



# GETTLER-RYAN INC.

NOV 01 2001

## TRANSMITTAL

October 15, 2001

G-R #180107

**TO:** Mr. David B. De Witt  
Tosco Marketing Company  
2000 Crow Canyon Place, Suite 400  
San Ramon, California 94583

**CC:** Mr. Tim Ripp  
IT Corporation  
1921 Ringwood Avenue  
San Jose, California 95131

**FROM:** Deanna L. Harding  
Project Coordinator  
Gettler-Ryan Inc.  
6747 Sierra Court, Suite J  
Dublin, California 94568

**RE:** Tosco (Unocal) Service Station  
#5430  
1935 Washington Avenue  
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 4, 2001	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of September 4, 2001

### COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by **October 29, 2001**, this report will be distributed to the following:

cc: Mr. Scott Seery, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94501  
Mr. Michael Bakaldin, City of San Leandro Fire Dept., 835 East 14th Street, San Leandro, CA 94577

Enclosure

trans/5430-dbd

RD 443

**EMCON/OWT Solid Waste Services**

1921 Ringwood Avenue  
San Jose, CA 95131-1721  
Tel. 408.453.7300  
Fax. 408.437.9526

A Member of The IT Group



July 18, 2001  
Project 311-038.1A

Mr. Chuck Headlee  
Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612

803  
SPD 1747

Re: 76 Service Station 5430  
Quarterly Summary Report  
Second Quarter 2001

Dear Mr. Headlee:

As directed by Mr. David DeWitt of Tosco Marketing Company, IT Corporation (IT) is forwarding the quarterly summary report for the following location:

Service Station

Location

5430

1935 Washington Avenue, San Leandro

If you have questions or comments, please do not hesitate to contact our office at (408) 453-7300.

Sincerely,

**IT Corporation**

Timothy L. Ripp  
Project Geologist

Enclosure

cc: Mr. David DeWitt, Tosco Marketing Company  
Mr. Tom Peacock, Alameda County Environmental Health Care Services

1747

## Quarterly Summary Report Second Quarter 2001

76 Service Station 5430  
1935 Washington Avenue at Castro Street  
San Leandro, California

County STID #: 1747  
County: Alameda

### BACKGROUND

Unocal files suggest that a product line leak occurred in June 1976, and that one of the original underground gasoline storage tanks failed a precision test in October 1981. In December 1981, the two original steel gasoline storage tanks were replaced with two fiberglass gasoline storage tanks. There are currently six on-site groundwater monitoring wells and one off-site groundwater monitoring well in use at the site. In July 1997, three off-site exploratory borings were drilled on the property to the south of the 76 station. Based on the findings of that investigation, the lateral extent of hydrocarbon impact to groundwater is considered delineated. The product dispensers and associated underground product piping were replaced in July and August 1998. The underground waste oil storage tank was also removed and replaced with an aboveground waste oil storage tank.

### RECENT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities performed in March 2001 were reported in May 2001.

### NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities will be performed in September 2001.

### CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.  
Dissolved groundwater delineated? Yes.  
Free product delineated? Not applicable.  
Amount of groundwater contaminant recovered this quarter? None.  
Soil remediation in progress? Not applicable.  
Anticipated start date? Not applicable.  
Anticipated completion date? Not applicable.  
Dissolved/free product remediation in progress? No.  
Anticipated start? Unknown.  
Anticipated completion? Unknown.

**CONSULTANT:** IT Corporation



# GETTLER - RYAN INC.

October 4, 2001  
G-R Job #180107

Mr. David B. De Witt  
Tosco Marketing Company  
2000 Crow Canyon Place, Suite 400  
San Ramon, California 94583

**RE: Second Semi-Annual Event of September 4, 2001**  
Groundwater Monitoring & Sampling Report  
Tosco (Unocal) Service Station #5430  
1935 Washington Avenue  
San Leandro, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

*Annamarie Novau*  
-FOR-

Deanna L. Harding  
Project Coordinator

*David W. Herzog*  
David W. Herzog  
Senior Geologist, R.G. No. 7211

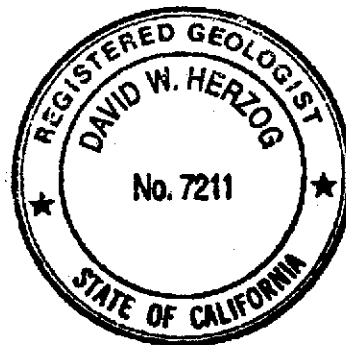
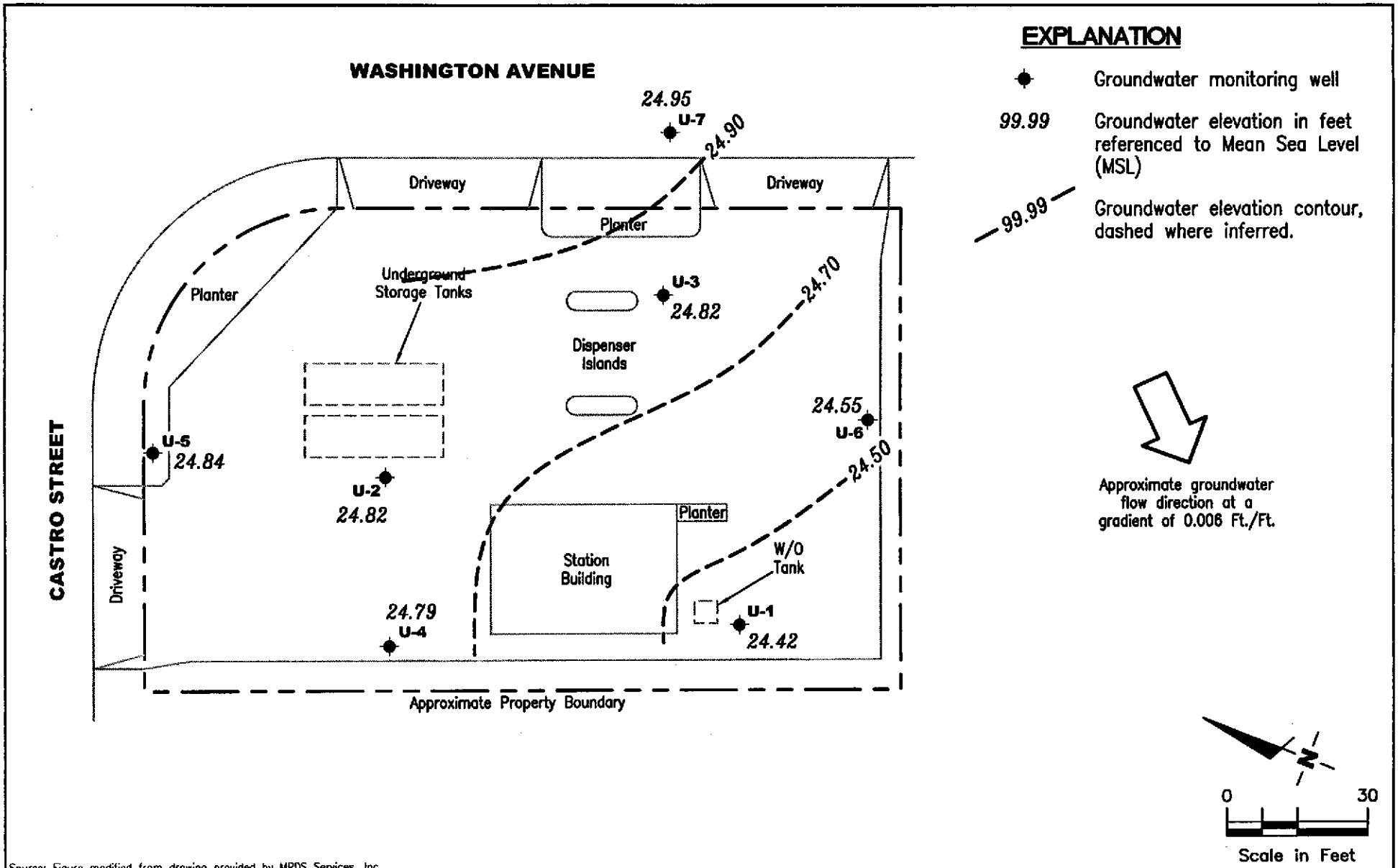


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results - Oxygenate Compounds  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

5430.qml



Source: Figure modified from drawing provided by MPDS Services, Inc.

**GETTLER - RYAN INC.**  
 6747 Sierra Ct., Suite J  
 Dublin, CA 94568 (925) 551-7555

**POTENTIOMETRIC MAP**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

FIGURE

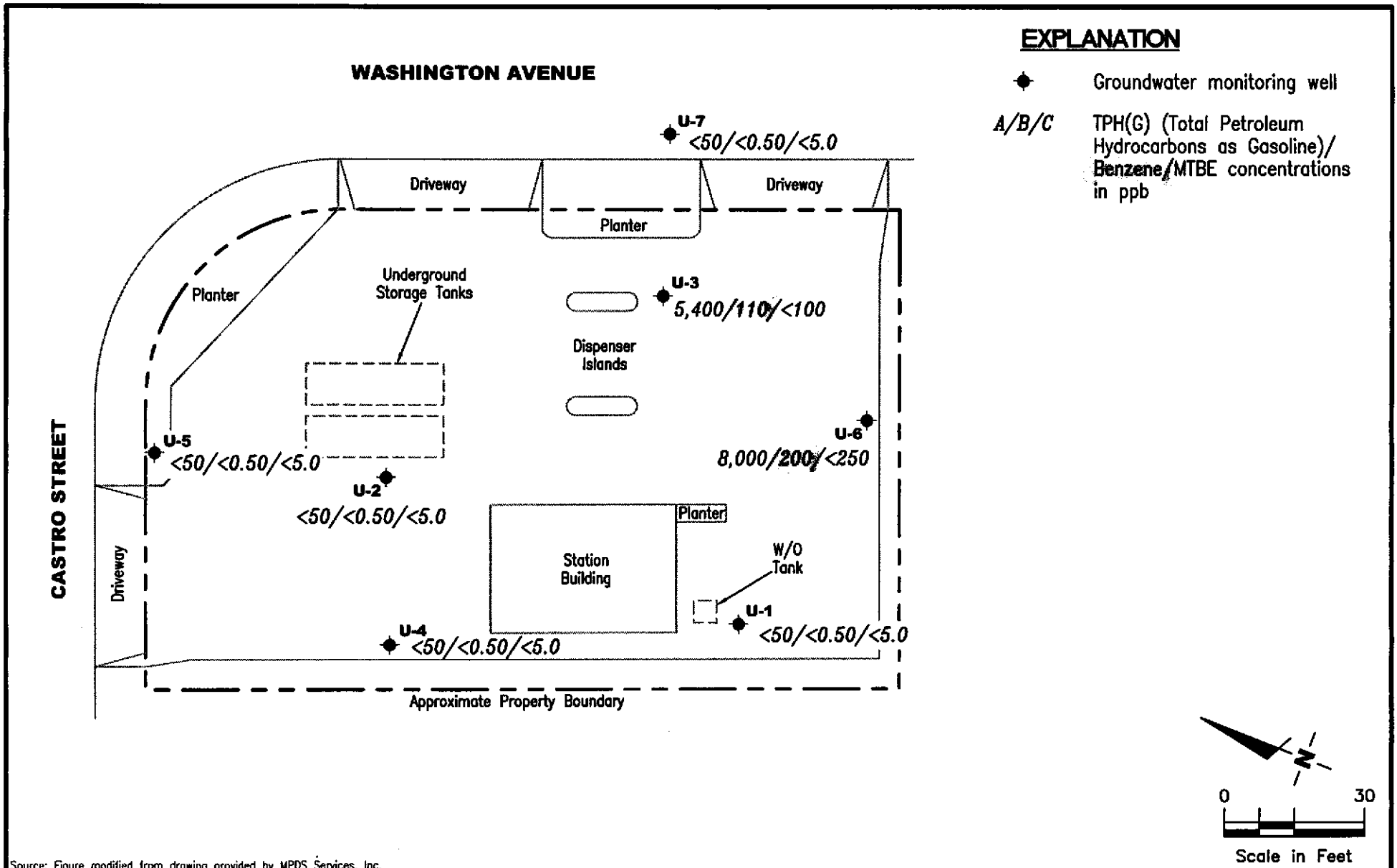
1

PROJECT NUMBER  
 180107

REVIEWED BY

DATE  
 September 4, 2001

REVISED DATE



Source: Figure modified from drawing provided by MPDS Services, Inc.

**GETTLER - RYAN INC.**  
 6747 Sierra Ct., Suite J  
 Dublin, CA 94568 (925) 551-7555

**CONCENTRATION MAP**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

FIGURE  
**2**

PROJECT NUMBER  
 180107

REVIEWED BY

DATE  
 September 4, 2001

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-1													
56.58	08/13/93 <sup>1</sup>	31.60	20.0-40.0	24.98	50 <sup>2</sup>	310	0.84	ND	2.6	1.0	--	--	--
	09/07/93	31.60		24.98	--	--	--	--	--	--	--	--	--
56.10	12/16/93 <sup>1</sup>	33.19		22.91	130 <sup>3</sup>	ND	ND	ND	ND	ND	--	--	--
	01/13/94	33.06		23.04	--	--	--	--	--	--	--	--	--
	02/09/94	32.70		23.40	--	--	--	--	--	--	--	--	--
	03/25/94 <sup>1</sup>	31.07		25.03	57 <sup>3</sup>	58	0.63	0.79	ND	0.65	--	--	--
	05/18/94	31.76		24.34	--	--	--	--	--	--	--	--	--
	06/19/94 <sup>1</sup>	32.26		23.84	61 <sup>3</sup>	51	ND	1.4	ND	2.7	--	ND	7.4
	07/27/94	33.07		23.03	--	--	--	--	--	--	--	--	--
	08/18/94	33.50		22.60	--	--	--	--	--	--	--	--	--
	09/15/94 <sup>1</sup>	33.93		22.17	83 <sup>3</sup>	ND	0.50	0.85	ND	0.77	--	ND	9.5
	10/11/94	33.25		22.85	--	--	--	--	--	--	--	--	--
	11/08/94	34.05		22.05	--	--	--	--	--	--	--	--	--
	12/06/94 <sup>1</sup>	32.37		23.73	ND	ND	ND	ND	ND	ND	--	ND	5.8
	01/10/95	31.29		24.81	--	--	--	--	--	--	--	--	--
56.09	03/14/95	27.86		28.23	71 <sup>3</sup>	380	20	ND	ND	10	--	--	--
	06/20/95	28.20		27.89	170 <sup>3</sup>	500	50	ND	ND	4.4	--	--	--
	09/18/95	30.65		25.44	72.00	57	1.2	0.75	0.57	2.2	-- <sup>6</sup>	--	--
	12/14/95	32.20		23.89	ND	ND	0.72	1.4	1.2	3.6	--	ND	3.8
	03/06/96	26.53		29.56	ND	96	4.5	ND	ND	3.7	ND	--	--
	06/04/96	27.43		28.66	170 <sup>3</sup>	410	48	ND	3.4	7.9	ND	--	--
	09/06/96	30.25		25.84	ND	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	26.03		30.06	--	ND	ND	ND	ND	ND	ND	ND	43
	09/04/97	31.56		24.53	--	ND	ND	ND	ND	ND	ND	ND	4.5
	03/09/98	20.63		35.46	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/01/98	27.82		28.27	--	ND	0.59	ND	ND	ND	3.1	ND	8.9
	03/02/99	26.83		29.26	--	ND	ND	ND	ND	ND	ND	ND	4.5
	09/07/99	28.03		28.06	--	ND	ND	ND	ND	ND	ND	ND	ND

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-1	03/09/00	25.50	20.0-40.0	30.59	--	ND	ND	ND	ND	ND	ND	ND	1.32
(cont)	09/11/00 <sup>16</sup>	28.16		27.93	--	ND	ND	0.592	ND	ND	ND	ND <sup>9</sup>	ND <sup>9</sup>
	03/26/01 <sup>17</sup>	27.02		29.07	--	ND	ND	ND	ND	ND	ND	ND	2.50
	09/04/01 <sup>19</sup>	31.67		24.42	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	2.4
U-2													
55.77	08/13/93	30.87	20.0-40.0	24.90	--	1,400	ND	ND	ND	ND	--	--	--
	09/07/93	30.87		24.90	--	--	--	--	--	--	--	--	--
55.27	12/16/93	32.19		23.08	--	330	1.7	ND	11	8.5	--	--	--
	01/13/94	32.13		23.14	--	--	--	--	--	--	--	--	--
	02/09/94	33.50		21.77	--	--	--	--	--	--	--	--	--
	03/25/94	30.09		25.18	--	130	0.70	0.78	0.65	0.64	--	ND	11
(D)	03/25/94	--		--	--	--	--	--	--	--	--	ND	ND
	05/18/94	30.73		24.54	--	--	--	--	--	--	--	--	--
	06/19/94	31.31		23.96	--	180 <sup>4</sup>	ND	ND	ND	0.86	--	ND	0.54
	07/27/94	32.12		23.15	--	--	--	--	--	--	--	--	--
	08/18/94	32.50		22.77	--	--	--	--	--	--	--	--	--
	09/15/94	33.00		22.27	--	1,000 <sup>5</sup>	44	ND	ND	ND	--	ND	0.66
	10/11/94	32.35		22.92	--	--	--	--	--	--	--	--	--
	11/08/94	33.09		22.18	--	--	--	--	--	--	--	--	--
	12/06/94	31.44		23.83	--	250	19	ND	ND	ND	--	ND	ND
	01/10/95	30.25		25.02	--	--	--	--	--	--	--	--	--
55.29	03/14/95	26.36		28.93	--	89	ND	ND	ND	1.2	--	--	--
	06/20/95	26.74		28.55	--	ND	ND	0.58	ND	1.7	--	--	--
	09/18/95	29.65		25.64	--	ND	ND	ND	ND	0.85	-- <sup>6</sup>	--	--
	12/14/95	31.10		24.19	--	ND	ND	0.89	ND	2.0	-- <sup>7</sup>	ND	ND
	03/06/96	25.17		30.12	--	ND	ND	ND	ND	ND	80	--	--
	06/04/96	26.03		29.26	--	ND	ND	ND	ND	ND	110	--	--
	09/06/96	29.18		26.11	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.64		30.65	--	ND	ND	ND	ND	ND	42	--	--
	09/04/97	30.59		24.70	--	ND	ND	ND	ND	ND	46	--	--



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.lgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-2	03/09/98	19.22	20.0-40.0	36.07	--	ND	ND	ND	ND	ND	4.4	--	--
(cont)	09/01/98	26.40		28.89	--	ND	ND	ND	ND	ND	25	--	--
	03/02/99	25.48		29.81	--	ND	ND	ND	ND	ND	16	--	--
	09/07/99	26.51		28.78	--	ND	ND	ND	ND	ND	20	--	--
	03/09/00	23.95		31.34	--	ND	ND	ND	ND	ND	ND	--	--
	09/11/00	26.75		28.54	--	ND	ND	0.635	ND	ND	ND	--	--
	03/26/01	25.64		29.65	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/01	30.47		24.82	--	<50	<0.50	0.69	<0.50	<0.50	<5.0	--	--
U-3													
55.66	08/13/93	30.70	20.0-40.0	24.96	--	23,000	1,000	ND	1,700	1,600	--	--	--
	09/07/93	30.70		24.96	--	--	--	--	--	--	--	--	--
55.24	12/16/93	32.08		23.16	--	15,000	570	ND	940	670	--	--	--
	01/13/94	31.98		23.26	--	--	--	--	--	--	--	--	--
	02/09/94	33.82		21.42	--	--	--	--	--	--	--	--	--
	03/25/94	30.03		25.21	--	18,000	560	40	1,000	770	--	ND	480
	05/18/94	30.66		24.58	--	--	--	--	--	--	--	--	--
	06/19/94	31.19		24.05	--	17,000	580	ND	1,300	90	--	ND	410
	07/27/94	31.98		23.26	--	--	--	--	--	--	--	--	--
	08/18/94	32.39		22.85	--	--	--	--	--	--	--	--	--
	09/15/94	32.84		22.40	--	12,000	370	ND	970	610	--	ND	420
	10/11/94	32.20		23.04	--	--	--	--	--	--	--	--	--
	11/08/94	33.01		22.23	--	--	--	--	--	--	--	--	--
	12/06/94	31.34		23.90	--	17,000	390	ND	990	560	--	ND	430
	01/10/95	30.23		25.01	--	--	--	--	--	--	--	--	--
55.23	03/14/95	25.44		29.79	--	13,000	860	120	1,300	1,700	--	--	--
	06/20/95	26.70		28.53	--	9,800	590	ND	800	1,000	--	--	--
	09/18/95	29.55		25.68	--	9,800	600	ND	1,000	760	-- <sup>6</sup>	--	--
	12/14/95	31.02		24.21	--	10,000	520	ND	920	630	-- <sup>7</sup>	ND	240
	03/06/96	25.25		29.98	--	19,000	1,400	ND	1,800	3,000	73	--	--
	06/04/96	26.00		29.23	--	8,800	510	ND	600	830	ND	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	SI (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-3	09/06/96	29.06	20.0-40.0	26.17	--	15,000	360	20	540	450	ND	--	--
(cont)	03/08/97	24.65		30.58	--	3,500	310	ND	230	630	ND	ND	100
	09/04/97	30.44		24.79	--	700	27	ND	48	34	ND	ND	160
	03/09/98	19.20		36.03	--	410	22	1.2	ND <sup>9</sup>	6.1	24	ND	4.4
	09/01/98	26.33		28.90	--	ND	ND	ND	ND	ND	6.1	ND	ND
	03/02/99	25.50		29.73	--	2,100	110	2.6	ND <sup>9</sup>	240	39	ND	6.7
	09/07/99 <sup>13</sup>	27.63		27.60	--	2,400 <sup>12</sup>	67	ND <sup>9</sup>	150	150	ND <sup>9</sup>	ND	1.1
	03/09/00	24.05		31.18	--	3,250 <sup>12</sup>	143	ND <sup>9</sup>	59.0	326	ND <sup>9</sup>	ND <sup>9</sup>	ND <sup>9</sup>
	09/11/00 <sup>17</sup>	27.83		27.40	--	ND	ND	ND	ND	ND	ND	ND	1.17
	03/26/01 <sup>17</sup>	25.75		29.48	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/04/01 <sup>19</sup>	30.41		24.82	--	5,400 <sup>15</sup>	110	<10	800	220	<100	<5.0	<5.0
U-4													
55.39	03/14/95	26.52	25.0-40.0	28.87	--	490	3.2	2.1	0.79	1.2	--	ND	ND
	06/20/95	26.90		28.49	--	ND	ND	ND	ND	1.5	--	--	--
	09/18/95	29.79		25.60	--	ND	ND	ND	ND	ND	-- <sup>6</sup>	--	--
	12/14/95	31.23		24.16	--	ND	ND	0.59	ND	0.79	-- <sup>7</sup>	ND	ND
	03/06/96	25.30		30.09	--	ND	ND	ND	ND	0.62	50	--	--
	06/04/96	26.19		29.20	--	ND	ND	ND	ND	ND	290	--	--
	09/06/96	29.32		26.07	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.79		30.60	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/97	30.71		24.68	--	ND	ND	ND	ND	ND	18	--	--
	03/09/98	19.37		36.02	--	ND	ND	ND	ND	ND	ND	--	--
	09/01/98	26.56		28.83	--	ND	ND	ND	ND	ND	ND	--	--
	03/02/99	25.62		29.77	--	110	0.89	0.53	ND	0.79	4.9	--	--
	09/07/99	26.82		28.57	--	ND	ND	ND	ND	ND	3.0	--	--
	03/09/00	24.07		31.32	--	ND	ND	0.615	ND	1.05	ND	--	--
	09/11/00	26.48		28.91	--	ND	ND	0.686	ND	ND	ND	--	--
	03/26/01	25.69		29.70	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/01	30.60		24.79	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
<b>U-5</b>													
54.18	03/14/95	25.20	25.0-40.0	28.98	--	ND	ND	ND	ND	1.2	--	ND	ND
	06/20/95	25.60		28.58	--	ND	ND	ND	ND	1.6	--	--	--
	09/18/95	28.55		25.63	--	ND	ND	ND	ND	0.66	--	--	--
	12/14/95	29.94		24.24	--	ND	ND	ND	ND	ND	--	ND	ND
	03/06/96	24.03		30.15	--	ND	ND	ND	ND	ND	ND	--	--
	06/04/96	24.91		29.27	--	ND	ND	ND	ND	ND	ND	--	--
	09/06/96	28.06		26.12	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	23.49		30.69	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/97	29.46		24.72	--	ND	ND	ND	ND	ND	ND	--	--
	03/09/98	18.10		36.08	--	ND	ND	ND	ND	ND	ND	--	--
	09/01/98	25.27		28.91	--	ND	ND	ND	ND	ND	ND	--	--
	03/02/99	24.35		29.83	--	ND	ND	ND	ND	ND	ND	--	--
	09/07/99	26.39		27.79	--	ND	ND	ND	ND	ND	ND	--	--
	03/09/00	22.81		31.37	--	ND	ND	ND	ND	ND	ND	--	--
	09/11/00	25.36		28.82	--	ND	ND	0.640	ND	ND	ND	--	--
	03/26/01	24.55		29.63	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/01	29.34		24.84	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--
<b>U-6</b>													
55.36	03/14/95	26.94	25.0-40.0	28.42	--	14,000	170	36	790	1,500	--	ND	210
	06/20/95	27.15		28.21	--	8,500	170	11	950	1,300	--	--	--
	09/18/95	29.95		25.41	--	9,500	260	ND	1,400	1,800	-- <sup>6</sup>	--	--
	12/14/95	31.32		24.04	--	15,000	240	ND	1,400	1,700	-- <sup>7</sup>	ND	370
	03/06/96	25.71		29.65	--	2,400	54	ND	170	250	ND	--	--
	06/04/96	26.52		28.84	--	4,600	83	ND	400	520	46	--	--
	09/06/96	29.41		25.95	--	12,000	180	6.4	690	600	95	--	--
	03/08/97	25.25		30.11	--	2,000	180	ND	96	290	ND	--	--
	09/04/97	30.75		24.61	--	680	17	ND	52	39	ND	--	--
	03/09/98	19.84		35.52	--	690	41	8.5	3.2	140	16	--	--
	09/01/98	INACCESSIBLE (PAVED OVER)			--	--	--	--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-6	03/02/99	25.95	25.0-40.0	29.41	--	3,900	240	ND <sup>9</sup>	650	430	45	--	--
(cont)	09/07/99	28.19		27.17	--	320 <sup>12</sup>	14	ND <sup>9</sup>	5.2	ND <sup>9</sup>	10	--	--
	03/09/00	24.64		30.72	--	4,980 <sup>12</sup>	193	ND <sup>9</sup>	520	365	ND <sup>9</sup>	--	--
	09/11/00	28.35		27.01	--	538 <sup>15</sup>	22.8	ND	13.8	3.11	ND	--	--
	10/13/00	29.67		25.69	--	--	--	--	--	--	--/ND <sup>18</sup>	--	--
	03/26/01	26.88		28.48	--	16,400 <sup>12</sup>	412	ND <sup>9</sup>	2,010	1,010	ND <sup>9</sup>	--	--
	09/04/01	30.81		24.55	--	8,000 <sup>15</sup>	200	<25	1,100	250	<250	--	--
<b>U-7</b>													
55.05	03/14/95	26.13	25.0-40.0	28.92	--	ND	ND	ND	ND	ND	--	ND	ND
	06/20/95	26.38		28.67	--	ND	ND	ND	ND	ND	--	--	--
	09/18/95	29.21		25.84	--	ND	ND	ND	ND	ND	--	--	--
	12/14/95	30.75		24.30	--	ND	ND	ND	ND	0.88	--	ND	ND
	03/06/96	25.10		29.95	--	ND	ND	ND	ND	ND	ND	--	--
	06/04/96	25.67		29.38	--	ND	ND	ND	ND	ND	ND	--	--
	09/06/96	28.75		26.30	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.33		30.72	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/04/97 <sup>8</sup>	30.16		24.89	--	ND	ND	ND	ND	ND	ND	ND	ND
	03/09/98	18.91		36.14	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/01/98 <sup>10</sup>	26.04		29.01	--	88	ND	ND	ND	ND	2.9	ND	ND
	03/02/99 <sup>11</sup>	25.30		29.75	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/99	27.27		27.78	--	ND	ND	ND	ND	ND	ND	ND	ND
	03/09/00 <sup>14</sup>	23.76		31.29	--	ND	ND	ND	ND	1.09	ND	ND	ND
	09/11/00 <sup>17</sup>	27.19		27.86	--	ND	ND	ND	ND	ND	ND	ND	ND
	03/26/01 <sup>17</sup>	25.61		29.44	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/04/01 <sup>20</sup>	30.10		24.95	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
<b>Trip Blank</b>													
TB-LB	03/09/98	--	--	--	--	ND	ND	0.53	ND	ND	ND	--	--
	09/01/98	--	--	--	--	ND	ND	ND	ND	ND	5.0	--	--
	03/02/99	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	09/07/99	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	03/09/00	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	09/11/00	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	10/13/00	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	03/26/01	--	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to March 9, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing	TPH-G = Total Petroleum Hydrocarbons as Gasoline	1,2-DCA = 1,2-Dichloroethane
DTW = Depth to Water	B = Benzene	(ppb) = Parts per billion
(ft.) = Feet	T = Toluene	ND = Not Detected
S.I. = Screen Interval	E = Ethylbenzene	-- = Not Measured/Not Analyzed
(ft.bgs) = Feet Below Ground Surface	X = Xylenes	(D) = Duplicate
GWE = Groundwater Elevation	MTBE = Methyl tertiary butyl ether	
TPH-D = Total Petroleum Hydrocarbons as Diesel	1,2-DCB = 1,2-Dichlorobenzene	

\* TOC elevations were surveyed March 1995, based on Benchmark provided by City of San Leandro, City Engineers Office, Datum 1929, USGS adjusted. Prior to December 16, 1993, the DTW measurements were taken from the top of well covers.

- 1 Total Oil and Grease (TOG) was ND.
- 2 Not a typical diesel pattern; lower boiling hydrocarbons in the boiling range of stoddard calculated as diesel.
- 3 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- 4 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 5 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 6 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 7 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- 8 Carbon tetrachloride was detected at a concentration of 1.3 ppb.
- 9 Detection limit raised. Refer to analytical reports.
- 10 Carbon tetrachloride was detected at a concentration of 2.0 ppb, and Chloroform was detected at a concentration of 0.60 ppb.
- 11 Carbon tetrachloride was detected at a concentration of 1.2 ppb.
- 12 Laboratory report indicates gasoline C6-C12.
- 13 Bromodichloromethane was detected at 1.4 ppb and Chloroform was detected at 31 ppb. All EPA Method 8010 reanalyzed by an alternate column or method to confirm the identification and/or concentration of these results.
- 14 Laboratory report indicates Carbon tetrachloride was detected at 0.801 ppb.
- 15 Laboratory report indicates weathered gasoline C6-C12.
- 16 All other Volatile Organic Compounds (VOCs) by EPA Method 8010 were ND with a raised detection limit, except for Bromadichloromethane was detected at 3.58 ppb and Chloroform was detected at 75.2 ppb.
- 17 All other VOCs by EPA Method 8010 were ND.
- 18 MTBE by EPA Method 8260.
- 19 All other VOCs by EPA Method 8021 were less than the reporting limit.
- 20 All other VOCs by EPA Method 8021 were less than the reporting limit, except for Carbon tetrachloride was detected at 0.60 ppb.

Note: All EPA Method 8010/8021 constituents were ND, except as indicated above.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-6	10/13/00	ND	ND	ND	ND	ND	ND	ND

**EXPLANATIONS:**

TBA = Tertiary butyl alcohol  
 MTBE = Methyl tertiary butyl ether  
 DIPE = Di-isopropyl ether  
 ETBE = Ethyl tertiary butyl ether  
 TAME = Tertiary amyl methyl ether  
 1,2-DCA = 1,2-Dichloroethane  
 EDB = Ethylene Dibromide/1,2-Dibromoethane  
 (ppb) = Parts per billion  
 ND = Not Detected

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.



## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/  
Facility # Tosco # 5430  
Address: 1935 Washington Ave.  
City: San Leandro, Ca.

Job#: 180107  
Date: 9/4/01  
Sampler: Vertec

Well ID: U-1  
Well Diameter: 2 in.  
Total Depth: 39.65 ft.  
Depth to Water: 31.67 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0.00 in.  
Amount Bailed (product/water): 0 (gal.)  
Volume Factor (VF):  
2" = 0.17      3" = 0.38      4" = 0.66  
6" = 1.50      12" = 5.80

7.98 x VF 0.17 = 1.35 x 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 1240  
Sampling Time: 1305  
Purging Flow Rate: \_\_\_\_\_ gpm.  
Did well de-water? \_\_\_\_\_

Weather Conditions: clear  
Water Color: brn.      Odor: no  
Sediment Description: silt  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1245</u>	<u>1.5</u>	<u>7.81</u>	<u>1068</u>	<u>69.5</u>	_____	_____	_____
<u>1250</u>	<u>3</u>	<u>7.64</u>	<u>1079</u>	<u>69.0</u>	_____	_____	_____
<u>1255</u>	<u>4.5</u>	<u>7.60</u>	<u>1084</u>	<u>68.8</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-1</u>	<u>5 x VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHG/BTEX/MTOE</u> <u>+ 8010</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/  
Facility # Tosco # 5430  
Address: 1935 Washington Ave.  
City: San Leandro, Ca.

Job#: 180107  
Date: 9/4/01  
Sampler: Vertek

Well ID: U-2  
Well Diameter: 2 in.  
Total Depth: 39.25 ft.  
Depth to Water: 30.47 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0.00 in.  
Amount Bailed (product/water): 0 (gal.)  
Volume Factor (VF):  
2" = 0.17      3" = 0.38      4" = 0.66  
6" = 1.50      12" = 5.80

8.78 x VF 0.17 = 1.49 x 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment: Stack  
Disposable Bailer  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 1025  
Sampling Time: 1043  
Purging Flow Rate: 1 gpm.  
Did well de-water? NO

Weather Conditions: clear  
Water Color: brn.      Odor: no  
Sediment Description: silt  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1027</u>	<u>1.5</u>	<u>7.85</u>	<u>623</u>	<u>67.9</u>	_____	_____	_____
<u>1029</u>	<u>3</u>	<u>7.66</u>	<u>608</u>	<u>68.0</u>	_____	_____	_____
<u>1031</u>	<u>4.5</u>	<u>7.59</u>	<u>602</u>	<u>68.1</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-2</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHG/BTEX/MTOE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/  
Facility # Tosco # 5430  
Address: 1935 Washington Ave.  
City: San Leandro, Ca.

Job#: 180107  
Date: 9/4/01  
Sampler: Vertec

Well ID: U-3  
Well Diameter: 2 in.  
Total Depth: 38.50 ft.  
Depth to Water: 30.41 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0.50 in. Amount Bailed (product/water): 7 (gal.)  
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

7.09 x VF 0.17 = 1.37 x 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 1320  
Sampling Time: 1343  
Purging Flow Rate: \_\_\_\_\_ gpm.  
Did well de-water? no

Weather Conditions: Clear  
Water Color: clear Odor: mild?  
Sediment Description: \_\_\_\_\_  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1325</u>	<u>1.5</u>	<u>7.53</u>	<u>1051</u>	<u>70.1</u>	_____	_____	_____
<u>1330</u>	<u>3</u>	<u>7.39</u>	<u>1060</u>	<u>69.5</u>	_____	_____	_____
<u>1336</u>	<u>4.5</u>	<u>7.36</u>	<u>1064</u>	<u>69.1</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-3</u>	<u>5 X VDA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SERUOIA</u>	<u>(TPHG/BTEX/MTOE + 8010)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # Tosco # 5430 Job #: 180107  
 Address: 1935 Washington Ave. Date: 9/4/01  
 City: San Leandro, Ca. Sampler: Vertek

Well ID: U-4 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: 0.05 in. Amount Bailed (product/water): 0 (gal.)  
 Total Depth: 39.02 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water: 30.60 ft. Factor (VF) 6" = 1.50 12" = 5.80

8.42 x VF 0.17 = 1.43 x 3 (case volume) = Estimated Purge Volume: 4.5 (gal.)

Purge Equipment: Disposable Bailer Bailer Stack Suction Grundfos Other: \_\_\_\_\_  
 Sampling Equipment: Disposable Bailer Bailer Pressure Bailer Grab Sample Other: \_\_\_\_\_

Starting Time: 1100 Weather Conditions: clear  
 Sampling Time: 1120 Water Color: clear Odor: no  
 Purging Flow Rate: 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1102</u>	<u>1.5</u>	<u>7.73</u>	<u>7.27</u>	<u>68.4</u>	_____	_____	_____
<u>1104</u>	<u>3</u>	<u>7.60</u>	<u>7.36</u>	<u>68.3</u>	_____	_____	_____
<u>1106</u>	<u>4.5</u>	<u>7.57</u>	<u>7.40</u>	<u>68.3</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>3 X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHG/BTEX/MTOE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # Tosco # 5430 Job#: 180107  
 Address: 1935 Washington Ave. Date: 9/4/01  
 City: San Leandro, Ca. Sampler: Vertkes

Well ID: U-5 Well Condition: OK  
 Well Diameter: 2 in. Hydrocarbon Thickness: 0.00 in. Amount Bailed (product/water): ∅ (gal.)  
 Total Depth: 38.48 ft.  
 Depth to Water: 29.34 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

9.14 X VF 0.17 = 1.55 X 3 (case volume) = Estimated Purge Volume: 5.0 (gal.)

Purge Equipment: Disposable Bailer Stack Sampling Equipment: Disposable Bailer  
 Suction Bailer  
 Grundfos Pressure Bailer  
 Other: \_\_\_\_\_ Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 1135 Weather Conditions: clear  
 Sampling Time: 1155 Water Color: \_\_\_\_\_ Odor: no  
 Purging Flow Rate: 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1137</u>	<u>1.5</u>	<u>7.93</u>	<u>532</u>	<u>68.9</u>	_____	_____	_____
<u>1139</u>	<u>3</u>	<u>7.80</u>	<u>541</u>	<u>68.6</u>	_____	_____	_____
<u>1141</u>	<u>5</u>	<u>7.72</u>	<u>548</u>	<u>68.4</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-5</u>	<u>3 X VDA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHG/BTEX/MTOE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility # Tosco # 5430 Job#: 180107  
 Address: 1935 Washington Ave. Date: 9/4/01  
 City: San Leandro, Ca. Sampler: Vertek

Well ID: U-6 Well Condition: OK

Well Diameter: 2 in. Hydrocarbon Thickness: 0.00 in. Amount Bailed (product/water): 0 (gal.)

Total Depth: 39.95 ft  
 Depth to Water: 30.81 ft

Volume	2" = 0.17	3" = 0.38	4" = 0.66
Factor (VF)	6" = 1.50	12" = 5.80	

9.14 x VF 0.17 = 1.55 x 3 (case volume) = Estimated Purge Volume: 510 (gal.)

Purge Equipment: Stack (circled)  
 Disposable Bailer  
 Suction Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer (circled)  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 1400 Weather Conditions: clear  
 Sampling Time: 1420 Water Color: grayish Odor: 4 (mild)  
 Purging Flow Rate: \_\_\_\_\_ gpm Sediment Description: silt  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu$ mhos/cm	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1407</u>	<u>1.5</u>	<u>7.43</u>	<u>1134</u>	<u>69.9</u>	_____	_____	_____
<u>1404</u>	<u>3</u>	<u>7.35</u>	<u>1145</u>	<u>69.5</u>	_____	_____	_____
<u>1406</u>	<u>5</u>	<u>7.30</u>	<u>1150</u>	<u>69.6</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>X VOA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPHG/BTEX/MTOE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/  
Facility # Tosco # 5430  
Address: 1935 Washington Ave.  
City: San Leandro, Ca.

Job#: 180107  
Date: 9/4/01  
Sampler: Vertek

Well ID U-7  
Well Diameter 2 in.  
Total Depth 37.76 ft.  
Depth to Water 30.10 ft.

Well Condition: OK  
Hydrocarbon Thickness: 0.00 in.  
Amount Bailed (product/water): 0 (gal.)  
Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66  
6" = 1.50 12" = 5.80

7.66 x VF 0.17 = 1.30 x 3 (case volume) = Estimated Purge Volume: 4.0 (gal.)

Purge Equipment:  Disposable Bailer  
 Bailer  
 Stack  
 Suction  
 Grundfos  
Other: \_\_\_\_\_

Sampling Equipment:  Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
Other: \_\_\_\_\_

Starting Time: 1215  
Sampling Time: 1235  
Purging Flow Rate: 1 gpm.  
Did well de-water? Yes

Weather Conditions: Clear  
Water Color: 200 Odor: clean  
Sediment Description: silt  
If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1216</u>	<u>1</u>	<u>7.92</u>	<u>667</u>	<u>69.2</u>	_____	_____	_____
<u>1218</u>	<u>2.5</u>	<u>7.78</u>	<u>682</u>	<u>68.9</u>	_____	_____	_____
<u>1220</u>	<u>4</u>	<u>7.74</u>	<u>688</u>	<u>68.6</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-7</u>	<u>5 X VDA VIAL</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>(TPHG/BTEX/MTOE + 8010)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Tesco Marketing Company  
2000 Claw Canyon Pk., Ste. 400  
San Ramon, California 94563

Facility Number UNOCAL SS#5430  
Facility Address 1935 WASHINGTON AVE. SAN LEANDRO, CA.  
Consultant Project Number 180107.85  
Consultant Name Gettler-Ryan Inc. (G-R Inc.)  
Address 6747 Sierra Court, Suite J, Dublin, CA 94568  
Project Contact (Name) Deanna L. Harding  
(Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) Mr. DAVID DEWITT  
(Phone) (925) 277-2384  
Laboratory Name Sequoia Analytical  
Laboratory Release Number \_\_\_\_\_  
Samples Collected by (Name) Waltles Teshjian  
Collection Date 9/4/01  
Signature [Signature]

U09010

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed											Remarks				
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	8010							
TB-LB	01	1	W	Gr		HCl	Y	X															
U-1	02	5	u	u	1305	u	u	X															X
U-2	03	3	u	u	1043	u	u	X															
U-3	04	5	u	u	1343	u	u	X															X
U-4	05	3	u	u	1120	u	u	X															
U-5	06	3	u	u	1155	u	u	X															
U-6	07	3	u	u	1420	u	u	X															
U-7	08	5	u	u	1235	u	u	X															X

DO NOT BILL TB-LB ANALYSIS

Relinquished By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time <u>800</u> 9/4/01	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time <u>1805</u> 9/4/01
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)

- 24 Hrs.
- 48 Hrs.
- 6 Days
- 10 Days
- As Contracted





**Sequoia  
Analytical**

1551 Industrial Road  
San Carlos, CA 94070  
(650) 232-9600  
FAX (650) 232-9612  
www.sequoialabs.com

RECEIVED  
SEP 11 10 58 AM '01

19 September, 2001

Deanna Harding  
Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin, CA 94568

GETTLER-RYAN INC.  
GENERAL CONTRACTORS

RE: Tosco(1)  
Sequoia Report: L109010

Enclosed are the results of analyses for samples received by the laboratory on 09/04/01 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt  
Project Manager

CA ELAP Certificate #2360

Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

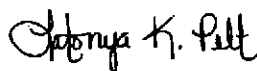
Project: Tosco(1)  
Project Number: Unocal SS#5430, San Leandro, CA  
Project Manager: Deanna Harding

**Reported:**  
09/19/01 07:28

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L109010-01	Water	09/04/01 00:00	09/04/01 18:05
U-1	L109010-02	Water	09/04/01 13:05	09/04/01 18:05
U-2	L109010-03	Water	09/04/01 10:43	09/04/01 18:05
U-3	L109010-04	Water	09/04/01 13:43	09/04/01 18:05
U-4	L109010-05	Water	09/04/01 11:20	09/04/01 18:05
U-5	L109010-06	Water	09/04/01 11:55	09/04/01 18:05
U-6	L109010-07	Water	09/04/01 14:20	09/04/01 18:05
U-7	L109010-08	Water	09/04/01 12:35	09/04/01 18:05

Sequoia Analytical - San Carlos



Latonya Pelt, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: Unocal SS#5430, San Leandro, CA  
Project Manager: Deanna Harding

Reported:  
09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (L109010-01) Water</b> Sampled: 09/04/01 00:00 Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090038	09/12/01	09/12/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %		70-130	"	"	"	"	
<b>U-1 (L109010-02) Water</b> Sampled: 09/04/01 13:05 Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090038	09/12/01	09/13/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %		70-130	"	"	"	"	
<b>U-2 (L109010-03) Water</b> Sampled: 09/04/01 10:43 Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090038	09/12/01	09/13/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
<b>Toluene</b>	<b>0.69</b>	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		109 %		70-130	"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>U-3 (L109010-04) Water</b> Sampled: 09/04/01 13:43    Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	5400	1000	ug/l	20	1090041	09/13/01	09/13/01	DHS LUFT	P-02
Benzene	110	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	800	10	"	"	"	"	"	"	
Xylenes (total)	220	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		85.0 %		70-130	"	"	"	"	
<b>U-4 (L109010-05) Water</b> Sampled: 09/04/01 11:20    Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090038	09/12/01	09/13/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		102 %		70-130	"	"	"	"	
<b>U-5 (L109010-06) Water</b> Sampled: 09/04/01 11:55    Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090041	09/13/01	09/13/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		110 %		70-130	"	"	"	"	



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: Unocal SS#5430, San Leandro, CA  
Project Manager: Deanna Harding

Reported:  
09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>U-6 (L109010-07) Water</b> Sampled: 09/04/01 14:20 Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	8000	2500	ug/l	50	1090041	09/13/01	09/14/01	DHS LUFT	P-02
Benzene	200	25	"	"	"	"	"	"	
Toluene	ND	25	"	"	"	"	"	"	
Ethylbenzene	1100	25	"	"	"	"	"	"	
Xylenes (total)	250	25	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.0 %	70-130		"	"	"	"	
<b>U-7 (L109010-08) Water</b> Sampled: 09/04/01 12:35 Received: 09/04/01 18:05									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1090042	09/13/01	09/14/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.8 %	70-130		"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Volatile Organic Compounds by EPA Method 8021B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Limit							
U-1 (L109010-02) Water    Sampled: 09/04/01 13:05    Received: 09/04/01 18:05										
Freon 113	ND	1.0	ug/l	J		1090047	09/13/01	09/13/01	EPA 8021B	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	"	"
Bromoform	ND	0.50	"	"	"	"	"	"	"	"
Bromomethane	ND	1.0	"	"	"	"	"	"	"	"
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	"	"
Chlorobenzene	ND	0.50	"	"	"	"	"	"	"	"
Chloroethane	ND	1.0	"	"	"	"	"	"	"	"
Chloroform	ND	0.50	"	"	"	"	"	"	"	"
Chloromethane	ND	1.0	"	"	"	"	"	"	"	"
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	"	"
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	"	"
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"	"
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"	"
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	"	"
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	"	"
1,2-Dichloroethane	2.4	0.50	"	"	"	"	"	"	"	"
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	"	"
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"	"
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	"	"
Methylene chloride	ND	5.0	"	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	"	"
Trichloroethene	ND	0.50	"	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	"	"
Vinyl chloride	ND	1.0	"	"	"	"	"	"	"	"
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>		88.0 %		70-130		"	"	"	"	"

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

### Volatile Organic Compounds by EPA Method 8021B

#### Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-3 (L109010-04) Water    Sampled: 09/04/01 13:43    Received: 09/04/01 18:05									
Freon 113	ND	10	ug/l	10	1090047	09/14/01	09/14/01	EPA 8021B	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	10	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
Surrogate: 1-Chloro-2-fluorobenzene		82.8 %		70-130	"	"	"	"	

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Volatile Organic Compounds by EPA Method 8021B**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-7 (L109010-08) Water Sampled: 09/04/01 12:35 Received: 09/04/01 18:05									
Freon 113	ND	1.0	ug/l	1	1090047	09/14/01	09/14/01	EPA 8021B	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	0.60	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Surrogate: 1-Chloro-2-fluorobenzene		88.1 %		70-130	"	"	"	"	





Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: Unocal SS#5430, San Leandro, CA  
Project Manager: Deanna Harding

Reported:  
09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control  
Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1090038 - EPA 5030B (P/T)**

**Blank (1090038-BLK1)**

Prepared & Analyzed: 09/12/01

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	5.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	9.53		"	10.0		95.3	70-130			

**LCS (1090038-BS1)**

Prepared & Analyzed: 09/12/01

Benzene	7.88	0.50	ug/l	10.0		78.8	70-130			
Toluene	7.80	0.50	"	10.0		78.0	70-130			
Ethylbenzene	8.05	0.50	"	10.0		80.5	70-130			
Xylenes (total)	24.3	0.50	"	30.0		81.0	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.1		"	10.0		111	70-130			

**LCS (1090038-BS2)**

Prepared & Analyzed: 09/12/01

Purgeable Hydrocarbons as Gasoline	250	50	ug/l	250		100	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	12.4		"	10.0		124	70-130			

**Matrix Spike (1090038-MS1)**

Source: L109001-08

Prepared & Analyzed: 09/12/01

Purgeable Hydrocarbons as Gasoline	247	50	ug/l	250	ND	98.8	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.0		"	10.0		110	70-130			

**Matrix Spike Dup (1090038-MSD1)**

Source: L109001-08

Prepared & Analyzed: 09/12/01

Purgeable Hydrocarbons as Gasoline	258	50	ug/l	250	ND	103	60-140	4.36	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.8		"	10.0		108	70-130			

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control  
 Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1090041 - EPA 5030B (P/T)**
**Blank (1090041-BLK1)**

Prepared &amp; Analyzed: 09/13/01

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	5.0	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	8.64		"	10.0		86.4	70-130			

**LCS (1090041-BS1)**

Prepared &amp; Analyzed: 09/13/01

Benzene	8.22	0.50	ug/l	10.0		82.2	70-130			
Toluene	8.22	0.50	"	10.0		82.2	70-130			
Ethylbenzene	8.43	0.50	"	10.0		84.3	70-130			
Xylenes (total)	26.0	0.50	"	30.0		86.7	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.7		"	10.0		107	70-130			

**LCS (1090041-BS2)**

Prepared &amp; Analyzed: 09/13/01

Purgeable Hydrocarbons as Gasoline	264	50	ug/l	250		106	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.7		"	10.0		107	70-130			

**Matrix Spike (1090041-MS1)**

Source: L109012-02

Prepared &amp; Analyzed: 09/13/01

Benzene	9.61	0.50	ug/l	10.0	ND	96.1	60-140			
Toluene	9.59	0.50	"	10.0	ND	95.9	60-140			
Ethylbenzene	10.1	0.50	"	10.0	ND	101	60-140			
Xylenes (total)	30.6	0.50	"	30.0	ND	102	60-140			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	10.4		"	10.0		104	70-130			

**Matrix Spike Dup (1090041-MSD1)**

Source: L109012-02

Prepared &amp; Analyzed: 09/13/01

Benzene	10.3	0.50	ug/l	10.0	ND	103	60-140	6.93	25	
Toluene	10.3	0.50	"	10.0	ND	103	60-140	7.14	25	
Ethylbenzene	10.6	0.50	"	10.0	ND	106	60-140	4.83	25	
Xylenes (total)	32.4	0.50	"	30.0	ND	108	60-140	5.71	25	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	11.0		"	10.0		110	70-130			

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8021B - Quality Control  
 Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch 1090042 - EPA 5030B (P/T)**
**Blank (1090042-BLK1)**

Prepared &amp; Analyzed: 09/13/01

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	5.0	"							

*Surrogate: a,a,a-Trifluorotoluene*

9.36

"

10.0

93.6

70-130

**LCS (1090042-BS1)**

Prepared &amp; Analyzed: 09/13/01

Benzene	8.43	0.50	ug/l	10.0		84.3	70-130			
Toluene	8.44	0.50	"	10.0		84.4	70-130			
Ethylbenzene	8.69	0.50	"	10.0		86.9	70-130			
Xylenes (total)	25.7	0.50	"	30.0		85.7	70-130			

*Surrogate: a,a,a-Trifluorotoluene*

9.01

"

10.0

90.1

70-130

**LCS (1090042-BS2)**

Prepared &amp; Analyzed: 09/13/01

Purgeable Hydrocarbons as Gasoline	254	50	ug/l	250		102	70-130			
------------------------------------	-----	----	------	-----	--	-----	--------	--	--	--

*Surrogate: a,a,a-Trifluorotoluene*

9.96

"

10.0

99.6

70-130

**Matrix Spike (1090042-MS1)**

Source: L109011-02

Prepared &amp; Analyzed: 09/13/01

Benzene	9.73	0.50	ug/l	10.0	ND	97.3	60-140			
Toluene	9.86	0.50	"	10.0	ND	98.6	60-140			
Ethylbenzene	10.0	0.50	"	10.0	ND	100	60-140			
Xylenes (total)	29.8	0.50	"	30.0	ND	99.3	60-140			

*Surrogate: a,a,a-Trifluorotoluene*

9.04

"

10.0

90.4

70-130

**Matrix Spike Dup (1090042-MSD1)**

Source: L109011-02

Prepared &amp; Analyzed: 09/13/01

Benzene	8.39	0.50	ug/l	10.0	ND	83.9	60-140	14.8	25	
Toluene	8.50	0.50	"	10.0	ND	85.0	60-140	14.8	25	
Ethylbenzene	8.70	0.50	"	10.0	ND	87.0	60-140	13.9	25	
Xylenes (total)	25.6	0.50	"	30.0	ND	85.3	60-140	15.2	25	

*Surrogate: a,a,a-Trifluorotoluene*

8.50

"

10.0

85.0

70-130

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Volatile Organic Compounds by EPA Method 8021B - Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1090047 - EPA 5030B (P/T)</b>										
<b>Blank (1090047-BLK1)</b>										
Prepared & Analyzed: 09/13/01										
Freon 113	ND	1.0	ug/l							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	1.0	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Methylene chloride	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
Vinyl chloride	ND	1.0	"							
Benzene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Toluene	ND	0.50	"							
Total Xylenes	ND	0.50	"							
Surrogate: 1-Chloro-2-fluorobenzene	8.23		"	10.0		82.3	70-130			

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

**Volatile Organic Compounds by EPA Method 8021B - Quality Control**  
**Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1090047 - EPA 5030B (P/T)**
**Blank (1090047-BLK2)**

Prepared &amp; Analyzed: 09/14/01

Freon 113	ND	1.0	ug/l							
Bromodichloromethane	ND	0.50	"							
Bromoform	ND	0.50	"							
Bromomethane	ND	1.0	"							
Carbon tetrachloride	ND	0.50	"							
Chlorobenzene	ND	0.50	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	0.50	"							
Chloromethane	ND	1.0	"							
Dibromochloromethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
1,3-Dichlorobenzene	ND	0.50	"							
1,4-Dichlorobenzene	ND	0.50	"							
1,2-Dichlorobenzene	ND	0.50	"							
1,1-Dichloroethane	ND	0.50	"							
1,2-Dichloroethane	ND	0.50	"							
1,1-Dichloroethene	ND	0.50	"							
cis-1,2-Dichloroethene	ND	0.50	"							
trans-1,2-Dichloroethene	ND	0.50	"							
1,2-Dichloropropane	ND	0.50	"							
cis-1,3-Dichloropropene	ND	0.50	"							
trans-1,3-Dichloropropene	ND	0.50	"							
Methylene chloride	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	0.50	"							
Tetrachloroethene	ND	0.50	"							
1,1,1-Trichloroethane	ND	0.50	"							
1,1,2-Trichloroethane	ND	0.50	"							
Trichloroethene	ND	0.50	"							
Trichlorofluoromethane	ND	0.50	"							
Vinyl chloride	ND	1.0	"							
Benzene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Toluene	ND	0.50	"							
Total Xylenes	ND	0.50	"							
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	8.78		"	10.0		87.8	70-130			

Gettler-Ryan/Geostrategies(1)  
 6747 Sierra Court, Suite J  
 Dublin CA, 94568

 Project: Tosco(1)  
 Project Number: Unocal SS#5430, San Leandro, CA  
 Project Manager: Deanna Harding

 Reported:  
 09/19/01 07:28

### Volatile Organic Compounds by EPA Method 8021B - Quality Control Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 1090047 - EPA 5030B (P/T)**
**LCS (1090047-BS1)**

Prepared &amp; Analyzed: 09/13/01

Chlorobenzene	10.3	0.50	ug/l	10.0		103	70-130			
1,1-Dichloroethene	9.83	0.50	"	10.0		98.3	70-130			
Trichloroethene	9.83	0.50	"	10.0		98.3	70-130			
Benzene	11.0	0.50	"	10.0		110	70-130			
Toluene	10.9	0.50	"	10.0		109	70-130			
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>10.1</i>		"	<i>10.0</i>		<i>101</i>	<i>70-130</i>			

**LCS (1090047-BS2)**

Prepared &amp; Analyzed: 09/14/01

Chlorobenzene	11.4	0.50	ug/l	10.0		114	70-130			
1,1-Dichloroethene	10.0	0.50	"	10.0		100	70-130			
Trichloroethene	10.0	0.50	"	10.0		100	70-130			
Benzene	11.2	0.50	"	10.0		112	70-130			
Toluene	11.2	0.50	"	10.0		112	70-130			
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>9.75</i>		"	<i>10.0</i>		<i>97.5</i>	<i>70-130</i>			

**Matrix Spike (1090047-MS1)**

Source: L109010-02

Prepared &amp; Analyzed: 09/13/01

Chlorobenzene	9.62	0.50	ug/l	10.0	ND	96.2	60-140			
1,1-Dichloroethene	8.23	0.50	"	10.0	ND	82.3	60-140			
Trichloroethene	7.44	0.50	"	10.0	ND	74.4	60-140			
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>10.3</i>		"	<i>10.0</i>		<i>103</i>	<i>70-130</i>			

**Matrix Spike Dup (1090047-MSD1)**

Source: L109010-02

Prepared &amp; Analyzed: 09/13/01

Chlorobenzene	9.03	0.50	ug/l	10.0	ND	90.3	60-140	6.33	25	
1,1-Dichloroethene	8.22	0.50	"	10.0	ND	82.2	60-140	0.122	25	
Trichloroethene	7.60	0.50	"	10.0	ND	76.0	60-140	2.13	25	
<i>Surrogate: 1-Chloro-2-fluorobenzene</i>	<i>8.77</i>		"	<i>10.0</i>		<i>87.7</i>	<i>70-130</i>			



Gettler-Ryan/Geostrategies(1)  
6747 Sierra Court, Suite J  
Dublin CA, 94568

Project: Tosco(1)  
Project Number: Unocal SS#5430, San Leandro, CA  
Project Manager: Deanna Harding

**Reported:**  
09/19/01 07:28

### Notes and Definitions

P-02 Chromatogram Pattern: Weathered Gasoline C6-C12  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference