

**R.T. NAHAS COMPANY** *Since 1947*  
REAL ESTATE DEVELOPERS AND INVESTORS

20630 PATIO DRIVE  
CASTRO VALLEY, CALIFORNIA 94546  
TELEPHONE (510) 538-9600  
FAX (510) 881-7618

*Alameda County*  
*APR 25 2003*  
*Environmental Health*

April 22, 2003

Mr. Scott Seery  
Hazardous Materials Specialist  
Alameda County Health Care Services  
1131 Harbor Bay Pkwy., Room 250  
Oakland, CA 94502

Dear Scott:

Enclosed is the Seventh Semi-Annual Groundwater Monitoring report. As stated in my previous letter to you of November 5, 2002, we are in the process of designing a two-story commercial/office building that will sit on the old Unocal station site as well as the car wash. I would like to get from you some input on what kind of closure we could obtain at this juncture. The current plan places the building north of Well 101, so were it necessary to do further excavation we could conceivably do it without disturbing the new structure.

A more pressing problem is the fact that we are running out of time with the State Underground Tank Fund. If further excavation is going to be needed, we must do it immediately so that we can get reimbursed by the State.

I will contact you next week to discuss this matter.

Sincerely,

  
Randall E. Nahas

Enclosure  
REN/tar

Alameda County  
APR 25 2003  
Environmental Health

**Report – Seventh Semi-Annual  
Groundwater Monitoring  
(First Quarter of 2003)  
Former Unocal 76 Service Station  
20405 and 20629 Redwood Road  
Castro Valley, California**

**BSK ASSOCIATES**

**BSK JOB NO. P92057.3**

**Submitted to:  
R.T. Nahas Company  
Castro Valley, California**

**April 21, 2003**

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**BSK**



1181 Quarry Lane, Building 300  
Pleasanton, CA 94566  
(925) 462-4000 • FAX (925) 462-6283

April 21, 2003

BSK JOB NO. P92057.3

R. T. Nahas Company/Eden Managements  
20630 Patio Drive  
Castro Valley, CA 94546

Attention: Mr. Randy T. Nahas

Subject: **Report**  
Seventh Semi-Annual Groundwater Monitoring  
(First Quarter of 2003)  
Former Unocal 76 Service Station  
20405 and 20629 Redwood Road  
Castro Valley, California

Dear Mr. Nahas:

As requested and authorized, we have performed groundwater monitoring well sampling at the above-referenced site. This report presents the groundwater data obtained during this and previous sampling events, conclusions based on the data collected during this event, and recommendations for further action. The site location is shown on Figure 1, Vicinity Map. The well locations are shown on Figure 2, Site Plan.

## GROUNDWATER MONITORING ACTIVITIES – MARCH 2003

### General

The Seventh semi-annual monitoring of groundwater monitoring wells at the project site (Figure 2, Site Plan) was performed on March 19, 2003. *Groundwater monitoring wells MW-2, MW-3 and MW-7 could not be sampled during this sampling event as wells MW-2 and MW-3 were covered with a pile of construction materials, and a construction trailer was parked over the location of well MW-7.* Groundwater monitoring well MW-4 was abandoned during the remediation activities carried out in 1999 by others at the Site. The semi-annual sampling schedule—with monitoring activities in the first and third quarter of each year—was requested by Mr. Scott Seery, case officer for the ACDEH, in a letter, dated November 2, 1999, addressed to the R. T. Nahas Company. Further, in accordance with Mr. Seery's letter of April 24, 2001, sampling of well MW-5 was discontinued as of the Fourth sampling round. Field procedures and observations are provided in the following text.

### Field Work

All wells sampled were purged using an electric submersible pump. Three to four well casing volumes of water were removed from each well. Purge effluent was field monitored for pH, temperature and conductivity during purging to assess the influx of fresh formation water into the well. Purged water was

transferred to 55-gallon, DOT-approved steel drums for holding. Each drum was labeled according to its contents, content source, and date of accumulation.

Prior to purging, the depth to water in each well was measured using a Solinst Electric Well Sounder, marked in twentieths of a foot. The water depth was then interpolated to the 0.01 foot increment from the tape. Each well was subsequently examined for floating and sinking immiscible product layers and sheen, using a clear bailer having dual check valves for point-source sampling. The piezometric contour and elevation, and well water elevations, are presented in Figure 3, Groundwater Elevation Contour Map.

Upon purge completion, each well was again measured to confirm a minimum of 80% well recovery prior to sampling. Water sampling was then performed with a disposable bailer. Sampling for contaminants was performed in the order of decreasing contaminant volatility. Each water sample was decanted into the appropriate container with preservative (as necessary), sealed, labeled and refrigerated for delivery to our State-certified laboratory.

A Well Field Log was prepared for each well sampled, recording the water depth, well volume, pH, water temperature, conductivity and other data. The Well Field Logs are presented as Figures 4.1 through 4.6.

### Site Hydrology

The groundwater level was measured in three (3) wells on March 19, 2003, in order to assess the flow direction and gradient. On that date, groundwater flow was generally in a direction slightly east of south, with a gradient of 0.006 ft/ft (Figure 3).

### Chemical Analyses

Water samples obtained from each of the sampled wells were analyzed for constituents related to gasoline, Total Petroleum Hydrocarbons as Gasoline (TPHg), Benzene, Toluene, Ethylbenzene and Xylene (BTEX) and Methyl-t-Butyl Ether (MTBE).

The contaminants tested for are those specified by ACDEH in their letter dated November 2, 1999. Current and former analyses results are presented for comparison in Table 1. Records of past concentrations of BTEX and MTBE in the groundwater samples from MW-2 and MW-3 are graphically presented on Figures 5 and 6, respectively (*no current data is available for these two wells as they could not be accessed during this sampling event*). The Chemical Test Data Sheets are presented in Appendix A along with the Project Chain-of-Custody record and QA/QC Summary Report.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

Compared to the previous results (from the October 2002 sampling event), trace contaminant concentrations associated with gasoline (BTEX compounds) are at somewhat higher concentrations in well MW-101, and somewhat lower concentrations in well MW-6. The Total Petroleum Hydrocarbons as Gasoline detected in previous events in well MW-7 probably represents Perchloroethane.

MTBE was detected in both wells MW-6 and MW-101. The MTBE detected in well W-101 (highest reading) was confirmed using EPA Method 8260 as requested by ACDEH.

### Recommendations

Since, with the exception of a trace concentration of MTBE, no Total Petroleum Hydrocarbons as Gasoline and BTEX have been detected in well MW-3 for the last two and one-half years (see Table 1) and the TPH-g detected in previous events in well MW-7 is Perchloroethane related, as indicated before, we recommend that monitoring and testing of these wells be discontinued. However, the remaining three groundwater monitoring wells (MW-2, MW-101 and MW-6) located at the Site should be sampled on a semi-annual basis as requested by ACDEH (letter dated April 24, 2001). The next semi-annual sampling event is scheduled for September 2003.

## REPORT DISTRIBUTION

Copies of this report should be submitted to the Alameda County Department of Environmental Health for their review. We are providing you with extra copies for this purpose. We understand that copies of the report may be forwarded by ACDEH to the Regional Water Quality Control Board in Oakland for their review.

Alameda County Department of Environmental Health  
1181 Harbor Bay Parkway  
Alameda, CA 94502

## LIMITATIONS

The findings and conclusions presented in this report are based on field review and observations, and from the limited testing program described in this report. This report has been prepared in accordance with generally accepted methodologies and standards of practice in the area. No other warranties, expressed or implied, are made as to the findings, conclusions and recommendations included in the report.

The findings of this report are valid as of the present. The passage of time, natural processes or human intervention on the property or adjacent property can cause changed conditions which can invalidate the findings and conclusions presented in this report.

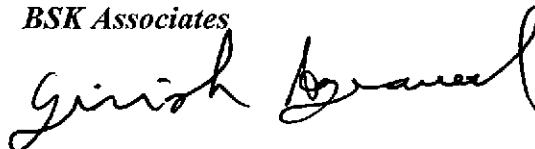
\* \* \*

BSK is pleased to continue to be of service to you during this project. If you have questions concerning the contents of the report, please do not hesitate to contact us.

The following are attached and complete this report:

TABLE	1	Summary of Groundwater Analysis
FIGURE	1	Vicinity Map
FIGURE	2	Site Plan
FIGURE	3	Groundwater Elevation Contour Map
FIGURES	4.1-4.6	Well Field Logs
FIGURE	5	BTEX/MTBE Concentrations in Groundwater - MW-2
FIGURE	6	BTEX/MTBE Concentrations in Groundwater - MW-3
Appendix "A"		Laboratory Chemical Test Data Sheets and Project Chain-of-Custody Record (6 pages), and Level II QA/QC Summary Report (2 pages)

Respectfully submitted,  
*BSK Associates*



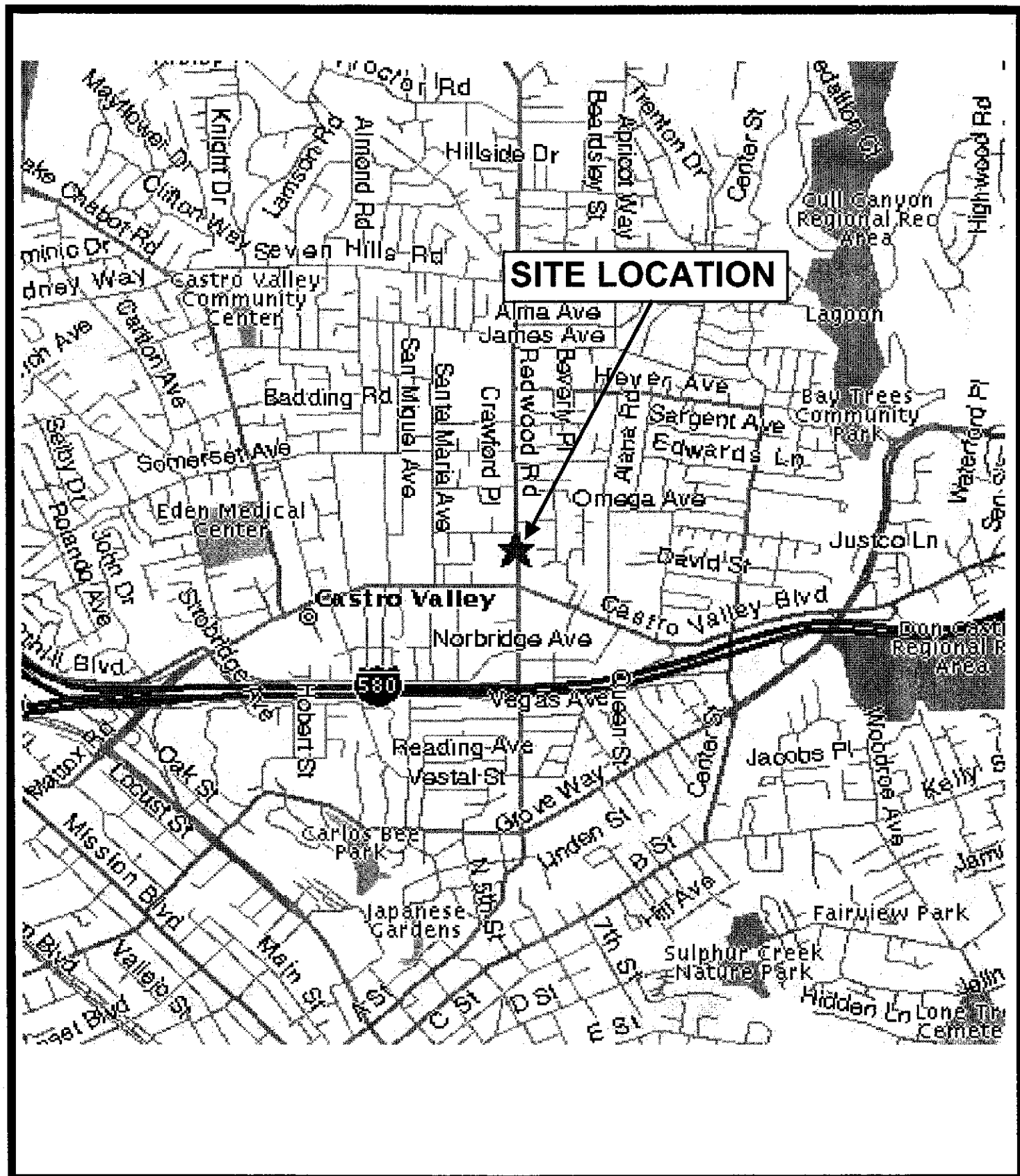
Girish Agrawal, Ph.D., P.E., G.E.  
Senior Project Engineer  
C 53867, G.E. 2478



Y. Alex Eskandari, P.E.  
Project Manager  
C 38101

YAE/GA:ga  
(G:\Environmental\Projects\NAHAS\2003-q1\Report (Q1 - 2003).wpd)

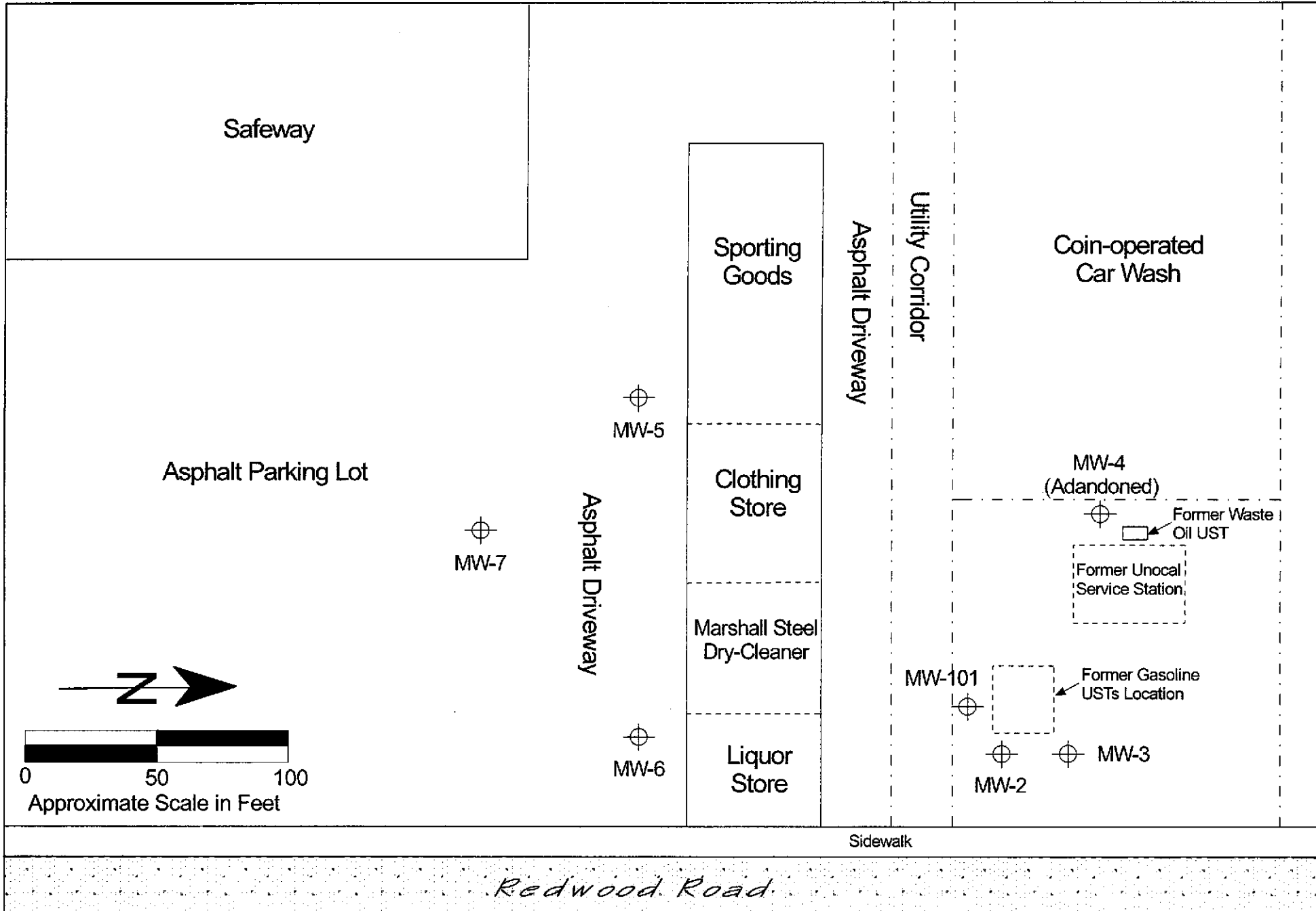
Distribution:  
R. T. Nahas Company (4 copies)



Semi-Annual Groundwater Monitoring Report  
 Former Unocal 76 Service Station  
 20405 and 20629 Redwood Road  
 Castro Valley, California

VICINITY MAP  
 FIGURE 1  
 BSK Job No. P92057.3





**LEGEND**

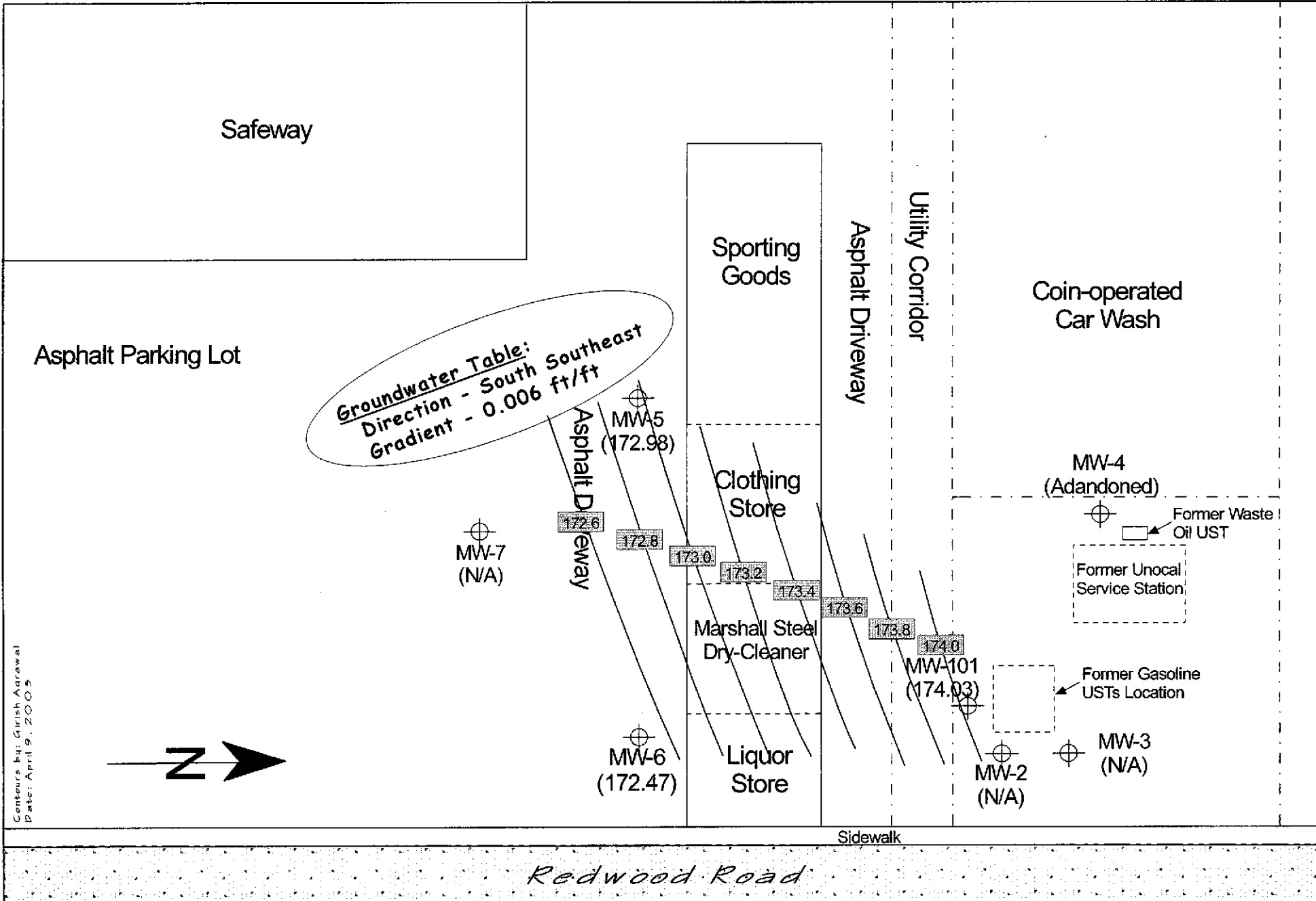
⊕ Groundwater Monitoring Well Location & Designation

Semi-Annual Groundwater Monitoring Report  
 Former Unocal 76 Service Station  
 20405 and 20629 Redwood Road  
 Castro Valley, California

BSK Job No. P92057.3  
 SITE PLAN  
 FIGURE 2



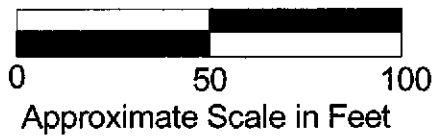




Contours by: Girish Agrawal  
 Date: April 9, 2003

**LEGEND**

- Groundwater Monitoring Well  
 (Groundwater Elevation)
- Groundwater Elevation Contour  
 in feet above MSL



BSK Job No. P92057.3  
**GROUNDWATER ELEVATION CONTOUR MAP**  
**MARCH 2003**  
**FIGURE 3**



## WELL FIELD LOG

**Well Observation:**                      **Date:** 03/19/2003  
**Sample Collection:**                      **Date:**

**Project Name:**                      Groundwater Monitoring  
**Location:**                              Nahas/Former Union 76  
**Personnel:**                            Cody Loftis  
**Weather:**                                Sunny, Cool

**WELL INFORMATION:**

Well Number	MW-2	Date Purged	N/A
Depth to Water - feet (TOC)	---	Purge Method	
Well Depth (feet)	28.85		
Water Volume (gallons)	---	Purge Begin	
Reference Elevation - feet (TOC)	+183.47	Purge End	
Groundwater Elevation (feet)	---	Purge Rate	
Measurement Technique	Solinst Electric Well Sounder		

**IMMISCIBLE LAYERS:**

**Top:**  
**Bottom:**  
**Detection Method:**  
**Collection Method:**

**WELL DEVELOPMENT/PURGE DATA:**

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°F)	COLOR/COMMENTS

**SAMPLE COLLECTION DATA**

**Sampling Equipment:**

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL

**Field Notes:** Sampling not possible --- well covered with pile of construction material.

**WELL FIELD LOG**

**Well Observation:**                      **Date:** 03/19/2003  
**Sample Collection:**                   **Date:**

**Project Name:** Groundwater Monitoring  
**Location:**        Nahas/Former Union 76  
**Personnel:**     Cody Loftis  
**Weather:**        Sunny, Cool

**WELL INFORMATION:**

Well Number	MW-3	Date Purged	N/A
Depth to Water - feet(TOC)	—	Purge Method	
Well Depth (feet)	28.85	Purge Begin	
Water Volume (gallons)	—	Purge End	
Reference Elevation - feet(TOC)	+184.03	Purge Rate	
Groundwater Elevation (feet)	—		
Measurement Technique	Solinst Electric Well Sounder		

**IMMISCIBLE LAYERS:**

**Top:**

**Bottom:**

**Detection Method:**

**Collection Method:**

**WELL DEVELOPMENT/PURGE DATA:**

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°F)	COLOR/COMMENTS

**SAMPLE COLLECTION DATA**

**Sampling Equipment:**

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL

**Field Notes:** Sampling not possible — well covered with pile of construction material.

## WELL FIELD LOG

**Well Observation:**                      **Date:** 03/19/2003  
**Sample Collection:**                 **Date:** 03/19/2003

**Project Name:** Groundwater Monitoring  
**Location:**     Nahas/Former Union 76  
**Personnel:**   Cody Loftis  
**Weather:**     Sunny, Cool

### WELL INFORMATION:

Well Number	MW-101	Date Purged	03/19/2003
Depth to Water - feet(TOC)	9.84	Purge Method	Electric Submersible Pump
Well Depth (feet)	29.60		
Water Volume (gallons)	12.9	Purge Begin	12:56
Reference Elevation - feet(TOC)	--	Purge End	13:35
Groundwater Elevation (feet)	--	Purge Rate	1.5 gpm
Measurement Technique	Solinst Electric Well Sounder		

### IMMISCIBLE LAYERS:

**Top:** Odor, No Sheen Observed  
**Bottom:** None Observed  
**Detection Method:** Visual  
**Collection Method:** Bailer

### WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°C)	COLOR/COMMENTS
13:08	13	543	6.83	21.1	Clear
13:19	26	557	6.84	21.4	Clear
13:26	39	590	6.83	22.8	Clear
13:35	57	589	6.83	23.0	Clear

### SAMPLE COLLECTION DATA

**Sampling Equipment:** Electric Submersible Pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
13:35	BTEX/MTBE & TPHg	4-40 ml glass VOA's with HCl	

**Field Notes:**

## WELL FIELD LOG

**Well Observation:**                      **Date:** 03/19/2003  
**Sample Collection:**                    **Date:**

**Project Name:** Groundwater Monitoring  
**Location:**        Nahas/Former Union 76  
**Personnel:**     Cody Loftis  
**Weather:**        Partly Cloudy, Warm

**WELL INFORMATION:**

Well Number	MW-5	Date Purged	N/A
Depth to Water - feet(TOC)	10.98	Purge Method	--
Well Depth (feet)	34.5		
Water Volume (gallons)	3.92	Purge Begin	--
Reference Elevation - feet(TOC)	+183.92	Purge End	--
Groundwater Elevation (feet)	172.98	Purge Rate	--
Measurement Technique	Solinst Electric Well Sounder		

**IMMISCIBLE LAYERS:**

**Top:**  
**Bottom:**  
**Detection Method:**  
**Collection Method:**

**WELL DEVELOPMENT/PURGE DATA:**

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°F)	COLOR/COMMENTS

**SAMPLE COLLECTION DATA**

**Sampling Equipment:**

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL

**Field Notes:** Groundwater Level Reading Only

**WELL FIELD LOG**

**Well Observation:**                      **Date:** 03/19/2003  
**Sample Collection:**                    **Date:** 03/19/2003

**Project Name:** Groundwater Monitoring  
**Location:** Nahas/Former Union 76  
**Personnel:** Cody Loftis  
**Weather:** Sunny, Cool

**WELL INFORMATION:**

Well Number	MW-6	Date Purged	03/19/2003
Depth to Water - feet(FOC)	11.13	Purge Method	Electric Submersible Pump
Well Depth (feet)	26.78		
Water Volume (gallons)	2.50	Purge Begin	11:35
Reference Elevation - feet(FOC)	+183.60	Purge End	11:45
Groundwater Elevation (feet)	172.47	Purge Rate	1.0 gpm
Measurement Technique	Solinst Electric Well Sounder		

**IMMISCIBLE LAYERS:**

**Top:** None Observed  
**Bottom:** None Observed  
**Detection Method:** Visual  
**Collection Method:** Bailer

**WELL DEVELOPMENT/PURGE DATA:**

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°C)	COLOR/COMMENTS
11:38	2.5	651	6.57	21.7	Clear
11:41	5.0	649	6.58	21.7	Clear
11:43	7.5	651	6.61	22.1	Clear
11:45	10.0	650	6.60	22.3	Clear

**SAMPLE COLLECTION DATA**

**Sampling Equipment:** Electric Submersible Pump

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
11:45	BTEX/MTBE & TPHg	4-40 ml glass VOA,s with HCl	

**Field Notes:**

## WELL FIELD LOG

**Well Observation:**                      **Date:** 3/19/2003  
**Sample Collection:**                    **Date:**

**Project Name:** Groundwater Monitoring  
**Location:**        Nahas/Former Union 76  
**Personnel:**     Cody Loftis  
**Weather:**        Sunny, Cool

**WELL INFORMATION:**

Well Number	MW-7	Date Purged	N/A
Depth to Water - feet(TOC)	—	Purge Method	—
Well Depth (feet)	28.0		
Water Volume (gallons)	—	Purge Begin	
Reference Elevation - feet(TOC)	+182.42	Purge End	
Groundwater Elevation (feet)	—	Purge Rate	
Measurement Technique	Solinst Electric Well Sounder		

**IMMISCIBLE LAYERS:**

**Top:**  
**Bottom:**  
**Detection Method:**  
**Collection Method:**

**WELL DEVELOPMENT/PURGE DATA:**

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP (°C)	COLOR/COMMENTS

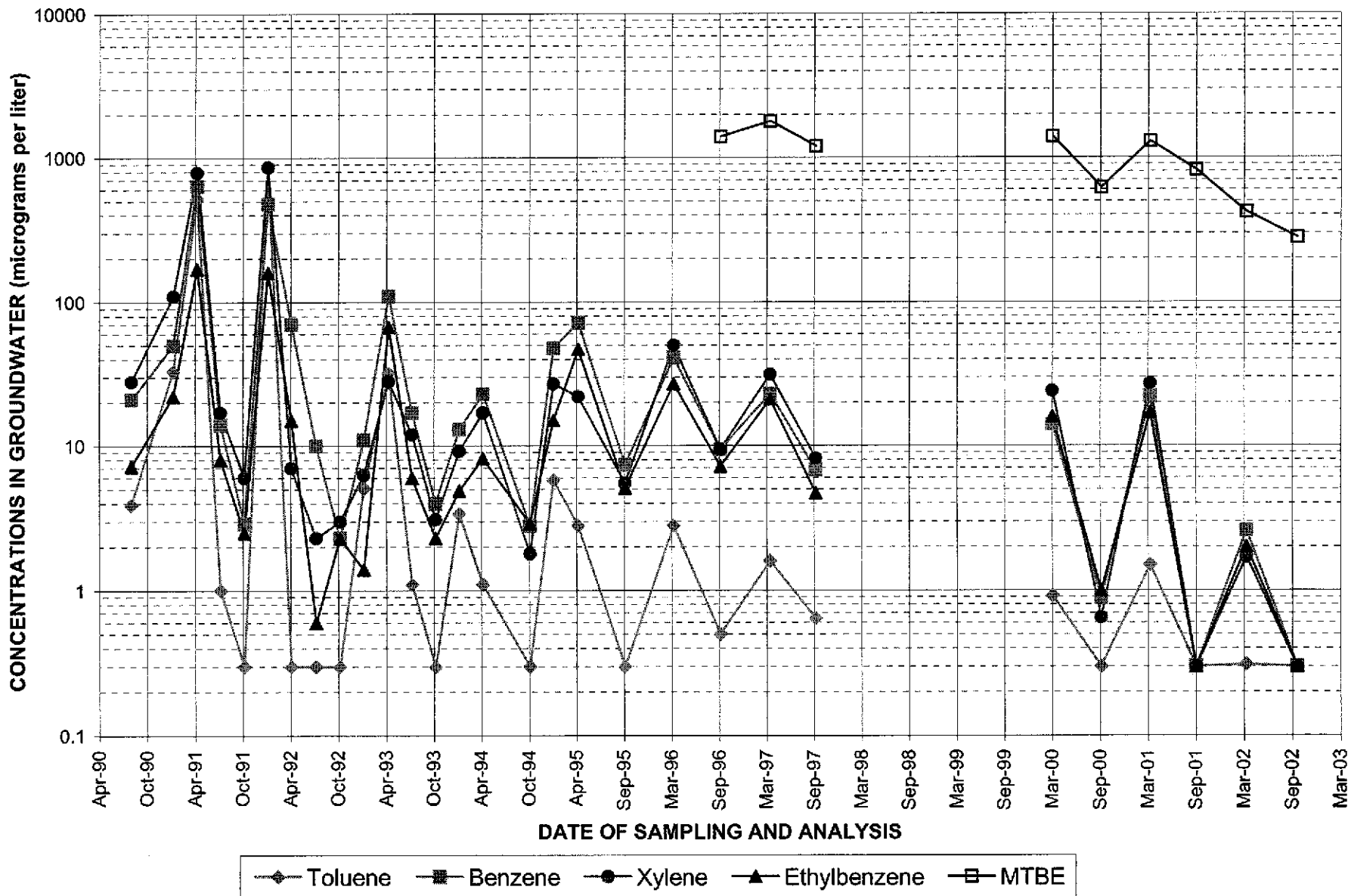
**SAMPLE COLLECTION DATA**

**Sampling Equipment:**

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL

**Field Notes:** Unable to sample - construction (?) trailer parked on top of well.

## BTEX/MTBE CONCENTRATIONS IN GROUNDWATER (MW-2)



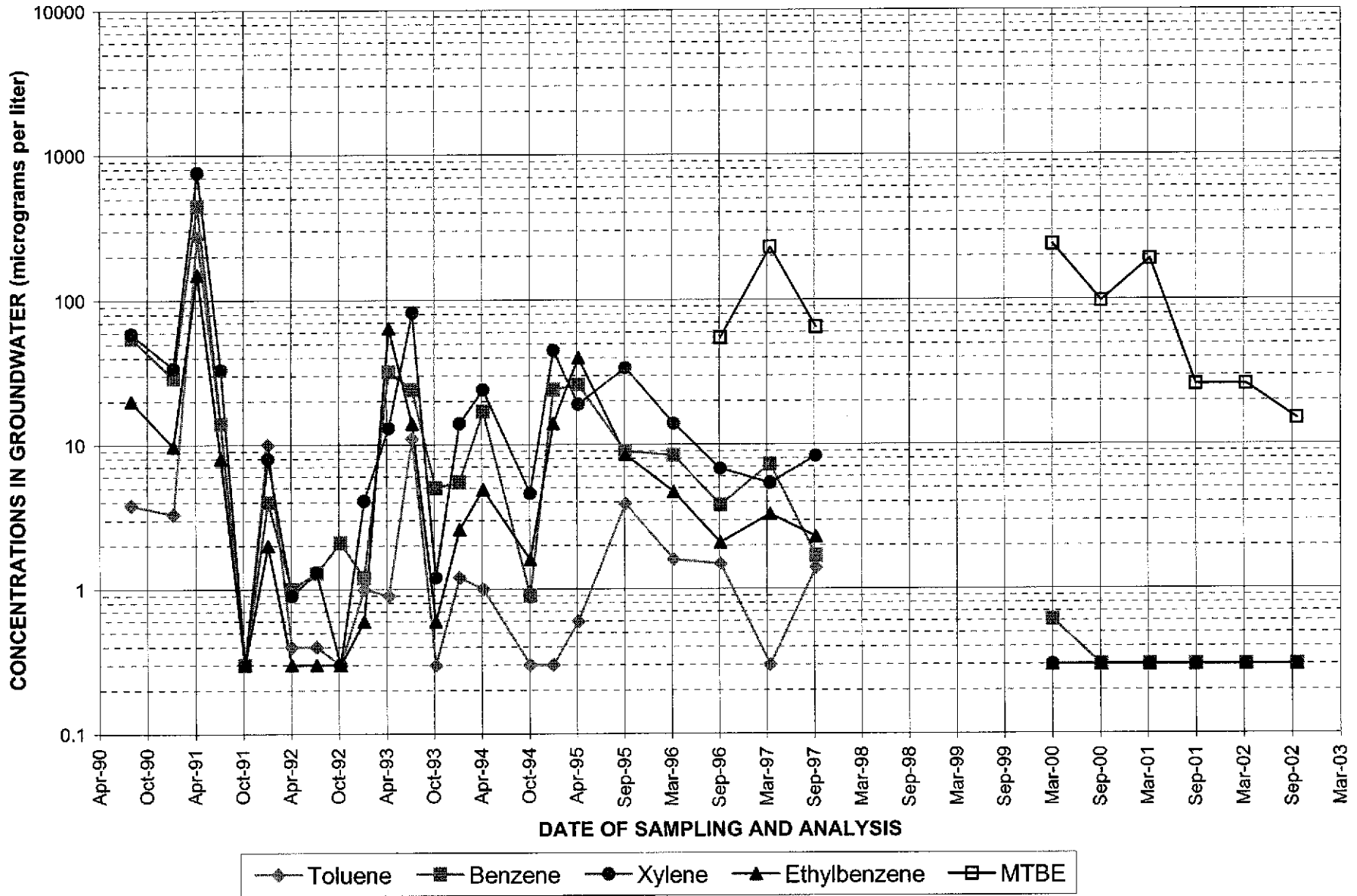
Semi-Annual Groundwater Monitoring Report  
Former Unocal 76 Service Station  
20405 and 20629 Redwood Road  
Castro Valley, California

MARCH 2003  
FIGURE 5  
BSK Job No. P92057.3

BSK



## BTEX/MTBE CONCENTRATIONS IN GROUNDWATER (MW-3)



Semi-Annual Groundwater Monitoring Report  
Former Unocal 76 Service Station  
20405 and 20629 Redwood Road  
Castro Valley, California

MARCH 2003  
FIGURE 6  
BSK Job No. P92057.3

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**APPENDIX "A"**

**CHEMICAL TEST DATA SHEETS  
AND  
PROJECT CHAIN-OF-CUSTODY RECORD  
(3 PAGES)  
AND  
LEVEL II QA/QC SUMMARY REPORT  
(5 PAGES)**

BSK-Pleasanton  
APR 21 2003  
RECEIVED

## Cover Letter

04/18/2003

Alex Y. Eskandari  
BSK and Associates - Pleasanton  
1181 Quarry Lane Suite 300  
Pleasanton, CA 94566

BSK Submission Number: 2003031170

Dear Alex Y. Eskandari:

BSK Analytical Laboratories adheres to a quality assurance plan that has been approved by the State of California Department of Health Services. Our Environmental Laboratory Accreditation Program (ELAP) certification number is 1180.

BSK Analytical Laboratories has prepared this certificate of analysis in response to your request for analytical services. All information was taken from your Chain of Custody or related correspondence. BSK completed all sample handling and analytical procedures within the Laboratory's standard acceptability criteria with any exceptions noted below.

### Sample Comments

Submission Order	Test / Analyte	Comment
2003031170 303675	Methyl-t-Butyl Ether	A confirmation for MTBE by BTEX was logged in for 8260MTBE outside of hold time.

If additional clarification of any information is required, please contact your Client Services Representative, Amber Shirey at (800)877-8310 or (559)497-2888.

Sincerely,

BSK Analytical Laboratories

Authorizing Signature(s)

  
Amber Shirey  
Client Services Representative

Addendum: Laboratory QC Report

Page 1 of 1



# BSK ANALYTICAL LABORATORIES

Alex Y. Eskandari  
 BSK and Associates - Pleasanton  
 1181 Quarry Lane Suite 300  
 Pleasanton, CA 94566

## Certificate of Analysis

ELAP Certificate #1180

Report Issue Date: 04/17/2003

BSK Submission #: 2003031170

BSK Sample ID #: 303675

Project ID: P920573

Project Desc: Nahas/Union 76

Submission Comments:

Sample Type: Liquid  
 Sample Description: W-9-MW-101  
 Sample Comments:

Date Sampled: 03/19/2003  
 Time Sampled: 1335  
 Date Received: 03/20/2003

### Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date	
TPH as Gasoline	EPA 8015(M)	6300	µg/L	50	40	2000	03/28/03	03/28/03	
Methyl-t-Butyl Ether	EPA 8015/8020	1400	µg/L	5	40	200	03/28/03	03/28/03	
Benzene	EPA 8020	330	µg/L	0.3	40	12	03/28/03	03/28/03	
Ethylbenzene	EPA 8020	440	µg/L	0.3	40	12	03/28/03	03/28/03	
Toluene	EPA 8020	ND	µg/L	0.3	40	12	03/28/03	03/28/03	
Total Xylenes	EPA 8020	370	µg/L	0.3	40	12	03/28/03	03/28/03	
Methyl-t-Butyl Ether	EPA 8260	840	µg/L	5	40	200	04/15/03	04/15/03 H	
<b>Surrogate</b>									
Fluorobenzene	EPA 8020	86.5	% Rec	-	40	N/A	03/28/03	03/28/03	

mg/L: Milligrams/Liter (ppm)  
 mg/Kg: Milligrams/Kilogram (ppm)  
 µg/L: Micrograms/Liter (ppb)  
 µg/Kg: Micrograms/Kilogram (ppb)  
 %Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit  
 DLR: Detection Limit for Reporting  
       : PQL x Dilution  
 ND: None Detected at DLR

H: Analyzed outside of hold time  
 P: Preliminary result  
 S: Suspect result. See Cover Letter for comments.  
 E: Analysis performed by External laboratory.  
       See External Laboratory Report attachments.

Report Authentication Code: 

# BSK ANALYTICAL LABORATORIES

Alex Y. Eskandari  
 BSK and Associates - Pleasanton  
 1181 Quarry Lane Suite 300  
 Pleasanton, CA 94566

## Certificate of Analysis ELAP Certificate #1180

Report Issue Date: 04/17/2003

**BSK Submission #: 2003031170**

**BSK Sample ID #: 303676**

Project ID: P920573

Project Desc: Nahas/Union 76

Submission Comments:

Sample Type: Liquid  
 Sample Description: W-11-MW-6  
 Sample Comments:

Date Sampled: 03/19/2003  
 Time Sampled: 1145  
 Date Received: 03/20/2003

### Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	61	µg/L	50	1	50	03/27/03	03/28/03
Methyl-t-Butyl Ether	EPA 8015/8020	200	µg/L	5	1	5	03/27/03	03/28/03
Benzene	EPA 8020	ND	µg/L	0.3	1	0.3	03/27/03	03/28/03
Ethylbenzene	EPA 8020	ND	µg/L	0.3	1	0.3	03/27/03	03/28/03
Toluene	EPA 8020	ND	µg/L	0.3	1	0.3	03/27/03	03/28/03
Total Xylenes	EPA 8020	ND	µg/L	0.3	1	0.3	03/27/03	03/28/03

### Surrogate

Fluorobenzene	EPA 8020	97.9	% Rec	-	1	N/A	03/27/03	03/28/03
---------------	----------	------	-------	---	---	-----	----------	----------

### LUFT Comments

TPH as Gasoline Individual peaks inconsistent with fuel fingerprint

mg/L: Milligrams/Liter (ppm)

mg/Kg: Milligrams/Kilogram (ppm)

µg/L: Micrograms/Liter (ppb)

µg/Kg: Micrograms/Kilogram (ppb)

%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit

DLR: Detection Limit for Reporting  
 : PQL x Dilution

ND: None Detected at DLR

H: Analyzed outside of hold time

P: Preliminary result

S: Suspect result. See Cover Letter for comments.

E: Analysis performed by External laboratory.

See External Laboratory Report attachments.

Report Authentication Code:



# BSK ANALYTICAL LABORATORIES

2003031170

03/20/2003

## Analyses Request Chain of Custody

BSK\_P

TAT: Standard

320008



### Requested Analyses

1414 Stanislaus Street Fresno, CA 93706-1623  
(559) 497-2888, 800 877-8310 (559) FAX 485-6935

Client Name <b>Nahas/Union 76 % BSKP</b>	Report Attention: <b>Alex Eskandar,</b>	Phone # <b>925-462-4000</b>
Address	Project, Quote or PO # <b>P92057.3</b>	FAX # <b>925-462-6283</b>
City, State, Zip	Copy to:	System #

Date Sampled	Time Sampled	Sampled by: <b>Z</b>	Sample Description/Location	Comment or Station Code	TPH-g	BTEX	MTBE*	Requested Analyses														
								1	2	3	4	5	6	7	8	9	10	11	12			
3-19-03	13:35		W-9-MW-101	503675	X	X	X															
3-19-03	11:45		W-11-MW-6	74	X	X	X															
* Confirm highest reading by EPA 8260																						

Matrix Type: L - Liquid S - Solid G - Gas  
Type of Hazards Associated with Samples:

Additional Services:

Rush Priority:  - 2 Day  - 5 Day  
 Data package: Level II, III or IV (circle one)  
 - Formal Chain of Custody

Additional Services / Charges Authorized By:

(Signature)

Signature	Print Name	Company	Date	Time
	COO Z	BSK	3-20-03	8:25
Received / Relinquished by:				
Received / Relinquished by:				
Received / Relinquished by:				

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billing charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise, or otherwise. The person signing for the Client/Company expressly acknowledges that they are either the Client or authorized agent of the Client.











# BSK ANALYTICAL LABORATORIES

QC Summary Report

04/21/2003



BSK Submission : 2003031170  
 Client : BSK and Associates - Pleasanto  
 Date Submitted : 03/20/2003  
 Project ID : P920573  
 Project Desc : Nahas/Union 76

BSK StarLims Run #: 53348



Instrument ID: VGCMS2

Analyst Initials: CHERYL C

Method Number: 8260

**Analyte Results**

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
p-Isopropyltoluene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Pentachloroethane	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
sec-Butylbenzene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Styrene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
tert-Butylbenzene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Tetrachloroethene (PCE)	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Toluene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
trans-1,2-Dichloroethene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
trans-1,3-Dichloropropene	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Trichloroethene (TCE)	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Trichlorofluoromethane	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable
Vinyl Chloride	RBLK	N/A	0	µg/L	<5				5	N/A	04/15/03	Acceptable

**Surrogate Results**

Analyte	QC Type		Surr. Result			UCL	LCL	Date	
Bromofluorobenzene	LCS	N/A	101 % Rec			96	127.5	63.5	04/15/03 Acceptable
Dibromofluoromethane	LCS	N/A	105 % Rec			122	139	81.6	04/15/03 Acceptable
Toluene-d8	LCS	N/A	96 % Rec			103	128.1	81.2	04/15/03 Acceptable
Bromofluorobenzene	LCSD	N/A	96 % Rec			96	127.5	63.5	04/15/03 Acceptable
Dibromofluoromethane	LCSD	N/A	102 % Rec			122	139	81.6	04/15/03 Acceptable
Toluene-d8	LCSD	N/A	90 % Rec			103	128.1	81.2	04/15/03 Acceptable
Bromofluorobenzene	RBLK	N/A	96 % Rec			N/A	N/A	N/A	04/15/03 Acceptable
Dibromofluoromethane	RBLK	N/A	122 % Rec			N/A	N/A	N/A	04/15/03 Acceptable
Toluene-d8	RBLK	N/A	103 % Rec			N/A	N/A	N/A	04/15/03 Acceptable

Approved by: Cynthia Plummer

%Rec: Percent Recovered  
 RPD: Relative Percent Difference  
 UCL: Upper Control Limit  
 LCL: Lower Control Limit  
 LCS: Laboratory Control Sample  
 LCSD: Laboratory Control Sample Duplicate

Parent Sample: Sample used as background matrix for MS/MSE  
 OOS-High: QC Result Above UCL  
 OOS-Low: QC Result Below LCL  
 MS: Matrix Spike  
 MSD: Matrix Spike Duplicate  
 RBLK: Reagent (Method) Blank