyond C24.

000021

TAIT ENVIRONMENTAL

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #....: E2F140140-004 Work Order #....: E220G1AA Matrix.....: WATER
 Date Sampled....: 06/10/02 Date Received...: 06/14/02 07:50 MS Run #.....: 2168324
 Prep Date.....: 06/14/02 Analysis Date...: 06/14/02
 Prep Batch #....: 2168607 Analysis Time...: 18:29
 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

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000022

TAIT ENVIRONMENTAL

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #....: E2F140140-004 Work Order #....: E220G1AA Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>	
		<u>LIMIT</u>	<u>UNITS</u>
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	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	ND	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
<u>SURROGATE</u>		<u>PERCENT</u>	<u>RECOVERY</u>
<u>RECOVERY</u>		<u>LIMITS</u>	
Bromofluorobenzene		(75 - 130)	
1,2-Dichloroethane-d4		(65 - 135)	
Toluene-d8		(80 - 130)	

000023



QA/QC

000024

QC DATA ASSOCIATION SUMMARY

E2F140140

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SW846 8015B		2169449	
	WATER	SW846 8015B		2170492	2170236
	WATER	SW846 8260B		2168607	2168324
002	WATER	SW846 8015B		2169449	
	WATER	SW846 8015B		2170492	2170236
	WATER	SW846 8260B		2168607	2168324
003	WATER	SW846 8015B		2169449	
	WATER	SW846 8015B		2170492	2170236
	WATER	SW846 8260B		2169466	2169259
004	WATER	SW846 8260B		2168607	2168324

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000025

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: E2F140140
 MB Lot-Sample #: E2F170000-607
 Analysis Date...: 06/14/02
 Dilution Factor: 1

Work Order #....: E269X1AA
 Prep Date.....: 06/14/02
 Prep Batch #....: 2168607
 Analyst ID.....: 015590

Matrix.....: WATER
 Analysis Time...: 18:00
 Instrument ID...: MSC

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 #...: E2F140140

Work Order #...: E269X1AA

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
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	
 <u>SURROGATE</u>		PERCENT	RECOVERY		
		RECOVERY	LIMITS		
Bromofluorobenzene	99		(75 - 130)		
1,2-Dichloroethane-d4	122		(65 - 135)		
Toluene-d8	94		(80 - 130)		

NOTE(S) :

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

000027

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 Work Order #....: E29LL1AA Matrix.....: WATER
 MB Lot-Sample #: E2F180000-466
 Analysis Date...: 06/17/02 Prep Date.....: 06/17/02 Analysis Time...: 18:32
 Dilution Factor: 1 Prep Batch #: 2169466 Instrument ID...: MSC
 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

(Continued on next page)

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: E2F140140

Work Order #...: E29LL1AA

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-pantanone	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
<u>SURROGATE</u>		PERCENT	RECOVERY	
		RECOVERY	LIMITS	
Bromofluorobenzene	103		(75 - 130)	
1,2-Dichloroethane-d4	112		(65 - 135)	
Toluene-d8	97		(80 - 130)	

NOTE(S) :

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

000029

METHOD BLANK REPORT

GC Volatiles

Client Lot #....: E2F140140
MB Lot-Sample #: E2F190000-492

Analysis Date...: 06/18/02
Dilution Factor: 1

Work Order #....: E3A6X1AA
Prep Date.....: 06/18/02
Prep Batch #....: 2170492

Analyst ID.....: 001464

Matrix.....: WATER
Analysis Time..: 11:22
Instrument ID..: G13

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
TPH (as Gasoline)	ND	0.10	mg/L	SW846 8015B
SURROGATE	PERCENT RECOVERY	RECOVERY		
	81	LIMITS (60 - 130)		

NOTE(S) :

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

000030

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #....: E2F140140 Work Order #....: E28251AA Matrix.....: WATER
MB Lot-Sample #: E2F180000-449

Analysis Date..: 06/19/02 Prep Date.....: 06/18/02 Analysis Time...: 18:43
Dilution Factor: 1 Prep Batch #: 2169449 Instrument ID...: G02

Analyst ID.....: 356074

PARAMETER	REPORTING			METHOD
	RESULT	LIMIT	UNITS	
TPH (as Diesel)	ND	1.0	mg/L	SW846 8015B
PERCENT			RECOVERY	
SURROGATE	RECOVERY		LIMITS	
Benzo (a) pyrene	97		(65 - 135)	

NOTE(S):

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

000031

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 Work Order #....: E269X1AC Matrix.....: WATER
LCS Lot-Sample#: E2F170000-607
Prep Date.....: 06/14/02 Analysis Date...: 06/14/02
Prep Batch #....: 2168607 Analysis Time..: 17:30
Dilution Factor: 1 Instrument ID...: MSC
Analyst ID.....: 015590

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>METHOD</u>
<u>RECOVERY</u>	<u>LIMITS</u>		
Benzene	84	(75 - 120)	SW846 8260B
Chlorobenzene	88	(75 - 120)	SW846 8260B
1,1-Dichloroethene	94	(70 - 140)	SW846 8260B
Toluene	87	(75 - 125)	SW846 8260B
Trichloroethene	100	(70 - 130)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	114	(75 - 130)
1,2-Dichloroethane-d4	130	(65 - 135)
Toluene-d8	107	(80 - 130)

NOTE(S) :

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

Bold print denotes control parameters

000032

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 **Work Order #....:** E269X1AC **Matrix.....:** WATER
LCS Lot-Sample#: E2F170000-607
Prep Date.....: 06/14/02 **Analysis Date...:** 06/14/02
Prep Batch #....: 2168607 **Analysis Time...:** 17:30
Dilution Factor: 1 **Instrument ID...:** MSC
Analyst ID.....: 015590

<u>PARAMETER</u>	<u>SPIKE</u>	<u>MEASURED</u>	<u>PERCENT</u>	
	<u>AMOUNT</u>	<u>AMOUNT</u>	<u>RECOVERY</u>	<u>METHOD</u>
Benzene	10.0	8.40	84	SW846 8260B
Chlorobenzene	10.0	8.76	88	SW846 8260B
1,1-Dichloroethene	10.0	9.41	94	SW846 8260B
Toluene	10.0	8.66	87	SW846 8260B
Trichloroethene	10.0	9.96	100	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Bromofluorobenzene	114	(75 - 130)
1,2-Dichloroethane-d4	130	(65 - 135)
Toluene-d8	107	(80 - 130)

NOTE(S) :

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

Bold print denotes control parameters

000033

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 Work Order #....: E29LL1AC Matrix.....: WATER
LCS Lot-Sample#: E2F180000-466
Prep Date.....: 06/17/02 Analysis Date...: 06/17/02
Prep Batch #....: 2169466 Analysis Time..: 18:02
Dilution Factor: 1 Instrument ID...: MSC
Analyst ID.....: 015590

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
Benzene	86	(75 - 120)	SW846 8260B
Chlorobenzene	90	(75 - 120)	SW846 8260B
1,1-Dichloroethene	96	(70 - 140)	SW846 8260B
Toluene	89	(75 - 125)	SW846 8260B
Trichloroethene	102	(70 - 130)	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Bromofluorobenzene	113	(75 - 130)
1,2-Dichloroethane-d4	117	(65 - 135)
Toluene-d8	106	(80 - 130)

NOTE(S) :

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

Bold print denotes control parameters

000034

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 **Work Order #....:** E29LL1AC **Matrix.....:** WATER
LCS Lot-Sample#: E2F180000-466
Prep Date.....: 06/17/02 **Analysis Date...:** 06/17/02
Prep Batch #....: 2169466 **Analysis Time...:** 18:02
Dilution Factor: 1 **Instrument ID...:** MSC
Analyst ID.....: 015590

<u>PARAMETER</u>	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	UNITS	PERCENT <u>RECOVERY</u>	METHOD
Benzene	10.0	8.62	ug/L	86	SW846 8260B
Chlorobenzene	10.0	9.00	ug/L	90	SW846 8260B
1,1-Dichloroethene	10.0	9.57	ug/L	96	SW846 8260B
Toluene	10.0	8.92	ug/L	89	SW846 8260B
Trichloroethene	10.0	10.2	ug/L	102	SW846 8260B

<u>SURROGATE</u>	PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
Bromofluorobenzene	113	(75 - 130)
1,2-Dichloroethane-d4	117	(65 - 135)
Toluene-d8	106	(80 - 130)

NOTE (S) :

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

Bold print denotes control parameters

000035

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E2F140140 Work Order #....: E3A6X1AC Matrix.....: WATER
LCS Lot-Sample#: E2F190000-492
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 11:50.
Dilution Factor: 1 Instrument ID...: G13
Analyst ID.....: 001464

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TPH (as Gasoline)	106	(70 - 140)	SW846 8015B
SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS	
a, a, a-Trifluorotoluene (TFT)	107	(60 - 130)	

NOTE (S) :

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

Bold print denotes control parameters

000036

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #....: E2F140140 Work Order #....: E3A6X1AC Matrix.....: WATER
LCS Lot-Sample#: E2F190000-492
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 11:50
Dilution Factor: 1 Instrument ID...: G13
Analyst ID.....: 001464

PARAMETER	SPIKE <u>AMOUNT</u>	MEASURED <u>AMOUNT</u>	PERCENT <u>RECOVERY</u>	METHOD
TPH (as Gasoline)	1.00	1.06	106	SW846 8015B
SURROGATE			PERCENT <u>RECOVERY</u>	RECOVERY <u>LIMITS</u>
a,a,a-Trifluorotoluene (TFT)		107		(60 - 130)

NOTE(S) :

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

Bold print denotes control parameters

000037

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #....: E2F140140 Work Order #....: E28251AC-LCS Matrix.....: WATER
LCS Lot-Sample#: E2F180000-449 E28251AD-LCSD
Prep Date.....: 06/18/02 Analysis Date...: 06/19/02
Prep Batch #....: 2169449 Analysis Time...: 19:22
Dilution Factor: 1 Instrument ID...: G02
Analyst ID.....: 356074

<u>PARAMETER</u>	<u>PERCENT</u>	<u>RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>
TPH (as Diesel)	95	(65 - 140)		SW846 8015B
	94	(65 - 140)	0.74 (0-25)	SW846 8015B

<u>SURROGATE</u>	<u>PERCENT</u>	<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>
Benzo(a)pyrene	99	(65 - 135)
	98	(65 - 135)

NOTE(S) :

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

Bold print denotes control parameters

000038

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #....: E2F140140 Work Order #....: E28251AC-LCS Matrix.....: WATER
LCS Lot-Sample#: E2F180000-449 E28251AD-LCSD
Prep Date.....: 06/18/02 Analysis Date...: 06/19/02
Prep Batch #....: 2169449 Analysis Time...: 19:22
Dilution Factor: 1 Instrument ID...: G02
Analyst ID.....: 356074

PARAMETER	SPIKE	MEASURED		PERCENT	RPD	METHOD
	AMOUNT	AMOUNT	UNITS	RECOVERY		
TPH (as Diesel)	5.00	4.75	mg/L	95		SW846 8015B
	5.00	4.71	mg/L	94	0.74	SW846 8015B
SURROGATE			PERCENT	RECOVERY	<u>LIMITS</u>	
			RECOVERY	LIMITS		
Benzo(a)pyrene			99	(65 - 135)		
			98	(65 - 135)		

NOTE (S) :

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

Bold print denotes control parameters

000039

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 **Work Order #....:** E24NH1AC-MS **Matrix.....:** WATER
MS Lot-Sample #: E2F140356-004 **E24NH1AD-MSD**
Date Sampled....: 06/13/02 10:45 **Date Received...:** 06/14/02 11:25 **MS Run #.....:** 2168324
Prep Date.....: 06/14/02 **Analysis Date...:** 06/15/02
Prep Batch #....: 2168607 **Analysis Time...:** 03:23
Dilution Factor: 1 **Analyst ID.....:** 015590 **Instrument ID..:** MSC

PARAMETER	PERCENT RECOVERY	RECOVERY		RPD	LIMITS	METHOD			
		LIMITS	RPD						
Benzene	83	(75 - 120)	2.7	(0-25)	SW846 8260B	SW846 8260B			
	85	(75 - 120)							
Chlorobenzene	86	(75 - 120)	4.4	(0-25)	SW846 8260B	SW846 8260B			
	90	(75 - 120)							
1,1-Dichloroethene	93	(70 - 140)	1.9	(0-25)	SW846 8260B	SW846 8260B			
	95	(70 - 140)							
Toluene	86	(75 - 125)	4.1	(0-25)	SW846 8260B	SW846 8260B			
	90	(75 - 125)							
Trichloroethene	96	(70 - 130)	1.7	(0-25)	SW846 8260B	SW846 8260B			
	97	(70 - 130)							
SURROGATE		PERCENT RECOVERY	RECOVERY						
Bromofluorobenzene		97	(75 - 130)						
1,2-Dichloroethane-d4		96	(75 - 130)						
Toluene-d8		115	(65 - 135)						
		115	(65 - 135)						
		95	(80 - 130)						
		95	(80 - 130)						

NOTE(S) :

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

Bold print denotes control parameters

000040

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: E2F140140	Work Order #....: E24NH1AC-MS	Matrix.....: WATER
MS Lot-Sample #: E2F140356-004	E24NH1AD-MSD	
Date Sampled....: 06/13/02 10:45	Date Received...: 06/14/02 11:25	MS Run #.....: 2168324
Prep Date.....: 06/14/02	Analysis Date...: 06/15/02	
Prep Batch #....: 2168607	Analysis Time...: 03:23	
Dilution Factor: 1	Analyst ID.....: 015590	Instrument ID..: MSC

<u>PARAMETER</u>	SAMPLE	SPIKE	MEASRD	PERCNT			<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECVRY</u>	<u>RPD</u>	
Benzene	ND	10.0	8.30	ug/L	83		SW846 8260B
	ND	10.0	8.53	ug/L	85	2.7	SW846 8260B
Chlorobenzene	ND	10.0	8.60	ug/L	86		SW846 8260B
	ND	10.0	8.99	ug/L	90	4.4	SW846 8260B
1,1-Dichloroethene	ND	10.0	9.28	ug/L	93		SW846 8260B
	ND	10.0	9.46	ug/L	95	1.9	SW846 8260B
Toluene	ND	10.0	8.63	ug/L	86		SW846 8260B
	ND	10.0	8.99	ug/L	90	4.1	SW846 8260B
Trichloroethene	ND	10.0	9.56	ug/L	96		SW846 8260B
	ND	10.0	9.72	ug/L	97	1.7	SW846 8260B

<u>SURROGATE</u>	<u>PERCENT</u>		<u>RECOVERY</u>
	<u>RECOVERY</u>	<u>LIMITS</u>	
Bromofluorobenzene	97	(75 - 130)	
	96	(75 - 130)	
1,2-Dichloroethane-d4	115	(65 - 135)	
	115	(65 - 135)	
Toluene-d8	95	(80 - 130)	
	95	(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/MS Volatiles

Client Lot #....: E2F140140 **Work Order #....:** E245V1AQ-MS **Matrix.....:** WATER
MS Lot-Sample #: E2F140417-009 **E245V1AR-MSD**
Date Sampled....: 06/13/02 16:15 **Date Received...:** 06/15/02 10:30 **MS Run #.....:** 2169259
Prep Date.....: 06/17/02 **Analysis Date...:** 06/18/02
Prep Batch #....: 2169466 **Analysis Time...:** 03:56
Dilution Factor: 1 **Analyst ID.....:** 015590 **Instrument ID..:** MSC

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	
Benzene	92	(75 - 120)	0.86	(0-25)	SW846 8260B	
	93	(75 - 120)			SW846 8260B	
Chlorobenzene	93	(75 - 120)	2.6	(0-25)	SW846 8260B	
	90	(75 - 120)			SW846 8260B	
1,1-Dichloroethene	94	(70 - 140)	1.8	(0-25)	SW846 8260B	
	96	(70 - 140)			SW846 8260B	
Toluene	92	(75 - 125)	0.54	(0-25)	SW846 8260B	
	92	(75 - 125)			SW846 8260B	
Trichloroethene	0.0 NC,MS	(70 - 130)	0.0	(0-25)	SW846 8260B	
	0.0 NC,MS	(70 - 130)			SW846 8260B	
<u>SURROGATE</u>		<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
Bromofluorobenzene		100	(75 - 130)			
1,2-Dichloroethane-d4		102	(75 - 130)			
Toluene-d8		112	(65 - 135)			
		114	(65 - 135)			
		93	(80 - 130)			
		93	(80 - 130)			

NOTE (S) :

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

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

000042

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: E2F140140 Work Order #....: E245V1AQ-MS Matrix.....: WATER
 MS Lot-Sample #: E2F140417-009 E245V1AR-MSD
 Date Sampled...: 06/13/02 16:15 Date Received...: 06/15/02 10:30 MS Run #.....: 2169259
 Prep Date.....: 06/17/02 Analysis Date...: 06/18/02
 Prep Batch #....: 2169466 Analysis Time...: 03:56
 Dilution Factor: 1 Analyst ID.....: 015590 Instrument ID...: MSC

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	METHOD
Benzene	ND	10.0	9.21	ug/L	92		SW846 8260B
Chlorobenzene	ND	10.0	9.29	ug/L	93	0.86	SW846 8260B
1,1-Dichloroethene	ND	10.0	9.28	ug/L	93		SW846 8260B
	ND	10.0	9.04	ug/L	90	2.6	SW846 8260B
Toluene	ND	10.0	9.43	ug/L	94		SW846 8260B
	ND	10.0	9.60	ug/L	96	1.8	SW846 8260B
Trichloroethene	ND	10.0	9.19	ug/L	92		SW846 8260B
	ND	10.0	9.24	ug/L	92	0.54	SW846 8260B
	52	10.0		ug/L	0.0		SW846 8260B
			Qualifiers: NC,MSB				
	52	10.0		ug/L	0.0	0.0	SW846 8260B
			Qualifiers: NC,MSB				

SURROGATE	PERCENT	RECOVERY	RECOVERY
	RECOVERY	LIMITS	LIMITS
Bromofluorobenzene	100	(75 - 130)	
	102	(75 - 130)	
1,2-Dichloroethane-d4	112	(65 - 135)	
	114	(65 - 135)	
Toluene-d8	93	(80 - 130)	
	93	(80 - 130)	

NOTE(S) :

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

Bold print denotes control parameters

NC The recovery and/or RPD were not calculated.

MSB The recovery and RPD were not calculated because the sample amount was greater than four times the spike amount.

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #....: E2F140140 Work Order #....: E245V1AM-MS Matrix.....: WATER
MS Lot-Sample #: E2F140417-009 E245V1AN-MSD
Date Sampled...: 06/13/02 16:15 Date Received...: 06/15/02 10:30 MS Run #.....: 2170236
Prep Date.....: 06/18/02 Analysis Date...: 06/18/02
Prep Batch #....: 2170492 Analysis Time...: 16:01
Dilution Factor: 1 Analyst ID.....: 001464 Instrument ID...: G13

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>LIMITS</u>	<u>METHOD</u>
TPH (as Gasoline)	111	(70 - 140)			SW846 8015B
	111	(70 - 140)	0.50	(0-25)	SW846 8015B
<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>			
a,a,a-Trifluorotoluene (TFT)	113			(60 - 130)	
	120			(60 - 130)	

NOTE(S) :

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

Bold print denotes control parameters

000044

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

Client Lot #....: E2F140140 **Work Order #....:** E245V1AM-MS **Matrix.....:** WATER
MS Lot-Sample #: E2F140417-009 E245V1AN-MSD
Date Sampled....: 06/13/02 16:15 **Date Received...:** 06/15/02 10:30 **MS Run #.....:** 2170236
Prep Date.....: 06/18/02 **Analysis Date...:** 06/18/02
Prep Batch #....: 2170492 **Analysis Time...:** 16:01
Dilution Factor: 1 **Analyst ID.....:** 001464 **Instrument ID...:** G13

<u>PARAMETER</u>	<u>SAMPLE</u>	<u>SPIKE</u>	<u>MEASRD</u>	<u>PERCNT</u>			<u>METHOD</u>
	<u>AMOUNT</u>	<u>AMT</u>	<u>AMOUNT</u>	<u>UNITS</u>	<u>RECVRY</u>	<u>RPD</u>	
TPH (as Gasoline)	ND	1.00	1.11	mg/L	111		SW846 8015B
	ND	1.00	1.11	mg/L	111	0.50	SW846 8015B
<hr/>							
<u>SURROGATE</u>							
a,a,a-Trifluorotoluene							
(TFT)							
PERCENT							
<u>RECOVERY</u>							
113							
(60 - 130)							
120							
(60 - 130)							

NOTE (S) :

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

Bold print denotes control parameters