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THE SUTTON GROUP

SOILS, FOUNDATIONS, DRAINAGE, SLOPES, CONTAINMENTS CIVIL, GEOTECHNICAL AND ENVIRONMENTAL ENGINEERING



May 9, 2005

Mr. Michael Cortez Oro Loma Sanitary District 2600 Grant Avenue San Lorenzo, 94580



Results of 11<sup>th</sup> Quarterly Round of Sampling of Ground Water Monitoring Wells Sites of Former Gasoline and Diesel Tanks
2600 Grant Ave., San Lorenzo, CA
OLSD PO No. 4911, LOP Site No. RO0000288
ST ID 1996

Dear Mr. Cortez:

We attach results for the most recent round of quarterly sampling of the ground water monitoring wells, conducted on April 28, 2005. This is the 11<sup>th</sup> quarterly sampling of the five wells at the former gasoline tank site and the one well at the former diesel tank site.

This work has been performed in accordance with the Work Plan that was approved by Alameda County Health Care Agency's Environmental Protection Division (ACEP) in their letter dated April 18, 2003, as amended. Gasoline tank area wells were additionally monitored for selected dissolved metals (Fe, Mn) and Oxygen Demand (COD, BOD) to provide a second set of data preparatory to installation of the planned ORP remediation system.

Figure 1 is a plan of the District's facilities at the foot of Grant Avenue in San Lorenzo that shows the relative locations of the former gasoline and diesel tanks to the sewage treatment plant and the District's offices. Figure 2 is a plan of the Service Center area, which was the site of the former gasoline tank Figure 2A is the calculation sheet for the results summarized on Figure 2. Table 1 summarizes the ground water elevation data collected and their history.

#### **Groundwater Monitoring**

Review of groundwater level measurements around the former gasoline tank site indicates a dynamic situation over the quarter, which is probably an effect of unusually late seasonal rain. While water levels in the offsite wells MW-1 and -2 both rose, groundwater elevations in the three onsite wells fell as much as 1.3 feet but they approximate the readings of a year earlier. Table 1 is a cumulative tabulation of groundwater data. Figure 2 shows the gradient direction as calculated on Figure 2A..

#### Sampling Results

#### Gasoline Tank Area

On April 28, 2005, water samples were collected from the three onsite wells in accordance with the approved work plan. The samples were collected by the original bailing technique.

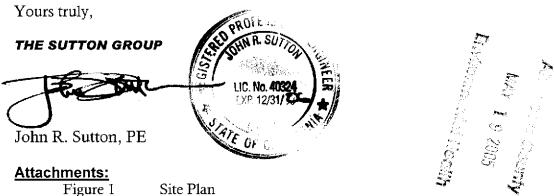
All five wells were sounded and then sampled. Each sample was analyzed for gasoline, BTEX and MTBE. Table 2 is a summary of the results of the current round of analytical results for hydrocarbons. Table 2A is a compilation of all test results for gasoline-related hydrocarbon constituents in the gasoline tank area since well sampling began in 1999.

#### Diesel Tank Area

The monitoring well at the location of the former diesel tank was also sampled. This well was installed and first sampled in March, 1996. The monitoring well location is shown on Figure 1.

The well was sampled using a bailer, and analyzed for TPH as diesel and BTEX. The presence of 70µg/l was similar to the reading last quarter (77µg/l) and substantially lower than the initial 1996 reading. Table 4D is a tabulation of all sample results for this well. Historically, the well has no detection of BTEX.

We appreciate the opportunity to be of continued service to The District. Please call me if you have questions or if I can assist you in any other way.



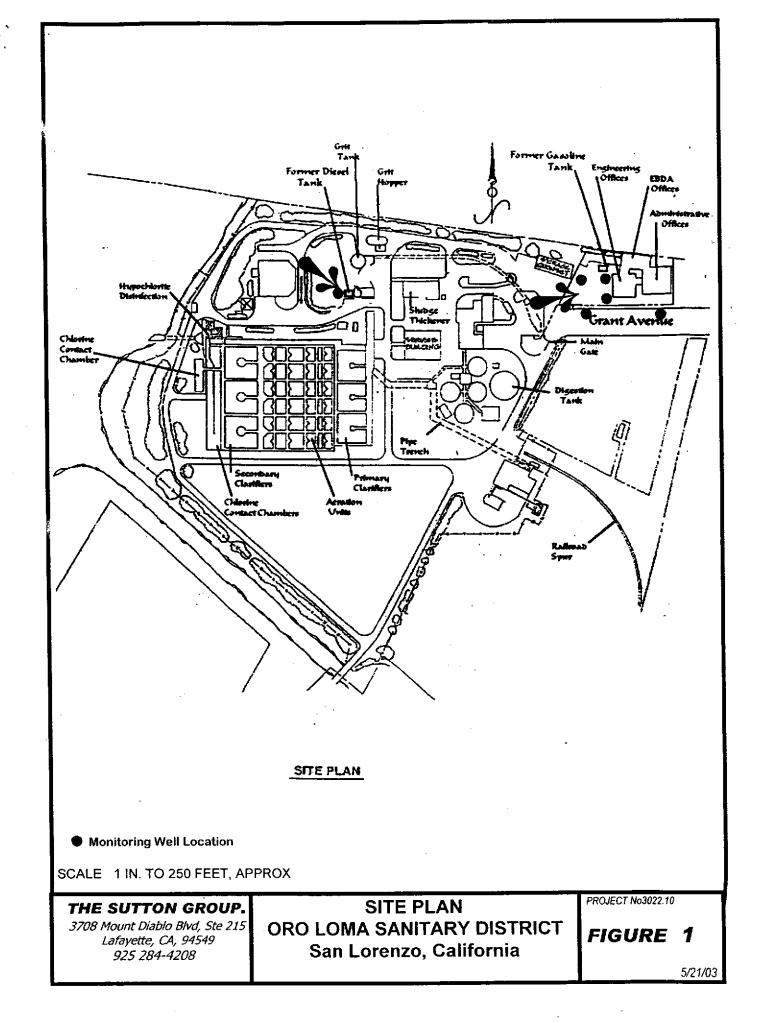
Well Location Plan, Former Gasoline Tank Area Figure 2

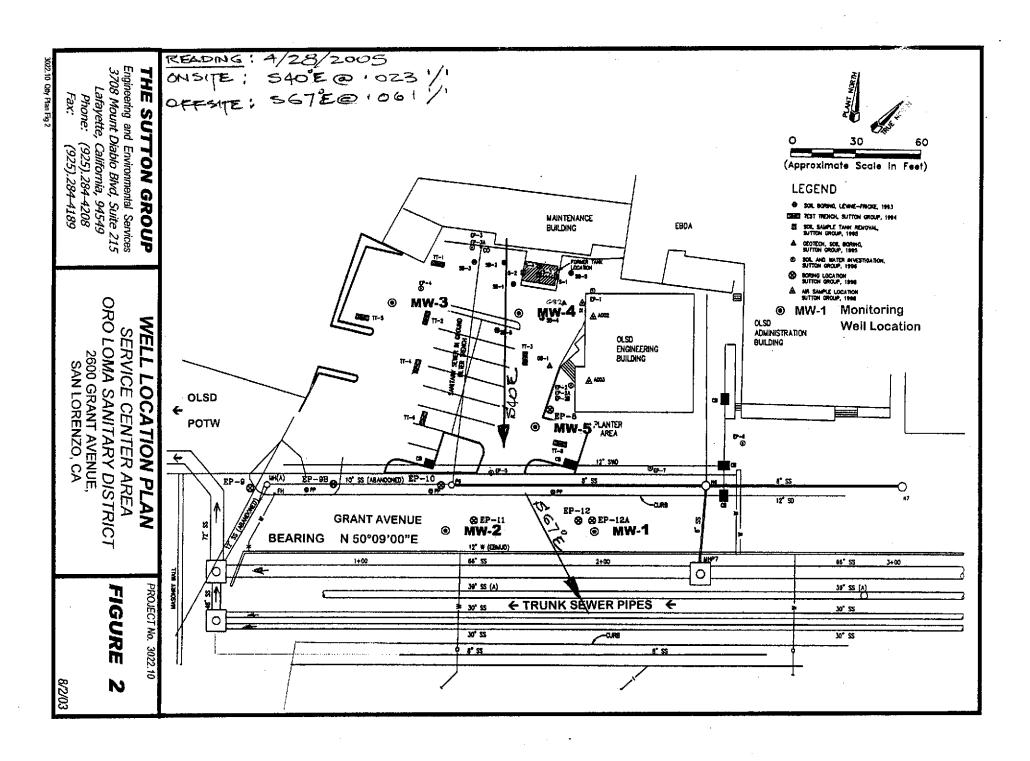
Figure 2A Gradient calculation sheet

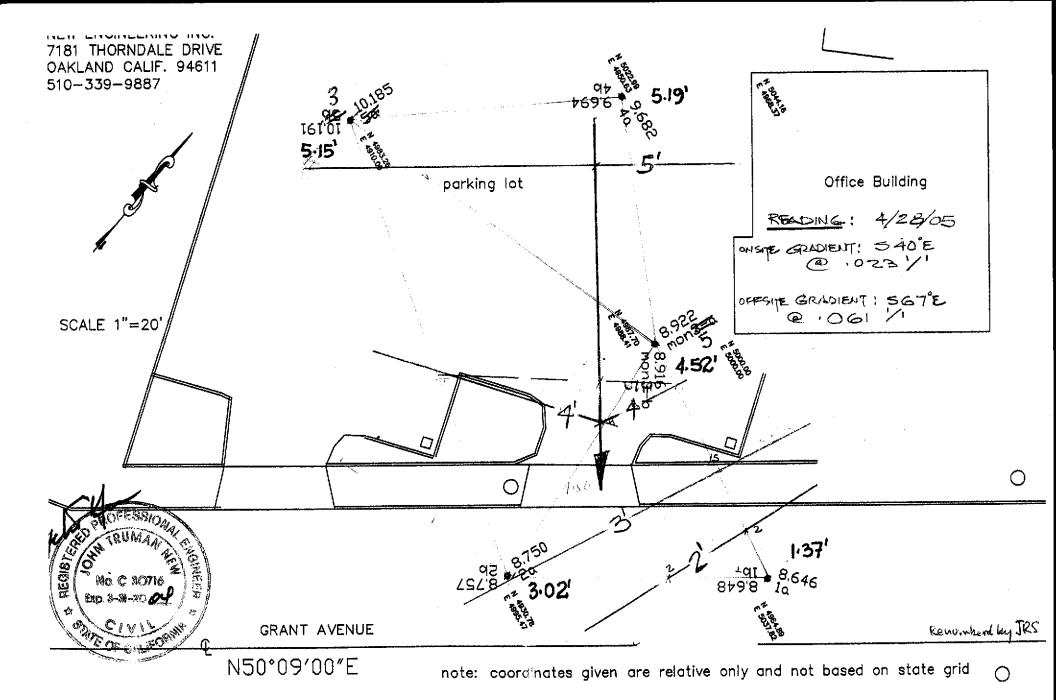
continued over.....

Table 1	Ground Water Elevations, Former Gasoline Tank Area									
Table 2	Summary of Current Water Sample Analyses for Gasoline and constituents, Former Gasoline Tank Area									
Table 2A	Cumulative Summary of Water Sample Analyses, Gas Tank Area									
Table 3	Summary of Current Water Sample Analyses, Metals and Oxygen Demand, Former Gasoline Tank Area									
Table 4	Summary of Water Sample Analyses, Former Diesel Tank Area									
Analytical La	Analytical Laboratory Reports (McCampbell)									
Field samplin	g Reports (Blaine Tech)									

Copy sent to Ms. Donna Drogos at Alameda County Health Dept.







ORO LOMA SANITARY DISTRICT 2600 GRANT AVENUE

SAN LORENZO, CA

• monitoring wells ( typical of 5)
note: two elevations are given at each well rim.

FILOX

# TABLE 1 GROUND WATER ELEVATIONS

All measurements are in feet

Monitoring Well ID	MW 1	MW 2	MW 3	MW 4	MW 5	Estima	ted Net
Well Cover Rim Elevn*	8.65	8,75	10.19	9.68	8.92	Flow Direction	Gradient ft/l
Groundwater Elevation		!	· <del></del>		<u>+</u>		
Initial Sampling 10/21/02	1.72	2.04	3.21	3.58	2.84	S21°E	0.016
2 <sup>nd</sup> Quarterly 1/28/03	2.23	2.65	4.94	5.35	4.42	S23°E	0.033
3rd Quarterly, 4/28/03	Not Measured	3.18	Not Measured	5.80	5.20	S22½°W	0.042
4 <sup>th</sup> Quarterly, 7/25/03	0.45	2.35	3.44	3.58	3.52	S18°W	0.027
5 <sup>th</sup> Quarterly, 10/30/03	1.82	2.75	3.61	4.18	4.09	S26°E	0.014
6 <sup>th</sup> Quarterly, 1/23/04	2.20	3.27	5.27	5.47	5.17	S35°E	0.053
7th Quarterly, 4/27/2004	2.35	3.55	4.99	5.08	4.92	S17°E	0.017
8th Quarterly, 7/29/2004	1.55	2.43	3.77	4,11	4.14	S52°W	0.006
9th Quarterly, 10/28/2004	-0.08	0.98	4.17	4.50	4.69	S63°E	0.087
Special Sampling, 12/8/2004	-0.74	-0.83	Not Meas.	Not Meas.	Not Meas.	Not Meas.	Not Meas.
10th Quarterly, 1/24/2005	0.79	2.75	5.64	5.83	4.74	S27°E	0.030
urrent reading on 4/28/2005							
Groundwater Depth	7.28	5,73	5.04	4.49	4.4		
Groundwater Elevation	1.37	3.02	5.15	5.19	4.52	S40°E	0.023
Change Since 1/24/2005	0.58	2.98	-0.60	-1.34	-0.34	eren mann i wilder i i i i i i	e 12702 (4139)
Change since same Qtr, last year	-0.86	0.37	0.21	-0.16	0.10		

<sup>\*</sup> Basis of elevations, Alameda County bench mark "Grant–Phil" at intersection of Grant Avenue and Phil Drive.

Bench Mark Elevation = 2.175 meters, msl = 7.136 feet.

TABLE 2

## **SUMMARY OF GROUND WATER SAMPLE ANALYSES**

#### TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

EPA METHOD 8015Cm /8021 results in µg/l (ppb)

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE	DILUTION FACTOR
MW-1	4/28/05	N/A	N/A	N/A	N/A	N/A	N/A	
MW-2	4/28/05	N/A	N/A	N/A	N/A	N/A	N/A	1 ·
MW-3	4/28/05	220	110	ND	ND	.63	54	1
MW-4	4/28/05	79,000	9,400	690	4000	16,000	ND<900	100
MW-5	4/28/05	89,000	18,000	11,000	1,600	8,900	ND < 500	100
MW-D 1	4/28/05	DIESEL: 70	ND	ND	ND	ND .	NΑ	1
TRIP BLANK	4/28/05	ND	ND	ND	ND	ND	ND	1
REPORTING LIMITS FOR DF=1		50	0.5	0.5	0.5	0.5	5	

#### NOTES:

ND

Analyte not detected at stated reporting limit

N/A

Not analyzed

#### TABLE 2A

# CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES FORMER GASOLINE TANK AREA

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE results in µg/l (ppb)

				TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
-1	2/19/99	ND	ND	ND	ND	ND	ND
	5/10/99	ND	ND	ND	ND	ND	ND ·
i	8/30/99	N/A	ND	ND	ND	ND	ND
ttabbellet out de opt this de outs of teleficials	11/23/99	ND	ND	ND	ND	ND	ND
,	11/23/99	ND	ND	ND	ND	ND	ND
	7/25/03	ND	ND	ND	ND	ND	ND
İ	10/30/03	N/A	N/A	N/A	N/A	N/A	N/A
	1/23/04	ND	ND	ND	ND	ND	ND .
	4/27/04	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/04	ND	ND	ND	ND	ND	ND
MP	10/28/04	N A	NA	N A	N A	N A	N A
3	12/8/04	ND	ND	ND	ND	ND	ИÐ
МР	1/24/05	ND	ND	ND	ND	ND	ND
Ì	4/28/05	N A	N A	NA	N A	N A	N A
	,	8/30/99 11/23/99 11/23/99 7/25/03 10/30/03 1/23/04 4/27/04 7/29/04 MP 10/28/04 12/8/04 MP 1/24/05	8/30/99 N/A  11/23/99 ND  11/23/99 ND  7/25/03 ND  10/30/03 N/A  1/23/04 ND  4/27/04 N/A  7/29/04 ND  MP 10/28/04 NA  12/8/04 ND  MP 1/24/05 ND	8/30/99 N/A ND  11/23/99 ND ND  11/23/99 ND ND  7/25/03 ND ND  10/30/03 N/A N/A  1/23/04 ND ND  4/27/04 N/A N/A  7/29/04 ND ND  MP 10/28/04 NA NA NA  12/8/04 ND ND  MP 1/24/05 ND ND	8/30/99 N/A ND ND 11/23/99 ND ND ND 11/23/99 ND ND ND ND 7/25/03 ND ND ND ND 10/30/03 N/A N/A N/A 1/23/04 ND ND ND 4/27/04 N/A N/A N/A 7/29/04 ND ND ND MP 10/28/04 NA NA NA NA 12/8/04 ND ND ND MP 1/24/05 ND ND ND	8/30/99 N/A ND ND ND ND  111/23/99 ND ND ND ND ND  11/23/99 ND ND ND ND ND  7/25/03 ND ND ND ND ND  10/30/03 N/A N/A N/A N/A  1/23/04 ND ND ND ND ND  4/27/04 N/A N/A N/A N/A  7/29/04 ND ND ND ND ND  MP 10/28/04 NA NA NA NA NA  12/8/04 ND ND ND ND ND  MP 1/24/05 ND ND ND ND ND	8/30/99 N/A ND ND ND ND ND  11/23/99 ND ND ND ND ND ND ND  11/23/99 ND ND ND ND ND ND ND  7/25/03 ND ND ND ND ND ND ND  10/30/03 N/A N/A N/A N/A N/A N/A  1/23/04 ND ND ND ND ND ND ND  4/27/04 N/A N/A N/A N/A N/A N/A  7/29/04 ND ND ND ND ND ND  MP 10/28/04 NA NA NA NA NA NA NA  12/8/04 ND ND ND ND ND ND  MP 10/28/04 ND ND ND ND ND ND  MP 11/24/05 ND ND ND ND ND ND

ORO LOMA SANITARY DISTRICT, STID 1996 3022.10 TABLE 2A for 11th qtly,2005-04.doc

TABLE 2A, Continued CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

#### FORMER GASOLINE TANK AREA

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
MW-2	2/19/99	ND	ND	ND	ND	ND	ND
	5/10/99	ND	ND	ND	ND	ND	ND
	8/30/99	N/A	ND	ND	ND.	ND	ND
	11/23/99	ND	ND	ND	ND	ND	ND
	7/25/03	ND	ND	ND	ND	ND	< 1
	10/30/03	N/A					
	1/23/04	ND	ND	ND	ND	ND	ND
	4/27/04	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/04	ND	ND	ND	ND	ND	ND
MP	10/28/04	ND	ND	ND	ND	ND	ND
	12/8/04	ND	ND	ND	ND	ND	1.5
MP	1/24/05	ND	ND	ND	ND	ND	9.0
	4/28/05	NA	NA	NA	N A	NA	NΑ
MW-3	2/19/99	ND ·	ND	ND	ND	ND	1.5 <sup>1</sup>
DUP	2/19/99	ND	ND	ND	ND	ND	N/A
	5/10/99	ND	ND	ND	ND	ND	1.5 2

ORO LOMA SANITARY DISTRICT, STID 1996 302210 TABLE 2A for 11th qtly,2005-04.doc:

Table 2A, Page 2

TABLE 2A, Continued CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

FORMER GASOLINE TANK AREA

LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
	8/30/99	N/A	ND	ND	ND	ND	ND
	11/23/99	ND	ND	[0.69] <sup>3</sup>	[0.58] <sup>3</sup>	[1.3] <sup>3</sup>	. ND
	1/6/00	ND	ND	ND	ND	ND	3.1 <sup>4</sup>
DUP	1/6/00	ND	ND	ND	ND	ND	2.64
TRIP BLANK	2/10-22/99	ND	ND	ND	ND	ND	N/A
	5/8-20/99	N/A	N/A	N/A	N/A	N/A	N/A
	8/27-31/99	N/A	N/A	N/A	N/A	N/A	N/A
	7/25/03	ND	ND	ND	ND	ND	1.1
,	10/30/03	N/A	N/A	N/A	N/A	N/A	N/A
	1/23/04	N/A	N/A	N/A	N/A	N/A	N/A
	4/27/04	N/A	N/A	N/A	N/A	N/A	N/A
	7/29/04	ND	6.4	ND	ND	ND	8.8
MP	10/28/04	390	170	0.70	ND	2.4	57
	12/8/04	N/A	N/A	N/A	N/A	N/A	N/A
МР	1/24/05	520	260	0.53	ND	1.9	89
J	4/28/05	220	110	ND	ND	.63	54

ORO LOMA SANITARY DISTRICT, STID 1996 302210 TABLE 2A for 11th qtly,2005-04.doc:

Table 2A, Page 3

TABLE 2A, Continued
CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES
TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

FORMER GASOLINE TANK AREA

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
MW-4	10/21/2002	N/A	5,800	6,200	3,500	18,000	140
	1/28/03	N/A	7,200	3,500	2,700	15,000	130
	4/28/03	N/A	5,700	850	ND<120	10,000	200
	7/25/03	97,000	11,000	8,400	4,900	24,000	ND<250
	10/30/03	77,000	12,000	9,300	3,200	16,000	ND < 200
	1/23/04	100,000	16,000	10,000	1,100	19,000	ND < 1,200
	4/27/04	78,000	13,000	7,800	3,200	17,000	ND < 1,000
	7/29/2004	46,000	8,300	2,100	2,000	7,900	ND<500
MP	10/28/04	80,000	15,000	7,100	3,500	14,000	ND<1,000
	12/8/04	N/A	N/A	N/A	N/A	N/A	N/A
MP	1/24/05	70.000	9,900	850	2,500	11,000	ND<1,000
	4/28/05	79,000	9,400	690	4000	16,000	ND<900
MW-5	10/21/2002	65,000	12,000*	20,000*	1,600*	7,100*	ND<100
	1/28/03	N/A	9,100	6,600	720	4,000	ND<100
	4/28/03	N/A	12,000	8,300	ND<250	2,100	ND<250
İ	7/25/03	62,000	13,000	14,000	1,300	5,200	ND<250
	10/30/03	33,000	7,500	2,200	490	1,600	ND < 100
	1/23/04	97,000	18,000	20,000	ND<120	7,900	ND < 1,200
	4/27/04	39,000	12,000	11,000	920	4,300	ND < 1,000

ORO LOMA SANITARY DISTRICT, STID 1996 302210 TABLE 2A for 11th gtly,2005-04.doc:

Table 2A, Page 4

# TABLE 2A, Continued CUMULATIVE SUMMARY OF GROUND WATER SAMPLE ANALYSES TOTAL PETROLEUM HYDROCARBONS AS GASOLINE, BTEX AND MTBE

#### FORMER GASOLINE TANK AREA

SAMPLE LOCATION	SAMPLE DATE	GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES (TOTAL)	MTBE
	7/29/04	47,000	11,000	5,500	690	2,800	ND < 1,000
MP	10/28/04	130,000	23,000	25,000	2,000	9,700	ND< 1,700
	12/8/04	N/A	N/A	N/A	N/A	N/A	N/A
MP	1/24/05	150,000	22,000	25,000	2,100	12,000	ND<1,000
	4/28/05	89,000	18,000	11,000	1,600	8,900	ND < 500

#### NOTES:

ND N/A u/n	Analyte not detected at stated reporting limit Not analyzed Unless noted otherwise (Reporting Limit)	1. 2. 3.	Analyzed by EPA method 8260B, reporting limit was 1 µg/l. Estimated value below method reporting limit of 2 µg/l. Inconsistent contaminant pattern. Sample result spurious, re-sampled
MP	Sampling by micro-purge technique	4.	Reporting limit at 2.5 μg/l.

## TABLE 3

## SUMMARY OF GROUND WATER SAMPLE ANALYSES

## SELECTED METALS (DISSOLVED) AND OXYGEN DEMAND

METALS: EPA Method E200.8 results in µg/l (ppb)

BOD: Std Method 5210B results in mg/l (ppm)

COD: Std Method 5220D results in mg/l (ppm)

Sample Location	SAMPLE DATÉ	IRON	MANGANESE	BOD	COD		DILUTION FACTOR	
MW-1	4/28/05			_	<u>-</u>		1	
MW-2	4/28/05		No comples o	-No samples collected, no analysis for these analytes.				
MW-3	4/28/05		-100 samples collected, no analysis for these analytes.					
MW-4	4/28/05			-			1	
	4/28/05			ـ ب				
MW-5							1	
	4/00/05			_				
REPORTING LIMITS FOR DF=1	4/28/05	.05	.05	3.0 MG/L	10MG/L -	-		

ORO LOMA SANITARY DISTRICT, STID 1996 302210 table 2,3 for Q2-2005.doc

## **TABLE 4**

## SUMMARY OF WATER SAMPLE ANALYSES: FORMER DIESEL TANK AREA MONITORING WELL

# TOTAL PETROLEUM HYDROCARBONS AS DIESEL, EPA METHOD 8015C, 8021

RESULTS IN µg/L (ppb)

Sample Date	TPH as DIESEL	BTEX
4/28/05	70	ND
1/24/05	77	ND
10/28/04	58	ND
7/29/04	ND<50	ND
4/27/04	110	< 0.91
1/23/04	71	. ND
10/30/03	87	ND
7/25/03	90*	ND*
4/28/2003	87	ND
3/ 8/1996	340	ND
2/1/95	380	ND
6/15/94	170	ND
3/15/94	200	ND
12/1/93	300	ND

For reporting limits refer to table 2 and laboratory certificates appended.

ORO LOMA SANITARY DISTRICT

table 4D for 11th qtly 2005-04.doc

## WELLHEAD INSPECTION CHECKLIST

Page of /

Date <u>4/7</u>	8/0	5-	Client	The Sc	itton G	rosp	······		
Date <u>4/7</u> Site Address	26	00 Gran	t Ave.	San	Loven	Zo, CA	<del> </del>		
Job Number						hnician	DA		
Well ID		Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1		Х							
mw-l		*				,			
Mw-3		*			×				
nw-4		7			√2				
MW-5		+			¥				
MW-DI		*			×				
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## WELL GAUGING DATA

Proje	ct # 050428-	041 I	Date _ 4/28/05	Client	· .
			·		
Site	2600 Gra	nt Ave.	San Lore	nzo, CA	

	Well		Depth to	Thickness of	Volume of Immiscibles			Survey	
	Size	Sheen /	Immiscible	Immiscible	Removed	Depth to water	Depth to well	Point: TOB	·
Well ID	(in.)	Odor	Liquid (ft.)	Liquid (ft.)	(ml)	(ft.)	bottom (ft.)	or TOC	
MW-1	2		the same and the s			(ft.) 7.28 10.9+	14.49	TOB	
MW-2 MW-3	2		Avaluation of the state of the			5,73	15.40		
MW-3	ı		es d'i rer-a-mividides			5.04	15.74		
MW-4	2		Carlot in the ca			4.49	13.90		
MW-5	ı		The state of the s			4.40	13,92		
MW-DI	4		de la companya de la			7.54	14.40		
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Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (408) 573-0555

Project #:	05042	-8 -	DAI	Client: Surrou Groul							
Sampler:	DA/1	M		Date: 04/2	28/05						
Well I.D.:	nw-	-3		Well Diameter		6 8					
Total Well I	Depth (TD	): 1 <u>5</u>	.74	Depth to Water (DTW): 5.04							
Depth to Fre	ee Product	•		Thickness of Free Product (feet):							
Referenced	to:	← <del>(vc)</del>	Grade	D.O. Meter (if	req'd):	YSI HACH					
DTW with 8	30% Recha	arge [(H	eight of Water	Column x 0.20	) + DTW]: -	1-18					
1.7 (	Bailer Disposable Bailer Positive Air E Electric Subm	Displacement of the service of the s	Other	Gals.	0.04 4" 0.16 6"	Extraction Port Dedicated Tubing  Diameter Multiplier  0.65 1.47					
1 Case Volume	1 Case Volume Specified Volumes Calculated Volume 3" 0.37 Other radius <sup>2</sup> * 0.163										
Time	Temp (°F or °C)	рН	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations					
8:54	63.3	6-6	17.47	112	1.7	gray /HZS smell					
8:58	03-8	6.7	17.36	187	3.4	V 17					
9'02	63.3	6.7	22.29	292	5.1	CC /					
9:04	103.9	4.7	23.81	309	6.8	N f					
Did well de	water?	Yes (	No	Gallons actual	ly evacuated:	6.8					
Sampling D	ate: 04/2	8/05	Sampling Tim	e: 9:09	Depth to Wate	r: -					
Sample I.D.: Mbl-3 Laboratory: Kiff CalScience Other Mc Campbell											
Analyzed fo	ог: 7РН-с	втех	мтви трн-d	Oxygenates (5)	Other:						
EB I.D. (if a	applicable)	:	@ Time	Duplicate I.D.	(if applicable):						
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenates (5)	Other:						
D.O. (if req	d): Pr	e-purge:		mg/L I	Post-purge:	mg/L					
O.R.P. (if re	eq'd): Pr	e-purge;		mV I	Post-purge:	mV					

Project#: 🛭	50428-	DAI		Client: The Sutton Group							
Sampler:	DAI	PM			4/28						
Well I.D.:	MW-	-4		Well D	iameter:	: ② 3	4	6 8			
Total Well I	Depth (TD	): 1	3.90	Depth 1	o Water	r (DTW):	4.	19			
Depth to Fre	ee Product	•	·	Thickness of Free Product (feet):							
Referenced	to;	PVC	Grade		leter (if	<del></del>	···	YSI HACH			
DTW with 8	30% Recha	irge [(H	eight of Water	Columr	x 0.20)	) + DTW]	: 6	37			
<del>-</del>	Bailer Disposable Ba Positive Air E Electric Subm	Displacemen		Waterra Peristaltic tion Pump	Wall Diagram	Sampling	Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing			
Time	Temp (For °C)	рН	Cond. (mS or (μS)	Turbidity (NTUs)		Gals. Removed		Observations			
9:33	65,2	6.8	6386	4	46	1.5		dark for			
9:35	65.3	6-8	14900	4	84	3		dark gray			
9:38	65.7	6.7	29290	71	000	4.	5	11			
Well	dewater	ed at	4.5 gal								
1020	64.9	6.9	4028	143	•						
Did well de	water? (	Yes	No	Gallon	s actuall	y evacuat	ted:	4.5			
Sampling D	ate: 41128	105	Sampling Time	e: 1022		Depth to	Water	: 4.72			
Sample I.D.	: MW-	ч		Labora	tory:	Kiff Ca	Science	Other Mc Campbell			
Analyzed fo	or: PPH-G	BTEX	MTBE TPH-D	Oxygen	ates (5)	Other:					
EB I.D. (if a	applicable)	):	@ Time	Duplic	ate I.D.	(if application	able):				
Analyzed for	r: TPH-G	BTEX	MTBE TPH-D	Oxygen	ates (5)	Other:					
D.O. (if req	'd): Pı	re-purge:		ing/L	P	ost-purge:		mg <sub>/L</sub>			
O.R.P. (if re	eq'd): Pi	re-purge:		mV	P	ost-purge:		mŇ			

Project #: 050428-DA1	Client: The Sutton Group									
Sampler: DA	Client: The Sutton Group  Date: 4/28/05									
Well I.D.: MW-5	Well Diameter: ② 3 4 6 8									
Total Well Depth (TD): 13.92	Depth to Water (DTW): 4,40									
Depth to Free Product:	Thickness of Free Product (feet):									
Referenced to: Grade	D.O. Meter (if req'd): YSI HACH									
DTW with 80% Recharge [(Height of War	ter Column x 0.20) + DTW]: 6.30									
Purge Method: Bailer Waterra Sampling Method: Bailer  Disposable Bailer Peristaltic Disposable Bailer  Positive Air Displacement Extraction Pump Electric Submersible Other Dedicated Tubing  Other:										
Well Diameter Multiplier Well Diameter Multiplier  1 0.04 4" 0.65 2" 0.16 6" 1.47 3" 0.37 Other radius² * 0.163										
Temp Cond. Time (For °C) pH (mS) or μS)	Turbidity (NTUs) Gals. Removed Observations									
9:22 63.2 6.8 13.11	126 1.5 cloudy									
9:25 44.4 6.8 32.50	144 3.0 gray									
0925Well devatered @ 3q.	,									
0939 63.8 6.8 21.23	132 -									
Did well dewater? Yes No	Gallons actually evacuated: 3									
Sampling Date: 4/28/05 Sampling Ti	ime: 1041 Pepth to Water: departure									
Sample I.D.: Mw-5	Laboratory: Kiff CalScience Other Mc Campbell									
Analyzed for: TPH-G BTEX MTBP TPH-I	D Oxygenates (5) Other:									
EB I.D. (if applicable):	Duplicate I.D. (if applicable):									
Analyzed for: TPH-G BTEX MTBE TPH-I										
D.O. (if req'd): Pre-purge:	mg/L Post-purge: mg/L									
O.R.P. (if req'd): Pre-purge: mV Post-purge: mV										

Project #:	050428-	DAI		Client: The Sutton Group						
Sampler:	οΑ			Date:	4/28					
Well I.D.:	MW-P	1		Well D	iameter		6 8			
Total Well	Depth (TD	): [4.	40	Depth to Water (DTW): 7.54						
Depth to Fr	ee Product	·•		Thickness of Free Product (feet):						
Referenced	to:	(14)	Grade		leter (if		YSI HACH			
DTW with	80% Rech	arge [(H	leight of Water	Colum	1 x 0.20)	) + DTW]:	8.91			
Purge Method:	Bailer Disposable B Positive Air I Electric Subm	Displaceme		Waterra Peristaltic ction Pump		Sampling Method:	Bailer  Toisposable Bailer  Extraction Port  Dedicated Tubing			
4.5 (Case Volume	Gals.) X 3	fied Volum	= 13.5 Calculated Vo	Gals.	Well Diamete 1" 2" 3"	r Multiplier Well J 0.04 4" 0.16 6" 0.37 Other	Diameter <u>Multiplier</u> 0.65  1.47  radius <sup>2</sup> * 0.163			
Time	Temp (F)or °C)	рН 7.3	Cand. (ms or \mus)	(N')	oidity (Us)	Gals, Removed	Observations			
, ,	enature			155		4.5	doudy			
1030	u5.3	7.1	17-65		0		CC			
Did well de	water?	Ter	Ν̈́ο	Gallons	actuall	y evacuated:	4.5			
Sampling D	ate: 4/28	05	Sampling Time			Depth to Wate				
Sample I.D.	- MW-	D)		Labora	tory:	Kiff CalScience				
Analyzed fo	т: ФН-б	втех	мтве трн-р	Oxygena	ites (5)	Other:				
EB I.D. (if a	pplicable)		@ Time	Duplica	ite I.D. (	(if applicable):				
Analyzed fo	r: TPH-G	втех		Oxygena		Other:				
D.O. (if req	d): Pr	e-purge:		$^{ m mg}/_{ m L}$	Pe	ost-purge:	mg/ <sub>L</sub>			
O.R.P. (if re	eq'd): Pr	e-purge:	· · · · · · · · · · · · · · · · · · ·	mV	P	ost-purge:	mV			

		1680 ROGERS AVEN	4IJE	4								B. 4 - (2) (1 - 1	,	ï .														
BLAINE	SAN JOSE,	CALIFORNIA 95112-1 FAX (408) 573-7	105			TOUC	I ANALY:	SIS TO D	LIECI		SES MUST		FICATIONS AND	DHS#														
TECH SERVICES, INC.		PHONE (408) 573-0									EPA	DRNIA DHS AN	(D ☐ RWQCB RE(	SION														
CHAIN OF CUSTODY	OTO # 17 C 256	: n est + A 1	7								.IA OTHER		_															
CLIENT	BTS # 0.5 04	<u> </u>	ERS	620						SPECIAL I	NSTRUCTIO	NS																
The Suttor			CONTAINERS	MTBE		İ																						
2600 Gran				×				and succession.		Invoice	and Repo.	rt to: The	Sutton Grou	ıp														
San Lorens	zo, CA		EALL	BTEX				***************************************		Attn: Jo	hn Suttor	ı Job#	<sup>‡</sup> 3022.10															
	MATRIX MS - SOIL W=H <sub>2</sub> 0	CONTAINERS	= COMPOSITE	TPH-G/BT	BTEX	TPH-D						-certified" dspring.cor	as "pdf" to: n															
	TME 🖔 🕏	TOTAL	Ü	<u> </u>	BI	L L				ADD'L INFO	DRMATION	STATUS	CONDITION	LAB SAMPLE														
MN-3 4/28/05 0	M pop	3,		×	×																							
<del></del>	orr			*	Ж																							
<del></del>	041	1	1	*	Ж																							
	232	5		M/s	*	~																						
TB +	**************************************		R	X	X									manuschen wertertift das bezeitsten der des eines der														
														v <del>it furfa talakan</del> u usus a sasasa sa  SAMPLING   DATE   TI	ME SAMPLIN	ēc.								RESULTS N				
COMPLETED 4/78/05 11	00 PERFOR	MED BY DON JIJ /	A116	vt-						NO LATER	TIECAL	Standard TA	<b>"}</b> "															
Journ Albut			DATE 5/2	2/0	5	TIME :33	0	-	EIVED BY				DATE / / 5/2/0	TIME / 35														
RELEASEDBY		and the second s	DATE	12/0	) 75	TIME	65	REGI	ENEQ BY				DATE	TYPOS														
RELEASED BY			DATE	7		TIME		RECE	EIVED BY	y con Con			DATE	TIME														
SHIPPED VIA			DATE	SEN	r	TIME	SENT	cool	ER#		THE TAXABLE TO SERVICE THE SER			· · · · · · · · · · · · · · · · · · ·														
The second state of the second			<b>L</b>				and the second s			HEAD S DECHL	CONDITION_ PACE ABSEN DRINATED IN  VO	TC	PROPRIATE INTAINERS ESERVED IN LA BIALS OTHER															



110 Second Avenue South, #D7 Pacheco, CA 94553-5560 (925) 798-1620

# **CHAIN-OF-CUSTODY RECORD**

WorkOrder: 0505033

ClientID: TSG

Report to:

John Sutton

925-284-4208

TEL: FAX:

925-284-4189 ProjectNo: #3022.10

Lafayette, CA 94549

3708 Mt. Diablo Blvd, Ste. 215

The Sutton Group

PO:

Bill to

Requested TAT:

5 days

Accounts Payable

The Sutton Group

3708 Mt. Diablo Blvd, Ste. 215

Lafayette, CA 94549

Datc Received: 05/02/2005

Date Printed: 05/06/2005

					Requested Tests (See legend below)															
Sample ID	ClientSamplD	Matrix	Collection Date	Hold	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15
0505033-001	MW-3	Water	04/28/2005	1 🗖	Ā	· · · · · ·	Υ	1				I		1	1	ı	ı	ı	<del></del>	<del></del>
0505033-002	MW-4	Water	04/28/2005	╁╁	A	<u> </u>	†	<del> </del>	+	$\dashv$				<del> </del>	<del>                                     </del>	<u> </u>	ļ		<del>                                     </del>	+
0505033-003	MW-5	Water	04/28/2005		Α	İ	1	1	1								-	· · · · · ·		+
0505033-004	MW-D1	Water	04/28/2005		Α	В														$\uparrow \neg$

#### Test Legend:

1 G-MBTEX_W	2 TPH(D)_W	3	4	5
6	7	8	9	10
11	12	13	14	15

Prepared by: Maria Venegas

#### Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

The Sutton Group	Client Project ID: #3022.10	Date Sampled: 04/28/05
3708 Mt. Diablo Blvd, Ste. 215		Date Received: 05/02/05
Lafayette, CA 94549	Client Contact: John Sutton	Date Extracted: 05/03/05
Duray one, Ort 94549	Client P.O.:	Date Analyzed: 05/03/05

			ge (C6-C12)				th BTEX and			
	method: \$W5030				nethods: \$W80211				Order: 0.	
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% S
001A	MW-3	W	220,a	54	110	ND	ND	0.63	1	105
002A	MW-4	W	79,000,a	ND<900	9400	690	4000	16,000	100	90
003A	MW-5	w	89,000,a	ND<500	18,000	11,000	1600	8900	100	98
004A	MW-DI	w			ND	ND	ND	ND	1	102
005A	ТВ	w	ND	ND	ND	ND	ND	ND	1	103
				- 20						
	, majorini (1944). (1944)									
						:		-	<del> </del>	
						<u> </u>		<del></del>	-	
									-	
			<u> </u>							
				<u> </u> 						
	•	-							+	ļ
	Limit for DF =1;	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/L

ND means not detected at or				U.5	<b>V</b> .5	0.0	0.5	١.,	μę/L	Ĺ
above the reporting limit	S	NA	NĄ	NA ·	NA	NA	NA	1.	mg/Kg	
* water and vapor samples an	d all TCI	P & SPLP extra	cts are reported ir	ug/L, soil/sludge	e/solid samples in	mg/kg, wipe sa	mples in µg/wipo	<del></del>		

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

product/oil/non-aqueous liquid samples in mg/L.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment, j) reporting limit raised due to high MTBE content, k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern, n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

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110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com

The Sutton Group		Client Projec	rt ID: #3022.10	Date Sampled:	04/28/05	•	
3708 Mt. Diablo Blvd, Ste. 215				Date Received:	05/02/05		
Lafayette, CA	94549	Client Conta	ect: John Sutton	Date Extracted:	05/04/05		
		Client P.O.:		Date Analyzed:	05/04/05		
	i i	sel Range (C16	0-C23) Extractable Hydrocarbon	s as Diesel*			
Extraction method:		T and the second	Analytical methods: SW8015C		Wo	<del></del>	0505033
Lab ID	Client 1D	Matrix	TPH(d)	<del>y</del>		DF	% SS
0505033-004B	MW-D1	W	70,b			1	99
					-		
					<del></del>		
	·	-		<del></del>			
						]	
				****			
						<u> </u>	<del> </del>
					··.		
		1				-	
· · · · · · · · · · · · · · · · · · ·		<del>                                     </del>					
		-					
	g Limit for DF =1;	w	50			μg/L	
	s not detected at or he reporting limit	S	NA			<b>-</b>	IA.
* water samples	are reported in µg/L, wip	e samples in μg/	wipe, soil/solid/sludge samples in mg/kg	, product/oil/non-aqu	eous liquid	samples	in mg/L,

ind all DISTEC / STEC / SPLP / TCLP extracts are reported in µg/L.

<sup>#</sup> cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel, f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present, i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



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#### QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0505033

EPA Method: SW8021B/8015Cm Extraction: SW5030B				}	Bato	BatchlD: 16094 Spiked Sample ID 0505033-005A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
, way to	μg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS/LCSD
TPH(btexf	ND	60	98.6	96.8	1.91	96.3	95.6	0.756	70 - 130	70 - 130
мтве	ND	10	88.9	84.9	4.62	96	92.9	3.26	70 - 130	70 - 130
Benzene	ND	10	95.1	89.6	5.98	97.4	94.8	2.74	70 - 130	70 - 130
Toluene	ND	10	108	102	5.45	103	90.5	12.6	70 - 130	70 - 130
Ethylbenzene	ND	10	109	105	3.74	108	105	2.97	70 - 130	70 - 130
Xylenes	ND	30	96	91.7	4.62	96	91.3	4.98	70 - 130	70 - 130
%SS:	103	10	110	107	2.48	112	110	1.38	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 16094 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505033-001	4/28/05 9:09 AM	5/03/05	5/03/05 6:09 AM	0505033-002	4/28/05 10:22 AM	5/03/05	5/03/05 6:39 AM
U5U5U33-003	1/28/05 10:41 AM	5/03/05	5/03/05 7:08 AM	0505033-004	4/28/05 10:32 AM	5/03/05	5/03/05 10:07 AM
0505033-005	4/28/05	5/03/05	5/03/05 10:36 AM	[			•

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.



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#### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0505033

EPA Method: SW8015C	E	xtraction	: SW35100	;	Batc	hID: 1608	2	Spiked Sa	mple ID N/A	
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
,	µg/L	μg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS/MSD	LCS/LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	89.3	90.5	1.33	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	82	84	2.25	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

#### BATCH 16082 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505033-004	4/28/05 10:32 AM	5/02/05	5/04/05 2:02 AM			·	

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

OA/OC	Officer