

**DEPARTMENT OF TRANSPORTATION**

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**11:18 am, Nov 17, 2011**

Date: November 15, 2011

Alameda County  
Environmental Health

Mr. Keith Nowell, P.G., C.H.G.  
Alameda County Health Care Services  
Environmental Protection Division  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Reference: Semi-Annual Groundwater Monitoring Report (September 2011)  
Former Hegenberger Maintenance Station, 555 Hegenberger Rd., Oakland, CA

Mr. Keith Nowell:

Attached for your review is the Semi Annual Groundwater Monitoring Report (September 2011) for the Former Hegenberger Maintenance Station, 555 Hegenberger Avenue, Oakland, California. This report is prepared for the Alameda County Health Care Services Environmental Protection Division by Stantec Consulting Corporation.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct, to the best of my knowledge.

If you have any questions, please don't hesitate to contact me or Stantec Project Manager Gary Messerotes at 408.356.6124 extension 252.

Sincerely,

A handwritten signature in black ink, appearing to read "Ramin Behani".

Ramin Behani, P.E.  
Office of Environmental Engineering  
Division of Environmental Planning & Engineering  
Caltrans District 04



**Stantec Consulting Corporation**  
15575 Los Gatos Boulevard Building C  
Los Gatos CA 95032  
Tel: (408) 356-6124  
Fax: (408) 356-6138

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**Stantec**

November 10, 2011

Mr. Keith Nowell, P.G., C.H.G.  
Alameda County Health Care Services  
Environmental Protection Division  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Dear Mr. Nowell:

**Reference:**    **Semi-Annual Groundwater Monitoring Report (September 2011)**  
                 **Former Hegenberger Maintenance Station**  
                 **555 Hegenberger Road**  
                 **Oakland, California**

Stantec Consulting Corporation (Stantec) has prepared this report describing the first of semi-annual groundwater monitoring events to be conducted at the California Department of Transportation (Caltrans) Former Hegenberger Maintenance Station, located at 555 Hegenberger Road, Oakland, California (Site; Figure 1). The semi-annual groundwater sampling activities were conducted in accordance with requirements stated in the letter from the Alameda County Health Care Services Agency (ACHCSA) dated July 25, 2011.

The conclusions presented in this report are professional opinions based on data described herein. Limitations associated with this report are described in Appendix A.

## BACKGROUND

The Site was formerly occupied by Caltrans to store and service maintenance vehicles and equipment and is currently occupied as a parking lot for General Motors Corporation (GMC) Truck Center. In September 1995, five groundwater monitoring wells (MW-1 through MW-5) were installed to assess the vertical and lateral extent of impacts to soil and groundwater from the former underground storage tanks (USTs) and pump island at the Site.

Previous groundwater monitoring events were intermittent between 1995 and 1998. Groundwater monitoring resumed in 2001 and had been conducted on an annual basis between 2001 and 2005. No groundwater sampling events were conducted between 2005 and September 2011.

The groundwater samples were originally sampled for total petroleum hydrocarbons (TPH) as gasoline (GRO); TPH as diesel (DRO); TPH as motor oil (MO); oil and grease (O&G); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl-tertiary butyl ether (MTBE). Volatile organic compounds (VOCs) were added to the groundwater sampling program in March 2001. Due to low concentrations, the ACHCSA approved the removal of TPH-MO, O&G, MTBE, and VOCs from the groundwater monitoring program.

## GROUNDWATER MONITORING

### Groundwater Level Measurements

On September 29, 2011, Stantec measured groundwater levels in groundwater monitoring wells MW-1 through MW-5 to the nearest 0.01-foot using a Solinst™ electronic water level meter. Depth-to-water and calculated well volumes were recorded on Groundwater Sample Field Data Sheets (Appendix B). Depth-to-water measurements and groundwater elevations are presented in Table 1; groundwater elevations are illustrated on Figure 2.

### Monitoring Well Purgng and Sampling

Due to slow recharge, monitoring wells MW-1 through MW-5 were purged on September 29, 2011 and sampled on September 30, 2011. Clean disposable bailers were used to purge and sample each well. Physical parameters, including pH, temperature, oxidation reduction potential (ORP) and conductivity, were monitored during purging and recorded on field data sheets (Appendix B).

Groundwater samples were transferred from the bailers to laboratory-supplied containers. Sample containers were sealed, labeled, and placed on ice for transport to APPL Laboratories in Clovis, California, a California-certified analytical laboratory. Field instruments were cleaned with a non-phosphate cleanser, a tap-water rinse, and a final de-ionized water rinse prior to use and between each well sampled. New nitrile gloves were used for each sampling point. Rinse and purge water was containerized in a 55-gallon drum.

### Analytical Methods

The groundwater samples from each well were analyzed for TPH-GRO and TPH-DRO by EPA Method 8015B with silica gel cleanup, and for fuel oxygenates by EPA Method 8260B.

## GROUNDWATER MONITORING RESULTS

The current flow direction and gradient could not be determined during this quarter due to the anomalously high groundwater elevation in MW-1. The groundwater elevation for MW-1 has historically been anomalous making it difficult to determine the flow direction and gradient at the Site. Regional groundwater flow direction should be towards the west; however, due to the close proximity to the San Francisco Bay, it may be tidally influenced. Historical and current groundwater elevations are presented in Table 1.

## DATA SUMMARY

Concentrations of TPH constituents, BTEX, and fuel oxygenates from this sampling event were generally within historic concentration ranges. TPH concentrations in MW-1, MW-3, and MW-5 exceed the San Francisco Regional Water Quality Control Board Environmental Screening Levels (ESLs, May 2008) where groundwater is and is not a current or potential source of drinking water. Additionally, benzene concentrations in MW-1 and MW-3 continued to exceed ESLs.

Toluene, ethyl-benzene, xylenes, and fuel oxygenates (methyl tertiary-butyl ether [MTBE], 1,2-dichloroethane [1,2-DCA], 1,2 ethylene dibromide [EDB], di-isopropyl ether [DIPE], ethyl-tert-butyl ether [ETBE], tert-amyl methyl ether [TAME], and tert-butyl alcohol [TBA]) that were detected in the groundwater samples were at concentrations below their respective ESLs.

Table 2 presents a summary of groundwater analytical results from the Site monitoring wells; the complete Certified Analytical Laboratory Reports and chain-of-custody documents are included in Appendix C.

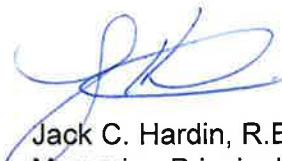
## FUTURE ACTIVITIES

Stantec will prepare and submit a preferential pathway study and a work plan for soil and groundwater characterization for the Site to ACHCSA by December 23, 2011. Stantec will conduct the subsurface investigation for the groundwater characterization in 2012. The goal of this investigation will be to further define the extent of soil and groundwater impacts at the Site. Results from the subsurface investigation will be reported separately. The groundwater monitoring wells will be resurveyed during the subsurface investigation field activities in an effort to determine the accuracy of MW-1 and the remaining wells.

If you have any questions regarding this submittal, please contact Gary Messerotes at (408) 356-6124 extension 252.

Sincerely,

**STANTEC CONSULTING CORPORATION**



Jack C. Hardin, R.E.A.  
Managing Principal



Gary P. Messerotes, P.G.  
Project Manager



### Attachments:

Table 1 – Groundwater Elevation Data  
Table 2 – Groundwater Analytical Results

Figure 1 – Site Location Map  
Figure 2 – Groundwater Elevations – Third Quarter 2011

Appendix A – Statement of Limitations  
Appendix B – Groundwater Sample Field Data Sheets  
Appendix C – Certified Analytical Laboratory Reports and Chain-of-Custody Documents

## **TABLES**

**TABLE 1**  
**Groundwater Elevation Data**  
**Caltrans Former Hegenberger Maintenance Station**  
**555 Hegenberger Road**  
**Oakland, CA**

Sample ID	Well Screen Interval (feet)	Date	TOC Elevation (feet, msl)	DTW (feet)	GW Elevation (feet, msl)
MW-1	4.5-19.5	10/11/95	99.73	6.55	93.18
		01/17/96	99.73	5.64	94.09
		04/16/96	99.73	5.46	94.27
		08/26/96	99.73	5.91	93.82
		11/14/96	99.73	6.16	93.57
		02/18/98	99.73	3.82	95.91
		03/30/01	99.73	6.19	93.54
		***12/26/01	10.26	4.08	6.18
		09/30/02	10.26	5.79	4.47
		02/20/03	10.26	4.49	5.77
		01/12/04	10.26	4.41	5.85
		05/12/05	10.26	4.45	5.81
		09/29/11	10.26	5.57	4.69
MW-2	5-20	10/11/95	99.68	6.88	92.80
		01/17/96	99.68	5.32	94.36
		04/16/96	99.68	5.81	93.87
		08/26/96	99.68	5.98	93.70
		11/14/96	99.68	6.72	92.96
		02/18/98	99.68	5.01	94.67
		03/30/01	99.68	6.54	93.14
		***12/26/01	10.22	5.53	4.69
		09/30/02	10.22	6.48	3.74
		02/20/03	10.22	5.98	4.24
		01/12/04	10.22	5.69	4.53
		05/12/05	10.22	5.55	4.67
		09/29/11	10.22	6.21	4.01
MW-3	4.5-19.5	10/11/95	98.92	6.42	92.50
		01/17/96	98.92	5.82	93.10
		04/16/96	98.92	5.85	93.07
		08/26/96	98.92	5.72	93.20
		11/14/96	98.92	6.28	92.64
		02/18/98	98.92	4.65	94.27
		03/30/01	98.92	5.62	93.30
		***12/26/01	9.46	4.66	4.80
		09/30/02	9.46	5.84	3.62
		02/20/03	9.46	5.55	3.91
		01/12/04	9.46	4.77	4.69
		05/12/05	9.46	4.63	4.83
		09/29/11	9.46	5.50	3.96
MW-4	4-19	10/11/95	99.46	6.63	92.83
		01/17/96	99.46	5.77	93.69
		04/16/96	99.46	5.89	93.57
		08/26/96	99.46	6.14	93.32
		11/14/96	99.46	6.72	92.74
		02/18/98	99.46	5.02	94.44

**TABLE 1**  
**Groundwater Elevation Data**  
**Caltrans Former Hegenberger Maintenance Station**  
**555 Hegenberger Road**  
**Oakland, CA**

Sample ID	Well Screen Interval (feet)	Date	TOC Elevation (feet, msl)	DTW (feet)	GW Elevation (feet, msl)
MW-4 (cont.)		03/30/01	99.46	6.21	93.25
		***12/26/01	10.00	5.37	4.63
		09/30/02	10.00	6.40	3.60
		02/20/03	10.00	5.83	4.17
		01/12/04	10.00	5.41	4.59
		05/12/05	10.00	5.59	4.41
		09/29/11	10.00	6.23	3.77
MW-5	5-20	10/11/95	99.91	6.68	93.23
		01/17/96	99.91	5.74	94.17
		04/16/96	99.91	5.85	94.06
		08/26/96	99.91	5.99	93.92
		11/14/96	99.91	6.70	93.21
		02/18/98	99.91	5.74	94.17
		03/30/01	99.91	6.73	93.18
		***12/26/01	10.34	5.23	5.11
		09/30/02	10.34	6.18	4.16
		02/20/03	10.34	5.80	4.54
		01/12/04	10.34	5.60	4.74
		05/12/05	10.34	6.18	4.16
		09/29/11	10.34	6.37	3.97

**Notes**

Data prior to September 29, 2011 was provided by Geocon Consultants, Inc.

TOC = Top of Casing

DTW = Depth to groundwater

GW = groundwater

msl = mean sea level

\*\*\*Change of base reference for elevation above mean sea level to the California state Coordinate system, Zone III

Table 2  
 Groundwater Analytical Results  
 Caltrans Former Hegenberger Maintenance Station  
 555 Hegenberger Road  
 Oakland, CA

Sample ID	Date	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
ESL where GW:	IS a current or potential source of drinking water	100	100	100	100	1.0	40	30	20	5.0	NE
	IS NOT a current or potential source of drinking water	210	210	210	210	46	130	43	100	1,800	NE
MW-1	10/11/1995	720	<50	<50	<5,000	660	13	4.7	2.8	--	--
	1/17/1996	4,400	<50	<50	--	1,000	30	21	17	--	--
	4/16/1996	6,050	7,450	--	--	914	34.7	34.4	15.8	--	--
	8/26/1996	3,800	430	--	--	780	23	21	20	--	--
	11/14/1996	2,600	270	--	--	500	18	14	8.9	--	--
	2/18/1998	3,100	800	--	--	240	18	7.8	11	20	--
	3/30/2001	3,600	480	--	--	150	13	0.7	10.8	<0.5	<5
	12/26/2001	3,000	1,100	--	--	86	11	3.4	10.5	<5	Isopropylbenzene = 7.9 n-butylbenzene = 5.1 n-propylbenzene = 5.9
	9/30/2002	590	<50	--	--	12	2.7	<0.5	1.6	<0.5	--
	2/20/2003	2,660	--	--	--	36.9	10.6	7	18.1	<5	--
	1/12/2004	1,610	--	--	--	6.8	1.8	1.8	1.4	--	--
	5/12/2005	1,200	--	--	--	20	<5	<5	<5	--	--
	9/30/2011	950	530 <sup>++</sup>	--	--	14	6.5	0.36 <sup>j</sup>	6.9	<0.5	<0.5 - <25
MW-2	10/11/1995	<50	<50	<50	<5,000	<0.3	<0.3	<0.3	<0.5	--	--
	1/17/1996	4,900	<50	<50	--	2,100	<1.5	<15	<15	--	--
	4/16/1996	<50	<50	--	--	1.0	<0.5	<0.5	<0.5	--	--
	8/26/1996	<50	<50	--	--	<0.5	<0.5	<0.5	<0.5	--	--
	11/14/1996	<50	56	--	--	<0.5	<0.5	<0.5	<0.5	--	--
	2/18/1998	<50	260	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	--
	3/30/2001	<200	370	--	--	6.6	0.8	<0.5	0.8	<0.5	<5
	12/26/2001	86	140	--	--	<0.5	<0.5	<0.5	<0.5	<0.5	<5
	9/30/2002	<50	<50	--	--	<0.5	<5	<0.5	<1.5	<0.5	--
	2/20/2003	110	--	--	--	6.6	<0.5	<0.5	<1	<0.5	--
	1/12/2004	67	--	--	--	<0.5	<0.5	<0.5	<1	--	--
	5/12/2005	330	--	--	--	<1	<1	<1	<1	--	--
	9/30/2011	130	<50	--	--	<0.4	<1.1	<0.6	<0.5	<0.5	<0.5 - <25

Table 2  
 Groundwater Analytical Results  
 Caltrans Former Hegenberger Maintenance Station  
 555 Hegenberger Road  
 Oakland, CA

Sample ID	Date	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
ESL where GW:	IS a current or potential source of drinking water	100	100	100	100	1.0	40	30	20	5.0	NE
	IS NOT a current or potential source of drinking water	210	210	210	210	46	130	43	100	1,800	NE
MW-3	10/11/1995	1,300	<50	<50	<5,000	1.0	<0.3	<0.3	<0.3	--	--
	1/17/1996	171	<50	<50	--	64	<0.3	1	<0.3	--	--
	4/16/1996	6,740	565	--	--	2,770	31	13.9	21.9	--	--
	8/26/1996	700	700	--	--	180	4.2	1	4.6	--	--
	11/14/1996	300	120	--	--	6.2	1.2	0.7	1.4	--	--
	2/18/1998	11,000	2,500	--	--	3,070	50	54	19	25	--
	3/30/2001	9,900	490	--	--	2,000	48	39	39	<0.5	
	12/26/2001	9,400	1,700	--	--	1,500	45	33	28	12	
	9/30/2002	2,020	570	--	--	775	17.2	1	8.4	<0.5	
	2/20/2003	4,010	--	--	--	1,120	<50	<50	<100	<50	
	1/12/2004	3,520	--	--	--	632	26.9	<25	<50	--	
	5/12/2005	5,200	--	--	--	1,000	30	20	10	--	
	9/30/2011	3,800	900 <sup>++</sup>	--	--	390	16	1.1	14	<0.5	<0.5 - <25
MW-4	10/11/1995	500	<50	<50	<5,000	17	1.1	<0.3	0.5	--	--
	1/17/1996	460	<50	<50	--	72	4.1	<0.3	1.7	--	--
	4/16/1996	2,200	<50	--	--	851	7.7	1.4	5.7	--	--
	8/26/1996	300	110	--	--	55	4.9	1.2	<0.5	--	--
	11/14/1996	200	200	--	--	3.4	<0.5	--	<0.5	--	--
	2/18/1998	1,500	260	--	--	320	9.1	1	0.6	1.7	--
	3/30/2001	2,700	350	--	--	320	16	5.3	13.6	<0.5	
	12/26/2001	600	200	--	--	33	3	<0.5	1.7	0.8	<5
	9/30/2002	67	<50	--	--	<0.5	<0.5	<0.5	<1.5	<0.5	--
	2/20/2003	570	--	--	--	107	<10	<10	<2.0	<10	--
	1/12/2004	700	--	--	--	122	13.5	0.6	8.8	--	--
	5/12/2005	760	--	--	--	14	5.7	<5	<5	--	--
	9/30/2011	14 <sup>J</sup>	<50	--	--	<0.4	<1.1	<0.6	<0.5	<0.5	<0.5 - <25

Table 2  
 Groundwater Analytical Results  
 Caltrans Former Hegenberger Maintenance Station  
 555 Hegenberger Road  
 Oakland, CA

Sample ID	Date	TPH-GRO (µg/L)	TPH-DRO (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Other VOCs (µg/L)
ESL where GW:	IS a current or potential source of drinking water	100	100	100	100	1.0	40	30	20	5.0	NE
	IS NOT a current or potential source of drinking water	210	210	210	210	46	130	43	100	1,800	NE
MW-5	10/11/1995	1,000	<50	<50	<5,000	45	15	1.9	6.1	--	--
	1/17/1996	<50	<50	<50	--	2	<0.3	<0.3	<0.3	--	--
	4/16/1996	1,740	855	--	--	157	20.1	3.9	22.4	--	--
	8/26/1996	900	270	--	--	55	6.4	0.9	3.7	--	--
	11/14/1996	700	320	--	--	31	5.7	0.7	0.38	--	--
	2/18/1998	1,200	580	--	--	14	5.2	0.8	5.5	9.5	--
	3/30/2001	1,500	480	--	--	7.2	6.5	<0.5	10.7	<0.5	n-propylbenzene = 5.1
	12/26/2001	5,000	7,200	--	--	0.8	10.5	3.8	10.5	3.6	Isopropylbenzene = 6
	9/30/2002	560	430	--	--	1.8	5.2	<0.5	6.5	<0.5	--
	2/20/2003	1,040	--	--	--	<2.5	8.6	<2.5	11.3	<2.5	--
	1/12/2004	1,820	--	--	--	4.2	8	0.6	12.8	--	--
	5/12/2005	1,300	--	--	--	<5	<5	<5	<5	--	--
	9/30/2011	960	440 <sup>++</sup>	--	--	0.34 <sup>J</sup>	0.52 <sup>J</sup>	<0.6	1.8	<0.5	<0.5 - <25

Notes:

Data prior to September 30, 2011 was provided by Geocon Consultants, Inc.

All groundwater concentrations measured in parts per billion (ppb), or micrograms per Liter (µg/L)

denote concentration levels at or above ESL where groundwater is a potential drinking water source as set forth by the San Francisco Bay Regional Water Quality Control Board in May 2008

denote concentration levels at or above ESL where groundwater is not a potential drinking water as set forth by the San Francisco Bay Regional Water Quality Control Board in May 2008

ESL = Environmental Screening Level

NE = Not established for compounds detected

TPH-GRO = Total petroleum hydrocarbons as gasoline range organics

TPH-DRO = Total petroleum hydrocarbons as diesel range organics

TPH-MO = Total petroleum hydrocarbons as motor oil range organics

O&G = Oil and Grease

MTBE = Methyl tertiary butyl ether

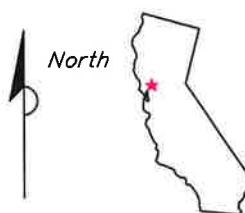
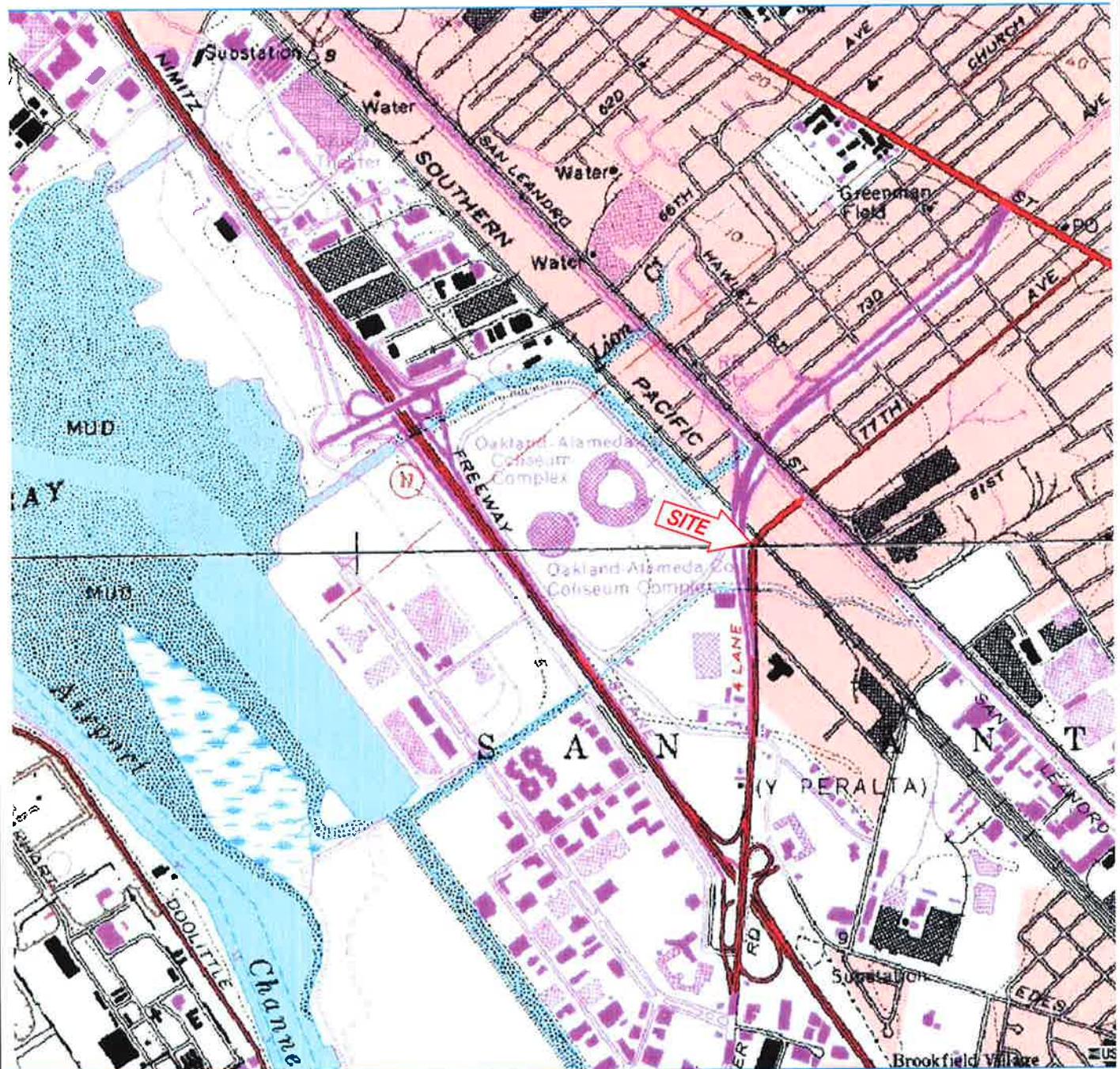
Only volatile organic compounds detected above laboratory reporting limits or practical quantitation limits are noted

-- = Analysis not performed

++ = The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

J = Estimated value.

## **FIGURES**



1      1/2      0      1  
SCALE (MILES)

1000    0    1000    2000    3000    4000    5000    6000    7000  
SCALE (FEET)

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, OAKLAND, CALIFORNIA

 <b>Stantec</b> 15575 LOS GATOS BOULEVARD BLD-C LOS GATOS, CALIFORNIA PHONE (408) 356-6124/356-6138 (FAX)	FOR:  FORMER HEGENBERGER MAINTENANCE STATION 555 HEGENBERGER ROAD OAKLAND, CALIFORNIA	<b>SITE LOCATION MAP</b>		FIGURE:  <b>1</b>
		JOB NUMBER: 185702413	DRAWN BY: MDR	CHECKED BY: AF
		APPROVED BY: --		DATE: 10/13/11

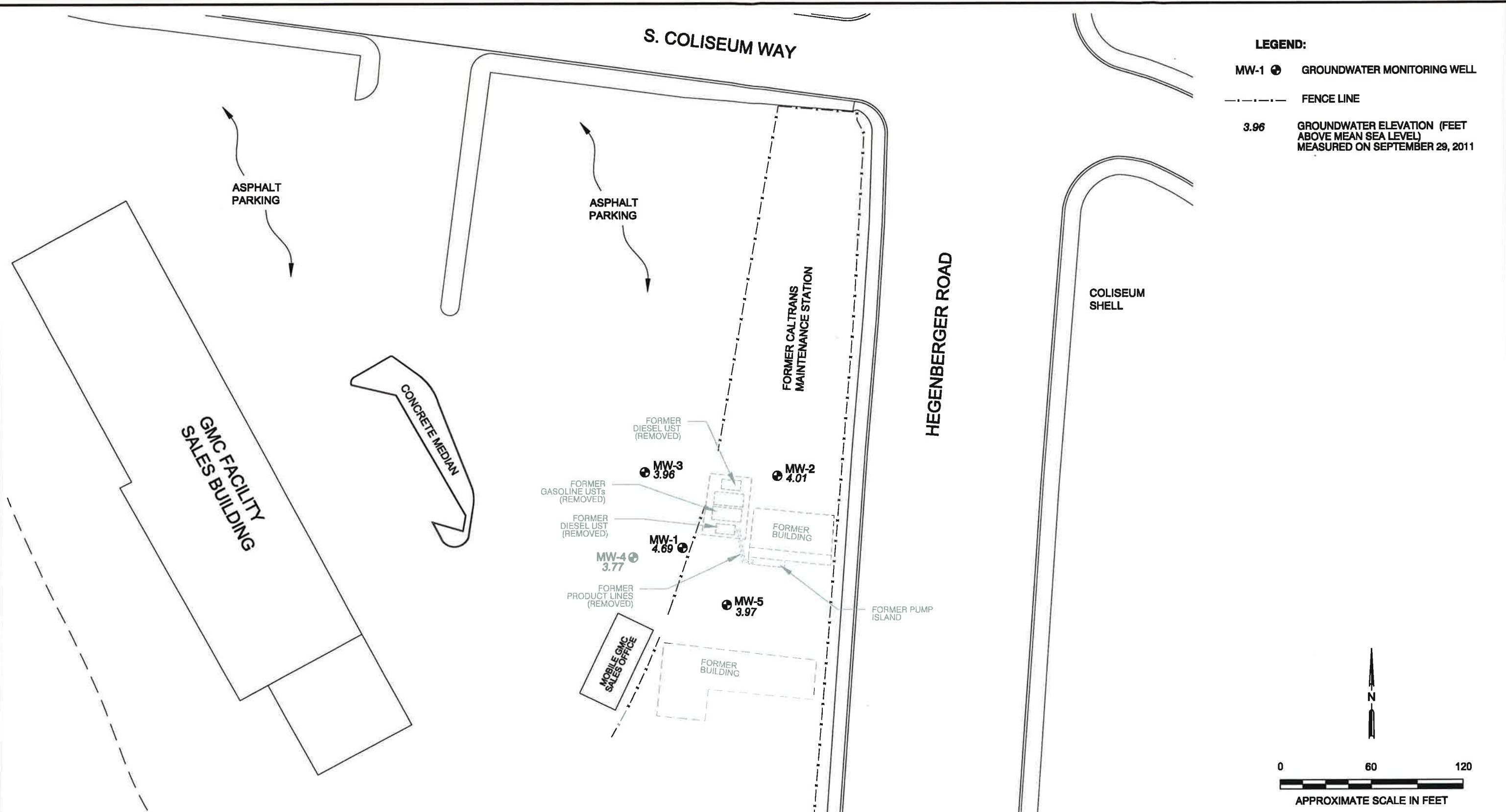
S. COLISEUM WAY

LEGEND:

MW-1 ● GROUNDWATER MONITORING WELL

— FENCE LINE

3.96 GROUNDWATER ELEVATION (FEET  
ABOVE MEAN SEA LEVEL)  
MEASURED ON SEPTEMBER 29, 2011



No warranty is made by Stantec Consulting Corp. as to the accuracy, reliability, or completeness of these data. Original Base map information obtained from GeoCo Consulting (June 2008). This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and/or information.

FIGURE:	FOR:	GROUNDWATER ELEVATIONS THIRD QUARTER	DATE:			
2	 FORMER HEGENBERGER MAINTENANCE STATION 555 HEGENBERGER ROAD OAKLAND, CALIFORNIA 15575 LOS GATOS BOULEVARD BLD-C LOS GATOS, CALIFORNIA PHONE (408) 358-6124/358-6138 (FAX)	JOB NUMBER: 185702413	DRAWN BY: MDR	CHECKED BY: AF	APPROVED BY: AF	10/13/11

**APPENDIX A**  
**STATEMENT OF LIMITATIONS**



## LIMITATIONS AND CERTIFICATIONS FOR NON-PHASE I REPORTS

QA/QC-302B

Page 1 of 1

Rev. 1.1 Apr 3, 2007

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the Site. It was prepared for the exclusive use of The California Department of Transportation (Caltrans) for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the Site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Alicia Falk, R.E.A.  
Project Scientist

Reviewed by:

Jack Hardin, R.E.A.  
Managing Principal

All information, conclusions, and recommendations provided by Stantec in this document regarding the Site have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

Licensed Approver:

Name: Gary P. Messerotes, P.G.

Date:

Signature:

Stamp:



**APPENDIX B**  
**GROUNDWATER SAMPLE FIELD DATA SHEETS**

**STANTEC CONSULTING**  
**GROUNDWATER SAMPLE FIELD DATA SHEET**

Project No. 185702413 Purged By: DO Well I.D.: MW-1  
Client Name: Caltrans Sampled By: DO Sample I.D.: MW-1  
Location: Hegenberger What QA Samples?: \_\_\_\_\_

Date Purged: 9-29-11 Start (2400hr): 1122 End (2400hr): 755  
Date Sampled: 9-30-11 Sample Time (2400hr): 750

Casing Diameter: 2"           3"           4" X    5"           6"           8"           Other         
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

Total depth (feet) =	<u>19.47</u>	Casing Volume (gal) =	<u>9.313</u>
Depth to water (feet) =	<u>5.57</u>	Calculated Purge (gal) =	<u>27.93</u> (3 casing vols.)
Water column height (feet) =	<u>13.90</u>	Actual Purge (gal) =	<u>30.00</u>

## FIELD MEASUREMENTS

D.O. mg/l. %  $BOD = 9.8 \text{ ft}$

<b>PURGING EQUIPMENT</b>		<b>SAMPLING EQUIPMENT</b>	
<input type="checkbox"/> Well Wizard Bladder Pump	<input checked="" type="checkbox"/> Bailer (disposable)	<input type="checkbox"/> WW Bladder Pump	<input checked="" type="checkbox"/> Bailer (disposable)
<input type="checkbox"/> Active Extraction Well Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Sample Port	<input type="checkbox"/> Bailer (PVC)
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated _____	<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated: _____
Other: _____		Other: _____	
Pump Depth: _____ (feet)			

**Analyses:** \_\_\_\_\_

Sample Vessel / Preservative: \_\_\_\_\_ Odor: \_\_\_\_\_

Other:

#### Well Integrity:

Remarks: Slow Recharge

**Signature:**

Page 1 of \_\_\_\_\_

**STANTEC CONSULTING**  
**GROUNDWATER SAMPLE FIELD DATA SHEET**

Project No. 185702413  
Client Name: Cultrans  
Location: Hegenberg

Purged By: JO

Well I.D.: MW-2

Sampled By: DO

Sample I.D.: MW-2

Location: Hegenberger

#### What QA Samples?

Date Purged: 9-29-11  
Date Sampled: 9-30-11

Start (2400hr):

144

End (2400hr)

卷之三

Date Sampled: 9-30-15

Sample Time (2400hr): ~~830~~ 835

End (2400hr): ~~10~~ 840

Casing Diameter: 2"  3"  4"  5"  6"  8"  Other   
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

Total depth (feet) =	19.30	Casing Volume (gal) =	8.77
Depth to water (feet) =	6.21	Calculated Purge (gal) =	26.31 (3 casing vols.)
Water column height (feet) =	13.09	Actual Purge (gal) =	30.00

## FIELD MEASUREMENTS

Date	Time (2400hr)	Volume (gal)	Temp. (degrees C)	Conductivity (umhos/cm)	pH (units)	Color (visual)	ONR DTW (ft)
9-29-11	1450	0	24.5	1823	7.09	clear	-60
	1510	10	22.7	1812	6.91	cloudy	-49
	1530	20	22.2	1790	6.96	s. cloudy	-65
	1555	30	21.8	1783	6.94	clear	-0

D.O. mg/l, %

## PURGING EQUIPMENT

- Well Wizard Bladder Pump       Bailer (disposable)  
 Active Extraction Well Pump       Bailer (PVC)  
 Submersible Pump       Bailer (Stainless Steel)  
 Peristaltic Pump       Dedicated

Other:

## SAMPLING EQUIPMENT

- |   |   |
|---|---|
| <input type="checkbox"/> WW Bladder Pump  | <input checked="" type="checkbox"/> Bailer (disposable) |
| <input type="checkbox"/> Sample Port      | <input type="checkbox"/> Bailer (PVC)                   |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel)       |
| <input type="checkbox"/> Peristaltic Pump | Dedicated:  |

Other:

#### **Analyses:**

Sample Vessel / Preservative: \_\_\_\_\_ Odor: \_\_\_\_\_

#### Well Integrity:

Remarks: Well Box Thread striped. Needs Replacing

**Signature:**

Page 1 of

**STANTEC CONSULTING**  
**GROUNDWATER SAMPLE FIELD DATA SHEET**

Project No. 185702413 Purged By: DO Well I.D.: MW-3  
Client Name: Caltrans Sampled By: DO Sample I.D.: MW-3  
Location: Hegenberger What QA Samples?: \_\_\_\_\_

Date Purged: 9-29-11 Start (2400hr): 1502 End (2400hr): 850  
Date Sampled: 9-30-11 Sample Time (2400hr): 845

Casing Diameter: 2" \_\_\_\_ 3" \_\_\_\_ 4"  5" \_\_\_\_ 6" \_\_\_\_ 8" \_\_\_\_ Other \_\_\_\_  
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

Total depth (feet) =	<u>19.46</u>	Casing Volume (gal) =	<u>9.35</u>
Depth to water (feet) =	<u>5.50</u>	Calculated Purge (gal) =	<u>28.05</u> (3 casing vols.)
Water column height (feet) =	<u>13.96</u>	Actual Purge (gal) =	<u>28.00</u>

## FIELD MEASUREMENTS

D.O.	mg/l,	%
<b>PURGING EQUIPMENT</b>		
<input type="checkbox"/> Well Wizard Bladder Pump	<input checked="" type="checkbox"/> Bailer (disposable)	<input type="checkbox"/> WW Bladder Pump
<input type="checkbox"/> Active Extraction Well Pump	<input type="checkbox"/> Bailer (PVC)	<input type="checkbox"/> Sample Port
<input type="checkbox"/> Submersible Pump	<input type="checkbox"/> Bailer (Stainless Steel)	<input type="checkbox"/> Submersible Pump
<input type="checkbox"/> Peristaltic Pump	<input type="checkbox"/> Dedicated _____	<input type="checkbox"/> Peristaltic Pump
Other: _____		Other: _____
Pump Depth: _____ (feet)		
<b>SAMPLING EQUIPMENT</b>		
		<input checked="" type="checkbox"/> Bailer (disposable)
		<input type="checkbox"/> Bailer (PVC)
		<input type="checkbox"/> Bailer (Stainless Steel)
		<input type="checkbox"/> Dedicated: _____

**Analyses:** \_\_\_\_\_

Sample Vessel / Preservative: \_\_\_\_\_ Odor: \_\_\_\_\_

Odor: \_\_\_\_\_

#### Well Integrity:

Remarks: Slow Recharge, well box threads stripped. Needs Replacing

Signature:

Page 1 of

**STANTEC CONSULTING**  
**GROUNDWATER SAMPLE FIELD DATA SHEET**

Project No. 185702413 Purged By: DO Well I.D.: MW-4  
 Client Name: Caltrans Sampled By: DO Sample I.D.: MW-4  
 Location: Hegenberger What QA Samples?: \_\_\_\_\_

Date Purged: 9-29-11 Start (2400hr): 1038 End (2400hr): 810  
 Date Sampled: 9-30-11 Sample Time (2400hr): 800 \* Dup Sample taken\*

Casing Diameter: 2"        3"        4" X 5"        6"        8"        Other         
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

Total depth (feet) = 15.78 Casing Volume (gal) = 6.398  
 Depth to water (feet) = 6.23 Calculated Purge (gal) = 19.19 (3 casing vols.)  
 Water column height (feet) = 9.55 Actual Purge (gal) = 60.00

**FIELD MEASUREMENTS**

Date	Time (2400hr)	Volume (gal)	Temp. (degrees C)	Conductivity (umhos/cm)	pH (units)	Color (visual)	ORP mV (ft)	odor
9-29-11	1040	0	24.0	5008	6.64	clear	32	odor
	1052	0	22.7	10.44	6.67	5 min	—	—
	1116	20	23.0	9290	6.93	grey	22	odor
	1146	30	21.2	8917	6.83	grey	5.20	S. odor
	1233	40	21.3	8875	6.78	cloudy	22	S. Odor
	1320	50	21.7	8745	6.93	cloudy	-0	S. Odor
	1415	60	21.8	8735	6.81	cloudy	-23	—

D.O. mg/l %

**PURGING EQUIPMENT**

- Well Wizard Bladder Pump
- Active Extraction Well Pump
- Submersible Pump
- Peristaltic Pump
- Other: \_\_\_\_\_

Pump Depth: \_\_\_\_\_ (feet)

**SAMPLING EQUIPMENT**

- WW Bladder Pump
- Sample Port
- Submersible Pump
- Peristaltic Pump
- Bailer (disposable)
- Bailer (PVC)
- Bailer (Stainless Steel)
- Dedicated: \_\_\_\_\_

Other: \_\_\_\_\_

Analyses: \_\_\_\_\_

Sample Vessel / Preservative: \_\_\_\_\_ Odor: \_\_\_\_\_

Well Integrity:

Remarks: Slow Recharge. Dup Sample taken. No bolts,  
well box thread stripped. Needs

Replacing.  
Page 10

Signature: J. Hegenberger

**STANTEC CONSULTING  
GROUNDWATER SAMPLE FIELD DATA SHEET**

Project No. 185702413 Purged By: DO Well ID.: MW-5  
Client Name: Caltrans Sampled By: DO Sample I.D.: MW-5  
Location: Hegenberger What QA Samples?: \_\_\_\_\_

Date Purged: 9-24-11 Start (2400hr): 1206 End (2400hr): 825  
Date Sampled: 9-30-11 Sample Time (2400hr): 820

Casing Diameter: 2"  3"  4"  5"  6"  8"  Other   
 Casing Volume: (gallons per foot) (0.17) (0.38) (0.67) (1.02) (1.50) (2.60) ( )

Total depth (feet) =	19.34	Casing Volume (gal) =	8.69
Depth to water (feet) =	6.37	Calculated Purge (gal) =	26.07 (3 casing vols.)
Water column height (feet) =	12.97	Actual Purge (gal) =	30.00

## FIELD MEASUREMENTS

D.O. mg/l, %

## PURGING EQUIPMENT

- Well Wizard Bladder Pump
  - Active Extraction Well Pump
  - Submersible Pump
  - Peristaltic Pump

Other: \_\_\_\_\_

- Bailer (disposable)  
 Bailer (PVC)  
 Bailer (Stainless Steel)  
Dedicated \_\_\_\_\_

## SAMPLING EQUIPMENT

- |   |   |
|---|---|
| <input type="checkbox"/> WW Bladder Pump  | <input checked="" type="checkbox"/> Bailer (disposable) |
| <input type="checkbox"/> Sample Port      | <input type="checkbox"/> Bailer (PVC)                   |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Bailer (Stainless Steel)       |
| Peristaltic Pump                          | <input type="checkbox"/> Dedicated: _____               |

Other: \_\_\_\_\_

**Analyses:** \_\_\_\_\_

Sample Vessel / Preservative:

Odor: \_\_\_\_\_

#### Well Integrity:

Remarks: Slow Recharge. Well box thread Striped. Needs Replacing.

**Signature:**

Page 1 of

**APPENDIX C**  
**CERTIFIED ANALYTICAL LABORATORY REPORTS AND**  
**CHAIN-OF-CUSTODY DOCUMENTS**



908 North Temperance Ave. ▼ Clovis, CA 93611 ▼ Phone 559.275-2175 ▼ Fax 559.275-4492

NELAP Certification Number: 05233CA (HW)

October 21, 2011

Stantec Consulting, Inc.  
15575 Los Gatos Boulevard., Bldg C  
Los Gatos, California 95032

Attn: Gary Messerotes

Subject: Report of data: Case 65872

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.

Dear Mr. Messerotes:

Seven water samples for project "185702413 Former Caltrans Station" were received September 30, 2011, in good condition. There were labeling discrepancies reported to the client. Written results are being provided on this October 21, 2011, for the requested analyses. All holding times were met.

For the EPA 8015B TPH-Diesel analysis, the samples were extracted according to EPA method 3510C.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the EPA 8015B TPH-Gasoline analysis, the samples were purged according to EPA method 5030B.

No other unusual problems or complications were encountered with this sample set.

If you have any questions or require further information, please contact us at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Sharon Dehmlow, Laboratory Director  
APPL, Inc.

SD/cm

Enclosure

cc: File

Number of pages in this report: 36

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-1  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47674  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		530 ++	50.0	40.40	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		77.8	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		78.5	49-128		%	10/7/2011	10/19/2011

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: TPHAOTP.M  
Run #: 1018066  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-2  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47675  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL	Not detected	50.0	40.40	ug/L	10/7/2011	10/19/2011	
EPA 8015B- SURROGATE: OCTACOSANE (S)	79.5	28-142	%	10/7/2011	10/19/2011		
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (	77.8	49-128	%	10/7/2011	10/19/2011		

Quant Method: TPHKAOTP.M  
Run #: 1018067  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REQ MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-3  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47676  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		900 ++	50.0	40.40	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		77.7	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		77.5	49-128		%	10/7/2011	10/19/2011

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: TPHKAOTP.M  
Run #: 1018068  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-4  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47677  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		Not detected	50.0	40.40	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		78.0	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		77.8	49-128		%	10/7/2011	10/19/2011

Quant Method: TPHAOTP.M  
Run #: 1018069  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-5  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47678  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PGL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		440 ++	50.0	40.40	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		79.8	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		80.0	49-128		%	10/7/2011	10/19/2011

++(T2M) The analyst has noted that the chromatogram of this sample is mainly lower boiling hydrocarbons.

Quant Method: TPHKAOTP.M  
Run #: 1018070  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: EB-1  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47679  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		Not detected	50.0	40.40	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		80.3	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		79.4	49-128		%	10/7/2011	10/19/2011

Quant Method: TPHAOTP.M  
Run #: 1018071  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8015B TPH Diesel Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: Dup-1  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47680  
QCG: #TPHD-111007A-160343

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8015B- DIESEL FUEL		Not detected		50.0	ug/L	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: OCTACOSANE (S)		81.8	28-142		%	10/7/2011	10/19/2011
EPA 8015B- SURROGATE: ORTHO-TERPHENYL (		79.7	49-128		%	10/7/2011	10/19/2011

Quant Method: TPHAOTP.M  
Run #: 1018072  
Instrument: Apollo  
Sequence: 111018  
Dilution Factor: 1  
Initials: LA

Printed: 10/21/2011 2:24:14 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-1  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47674  
QCG: #26UW-111007AM-160016

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/7/2011	10/7/2011
EPA 8260B	BENZENE	14	0.4	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYLBENZENE	0.36 J	0.6	0.23	ug/L	10/7/2011	10/7/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/7/2011	10/7/2011
EPA 8260B	TOLUENE	6.5	1.1	0.17	ug/L	10/7/2011	10/7/2011
EPA 8260B	XYLEMES	6.9	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	105	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	108	62-139		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROME	99.6	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	75-125		%	10/7/2011	10/7/2011

J = Estimated value.

Quant Method: M26UW.M  
Run #: 1007M21  
Instrument: Max  
Sequence: M111005  
Dilution Factor: 1  
Initials: DG

Printed: 10/14/2011 12:09:34 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes

Project: 185702413 Former Caltrans Station

ARF: 65872

Sample ID: MW-2

APPL ID: AY47675

Sample Collection Date: 9/30/2011

QCG: #26UW-111004AM-159809

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/4/2011	10/4/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/4/2011	10/4/2011
EPA 8260B	BENZENE	Not detected	0.4	0.16	ug/L	10/4/2011	10/4/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/4/2011	10/4/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
EPA 8260B	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/4/2011	10/4/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/4/2011	10/4/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/4/2011	10/4/2011
EPA 8260B	TOLUENE	Not detected	1.1	0.17	ug/L	10/4/2011	10/4/2011
EPA 8260B	XYLENES	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	101	75-125		%	10/4/2011	10/4/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	94.4	62-139		%	10/4/2011	10/4/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROME	101	75-125		%	10/4/2011	10/4/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	75-125		%	10/4/2011	10/4/2011

Quant Method: M26UW.M  
Run #: 1004M24  
Instrument: Max  
Sequence: M111004  
Dilution Factor: 1  
Initials: STC

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APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes

Project: 185702413 Former Caltrans Station

ARF: 65872

Sample ID: MW-3

APPL ID: AY47676

Sample Collection Date: 9/30/2011

QCG: #26UW-111007AM-160016

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/7/2011	10/7/2011
EPA 8260B	BENZENE	350 E	0.4	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYLBENZENE	1.1	0.6	0.23	ug/L	10/7/2011	10/7/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/7/2011	10/7/2011
EPA 8260B	TOLUENE	16	1.1	0.17	ug/L	10/7/2011	10/7/2011
EPA 8260B	XYLENES	14	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	107	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	110	62-139		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: DIBROMOFUOROME	97.7	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	103	75-125		%	10/7/2011	10/7/2011

E = The reported value exceeds linear range.

Quant Method: M26UW.M  
Run #: 1007M22  
Instrument: Max  
Sequence: M111005  
Dilution Factor: 1  
Initials: DG

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APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST - Dilution

Slanted Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-3  
Sample Collection Date: 9/30/2011

ARF: 65872  
APPL ID: AY47676  
QCG: #26UW-111007AM-160016

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	390	2.0	0.80	ug/L	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	98.7	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	94.1	82-139		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROME	95.8	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.2	75-125		%	10/12/2011	10/12/2011

Quant Method: M26UW.M  
Run #: 1012M19  
Instrument: Max  
Sequence: M111011  
Dilution Factor: 5  
Initials: SV

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APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes

Project: 185702413 Former Caltrans Station

ARF: 65872

Sample ID: MW-4

APPL ID: AY47677

Sample Collection Date: 9/30/2011

QCG: #26UW-111012AM-160127

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/12/2011	10/12/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/12/2011	10/12/2011
EPA 8260B	BENZENE	Not detected	0.4	0.16	ug/L	10/12/2011	10/12/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/12/2011	10/12/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/12/2011	10/12/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/12/2011	10/12/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/12/2011	10/12/2011
EPA 8260B	TOLUENE	Not detected	1.1	0.17	ug/L	10/12/2011	10/12/2011
EPA 8260B	XYLENES	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE	106	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZENE	95.2	62-139		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROBENZENE	104	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	102	75-125		%	10/12/2011	10/12/2011

Quant Method: M26UW.M  
Run #: 1012M17  
Instrument: Max  
Sequence: M111011  
Dilution Factor: 1  
Initials: SV

Printed: 10/14/2011 12:09:35 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes

Project: 185702413 Former Caltrans Station

ARF: 65872

Sample ID: MW-5

APPL ID: AY47678

Sample Collection Date: 9/30/2011

QCG: #26UW-111012AM-160127

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/12/2011	10/12/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/12/2011	10/12/2011
EPA 8260B	BENZENE	0.34 J	0.4	0.16	ug/L	10/12/2011	10/12/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.18	ug/L	10/12/2011	10/12/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/12/2011	10/12/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/12/2011	10/12/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/12/2011	10/12/2011
EPA 8260B	TOLUENE	0.52 J	1.1	0.17	ug/L	10/12/2011	10/12/2011
EPA 8260B	XYLEMES	1.8	0.6	0.19	ug/L	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	99.3	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROBÉ	91.9	62-139		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROME	94.6	75-125		%	10/12/2011	10/12/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.4	75-125		%	10/12/2011	10/12/2011

J = Estimated value.

Quant Method: M26UW.M  
Run #: 1012M18  
Instrument: Max  
Sequence: M111011  
Dilution Factor: 1  
Initials: SV

Printed: 10/14/2011 12:09:35 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes

Project: 185702413 Former Caltrans Station

ARF: 65872

Sample ID: EB-1

APPL ID: AY47679

Sample Collection Date: 9/30/2011

QCG: #26UW-111007AM-160016

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/7/2011	10/7/2011
EPA 8260B	BENZENE	Not detected	0.4	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/7/2011	10/7/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/7/2011	10/7/2011
EPA 8260B	TOLUENE	Not detected	1.1	0.17	ug/L	10/7/2011	10/7/2011
EPA 8260B	XYLENES	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	108	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	105	62-139		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: DIBROMOFUOROME	99.4	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	102	75-125		%	10/7/2011	10/7/2011

Quant Method: M26UW.M  
Run #: 1007M25  
Instrument: Max  
Sequence: M111005  
Dilution Factor: 1  
Initials: DG

Printed: 10/14/2011 12:09:35 PM  
APPL-F1-SC-NoMC-REG MDLs

## EPA 8260B BTEX Oxy W - UST

Stantec Consulting, Inc.  
 15575 Los Gatos Blvd., Bldg C  
 Los Gatos, CA 95032

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Attn: Gary Messerotes  
 Project: 185702413 Former Caltrans Station  
 Sample ID: Dup-1  
 Sample Collection Date: 9/30/2011

ARF: 65872  
 APPL ID: AY47680  
 QCG: #26UW-111007AM-160016

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/7/2011	10/7/2011
EPA 8260B	BENZENE	Not detected	0.4	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/7/2011	10/7/2011
EPA 8260B	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/7/2011	10/7/2011
EPA 8260B	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/7/2011	10/7/2011
EPA 8260B	TOLUENE	Not detected	1.1	0.17	ug/L	10/7/2011	10/7/2011
EPA 8260B	XYLENES	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 1,2-DICHLOROETHAN	106	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: 4-BROMOFLUOROB	106	62-139		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: DIBROMOFLUOROME	96.9	75-125		%	10/7/2011	10/7/2011
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	103	75-125		%	10/7/2011	10/7/2011

Quant Method: M26UW.M
Run #: 1007M26
Instrument: Max
Sequence: M111005
Dilution Factor: 1
Initials: DG

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 APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-1  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47674  
QCG: #GAS-111005A-160102

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	950	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	115	70-130		%	10/06/11	10/06/11

Quant Method: HGAS.M  
Run #: 1005H17  
Instrument: Harpo  
Sequence: 110217  
Dilution Factor: 1  
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Alt: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-2  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47875  
QCG: #GAS-111005A-160102

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	130	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	87.9	70-130		%	10/06/11	10/06/11

Quant Method: HGAS.M
Run #: 1005H18
Instrument: Harpo
Sequence: 110217
Dilution Factor: 1
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-3  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47676  
QCG: #GAS-111006A-160101

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	3800	200.0	86.00	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	77.4	70-130		%	10/06/11	10/06/11

Quant Method: HGAS.M  
Run #: 1006H06  
Instrument: Harpo  
Sequence: 110217  
Dilution Factor: 10  
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-4  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47677  
QCG: #GAS-111005A-160102

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	14 J	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	107	70-130		%	10/06/11	10/06/11

J = Estimated value.

Quant Method: HGAS.M  
Run #: 1005H23  
Instrument: Harpo  
Sequence: 110217  
Dilution Factor: 1  
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: MW-5  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47678  
QCG: #GAS-111005A-160102

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	980	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	93.8	70-130		%	10/06/11	10/06/11

Quant Method: HGAS.M  
Run #: 1005H20  
Instrument: Harpo  
Sequence: 110217  
Dilution Factor: .1  
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
 15575 Los Gatos Blvd., Bldg C  
 Los Gatos, CA 95032

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Attn: Gary Messerotes  
 Project: 185702413 Former Caltrans Station  
**Sample ID: EB-1**  
 Sample Collection Date: 09/30/11

ARF: 65872  
**APPL ID: AY47679**  
**QCG: #GAS-111005A-160102**

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	Not detected	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	98.2	70-130		%	10/06/11	10/06/11

Quant Method: HGAS.M
Run #: 1005H21
Instrument: Harpo
Sequence: 110217
Dilution Factor: 1
Initials: LF

Printed: 10/13/11 10:59:53 AM  
 APPL-F1-SC-NoMC-REG MDLs

## Gas-Water

Stantec Consulting, Inc.  
15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA 95032

APPL Inc.  
908 North Temperance Avenue  
Clovis, CA 93611

Attn: Gary Messerotes  
Project: 185702413 Former Caltrans Station  
Sample ID: Dup-1  
Sample Collection Date: 09/30/11

ARF: 65872  
APPL ID: AY47680  
QCG: #GAS-111005A-160102

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
8015	GASOLINE	15 J	20.0	8.60	ug/L	10/06/11	10/06/11
8015	SURROGATE: BFB-FID (S)	79.8	70-130		%	10/06/11	10/06/11

J = Estimated value.

Quant Method: HGAS.M  
Run #: 1005H22  
Instrument: Harpo  
Sequence: 110217  
Dilution Factor: 1  
Initials: LF

Printed: 10/13/11 10:59:53 AM  
APPL-F1-SC-NoMC-REG MDLs

**Method Blank**  
**EPA 8015B TPH Diesel Water**

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111007W-47674 - 160343

Batch ID: #TPHD-111007A

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	DIESEL FUEL	Not detected	50.0	40.40	ug/L	10/7/2011	10/19/2011
BLANK	SURROGATE: OCTACOSANE (S)	75.2	28-142		%	10/7/2011	10/19/2011
BLANK	SURROGATE: ORTHO-TERPHENYL (	73.4	49-128		%	10/7/2011	10/19/2011

Quant Method: TPHKAOTP.  
Run #: 1018064  
Instrument: Apollo  
Sequence: 111018  
Initials: LA

GC SC-Blank-REG MDLs  
Printed: 10/21/2011 2:24:16 PM

# **Laboratory Control Spike Recovery**

## **EPA 8015B TPH Diesel Water**

APPL ID: 111007W-47674 LCS - 160343

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
DIESEL FUEL	2000	1240	62.0	61-143
SURROGATE: OCTACOSANE (S)	150	138	92.0	28-142
SURROGATE: ORTHO-TERPHENYL (S)	150	129	86.0	49-128

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	TPHAOTP.M
Extraction Date :	10/7/2011
Analysis Date :	10/20/2011
Instrument :	Apollo
Run :	1020006
Initials :	LA

Printed: 10/21/2011 2:24:10 PM

APPL Standard LCS

**Method Blank**  
**EPA 8260B BTEX Oxy W - UST**

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111004W-47675 - 159809

Batch ID: #26UW-111004AM

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/4/2011	10/4/2011
BLANK	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/4/2011	10/4/2011
BLANK	BENZENE	Not detected	0.4	0.16	ug/L	10/4/2011	10/4/2011
BLANK	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/4/2011	10/4/2011
BLANK	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
BLANK	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/4/2011	10/4/2011
BLANK	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
BLANK	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/4/2011	10/4/2011
BLANK	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/4/2011	10/4/2011
BLANK	TOLUENE	Not detected	1.1	0.17	ug/L	10/4/2011	10/4/2011
BLANK	XYLEMES	Not detected	0.5	0.19	ug/L	10/4/2011	10/4/2011
BLANK	SURROGATE: 1,2-DICHLOROETHAN	100	75-125		%	10/4/2011	10/4/2011
BLANK	SURROGATE: 4-BROMOFLUOROBEN	95.5	62-139		%	10/4/2011	10/4/2011
BLANK	SURROGATE: DIBROMOFLUOROME	99.9	75-125		%	10/4/2011	10/4/2011
BLANK	SURROGATE: TOLUENE-D8 (S)	102	75-125		%	10/4/2011	10/4/2011

Quant Method: M26UW.M
Run #: 1004M21
Instrument: Max
Sequence: M111004
Initials: STC

GC SC-Blank-REG MDLs  
Printed: 10/14/2011 12:08:25 PM

**Method Blank**  
**EPA 8260B BTEX Oxy W - UST**

Blank Name/QCG: 111007W-47674 - 160016  
 Batch ID: #26UW-111007AM

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/7/2011	10/7/2011
BLANK	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/7/2011	10/7/2011
BLANK	BENZENE	Not detected	0.4	0.16	ug/L	10/7/2011	10/7/2011
BLANK	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/7/2011	10/7/2011
BLANK	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
BLANK	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/7/2011	10/7/2011
BLANK	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
BLANK	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/7/2011	10/7/2011
BLANK	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/7/2011	10/7/2011
BLANK	TOLUENE	Not detected	1.1	0.17	ug/L	10/7/2011	10/7/2011
BLANK	XYLENES	Not detected	0.5	0.19	ug/L	10/7/2011	10/7/2011
BLANK	SURROGATE: 1,2-DICHLOROETHAN	103	75-125		%	10/7/2011	10/7/2011
BLANK	SURROGATE: 4-BROMOFLUOROBEN	104	62-139		%	10/7/2011	10/7/2011
BLANK	SURROGATE: DIBROMOFLUOROME	98.3	75-125		%	10/7/2011	10/7/2011
BLANK	SURROGATE: TOLUENE-D8 (S)	105	75-125		%	10/7/2011	10/7/2011

Quant Method: M26UW.M  
 Run #: 1007M07  
 Instrument: Max  
 Sequence: M111005  
 Initials: DG

GC SC-Blank-REG MDLs  
 Printed: 10/14/2011 12:08:25 PM

**Method Blank**  
**EPA 8260B BTEX Oxy W - UST**

Blank Name/QCG: 111012W-47677 - 160127  
 Batch ID: #26UW-111012AM

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	Not detected	0.6	0.14	ug/L	10/12/2011	10/12/2011
BLANK	1,2-ETHYLENE DIBROMIDE	Not detected	0.6	0.20	ug/L	10/12/2011	10/12/2011
BLANK	BENZENE	Not detected	0.4	0.16	ug/L	10/12/2011	10/12/2011
BLANK	DI-ISOPROPYL ETHER	Not detected	0.5	0.16	ug/L	10/12/2011	10/12/2011
BLANK	ETHYL-TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
BLANK	ETHYLBENZENE	Not detected	0.6	0.23	ug/L	10/12/2011	10/12/2011
BLANK	METHYL TERT-BUTYL ETHER	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
BLANK	TERT-AMYL METHYL ETHER	Not detected	0.5	0.14	ug/L	10/12/2011	10/12/2011
BLANK	TERT-BUTYL ALCOHOL	Not detected	25.0	10.00	ug/L	10/12/2011	10/12/2011
BLANK	TOLUENE	Not detected	1.1	0.17	ug/L	10/12/2011	10/12/2011
BLANK	XYLEMES	Not detected	0.5	0.19	ug/L	10/12/2011	10/12/2011
BLANK	SURROGATE: 1,2-DICHLOROETHAN	101	75-125		%	10/12/2011	10/12/2011
BLANK	SURROGATE: 4-BROMOFLUOROBEN	96.1	62-139		%	10/12/2011	10/12/2011
BLANK	SURROGATE: DIBROMOFLUOROME	98.8	75-125		%	10/12/2011	10/12/2011
BLANK	SURROGATE: TOLUENE-D8 (S)	97.1	75-125		%	10/12/2011	10/12/2011

Quant Method: M86DODW.  
 Run #: 1012M14  
 Instrument: Max  
 Sequence: M111011  
 Initials: SV

GC SC-Blank-REG MDLs  
 Printed: 10/14/2011 12:08:25 PM

**Laboratory Control Spike Recoveries**  
**EPA 8260B BTEX Oxy W - UST**

APPL ID: 111004W-47675 LCS - 159809

Batch ID: #26UW-111004AM

APPL Inc.

908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	10.2	10.3	102	103	68-127	0.98	20
1,2-ETHYLENE DIBROMIDE	10.00	10.4	10.7	104	107	70-130	2.8	20
BENZENE	10.00	10.4	10.7	104	107	75-125	2.8	20
DI-ISOPROPYL ETHER	10.00	10.4	10.8	104	108	70-130	3.8	20
ETHYL-TERT-BUTYL ETHER	10.00	10.4	10.2	104	102	70-130	1.9	20
ETHYLBENZENE	10.00	11.0	11.0	110	110	75-125	0.0	20
METHYL TERT-BUTYL ETHER	10.00	10.3	10.9	103	109	70-130	5.7	20
TERT-AMYL METHYL ETHER	10.00	10.5	11.0	105	110	70-130	4.7	20
TERT-BUTYL ALCOHOL	125	109	132	87.2	106	49-167	19.1	20
TOLUENE	10.00	10.6	11.0	106	110	74-125	3.7	20
XYLEMES	30.0	30.6	30.7	102	102	70-130	0.33	20
SURROGATE: 1,2-DICHLOROETHANE-D	17.1	16.4	16.6	95.7	96.9	75-125		
SURROGATE: 4-BROMOFLUOROBENZE	19.8	20.2	20.1	102	101	62-139		
SURROGATE: DIBROMOFLUOROMETH	16.9	17.0	16.9	101	100	75-125		
SURROGATE: TOLUENE-D8 (S)	18.1	18.1	17.9	100	98.9	75-125		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	M26UW.M	M26UW.M
Extraction Date :	10/4/2011	10/4/2011
Analysis Date :	10/4/2011	10/4/2011
Instrument :	Max	Max
Run :	1004M18	1004M19
Initials :	STC	

**Laboratory Control Spike Recovery**  
**EPA 8260B BTEX Oxy W - UST**

APPL ID: 111007W-47674 LCS - 160016

Batch ID: #26UW-111007AM

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DICHLOROETHANE	10.00	9.18	91.8	68-127
1,2-ETHYLENE DIBROMIDE	10.00	9.24	92.4	70-130
BENZENE	10.00	9.48	94.8	75-125
DI-ISOPROPYL ETHER	10.00	9.22	92.2	70-130
ETHYL-TERT-BUTYL ETHER	10.00	10.3	103	70-130
ETHYLBENZENE	10.00	9.82	98.2	75-125
METHYL TERT-BUTYL ETHER	10.00	9.02	90.2	70-130
TERT-AMYL METHYL ETHER	10.00	9.18	91.8	70-130
TERT-BUTYL ALCOHOL	125	126	101	49-167
TOLUENE	10.00	9.55	95.5	74-125
XYLEMES	30.0	30.5	102	70-130
SURROGATE: 1,2-DICHLOROETHANE-D	27.6	27.6	99.9	75-125
SURROGATE: 4-BROMOFLUOROBENZ	31.0	33.7	109	62-139
SURROGATE: DIBROMOFLUOROMETH	28.4	29.1	102	75-125
SURROGATE: TOLUENE-D8 (S)	30.8	30.8	100	75-125

Comments: \_\_\_\_\_

<u>Primary</u>	<u>SPK</u>
Quant Method :	M26UW.M
Extraction Date :	10/7/2011
Analysis Date :	10/7/2011
Instrument :	Max
Run :	1007M03
Initials :	DG

Printed: 10/14/2011 12:17:47 PM

APPL Standard LCS

**Laboratory Control Spike Recovery**  
**EPA 8260B BTEX Oxy W - UST**

APPL ID: 111012W-47677 LCS - 160127  
 Batch ID: #26UW-111012AM

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
1,2-DICHLOROETHANE	10.00	9.87	98.7	68-127
1,2-ETHYLENE DIBROMIDE	10.00	9.40	94.0	70-130
BENZENE	10.00	9.45	94.5	75-125
DI-ISOPROPYL ETHER	10.00	9.61	96.1	70-130
ETHYL-TERT-BUTYL ETHER	10.00	9.01	90.1	70-130
ETHYLBENZENE	10.00	10.4	104	75-125
METHYL TERT-BUTYL ETHER	10.00	9.48	94.8	70-130
TERT-AMYL METHYL ETHER	10.00	9.58	95.8	70-130
TERT-BUTYL ALCOHOL	125	114	91.2	49-167
TOLUENE	10.00	10.0	100	74-125
XYLENES	30.0	32.4	108	70-130
SURROGATE: 1,2-DICHLOROETHANE-D	34.1	34.1	100	75-125
SURROGATE: 4-BROMOFLUOROBENZ	32.3	32.3	100	62-139
SURROGATE: DIBROMOFLUOROMETH	31.0	31.0	100	75-125
SURROGATE: TOLUENE-D8 (S)	37.5	37.5	99.9	75-125

Comments: \_\_\_\_\_

Primary	SPK
Quant Method :	M26UW.M
Extraction Date :	10/12/2011
Analysis Date :	10/12/2011
Instrument :	Max
Run :	1012M12
Initials :	SV

Printed: 10/14/2011 12:17:47 PM

APPL Standard LCS

**Method Blank**  
**Gas-Water**

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111006W-47676 - 160101  
Batch ID: #GAS-111006A

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE	Not detected	20.0	8.60	ug/L	10/06/11	10/06/11
BLANK	SURROGATE: BFB-FID (S)	75.9	70-130		%	10/06/11	10/06/11

Quant Method:HGAS.M  
Run #:1006H05  
Instrument:Harpo  
Sequence:110217  
Initials:LF

GC SC-Blank-REG MDLs  
Printed: 10/13/11 10:59:45 AM

**Method Blank**  
**Gas-Water**

APPL Inc.

908 North Temperance Avenue  
Clovis, CA 93611

Blank Name/QCG: 111005W-47674 - 160102  
Batch ID: #GAS-111005A

Sample Type	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE	Not detected	20.0	8.60	ug/L	10/05/11	10/05/11
BLANK	SURROGATE: BFB-FID (S)	90.4	70-130		%	10/05/11	10/05/11

Quant Method: HGAS.M  
Run #: 1005H15  
Instrument: Harpo  
Sequence: 110217  
Initials: LF

GC SC-Blank-REG MDLs  
Printed: 10/13/11 10:59:45 AM

**Laboratory Control Spike Recoveries**  
**Gas-Water**

APPL ID: 111005W-47674 LCS - 180102  
 Batch ID: #GAS-111005A

APPL Inc.  
 908 North Temperance Avenue  
 Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE	300	323	313	108	104	73-120	3.1	25
SURROGATE: BFB-FID (S)	20.0	17.7	20.0	88.5	100	70-130		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	HGAS.M	HGAS.M
Extraction Date :	10/05/11	10/05/11
Analysis Date :	10/05/11	10/05/11
Instrument :	Harpo	Harpo
Run :	1005H13	1005H14
Initials :	LF	

**Laboratory Control Spike Recoveries**  
**Gas-Water**

APPL ID: 111006W-47676 LCS - 160101

Batch ID: #GAS-111006A

APPL Inc.

908 North Temperance Avenue

Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE	300	332	334	111	111	73-120	0.60	25
SURROGATE: BFB-FID (S)	20.0	16.5	17.6	82.5	88.0	70-130		

Comments: \_\_\_\_\_

Primary	SPK	DUP
Quant Method :	HGAS.M	HGAS.M
Extraction Date :	10/06/11	10/06/11
Analysis Date :	10/06/11	10/06/11
Instrument :	Harpo	Harpo
Run :	1006H03	1006H04
Initials :	LF	

2.0°C

## STANTEC Los Gatos Office

15575 Los Gatos Blvd., Bldg C  
Los Gatos, CA

TEL: (408) 356-6124 FAX: (408) 356-6138

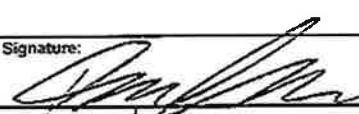
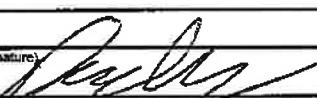
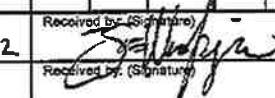
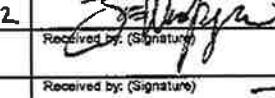
## STANTEC CONSULTING

## CHAIN OF CUSTODY RECORD

Stan tec Contact(s) for Invoice: Gary Messerotes  
eMAIL: gary.messerotes@stantec.com

STANTEC Project #  
185702413

DATE: 9-30-11  
PAGE:  
OF

Project Name: Former Caltrans Station				Sampler(s) Printed Name: Devon Owens				Laboratory: APPL, Inc. 908 N. Temperance Avenue, Clovis, CA 93611 (559) 275-2175			
Address:  555 Hegenberger, Oakland, CA				Sampler(s) Signature: 				Lab Use Only: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
Turn-around Time (Business Days):  <input checked="" type="checkbox"/> 10 DAYS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 72 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 24 HR <input type="checkbox"/> 24 HR Pre - Serve				REQUESTED ANALYSIS							
<input type="checkbox"/> OTHER				HCl	HCl	Ashe					
Special Instructions or Notes: Temperature Upon Receipt (C):				Fuel Oxygenates (FULL LIST) by 8280B	TPH-GRO by 8015M slice gel cleanup	TPH-DRO by 8015M slice gel cleanup					
EDF Required: T0600101696											
Fuel Oxygenates list includes: BTEX, EDB, EDC, MTBE, TAME, ETBE, DIPE, TBA, and EtOH)											
Labeled ONLY:	Field Sample Identification	SAMPLING		MAT- RX	No. of Cont.	Pre- serve				Other:	Laboratory Notes
		DATE	TIME								
MW-1	9-30-11	750	W	S			X	X	X		
MW-2		835					X	X	X		
MW-3		845					X	X	X		
MW-4		800					X	X	X		
MW-5		820					X	X	X		
EB-1		740					X	X	X		
Dup-1		305	↓	↓			X	X	X		
Relinquished by: (Signature) 		Date: 9-30-11	Time: 1232	Received by: (Signature) 				Date: 9-30-11	Time: 1232		
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature) 				Date:	Time:		
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature) 				Date: 09/30/11	Time: 1709		