



*Lot 2-6-96*

November 8, 1995

Ms. Madelyn Massey  
Tracy Federal Bank  
2151 Salvio Street  
Concord, California 94520

Subject: Fourth Quarterly Groundwater Monitoring Event, 16505 Worthley Drive, San Lorenzo, California (RECON Project Number S40180)

Dear Ms. Massey:

This report has been prepared by Recon Environmental Corp. (RECON) to summarize the results of the fourth quarterly groundwater sampling event performed during October 1995 by RECON at 16505 Worthley Drive, San Lorenzo, California (site; Figure 1). The work was conducted at the authorization of Ms. LeArta McNeal of Tracy Federal Bank to respond to a request for groundwater monitoring from the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA). This report presents discussions of data collected and technical procedures performed at the site by RECON. Included in the report are the following:

- A summary of the groundwater sampling event
- Laboratory reports and a tabulation of analytical data for the wells monitored
- Groundwater level data for the wells monitored
- Monitoring well location and groundwater gradient map

**GROUNDWATER SAMPLING**

Groundwater sampling was conducted on October 23, 1995, by personnel of RECON. Groundwater samples were delivered to North State Environmental of South San Francisco, California, a State-certified hazardous waste laboratory. This monitoring event included the collection and analysis of groundwater samples from 5 on-site monitoring wells (MW-1 through MW-5). The locations of the monitoring wells are presented in Figure 2.

Groundwater levels in each of the monitoring wells (Table 1) were measured to the nearest 0.01 foot. Preparation for groundwater sample collection included purging at least approximately three well-casing volumes of groundwater from each monitoring well immediately prior to sample collection. Monitoring well purging was accomplished by hand bailing. During the purging procedure measurements of temperature, electrical conductivity, and pH of the purge water were recorded (Attachment A). Once the temperature, specific conductance, and pH were judged to have stabilized and at least

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*3/10/96 - RECON out of business. Project Manager, Donald Bramford (916) 939-7550 is no longer working this case*

three casing volumes of groundwater removed, the groundwater level within the wells were allowed to recover to at least approximately 80% of the pre-purge level and a groundwater sample collected from the monitoring wells using a stainless steel bailer.

Groundwater samples were transferred from the bailer into laboratory-supplied containers, labeled for identification purposes, and stored on ice in an insulated chest pending delivery to the laboratory for analysis. Samples were collected, retained, and transported to the laboratory using chain of custody procedures. The analytical program was modified from previous quarters in general accordance with the program requested by the ACHCSA and presented in their letter dated August 1, 1995. Selected groundwater samples collected at the site were analyzed for total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg) in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8015 modified; benzene, toluene, xylene, and ethylbenzene (BTXE) in general accordance with EPA Method No. 8020; and halogenated volatile organic compounds (HVOCs) in general accordance with EPA Method No. 8010. The analytical program is presented below. Laboratory results are presented on Table 1. The chain of custody form and laboratory reports are presented in Attachment B.

<u>Well No.</u>	<u>Analytical Program</u>
MW-1	TPHg, BTXE, HVOCs
MW-2	TPHg, BTXE
MW-3	TPHd, BTXE
MW-4	TPHd, BTXE
MW-5	TPHd, BTXE

#### **SUMMARY OF HYDROGEOLOGIC AND GROUNDWATER QUALITY DATA**

Water level measurements were collected on October 23, 1995, by personnel of RECON. The water level data and corresponding elevations are presented on Table 1. The groundwater elevation data were used to develop the piezometric contour map presented in Figure 2. The groundwater gradient at the site may be tidally influenced, based on the site's location relative to San Francisco Bay and fluctuations in the groundwater gradient. The groundwater gradient is interpreted to have had a southerly slope in October 1995. The groundwater gradient was previously reported to have a slope that varied from southwest in March 1995 to northeast in June 1995 (Recon, 1995b).

TPHg, TPHd, BTXE, and HVOCs were not reported in the groundwater samples analyzed in concentrations exceeding the laboratory analytical reporting limits (Table 1). TPHg, TPHd, and BTXE were not been reported in groundwater samples previously collected by RECON in December 1994, March 1995, June/July 1995, in concentrations exceeding the laboratory analytical method reporting limits, except for one occurrence. TPHd was reported in a groundwater sample collected from monitoring well MW-4 at a concentration of 0.19 milligram per liter (Table 1). TPHd has not been reported in groundwater samples collected from this well in the three subsequent monitoring events (Recon, 1994; 1995a; 1995b). Further, total petroleum hydrocarbons and BTXE were not reported in groundwater samples collected in 1987 following monitoring well installation (Beta, 1987).

The monitoring wells at the site are reported to have been constructed with 10 to 15 feet of screened casing. The tops of the screened intervals are indicated to be between 9.5 and 11 feet below the ground surface (BGS). The water levels within the wells in 1987

were reported to be approximately 6 to 7 feet BGS (Beta, 1987). The water levels were approximately 3 to 3.5 feet above the well screen at that time. Based on the October 1995 monitoring results, the water surface within the monitoring wells prior to purging ranged from approximately 1.5 feet above the top of the well screen in monitoring well MW-4 to approximately 2.5 feet above the top of the well screen in monitoring well MW-5. The pre-purge water levels are interpreted to be below the top of the filter pack in monitoring wells MW-2, MW-3, and MW-4.

Although the water levels within the well casings are above the screened intervals, purging prior to sample collection lowered the water levels in the wells to within the screened interval. Therefore, if free-phase petroleum product were present, it would be expected to be observed in the water removed from the wells during purging. Odors or sheen were not observed in groundwater removed from the monitoring wells during four quarters of monitoring conducted by RECON. A sheen or petroleum product was not reported to have been observed on water within the excavations at the time of underground storage tank removal (Beta, 1988).

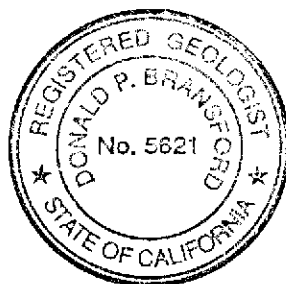
Groundwater within the upper portion of the water-bearing zone, an area of the water-bearing zone generally considered to have a significant potential for being impacted by releases from underground storage tanks, would have been drawn into the well casing during purging. Considering this and the construction of the wells with 10 to 15 feet of screened casing, the water samples collected by RECON are considered to be representative of the groundwater conditions in the vicinity of the wells at the times the monitoring was conducted. Based on the results of the groundwater monitoring over the last four quarters, RECON recommends that Tracy Federal Bank ask the ACHCSA to review the case for closure.

If you have any questions regarding the material presented in this letter report, please feel free to contact me at 510-652-4500.

Sincerely,  
RECON ENVIRONMENTAL CORP.



Donald P. Bransford, R.G. 5621  
Environmental Services Manager



Enclosures

#### REFERENCES

Beta (Beta Associates, Inc.), 1987, Phase I soil and groundwater contamination investigation, Cut and Ready Foods, 16505 Worthley Drive, San Lorenzo, California; report dated September 4, 1987.

\_\_\_\_\_, 1988, Underground tank removals, former Cut and Ready Foods facility, 16505 Worthley Drive, San Lorenzo, California; report dated December 19, 1988, 6 p.

Recon (Recon Environmental Corp.), 1994, Groundwater monitoring at 16505 Worthley Drive, San Lorenzo, California; report dated December 19, 1994, 3 p.

\_\_\_\_\_, 1995a, March 1995 groundwater monitoring at 16505 Worthley Drive, San Lorenzo, California, Alameda County site I.D. 5009; report dated April 3, 1995, 4 p.

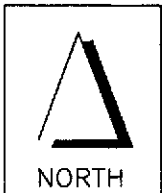
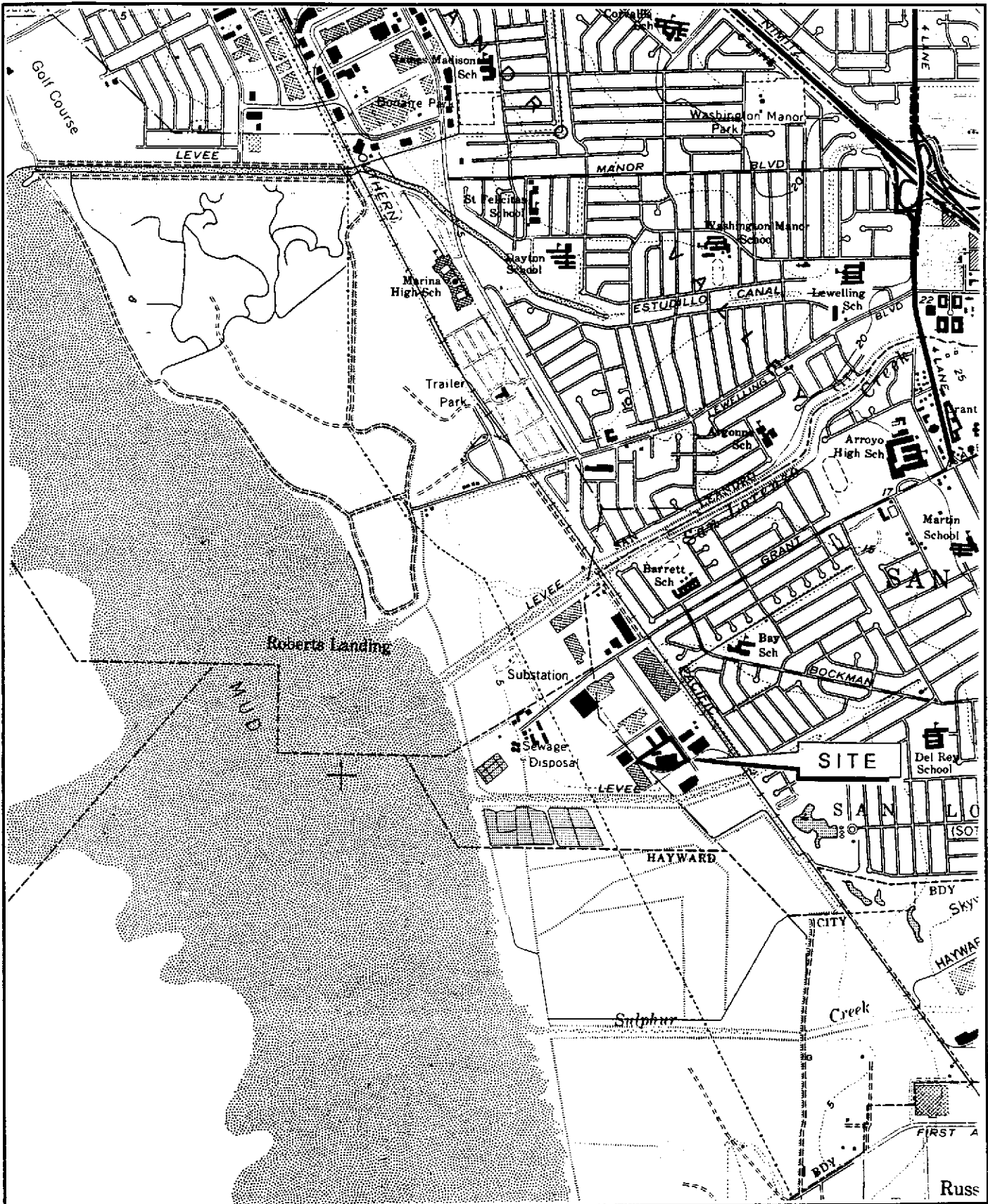
\_\_\_\_\_, 1995b, June 1995 groundwater monitoring at 16505 Worthley Drive, San Lorenzo, California, Alameda County site I.D. 5009; report dated July 18, 1995, 3 p.

**TABLE 1  
GROUNDWATER MONITORING RESULTS**

Monitoring Date	Water Levels (1)		8015 (2)		8020 (3)			8010 (4)	
	Depth to Water	Water Elevation	TPHg	TPHd	Benzene	Toluene	Ethyl-benzene	Xylenes	HVOCs
<b>MW-1</b>									
12/1/94	6.19	3.15	<0.05 (5)	-- (6)	<0.0005	<0.0005	<0.0005	<0.0005	--
3/24/95	4.25	5.09	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
7/17/95	6.28	3.06	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	7.12	2.22	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	ND (7)
<b>MW-2</b>									
12/1/94	NM (8)	NM	--	--	--	--	--	--	--
3/24/95	4.30	5.19	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
6/16/95	6.10	3.39	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	7.20	2.29	<0.05	--	<0.0005	<0.0005	<0.0005	<0.001	--
<b>MW-3</b>									
12/1/94	6.67	3.21	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	--
3/24/95	4.55	5.33	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
6/16/95	6.31	3.57	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	7.67	2.21	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
<b>MW-4</b>									
12/1/94	7.20	2.82	<0.05	0.19	<0.0005	<0.0005	<0.0005	<0.0005	--
3/24/95	5.30	4.72	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
6/16/95	7.00	3.02	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	8.14	1.88	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
<b>MW-5</b>									
12/1/94	7.15	2.95	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	--
3/24/95	5.15	4.95	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
6/16/95	7.06	3.04	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	8.17	1.93	--	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
<b>MW-6</b>									
12/1/94	6.40	3.10	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005	--
3/24/95	4.40	5.10	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
6/16/95	7.13	2.37	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.001	--
10/23/95	NM	NM	--	--	--	--	--	--	--

**Notes:**

1. Depth to water reported in feet below the top of the well casing. Elevation reported in feet above mean sea level.
2. Analysis conducted in general accordance with U.S. Environmental Protection Agency (EPA) Method No. 8015 modified. TPHg = total petroleum hydrocarbons as gasoline. TPHd = total petroleum hydrocarbons as diesel. Results reported in milligrams per liter (mg/l).
3. Analysis conducted in general accordance with EPA Method No. 8020. Results reported in mg/l.
4. Analysis conducted in general accordance with EPA Method No. 8010. HVOCs = halogenated volatile organic compounds.
5. "<" indicates compound(s) not reported at concentrations exceeding the indicated amount.
6. "--" = Not analyzed.
7. ND = compounds not reported at concentrations exceeding the analytical method reporting limits.
7. NM = Not monitored.



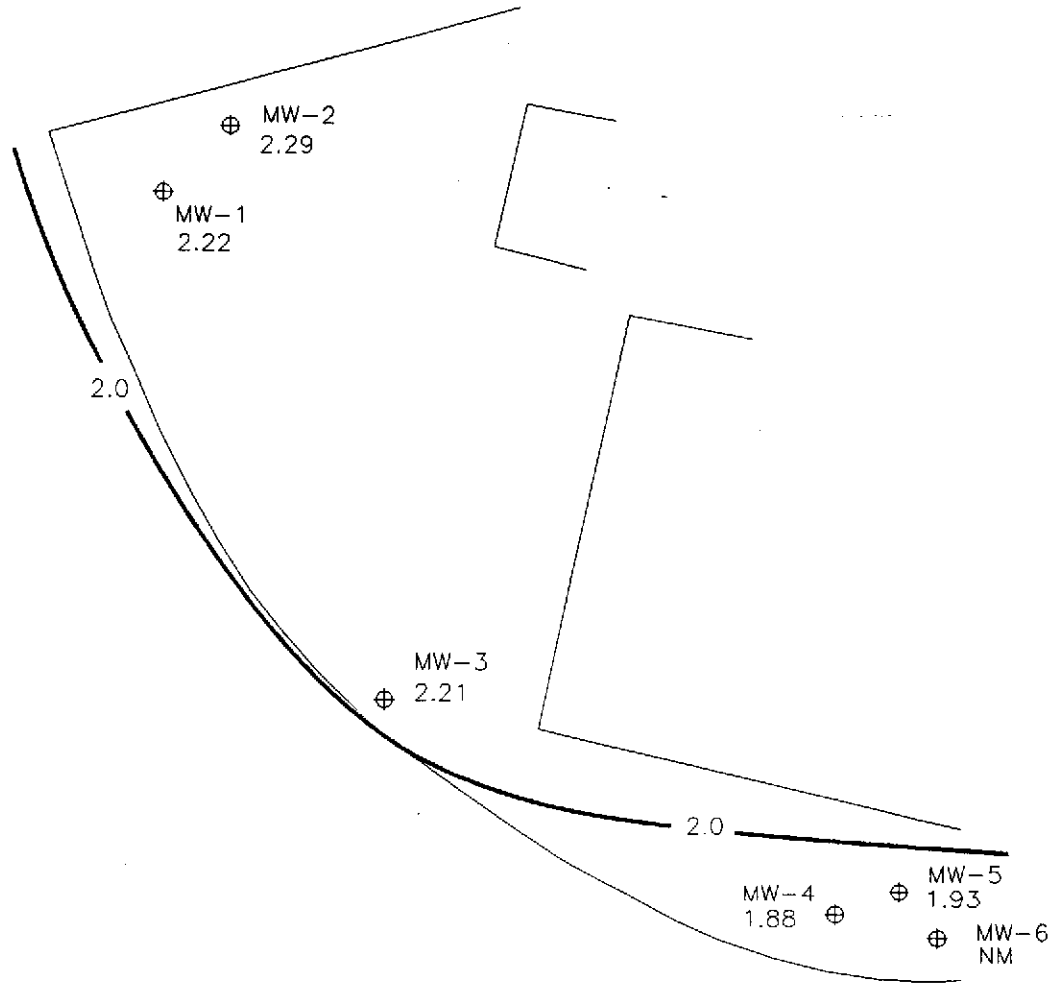
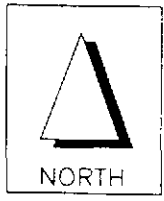
**NOTES:**  
 1) All locations and dimensions are approximate.

**RECON ENVIRONMENTAL CORP.**

SITE LOCATION MAP  
 16505 WORTHLEY DRIVE  
 SAN LORENZO, CALIFORNIA

PROJECT NUMBER: S40180

FIGURE 1.




EXPLANATION

⊕ MW-1 2.22  
Monitoring Well Location,  
Designation, and Groundwater  
Elevation

— 2.0 —  
Approximate Groundwater  
Elevation Contour

Notes:

- 1. All locations and dimensions are approximate.
- 2. Base map modified from monitoring well location map prepared by Perri Cosseboom.
- 3. No scale.

 <b>RECON ENVIRONMENTAL CORP.</b>	
GROUNDWATER ELEVATION CONTOUR MAP	
PROJECT NO. S40180	FIGURE 2

**ATTACHMENT A**  
**GROUNDWATER SAMPLE COLLECTION LOGS**



GROUNDWATER COLLECTION LOG

WELL NO. MW 1

Project Name 16505 WORTHLEY DR. SAN LORENZO

Project Number 540180

Date 10-23-95

Sample Number MW1-4W

Depth to Well Bottom 22.42

Depth to Water 7.12

Purge Method S.S. Bailer

Sample Method S.S. Bailer

Time	Cumulative Volume of Water Purged	pH	Electrical Conductivity	Temperature	Comments
10:30	2.5 GAL	6.40	16,010	64.4	cloudy gray ; No odor, no sheen
10:40	5.0	6.65	14,090	64.2	cloudy
10:45	7.5	6.82	15,860	63.6	cloudy
					SAMPLE # MW1-4W WELL COVER MISSING
					11:00 AM

Sample Turbidity Cloudy

Total Number of Samples Collected \_\_\_\_\_

- 40 ml VOA Vials 4
- 200 ml Plastic Bottles 0
- 1 Liter Amber Bottles 0
- 1 Gal. Amber Bottles 0
- Other 0

Laboratory North State

Date Shipped 10-23-95

Shipped Via WALK-IN

Sampled By MAS

Estimated Volume to Purge = 3.14 x (5 casing vol.) x (7.5 gal. per cubic ft) x (height of water in ft) x (radius of well in ft squared)

= 3.14 x 5 x 7.5 x [15.3] x [(0.083] squared) = 2.5 GAL PER WELL VOLUME

GROUNDWATER COLLECTION LOG

WELL NO. MW2

Project Name 16505 WORTHLEY DR. SAN LORENZO

Project Number 540180

Date 10-23-95

Sample Number MW2-4W

Depth to Well Bottom 22.36

Depth to Water 7.20

Purge Method S.S. Bailer

Sample Method S.S. Bailer

Time	Cumulative Volume of Water Purged	pH	Electrical Conductivity	Temperature	Comments
11:20	2.5 GAL	7.27	720,000	64.2	Cloudy gray; No odor, no smear
11:30	5.0	7.17	720,000	63.7	Cloudy
11:40	7.5	7.23	720,000	63.4	Cloudy
SAMPLE # MW2-4W					11:45 Am

Sample Turbidity Cloudy

Total Number of Samples Collected \_\_\_\_\_

Laboratory North Stake

40 ml VOA Vials 2

Date Shipped 10-23-95

200 ml Plastic Bottles 0

Shipped Via Walk-in

1 Liter Amber Bottles 0

1 Gal. Amber Bottles 0

Sampled By MA5

Other 0

Estimated Volume to Purge =  $3.14 \times (5 \text{ casing vol.}) \times (7.5 \text{ gal. per cubic ft}) \times (\text{height of water in ft}) \times (\text{radius of well in ft squared})$   
 =  $3.14 \times 5 \times 7.5 \times [15.16] \times [.083 \text{ squared}] = 2.45 \text{ GAL PER WELL VOLUME}$

GROUNDWATER COLLECTION LOG

WELL NO. MW-3

Project Name 16505 Worthley Drive  
San Lorenzo

Project Number 540180

Date 10-23-95

Sample Number MW3-4W

Depth to Well Bottom 15.99

Depth to Water 7.67

Purge Method S.S. Bailer

Sample Method S.S. Bailer

Time	Cumulative Volume of Water Purged	pH	Electrical Conductivity	Temperature	Comments
12:10	2.5 GAL	6.45	6560	68.2	Cloudy gray; No odor, No sheen
12:17	5.0	6.47	6420	67.9	Cloudy
12:25	7.5	6.47	6570	66.7	Cloudy
					SAMPLE # MW3-4W 12:35 pm 1/2 WELL COVER MISSING

Sample Turbidity cloudy

Total Number of Samples Collected \_\_\_\_\_

Laboratory North State

40 ml VOA Vials 2

200 ml Plastic Bottles 0

1 Liter Amber Bottles 1

1 Gal. Amber Bottles 0

Other 0

Date Shipped 10-23-95

Shipped Via WALK-IN

Sampled By MAS

Estimated Volume to Purge =  $3.14 \times (5 \text{ casing vol.}) \times (7.5 \text{ gal. per cubic ft}) \times (\text{height of water in ft}) \times (\text{radius of well in ft squared})$   
 =  $3.14 \times 5 \times 7.5 \times [8.32] \times [1.083] \text{ squared} = 1.35 \text{ GAL PER WELL VOLUME}$

GROUNDWATER COLLECTION LOG

WELL NO. MW4

Project Name 16505 WORTHLEY DR. SAN LORENZO  
 Project Number 540180  
 Date 10-23-95

Sample Number MW4-4W  
 Depth to Well Bottom 19.50  
 Depth to Water 8.14  
 Purge Method S.S. Bailer  
 Sample Method S.S. Bailer

Time	Cumulative Volume of Water Purged	pH	Electrical Conductivity	Temperature	Comments
1:00	2.5 GAL	6.90	720,000	68.7	Slight cloudy gray-brown; <sup>NO COLOR</sup> NO SMELL
1:10	5.0	6.80	720,000	65.9	
1:15	7.5	6.82	720,000	65.2	
			SAMPLE # MW4-4W		1:30 pm

Sample Turbidity Slightly Cloudy

Total Number of Samples Collected

- 40 ml VOA Vials 2
- 200 ml Plastic Bottles 0
- 1 Liter Amber Bottles 1
- 1 Gal. Amber Bottles 0
- Other 0

Laboratory

NORTH STATE

Date Shipped

10-23-95

Shipped Via

WALK-IN

Sampled By

MAS

Estimated Volume to Purge =  $3.14 \times (5 \text{ casing vol.}) \times (7.5 \text{ gal. per cubic ft}) \times (\text{height of water in ft}) \times (\text{radius of well in ft squared})$   
 $= 3.14 \times 5 \times 7.5 \times [11.36] \times [0.083 \text{ squared}] = 1.84 \text{ GAL PER WELL VOLUME}$

GROUNDWATER COLLECTION LOG

WELL NO. MW5

Project Name 16505 WORTHLEY DRIVE SAN LORENZO  
 Project Number 540180  
 Date 10-23-95

Sample Number MW5-4W  
 Depth to Well Bottom 19.22  
 Depth to Water 8.17  
 Purge Method S.S. Bailer  
 Sample Method S.S. Bailer

Time	Cumulative Volume of Water Purged	pH	Electrical Conductivity	Temperature	Comments
1:50	2.5 GAL	6.93	720,000	66.7	cloudy gray; No odor, No Sheen
2:00	5.0	6.87	18,760	66.1	cloudy
2:10	7.5	6.85	720,000	66.1	cloudy
					SAMPLE # MW5-4W; 2:30 p-

Sample Turbidity Clear

Total Number of Samples Collected

Laboratory NORTH STATE

40 ml VOA Vials 2

Date Shipped 10-23-95

200 ml Plastic Bottles 0

Shipped Via WALK-IN

1 Liter Amber Bottles 1

Sampled By MAS

1 Gal. Amber Bottles 0

Other 0

Estimated Volume to Purge =  $3.14 \times (5 \text{ casing vol.}) \times (7.5 \text{ gal. per cubic ft}) \times (\text{height of water in ft}) \times (\text{radius of well in ft squared})$   
 $= 3.14 \times 5 \times 7.5 \times [11.05] \times [0.083 \text{ squared}] = 1.79 \text{ GAL PER WELL VOLUME}$

**ATTACHMENT B**

**LABORATORY ANALYTICAL REPORTS  
AND CHAIN OF CUSTODY FORM**



C E R T I F I C A T E   O F   A N A L Y S I S

JOB NO: 95-558    DATE SAMPLED: 10-23-95  
 CLIENT: RECON    DATE EXTRACTED: 10-23-95  
 PROJECT NAME: S40180                                      DATE ANALYZED: 10-23-95  
                                 16505 Worthley Dr.  
                                 SAN LORENZO

BTXE AND GASOLINE RANGE ORGANICS BY  
 EPA METHOD 8020/5030 AND 8015 M  
 DIESEL RANGE HYDROCARBONS BY EPA METHOD 8015 M

Sample No.	Client ID	Analyte	Result
95-558-01	MW1-4W Water	Benzene	ND
		Toluene	ND
		Ethylbenzene	ND
		Xylenes	ND
		Gasoline	ND
95-558-02	MW2-4W Water	Benzene	ND
		Toluene	ND
		Ethylbenzene	ND
		Xylenes	ND
		Gasoline	ND
95-558-03	MW3-4W Water	Benzene	ND
		Toluene	ND
		Ethylbenzene	ND
		Xylenes	ND
		Diesel	ND
95-558-04	MW4-4W Water	Benzene	ND
		Toluene	ND
		Ethylbenzene	ND
		Xylenes	ND
		Diesel	ND



North State Environmental

Chemical Waste Disposal · Trucking · Consulting

CERTIFICATE OF ANALYSIS

JOB NO: 95-558 DATE SAMPLED: 10-23-95
CLIENT: RECON DATE EXTRACTED: 10-23-95
PROJECT NAME: S40180 DATE ANALYZED: 10-23-95
16505 Worthley Dr.
SAN LORENZO

BTXE AND GASOLINE RANGE ORGANICS BY
EPA METHOD 8020/5030 AND 8015 M
DIESEL RANGE HYDROCARBONS BY EPA METHOD 8015 M

Table with 4 columns: Sample No., Client ID, Analyte, Result. Rows include Benzene, Toluene, Ethylbenzene, Xylenes, Diesel, all with ND results.

Quality Control Quality Assurance Summary: Water

Table with 7 columns: Analyte, Method, Reporting limit, Blank, MS/MSD Recovery, RPD. Rows include MTBE, Benzene, Toluene, Ethylbenzene, Xylenes, Gasoline, Diesel.

ELAP CERTIFICATION NUMBER 1753

Reviewed and Approved by

Handwritten signature of John Murphy

John Murphy
Laboratory Director



Project Name		Project Number		Type of Analysis										Condition of Samples							
Send Report Attention of:		Analytical Laboratory:		No. of Containers	Type of Containers	Preservative	VOCs (EPA 8010)	TPH w/ BTXE (EPA 8015)	BTXE (EPA 8020)	TPH 8015											
SAN LORENZO 16505 WORTHLEY DR.		S40180																			
DONALD BRANSFORD		N. STATE																			
Sample Number	Date	Time	Matrix	Location	No. of Containers	Type of Containers	Preservative	VOCs (EPA 8010)	TPH w/ BTXE (EPA 8015)	BTXE (EPA 8020)	TPH 8015										
MW1-4W	10/23/95		WATER	MW1	2	VOA	HCL	X													
MW1-4W				MW1	2	VOA	HCL		X												
MW2-4W				MW2	2	VOA	HCL		X												
MW3-4W				MW3	1	AM.LIT	COOL			X											
MW3-4W				MW3	2	VOA	HCL			X											
MW4-4W				MW4	1	AM.LIT	COOL			X											
MW4-4W				MW4	2	VOA	HCL			X											
MW5-4W				MW5	1	AM.LIT	COOL			X											
MW5-4W				MW5	2	VOA	HCL			X											
Relinquished by:		Date/Time:	Received by:		Date/Time:	Remarks:															
Marie Stank		10/23/95 4p	De J. J. J.		10/23/95 4 p.m.	RESULTS: FAX (510) 652-4906 MAIL TO: 1480 LOS BUELLIS WAY MILPITAS, CA 95035															
Relinquished by:		Date/Time:	Received by:		Date/Time:																
Relinquished by:		Date/Time:	Received by:		Date/Time:																



# Superior

## Analytical Laboratory

NORTH STATE ENVIRONMENTAL  
90 SOUTH SPRUCE ST. UNIT W  
SOUTH SAN FRANCISCO, CA 94053

Date: October 31, 1995

Attn: JOHN MURPHY

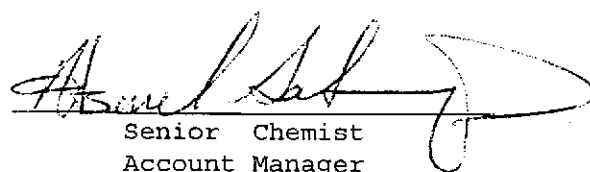
Laboratory Number : 20366

Project Number/Name :

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This report has been reviewed and  
approved for release.

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Senior Chemist  
Account Manager

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Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916  
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553  
1555 Burke Street • Suite A • San Francisco, California 94124



# Superior

## Analytical Laboratory

NORTH STATE ENVIRONMENTAL

Attn: JOHN MURPHY

Project

Reported on October 31, 1995

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

Chronology

Laboratory Number 20366

Sample ID

Sampled Received Extract. Analyzed QC Batch LAB #

MW1-4W	10/23/95	10/24/95	10/26/95	10/26/95	BJ261.08	01
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QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
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BJ261.08-02	Method Blank	MB	Water	10/26/95	10/26/95
BJ261.08-03	MW-3	MS 20337-03	Water	10/26/95	10/26/95
BJ261.08-04	MW-3	MSD 20337-03	Water	10/26/95	10/26/95
BJ261.08-11	Laboratory Spike	LS	Water	10/26/95	10/26/95



# Superior

## Analytical Laboratory

NORTH STATE ENVIRONMENTAL  
Client: JOHN MURPHY

Project  
Reported on October 31, 1995

### Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

LAB ID	Sample ID	Matrix	Dil. Factor	Moisture
20366-01	MW1-4W	Water	1.0	-

### RESULTS OF ANALYSIS

Compound                      20366-01  
 Conc.    RL  
 ug/L

Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	5
1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,3-Dichloropropene	ND	0.5
1,2-Dichloropropane	ND	0.5
1,3-Dichloropropene	ND	0.5
Bromodichloromethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5

>> Surrogate Recoveries (%) <<

1-Bromofluorobenzene            74



# Superior

## Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

### Quality Assurance and Control Data

Laboratory Number: 20366

Method Blank(s)

BJ261.08-02

Conc. RL

ug/L

---

Chloromethane	ND	0.5
Vinyl Chloride	ND	0.5
Bromomethane	ND	0.5
Chloroethane	ND	0.5
Trichlorofluoromethane	ND	0.5
1,1-Dichloroethene	ND	0.5
Dichloromethane	ND	5
1,2-Dichloroethene	ND	0.5
1,1-Dichloroethane	ND	0.5
1,2-Dichloroethene	ND	0.5
Chloroform	ND	0.5
1,1,1-Trichloroethane	ND	0.5
Carbon tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Trichloroethene	ND	0.5
1,3-Dichloropropene	ND	0.5
1,2-Dichloropropane	ND	0.5
1,3-Dichloropropene	ND	0.5
Bromodichloromethane	ND	0.5
1,1,2-Trichloroethane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5
Chlorobenzene	ND	0.5
Bromoform	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5

Surrogate Recoveries (%) <<

1-Bromofluorobenzene 93



# Superior

## Analytical Laboratory

Halogenated Volatile Organics by EPA SW-846 Methods 5030/8010

### Quality Assurance and Control Data

Laboratory Number: 20366

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
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For Water Matrix (ug/L)

BJ261.08 11 / - Laboratory Control Spikes

1,1-Dichloroethene		20	14	70	50-189	
Trichloroethene		20	18	90	53-161	
Chlorobenzene		20	18	90	57-171	
Surrogate Recoveries (%) <<						
4-Bromofluorobenzene				65	50-125	

For Water Matrix (ug/L)

BJ261.08 03 / 04 - Sample Spiked: 20337 - 03

1,1-Dichloroethene	ND	20	17/16	85/80	50-189	6
Trichloroethene	ND	20	19/19	95/95	53-161	0
Chlorobenzene	ND	20	18/18	90/90	57-171	0
>> Surrogate Recoveries (%) <<						
4-Bromofluorobenzene				97/89	50-125	

#### Definitions:

- ND = Not Detected
- L = Reporting Limit
- NA = Not Analysed
- RPD = Relative Percent Difference

ug/L = parts per billion (ppb)

mg/L = parts per million (ppm)

ug/kg = parts per billion (ppb)

mg/kg = parts per million (ppm)

20366



# North State Environmental Analytical Laboratory

## Chain of Custody/Request for Analysis

(415) 588-9652

Client: <b>NSE</b>	Phone:	Report to: <b>J. Murphy</b>	Turnaround Time	
Mailing Address: <b>90. S. SPRUCE AVE S. SF CA 94080</b>		Billing to: <b>(95-118)</b>	8 Hr <input type="checkbox"/>	24 Hr <input type="checkbox"/>
Site Address:		PO# / Billing Reference: <b>16505 Woreley Dr. San Lorenzo</b>	40 Hr <input type="checkbox"/>	5 Days <input type="checkbox"/>
Sampler:	Date:		Other <input type="checkbox"/>	

Sample ID:	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED						Remarks
				TPH-D	TPH-G	BTEX	O+G			
<b>MW1-4W</b>		<b>112</b>	<b>10/23/95</b>				<b>80/0</b>			
							<b>X</b>			

Please initial: **Alt**

Samples Stored in ice **Y 5.7**

Appropriate containers **Y**

Samples preserved

VOA's without hoodspace

Comments:

Relinquished by: <b>[Signature]</b>	Date: Time:	Received by: <b>[Signature]</b> <b>10/24/95</b>	Yes	No
Relinquished by: <b>[Signature]</b>	Date: <b>10/24/95</b> Time: <b>3:50 pm</b>	Received by: <b>[Signature]</b>	Were samples Preserved ?	
Relinquished by:	Date: Time:	Received in lab by: <b>[Signature]</b>	In good condition ?	<b>X</b>