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

20630 PATIO DRIVE
CASTRO VALLEY, CALIFORNIA 94546
TELEPHONE (510) 538-9600
FAX (510) 881-7613

April 17, 2002

APR 22 2002

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 Fifth Semi-Annual Groundwater Monitoring report. To bring you up to date on our plans for this property, 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. In order to build this, we are going to have to encumber the property with a loan and 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 look forward to any pearls of wisdom you might have in this regard.

Sincerely,

Randall E. Nahas

Enclosure
REN/tar

Report – Fifth Semi-Annual Groundwater Monitoring (First Quarter of 2002) Former Unocal 76 Service Station 20405 and 20629 Redwood Road Castro Valley, California

APRIL 2002

BSK & ASSOCIATES
Geotechnical Consultants, Inc.

BSK JOB NO. P92057.3

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

April 16, 2002

BSK

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

April 16, 2002

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**
FIfth Semi-Annual Groundwater Monitoring
(First Quarter of 2002)
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 this event's data, 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 2002

General

Fifth semi-annual monitoring of groundwater Monitoring Wells MW-2, MW-3, MW-6, MW-7 and MW-101(Figure 2, Site Plan) was performed on March 13 and 14, 2002. The 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 Fourth sampling round. Field procedures and observations are provided in the following text.

Field Work

All wells were purged using a disposable bailer. 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 Teflon® point-source 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 in all six wells was measured on March 13 and 14, 2002, in order to assess the flow direction and gradient. On that date, groundwater flow was generally to the south, with a gradient of 0.0086 ft/ft (Figure 3).

Chemical Analyses

Water samples obtained from each of the 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 analysis results are presented for comparison in Table 1. Records of current and 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. 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

Trace contaminant concentrations associated with gasoline (BTEX compounds) are generally at higher concentrations compared to the previous results from the August 2001 sampling event in wells MW-2, MW-7 and MW-101. Total Petroleum Hydrocarbons as Gasoline and BTEX were not detected in well MW-3. The Total Petroleum Hydrocarbons as Gasoline detected in well MW-7 probably represents Perchloroethane as was demonstrated in past sampling events.

MTBE was detected in wells MW-2, MW-3, MW-6, MW-7 and MW-101. The MTBE detected in well W-101 was confirmed using EPA Method 8260 as requested by ACDEH.

Recommendations

The five groundwater monitoring wells 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 2002.

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 (3 pages)

Respectfully submitted,
BSK & Associates

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

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

AYE/GA:ga
(G:\Environmental\Projects\NAHAS\2002-q1\P92057(April2002Rpt).wpd)

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

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TABLE 1, SUMMARY OF GROUNDWATER ANALYSIS, Results in ug/L

Sample Date	Well Number	Benzene	Toluene	Ethyl-Benzene	Xylenes	Methyl-t-Butyl-Ether	TPH Gasoline	TPH Diesel	Total Oil & Grease	EPA 601
March 2002	MW-2	2.6	0.31	2	1.7	420	140	—	—	—
	MW-3	ND	ND	ND	ND	26	ND	—	—	—
	MW-5 *	—	—	—	—	—	—	—	—	—
	MW-6	ND	ND	ND	ND	370	91	—	—	—
	MW-7	0.35	ND	0.91	2.2	7.7	280	—	—	—
	MW-101	600	25	1600	3100	1600[2]/870[3]	19000	—	—	—
August 2001	MW-2	ND	ND	ND	ND	690[2]/820[3]	160	—	—	—
	MW-3	ND	ND	ND	ND	26	ND	—	—	—
	MW-5 *	—	—	—	—	—	—	—	—	—
	MW-6	ND	ND	ND	ND	280[2]/350[3]	79	—	—	—
	MW-7	ND	ND	ND	ND	7.3[2]/ND[3]	800	—	—	—
	MW-101	630	ND	1500	480	1400	12000	—	—	—
March 2001	MW-2	22	1.5	17	27	1300[2]/1200[3]	1000	—	—	—
	MW-3	ND	ND	ND	ND	190	ND	—	—	—
	MW-5	ND	ND	ND	ND	ND	ND	—	—	—
	MW-6	ND	ND	ND	ND	440	130	—	—	—
	MW-7	ND	ND	ND	ND	ND	630	—	—	—
	MW-101	1400	62	3400	7700	970	34000	—	—	—
September 2000	MW-2	0.89	ND	1	0.65	620	180	—	—	—
	MW-3	ND	ND	ND	ND	98	ND	—	—	—
	MW-5	ND	ND	ND	ND	ND	ND	—	—	—
	MW-6	ND	ND	ND	ND	170	54	—	—	—
	MW-7	3	0.32	13	27	ND	770	—	—	—
	MW-101	1100	35	2900	400	1600[2]/1800[3]	12000	—	—	—
September 1995	MW-101	170	94	150	710	–	9400			
March 2000	MW-2	14	0.92	16	24	1400	560	--	--	--
	MW-3	0.61	ND	ND	ND	240	96	--	--	--
	MW-5	ND	ND	ND	ND	ND	ND	–	--	--
	MW-6	ND	0.49	ND	ND	260	78	–	--	--
	MW-7	890	ND	ND	ND	ND	ND	--	--	--
	MW-101	2500	490	4300	10000	2400[2]/1400[3]	40000	--	--	--

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TABLE 1, SUMMARY OF GROUNDWATER ANALYSIS, Results in ug/L

Sample Date	Well Number	Benzene	Toluene	Ethyl-Benzene	Xylenes	Methyl-t-Butyl Ether	TPH Gasoline	TPH Diesel	Total Oil & Grease	EPA 601
November 1997	MW-2	6.8	0.64	4.7	8.2	1200	360	--	--	--
	MW-3	1.7	1.4	2.3	8.3	65	62	--	--	--
	MW-4	ND	ND	ND	ND	ND	ND	ND	--	--
	MW-5	ND	ND	ND	ND	ND	ND	ND	--	--
	MW-6	ND	ND	ND	ND	9	ND	ND	--	--
	MW-7	--	--	--	--	--	--	--	--	--
April 1997	MW-2	23	1.6	21	31.4	1800	470	--	--	--
	MW-3	7.3	ND	3.3	5.4	230	120	--	--	--
	MW-4	ND	ND	ND	ND	ND	ND	ND	--	--
	MW-5	ND	ND	ND	ND	ND	ND	--	--	--
	MW-6	ND	ND	ND	ND	ND	ND	--	--	--
	MW-7	--	--	--	--	--	--	--	--	--
October 1996	MW-2	9.4	0.5	7.2	9.4	1400	180	--	--	--
	MW-3	3.8	1.5	2.1	6.8	55	79	--	--	--
	MW-4	ND	ND	ND	ND	ND	ND	ND	--	--
	MW-5	ND	ND	ND	ND	ND	ND	--	--	--
	MW-6	ND	ND	ND	ND	17	ND	--	--	--
	MW-7	--	--	--	--	--	--	--	--	--
April 1996	MW-2	41	2.8	27	50	--	690	--	--	--
	MW-3	8.4	1.6	4.7	14	--	170	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	--	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	2.9	2.9	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	--	--	--	--
October 1995	MW-2	7.4	ND	5.1	5.5	--	450	--	--	--
	MW-3	9	3.9	8.5	34	--	340	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	--	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	--	--	--	--
April 1995	MW-2	72	2.8	47	22	--	480	--	--	--
	MW-3	26	0.6	40	19	--	450	--	--	--
April 1995	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	--	--	--	--

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TABLE 1, SUMMARY OF GROUNDWATER ANALYSIS, Results in ug/L

Sample Date	Well Number	Benzene	Toluene	Ethyl-Benzene	Xylenes	Methyl-t-Butyl Ether	TPH Gasoline	TPH Diesel	Total Oil & Grease	EPA 601
January	MW-2	48	2.8	15	27	--	440	--	--	--
1995	MW-3	26	0.6	14	45	--	250	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	2000	--
October	MW-2	2.8	ND	2.9	1.8	--	97	--	--	--
1994	MW-3	0.9	ND	ND	ND	--	ND	--	--	--
	MW-4	ND	36	ND	1.3	--	70	ND	ND	--
	MW-5	ND	71	0.4	1.7	--	87	--	--	--
	MW-6	0.4	140	0.5	2.3	--	160	--	--	--
July	MW-2	14	0.7	5.8	12	--	180	--	--	--
1994	MW-3	7.2	0.4	1.6	4.6	--	52	--	--	--
	MW-4	ND	0.6	ND	ND	--	ND	86	ND	--
April	MW-2	23	1.1	8.2	17	--	270	--	--	--
1994	MW-3	17	1	4.9	24	--	62	--	--	--
	MW-4	ND	ND	ND	0.4	--	ND	ND	ND	--
	MW-5	ND	0.4	ND	1	--	ND	--	--	--
	MW-6	ND	0.3	ND	0.4	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	360 (1)		--	--
January	MW-2	13	3.4	4.9	9.2	--	130	--	--	--
1994	MW-3	5.5	2.1	2.6	14	--	69	--	--	--
	MW-7	ND	ND	ND	ND	--	330 (1)		--	--
October	MW-2	4	ND	2.3	3.1	--	98	--	--	--
1993	MW-3	5	ND	0.6	1.2	--	ND	--	--	--
	MW-4	0.4	ND	ND	0.4	--	ND	ND	ND	Tetrachloroethene 0.7
						--				Trichloroethene 0.9
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	0.7	--	360 (1)		--	--
July	MW-2	17	1.1	6	12	--	220	--	--	--
1993	MW-3	24	11	14	82	--	330	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	1000	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	680 (1)		--	--
March	MW-2	110	32	67	28	--	720	--	--	1,2-Dichloroethane 0.6
1993	MW-3	32	0.9	64	13	--	330	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	ND

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TABLE 1, SUMMARY OF GROUNDWATER ANALYSIS, Results in ug/L

Sample Date	Well Number	Benzene	Toluene	Ethyl-Benzene	Xylenes	Methyl-t-Butyl Ether	TPH Gasoline	TPH Diesel	Total Oil & Grease	EPA 601
March 1993	MW-5	ND	ND	ND	ND	--	ND	--	--	Tetrachloroethane 0.8
	MW-6	ND	ND	ND	ND	--	ND	--	--	Tetrachloroethane 3.5
	MW-7	ND	ND	ND	ND	--	830 (1)	--	--	Tetrachloroethene 3,700
						--				Trichloroethene 210
January 1993	MW-2	11	5.1	1.4	6.3	--	170	--	--	--
	MW-3	1.2	1	0.6	4.1	--	ND	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	1900 (1)		--	--
November 1992	MW-7	--	--	--	--	--	2700 (1)	ND	--	Chlorobenzene 2.0 Chloroform 2.0 cis-1,2-Dichloroethene 180 trans-1,2-Dichloroethene 1.5 Tetrachloroethene 14,000 Trichloroethene 660
October 1992	MW-2	2.3	ND	2.3	3	--	ND	--	--	--
	MW-3	2.1	ND	ND	0.3	--	ND	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	120	ND	--
	MW-5	ND	0.4	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	3900 (1)		--	--
July 1992	MW-2	10	ND	0.6	2.3	--	84	--	--	--
	MW-3	1.3	0.4	ND	1.3	--	ND	--	--	--
	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	ND	ND	ND	--	ND	--	--	--
	MW-7	ND	ND	ND	ND	--	830 (1)		--	--
April 1992	MW-2	70	0.3	15	7	--	300	--	--	--
	MW-3	1	0.4	ND	0.9	--	ND	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
April 1992	MW-5	ND	ND	ND	ND	--	ND	--	--	--
	MW-6	ND	0.3	ND	ND	--	ND	--	--	--
	MW-7	0.4	0.3	0.3	0.9	--	1300 (1)		--	--
January 1992	MW-2	480	870	160	860	--	5200	--	--	--
	MW-3	4	10	2	8	--	60	--	--	--

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TABLE 1, SUMMARY OF GROUNDWATER ANALYSIS, Results in ug/L

Sample Date	Well Number	Benzene	Toluene	Ethyl Benzene	Xylenes	Methyl-t-Butyl Ether	TPH Gasoline	TPH Diesel	Total Oil & Grease	EPA 601
October	MW-2	2.9	ND	2.5	6	--	170	--	--	--
1991	MW-3	ND	ND	ND	ND	--	ND	ND	ND	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
July	MW-2	14	1	17	8	--	220	--	--	--
1991	MW-3	14	14	33	8	--	220	--	--	--
April	MW-2	640	520	170	790	--	4800	--	--	--
1991	MW-3	450	270	150	760	--	3600	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
January	MW-2	50	33	22	110	--	430	--	--	--
1991	MW-3	29	3.3	9.7	34	--	110	--	--	--
August	MW-2	21	3.9	7.2	28	--	180	--	--	--
1990	MW-3	55	3.8	20	59	--	290	--	--	--
	MW-4	ND	ND	ND	ND	--	ND	ND	ND	--
Maximum Contaminant Level (MCL)		1	150	700	1750	NA	NA	NA	NA	Chlorobenzene - NA Chloroform - NA cis-1,2-Dichloroethene 6.0 trans-1,2-Dichloroethene 10.0 1,2-Dichloroethane 0.5 Tetrachloroethene 5.0 Trichloroethene 5.0

ND = None Detected

-- = Not Analyzed

* = Water level sounding only. No sampling.

NA = Not Available

1 = TPHg values have demonstrated to represent Perchloroethane presence

2 = MTBE by EPA 8015/8020

3 = MTBE by EPA 8260

MCLs from California Code of Regulations Title 22, Article 5.5

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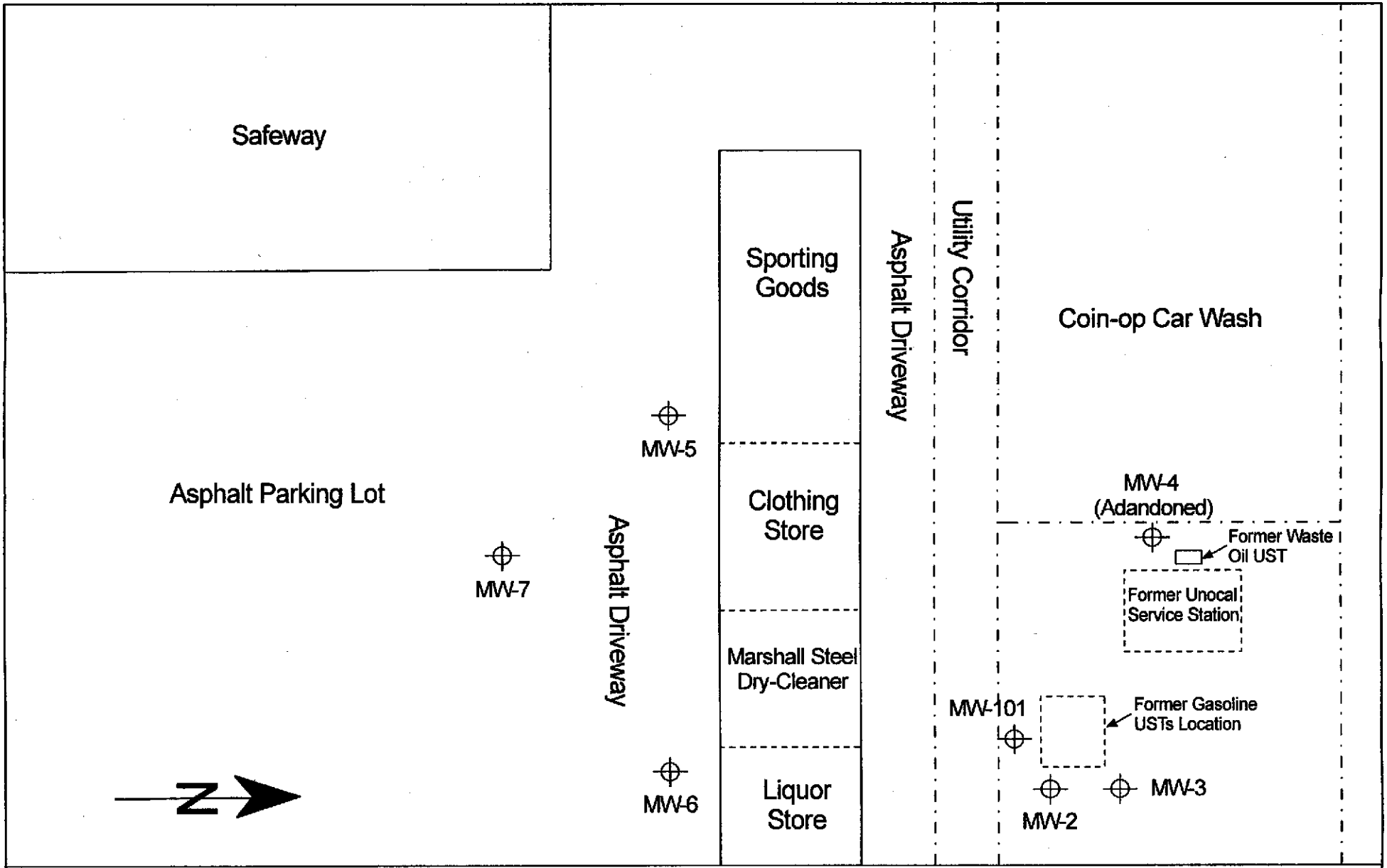
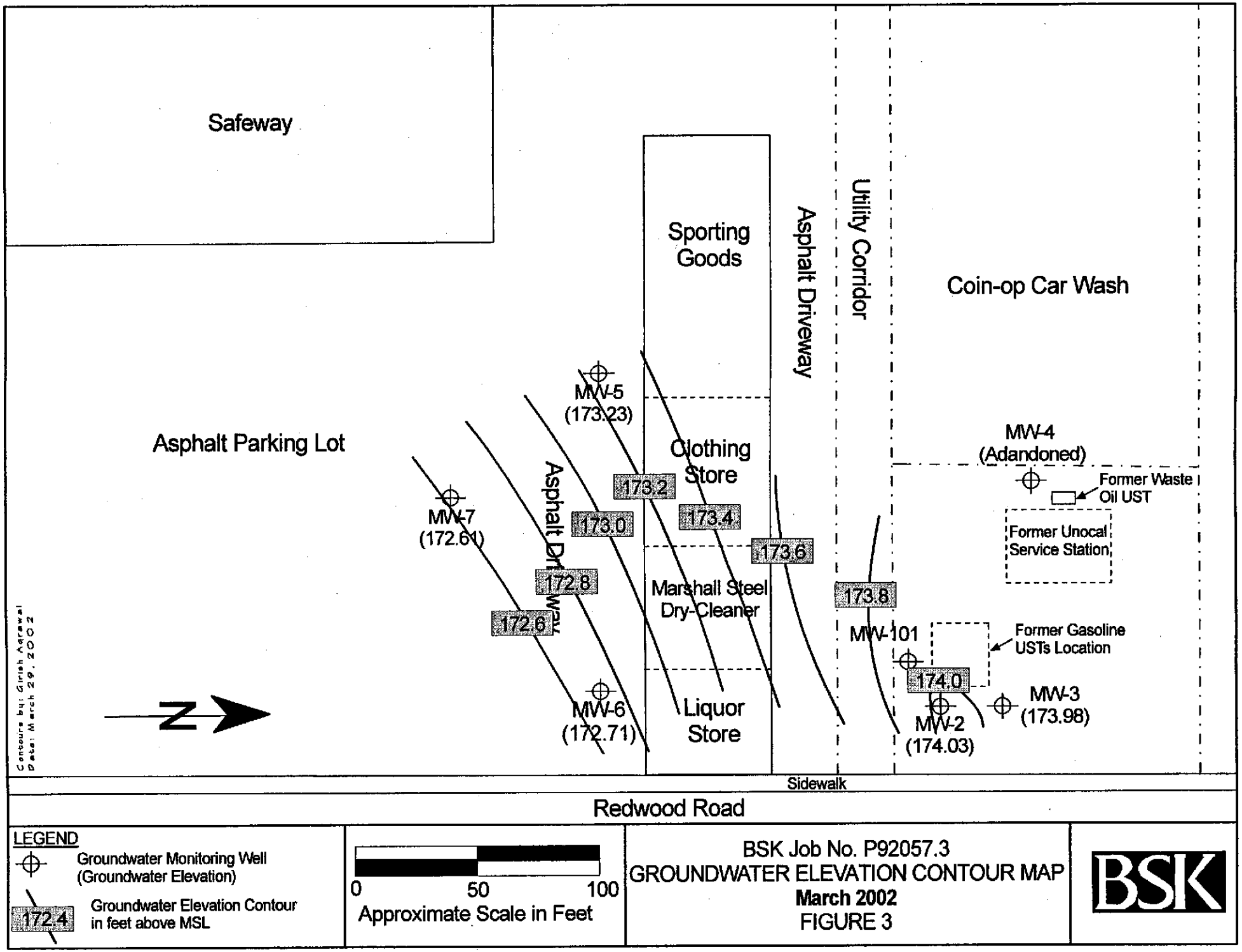
Semi-Annual Groundwater Monitoring Report Former Unocal 76 Service Station 20405 and 20629 Redwood Road Castro Valley, California	VICINITY MAP FIGURE: 1 BSK Job No. P92057.3	BSK


Safeway
Sporting Goods
Clothing Store
Marshall Steel Dry-Cleaner
Liquor Store
Asphalt Driveway
Utility Corridor
Asphalt Driveway
Coin-op Car Wash
Asphalt Parking Lot
MW-5
MW-7
MW-6
MW-4 (Adandoned)
Former Waste Oil UST
Former Unocal Service Station
MW-101
Former Gasoline USTs Location
MW-2
MW-3
N
Sidewalk
Redwood Road
LEGEND
Groundwater Monitoring Well Location & Desgination
0
50
100
Approximate Scale in Feet
BSK Job No. P92057.3
SITE PLAN
FIGURE 2
BSK


Safeway
Sporting Goods
Asphalt Driveway
Utility Corridor
Coin-op Car Wash
Asphalt Parking Lot
MW-5 (173.23)
Clothing Store
MW-4 (Adandoned)
Former Waste Oil UST
Former Unocal Service Station
MW-7 (172.64)
Asphalt Driveway
173.2
173.0
173.4
173.6
172.8
172.6
Marshall Steel Dry-Cleaner
173.8
MW-101
Former Gasoline USTs Location
174.0
MW-3 (173.98)
MW-2 (174.03)
MW-6 (172.71)
Liquor Store
N
Contours by: Girish Agrawal
Date: March 29, 2002
Sidewalk
Redwood Road
LEGEND
Groundwater Monitoring Well (Groundwater Elevation)
172.4
Groundwater Elevation Contour in feet above MSL
0
50
100
Approximate Scale in Feet
BSK Job No. P92057.3
GROUNDWATER ELEVATION CONTOUR MAP
March 2002
FIGURE 3
BSK

BSK Job No. P92057.3
Date: March 2002
Figure No. 4.6

WELL FIELD LOG

Well Observation: **Date:** 03/14/2002
Sample Collection: **Date:** 03/14/2002

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: John Davis
Weather: Sunny, Hot

WELL INFORMATION:

Well Number	MW-7	Date Purged	03/14/2002
Depth to Water - feet(TOC)	9:81	Purge Method	Electric Submersible Pump
Well Depth (feet)	28.0		
Water Volume (gallons)	2.96	Purge Begin	09:48
Reference Elevation - feet(TOC)	+182.42	Purge End	10:00
Groundwater Elevation (feet)	172.26	Purge Rate	1.0 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: None Observed
Bottom: Dark Tint
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP (°C)	COLOR/COMMENTS
09:51	3	401	7.69	19.8	Very Light Turbidity
09:54	6	478	7.29	20.5	Very Light Turbidity
09:57	9	648	6.80	20.5	Clear
10:00	12	653	6.72	20.6	Clear

SAMPLE COLLECTION DATA

Sampling Equipment: Disposable Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
10:05	BTEX/MTBE & TPHg	4-40 ml glass VOA with HCL	

Field Notes

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BSK Job No. P92057.3
Date: March 2002
Figure No. 4.5

WELL FIELD LOG

Well Observation: **Date:** 03/13/2002
Sample Collection: **Date:** 03/13/2002

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: John Davis
Weather: Sunny, Cool

WELL INFORMATION:

Well Number	MW-6	Date Purged	03/13/2002
Depth to Water - feet(TOC)	10.89	Purge Method	Electric Submersible Pump
Well Depth (feet)	26.78		
Water Volume (gallons)	2.59	Purge Begin	12:10
Reference Elevation - feet(TOC)	+183.60	Purge End	13:34
Groundwater Elevation (feet)	172.71	Purge Rate	0.8 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: None Observed
Bottom: None Observed
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP (°C)	COLOR/COMMENTS
13:43	2.75	686	6.73	20.3	Light Turbidity
13:46	5.50	729	6.56	19.7	Very Light Turbidity
13:49	8.25	735	6.53	20.3	Clearing
13:52	11.00	739	6.51	20.6	Clear

SAMPLE COLLECTION DATA

Sampling Equipment: Disposable Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
13:55	BTEX/MTBE & TPHg	4-40 ml glass VOA with HCl	

Field Notes:

BSK

BSK Job No. P92057.3
Date: March 2002
Figure No. 4.4

WELL FIELD LOG

Well Observation: **Date:** 08/23/2001
Sample Collection: **Date:** 08/23/2001

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: JD
Weather: Sunny, Hot

WELL INFORMATION:

Well Number	MW-5	Date Purged	N/A
Depth to Water - feet(TOC)	10.69	Purge Method	Bailer
Well Depth (feet)	34.5		
Water Volume (gallons)	3.90	Purge Begin	--
Reference Elevation - feet(TOC)	+183.92	Purge End	--
Groundwater Elevation (feet)	173.23	Purge Rate	--
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: None Observed
Bottom: None Observed
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

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

SAMPLE COLLECTION DATA

Sampling Equipment: Teflon Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
–	–	–	

Field Notes: Groundwater Level Reading Only

BSK

BSK Job No. P92057.3
Date: March 2002
Figure No. 4.3

WELL FIELD LOG

Well Observation: **Date:** 03/13/2002
Sample Collection: **Date:** 03/14/2002

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: John Davis
Weather: Sunny, Hot

WELL INFORMATION:

Well Number	MW-101	**Date Purged**	03/14/2002
Depth to Water - feet(TOC)	9.56	**Purge Method**	Bailer
Well Depth (feet)	29.50		
Water Volume (gallons)	13.02	**Purge Begin**	11:25
Reference Elevation - feet(TOC)	—	**Purge End**	11:55
Groundwater Elevation (feet)	—	**Purge Rate**	1.7 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: None observed
Bottom: None Observed
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°C)	COLOR/COMMENTS
11:31	13	542	7.43	19.0	Clear
11:38	26	539	6.79	19.6	Clear
11:46	39	536	6.75	19.9	Clear
11:55	52	533	6.71	20.0	Clear

SAMPLE COLLECTION DATA

Sampling Equipment: Teflon Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
12:00	BTEX/MTBE & TPHg	4-40 ml glass VOA with HCl	

Field Notes:

BSK

BSK Job No. P92057.3
Date: March 2002
Figure No. 4.2

WELL FIELD LOG

Well Observation: **Date:** 03/13/2002
Sample Collection: **Date:** 03/13/2002

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: John Davis
Weather: Sunny, Cool

WELL INFORMATION:

Well Number	MW-3	Date Purged	03/13/2002
Depth to Water - feet(TOC)	10.05	Purge Method	Electric Submersible Pump
Well Depth (feet)	28.85		
Water Volume (gallons)	3.06	Purge Begin	10:38
Reference Elevation - feet(TOC)	+184.03	Purge End	10:50
Groundwater Elevation (feet)	173.98	Purge Rate	1.1 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: Slight Yellow Tint, No Odor
Bottom: None Observed
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°C)	COLOR/COMMENTS
10:41	3.25	739	7.36	19.2	Clear
10:44	6.50	730	6.87	20.0	Clear
10:47	9.75	728	6.75	20.3	Clear
10:50	13.00	726	6.73	20.3	Clear

SAMPLE COLLECTION DATA

Sampling Equipment: Disposable Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
10:55	BTEX/MTBE & TPHg	4-40 ml glass VOA with HCl	

Field Notes:

BSK

BSK Job No. P92057.3
Date: March 2002
Figure No. 4.1

WELL FIELD LOG

Well Observation: **Date:** 03/13/2002
Sample Collection: **Date:** 03/13/2002

Project Name: Groundwater Monitoring
Location: Nahas/Former Union 76
Personnel: John Davis
Weather: Sunny, Cool

WELL INFORMATION:

Well Number	MW-2	**Date Purged**	03/13/2002
Depth to Water - feet(TOC)	9.44	**Purge Method**	Electric Submersible Pump
Well Depth (feet)	28.85		
Water Volume (gallons)	3.2	**Purge Begin**	14:17
Reference Elevation - feet(TOC)	+183.47	**Purge End**	14:29
Groundwater Elevation (feet)	174.03	**Purge Rate**	1.1 gpm
Measurement Technique	Solinst Electric Well Sounder		

IMMISCIBLE LAYERS:

Top: None Observed
Bottom: None Observed
Detection Method: Visual
Collection Method: Clear Point-Source Bailer

WELL DEVELOPMENT/PURGE DATA:

TIME	VOLUME REMOVED (gallons)	ELECTRICAL CONDUCTIVITY (micromhos)	pH	TEMP. (°C)	COLOR/COMMENTS
14:20	3.25	643	7.04	18.7	Clear
14:23	6.50	628	6.80	19.8	Clear
14:26	9.75	624	6.70	20.1	Clear
14:29	13.00	620	6.66	20.2	Clear

SAMPLE COLLECTION DATA

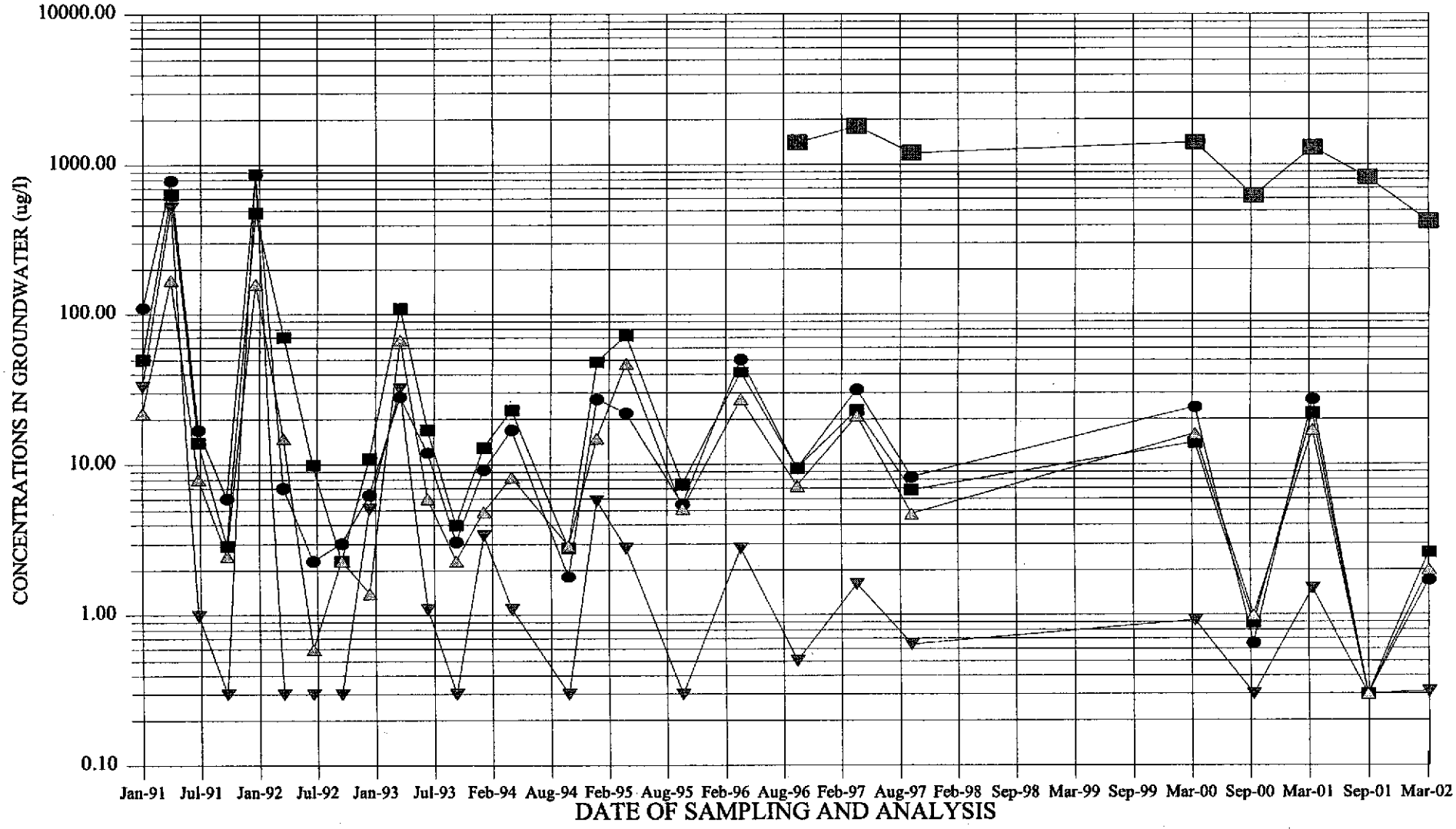
Sampling Equipment: Disposable Bailer

TIME	ANALYSIS	AMOUNT/CONTAINER USED	SAMPLE INTERVAL
14:35	BTEX/MTBE & TPHg	4-40 ml glass VOA with HCl	

Field Notes:

BSK

BTEX/MTBE CONCENTRATIONS IN GROUNDWATER(MW-2)



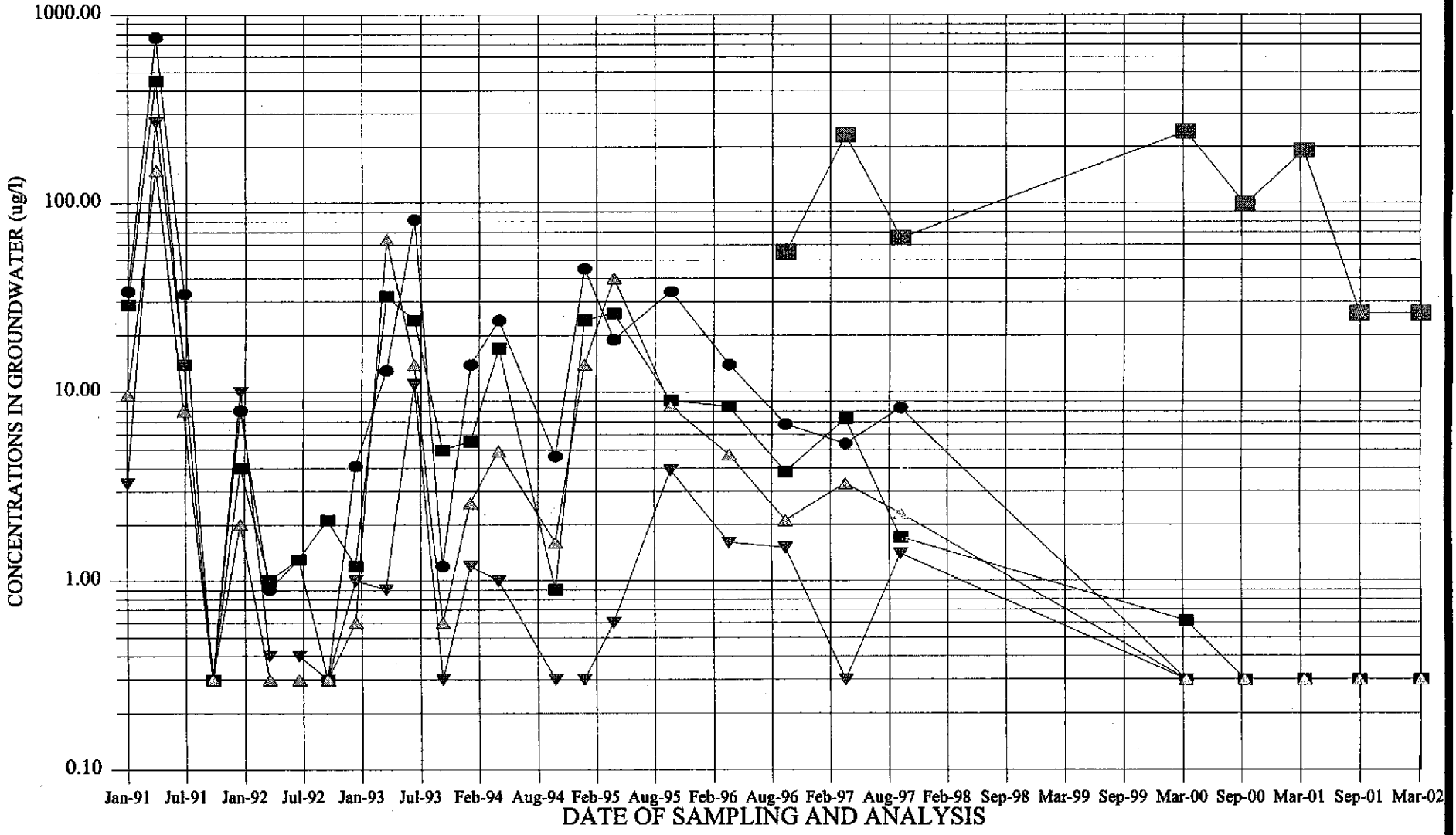
BSK Job No. P92057.3

MARCH 2002

FIGURE 5

BSK

BTEX/MTBE CONCENTRATIONS IN GROUNDWATER(MW-3)



BSK Job No. P92057.3
MARCH 2002
FIGURE 6

BSK

APPENDIX "A"

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

BSK

BSK ANALYTICAL LABORATORIES

Cover Letter

03/28/2002

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

BSK Submission Number: 2002030832

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.

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

Sincerely,

BSK Analytical Laboratories

Authorizing Signature(s)

Cynthia Pigman
QA/QC Supervisor

Addendum: Laboratory QC Report

1414 Stanislaus Street · Fresno, CA 93706-1623 · Phone 559-497-2888, In CA 800-877-8310 · Fax 559-485-6935

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: 03/28/2002

BSK Submission #: 2002030832

BSK Sample ID #: 190970

Project ID: P920573 Project Desc: Former Nahas / Union 76

Submission Comments:

Sample Type: Liquid
Sample Description: MW-2
Sample Comments:

Date Sampled: 03/13/2002
Time Sampled: 1435
Date Received: 03/15/2002

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	**140**	µg/L	50	1	50	03/22/2002	03/22/2002
Methyl-t-Butyl Ether	EPA 8015/8020	**420**	µg/L	5	20	100	03/23/2002	03/23/2002
Benzene	EPA 8020	**2.6**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Ethylbenzene	EPA 8020	**2.0**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Toluene	EPA 8020	**0.31**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Total Xylenes	EPA 8020	**1.7**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002

Surrogate

Fluorobenzene	EPA 8020	**82.3**	% Rec	-	1	N/A	03/22/2002	03/22/2002

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:

1414 Stanislaus Street Fresno, CA 93706-1623 Phone 559-497-2888, In CA 800-877-8310 Fax 559-485-6935

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: 03/28/2002

BSK Submission #: 2002030832

BSK Sample ID #: 190972

Project ID: P920573 Project Desc: Former Nahas / Union 76

Submission Comments:

Sample Type: Liquid
Sample Description: MW-3
Sample Comments:

Date Sampled: 03/14/2002
Time Sampled: 1055
Date Received: 03/15/2002

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	**ND**	µg/L	50	1	50	03/23/2002	03/23/2002
Methyl-t-Butyl Ether	EPA 8015/8020	**26**	µg/L	5	1	5	03/23/2002	03/23/2002
Benzene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/23/2002	03/23/2002
Ethylbenzene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/23/2002	03/23/2002
Toluene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/23/2002	03/23/2002
Total Xylenes	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/23/2002	03/23/2002

Surrogate

Fluorobenzene	EPA 8020	**95.8**	% Rec	-	1	N/A	03/23/2002	03/23/2002

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.
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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: 03/28/2002

BSK Submission #: 2002030832

BSK Sample ID #: 190969

Project ID: P920573 Project Desc: Former Nahas / Union 76

Submission Comments:

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

Date Sampled: 03/13/2002
Time Sampled: 1355
Date Received: 03/15/2002

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	**91**	µg/L	50	1	50	03/22/2002	03/22/2002
Methyl-t-Butyl Ether	EPA 8015/8020	**370**	µg/L	5	20	100	03/23/2002	03/23/2002
Benzene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Ethylbenzene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Toluene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Total Xylenes	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002

Surrogate

Fluorobenzene	EPA 8020	**95.9**	% Rec	-	1	N/A	03/22/2002	03/22/2002

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:

1414 Stanislaus Street Fresno, CA 93706-1623 Phone 559-497-2888, In CA 800-877-8310 Fax 559-485-6935

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: 03/28/2002

BSK Submission #: 2002030832

BSK Sample ID #: 190971

Project ID: P920573 Project Desc: Former Nahas / Union 76

Submission Comments:

Sample Type: Liquid
Sample Description: MW-7
Sample Comments:

Date Sampled: 03/14/2002
Time Sampled: 1005
Date Received: 03/15/2002

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	**280**	µg/L	50	1	50	03/22/2002	03/22/2002
Methyl-t-Butyl Ether	EPA 8015/8020	**7.7**	µg/L	5	1	5	03/22/2002	03/22/2002
Benzene	EPA 8020	**0.35**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Ethylbenzene	EPA 8020	**0.91**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Toluene	EPA 8020	**ND**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Total Xylenes	EPA 8020	**2.2**	µg/L	0.3	1	0.3	03/22/2002	03/22/2002
Surrogate								
Fluorobenzene	EPA 8020	**86.1**	% Rec	-	1	N/A	03/22/2002	03/22/2002

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:

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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: 04/05/2002

BSK Submission #: 2002030832

BSK Sample ID #: 190973

Project ID: P920573 Project Desc: Former Nabas / Union 76

Submission Comments:

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

Date Sampled: 03/14/2002
Time Sampled: 1200
Date Received: 03/15/2002

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date	Analysis Date
TPH as Gasoline	EPA 8015(M)	**19000**	µg/L	50	40	2000	03/24/2002	03/24/2002
Methyl-t-Butyl Ether	EPA 8015/8020	**1500**	µg/L	5	40	200	03/24/2002	03/24/2002
Benzene	EPA 8020	**600**	µg/L	0.3	40	12	03/24/2002	03/24/2002
Ethylbenzene	EPA 8020	**1600**	µg/L	0.3	40	12	03/24/2002	03/24/2002
Toluene	EPA 8020	**25**	µg/L	0.3	40	12	03/24/2002	03/24/2002
Total Xylenes	EPA 8020	**3100**	µg/L	0.3	40	12	03/24/2002	03/24/2002
Methyl-t-Butyl Ether	EPA 8260	**870**	µg/L	5	100	500	03/28/2002	03/28/2002

Surrogate

Fluorobenzene	EPA 8020	**86.2**	% Rec	-	40	N/A	03/24/2002	03/24/2002

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:

1414 Stanislaus Street Fresno, CA 93706-1623 Phone 559-497-2888, In CA 800-877-8310 Fax 559-485-6935

BSK ANALYTICAL LABORATORIES

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

2002030832
BSK_P
315004

03/15/2002
TAT: Standard

Analyses Request Chain of Custody

BSK-P

Client Name: FORMER NAHAS/UNION 76	Report Attention: ALEX ESKANDERI	Phone # 925 462-4000
Address	Project, Quote or PO # P92057.3	FAX # 925 462-6283
City, State, Zip: CASTRO VALLEY, CA.	Copy to:	System #

Sampled by: John Davis

Requested Analyses

Sample #	Type	# Cont.	Date Sampled	Time Sampled	Sample Description/Location	Comment or Station Code	TPH-G	BTEX	MTBE								
1	L	4	3-13-02	13:55	MW-6		X	X	X			1	9	0	9	6	9
2	L	4	3-13-02	14:35	MW-2		X	X	X			1	9	0	9	7	0
3	L	4	3-14-02	10:05	MW-7		X	X	X			1	9	0	9	7	1
4	L	4	3-14-02	10:55	MW-3		X	X	X			1	9	0	9	7	2
5	L	4	3-14-02	12:00	MW-101		X	X	X			1	9	0	9	7	3

★ The Highest MTBE hit confirm by 8260

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

Additional Services:
Rush Priority: [ ] - 2 Day [ ] - 5 Day
X - QC Data package: Level (II) III or IV (circle one)
[ ] - Formal Chain of Custody

Additional Services / Charges Authorized By:

(Signature)

Payment Received with Delivery
Date: ______ Amount $ ______
Check # ______ Initials ______
Receipt # ______

	Signature	Print Name	Company	Date	Time
Received / Relinquished by:	John Davis	John Davis	BSK-6	3-15-02	8:56
Received / Relinquished by:					
Received / Relinquished by:					
Received for Laboratory by:	[signature]	[signature]	BSK	3/15/02	0856

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 03/28/2002

BSK Submission : **2002030832**
Client : **BSK and Associates - Pleasanto**
Date Submitted : **03/15/2002**
Project ID : **P920573**
Project Desc : **Former Nahas / Union 76**

BSK StarLims Run #: 34301 Instrument ID: **GC1**
Analyst Initials: **IMTIAZA** Method Number: **BTEX_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
Benzene	LCS	N/A	8.9860	µg/L	89		10	ND	130	70	03/22/02	*Acceptable*
Ethylbenzene	LCS	N/A	9.1902	µg/L	91		10	ND	130	70	03/22/02	*Acceptable*
Toluene	LCS	N/A	8.9966	µg/L	89		10	ND	130	70	03/22/02	*Acceptable*
Total Xylenes	LCS	N/A	27.5673	µg/L	91		30	ND	130	70	03/22/02	*Acceptable*
Benzene	LCSD	N/A	9.0386	µg/L	90	0.59	10	ND	130	70	03/22/02	*Acceptable*
Ethylbenzene	LCSD	N/A	9.2281	µg/L	92	0.41	10	ND	130	70	03/22/02	*Acceptable*
Toluene	LCSD	N/A	8.8501	µg/L	88	1.7	10	ND	130	70	03/22/02	*Acceptable*
Total Xylenes	LCSD	N/A	27.6377	µg/L	92	0.25	30	ND	130	70	03/22/02	*Acceptable*
Benzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/22/02	*Acceptable*
Ethylbenzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/22/02	*Acceptable*
Toluene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/22/02	*Acceptable*
Total Xylenes	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/22/02	*Acceptable*
TPH as Gasoline	RBLK	N/A	4.372	µg/L	< 50				50	N/A	03/22/02	*Acceptable*

Surrogate Results

Analyte	QC Type		Surr. Result					UCL	LCL	Date	
Fluorobenzene	LCS	N/A	93.5	% Rec			83.8	130	70	03/22/02	*Acceptable*
Fluorobenzene	LCSD	N/A	94.0	% Rec			83.8	130	70	03/22/02	*Acceptable*
Fluorobenzene	RBLK	N/A	83.8	% Rec				130	70	03/22/02	*Acceptable*

BSK StarLims Run #: 34443 Instrument ID: **GC1**
Analyst Initials: **IMTIAZA** Method Number: **BTEX_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
Benzene	LCS	N/A	9.1283	µg/L	91		10	ND	130	70	03/24/02	*Acceptable*
Ethylbenzene	LCS	N/A	9.3217	µg/L	93		10	ND	130	70	03/24/02	*Acceptable*
Methyl-t-Butyl Ether	LCS	N/A	35.0038	µg/L	87		40	ND	130	70	03/24/02	*Acceptable*
Toluene	LCS	N/A	8.9508	µg/L	89		10	ND	130	70	03/24/02	*Acceptable*
Total Xylenes	LCS	N/A	28.0038	µg/L	93		30	ND	130	70	03/24/02	*Acceptable*
Benzene	LCSD	N/A	9.2152	µg/L	92	0.95	10	ND	130	70	03/24/02	*Acceptable*
Ethylbenzene	LCSD	N/A	9.4211	µg/L	94	1	10	ND	130	70	03/24/02	*Acceptable*
Methyl-t-Butyl Ether	LCSD	N/A	38.0491	µg/L	95	8.3	40	ND	130	70	03/24/02	*Acceptable*
Toluene	LCSD	N/A	9.0306	µg/L	90	0.89	10	ND	130	70	03/24/02	*Acceptable*
Total Xylenes	LCSD	N/A	28.3553	µg/L	94	1.2	30	ND	130	70	03/24/02	*Acceptable*
Benzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/24/02	*Acceptable*

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL

BSK ANALYTICAL LABORATORIES

QC Summary Report 03/28/2002

BSK Submission : **2002030832**
Client : **BSK and Associates - Pleasanto**
Date Submitted : **03/15/2002**
Project ID : **P920573**
Project Desc : **Former Nahas / Union 76**

BSK StarLims Run #: 34443 Instrument ID: **GC1**
Analyst Initials: **IMTIAZA** Method Number: **BTEX_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
Ethylbenzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/24/02	*Acceptable*
Methyl-t-Butyl Ether	RBLK	N/A	0	µg/L	< 5				5	N/A	03/24/02	*Acceptable*
Toluene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/24/02	*Acceptable*
Total Xylenes	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/24/02	*Acceptable*
TPH as Gasoline	RBLK	N/A	3.801	µg/L	< 50				50	N/A	03/24/02	*Acceptable*

Surrogate Results

Analyte	QC Type		Surr. Result					UCL	LCL	Date	
Fluorobenzene	LCS	N/A	98.6	% Rec			97.8	130	70	03/24/02	*Acceptable*
Fluorobenzene	LCSD	N/A	97.0	% Rec			97.8	130	70	03/24/02	*Acceptable*
Fluorobenzene	RBLK	N/A	97.8	% Rec				130	70	03/24/02	*Acceptable*

BSK StarLims Run #: 34622 Instrument ID: **GC1**
Analyst Initials: **IMTIAZA** Method Number: **BTEX_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
Benzene	LCS	N/A	9.1867	µg/L	91		10	ND	130	70	03/23/02	*Acceptable*
Ethylbenzene	LCS	N/A	9.3662	µg/L	93		10	ND	130	70	03/23/02	*Acceptable*
Methyl-t-Butyl Ether	LCS	N/A	37.4504	µg/L	93		40	ND	130	70	03/23/02	*Acceptable*
Toluene	LCS	N/A	9.2376	µg/L	92		10	ND	130	70	03/23/02	*Acceptable*
Total Xylenes	LCS	N/A	28.1106	µg/L	93		30	ND	130	70	03/23/02	*Acceptable*
Benzene	LCSD	N/A	8.8813	µg/L	88	3.3	10	ND	130	70	03/23/02	*Acceptable*
Ethylbenzene	LCSD	N/A	9.0352	µg/L	90	3.6	10	ND	130	70	03/23/02	*Acceptable*
Methyl-t-Butyl Ether	LCSD	N/A	38.7395	µg/L	96	3.3	40	ND	130	70	03/23/02	*Acceptable*
Toluene	LCSD	N/A	8.9206	µg/L	89	3.4	10	ND	130	70	03/23/02	*Acceptable*
Total Xylenes	LCSD	N/A	27.1761	µg/L	90	3.3	30	ND	130	70	03/23/02	*Acceptable*
Benzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/23/02	*Acceptable*
Ethylbenzene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/23/02	*Acceptable*
Methyl-t-Butyl Ether	RBLK	N/A	0	µg/L	< 5				5	N/A	03/23/02	*Acceptable*
Toluene	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/23/02	*Acceptable*
Total Xylenes	RBLK	N/A	0	µg/L	< 0.3				0.3	N/A	03/23/02	*Acceptable*
TPH as Gasoline	RBLK	N/A	4.731	µg/L	< 50				50	N/A	03/23/02	*Acceptable*

Surrogate Results

Analyte	QC Type	Surr. Result	UCL	LCL	Date

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL

BSK ANALYTICAL LABORATORIES

QC Summary Report 03/28/2002

BSK Submission : **2002030832**
Client : **BSK and Associates - Pleasanto**
Date Submitted : **03/15/2002**
Project ID : **P920573**
Project Desc : **Former Nahas / Union 76**

BSK StarLims Run #: 34622 Instrument ID: **GC1**
Analyst Initials: **IMTIAZA** Method Number: **BTEX_LL**

Surrogate Results

Analyte	QC Type		Surr. Result		UCL	LCL	Date	
Fluorobenzene	LCS	N/A	95.5	% Rec	83.3	130	70 03/23/02	*Acceptable*
Fluorobenzene	LCSD	N/A	91.4	% Rec	83.3	130	70 03/23/02	*Acceptable*
Fluorobenzene	RBLK	N/A	83.3	% Rec		130	70 03/23/02	*Acceptable*

Approved by: Cynthia Lynn

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL