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FOURTH QUARTER OF 2005 GROUNDWATER
MONITORING AND SAMPLING
FOR THE PROPERTY
LOCATED AT 15595 WASHINGTON AVENUE
SAN LORENZO, CALIFORNIA
JANUARY 4, 2006

PREPARED FOR:
MR. MEHDI MOHAMMADIAN
CAL GAS
15595 WASHINGTON AVENUE
SAN LORENZO, CALIFORNIA 94580

BY: ENVIRO SOIL TECH CONSULTANTS 131 TULLY ROAD SAN JOSE, CALIFORNIA 95111

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Field Notes

January 4, 2006

File No. 12-99-702-SI

Mr. Mehdi Mohammadian

Cal Gas 15595 Washington Avenue San Lorenzo, California 94580

SUBJECT: FOURTH QUARTER OF 2005 GROUNDWATER
MONITORING & SAMPLING FOR THE PROPERTY

Located at 15595 Washington Avenue, in San Lorenzo, California

Dear Mr. Mohammadian:

This report presents results from the quarterly groundwater monitoring and sampling conducted by Enviro Soil Tech Consultants (ESTC), on December 9, 2005, at the subject site (Figure 1).

The five monitoring wells (MW-1 through MW-5) located on-site were monitored for presence of floating products and/or distinctive odor, and groundwater samples were collected from these wells for laboratory analyses.

This quarterly groundwater monitoring and sampling was conducted in accordance with the authorization of Mr. Mehdi Mohammadian and at the request of Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) in a letter dated May 19, 1999.

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If you have any questions or require additional information, please feel free to contact our office at (408) 297-1500.

Sincerely,

C. E. #34928

ENVIRO SOIL TECH CONSULTANTS

FRANK HAMEDI-FARD GENERAL MANAGER

VICTOR B. CHERVEN, PH.D.

PROFESSIONAL GEOLOGIST #3475

3475

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#### **PURPOSE:**

The purposes of the quarterly groundwater monitoring and sampling reported here were to define the direction of groundwater flow, assess the water quality, and map the extent of hydrocarbons contamination in the groundwater at the site.

#### **SITE DESCRIPTION:**

The site is located on the northwest corner of Washington Avenue and Via Enrico Street, in San Lorenzo, California (Figure 1), and is currently being used as a service station. The site contains one single story building. The underground storage tanks are located at the center portion of the property south of the pump islands. The subject property is located in an area of commercial and residential development.

#### **BACKGROUND:**

Several parties have owned or operated this service station in the past 30 years. From 1974 to 1983 it was owned and operated by the Calleri family. In 1983, the Calleri sold it to Texaco, Inc. Texaco owned the site from 1983 to 1986, but the site was not in operation during that time. Texaco removed the existing USTs in 1986, and subsurface contamination was detected in the fuel tank excavation.

After removing the UST's and discovering the contamination, Texaco sold the property to Bertram Kubo in 1986 or 1987. Mr. Kubo installed three new 10,000-gallon fuel tanks at a new location and reopened as a retail service station. He sold the property in 1990 to the current owner, Mr. Mehdi Mohammadian, who operates the site as Shell retail service station.

Groundwater Technology (GWT) conducted a soil and groundwater investigation on behalf of Texaco in 1986. Three monitoring wells (MW-1 to MW-3) were installed, and hydrocarbon impact to shallow groundwater was detected in these wells. Investigation was suspended at that time, and no further work took place under Mr. Kubo's ownership after he purchased the site from Texaco.

After purchasing the site in 1990 and re-sampling the three monitoring wells in 1992, Mr. Mohammadian retained Toxichem Management Systems, Inc. (TMS) in 1998 to conduct further subsurface investigation. Two additional wells (MW-4 and MW-5) were installed to the north of the three existing wells. Quarterly monitoring of all five wells began in August 1998 and has continued to the present.

ESTC continued the investigation in 2000 by drilling several new borings west and southwest of the site, in the presumed downgradient direction. Since then, ESTC has continued to monitor the five wells and re-mapped the concentrations of various analytes in the groundwater. With these data, ESTC concluded in late 2004 that the highest concentrations are located in the western portion of the site, west of the UST's that were removed in 1986. Groundwater elevation maps indicate that west is a common, if not dominant groundwater flow direction, which explains why MW-3, which is located just west (downgradient) of the tanks where Texaco discovered the contamination in 1986, has historically been the most contaminated well. In the past 12 months, however, MW-5 has been the most contaminated well.

In 2004, ACHSA-EHS requested a work plan for further site assessment, and ESTC submitted a proposal in September 2004. The plan was rejected and several revisions or modifications were requested. ESTC submitted an addendum letter in June

2005, but ACHSA-EHS also rejected these modifications and requested an additional meeting to clarify its expectations regarding the additional work. These expectations were summarized in a written directive from ACHSA-EHS in December 2005, and ESTC is currently attempting to respond to this directive.

#### **SCOPE OF PRESENT WORK:**

The scope of work included in the groundwater monitoring program includes:

- Measure water depths in wells MW-1 to MW-5 and note whether petroleum sheen and/or odor are present.
- Purge the monitoring wells of standing water.
- Collect water samples from each well.
- Submit samples to a state-certified laboratory for chemical analyses of Total Petroleum Hydrocarbons as gasoline (TPHg); Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX); Methyl Tertiary Butyl Ether (MTBE) and other fuel oxygenates.
- Review results and prepare a report of the investigation.

#### FIELD ACTIVITIES:

On December 9, 2005, ESTC's staff monitored five monitoring wells (MW-1 to MW-5) for groundwater depth and presence of sheen and/or odor. Depth measurements and other observations were recorded on the field monitoring sheet, and are shown in Table 1. Both petroleum sheen and odor were noted in monitoring well MW-5, but no evidence of contamination was observed in any of the other wells.

After the depth to groundwater was measured, approximately four to five well volumes of water were bailed from each well in order to purge standing water from the casing and assure that water samples would be representative of surrounding groundwater. The purged water was stored on site in 55-gallon drums.

Water samples were collected after purging. A stainless steel bailer was used for sample collection. Water sampling equipment was decontaminated before and after each well was sampled using Tri-sodium Phosphate (TSP) and water wash, followed by double rinsing. The samples were preserved in 40-milliliter glass vials sealed with Teflon-lined screw caps, labeled and placed in a cold ice chest and then transported to Entech Analytical Labs, a state-certified laboratory, with proper chain-of-custody for analyses. The sampling was conducted in accordance with ESTC's Standard Operation Procedures (Appendix "D") and ACHCSA-EHS guidelines.

#### **DEPTH TO GROUNDWATER AND FLOW DIRECTION:**

The depth to groundwater on December 9 ranged from 7.56 feet (well MW-2) to 9.82 feet (well MW-5) below ground surface. This is slightly shallower than in September.

Water elevation data from Table 1 were contoured (Figure 2) and used to determine groundwater flow direction. The water table sloped to the west on December 9, 2005 implying groundwater flow in that direction.

#### **ANALYTICAL RESULTS:**

Groundwater samples from monitoring wells MW-1 to MW-5 were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) per EPA Method 8015MOD; for BTEX per EPA Method 8020; and for MTBE and other gasoline oxygenates per EPA Method 8260B. The results are summarized in Table 1, and the laboratory report is contained in Appendix "E".

As noted in the Background section, monitoring well MW-5 has been the most strongly impacted well since the third quarter of 2004, and this continues to be the case. The TPHg concentration in this well has been rising since early 2001, as is clearly illustrated in Figure 3. The MTBE concentration has increased even more dramatically, rising from less than 100 µg/l (parts per billion) in 1999 to more than 4000 ppb in late 2003 (Figure 4). On several occasions, the laboratory noted that MTBE formed a strong peak within the TPHg range and accounted for most of the TPHg concentration (Table 1). Another gasoline oxygenate, tert-Butanol (TBA) began to show up in 2003, and the concentration has risen from 500 ppb to as much as 1500 ppb in 2005 (Table 1).

In contrast, concentrations in MW-1, MW-2, and MW-3 have been on the decline during this same time interval. From mid-2000 to late 2001, MW-3 was the most contaminated well. The TPHg concentration exceeded 30,000 ppb and the MTBE concentration exceeded 90,000 ppb. Concentrations began to decline in 2001, and TPHg dropped below 5,000 ppb in late 2004 and is presently less than 1,000 ppb (Table 1 and Figure 5). MW-1 and MW-2 followed the same trend (Figure 6). During this time, MTBE dissipated very rapidly in these wells. For example, the concentration in MW-3 dropped from 200,000 ppb to less than 100 ppb (Figure 7). Hence, MW-1, MW-2, and MW-3 exhibit trends that are completely opposite to those seen in MW-5 between 1999 and 2005.

There are a number of possible processes that could explain these changes. One possibility that has been mentioned in previous reports is that the decline in concentrations in the original three wells is due to the fact that the water table is above the screened interval in these wells. However, this has been the case during the entire 1994-2005 monitoring period, and it does not appear that the decline in concentrations in those wells correlates well with the depth to groundwater. Another possibility is that there has been some degree of natural attenuation of the hydrocarbons. The increase in the tert-Butanol concentration over time offers some support to this hypothesis, because TBA is known to be a daughter product produced by degradation of MTBE. The data do indicate that MTBE concentrations have declined at the same time that TBA concentrations have increased. Another possibility is that the hydrocarbons have diffused laterally, causing the plume to enlarge as the plume became more diluted. The data from MW-4 indicate that concentrations in this well have not changed significantly over time, so lateral migration to the northeast does not appear to have occurred. However, the possibility of spread to the northwest cannot be discounted, because there are no wells west or northwest of the site. The lateral extent of the plume is discussed further in the following section. A third possibility is that the hydrocarbons, particularly MTBE, have migrated downward with time, causing concentrations to decline in the first waterbearing zone. MTBE is known to be highly soluble in water and will disperse downward as well as laterally, so the sharp decline in the concentration of this hydrocarbon (Figure 7) could partly be due to leaching into deeper zones.

#### **EXTENT OF CONTAMINATION:**

Figures 8-10 are contour maps for TPHg, benzene, and MTBE. The maps demonstrate that the concentration of all three analytes increases to the northwest, and that the southern and eastern limits of groundwater contamination are delineated by the

original three wells (MW-1 through MW-3). The northern and western limits of contamination are off site, north and west (downgradient) of MW-5. Several years ago, however, the data in Table 1 imply that the southern limit of contamination was probably tens of feet or more south of the original wells and the northern limit was not as far north of MW-5 as it is today.

#### **RECOMMENDATION:**

We recommend performing additional drilling to define the extent of groundwater contamination north and west of the site. The investigation should be sufficiently broad in scope to provide data on the vertical extent of contamination as well, and to make it possible to identify and map contaminant transport paths through the subsurface.

A copy of this report should be forwarded to Alameda County Health Care Services Agency-Environmental Health Services (ACHCSA-EHS) and Regional Water Quality Control Board (RWQCB) for their review and comments.

#### **LIMITATIONS:**

This report and the associated work have been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. The contents of this report reflect the conditions of the site at this particular time. The findings of this report are based on:

- 1) The observations of field personnel.
- 2) The results of laboratory analyses performed by a state-certified laboratory.

It is possible that variations in the soil and groundwater could exist beyond the points explored in this investigation. Also, changes in groundwater conditions of a property can occur with the passage of time due to variations in rainfall, temperature, regional water usage and other natural processes or the works of man on this property or adjacent property.

The services that ESTC provided have been in accordance with generally accepted environmental professional practices for the nature and conditions of work completed in the same or similar localities at the time the work was performed. The contents of this report reflect the conditions of the subject site at this particular time. No other warranties, expressed or implied as to the professional advice provided are made.

# A P P E N D I X "A" TABLES

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
8/08/86	MW-1 (N/A)	15	10	N/A	N/A	N/A	N/A	ND <500	ND <500	NA	82	NA	NA	NA	NA	NA
11/12/92				11.37†	N/A	N/A	720	3	0.5	1	1	NA	NA	NA	NA	NA
3/24/94	22.93 (feet MSL)			8.71*	14.22	Odor	1300	110	ND <0.5	19	ND <0.5	NA	NA	NA	NA	NA
12/15/95				8.49*	14.44	No sheen Weakly petro. odor	350	18	2.9	3.5	2.8	NA	NA	NA	NA	NA
8/26/98	(22.96) resurveyed			9.30*	13.66	N/A	ND <500	17	ND<5	ND<5	ND<5	340000	NA	NA	NA	NA
1/26/99				7.96*	15.00	N/A	ND <50000	ND <500	ND <500	ND <500	ND <500	269000	NA	NA	NA	NA
4/06/99				8.01*	14.95	N/A	3500	296	ND <10	43	18.6	117000	NA	NA	NA	NA
5/24/00	(23.05) resurveyed			8.24*	14.81	No sheen or odor	33000	ND <5000	ND <5000	ND <5000	ND <5000	74000	ND <5000	ND <20000	ND <5000	None Detected<5000
8/24/00				9.43*	13.62	No sheen or odor	11000	ND <2000	ND <2000	ND <2000	ND <2000	32000	ND <2500	ND <10000	ND <2500	None Detected<2500
11/22/00				9.28*	13.77	L. rainbow sheen No odor	24000	ND <2500	ND <2500	ND <2500	ND <2500	35000	ND <2500	ND <10000	ND <2500	None Detected<2500
2/22/01				7.86*	15.19	No sheen or odor	19000	ND <5000	ND <5000	ND <5000	ND <5000	51000	ND <5000	ND <20000	ND <5000	None Detected<5000
5/29/01				8.96*	14.09	No sheen or odor	30000	ND <5000	ND <5000	ND <5000	ND <5000	110000	ND <5000	ND <20000	ND <5000	None Detected<5000
8/22/01				9.66*	13.39	No sheen or odor	46000	ND <2500	ND <2500	ND <2500	ND <2500	70000	ND <2500	11000	ND <2500	None Detected<2500
12/06/01				8.36*	14.69	No sheen or odor	25000	ND <2500	ND <2500	ND <2500	ND <2500	37000	ND <2500	ND <10000	ND <2500	None Detected<2500
3/25/02	(23.05) resurveyed			7.84*	15.21	L. rainbow sheen No odor	770	ND <830	ND <830	ND <830	ND <830	20000	ND <830	NA	ND <830	None Detected<830
7/02/02				8.96*	14.14	No sheen or odor	550	ND <500	ND <500	ND <500	ND <500	13000	ND <500	NA	ND <500	None Detected<500
10/05/02				9.58*	13.47	No sheen or odor	880•	ND <250	ND <250	ND <250	ND <250	3800	ND <250	ND <1000	ND <250	None Detected<250

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	T	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
1/17/03	MW-1 (23.05)	15	10	7.72*	15.33	No sheen or odor	8200 <b>a</b>	ND <500	ND <500	ND <500	ND <500	11000	ND <500	2200	ND <500	None Detected<500
4/17/03				8.48*	14.57	No sheen or odor	390	ND <2.5	ND <2.5	ND <2.5	ND <2.5	1400	ND <2.5	NA	ND <2.5	n-Propylbenzene 3.1
7/24/03				9.20*	13.85	No sheen or odor	490•	ND <100	ND <100	ND <100	ND <100	590	ND <100	ND <200	ND <100	None Detected<100
10/22/03				9.88*	13.17	No sheen or odor	430 <b>c</b>	ND<50	ND<50	ND<50	ND<50	540	ND <50	ND <100	ND <50	None Detected<50
1/17/04				8.18*	14.87	No sheen or odor	420 <b>d</b>	ND<25	ND<25	ND<25	ND<25	340	ND <25	ND <50	D <25	None Detected<25
4/05/04				7.96*	15.09	No sheen or odor	520 <b>n</b>	ND<5	ND<5	ND<5	ND<10	700	ND<5	ND <100	ND<5	None Detected<5
7/06/04				9.13*	13.92	No sheen or odor	150 <b>c</b>	ND <0.5	ND <0.5	ND <0.5	ND<1	120	ND <0.5	ND <10	ND <0.5	None Detected<0.5
9/27/04				9.46*	13.59	No sheen or odor	110	5.3	1.2	2	4.3	47	ND <0.5	ND <10	ND <0.5	None Detected<0.5
12/17/04				8.38*	14.67	No sheen or odor	160	13	15	3.2	13	34	ND <0.5	ND <10	ND <0.5	None Detected<0.5
3/21/05				7.62*	15.43	No sheen or odor	450	ND<5	ND<5	ND<5	ND<5	520	ND<5	ND <100	ND<5	None Detected<5
6/18/05				8.18*	14.87	No sheen or odor	270	ND <2.5	ND <2.5	ND <2.5	ND <2.5	210	ND <2.5	63	ND <2.5	None Detected
9/15/05				8.84*	14.21	No sheen or odor	110	ND <0.5	ND <0.5	ND <0.5	ND <0.5	47	ND <0.5	15	ND <0.5	Carbon Disulfide 0.74
12/09/05				8.64*	14.41	No sheen or odor	70	ND <0.5	ND <0.5	ND <0.5	ND <0.5	16	ND <0.5	13	ND <0.5	None Detected<0.5
8/08/96	MW-2 (N/A)	15	10	N/A	N/A	N/A	NA	ND<50	ND<50	NA	ND<50	NA	NA	NA	NA	NA
11/12/92				10.55†	N/A	N/A	ND<10	ND <0.3	ND <0.3	ND <0.3	ND <0.5	NA	NA	NA	NA	NA
3/24/94	22.09 (feet MSL)			7.87*	14.22	N/A	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	N/A	NA	NA	NA	NA

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
12/15/95	MW-2 (22.09)	15	10	4.62*	17.47	No sheen or odor	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	NA	NA	NA	NA	NA
2/28/98	(22.07) resurveyed			8.40*	13.67	N/A	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	210000	NA	NA	NA	NA
1/26/99	j			7.29*	14.78	N/A	ND <2000	ND <20	ND <20	ND <20	ND <20	9450	NA	NA	NA	NA
4/06/99				7.28*	14.79	N/A	ND <1000	ND <10	ND <10	ND <10	ND <10	209000	NA	NA	NA	NA
5/24/00	(21.94) resurveyed			7.22*	14.72	No sheen or odor	46000	ND <12500	ND <12500	ND <12500	ND <12500	180000	ND <12500	ND <50000	ND <12500	None Detected<12500
8/24/00	j			8.39*	13.55	No sheen or odor	21000	ND <2500	ND <2500	ND <2500	ND <2500	70000	ND <2500	ND <10000	ND <2500	None Detected<2500
11/22/00				8.24*	13.70	No sheen or odor	29000	ND <2500	ND <2500	ND <2500	ND <2500	43000	ND <2500	ND <10000	ND <2500	None Detected<2500
2/22/01				6.52*	15.42	No sheen or odor	20000	ND <5000	ND <5000	ND <5000	ND <5000	61000	ND <5000	ND <20000	ND <5000	None Detected<5000
5/29/01				7.90*	14.04	No sheen or odor	9100	ND <1000	ND <1000	ND <1000	ND <1000	24000	ND <1000	ND <4000	ND <1000	None Detected<1000
8/22/01				8.62*	13.32	No sheen or odor	8700	ND <500	ND <500	ND <500	ND <500	12000	ND <500	ND <2000	ND <500	None Detected<500
12/06/01				7.28*	14.66	No sheen or odor	11000	ND <1250	ND <1250	ND <1250	ND <1250	22000	ND <1250	ND <5000	ND <1250	None Detected<1250
3/25/02	(21.94) resurveyed			6.86*	15.08	No sheen or odor	ND<50	ND <830	ND <830	ND <830	ND <830	25000	ND <830	NA	ND <830	None Detected<830
7/02/02	·			7.96*	13.98	No sheen or odor	ND<50	ND <170	ND <170	ND <170	ND <170	6000	ND <170	NA	ND <170	None Detected<170
10/05/02				8.54*	13.40	No sheen or odor	820•	ND <250	ND <250	ND <250	ND <250	3400	ND <250	ND <1000	ND <250	None Detected<250
1/17/03				6.76*	15.18	No sheen or odor	7000 <b>a</b>	ND <500	ND <500	ND <500	ND <500	6800	ND <500	1100	ND <500	None Detected<500
4/17/03				7.38*	14.56	No sheen or odor	ND <500	ND<5	ND<5	ND<5	ND <5	3100	ND<5	NA	ND<5	None Detected<5
7/24/03				8.14*	13.80	No sheen or odor	720 <b>a</b>	ND<5	ND<5	ND<5	ND<5	1400	ND 250	ND <500	ND <250	None Detected<250
10/22/03				8.82*	13.12	No sheen or odor	420 <b>c</b>	ND<50	ND <50	ND <50	ND<50	580	ND<50	ND <100	ND<50	None Detected<50

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
10/22/03	MW-2 (21.94)	15	10	8.82*	13.12	No sheen or odor	420 <b>c</b>	ND<50	ND <50	ND <50	ND<50	580	ND<50	ND <100	ND<50	None Detected<100
1/17/04	, ,			7.14*	14.80	No sheen or odor	860 <b>c</b>	ND <100	ND <100	ND <100	ND <100	1800	ND<5	250	ND<5	None Detected<5
4/05/04				6.94*	15.00	No sheen or odor	330 <b>n</b>	ND<5	ND<5	ND<5	ND<10	500	ND<5	260	ND<5	None Detected<5
7/06/04				8.05*	13.89	No sheen or odor	200 <b>e</b>	ND<1	ND<1	ND<1	ND<2	220	ND<1	ND<20	ND<1	None Detected<1
9/27/04				8.38*	13.11	No sheen or odor	54 <b>e</b>	1.1	ND 0.5	ND <0.5	ND<1	72	ND <0.5	ND<10	ND <0.5	None Detected<0.5
12/17/04				7.31*	14.63	No sheen or odor	160	22	25	5.1	21	86	ND <0.5	39	ND <0.5	None Detected<0.5
3/21/05				6.54*	15.40	No sheen or odor	59	1.2	3.2	0.87	4.8	63	ND <0.5	30	ND <0.5	None Detected<0.5
6/18/05				7.16*	14.78	No sheen or odor	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	41	ND <0.5	12	ND <0.5	None Detected<0.5
9/15/05				7.74*	14.20	No sheen or odor	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	20	ND <0.5	ND<10	ND <0.5	None Detected<0.5
12/09/05				7.56*	14.38	No sheen or odor	ND<50	ND<1	ND<1	ND<1	ND<1	9.7	ND <0.5	ND<10	ND <0.5	None Detected<0.5
8/08/96	MW-3 (N/A)	16	10	N/A	N/A	N/A	NA	ND<50	ND<50	NA	ND<50	NA	NA	NA	NA	NA
11/12/92				11.32†	N/A	N/A	69	ND <0.3	ND <0.3	ND <0.3	ND <0.3	NA	NA	NA	NA	NA
3/24/94	22.73 (feet MSL)			8.69*	14.04	N/A	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	NA	NA	NA	NA	NA
12/15/95				8.31*	14.42	No sheen or odor	ND<50	ND <0.5	ND <0.5	ND <0.5	ND <0.5	NA	NA	NA	NA	NA
8/26/98	(22.74) resurveyed			9.29*	13.45	N/A	ND <500	36	ND<5	ND<5	ND<5	99000	NA	NA	NA	NA
12/16/98				8.00*	14.74	N/A	ND <500	ND<50	ND<50	ND<50	ND<50	19800	NA	NA	NA	NA
4/06/99				8.00*	14.74	N/A	ND <1000	ND<10	ND<10	ND<10	ND<10	151000	NA	NA	NA	NA

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
5/24/00	MW-3 (22.56) resurveyed	16	10	8.08*	14.47	No sheen or odor	48000	ND <12500	ND <12500	ND <12500	ND <12500	200000	ND <12500	ND <50000	ND <12500	None Detected<12500
8/24/00	·			9.24*	13.32	No sheen or odor	52000	ND <5000	ND <5000	ND <5000	ND <5000	170000	ND <5000	ND <20000	ND <5000	None Detected<5000
11/22/00				9.08*	13.48	No sheen or odor	69000	ND <10000	ND <10000	ND <10000	ND <10000	160000	ND <10000	ND <40000	ND <10000	None Detected<10000
2/22/01				7.58*	14.98	No sheen or odor	30000	ND <5000	ND <5000	ND <5000	ND <5000	130000	ND <5000	ND <20000	ND <5000	None Detected<5000
5/29/01				8.76*	13.80	No sheen or odor	29000	ND <2500	ND <2500	ND <2500	ND <2500	78000	ND <2500	ND <10000	ND <2500	None Detected<2500
8/22/01				9.46*	13.10	No sheen or	37000	ND <5000	ND <5000	ND <5000	ND <5000	98000	ND <5000	ND <20000	ND <5000	None Detected<5000
12/06/01				8.06*	14.50	No sheen or odor	33000	ND <5000	ND <5000	ND <5000	ND <5000	94000	ND <5000	ND <20000	ND <5000	None Detected<5000
3/25/02	(22.56) resurveyed			7.62*	14.94	No sheen or odor	ND<50	ND <2500	ND <2500	ND <2500	ND <2500	62000	ND <2500	NA	ND <2500	None Detected<2500
7/02/02	·			7.78*	14.78	No sheen or odor	73 <b>Z</b>	ND <2000	ND <2000	ND <2000	ND <2000	67000	NND <2000	NA	ND <2000	None Detected<2000
10/05/02				9.38*	13.18	No sheen or odor	25000•	ND <2500	ND <2500	ND <2500	ND <2500	55000	ND <2500	ND <10000	ND <2500	Methylene Chloride 7000
1/17/03				7.46*	15.10	No sheen or odor	32000ª	ND <2500	ND <2500	ND <2500	ND <2500	49000	ND <2500	ND <5000	ND <2500	None Detected<2500
4/17/03				8.22*	14.34	No sheen or odor	ND <10000	ND <100	ND <100	ND <100	ND <100	38000	ND <100	NA	ND <100	None Detected<100
7/24/03				9.02*	13.54	No sheen or odor	16000ª	ND <2500	ND <2500	ND <2500	ND <2500	31000	ND <2500	ND <5000	ND <2500	None Detected<2500
10/22/03				9.66*	12.90	No sheen or odor	17000 <b>c</b>	ND <2500	ND <2500	ND <2500	ND <2500	29000	ND <2500	ND\ <5000	ND <2500	None Detected<2500
1/17/04				7.92*	14.64	No sheen or odor	11000 <b>d</b>	ND <2000	ND <2000	ND <2000	ND <2000	23000	ND <2000	ND <4000	ND <2000	None Detected<2000
4/05/04				7.46*	15.10	No sheen or odor	13000 <b>n</b>	ND <200	ND <200	ND <200	ND <400	22000	ND <200	ND <4000	ND <200	None Detected<200
7/06/04				8.92*	13.64	No sheen or odor	13000 <b>e</b>	ND<50	ND<50	ND<50	ND <100	12000	ND<50	ND <1000	ND<50	None Detected<50

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B	
9/27/04	MW-3 (22.56)	16	10	9.24*	13.32	No sheen or odor	4200 <b>e</b>	ND<50	ND<50	ND<50	ND <100	6800	ND<50	ND <1000	ND<50	None Detected<50	
12/17/04				8.12*	14.44	No sheen or odor	4000 <b>c</b>	ND<50	ND<50	ND<50	ND<50	5400	ND<50	ND <1000	ND<50	None Detected<50	
3/21/05				7.38*	15.18	No sheen or odor	3500c	ND<50	ND<50	ND<50	ND<50	6400	ND<50	4300	ND<50	None Detected<50	
6/18/05				8.02*	14.54	No sheen or odor	650	ND<25	ND<25	ND<25	ND<25	700	ND<25	9200	ND<25	None Detected<25	
9/15/05				8.64*	13.92	No sheen or odor	180	ND<10	ND<10	ND<10	ND<10	110	ND<10	7300	ND<10	None Detected<10	
12/09/05				8.42*	14.14	No sheen or odor	ND<50	NED<5	ND<5	ND<5	ND<5	15	ND<5	2500	ND<5	None Detected<5	
8/26/98	MW-4 (23.51) feet MSL	19	N/A	9.87	13.64	N/A	170	2	0.74	1.3	1	150	NA	NA	NA	NA	
1/26/99				8.54	14.97	N/A	140	ND <0.5	ND <0.5	ND <0.5	ND <0.5	7.6	NA	NA	NA	NA	
4/06/99				8.34	15.17	N/A	390	3.94	ND <0.5	1.52	0.808	15.2	NA	NA	NA	NA	
5/24/00	(23.40) resurveyed			8.72	14.68	No sheen or odor	210	ND<5	ND<5	ND<5	ND<5	40	ND<5	ND<20	ND<5	None Detected<5	
8/24/00				9.88	13.52	No sheen or odor	160	ND<5	7.4	ND<5	ND<5	44	ND<5	ND<20	ND<5	None Detected<5	
11/22/00				9.76	13.64	No sheen or odor	140	ND<5	ND<5	ND<5	ND<5	25	ND<5	ND<20	ND<5	None Detected<5	
2/22/01				8.42	14.98	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	32	ND<5	ND<20	ND<5	None Detected<5	
5/29/01				9.42	13.98	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	31	ND<5	ND<20	ND<5	None Detected<5	
8/22/01				10.10	13.30	No sheen or odor	96	N<5	ND<5	ND<5	ND<5	28	ND<5	ND<20	ND<5	None Detected<5	
12/06/01				8.68	14.72	No sheen or odor	160	ND<5	ND<5	ND<5	ND<5	25	ND<5	ND<20	ND<5	None Detected<5	
3/25/02				8.28	15.12	No sheen or odor	150	ND<5	ND<5	ND<5	ND<5	14	ND<5	NA	ND<5	None Detected<5	
7/02/02				9.36	14.04	No sheen or odor	120	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	NA	ND<5	None Detected<5	
10/05/02				10.12	13.28	No sheen or odor	110	ND<5	ND<5	ND<5	ND<5	53	ND<5	ND<20	ND<5	None Detected<5	
1/17/03				8.10	15.30	No sheen or odor	86 <b>c</b>	ND<5	ND<5	ND<5	ND<5	23	ND <05	NA	ND <0.5	Naphthalene 0	).81
4/17/03				8.88	14.52	No sheen or odor	110	3	2.8	1.1	2.84	89	ND<5	ND<10	ND<5	None Detected<5	
7/24/03				9.74	13.66	No sheen or odor	130•	ND<5	ND<5	ND<5	ND<5	71	ND<5	ND<10	ND<5	None Detected<5	
10/22/03				10.40	13.00	No sheen or odor	130 <b>b</b>	ND<5	ND<5	ND<5	ND<5	81	ND<5	ND<10	ND<5	None Detected<5	
1/17/04				8.72	14.68	No sheen or odor	180 <b>d</b>	ND<5	ND<5	ND<5	ND<5	65	ND <0.5	ND<10	ND <0.5	None Detected<0.5	

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	TPHg	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260B
4/05/04	MW-4 (23.40)	15	N/A	8.48	14.92	No sheen or odor	94	ND <0.5	ND <0.5	ND <0.5	ND<1	38	ND <0.5	ND<10	ND <0.5	None Detected<0.5
7/06/04	, ,			9.67	13.73	No sheen or odor	61 <b>e</b>	ND <0.5	ND <0.5	ND <0.5	ND<1	79	ND <0.5	ND<10	ND <0.5	None Detected<0.5
9/27/04				10.02	13.38	No sheen or odor	230	3.8	0.8	1.3	2.3	57	ND <0.5	ND<10	ND <0.5	None Detected<0.5
12/17/04				8.88	14.52	No sheen or odor	430	62	68	13	53	42	ND <0.5	ND<10	ND <0.5	1,2,4-Trimethylbenzene 6.9
3/21/05				8.02	15.38	No sheen or odor	71	2.3	5.1	1.2	6.9	15	ND <0.5	ND<10	ND <0.5	None Detected<0.5
6/18/05				8.72	14.68	No sheen or odor	98	ND <0.5	ND <0.5	ND <0.5	ND <0.5	29	ND <0.5	11	ND <0.5	None Detected<0.5
9/15/05				9.38	14.02	No sheen or odor	150	ND <0.5	ND <0.5	ND <0.5	ND <0.5	35	ND <0.5	12	ND <0.5	None Detected<0.5
12/09/05				9.20	14.20	No sheen or odor	110	ND <0.5	ND <0.5	ND <0.5	ND <0.5	23	ND <0.5	14	ND <0.5	None Detected<0.5
8/26/98	MW-5 (23.85) feet MSL	19	N/A	10.51	13.34	N/A	6600	240	ND<50	380	84	ND <250	NA	NA	NA	NA
1/26/99				10.26	13.59	N/A	371	11.7	ND <0.5	3.22	ND <0.5	36.4	NA	NA	NA	NA
4/06/99				9.32	14.53	N/A	7680	266	ND<10	280	ND<10	ND<10	NA	NA	NA	NA
5/24/00	(23.86) resurveyed			9.39	14.47	Rainbow sheen No odor	3300	180	ND<25	140	ND<25	200	ND<25	ND <100	ND<25	Isopropylbenzene 55 n-Butylbenzene 42 n-Propylbenzene 200 Naphthalene 120
8/24/00				10.54	13.32	Light rainbow sheen No odor	3200	150	ND<10	91	ND<10	300	ND<10	ND<40	ND<10	1,2,4-Trimetthylbenzene 15 Isopropylbenzene 38 n-Butylbenzene 29 n-Propylbenzene 140 Naphthalene 87 p-Isopropyltoluene 28 sec-Butylbenzene 12

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 8260	
11/22/00	MW-5 (23.86)	19	N/A	10.42	13.44	No sheen Light sewerage odor	520	120	ND<25	46	ND<25	510	ND<25	ND <100	ND<25	Isopropylbenzene 31 n-Propylbenzene 100 Naphthalene 37	
2/22/01				8.88	14.98	No sheen or odor	5400	100	ND<50	94	ND<50	700	ND<50	ND <200	ND<50	n-Propylbenzene Naphthalene	160 90
5/29/01				10.08	13.78	Rainbow sheen No odor	3700	83	ND<50	58	ND<50	860	ND<50	ND <200	ND<50	n-Propylbenzene Naphthalene	130 64
8/22/01				10.76	13.10	Light rainbow sheen No odor	5900	150	ND<10	ND<10	ND<10	1700	ND<5	ND<20	ND<5	None Detected<5	
12/06/01				9.48	14.38	Rainbow sheen Light petroleum odor	4900	ND<50	ND<50	ND<50	ND<50	1900	ND<50	ND <200	ND<50	None Detected<50	
3/25/02	(23.86) resurveyed			9.08	14.78	No sheen or odor	4000	170	ND<83	ND<83	ND<83	2200	ND<83	NA	ND<83	Propylbenzene	180
7/02/02				10.02	13.84	No sheen or odor	6100	ND <130	ND <130	ND <130	ND <130	2600	ND <130	NA	ND <130	Propylbenzene	240
10/05/02				10.72	13.14	No sheen or odor	5500	110	ND <100	ND <100	ND <100	2500	ND <100	ND <400	ND <100	n-Propylbenzene Naphthalene	230 120
1/17/03				8.76	15.10	No sheen or odor	3900 <sup>n</sup>	ND <100	ND <100	ND <100	ND <100	2000	ND <100	310	ND <100	n-Propylbenzene	140
4/17/03				9.58	14.28	No sheen or odor	7500	110	ND<10	61	ND<10	3500	ND<10	NA	ND<10	Isopropylbenzene n-Propylbenzene sec-Butylbenzene Naphthalene	71 270 21 140
7/24/03				10.36	13.50	No sheen or odor	7000 <sup>n</sup>	ND <250	ND <250	ND <250	ND <250	3300	ND <250	520	ND <250	None Detected<250	
10/22/03				11.02	12.84	No sheen Sewerage odor	7100	ND <500	ND <500	ND <500	ND <500	6100	ND <500	ND <1000	ND <500	None Detected<500	
1/17/04				9.30	14.56	No sheen Sewerage odor	7100 <b>n</b>	ND <500	ND <500	ND <500	ND <500	4200	ND <500	ND <1000	ND <500	None Detected<500	
4/05/04				9.06	14.80	No sheen Light sewerage odor	6200 <b>n</b>	100	ND<50	ND<50	ND <100	4800	ND<50	ND <1000	ND<50	None Detected<50	

Date	Well No./ Elevation	Depth of Well	Depth of Perf.	Depth to Water	GW Elev.	Well Observation	ТРНд	В	Т	E	X	MTBE	PCE	TBA	TCE	Other VOCs By EPA 82601	
7/06/04	MW-5 (23.86)	19	N/A	10.30	13.56	No sheen Sewerage odor	7800	110	ND<25	44	ND<50	5600	ND<25	ND <500	ND <25	Isopropylbenzene n-Propylbenzene	81 350
9/27/04				10.92	12.94	No sheen Sewerage odor	6100 <b>e</b>	83	ND<50	ND<50	ND <100	4000	ND<50	ND <1000	ND<50	None Detected<50	
12/17/04				9.47	14.39	Slight sheen Sewerage odor	5700	110	54	27	ND<25	4200	ND<25	ND <500	ND<25	None Detected<25	
3/21/05				8.58	15.28	No sheen Sewerage odor	5600	60	ND<50	ND<50	ND<50	4600	ND <50	1300	ND <50	None Detected<50	
6/18/05				9.32	14.54	Rainbow sheen Petroleum odor	8100	66	ND<50	ND<50	ND<50	4800	ND<50	1400	ND<50	None Detected<50	
9/15/05				10.02	13.84	Rainbow sheen Petroleum odor	7600	ND<50	ND<50	ND<50	ND<50	4500	ND<50	1500	ND<50	None Detected<50	
12/09/05				9.82	14.04	Rainbow sheen Petroleum odor	5000	28	ND<25	ND<25	ND<25	2600	ND<25	1300	ND<25	None Detected<25	

**TPHg** - Total Petroleum Hydrocarbons as gasoline

MTBE - Methyl Tertiary Butyl Ether

Perf. - Perforation

**GW Elev. -** Groundwater Elevation

NA - Not Analyzed

† Well screens are not submerged

**Z** - Sample exhibits unknown single peak or peaks

**BTEX** - Benzene, Toluene, Ethylbenzene, Total Xylenes

**VOCs** - Volatile Organic Compounds

MSL - Mean Sea Level

N/A - Not Applicable

**ND** - Not Detected (Below Laboratory Detection Limit)

\* Well screens are submerged

- TPH as gasoline reported value due to high concentrations of MTBE which are present in the TPH as gasoline quantitation range
- a Report TPH as gasoline value is the result of high concentrations of discrete peak (MTBE) within the TPH as gasoline quantitation range
- c Report TPH as gasoline value contains the result of high concentrations of MTBE within the TPH as gasoline quantitation range
- **n** Report TPH as gasoline value contains the result of high concentrations of MTBE within the TPH as gasoline quantitation range High surrogate recovery for 4-BFB due to matrix interference. See TFT results.

#### **TABLE 1 CONT'D**

## GROUNDWATER MONITORING DATA (feet) AND ANALYTICAL RESULTS (µg/L)

- **b** TPH as gasoline value is the result of high concentrations of MTBE and high boiling point hydrocarbon mixture within the TPH as gasoline quantitation range
- d TPH as gasoline value contains high concentration of MTBE and a typical gasoline pattern within the TPH as gasoline quantitation range
- e TPH as gasoline reported value due to high concentrations of MTBE present in the TPH as gasoline

## APPENDIX "B"

## **FIGURES**

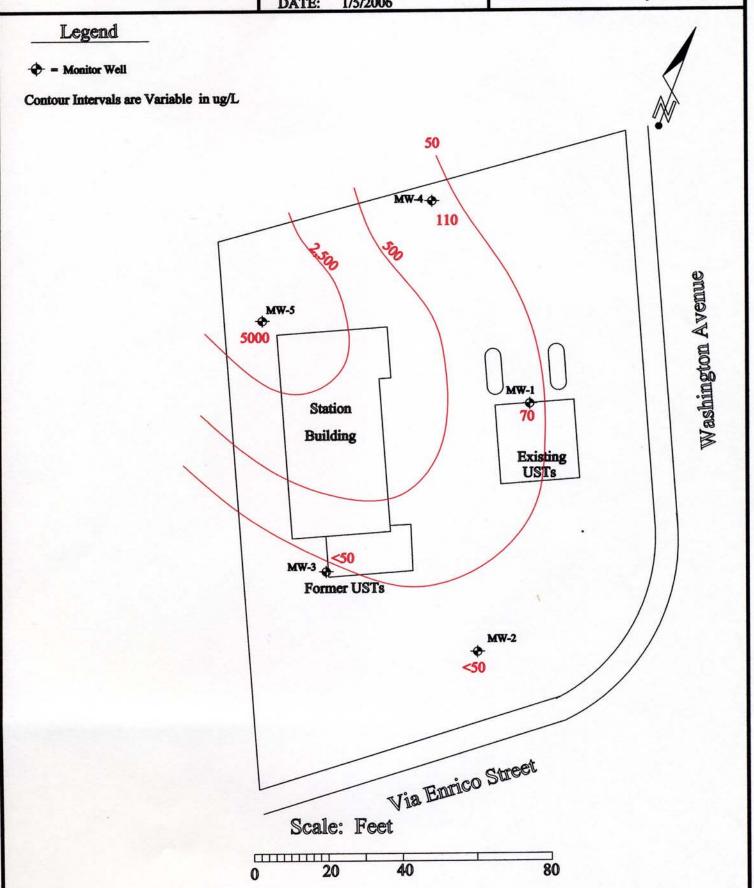
131 Tully Road San Jose, CA 95112 PROJECT

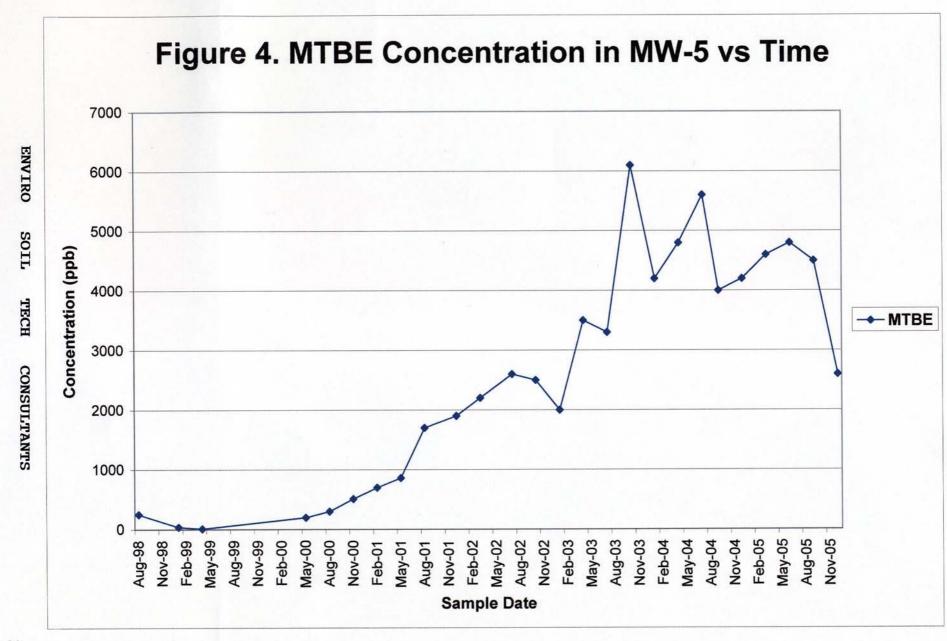
15595 Washington Avenue San Lorenzo, California

PROJECT # 12-99-702-SI DATE: 1/5/2006 Figure

8

Isocontours of TPH-g in Groundwater, 12/9/05





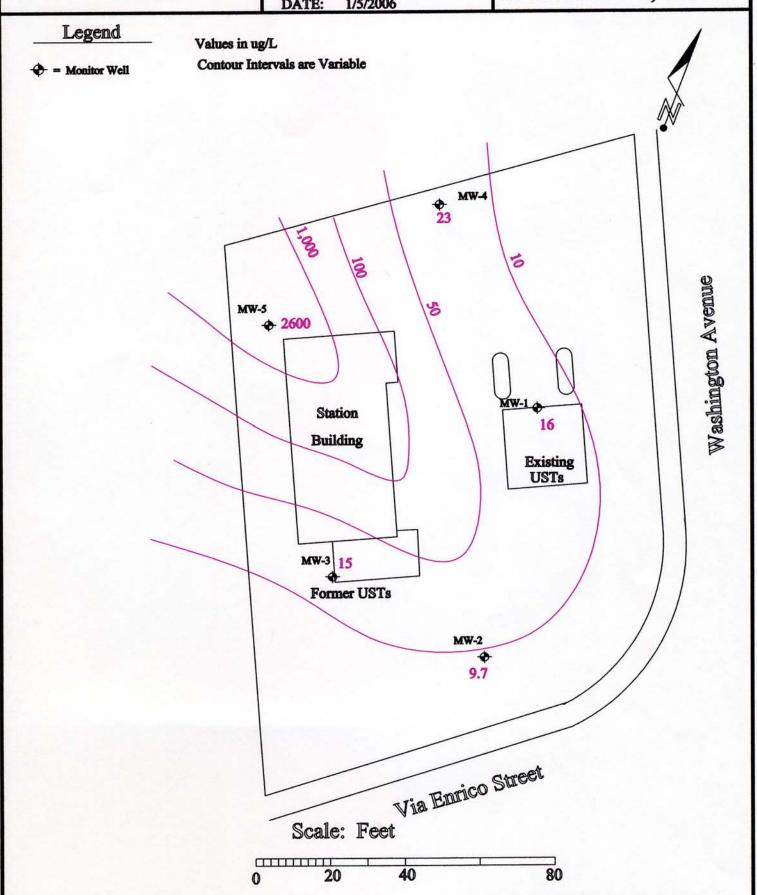
131 Tully Road San Jose, CA 95112 **PROJECT** 

15595 Washington Avenue San Lorenzo, California

PROJECT # 12-99-702-SI DATE: 1/5/2006 Figure

10

Isocontours of MTBE in Groundwater, 12/9/05



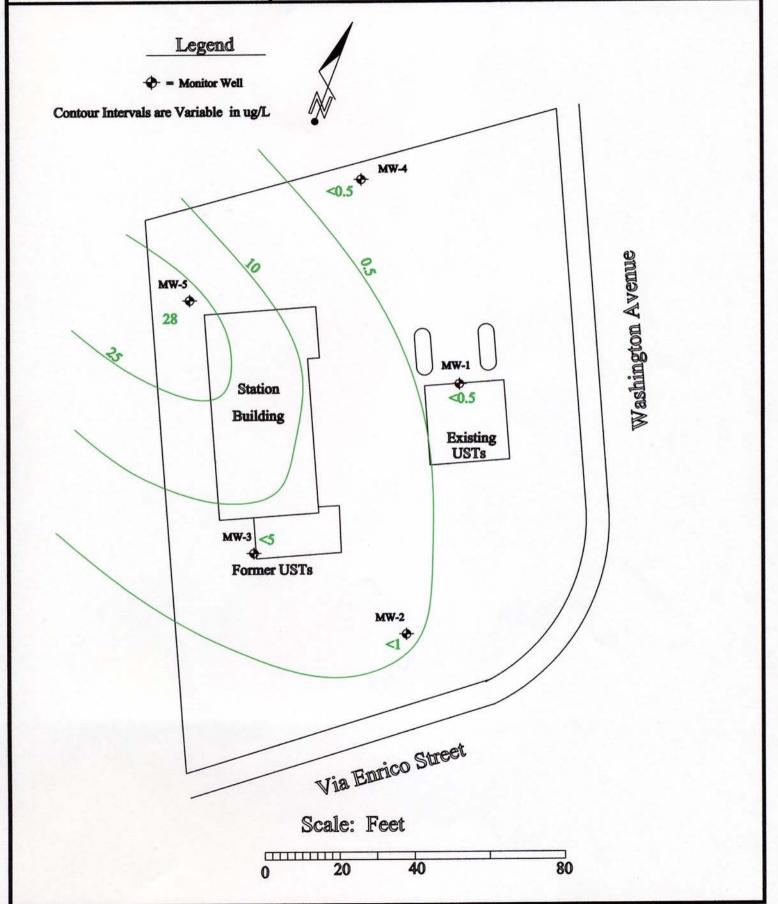
131 Tully Road San Jose, CA 95112 PROJECT

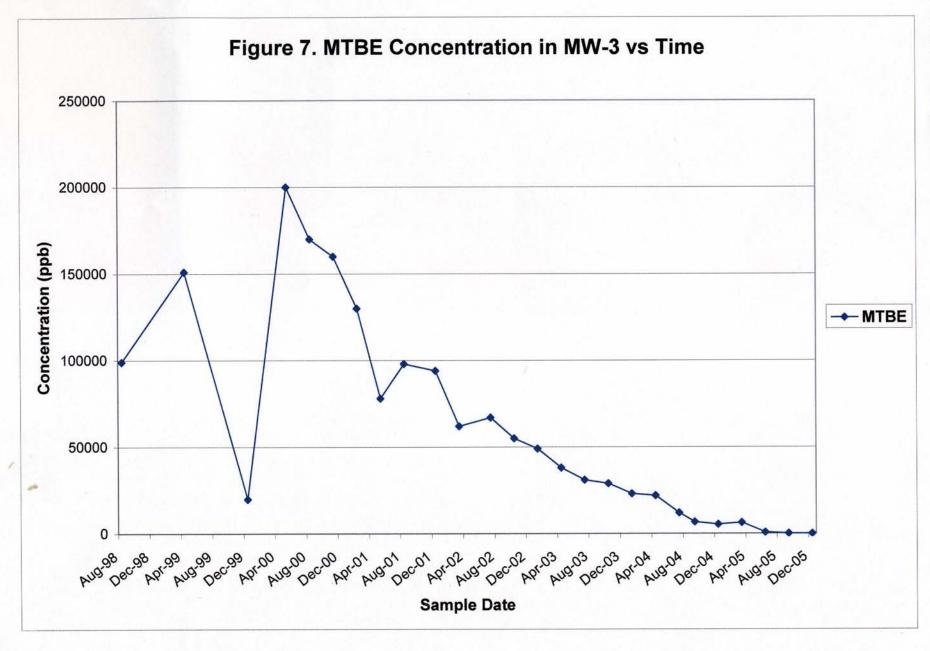
15595 Washington Avenue San Lorenzo, California

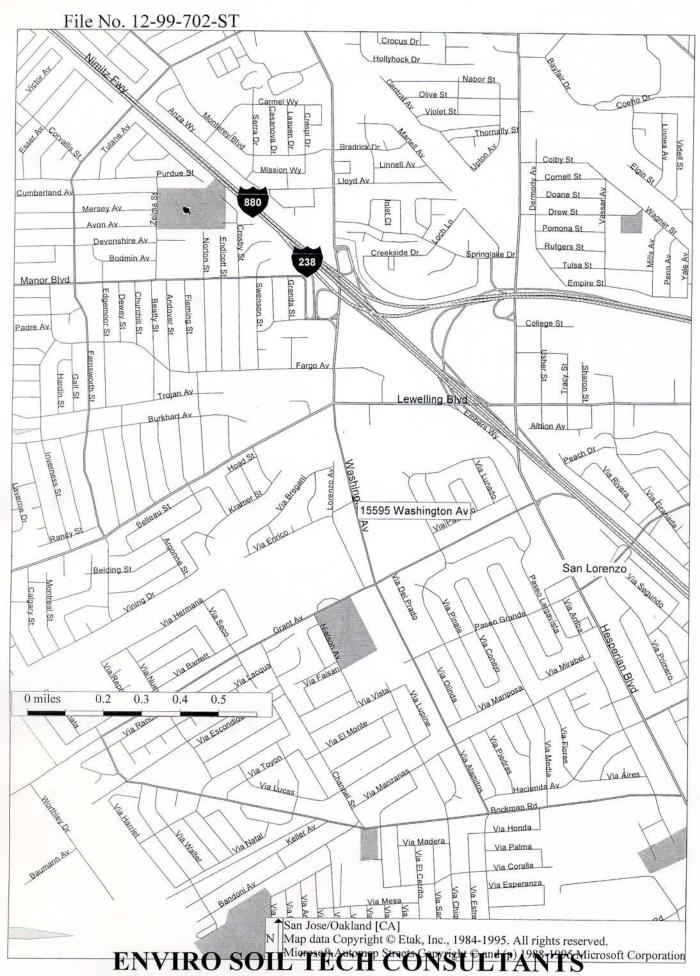
PROJECT # 12-99-702-SI DATE: 1/5/2006 Figure

9

Isocontours of Benzene in Groundwater, 12/9/05







ENVIRO

SOIL

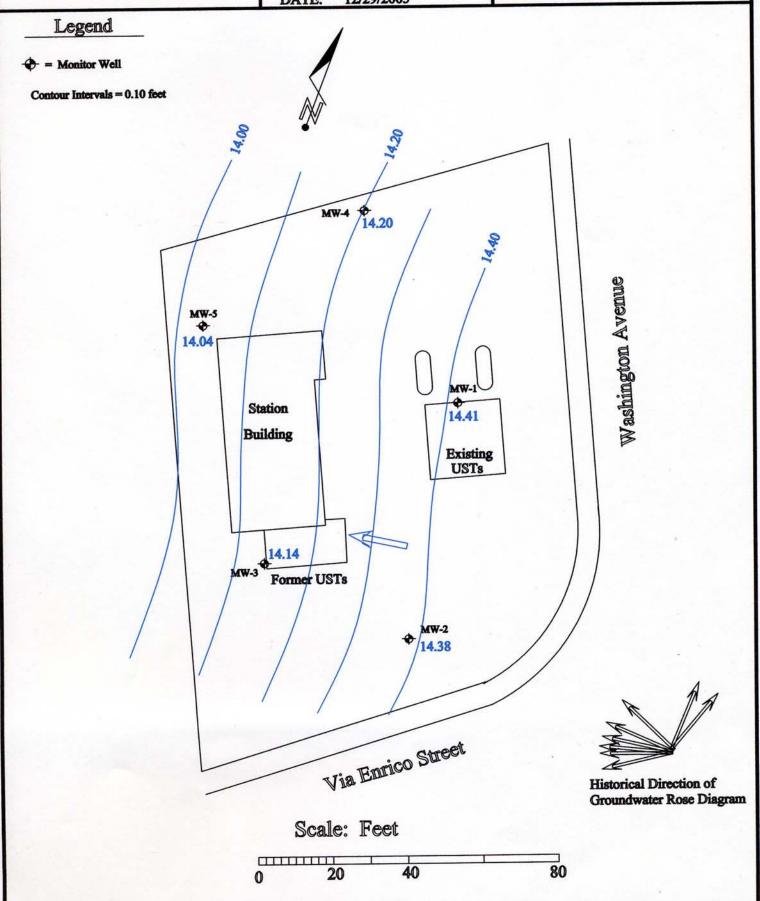
131 Tully Road San Jose, CA 95112 PROJECT

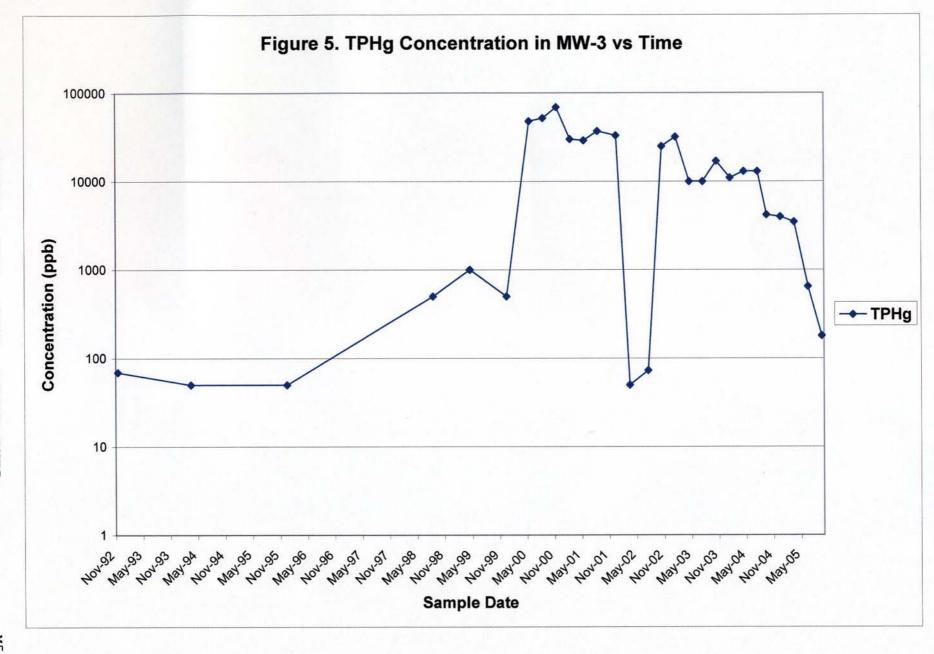
15595 Washington Avenue San Lorenzo, California

PROJECT # 12-99-702-SI DATE: 12/29/2005 Figure

2

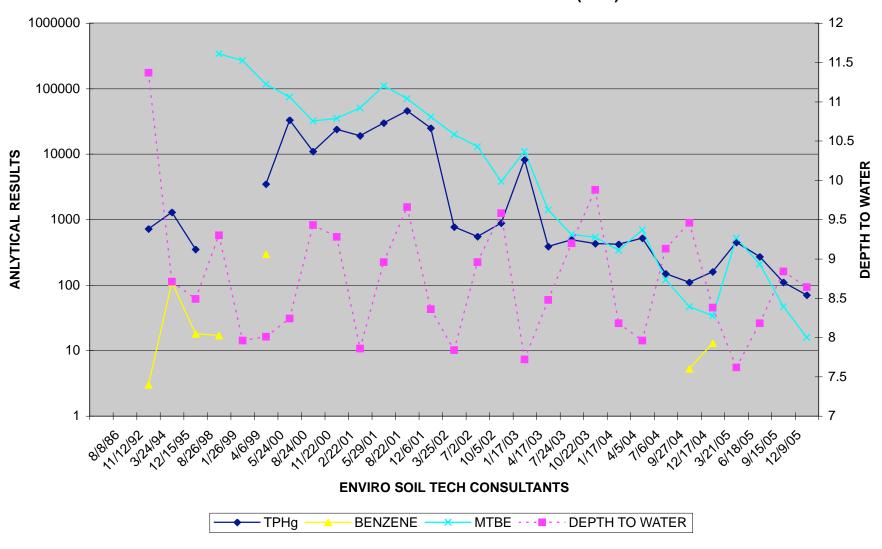
Groundwater Elevation
Deceember 9, 2005



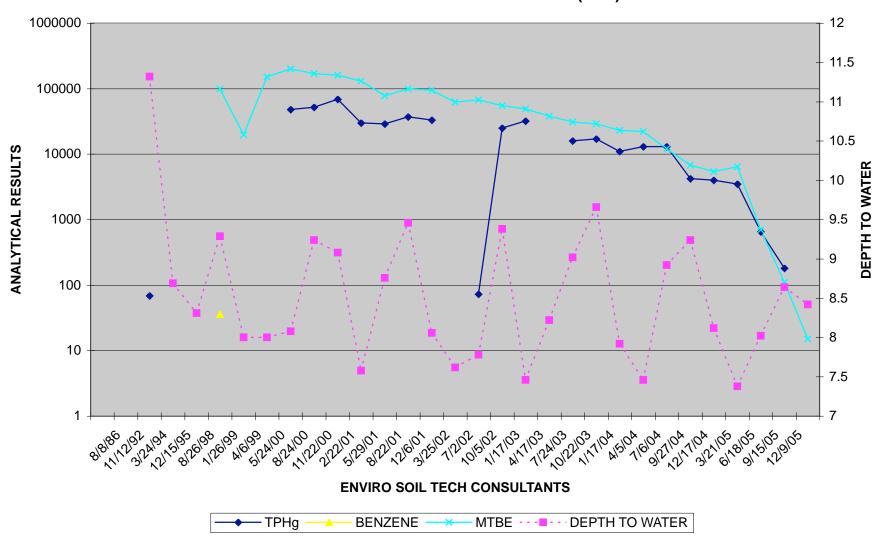


# A P P E N D I X "C" HYDROGRAPHS

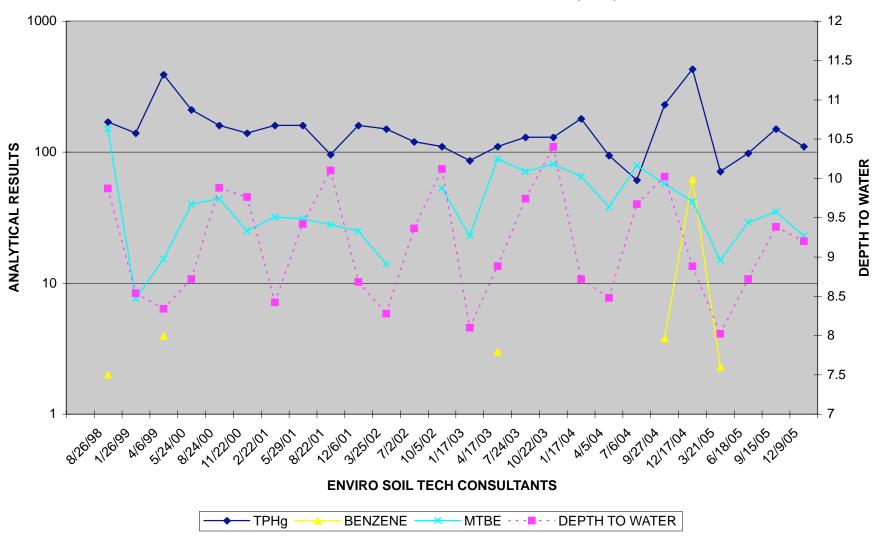
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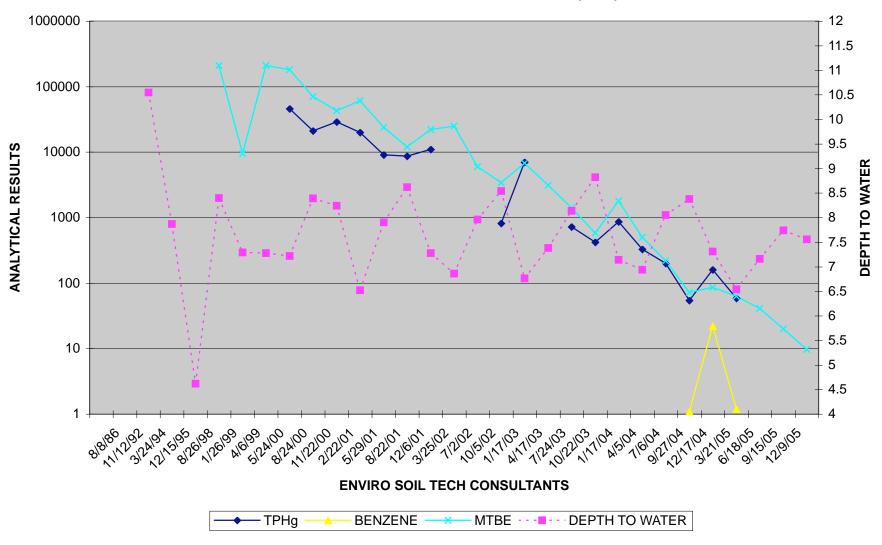
File No.: 12-99-702-SI TPHg, BENZENE & MTBE RESULTS FOR MW-3 ( $\mu$ g/L) AND DEPTH TO WATER MEASUREMENT (Feet)



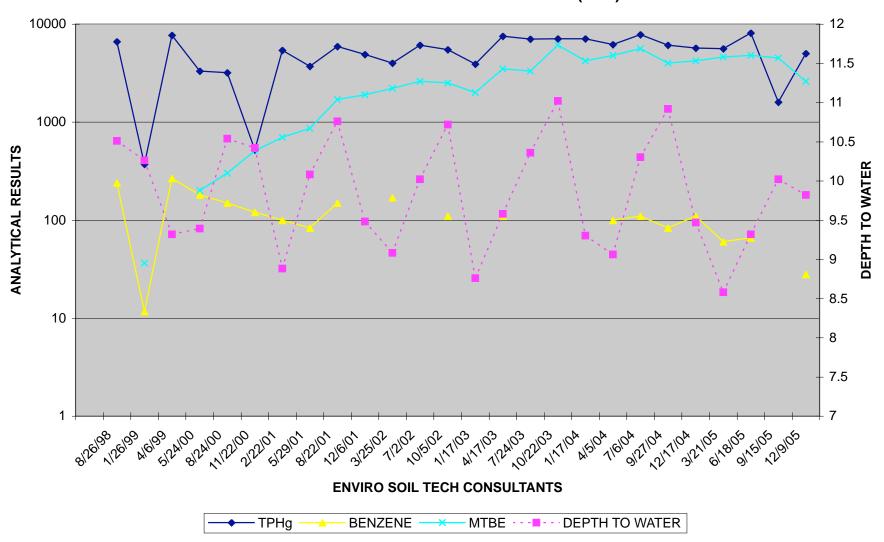
File No.: 12-99-702-SI TPHg, BENZENE & MTBE RESULTS FOR MW-4 ( $\mu$ g/L) AND DEPTH TO WATER MEASUREMENT (Feet)



File No.: 12-99-702-SI TPHg, BENZENE & MTBE RESULTS FOR MW-2 ( $\mu$ g/L) AND DEPTH TO WATER MEASUREMENT (Feet)



File No.: 12-99-702-SI TPHg, BENZENE & MTBE RESULTS FOR MW-5 ( $\mu$ g/L) AND DEPTH TO WATER MEASUREMENT (Feet)



## A P P E N D I X "D" STANDARD OPERATION PROCEDURE

#### **GROUNDWATER SAMPLING**

Prior to collection of groundwater samples, all of the sampling equipment (i.e. bailer, cables, bladder pump, discharge lines and etc.) was cleaned by pumping TSP water solution followed by distilled water.

Prior to purging, the well "Water Sampling Field Survey Forms" were filled out (depth to water and total depth of water column were measured and recorded). The well was then bailed or pumped to remove four to ten well volumes or until the discharged water temperature, conductivity and pH stabilized. "Stabilized" is defined as three consecutive readings within 15% of one another.

The groundwater sample was collected when the water level in the well recovered to 80% of its static level.

Forty milliliter (ml.), glass volatile organic analysis (VOA) vials with Teflon septa were used as sample containers. The groundwater sample was decanted into each VOA vial in such a manner that there was a meniscus at the top. The cap was quickly placed over the top of the vial and securely tightened. The VOA vial was then inverted and tapped to see if air bubbles were present. If none were present, the sample was labeled and refrigerated for delivery under chain-of-custody to the laboratory. The label information would include a sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

# A P P E N D I X "E" LABORATORY REPORT

# A P P E N D I X "F" FIELD NOTES

Environmental & Geotechnical Consultants 131 TULLY ROAD, SAN JOSE, CALIFORNIA 95111

Fax: (408) 292-2116 Tel: (408) 297-1500

	7 7 7 6 1			
FILE NO.: 12-9		WELL	NO .: MW-1	0
DATE: 12-	09-05		LER: Dutul M	
DEPTH TO WELL:			L VOLUME: 1.0	
DEPTH TO WATER	11 8 FT , 64		L VOLUME: 5	
HEIGHT OF WATE	R COLUMN:	ACTU	AL PURGED VOLU	ME:
CASING DIAMETE	R:	2"	4"	
CALCULATIONS:				
2" - x 0.1632	6.36			
4'' - 0.653	0150			
	* -			
PURGE METHOD:	BAILER	DISPLACEME	NT PUMP	OTHER
SAMPLE METHOD		OTHER		
SHEEN:	NO	YES, DESCRIBE:		
ODOR:		YES, DESCRIBE:		
	FIELI	D MEASUREMENTS		
TIME	<b>VOLUME</b>	<u>pH</u>	TEMP.	<u>E.C.</u>
	3 9AL	7.89	20,5	834
	6 5 10	7.63	2114	843
	9940	7.75	21.2	839
			wir.	
				-
				<b>1</b>

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FILE NO.: 12.9	12-605-61		WELL N	O.: Mu -	2
DATE:	2-09-05	- *	SAMPLI	ER: Duther	Muly
DEPTH TO WELL	<u> </u>	_	1 WELL	VOLUME:	,2
DEPTH TO WATE	R: 7 ft , 56	_	5 WELL	VOLUME: 6	,
HEIGHT OF WAT	ER COLUMN:		ACTUAI	L PURGED VOL	UME: 9
CASING DIAMET	ER:	_2"		4''	
CALCULATIONS:					
2'' - x 0.1632	7,44	e			
4'' - 0.653					
PURGE METHOD	:BAILER	DISPLAC	CEMEN	Г PUMP	OTHER
SAMPLE METHO	D: BAILER	OTHER			
	= 1400 () 1 + 100 () 100 (100 (100 (100 (100 (100 (10	******			
SHEEN:		YES, DESCRIBE			
ODOR:	_NO	YES, DESCRIBE	:		<del></del>
	FIELD	MEASUREME	NTS		
TIME	VOLUME	<u>pH</u>		TEMP.	<u>E.C.</u>
	3 9 A C	7.65		22,3	766
	6 9AC	7.61		22.9	751
	9910	7,66		22.6	769
			_		
				The state of the s	

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	9-702-51		WELL NO.: MW SAMPLER: Rutu	-4
DATE: 12	-09-05			
DEPTH TO WELL:		1	WELL VOLUME:_	1,6
DEPTH TO WATER	s: 9+, '90		WELL VOLUME:_	8
HEIGHT OF WATE	ER COLUMN:		ACTUAL PURGED V	OLUME: 9
CASING DIAMETE	CR:	2"	4"	
CALCULATIONS:				
2'' - x 0.1632	9.8			
4'' - 0.653				
PURGE METHOD: SAMPLE METHOD		DISPLAC	CEMENT PUMP	OTHER
SHEEN:	_NO	YES, DESCRIBE:		
ODOR:	NO	YES, DESCRIBE:		
	FIEL	LD MEASUREMEN	NTS	
TIME	VOLUME	<u>pH</u>	TEMP.	<u>E.C.</u>
	3 9AL	780	20,3	1015
	6 9 A C	7,73	20,6	1040
	9 9 H L	7.66	20,7	1049
	• • • • • • • • • • • • • • • • • • • •			
		-		
		-		

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FILE NO.: 12-99-702 - 51  DATE: 12-09-05  DEPTH TO WELL:  DEPTH TO WATER: 5 1 42	WELL NO.: MW-3  SAMPLER: Ruhl mundy  1 WELL VOLUME: 1, 2  5 WELL VOLUME: 6		
HEIGHT OF WATER COLUMN:	ACTUAL PURGED VOLUME: 9		
CASING DIAMETER:CALCULATIONS:	4"		
2" - x 0.1632 7, 58			
4" - 0.653  PURGE METHOD:BAILER  SAMPLE METHOD:BAILER	OTHER		
SHEEN:NO	YES, DESCRIBE:		

#### FIELD MEASUREMENTS

YES, DESCRIBE:\_

20,2 907
20.8 965
20.7 976
20,7 9

ODOR:

NO

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	00 702 - 61		1111.6	
FILE NO.:	12-09-05	_ WEI	LNO.: MW-5 PLER: Quited V.	200
DATE:	12-09-05	SAM		
DEPTH TO WE	LL:	_ 1 WI	ELL VOLUME:	5
DEPTH TO WA	TER: 9 1 82	5 WI	ELL VOLUME: 7	5
HEIGHT OF WA	ATER COLUMN:	ACT	UAL PURGED VOL	UME: 9
CASING DIAME	ETER:	2"	4"	
CALCULATION	IS:			
211 0.16	32 9.18	*		
		- II - I		
4'' - 0.653				
DAND OF MEMALE	DAM ED	DISDLACEM	ENT DUMD	OTHER
	DD:BAILER		ENT PUMP	OTHER
SAMPLE METH	IOD:BAILER	OTHER		
		VEC DECORDE 5	12 ( 130 H)	
	NO			
ODOR:	NO	_YES, DESCRIBE: _ S	ENWAVSE	
	FIELD	MEASUREMENTS	3	
TIME	VOLUME	<u>pH</u>	TEMP.	<u>E.C.</u>
	3-9190	767	197	991
	6-5AU	7.55	195	1037
	9-9AU	7.62	19.6	1.0
	1 3140	7,00	1.6	1098
			Mary	
				_