CONESTOGA-ROVERS & ASSOCIATES

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Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: March 22, 2012

REFERENCE NO.: 060058

PROJECT NAME: Former Chevron 211253, Livermore

TO: Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

ACEH RO #0189

RECEIVED
8:48 am, Mar 27, 2012
Alameda County
Environmental Health

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
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- ☒ Other ftp upload

QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐ For Review and Signature
- ☐

COMMENTS:
Should you have any questions or concerns, please contact Kiersten Hoey of CRA at (5109) 420-3347 or Roya Kambin of Chevron at (925) 790-6270.

Copy to: Mr. Ken Hilliard, 7-Eleven, Inc
Mr. Kirk Sniff, Strasburger & Price, LLP

Completed by: Kiersten Hoey [Please Print] Signed: Kiersten Hoey

Filing: **Correspondence File**

Roya Kambin
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6270
rkambin@chevron.com

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Former Texaco Service Station 21-1253
930 Springtown Boulevard
Livermore, California
ACEHS Case No. RO0189

I accept the **Subsurface Investigation Report** dated March 22, 2012.

I agree with the conclusions and recommendations presented in this document. The information included is accurate to the best of my knowledge, and appears to meet local agency and Regional Board guidelines. This **Subsurface Investigation Report** was prepared by Conestoga Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Roya Kambin
Project Manager

Attachment: Subsurface Investigation Report

SUBSURFACE INVESTIGATION REPORT

FORMER TEXACO SERVICE STATION #211253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA
FUEL LEAK CASE NO. RO 0000189

Prepared For:
Mr. Jerry Wickham
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
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MARCH 22, 2012
REF. NO. 060058 (14)
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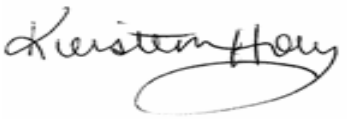
SUBSURFACE INVESTIGATION REPORT

FORMER TEXACO SERVICE STATION #211253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA
FUEL LEAK CASE NO. RO 0000189



Kiersten Hoey

N. Scott Macleod P.G. 5747

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MARCH 22, 2012
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1.0 INTRODUCTION

On behalf of Chevron Environmental Management Company, Conestoga-Rovers & Associates (CRA) is submitting this *Subsurface Investigation Report* for the Former Texaco Service Station 211253 located at 930 Springtown Blvd, Livermore, California. On January 16 through January 19, 2012, CRA installed onsite monitoring wells MW-17, MW-18, MW-19, MW-20 and attempted to install one offsite well to further investigate the source area around the former UST pit and delineate dissolved hydrocarbon concentrations and liquid non-aqueous phase liquid (LNAPL). Work was completed as requested by Alameda County Environmental Health (ACEH), in accordance with CRA's March 30, 2011 *Site Conceptual Model and Work Plan,* and as approved in the ACEH letter dated May 4, 2011 (Appendix A). Site background and investigation results are presented below.

1.1 SITE DESCRIPTION AND BACKGROUND

The site is a former Texaco service station located on the south corner of Springtown Boulevard and Lassen Road in Livermore, California (Figure 1). In the summer of 1985, Texaco sold the site to Southland Corporation who removed the USTs, dispenser islands, and product piping and constructed a 7-Eleven convenience store. The site is still occupied by a 7-Eleven convenience store, surrounded by a paved parking area (Figure 2). No fuel is currently dispensed at the site.

After the USTs were removed in 1985, ten monitoring wells, one soil vapor extraction well, one air sparge well, and one groundwater extraction well were installed, six soil borings were advanced, and a soil vapor extraction (SVE) system operated for approximately 9 months. In 2002, all wells were destroyed based on ACEH and the San Francisco Bay Region-Regional Water Quality Control Board (RWQCB) concurrence that no further action was required. No remedial action completion certificate was ever issued by the ACEH or RWQCB. In 2007, ACEH required additional investigative work to fill data gaps prior to issuing case closure. Since then, ACEH has required advancement of seven cone penetration test (CPT) borings and installation of 12 new monitoring wells. A summary of environmental investigations and remediation conducted at the site is included as Appendix B.

1.2 SITE GEOLOGY AND HYDROGEOLOGY

Regional subsurface soil is identified as a heterogeneous mixture of alluvial and colluvial clays and silts, sandy silts, silty sands, and gravelly sands of Holocene age. These regional sediments have a maximum thickness of approximately 150 feet. The Pliocene aged Tassajara Formation consists of sandstone, shale, and limestone, and forms the bedrock beneath the site. Soil encountered beneath the site consists of clay, silt, and sandy silt to approximately 10 feet below grade (fbg), underlain by silty sand, sand, and gravels to the maximum depth explored of 45 fbg. Boring logs are included in Appendix C and cross sections are included as Figures 3 and 4.

The site is located in the Mocho II sub basin of the Main Basin in the Livermore Valley, as defined by the DWR and the Zone 7 Water Agency. The Mocho II sub basin is defined by the Livermore Fault on the west, thinning Quaternary alluvium on the east, the Livermore Uplands to the south, and the Tassajara Formation to the north. Main Basin groundwater is currently used as a drinking water resource. Depth to groundwater beneath the site is approximately 9.50 to 15 feet below grade, and groundwater flows toward the west.

The nearest surface water bodies are Arroyo Seco and Arroyo Las Positas, which converge approximately one mile west of the site.

2.0 SUBSURFACE INVESTIGATION

On January 17 through 19, 2012, CRA installed onsite monitoring wells MW-17, MW-18, MW-19, and MW-20. The offsite monitoring well, proposed in the sidewalk on the south side of Springtown Boulevard, could not be installed. During borehole clearance, pea gravel was encountered at 4.5 fbg which likely indicated the presence of an underground utility, and the well could not be safely installed. There was no alternative location due to the adjacent Altamont Pipeline and electrical utilities in the surrounding area. CRA's field activities are detailed below.

Permits

Wells were installed under Zone 7 Water Agency permit #2011138. A City of Livermore—Community Development Department encroachment permit # EN120012 was obtained for the proposed offsite well (Appendix D).

Site Health and Safety Plan

CRA performed all work under the guidelines set forth in a comprehensive site health and safety plan. The plan was reviewed and signed by all site workers and visitors and kept onsite at all times.

Geophysical Survey

Prior to drilling, CRA contacted Underground Service Alert (USA) to mark any existing underground utilities at and surrounding the proposed well locations. CRA also contracted Norcal Geophysical Consultants, Inc. of Cotati, California to locate underground utilities at and surrounding the proposed boring locations and investigate the potential of an underground storage tank (UST) using a metal detector and ground penetrating radar (GPR) equipment.

Utility Clearance

Per EMC and CRA safety procedures, each proposed well location was hand cleared to 8 fbg using an air knife to ensure no underground utilities were located beneath the proposed location.

CRA Personnel

CRA staff geologists directed all field work under the supervision of California Professional Geologist Brandon Wilken (PG 7564).

Drilling Company

Gregg Drilling and Testing, Inc. of Martinez, California (C-57 #485165) advanced all borings and installed all monitoring wells.

Well Installation

Monitoring well MW-17 was advanced to a total depth of 37 feet below grade (fbg) using 6-inch hollow stem augers. After soil samples were collected MW-17 was installed by advancing 10-inch hollow stem augers to 37 fbg. The well was constructed using a 0.010 slotted 4-inch diameter Schedule 40 PVC pipe screened from 32-37 fbg. Monterey Sand #2/12 was placed to 2 feet above the well screen with a 2 foot of hydrated bentonite pellet seal and finished to 1 fbg with Portland Type I/II cement.

Monitoring well MW-18 was advanced to a total depth of 35 fbg using 6-inch hollow stem augers. The advancement of MW-18 did not reach the proposed depth of 45 fbg due to flowing sands at 30 fbg and an obstruction at 35 fbg. Once soil samples were collected the boring annulus was backfilled with hydrated bentonite chips from 35 fbg to 17 fbg and Monterey Sand #2/12 from 17 fbg to 15 fbg. After backfilling, MW-18 was installed by advancing 10-inch hollow stem augers to 15 fbg. The well was constructed

using a 0.010 slotted 4-inch diameter Schedule 40 PVC pipe screened from 5 fbg to 15 fbg. Sand was placed from 15 fbg to 1 foot above the screen with a 1 foot bentonite seal and finished to 1 fbg with Portland Type I/II cement.

Monitoring well MW-19 was advanced to a total depth of 31.5 fbg using 6-inch hollow stem augers. The advancement of MW-19 did not reach the proposed depth of 45 fbg due to flowing sands at 30 fbg. Once soil samples were collected the boring annulus was backfilled with hydrated bentonite chips from 30 fbg to 17 fbg and Monterey Sand #2/12 from 17 fbg to 15 fbg. After backfilling, MW-19 was installed by advancing 10-inch hollow stem augers to 15 fbg. The well was constructed using a 0.010 slotted 4-inch diameter Schedule 40 PVC pipe screened from 5 fbg to 15 fbg. Sand was placed 15 fbg to 1 foot above the screen with a 1 foot bentonite seal and finished to 1 fbg with Portland Type I/II cement.

Monitoring well MW-20 was advanced to a total depth of 45.5 fbg using 6-inch hollow stem augers. Once soil samples were collected the boring annulus was backfilled with Portland cement from 45.5 fbg to 25 fbg, hydrated bentonite chips from 25 fbg to 15.5 fbg, and Monterey Sand #2/12 from 15.5 fbg to 15 fbg. After backfilling, MW-20 was installed by advancing 10-inch hollow stem augers to 15 fbg. The well was constructed using a 0.010 slotted 4-inch diameter Schedule 40 PVC pipe screened from 5 fbg to 15 fbg. Sand was placed 15 fbg to 1 foot above the screen with a 1 foot bentonite seal and finished to 1 fbg with Portland Type I/II cement.

At each well location, a well box equipped with a traffic rated lid was installed at grade and finished to match the existing surface. Boring logs are presented in Appendix C. CRA's Standard Operating Procedures for well installations are presented in Appendix E.

Soil Sampling

Soil samples were collected from the borings at 5 foot intervals. Soil samples above 8 fbg were collected by driving a steam-cleaned stainless steel tube into sediments removed by a hand auger. Soil samples below 8 fbg were collected by driving a modified California split-spoon sampler lined with three steam-cleaned 6-inch stainless steel tubes into undisturbed sediments. Soil was screened for volatile organic compounds (VOCs) using a photo-ionization detector (PID). All samples were capped using Teflon tape and plastic caps, labeled, placed in an ice filled cooler, and transported under chain of custody protocol to Lancaster Laboratories in Lancaster, Pennsylvania for analysis. Soil analytical data is summarized in Table 1 and discussed below. Laboratory analytical results reports are included in Appendix F.

Groundwater Sampling

On February 7, 2012, Gettler-Ryan, Inc. developed monitoring wells MW-17, MW-18, MW-19, and MW-20, and monitored and sampled all the site wells on February 9, 2012. Monitoring wells are divided into three different zones based on the screen intervals: shallow zone (wells MW-9, MW-11, MW-14, MW-18, MW-19, and MW-20), intermediate zone (wells MW-10, MW-12, MW-13, MW-16, and MW-17), and deep zone (well MW-15). Groundwater analytical results are summarized in Table 2. Groundwater elevation contours in the shallow zone are illustrated on Figure 5. Laboratory analytical reports are included in Appendix F. Gettler Ryan's well development and sampling field data sheets are included as Appendix G.

Chemical Analyses

Soil samples and groundwater samples were analyzed by Lancaster Laboratories for the following:

- Total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8015 modified
- Benzene, toluene, ethylbenzene, xylenes (BTEX) using EPA Method 8260B.

Soil analytical results are presented in Table 1 and groundwater analytical results are presented in Table 2. The laboratory reports are included in Appendix F.

Waste Disposal

Investigation derived waste was stored onsite in sealed and labeled California Department of Transportation-compliant 55-gallon drums. Waste was profiled for disposal and on March 12, 2012 was transported to Filter Recycling Service, Inc. in Rialto, California.

3.0 RESULTS OF SUBSURFACE INVESTIGATION

A description of the materials encountered, soil and groundwater sample results, the preferential pathway study, and geophysical survey are discussed below.

3.1 LITHOLOGY

Soils encountered generally consisted of silt, sandy silt, and clay to approximately 15 fbg, underlain by sand, gravel, silty gravel, and clayey gravel to the maximum depth

explored of 45.5 fbg. Sandy silt was encountered in MW-17 from 30 to 35 fbg and in MW-20 from 25 to 45 fbg. Boring logs are included in Appendix C.

3.2 SOIL ANALYTICAL RESULTS

A total of 28 soil samples were submitted for analysis. The results of the lab analysis summarized in Table 1 are discussed below. The laboratory report is included in Appendix F.

- No TPHg or BTEX were detected in downgradient well boring MW-17.
- No TPHg or BTEX concentrations detected in well borings MW-19 and MW-20 exceeded the Environmental Screening Levels (ESLs)[1] for soil leaching to drinking water.
- TPHg and BTEX were detected in well boring MW-18 between 5 and 25 fbg. The maximum concentrations detected were 1,200 milligrams per kilogram (mg/kg) TPHg at 25 fbg; 0.44 mg/kg benzene at 11 fbg; 19 mg/kg toluene at 15 fbg; 13 mg/kg ethylbenzene at 25 fbg; and 52 mg/kg xylenes a 25 fbg. No hydrocarbons were detected at 31 fbg, vertically defining hydrocarbons in soil.
- Some hydrocarbon concentrations detected in well MW-18 exceeded the ESL for soil leaching to drinking water; however, no concentrations exceeded the ESLs for direct soil exposure for construction/trench worker.

3.3 DISCUSSION OF GROUNDWATER CONDITIONS

All groundwater monitoring wells were monitored and sampled on February 9, 2012 by Gettler-Ryan. LNAPL was detected in shallow well MW-14 at a thickness of 0.34 feet. Dissolved TPHg concentrations were detected above the ESLs where groundwater is a potential drinking water source in all wells except intermediate wells MW-16 and MW-17 and deep well MW-15. BTEX was detected in shallow wells MW-9, MW-18, MW-19, and MW-20, and intermediate wells MW-12 and MW-13. The highest dissolved concentrations were detected in well MW-13 including 18,000 micrograms per liter (µg/L) TPHg and 1,600 µg/L benzene. Dissolved hydrocarbon concentrations are summarized in Table A below. Cumulative groundwater lab analysis is summarized in Table 2. The groundwater laboratory report is included in Appendix F.

[1] San Francisco Bay Regional Water Quality Control Board's *Screening for Environmental Concern at Site with Contaminated Soil and Groundwater*, Interim Final November 2007 (Revised May 2008)

TABLE A: FEBRUARY 9, 2012 HYDROCARBON CONCENTRATIONS						
Well ID	*Sample Date*	*TPHg (µg/L)*	*Benzene (µg/L)*	*Toluene (µg/L)*	*Ethylbenzene (µg/L)*	*Total Xylenes (µg/L)*
Groundwater ESLs		***100***	***1***	***40***	***30***	***20***
MW-9	2/9/2012	**5,300**	**6**	7	**250**	**120**
MW-10	2/9/2012	**140**	<0.5	<0.5	<0.5	<0.5
MW-11	2/9/2012	**220**	<0.5	<0.5	<0.5	<0.5
MW-12	2/9/2012	**8,700**	**85**	**130**	**170**	**590**
MW-13	2/9/2012	**18,000**	**1,600**	**3,700**	**370**	**2,200**
MW-14	2/9/2012	**0.34 feet of LNAPL**				
MW-15	2/9/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-16	2/9/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-17	2/9/2012	<50	<0.5	<0.5	<0.5	<0.5
MW-18	2/9/2012	**12,000**	**200**	**1,300**	**68**	**2,200**
MW-19	2/9/2012	**6,700**	**4**	<3	18	**35**
MW-20	2/9/2012	**9100**	**3**	**94**	**200**	**600**

µg/L Micrograms per liter
< Indicates constituent was not detected at or above stated laboratory reporting limit
ESLs Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final*, November 2007, revised May 2008. – Table F-1a where groundwater is a potential drinking water source
Bold Represents concentrations that exceed applicable ESLs

Shallow Zone

The TPHg plume is centered on well MW-14, containing LNAPL, and dissolved concentrations extend upgradient (MW-20), crossgradient (MW-18), and downgradient (MW-19 and MW-9). The extent of TPHg in the shallow zone is not defined. The benzene plume is centered on well MW-14. Dissolved benzene is generally defined upgradient and downgraident by low concentrations ranging from below laboratory detection limits to 6 µg/L detected in wells MW-9, MW-11, MW-19, and MW-20. TPHg and benzene concentrations in shallow groundwater are illustrated on Figures 5 and 6.

Intermediate Zone

The TPHg and benzene plumes are centered on well MW-13 and are defined downgradient by well MW-17 and crossgradient by well MW-10. TPHg and benzene concentrations in the intermediate groundwater zone are illustrated on Figure 7 and 8.

Deep Zone

No hydrocarbons are detected in well MW-15, vertically defining the extent of hydrocarbons in groundwater. TPHg and benzene concentrations in the deep groundwater zone are illustrated on Figures 9 and 10.

3.4 PREFERENTIAL PATHWAY STUDY

CRA conducted a preferential pathway study to characterize potential conduits for offsite groundwater migration. CRA obtained utility maps from Zone 7 Water Agency, the City of Livermore, and Pacific Gas & Electric to locate underground utilities, storm drain systems, and other subsurface utilities in the vicinity of the site. The Altamont Pipeline Excavation runs adjacent to the site along the north and west side of the property beneath Springtown Boulevard and Lassen Road. The pipeline excavation was 6 feet wide by 15 feet deep and completed with impermeable slurry which likely inhibits any preferential pathway migration. Underground utilities are depicted on Figure 2.

A City of Livermore storm drain system runs along the north side of the property beneath Springtown Boulevard then makes a 90 degree turn across Springtown Road and extends between offsite well MW-16 and CPT-3. The sanitary sewer is located beneath Lassen Road, then turns west up Springtown Boulevard, then across Springtown Boulevard between offsite well MW-16 and CPT-3.

Electric, water, and gas lines are located beneath the north side of Springtown Boulevard and Lassen Road. These utilities are either located above groundwater or are outside the extent of the dissolved hydrocarbon plume.

Based on the plume attenuation with distance observed onsite and the distance to the utilities, CRA concludes it is unlikely offsite migration is occurring via underground utilities and also unlikely that the utilities are acting as preferential flow conduits downgradient of the site.

3.5 SECONDARY SOURCE IDENTIFICATION

A geophysical survey was conducted by Norcal Geophysical Consultants, Inc. to identify the presence of any potential former USTs that could be acting as secondary sources. The area surveyed was approximately 180-by-160 feet in the paved parking area on the northern half of the property. The Professional Geophysicist (PGp) utilized vertical magnetic gradient (VGM), metal detector (MD), electromagnetic line location

(EMLL), and GPR methods to delineate potential magnetic anomalies in the subsurface. Based on the results of the survey it appears there are no USTs that could be acting as potential secondary sources. Norcal Geophysical's Survey Report is presented in Appendix H.

4.0 CONCLUSIONS AND RECOMMENDATIONS

- Soil samples collected from borings MW-18 and MW-19 vertically define hydrocarbons in soil onsite and better define the extent of hydrocarbons in soil, centered on MW-14.
- Hydrocarbon concentrations in soil were lower in MW-19 compared to previously drilled EW-1 and SP-1, indicating hydrocarbon concentrations in soil have attenuated and are limited to the area around MW-14 and MW-18.
- Groundwater samples collected from new wells MW-18, MW-19, and MW-20 indicate LNAPL is limited to well MW-14.
- Intermediate well MW-17 defines the extent of hydrocarbons in groundwater downgradient of intermediate wells MW-12 and MW-13.
- No UST that could be a secondary source was identified beneath the site during the geophysical survey.
- It does not appear any underground utilities are acting as preferential pathways for offsite hydrocarbon migration.

To remove LNAPL detected in well MW-14, CRA previously proposed surfactant enhanced recovery treatment (SERT) in a July 22, 2010 *Pilot Test Work Plan*. However; in their August 30, 2010 and December 29, 2010 letters and during a February 10, 2011 meeting with CRA, ACEH required additional assessment of the extent of LNAPL and hydrocarbons in soil and the submittal of a Corrective Action Plan. Based on the site conditions and the data presented above the extent of LNAPL has been delineated, and the vertical extent of hydrocarbons in soil has also been defined.

CRA will meet with Chevron's Remediation System Review Team (RSRT) to evaluate remedial options to eliminate LNAPL in well MW-14 and reduce dissolved hydrocarbon concentrations in other wells sufficient to close this case as a low risk site. CRA will submit a Feasibility Study/Corrective Action Plan (FS/CAP) by July 1, 2012. The FS/CAP will also include a work plan to define the extent of hydrocarbons in the shallow zone.

FIGURES

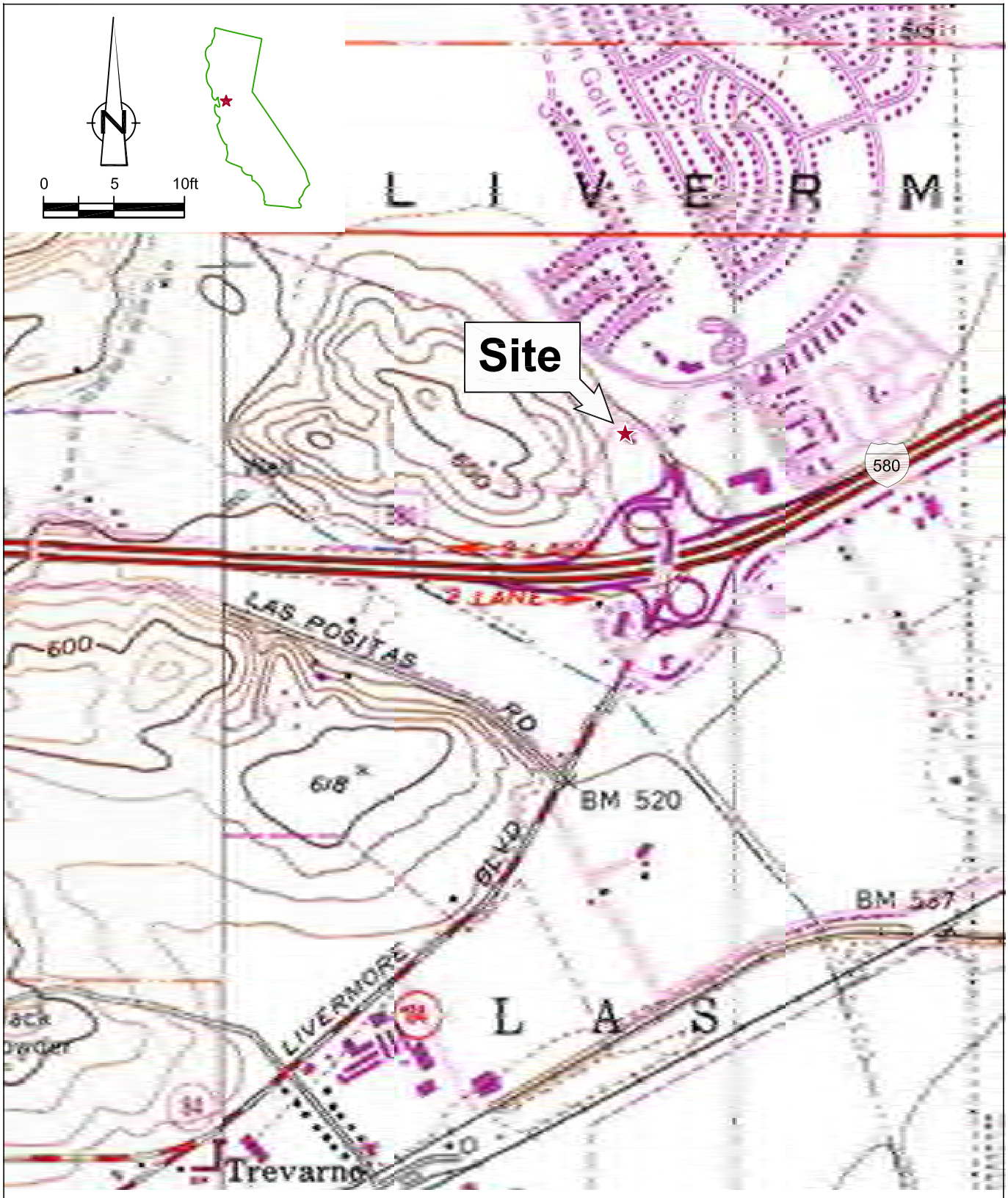
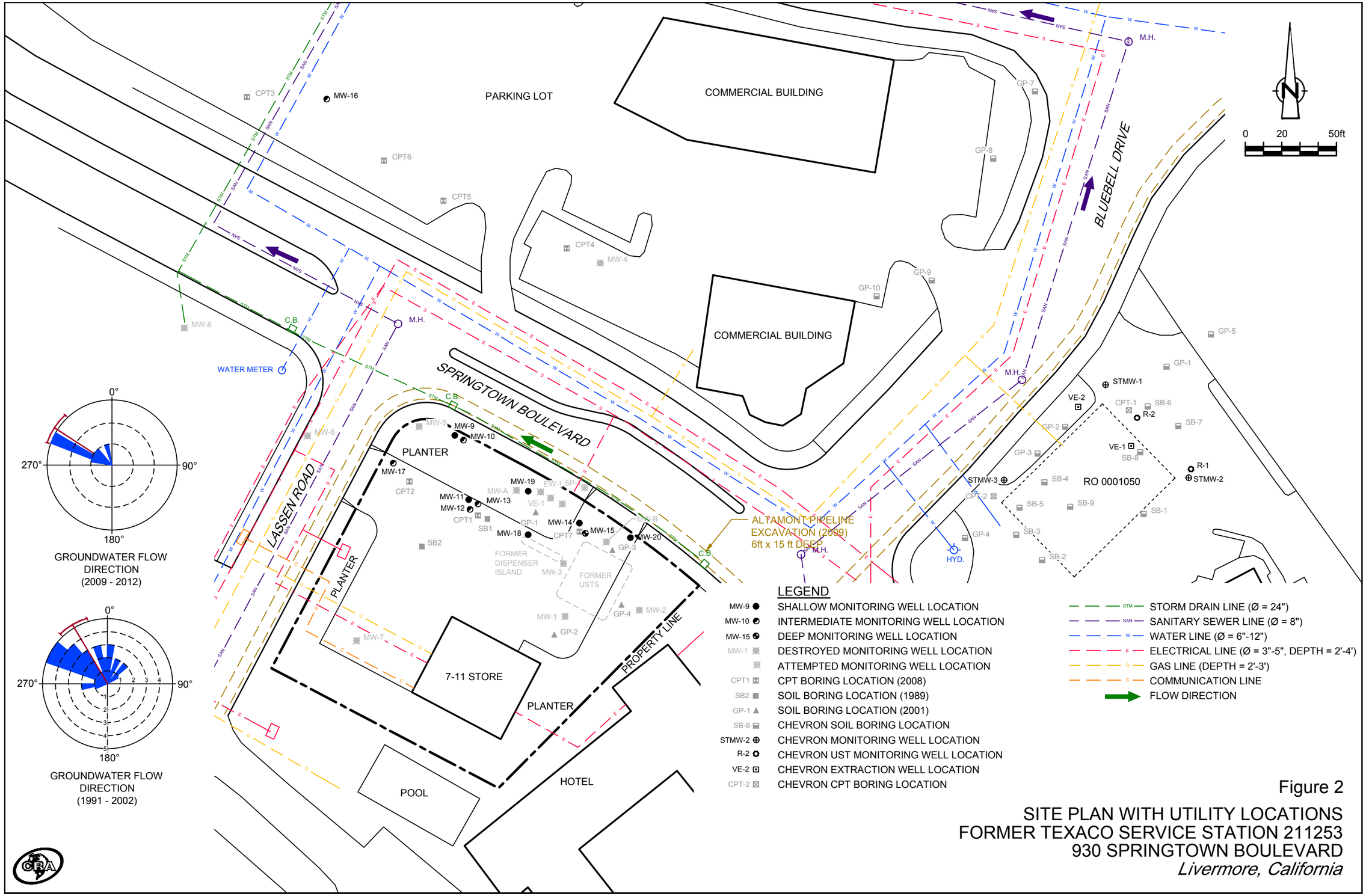


Figure 1

VICINITY MAP
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD
Livermore, California



GROUNDWATER FLOW DIRECTION
(2009 - 2012)

GROUNDWATER FLOW DIRECTION
(1991 - 2002)

LEGEND

- MW-9 — SHALLOW MONITORING WELL LOCATION
- MW-10 — INTERMEDIATE MONITORING WELL LOCATION
- MW-15 — DEEP MONITORING WELL LOCATION
- MW-1 — DESTROYED MONITORING WELL LOCATION
- ATTEMPTED MONITORING WELL LOCATION
- CPT1 — CPT BORING LOCATION (2008)
- SB2 — SOIL BORING LOCATION (1989)
- GP-1 — SOIL BORING LOCATION (2001)
- SB-9 — CHEVRON SOIL BORING LOCATION
- STMW-2 — CHEVRON MONITORING WELL LOCATION
- R-2 — CHEVRON UST MONITORING WELL LOCATION
- VE-2 — CHEVRON EXTRACTION WELL LOCATION
- CPT-2 — CHEVRON CPT BORING LOCATION

- STM — STORM DRAIN LINE (Ø = 24")
- SAN — SANITARY SEWER LINE (Ø = 8")
- W — WATER LINE (Ø = 6"-12")
- E — ELECTRICAL LINE (Ø = 3"-5", DEPTH = 2'-4')
- G — GAS LINE (DEPTH = 2'-3')
- C — COMMUNICATION LINE
- FLOW DIRECTION

Figure 2

SITE PLAN WITH UTILITY LOCATIONS
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA001 MAR 20/2012

A
NORTHWEST

A'
SOUTHEAST

LASSEN ROAD

FORMER USTs

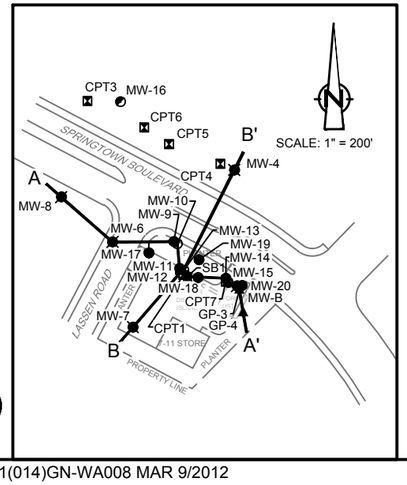
MW-8 MW-6 MW-17 MW-9 MW-10 MW-11 (INTERSECTION WITH B-B') MW-12 (INTERSECTION WITH B-B') MW-13 (INTERSECTION WITH B-B') CPT1 SB1 MW-18 MW-14 CPT7 MW-15 MW-B MW-20 GP-3 GP-4

ELEVATION (feet above mean sea level)

APPROXIMATE DEPTH (feet below ground surface)

DISTANCE (feet)

SCALE: HORZ. 1" = 30'
VERT. 1" = 20'



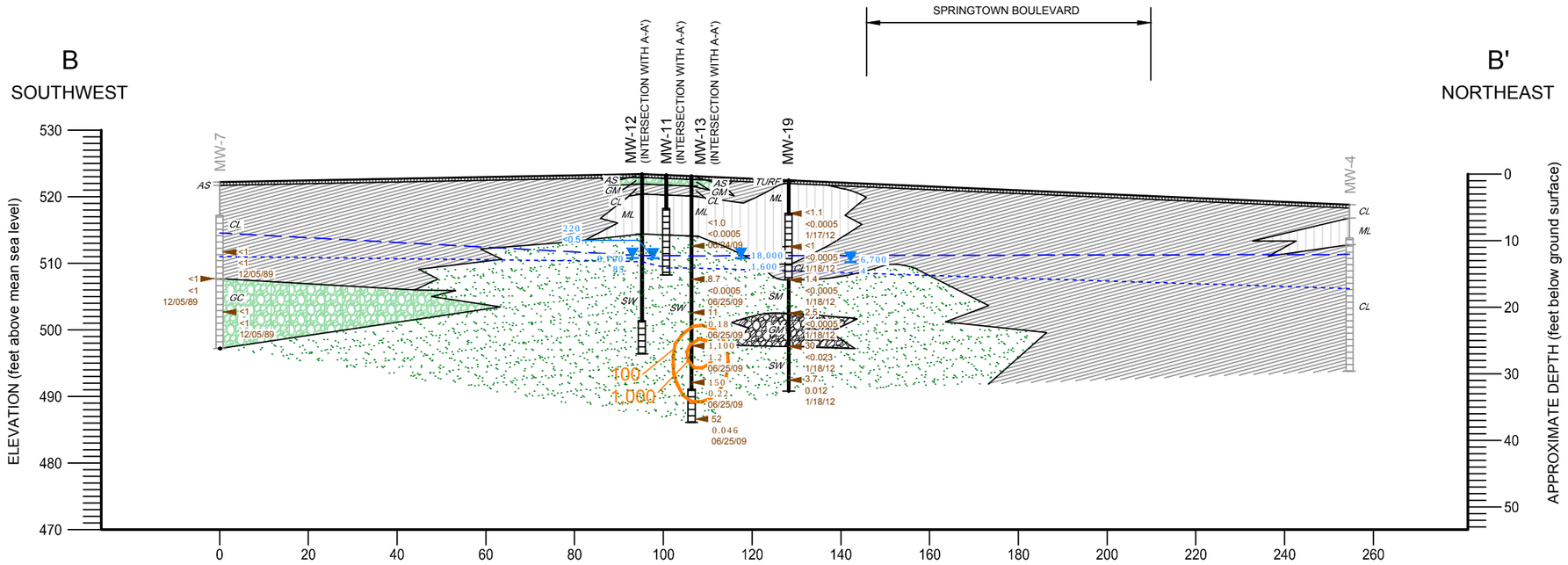
LEGEND

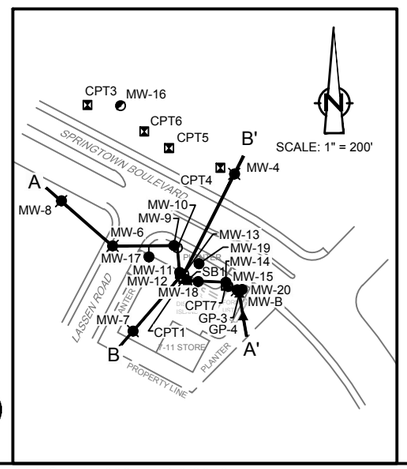
- MW-12 — WELL DESIGNATION
- GROUND SURFACE
- OBSERVATION WELL INSTALLATION
- STRATIGRAPHIC BOUNDARY
- CL — TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING
- APPROXIMATE SOIL SAMPLE LOCATION
- TPHg / BENZENE / DATE — HYDROCARBON CONCENTRATIONS IN SOIL (mg/kg)
- APPROXIMATE GROUNDWATER SAMPLE LOCATION
- TPHg / BENZENE / 02/09/2012 — HYDROCARBON CONCENTRATIONS IN GROUNDWATER (µg/L)
- *FILL*
- *TS* - TOPSOIL
- *AS* - ASPHALT
- *CL* - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- *SM* - SILTY SANDS, SAND-SILT MIXTURES
- *SC* - CLAYEY SANDS, SAND-CLAY MIXTURES
- *GP* - POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
- *GW* - WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
- *ML* - INORGANIC SILTS, VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
- *SW* - WELL-GRADED SAND, GRAVELLY SANDS, LITTLE OR NO FINES
- *SP* - POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
- *GM* - SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- *GC* - CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
- 100 (dashed where inferred) — TPHg CONCENTRATION CONTOUR
- HIGHEST GROUNDWATER ELEVATION (MSL)
- LOWEST GROUNDWATER ELEVATION (MSL)
- < — NOT DETECTED AT OR ABOVE STATED REPORTING LIMITS
- BOLD — EXCEEDS ESLs
- -- — NOT ANALYZED
- NS — NOT SAMPLED

Figure 3

GEOLOGIC CROSS SECTION A-A'
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA008 MAR 9/2012





LEGEND

- MW-12 — WELL DESIGNATION
- GROUND SURFACE
- OBSERVATION WELL INSTALLATION
- STRATIGRAPHIC BOUNDARY
- CL — TYPICAL SOIL CLASSIFICATION
- SCREENED INTERVAL
- BOTTOM OF BORING
- APPROXIMATE SOIL SAMPLE LOCATION
- TPHg / BENZENE / DATE — HYDROCARBON CONCENTRATIONS IN SOIL (mg/kg)
- APPROXIMATE GROUNDWATER SAMPLE LOCATION
- TPHg / BENZENE / 02/09/2012 — HYDROCARBON CONCENTRATIONS IN GROUNDWATER (µg/L)
- *AS* - ASPHALT
- *CL* - INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
- *ML* - INORGANIC SILTS, VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
- *SW* - WELL-GRADED SAND, GRAVELLY SANDS, LITTLE OR NO FINES
- *GM* - SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
- *GC* - CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
- 100 — TPHg CONCENTRATION CONTOUR DASHED WHERE INFERRED
- HIGHEST GROUNDWATER ELEVATION (MSL)
- LOWEST GROUNDWATER ELEVATION (MSL)
- < NOT DETECTED AT OR ABOVE STATED REPORTING LIMITS
- BOLD EXCEEDS ESLs

Figure 4

GEOLOGIC CROSS SECTION B-B'
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

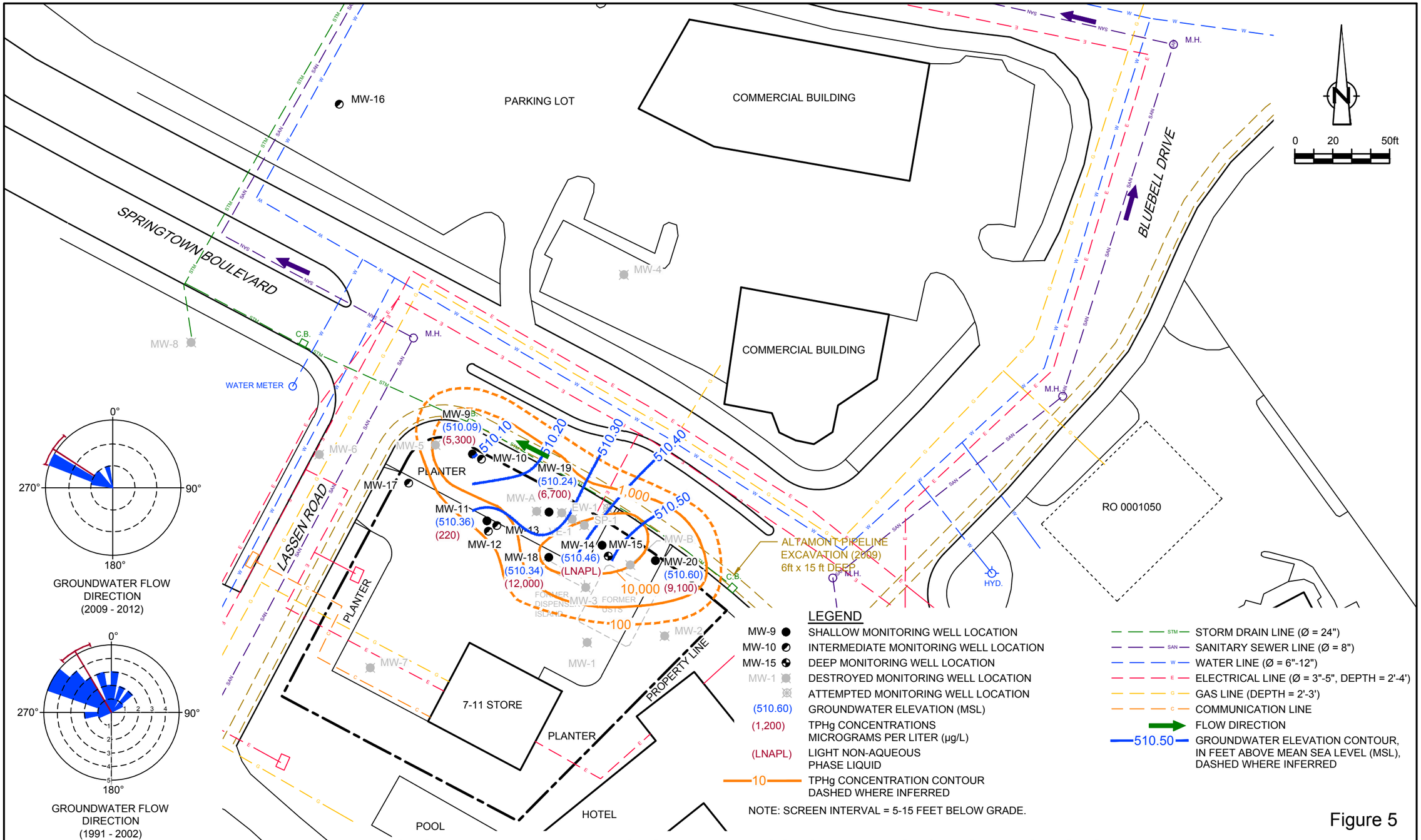
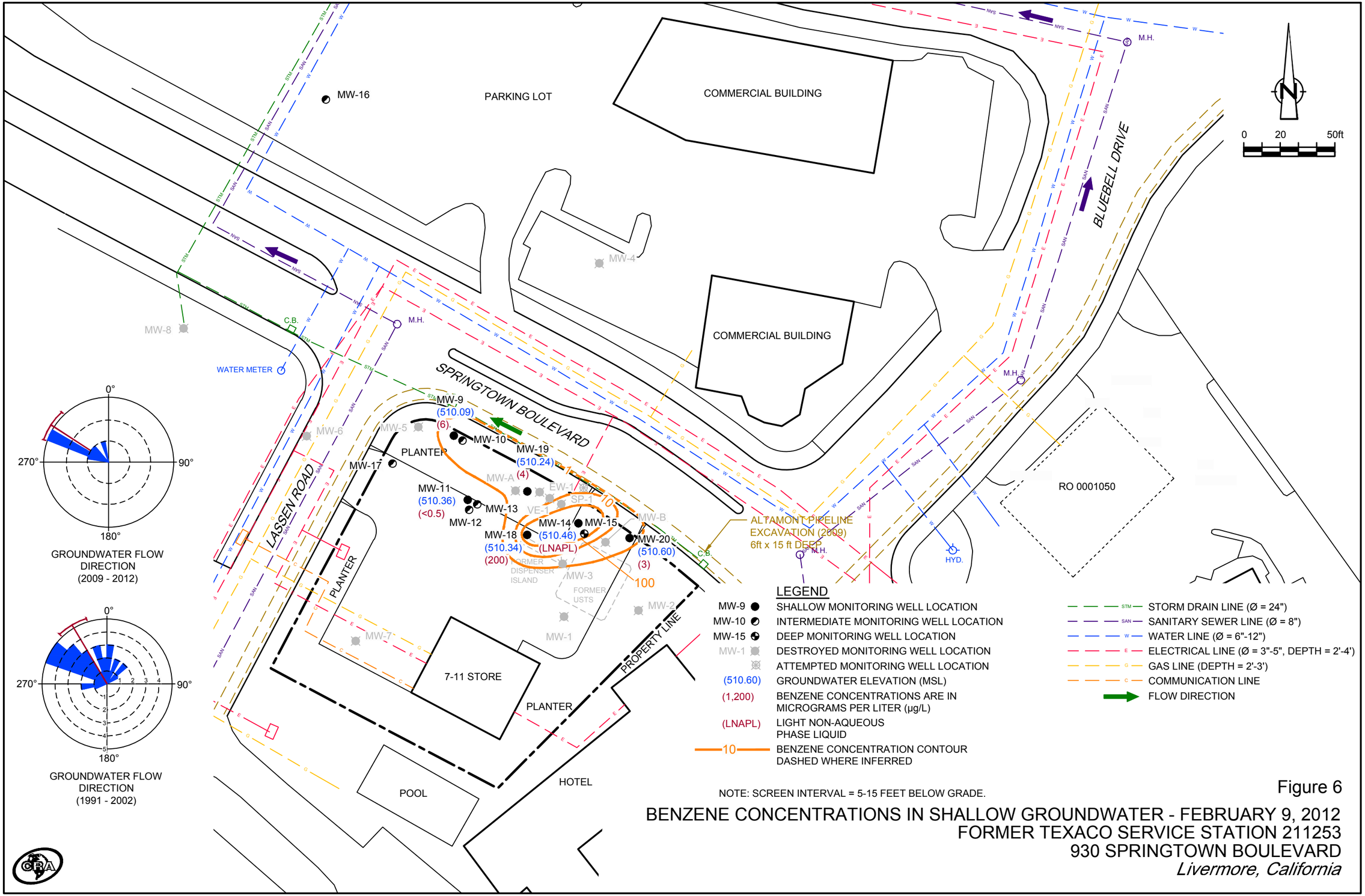


Figure 5

GROUNDWATER ELEVATIONS AND TPHg CONCENTRATIONS IN SHALLOW GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA002 MAR 20/2012



NOTE: SCREEN INTERVAL = 5-15 FEET BELOW GRADE.

Figure 6

BENZENE CONCENTRATIONS IN SHALLOW GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA003 MAR 20/2012

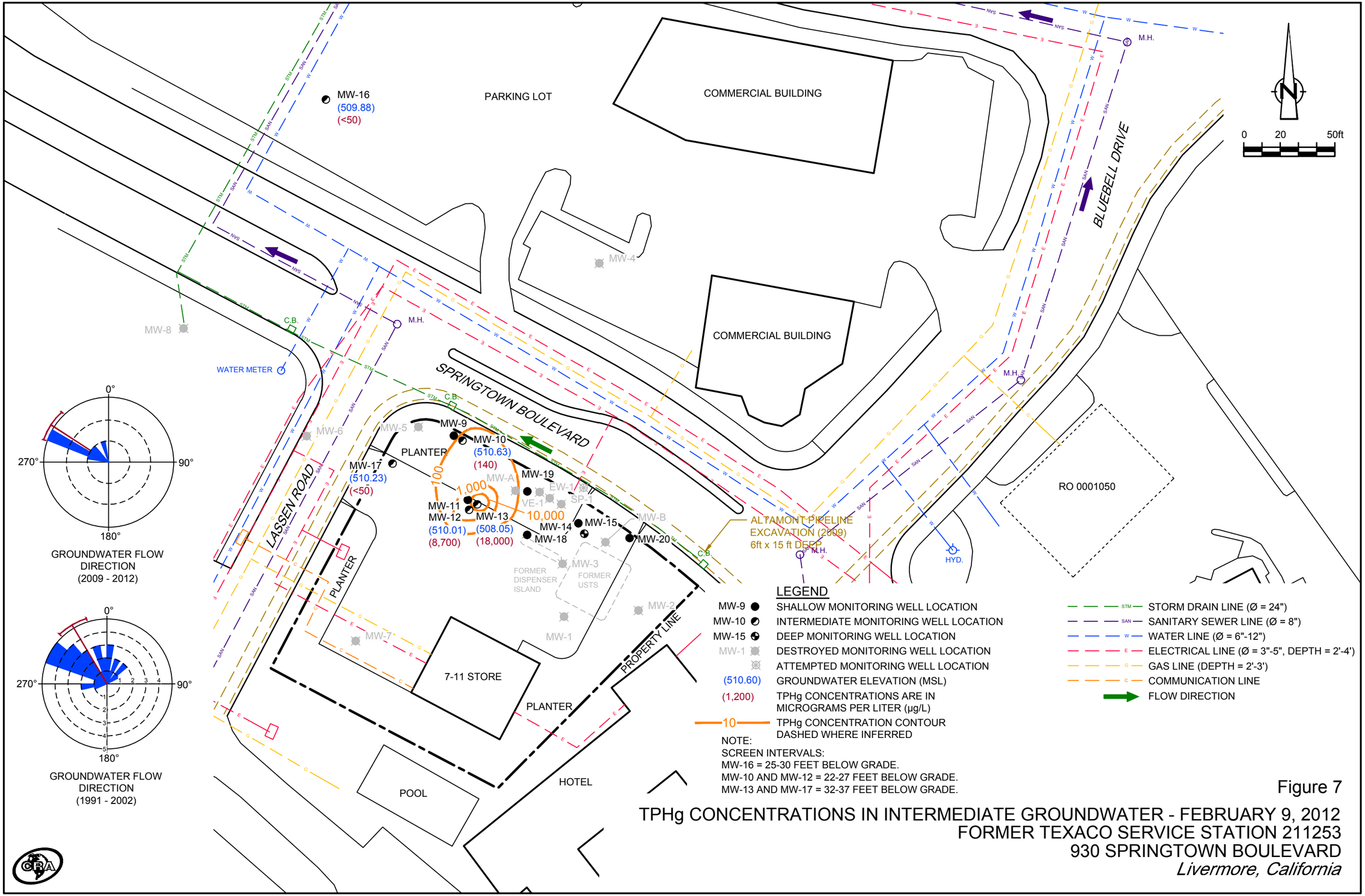


Figure 7

TPHg CONCENTRATIONS IN INTERMEDIATE GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA004 MAR 20/2012

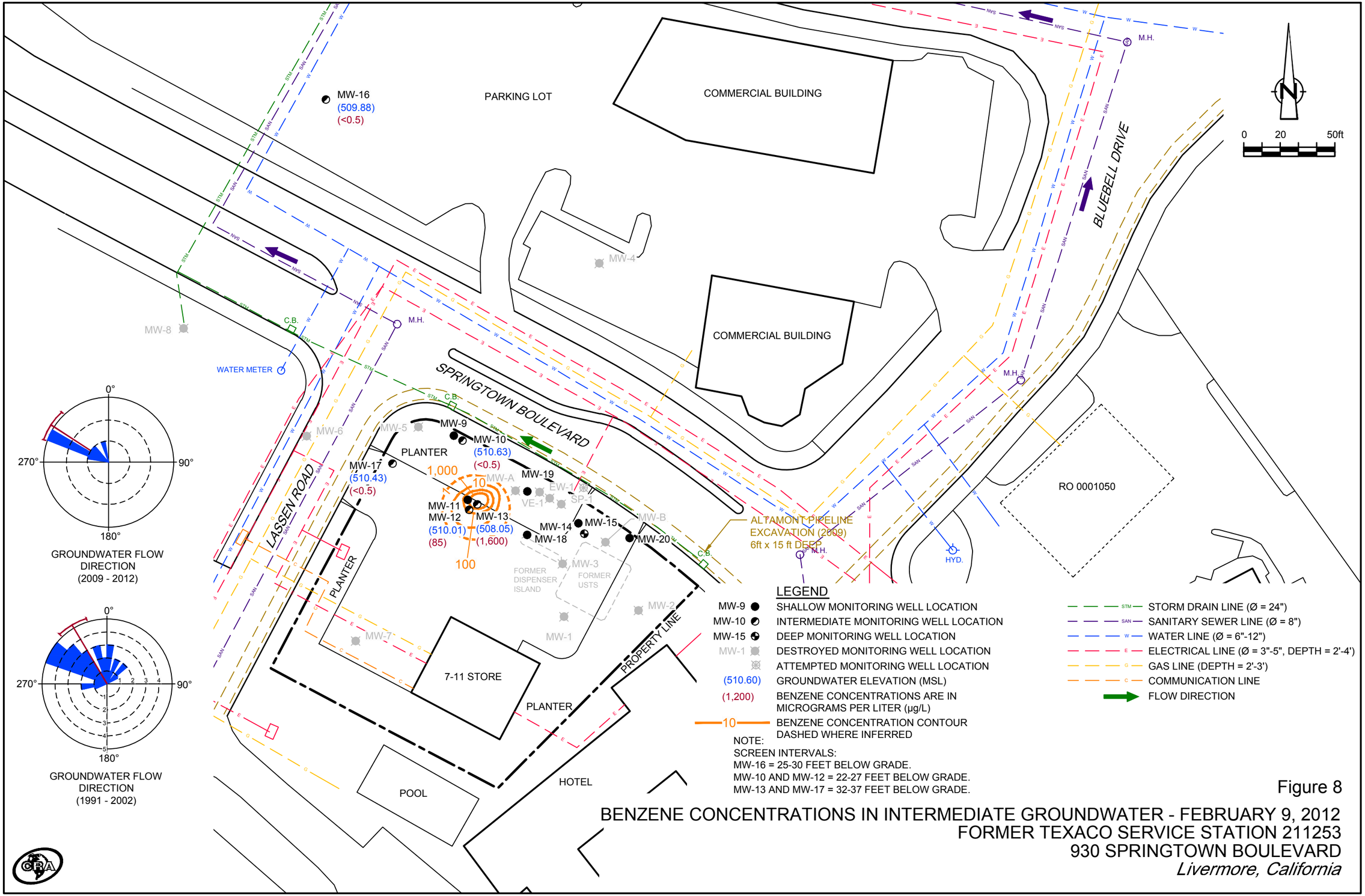
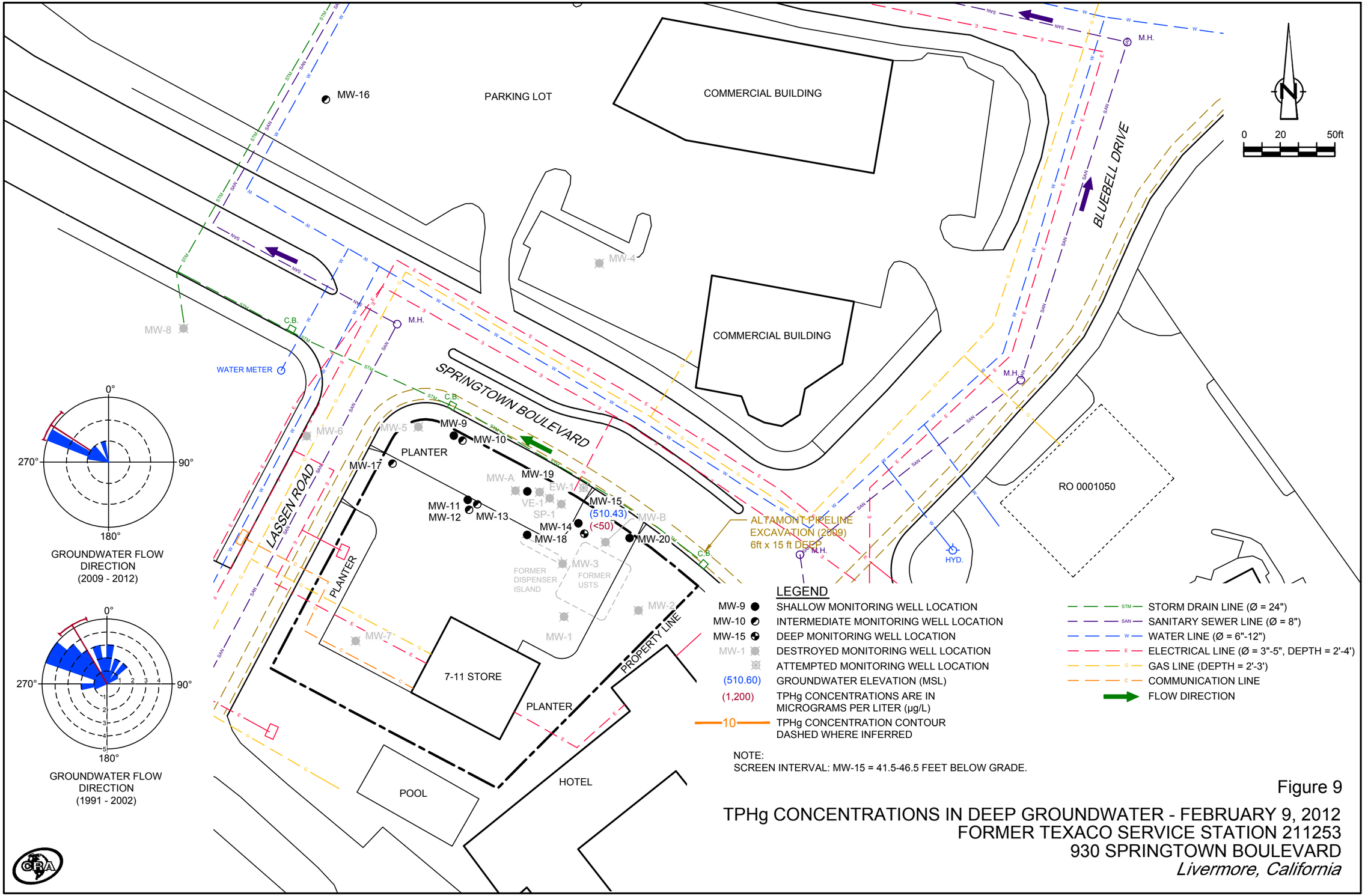


Figure 8

BENZENE CONCENTRATIONS IN INTERMEDIATE GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA005 MAR 20/2012



NOTE:
SCREEN INTERVAL: MW-15 = 41.5-46.5 FEET BELOW GRADE.

Figure 9

TPHg CONCENTRATIONS IN DEEP GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA006 MAR 20/2012

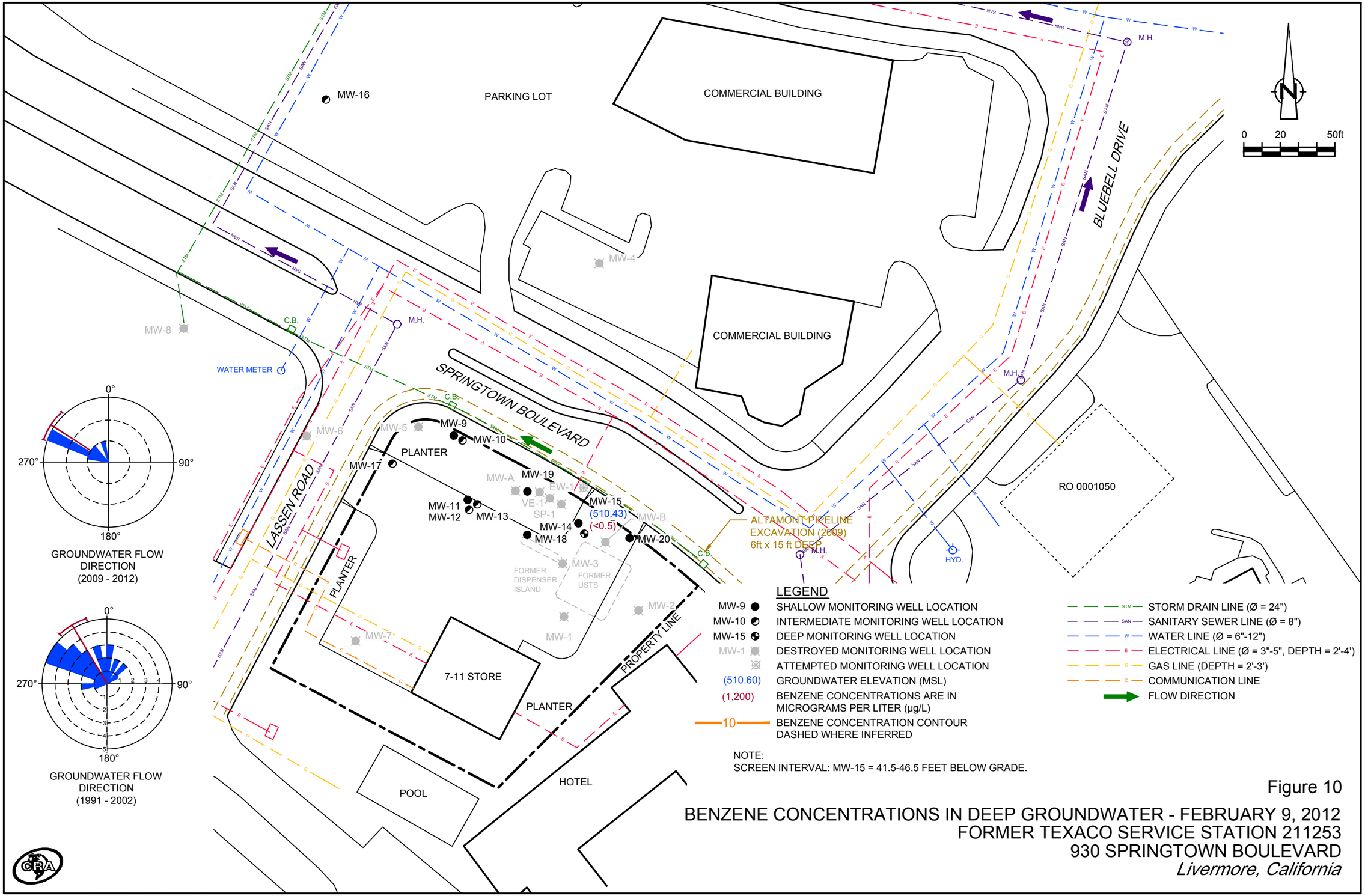


Figure 10

BENZENE CONCENTRATIONS IN DEEP GROUNDWATER - FEBRUARY 9, 2012
FORMER TEXACO SERVICE STATION 211253
930 SPRINGTOWN BOULEVARD
Livermore, California

60058-2011(014)GN-WA007 MAR 20/2012

TABLES

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
2009 CRA Well Installation															
MW-10	06/24/09	10.5	--	48	<0.025	<0.051	0.094	<0.051	--	--	--	--	--	--	--
MW-10	06/24/09	15.5	--	1.7	0.001	0.006	0.16	0.12	--	--	--	--	--	--	--
MW-10	06/24/09	20.5	--	1.8	<0.0005	<0.001	0.005	0.001	--	--	--	--	--	--	--
MW-10	06/24/09	26	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-13	06/24/09	10.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-13	06/25/09	15.5	--	8.7	<0.0005	<0.0009	<0.0009	<0.0009	--	--	--	--	--	--	--
MW-13	06/25/09	20.5	--	11	**0.18**	0.005	0.017	0.008	--	--	--	--	--	--	--
MW-13	06/25/09	25.5	--	**1100**	**1.2**	**50**	**13**	**90**	--	--	--	--	--	--	--
MW-13	06/25/09	31	--	**150**	**0.22**	**8.1**	**3.5**	**22**	--	--	--	--	--	--	--
MW-13	06/25/09	36.5	--	52	**0.046**	0.85	0.30	1.8	--	--	--	--	--	--	--
MW-15	06/30/09	9.5	--	**5200**	**4.5**	**44**	**55**	**260**	--	--	--	--	--	--	--
MW-15	06/30/09	14.5	--	**150**	0.003	0.014	0.065	0.24	--	--	--	--	--	--	--
MW-15	06/30/09	19.5	--	**6400**	<0.50	**31**	**170**	**530**	--	--	--	--	--	--	--
MW-15	06/30/09	24.5	--	34	<0.025	0.12	0.23	0.94	--	--	--	--	--	--	--
MW-15	06/30/09	29.5	--	4.9	<0.0005	0.028	0.037	0.20	--	--	--	--	--	--	--
MW-15	06/30/09	34.5	--	**86**	<0.023	0.34	0.65	**3.0**	--	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
2007 - 2008 CRA Subsurface Investigation															
CPT1	11/21/07	5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT1	11/21/07	16	--	1.3	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT1	11/21/07	20	--	<1.0	**0.073**	0.002	0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.001	<0.001
CPT1	11/21/07	30	--	59	**0.61**	2.8	0.42	**5.8**	<0.024	<0.97	<0.048	<0.048	<0.048	<0.048	<0.048
CPT1	11/21/07	37	--	16	0.004	0.056	0.039	0.30	<0.005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT1	11/21/07	41	--	**130**	0.043	1.1	0.52	**3.4**	<0.024	<0.97	<0.049	<0.049	<0.049	<0.049	<0.049
CPT1	11/21/07	45	--	1.8	0.004	0.059	0.018	0.13	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.001	<0.001
CPT1	11/21/07	50	--	<1.0	0.0008	0.022	0.009	0.060	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	10.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	15.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	20.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	30.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	35.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	40.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	45.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT2	11/19/07	50.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT3	04/07/08	19.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT4	07/18/08	23.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.001	<0.001

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
CPT5	04/09/08	21.5	--	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	<0.019	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
CPT6	11/19/07	5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.021	<0.001	<0.001	<0.001	<0.001	<0.001
CPT6	11/20/07	25	--	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.019	<0.001	<0.001	<0.001	<0.001	<0.001
CPT7	04/08/08	5	--	**510**	<0.026	<0.053	**3.6**	**16**	<0.026	<1.1	<0.053	<0.053	<0.053	<0.053	<0.053
CPT7	04/09/08	10.5	--	**1700**	**2.5**	**20**	**14**	**70**	<0.025	<0.99	<0.050	<0.050	<0.050	<0.050	<0.050
CPT7	04/09/08	12	--	**510**	**0.28**	<0.050	2.8	1.4	<0.025	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050
CPT7	04/09/08	17	--	**700**	**0.45**	**5.7**	**6.0**	**27**	<0.023	<0.92	<0.046	<0.046	<0.046	<0.046	<0.046
CPT7	04/09/08	20	--	**430**	**0.15**	**6.6**	**4.2**	**19**	<0.024	<0.97	<0.049	<0.049	<0.049	<0.049	<0.049
CPT7	04/09/08	25	--	53	0.039	1.6	2.4	**11**	<0.026	<1.0	<0.052	<0.052	<0.052	<0.052	<0.052
CPT7	04/09/08	30	--	82	**0.048**	0.60	0.50	2.2	<0.025	<0.98	<0.049	<0.049	<0.049	<0.049	<0.049
CPT7	04/09/08	35	--	16	<0.026	0.16	0.13	0.61	<0.026	<1.1	<0.053	<0.053	<0.053	<0.053	<0.053
CPT7	04/09/08	40	--	2.1	0.0007	0.031	0.049	0.24	<0.0005	<0.019	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
CPT7	04/09/08	42	--	3.7	0.005	0.037	0.046	0.20	<0.0005	<0.020	<0.001	<0.001	<0.001	<0.001	<0.001
CPT7	04/09/08	50.5	--	38	0.026	0.46	0.72	**3.3**	<0.026	<1.0	<0.051	<0.051	<0.051	<0.051	<0.051
CPT7	04/09/08	55	--	32	<0.026	0.52	0.83	**3.9**	<0.026	<1.0	<0.052	<0.052	<0.052	<0.052	<0.052
2001 KHM Vadose Zone Investigation															
GP-1	06/21/01	3.5	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-1	06/21/01	6.0	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-1	06/21/01	11.0	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-1	06/21/01	14.5	--	11**	<0.005	<0.005	<0.005	<0.010	<0.005	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
GP-3	06/21/01	3.5	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-3	06/21/01	7.0	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-3	06/21/01	10.5	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-4	06/21/01	3.5	--	<1.0**	<0.005	<0.005	<0.005	0.0097	<0.005	--	--	--	--	--	--
GP-4	06/21/01	6.0	--	<1.0**	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--
GP-4	06/21/01	14.0	--	27**	<0.005	<0.005	<0.005	<0.010	<0.005	--	--	--	--	--	--
1992 Weiss Extraction Well Installation															
B-1 (EW-1)	10/19/92	9.7	--	<1.0	<0.005*	<0.005*	<0.005*	<0.005*	--	--	--	--	--	--	--
B-1 (EW-1)	10/19/92	14.5	--	**1200**	**6.6***	**21***	**15***	**50***	--	--	--	--	--	--	--
B-1 (EW-1)	10/19/92	24.7	--	3	0.017*	0.051*	0.050*	0.21*	--	--	--	--	--	--	--
B-1 (EW-1)	10/19/92	29.5	--	<1.0	<0.005*	<0.005*	<0.005*	<0.005*	--	--	--	--	--	--	--
B-2 (VE-1/SP-1)	10/20/92	14.5	--	**1000**	**7.1***	**22***	**13***	**56***	--	--	--	--	--	--	--
B-2 (VE-1/SP-1)	10/20/92	16.7	--	**990**	**2.9***	**15***	**14***	**53***	--	--	--	--	--	--	--
B-2 (VE-1/SP-1)	10/20/92	18.5	--	<1.0	0.007*	0.029*	<0.005*	<0.005*	--	--	--	--	--	--	--
1984-1989															
B3-15 (MW-A)	09/27/84	15	--	--	**27**	**86**	**190**	**310**	--	--	--	--	--	--	--
B4-15 (MW-B)	09/27/84	15	--	--	**0.15**	0.83	0.97	3.1	--	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
Bottom	06/26/85	--	3.2*	--	**0.58***	0.24*	0.40*	0.009*	--	--	--	--	--	--	--
North	06/26/85	--	1.4*	--	<0.001*	<0.001*	<0.001*	<0.001*	--	--	--	--	--	--	--
South	06/26/85	--	<0.01*	--	<0.001*	<0.001*	<0.001*	<0.001*	--	--	--	--	--	--	--
East	06/26/85	--	1.3*	--	0.02*	0.02*	0.01*	0.01*	--	--	--	--	--	--	--
West	06/26/85	--	<0.01*	--	<0.001	<0.001*	<0.001*	<0.001*	--	--	--	--	--	--	--
MW-5C	11/11/86	14	--	2.1	0.030	0.025	--	0.070	--	--	--	--	--	--	--
MW-6B	11/11/86	10.5	--	<0.050	0.002	0.005	--	0.003	--	--	--	--	--	--	--
SB-1D	12/04/89	12.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
SB-1E	12/04/89	16	--	**1500**	**4**	<3	**19**	**24**	--	--	--	--	--	--	--
SB-1F	12/04/89	21	--	5	<1	<3	<4	<15	--	--	--	--	--	--	--
SB-1G	12/04/89	27	--	31	<1	<3	<4	<15	--	--	--	--	--	--	--
SB-1H	12/04/89	32	--	**310**	**1**	**5**	<4	**15**	--	--	--	--	--	--	--
SB-2A	12/05/89	9.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
SB-2C	12/05/89	14.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
SB-2D	12/05/89	19.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
MW7C	12/05/89	10.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
MW7D	12/05/89	14.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
MW7F	12/05/89	19.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
MW8C	12/05/89	10	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
MW8D	12/05/89	17.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
MW8E	12/05/89	20.5	--	<1	<1	<3	<4	<15	--	--	--	--	--	--	--
2012 Well Installation															
MW-17	01/16/12	5	--	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	10.5	--	<11	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	15.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	20.5	--	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	25.5	--	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	30.5	--	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-17	01/19/12	36.5	--	<9.9	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-18	01/16/12	5	--	310	<0.025	<0.051	4.6	6.6	--	--	--	--	--	--	--
MW-18	01/18/12	11	--	170	0.44	7.1	1.9	8.3	--	--	--	--	--	--	--
MW-18	01/18/12	15	--	540	0.38	19	12	51	--	--	--	--	--	--	--
MW-18	01/18/12	20	--	13	0.005	0.15	0.091	0.33	--	--	--	--	--	--	--
MW-18	01/18/12	25	--	1,200	0.36	9.9	13	52	--	--	--	--	--	--	--
MW-18	01/18/12	31	--	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7
MW-19	01/17/12	5	--	<1.1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-19	01/18/12	10	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-19	01/18/12	15	--	1.4	<0.0005	<0.001	0.002	<0.001	--	--	--	--	--	--	--
MW-19	01/18/12	20	--	2.5	<0.0005	<0.0009	0.015	0.001	--	--	--	--	--	--	--
MW-19	01/18/12	25	--	30	<0.023	<0.046	0.067	<0.046	--	--	--	--	--	--	--
MW-19	01/18/12	30	--	3.7	0.012	<0.001	0.009	0.002	--	--	--	--	--	--	--
MW-20	01/16/12	5	--	<0.9	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-20	01/17/12	10	--	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-20	01/17/12	15	--	50	<0.026	<0.052	<0.052	<0.052	--	--	--	--	--	--	--
MW-20	01/17/12	19.5	--	<1.0	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--
MW-20	01/17/12	25	--	1.2	<0.0005	0.007	0.041	0.13	--	--	--	--	--	--	--
MW-20	01/17/12	30	--	<1	<0.0005	<0.001	0.007	0.020	--	--	--	--	--	--	--
MW-20	01/17/12	35	--	<0.9	<0.0005	<0.001	0.004	0.014	--	--	--	--	--	--	--
MW-20	01/17/12	40	--	<0.9	<0.0005	0.003	0.012	0.038	--	--	--	--	--	--	--
MW-20	01/17/12	45	--	<1	<0.0005	<0.001	<0.001	<0.001	--	--	--	--	--	--	--

TABLE 1

SOIL ANALYTICAL DATA
FORMER TEXACO STATION 21-1253
930 SPRINGTOWN BOULEVARD, LIVERMORE, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPH*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
			← *Reported in milligrams per kilogram (mg/kg)* →												
ESLs for Soil Leaching Screening Level (Drinking Water Sourse) Table G			***NE***	***83***	***0.044***	***2.9***	***3.3***	***2.3***	***0.023***	***0.075***	***NE***	***NE***	***NE***	***0.0045***	***0.00033***
ESLs for Soil Direct Exposure Construction/Trench Worker Table K-3			***NE***	4200	12	650	210	420	2,800	320,000	***NE***	***NE***	***NE***	21	1.7

Notes:

Total petroleum hydrocarbons as fuel (TPH) analyzed by EPA method 8020 unless otherwise noted

Total petroleum hydrocarbons as gasoline (TPHg) analyzed by EPA method 8015B modified unless otherwise noted

Benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary-butyl ether (MTBE); t-butyl alcohol (TBA); di-isopropyl ether (DIPE); ethyl tertiary-butyl ether (ETBE); t-amyl methyl ether (TAME); 1,2-dichloroethane (1,2-DCA); 1,2-dibromoethane (EDB) by EPA method 8260B unless otherwise noted

Environmental Screening Levels (ESLs) for commerical land use where groundwater is a current or potential drinking water source from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* presented by the California Regional Water Quality Control Board - San Francisco Bay Region Interim Final November 2007, revised May 2008.

NE = Not established

fbg = feet below grade

ND = Not detected above various laboratory method detection limits

* = Analyzed by EPA method 8020

**=TPHg analyzed by EPA method 8260B

<x = Not detected at reporting limit x

-- = Not analyzed/not applicable

TABLE 2

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER TEXACO SERVICE STATION 21-1253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA

						HYDROCARBONS	*PRIMARY VOCS*			
Location	Date	*TOC*	*DTW*	*GWE*	*LNAPL*	*TPH-GRO*	*B*	*T*	*E*	*X*
	Units	*ft*	*ft*	*ft-amsl*	*ft*	µg/L	µg/L	µg/L	µg/L	µg/L
MW-9	08/24/2010	523.14	13.58	509.56	-	3,500	6	8	180	79
MW-9	01/31/2011	523.14	12.31	510.83	-	68	<0.5	<0.5	3	<0.5
MW-9	08/09/2011	523.14	12.01	511.13	-	54	<0.5	<0.5	<0.5	<0.5
MW-9	**02/09/2012**	**523.14**	**13.05**	**510.09**	**-**	**5,300**	**6**	**7**	**250**	**120**
MW-10	08/24/2010	523.25	13.07	510.18	-	1,300	<0.5	<0.5	2	<0.5
MW-10	01/31/2011	523.25	11.92	511.33	-	250	<0.5	<0.5	<0.5	<0.5
MW-10	08/09/2011	523.25	11.85	511.40	-	300	<0.5	<0.5	<0.5	<0.5
MW-10	**02/09/2012**	**523.25**	**12.62**	**510.63**	**-**	**140**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-11	08/24/2010	523.42	13.80	509.62	-	2,000 J	6	2	9	5
MW-11	01/31/2011	523.42	12.35	511.07	-	790	1	<0.5	5	3
MW-11	08/09/2011	523.42	12.06	511.36	-	130	<0.5	<0.5	0.9	<0.5
MW-11	**02/09/2012**	**523.42**	**13.06**	**510.36**	**-**	**220**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-12	08/24/2010	523.12	12.84	510.28	-	18,000	210	650	330	1,900
MW-12	01/31/2011	523.12	12.47	510.65	-	9,600	64	180	180	400
MW-12	08/09/2011	523.12	12.19	510.93	-	9,000	71	140	170	580
MW-12	**02/09/2012**	**523.12**	**13.11**	**510.01**	**-**	**8,700**	**85**	**130**	**170**	**590**
MW-13	08/24/2010	520.88	13.69	507.19	-	13,000	810	710	76	660
MW-13	01/31/2011	520.88	12.21	508.67	-	22,000	1,600	1,600	270	1,600
MW-13	08/09/2011	520.88	11.91	508.97	-	12,000	1,200	820	120	710
MW-13	**02/09/2012**	**520.88**	**12.83**	**508.05**	**-**	**18,000**	**1,600**	**3,700**	**370**	**2,200**

TABLE 2

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER TEXACO SERVICE STATION 21-1253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA

						HYDROCARBONS	*PRIMARY VOCS*			
Location	Date	*TOC*	*DTW*	*GWE*	*LNAPL*	*TPH-GRO*	*B*	*T*	*E*	*X*
	Units	*ft*	*ft*	*ft-amsl*	*ft*	µg/L	µg/L	µg/L	µg/L	µg/L
MW-14	08/24/2010[1,**]	520.88	10.36	510.75	0.29	-	-	-	-	-
MW-14	01/31/2011[1,**]	520.88	9.96	511.12	0.25	-	-	-	-	-
MW-14	08/09/2011[1,**]	520.88	9.67	511.35	0.17	-	-	-	-	-
MW-14	**02/09/2012[1,**]**	**520.88**	**10.69**	**510.46**	**0.34**	**-**	**-**	**-**	**-**	**-**
MW-15	08/24/2010	520.87	10.81	510.06	-	<50	<0.5	<0.5	<0.5	<0.5
MW-15	01/31/2011	520.87	9.86	511.01	-	<50	<0.5	<0.5	<0.5	<0.5
MW-15	08/09/2011	520.87	9.56	511.31	-	<50	<0.5	<0.5	<0.5	<0.5
MW-15	**02/09/2012**	**520.87**	**10.44**	**510.43**	**-**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-16	08/24/2010	520.50	11.07	509.43	-	68	<0.5	<0.5	<0.5	<0.5
MW-16	01/31/2011	520.50	9.99	510.51	-	<50	<0.5	<0.5	<0.5	<0.5
MW-16	08/09/2011	520.50	9.59	510.91	-	66	<0.5	<0.5	<0.5	<0.5
MW-16	**02/09/2012**	**520.50**	**10.62**	**509.88**	**-**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-17	**02/07/2012[2]**	**524.81**	**14.50**	**510.31**	**-**	**-**	**-**	**-**	**-**	**-**
MW-17	**02/09/2012**	**524.81**	**14.58**	**510.23**	**-**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-18	**02/07/2012[2]**	**522.40**	**12.01**	**510.39**	**-**	**-**	**-**	**-**	**-**	**-**
MW-18	**02/09/2012**	**522.40**	**12.06**	**510.34**	**-**	**12,000**	**200**	**1,300**	**68**	**2,200**
MW-19	**02/07/2012[2]**	**522.63**	**12.30**	**510.33**	**-**	**-**	**-**	**-**	**-**	**-**
MW-19	**02/09/2012**	**522.63**	**12.39**	**510.24**	**-**	**6,700**	**4**	**<3**	**18**	**35**

TABLE 2

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER TEXACO SERVICE STATION 21-1253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA

						HYDROCARBONS	*PRIMARY VOCS*			
Location	Date	*TOC*	*DTW*	*GWE*	*LNAPL*	*TPH-GRO*	*B*	*T*	*E*	*X*
	Units	*ft*	*ft*	*ft-amsl*	*ft*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*
MW-20	**02/07/2012[2]**	**520.28**	**9.60**	**510.68**	**-**	**-**	**-**	**-**	**-**	**-**
MW-20	**02/09/2012**	**520.28**	**9.68**	**510.60**	**-**	**9,100**	**3**	**94**	**200**	**600**
QA	08/24/2010	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5
QA	01/31/2011	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5
QA	08/09/2011	-	-	-	-	<50	<0.5	<0.5	<0.5	<0.5
QA	**02/09/2012**	**-**	**-**	**-**	**-**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Abbreviations and Notes:

TOC = Top of casing

DTW = Depth to water

GWE = Groundwater elevation

LNAPL = Light non-aqueous phase liquid

(ft-amsl) = Feet above mean sea level

ft = Feet

µg/L = Micrograms per liter

TPH-GRO = Total petroleum hydrocarbons - gasoline range organics

VOCS = Volatile organic compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit

J = Estimated concentration

TABLE 2

GROUNDWATER MONITORING AND SAMPLING DATA
FORMER TEXACO SERVICE STATION 21-1253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA

						HYDROCARBONS	*PRIMARY VOCS*			
Location	Date	*TOC*	*DTW*	*GWE*	*LNAPL*	*TPH-GRO*	*B*	*T*	*E*	*X*
	Units	*ft*	*ft*	*ft-amsl*	*ft*	*µg/L*	*µg/L*	*µg/L*	*µg/L*	*µg/L*

* TOC elevations were surveyed on July 22, 2009, by Morrow Surveying. Vertical datum is NAVD 88 from GPS Observations.

** GWE was corrected for the presence of LNAPL; correction factor: [(TOC - DTW) + (LNAPLT x 0.80)].

1 Not sampled due to the presence of LNAPL.

2 Well development event

APPENDIX A

REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

May 3, 2011

Mr. Thomas Bauhs (*Sent via E-mail to: tbauhs@chevron.com*)
Chevron Environmental Management Company
6101 Bollinger Canyon Road, 5th Floor
San Ramon, CA 94583

Mr. Ken Hilliard
Environmental Services
7-Eleven, Inc.
One Arts Plaza, 1722 Routh St., Suite 1000
Dallas, TX 75201

Subject: Work Plan Approval for Fuel Leak Case No. RO0000189 and Geotracker Global ID T0600101353, Chevron #21-1253/Texaco, 930 Springtown Boulevard, Livermore, CA 94550

Dear Mr. Frohnapple and Mr. Hilliard:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site, including the document entitled, "*Site Conceptual Model and Work Plan*," dated March 30, 2011. The document, which was prepared on Chevron's behalf by Conestoga-Rovers & Associates, summarizes site conditions, identifies, data gaps, and presents plans for additional assessment. The proposed scope of work includes a geophysical survey, soil borings, and monitoring well installation within and downgradient from the former tank pit.

The proposed scope of work is acceptable and may be implemented as proposed. We request that you perform the proposed work and send us the reports described below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **September 8, 2011** – Site Assessment Report
- **30 days following end of quarter** – Semi-annual Groundwater Monitoring Report

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham

Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2011.05.03 18:13:18 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Danielle Stefani, Livermore Pleasanton Fire Department, 3560 Nevada St, Pleasanton, CA 94566 (*Sent via E-mail to: dstefani@lpfire.org*)

Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: cdizon@zone7water.com*)

David Grunat, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608 (*Sent via E-mail to: dgrunat@craworld.com*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements / Obligations

REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**REVISION DATE:** July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**.
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

1) Obtain User Name and Password
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to deh.loptoxic@acgov.org
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to deh.loptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND REMEDIATION

PREVIOUS ENVIRONMENTAL INVESTIGATION AND REMEDIATION
FORMER TEXACO 211253
930 SPRINGTOWN BOULEVARD
LIVERMORE, CALIFORNIA

1984 Initial Investigation

In September 1984, J.H. Kleinfelder and Associates (Kleinfelder) discovered approximately 1-inch of light non-aqueous phase liquid (LNAPL) adjacent to the underground storage tanks (USTs) during an initial investigation. It appears that Kleinfelder installed monitoring wells MW-A and MW-B in September 1984. No additional information was located by CRA.

1985 Hydrocarbon Investigation and UST/Product Line Removal

In May through July 1985, Groundwater Technology Incorporated (GTI) installed monitoring wells MW-1 through MW-3 around the UST pit to assess the extent of hydrocarbons detected by Kleinfelder. On June 26, 1985, GTI collected soil samples beneath the USTs and product lines during the decommissioning of the Texaco station including UST and product line removal. GTI conducted a ½-mile well survey through the Alameda Flood Control and Water Conservation District. Eight wells were identified north, east, and south of the site. Additional information is available in GTI's August 1985 Hydrocarbon Investigation Report.

1985 Monitoring Well Installation

In September 1985, GTI installed well MW-4. Additional information is available in GTI's September 17, 1985 Untitled Report.

1986 Monitoring Well Installation

In November 1986, GTI installed wells MW-5 and MW-6. Additional information is available in GTI's March 23, 1987 Status Report.

1989 Additional Site Assessment

In December 1989, GTI advanced soil borings SB-1 and SB-2 and installed monitoring wells MW-7 and MW-8. More information available in GTI's April 10, 1990 Report of Additional Environmental Site Assessment.

1991 Soil Vapor Extraction (SVE) Pilot Test

In July 1991, GTI conducted a SVE pilot test. The radius of vacuum influence was calculated as less than 30 feet. At a flow rate of 100 cubic feet per minute, the

hydrocarbon removal rate from MW-5 was calculated to be 135 pounds/day. More information is available in GTI's September 12, 1991 Work Plan for Soil and Groundwater Remediation.

1993 Extraction Well Installation and Feasibility Testing

In October 1992, Weiss Associates (WA) installed groundwater extraction well EW-1, vapor extraction well VE-1, and air sparge well SP-1. In November 1992, WA conducted a 24 hour aquifer test using EW-1. Groundwater was extracted at an average flow rate of 7.85 gallons per minute (gpm). The average aquifer transmissivity was estimated to be 3,400 gallons per day per foot. Although most of the monitoring wells are screened over a length of 20 feet, boring logs indicate that the more permeable, sandy gravel zone is 15 feet thick. Using this thickness, an average hydraulic conductivity value of 225 gpd/ft^2 (0.021 ft/min), and a specific storage of 0.001 ft^{-1} are estimated for this aquifer. WA also conducted a vapor extraction test on vapor extraction well VE-1, groundwater extraction well EW-1, and existing monitoring wells MW-A, MW-B and MW-5. The hydrocarbon mass removal rate ranged between 0.3 and 127 pounds/day total petroleum hydrocarbons as gasoline. WA conducted an air sparging test from the air sparge well SP-1 and vapor extraction wells VE-1, and concluded that air sparging with vapor extraction would effectively remove hydrocarbons from saturated sediments. Additional information is available in WA's January 5, 1993 Extraction Well Installation and Feasibility Testing.

1994 Remediation System Start-Up

In November 1994, GTI started operation of a 100 cfm King Buck/Hasstech MMC-5a catalytic oxidizer SVE\Air Sparge system. The system was connected to wells MW-A, MW-B, MW-3, MW-5, VE-1, and SP-1. The system operated intermittently through August 1995, when it was shutdown due low hydrocarbon removal rates. Additional information including system diagrams, startup testing, sampling activities and laboratory analytical data are available in GTI's March 10, 1995 Remediation System Start-up/Air Monitoring and Sampling Report.

1996 Well Destruction Report

In February 1996, Kaprealian Engineering Incorporated (KEI) destroyed wells MW-6 and MW-7. Additional information is available in KEI's January 22, 1996 Report of Destruction of Monitoring Wells.

1997 Tier 2 Risk Based Corrective Action Analysis

In December 1997, KEI submitted a summary of the input parameters to be used for a subsequent Tier 2 Risk-Based Corrective Action (RBCA) analysis, including subsurface

soil and groundwater sample analytic results. KEI modeled BTEX concentrations and concluded no onsite Site-Specific Target Levels were exceeded for any of the pathways modeled. Additional information available in KEI's October 31, 1997 Risk-Based Corrective Action Analysis.

2001 RBCA Vadose Zone Investigation and RBCA Analysis

In August 2001, KHM Environmental Management (KHM) submitted an addendum to the previous RBCA in response to an ACEH email requesting an evaluation of risk to a "Residential Setting" and risk associated with potential vapor intrusion to the onsite building. In June 2001, KHM advanced geoprobe borings GP-1 through GP-4. Borings GP-1 and GP-3 were advanced adjacent to groundwater monitoring wells with the highest hydrocarbon concentrations (MW-A and MW-B), GP-2 was advanced outside of the UST complex area, and GP-4 was advanced on the east side of the former UST complex. Borings GP-1, GP-3, and GP-4 were first advanced to 3 fbg for collection of a vadose zone soil gas samples, then advanced to first encountered groundwater at approximately 15 fbg. KHM concluded the only potential pathway of exposure for a residential setting was vapor intrusion; however because no benzene was detected in vadose zone soil gas, there was no risk to human health or the environment. Additional information is available in KHM's August 13, 2001 Vadose Zone Investigation and Risk-Based Correction Action (RBCA) Analysis.

2001 Closure Request

In December 2001, KHM submitted a case closure request under the direction of ACEH. KHM concluded all hydrocarbon sources had been removed, the SVE system adequately removed hydrocarbons from the vadose zone, the dissolved hydrocarbons were defined and limited in extent, and no sensitive receptors were at risk. Additional information is available in KHM's December 10, 2001 letter requesting closure.

2002 Case Closure

ACEH's March 2002 letter stated the Regional Water Quality Control Board (RWQCB) concurred with ACEH's recommendation for case closure, and all wells must be destroyed prior to issuing a "Remedial Action Completion" letter.

2002 Well Destruction

In December 2002, KHM destroyed onsite and offsite wells MW-1 through MW-5, MW-A, MW-B, EW-1, VE-1, and SP-1 by pressure grouting. Additional information is available in KHM's January 7, 2003 Well Destructions – MW-1 through MW-5, MW-8, MW-A, MW-B, EW-1, VE-1 and SP-1.

2007/2008 Subsurface Investigation

By January 2007, no "Remedial Action Completion" letter had been issued by ACEH or the RWQCB. In a letter dated January 31, 2007, ACEH requested horizontal and vertical delineation of the hydrocarbon plume, preferential pathway evaluation, and well decommissioning documentation. In 2007 and 2008, to address the ACEH's technical comments and re-evaluate the site for closure, Conestoga-Rovers & Associates (CRA) advanced cone penetration testing (CPT) borings CPT1 through CPT7 both on and offsite. Additional information is available in CRA's August 13, 2008 Subsurface Investigation Report.

2009 Altamont Pipeline Excavation

In 2009, the Zone 7 water agency installed the Altamont pipeline along the northern boundary of the site property. According to conversations with the water agency, an excavation approximately 6 feet wide by 15 feet deep was advanced removing approximately 240 cubic yards of soil. According to the water agency, no further details regarding this excavation are available.

2009 Monitoring Well Installation

In July 2009, CRA installed monitoring wells MW-9 through MW-16 to delineate dissolved hydrocarbon concentrations. The monitoring wells were installed at three different levels: shallow wells MW-9, MW-11, and MW-14, intermediate wells MW-10, MW-12, MW-13, and MW-16, and deep well MW-15. Additional information is available in CRA's August 19, 2009 Monitoring Well Installation Report.

APPENDIX C

BORING LOGS

Conestoga - Rovers & Associates, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-17
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	19-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	19-Jan-12
PROJECT NUMBER	060058	**WELL DEVELOPMENT DATE (YIELD)**	07-Feb-12
DRILLER	Gregg Drilling & Testing, Inc. (C57 #485165)	**GROUND SURFACE ELEVATION**	525.37 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	524.81 ft above msl
BORING DIAMETER	10-inches	**SCREENED INTERVALS**	32 to 37 fbg
LOGGED BY	A Renshaw/G. Wolf	**DEPTH TO WATER (First Encountered)**	15.00 fbg (19-Jan-12)
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	14.50 fbg (07-Feb-12)
REMARKS	Utility cleared to 8 fbg by Air Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	
							FILL: Gravel Brown; dry; non-plastic.	2.0	
							SILT: Brown; dry; moderate plasticity.		
							@ 3 fbg: Thin layer of white SILT		
0		MW-17 @5		5	ML				
				10			@ 10 fbg: Brown; moist		
0		MW-17 @10.5							
				15				15.0	
1.4		MW-17 @15.5			GM		**Silty GRAVEL:** Grey; wet; fine sand; small gravel; non-plastic.		Portland Type I/II
				20				20.0	

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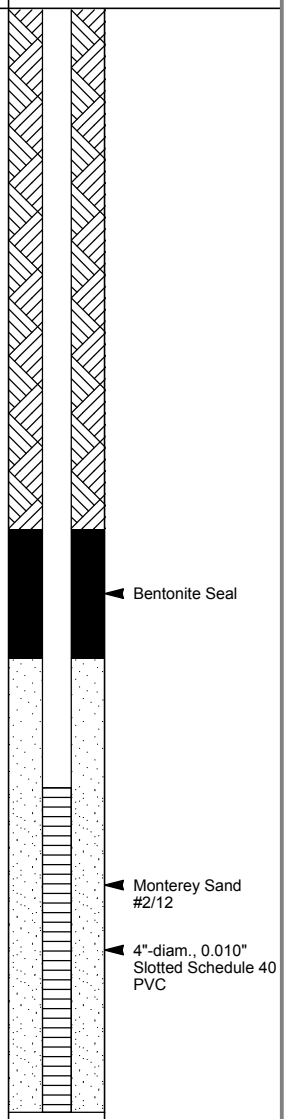
BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-17
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	19-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	19-Jan-12

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
0		MW-17 @20.5					**SAND with gravel:** Grey; wet; fine sand; small gravel.	
0		MW-17 @25.5		25	SW		@ 25 fbg: Brown	
0		MW-17 @30.5		30	ML		**Sandy SILT:** Yellow brown; moist; fine sand; non-plastic.	30.0
0		MW-17 @36.5		35	SW		**SAND:** Grey; wet; fine sand.	35.0 37.0

WELL DIAGRAM



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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-18
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	16-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	18-Jan-12
PROJECT NUMBER	060058	**WELL DEVELOPMENT DATE (YIELD)**	07-Feb-12
DRILLER	Gregg Drilling & Testing, Inc. (C57 #485165)	**GROUND SURFACE ELEVATION**	522.84 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	522.40 ft above msl
BORING DIAMETER	10-inches	**SCREENED INTERVALS**	5 to 15 fbg
LOGGED BY	A. Renshaw/G Wolf	**DEPTH TO WATER (First Encountered)**	15.00 fbg (18-Jan-12) ▽
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	12.01 fbg (07-Feb-12) ▼
REMARKS	Utility cleared to 8 fbg by Air Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.5	Flush-grade 12" well box
							FILL: Gravel Brown; dry; pea gravel.		Portland Type I/II
3.3							@ 3 fbg: Same, with construction debris; small copper pipe; brick fragments.	4.0	Bentonite Seal
							Sandy SILT: Grey; moist; fine sand; moderate plasticity.		
341		MW-18 @5		5	ML				
				10			**Silty SAND:** Green grey; moist; fine sand; non-plastic.	10.0	Monterey Sand #2/12 4"-diam., 0.010" Slotted Schedule 40 PVC
250		MW-18 @11			SM				
								15.0	
330		MW-18 @15		15			**SAND with gravel:** Grey; wet; fine sand; small gravel.		Monterey Sand #2/12
					SW				
				20				20.0	

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-18
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	16-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	18-Jan-12

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
71		MW-18 @20			GW		**Gravel with sand:** Brown; wet; small gravel.		
650		MW-18 @25		25			**SAND with gravel :** Grey; wet; fine sand; small gravel.	25.0	Bentonite Seal
135		MW-18 @31		30	SW				
383				35			@ 35 fbg: Grey; wet; decreasing gravel; fine sand; small gravel.	35.0	Bottom of Boring @ 35 fbg

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-19
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	17-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	18-Jan-12
PROJECT NUMBER	060058	**WELL DEVELOPMENT DATE (YIELD)**	07-Feb-12
DRILLER	Gregg Drilling & Testing, Inc. (C57 #485165)	**GROUND SURFACE ELEVATION**	523.04 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	522.63 ft above msl
BORING DIAMETER	10-inches	**SCREENED INTERVALS**	5 to 15 fbg
LOGGED BY	S. Patterson/ G Wolf	**DEPTH TO WATER (First Encountered)**	15.00 fbg (18-Jan-12)
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	12.30 fbg (07-Feb-12)
REMARKS	Utility cleared to 8 fbg by Air Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Landscaped turf FILL	1.0	Flush-grade 12" well box; Portland Type I/II; Bentonite Seal
							SILT with sand:Brown; moist; fine-to-coarse sand; low to moderate plasticity.		
1.2		MW-19 @5		5	ML		@ 5 fbg: Tan; dry; non-plastic.		
2.4		MW-19 @10		10	CL		**CLAY:** Tan; moist; moderate plasticity.	10.0	Monterey Sand #2/12; 4"-diam., 0.010" Slotted Schedule 40 PVC
90		MW-19 @15		15	SM		**Silty SAND:** Green grey; wet; fine sand; non-plastic.	15.0	Monterey Sand #2/12
				20				20.0	

WELL LOG (PID) I:\CHEVRON\0600-\060058 21-1253 LIVERMORE\060058-GINT\060058-BORING LOGS.GPJ DEFAULT.GDT 3/20/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-19
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	17-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	18-Jan-12

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
53		MW-19 @20			GM		**Silty GRAVEL:** Grey; wet; fine sand; small gravel.	25.0	Bentonite Seal
41		MW-19 @25		25	SW		**SAND:** Brown; wet; fine sand; non-plastic.	31.5	
23.5		MW-19 @30		30			**FLOWING SANDS PREVENTED DEEPER DRILLING**		Bottom of Boring @ 31.5 fbg

WELL LOG (PID) I:\CHEVRON\0600-\060058 21-1253 LIVERMORE\060058-GINT\060058-BORING LOGS.GPJ DEFAULT.GDT 3/20/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-20
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	16-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	17-Jan-12
PROJECT NUMBER	060058	**WELL DEVELOPMENT DATE (YIELD)**	07-Feb-12
DRILLER	Gregg Drilling & Testing, Inc. (C57 #485165)	**GROUND SURFACE ELEVATION**	520.72 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	520.28 ft above msl
BORING DIAMETER	10-inches	**SCREENED INTERVALS**	5 to 15 fbg
LOGGED BY	A. Renshaw	**DEPTH TO WATER (First Encountered)**	15.00 fbg (17-Jan-12) ▽
REVIEWED BY	S. MacLeod, PG# 5747	**DEPTH TO WATER (Static)**	9.60 fbg (07-Feb-12) ▼
REMARKS	Utility cleared to 8 fbg by Air Knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT:Underlain by base rock.	0.5	Flush-grade 12" well box
							FILL: Gravel Light brown; dry; coarse gravel; non-plastic. @ 1 fbg: Fabric matting.	2.0	Portland Type I/II
							Sandy SILT: Light Brown; dry; fine sand; moderate plasticity.		Bentonite Seal
0.9		MW-20 @5		5			@ 5 fbg: Moist.		
					ML				
1.1		MW-20 @10		10					Monterey Sand #2/12 4"-diam., 0.010" Slotted Schedule 40 PVC
35		MW-20 @15		15					
							GRAVEL with sand: Grey; wet; fine sand; fine to coarse gravel.	16.0	
					GW				
							Clayey GRAVEL: Grey; wet; non-plastic.	19.0	
4.3		MW-20		20					

WELL LOG (PID) I:\CHEVRON\0600-\060058 21-1253 LIVERMORE\060058-GINT\060058-BORING LOGS.GPJ DEFAULT.GDT 3/20/12

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BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-20
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	16-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	17-Jan-12

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
		@19.5			GC				Bentonite Seal
50.1		MW-20 @25		25			**Sandy SILT:** Light brown; wet; fine sand; small gravel; non-plastic.	25.0	
4.1		MW-20 @30		30			@ 30 fbg: Brown; moist; decreasing gravel; low plasticity.		
7.4		MW-20 @35		35	ML		@ 35 fbg: Moist; increasing clay; moderate plasticity.		Portland Type I/II
3.2		MW-20 @40		40					

Continued Next Page

Conestoga - Rovers & Associates, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron Environmental Management Company	**BORING/WELL NAME**	MW-20
JOB/SITE NAME	Former Texaco Station 211253	**DRILLING STARTED**	16-Jan-12
LOCATION	930 Springtown Blvd., Livermore, California	**DRILLING COMPLETED**	17-Jan-12

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
9.5		MW-20 @45		45	SW		**SAND:** Brown; wet; fine sand.	45.0 45.5	Bottom of Boring @ 45.5 fbg

APPENDIX D

DRILLING AND ENCROACHMENT PERMITS

City of Livermore

Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550
(925) 960-4500

Encroachment
Permit No. EN120012
Type: Other

PERMIT TO DO WORK IN ACCORDANCE WITH CHAPTER 12.08 OF THE LIVERMORE MUNICIPAL CODE AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LIVERMORE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.

Permit Fee: $90.00
Inspection Fee: $600.00
Bond: $0.00

Total: $690.00

Applicant/Permittee:
Name: Conestoga-Rovers Assc.
Address: 5900 Hollis Street Suite A
Emeryville, CA, 94608
Phone: 707-344-5163

Contractor:
Name: Gregg Drilling & Testing
Address: 950 Howe Road
Martinez ,Ca. 94553
Phone: 925-313-5800

PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR AN INSPECTION, PHONE (925) 960-4500 AT LEAST 24 HOURS BEFORE YOU START WORK.

JOB LOCATION: 930 Springtown Boulevard ****
DESCRIPTION OF WORK: Installation of one (1) Monitoring well to 15FBG. In the sidewalk ajacent to above referenced site. Well lid to be flush with existing sidewalk and lid to be locking type. See attached plan with proposed well location.

Length of Excavation: _ L.F. **Width:** _ L.F. **Depth:** _ L.F.

Attention is directed to the General Provisions printed on the reverse side of this permit and to the attached special requirements (to be determined as needed by the Engineering Division).

Prosecution of Work: All work authorized by the permit shall be performed in a workmanlike, diligent, and expeditious manner, and must be completed to the satisfaction of the City Engineer.

Liability and Damages: The permittee shall be responsible for all liability imposed by law for personal injury or property damage which may arise out of the work permitted and done by permittee under this permit, or which may arise out of the failure on the part of the permittee to perform his obligations under said permit in respect to maintenance and encroachment. The permittee shall protect and indemnify the City of Livermore, its officers and employees, and save them harmless in every way from all action at law for damage or injury to persons or property that may arise out of or be occasioned in any way because of his operations as provided in this permit.

Hold Harmless and Indemnification Agreement: Conestoga-Rovers Assc. agrees to defend, indemnify and hold the City of Livermore, elected officials, officers, directors, employees, agents and volunteers harmless from and against any and all loss, liability, damage, including reasonable attorney and expert fees and/or court costs, arising out of or in connection with this agreement, except for the gross negligence and willful misconduct of the City of Livermore, its elected officials, officers, directors, employees, agents and volunteers.

Conestoga-Rovers Assc.
Signature of Permittee:

By: _____

Title: _____

Date: _____

Date Work Completed: _____

City Engineer

By: _____

Date of Issue: 1-13-12

Inspector: _____

City of Livermore

Encroachment Permit No. EN120012

Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550
(925) 960-4500

SPECIAL REQUIREMENTS APPLICABLE TO WORK ASSOCIATED WITH

JOB LOCATION: 930 Springtown Boulevard ****

DESCRIPTION OF WORK: Installation of one (1) Monitoring well to 15FBG. In the sidewalk ajacent to above referenced site. Well lid to be flush with existing sidewalk and lid to be locking type. See attached plan with proposed well location.

1: See Attached Drawing/Plans

2: Traffic control shall be completed per Cal Trans Standards and any additional requirements deemed necessary by the City Engineer.

3: All work shall be completed between the hours of 9 a.m. and 3 p.m.

4: All lane closures/ traffic control shall be done per Cal Trans Standards.

5: Contractor shall repair/replace all damaged curb, gutter and sidewalk damaged as a result of current work being completed per the City Livermore Standard Details.

6: Pedestrian access must be maintained at all times, including if necessary, escorting pedestrians through the work area.

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 930 SPRINGTOWN BLVD
LIVERMORE, CA

Coordinates Source _____ ft. Accuracy∀ _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 79-23-4

CLIENT
Name CHEVRON ENVIRONMENTAL MANAGEMENT
Address 6001 BOLLINGER CANYON RD Phone 925-790-6231
City SAN RAMON Zip 94583

APPLICANT
Name CONESTOGA-ROVERS & ASSOCIATES
Email arenshaw@CRAWORLD.com Fax 510-420-9170
Address 5900 HOLLIS ST SUITE A Phone 510-420-0070
City EMERYVILLE Zip 94608

TYPE OF PROJECT:

Well Construction	X	Geotechnical Investigation	__
Well Destruction	__	Contamination Investigation	__
Cathodic Protection	__	Other _____	__

PROPOSED WELL USE:

Domestic	__	Irrigation	__
Municipal	__	Remediation	__
Industrial	__	Groundwater Monitoring	X
Dewatering	__	Other _____	__

DRILLING METHOD:
Mud Rotary __ Air Rotary __ Hollow Stem Auger X
Cable Tool __ Direct Push __ Other _____

DRILLING COMPANY GREGG DRILLING & TESTING

DRILLER'S LICENSE NO: 485165

WELL SPECIFICATIONS:
Drill Hole Diameter 10" in. Maximum Depth 37/15 ft.
Casing Diameter 4 in.
Surface Seal Depth 3 ft. Number 1@37 & 4@15 5 TOTAL

SOIL BORINGS:
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE JANUARY 2012
ESTIMATED COMPLETION DATE JANUARY 2012

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE _____ Date 12/9/11

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 2011138
WELL NUMBER 3S/2E-3G27 to 3G31
APN 099-0023-004-00

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.
3. Permit is void if project not begun within 90 days of approval date.
4. **Notify Zone 7 at least 24 hours before the start of work.**

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 12/27/11
Wyman Hong

Revised: January 4, 2010

APPENDIX E

STANDARD FIELD PROCEDURES FOR SOIL BORINGS AND MONITORING WELL INSTALLATION

STANDARD FIELD PROCEDURES FOR SOIL BORINGS AND MONITORING WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing, developing, and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (P.G.) or Professional Engineer (P.E.).

Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to

volatilize from the soil or soil is placed in a sealed plastic bag. After 10 to 15 minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the headspace. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy, and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 feet below and 5 feet above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least 3 feet thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about 1 to 2 feet above the well screen. A 2 feet thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about 10 minutes of surging, groundwater is extracted from the well using bailing, pumping, and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least 10 well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Groundwater Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composite at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by

the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

APPENDIX F

LANCASTER LABORATORY ANALYTICAL REPORTS

eurofins | Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

January 31, 2012

Project: 211253

Submittal Date: 01/21/2012
Group Number: 1286031
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
MW-17-S-5-120116 Grab Soil	6528342
MW-18-S-5-120116 Grab Soil	6528343
MW-20-S-5-120116 Grab Soil	6528344
MW-20-S-10-120117 Grab Soil	6528345
MW-20-S-15-120117 Grab Soil	6528346
MW-20-S-19.5-120117 Grab Soil	6528347
MW-20-S-25-120117 Grab Soil	6528348
MW-20-S-30-120117 Grab Soil	6528349
MW-20-S-35-120117 Grab Soil	6528350
MW-20-S-40-120117 Grab Soil	6528351
MW-20-S-45-120117 Grab Soil	6528352
MW-19-S-5-120117 Grab Soil	6528353
MW-19-S-10-120118 Grab Soil	6528354
MW-19-S-15-120118 Grab Soil	6528355
MW-19-S-20-120118 Grab Soil	6528356
MW-19-S-25-120118 Grab Soil	6528357
MW-19-S-30-120118 Grab Soil	6528358
MW-18-S-11-120118 Grab Soil	6528359
MW-18-S-15-120118 Grab Soil	6528360
MW-18-S-20-120118 Grab Soil	6528361
MW-18-S-25-120118 Grab Soil	6528362
MW-18-S-31-120118 Grab Soil	6528363
MW-17-S-10.5-120119 Grab Soil	6528364
MW-17-S-15.5-120119 Grab Soil	6528365
MW-17-S-20.5-120119 Grab Soil	6528366
MW-17-S-25.5-120119 Grab Soil	6528367
MW-17-S-30.5-120119 Grab Soil	6528368
MW-17-S-36.5-120119 Grab Soil	6528369

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey

Questions? Contact your Client Services Representative
Natalie R Luciano at (717) 656-2300 Ext. 1881

Respectfully Submitted,

Lawrence M. Taylor
Senior Specialist

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Analysis Report

Sample Description: MW-17-S-5-120116 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528342
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/16/2012 10:48 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1705

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	26.12

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 18:08	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:12	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/23/2012 21:49	Laura M Krieger	26.12
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:11	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-18-S-5-120116 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528343
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/16/2012 12:13 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1805

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.025	0.25	50.51
10950	Ethylbenzene	100-41-4	4.6	0.051	0.25	50.51
10950	Toluene	108-88-3	N.D.	0.051	0.25	50.51
10950	Xylene (Total)	1330-20-7	6.6	0.051	0.25	50.51
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	310	98	98	2441.41

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 11:08	Lauren C Temple	50.51
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:48	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:48	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201202126634	01/21/2012 19:49	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 05:40	Laura M Krieger	2441.41
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:47	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-20-S-5-120116 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528344
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/16/2012 14:40 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2005

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.06
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.06
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.06
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.06
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.45

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 13:27	Chelsea B Eastep	1.06
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:15	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/23/2012 22:27	Laura M Krieger	23.45
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:14	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-20-S-10-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528345
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 09:41 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2010

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 18:52	Chelsea B Eastep	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:18	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/23/2012 23:04	Laura M Krieger	24.02
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:17	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-20-S-15-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528346
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 09:50 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2015

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.026	0.26	51.65
10950	Ethylbenzene	100-41-4	N.D.	0.052	0.26	51.65
10950	Toluene	108-88-3	N.D.	0.052	0.26	51.65
10950	Xylene (Total)	1330-20-7	N.D.	0.052	0.26	51.65
Reporting limits were raised due to interference from the sample matrix.						
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	50	4.0	4.0	100.2

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 11:30	Lauren C Temple	51.65
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:21	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/23/2012 23:40	Laura M Krieger	100.2
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:20	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-20-S-19.5-120117 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528347
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 10:25 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2019

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10950	Toluene	108-88-3	N.D.	0.001	0.005	1
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.67

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 19:15	Chelsea B Eastep	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:24	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 00:52	Laura M Krieger	25.67
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:24	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-20-S-25-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528348
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 10:55 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2025

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10950	Ethylbenzene	100-41-4	0.041	0.001	0.005	1.01
10950	Toluene	108-88-3	0.007	0.001	0.005	1.01
10950	Xylene (Total)	1330-20-7	0.13	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1.2	1	1	24.25

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 17:54	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:28	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 01:28	Laura M Krieger	24.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:27	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-20-S-30-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528349
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 11:03 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2030

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.07
10950	Ethylbenzene	100-41-4	0.007	0.001	0.005	1.07
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.07
10950	Xylene (Total)	1330-20-7	0.020	0.001	0.005	1.07
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.7

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 19:37	Chelsea B Eastep	1.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:31	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 02:04	Laura M Krieger	24.7
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:30	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-20-S-35-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528350
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 11:09 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2035

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.97
10950	Ethylbenzene	100-41-4	0.004	0.001	0.005	0.97
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10950	Xylene (Total)	1330-20-7	0.014	0.001	0.005	0.97
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.34

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 19:59	Chelsea B Eastep	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:34	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 02:40	Laura M Krieger	23.34
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:33	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-20-S-40-120117 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528351
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 11:14 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2040

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.94
10950	Ethylbenzene	100-41-4	0.012	0.0009	0.005	0.94
10950	Toluene	108-88-3	0.003	0.0009	0.005	0.94
10950	Xylene (Total)	1330-20-7	0.038	0.0009	0.005	0.94
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.74

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 20:21	Chelsea B Eastep	0.94
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:38	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 03:16	Laura M Krieger	23.74
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:37	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-20-S-45-120117 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # SW 6528352
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 11:20 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L2045

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.98
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.98
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.98
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.98
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.75

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 20:43	Chelsea B Eastep	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:41	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 03:52	Laura M Krieger	24.75
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:40	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-19-S-5-120117 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528353
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/17/2012 10:45 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1905

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.97
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.97
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.97
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.91

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120241AA	01/24/2012 21:06	Chelsea B Eastep	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:55	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12020A34B	01/24/2012 04:28	Laura M Krieger	26.91
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:52	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:53	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201202126634	01/21/2012 19:53	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201202126634	01/21/2012 19:54	Christopher D Meeks	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201202126634	01/21/2012 19:54	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-19-S-10-120118 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528354
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 08:27 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1910

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.04
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.04
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.04
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.04
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.13

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 13:49	Chelsea B Eastep	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:45	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 20:56	Laura M Krieger	25.13
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:44	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-19-S-15-120118 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528355
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 08:33 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1915

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.98
10950	Ethylbenzene	100-41-4	0.002	0.001	0.005	0.98
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.98
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.98
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1.4	0.9	0.9	23.58

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 14:12	Chelsea B Eastep	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 18:50	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:48	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 21:32	Laura M Krieger	23.58
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:47	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-19-S-20-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528356
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 08:35 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1920

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.92
10950	Ethylbenzene	100-41-4	0.015	0.0009	0.005	0.92
10950	Toluene	108-88-3	N.D.	0.0009	0.005	0.92
10950	Xylene (Total)	1330-20-7	0.001	0.0009	0.005	0.92
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	2.5	0.9	0.9	23.02

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 18:16	Chelsea B Eastep	0.92
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:55	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 22:08	Laura M Krieger	23.02
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:55	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-19-S-25-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528357
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 08:40 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1925

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.023	0.23	46.13
10950	Ethylbenzene	100-41-4	0.067	0.046	0.23	46.13
10950	Toluene	108-88-3	N.D.	0.046	0.23	46.13
10950	Xylene (Total)	1330-20-7	N.D.	0.046	0.23	46.13
Reporting limits were raised due to interference from the sample matrix.						
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	30	3.8	3.8	94.79

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 15:41	Lauren C Temple	46.13
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:58	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/25/2012 00:32	Laura M Krieger	94.79
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 18:58	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-19-S-30-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # SW 6528358
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 09:44 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1930

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.012	0.0005	0.005	1.02
10950	Ethylbenzene	100-41-4	0.009	0.001	0.005	1.02
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10950	Xylene (Total)	1330-20-7	0.002	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	3.7	1.0	1.0	25.25

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 19:23	Chelsea B Eastep	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:35	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:01	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 22:44	Laura M Krieger	25.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:01	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-18-S-11-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528359
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 12:07 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1811

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.44	0.024	0.24	47.8
10950	Ethylbenzene	100-41-4	1.9	0.048	0.24	47.8
10950	Toluene	108-88-3	7.1	0.048	0.24	47.8
10950	Xylene (Total)	1330-20-7	8.3	0.048	0.24	47.8
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	170	19	19	479.85

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 16:05	Lauren C Temple	47.8
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:04	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/25/2012 06:34	Laura M Krieger	479.85
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:04	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-18-S-15-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528360
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 12:10 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1815

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.38	0.046	0.46	92.59
10950	Ethylbenzene	100-41-4	12	0.093	0.46	92.59
10950	Toluene	108-88-3	19	0.093	0.46	92.59
10950	Xylene (Total)	1330-20-7	51	0.093	0.46	92.59
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	540	97	97	2427.18

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 16:27	Lauren C Temple	92.59
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:08	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/25/2012 07:10	Laura M Krieger	2427.18
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:07	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-18-S-20-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528361
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 12:13 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1820

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.005	0.0005	0.005	1.06
10950	Ethylbenzene	100-41-4	0.091	0.001	0.005	1.06
10950	Toluene	108-88-3	0.15	0.001	0.005	1.06
10950	Xylene (Total)	1330-20-7	0.33	0.001	0.005	1.06
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	13	1	1	24.3

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 19:45	Chelsea B Eastep	1.06
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:11	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 23:20	Laura M Krieger	24.3
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:11	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: MW-18-S-25-120118 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528362
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 12:15 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1825

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.36	0.10	1.0	205.34
10950	Ethylbenzene	100-41-4	13	0.21	1.0	205.34
10950	Toluene	108-88-3	9.9	0.21	1.0	205.34
10950	Xylene (Total)	1330-20-7	52	0.21	1.0	205.34
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1,200	400	400	9881.42

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	Q120301AA	01/30/2012 17:13	Lauren C Temple	205.34
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:15	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/25/2012 07:46	Laura M Krieger	9881.42
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:15	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-18-S-31-120118 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # SW 6528363
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/18/2012 14:00 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1831

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.05
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.05
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.05
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.05
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	23.06

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 18:38	Chelsea B Eastep	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:19	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12024A34A	01/24/2012 23:56	Laura M Krieger	23.06
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:18	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-17-S-10.5-120119 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528364
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:12 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1710

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10950	Toluene	108-88-3	N.D.	0.001	0.005	1
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	11	11	265.67
	Reporting limits were raised due to sample foaming.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 14:34	Chelsea B Eastep	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:22	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/25/2012 22:00	Laura M Krieger	265.67
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:22	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-17-S-15.5-120119 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528365
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:15 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1715

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.51

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 14:56	Chelsea B Eastep	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:27	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/25/2012 22:36	Laura M Krieger	25.51
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:26	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-17-S-20.5-120119 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528366
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:18 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1720

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.48

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 15:19	Chelsea B Eastep	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:30	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/25/2012 23:48	Laura M Krieger	26.48
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:30	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: **MW-17-S-25.5-120119 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528367
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:22 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1725

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.58

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 15:41	Chelsea B Eastep	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:36	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:33	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/26/2012 00:24	Laura M Krieger	24.58
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:33	Christopher D Meeks	n.a.

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Analysis Report

Sample Description: **MW-17-S-30.5-120119 Grab Soil**
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528368
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:24 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1730

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.03
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.03
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.03
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.03
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	0.9	0.9	22.89

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	B120251AA	01/25/2012 16:03	Chelsea B Eastep	1.03
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:41	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/26/2012 01:00	Laura M Krieger	22.89
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:41	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

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Analysis Report

Sample Description: MW-17-S-36.5-120119 Grab Soil
Facility# 211253 CRAW
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # SW 6528369
LLI Group # 1286031
Account # 10880

Project Name: 211253

Collected: 01/19/2012 08:27 by AR

Submitted: 01/21/2012 10:30
Reported: 01/31/2012 15:20

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

L1736

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.06
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.06
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.06
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.06
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	9.9	9.9	247.77
	Reporting limits were raised due to sample foaming.					

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX 8260 Soil	SW-846 8260B	1	A120302AA	01/31/2012 00:13	Andrea E Lando	1.06
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201202126634	01/21/2012 19:58	Christopher D Meeks	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:44	Christopher D Meeks	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	12025A34A	01/26/2012 01:36	Laura M Krieger	247.77
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201202126634	01/21/2012 19:44	Christopher D Meeks	n.a.

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1286031
Reported: 01/31/12 at 03:20 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A120302AA	Sample number(s): 6528369								
Benzene	N.D.	0.0005	0.005	mg/kg	104		80-120		
Ethylbenzene	N.D.	0.001	0.005	mg/kg	105		80-120		
Toluene	N.D.	0.001	0.005	mg/kg	103		80-120		
Xylene (Total)	N.D.	0.001	0.005	mg/kg	102		80-120		
Batch number: B120241AA	Sample number(s): 6528342,6528345,6528347,6528349-6528353								
Benzene	N.D.	0.0005	0.005	mg/kg	95		80-120		
Ethylbenzene	N.D.	0.001	0.005	mg/kg	91		80-120		
Toluene	N.D.	0.001	0.005	mg/kg	89		80-120		
Xylene (Total)	N.D.	0.001	0.005	mg/kg	91		80-120		
Batch number: B120251AA	Sample number(s): 6528344,6528348,6528354-6528356,6528358,6528361,6528363-6528368								
Benzene	N.D.	0.0005	0.005	mg/kg	99	96	80-120	3	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	95	92	80-120	3	30
Toluene	N.D.	0.001	0.005	mg/kg	93	91	80-120	2	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	95	92	80-120	3	30
Batch number: Q120301AA	Sample number(s): 6528343,6528346,6528357,6528359-6528360,6528362								
Benzene	N.D.	0.025	0.25	mg/kg	94	91	80-120	4	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	104	100	80-120	4	30
Toluene	N.D.	0.050	0.25	mg/kg	106	100	80-120	5	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	101	98	80-120	3	30
Batch number: 12020A34B	Sample number(s): 6528342-6528353								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	84	88	67-119	6	30
Batch number: 12024A34A	Sample number(s): 6528354-6528363								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	96	93	67-119	2	30
Batch number: 12025A34A	Sample number(s): 6528364-6528369								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	84	91	67-119	8	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: A120302AA	Sample number(s): 6528369 UNSPK: P530933								

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1286031
Reported: 01/31/12 at 03:20 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Benzene	104	109	55-143	7	30				
Ethylbenzene	97	103	44-141	4	30				
Toluene	125	129	50-146	7	30				
Xylene (Total)	95	98	44-136	7	30				
Batch number: B120241AA	Sample number(s): 6528342,6528345,6528347,6528349-6528353 UNSPK: P526784								
Benzene	94	104	55-143	11	30				
Ethylbenzene	78	104	44-141	29	30				
Toluene	85	106	50-146	21	30				
Xylene (Total)	75	99	44-136	28	30				
Batch number: Q120301AA	Sample number(s): 6528343,6528346,6528357,6528359-6528360,6528362 UNSPK: 6528343								
Benzene	90	88	55-143	1	30				
Ethylbenzene	-126 (2)	-136 (2)	44-141	4	30				
Toluene	101	100	50-146	1	30				
Xylene (Total)	-12*	-17*	44-136	2	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs by 8260B - Solid
Batch number: A120302AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6528369	102	98	105	93
Blank	103	101	102	98
LCS	102	100	102	102
MS	107	94	137*	74
MSD	106	94	131*	79
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: B120241AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6528342	108	101	100	95
6528345	106	99	100	95
6528347	106	101	100	97
6528349	104	99	100	98
6528350	107	103	99	102
6528351	106	104	100	99
6528352	106	102	100	96
6528353	108	104	98	96
Blank	105	103	100	97
LCS	106	102	102	103
MS	107	107	102	101

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1286031
Reported: 01/31/12 at 03:20 PM

Surrogate Quality Control

MSD	104	100	107	94
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: B120251AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6528344	109	106	98	97
6528348	106	100	100	101
6528354	106	101	98	93
6528355	106	99	99	99
6528356	103	100	100	98
6528358	102	98	101	100
6528361	101	97	104	101
6528363	105	101	97	97
6528364	107	103	99	95
6528365	107	101	98	96
6528366	106	102	99	94
6528367	107	104	98	96
6528368	110	106	98	97
Blank	107	103	98	97
LCS	106	105	101	102
LCSD	107	104	101	103
Limits:	71-114	70-109	70-123	70-111

Analysis Name: VOCs by 8260B - Solid
Batch number: Q120301AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6528343	80	75	88	95
6528346	89	85	95	95
6528357	80	79	86	89
6528359	83	80	91	91
6528360	78	79	90	90
6528362	61*	65*	79	80
Blank	94	95	103	102
LCS	96	91	101	102
LCSD	94	90	100	100
MS	82	77	88	91
MSD	82	77	88	92
Limits:	71-114	70-109	70-123	70-111

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12020A34B

	Trifluorotoluene-F
6528342	83
6528343	0*
6528344	78
6528345	87
6528346	81
6528347	85
6528348	83
6528349	81

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1286031
Reported: 01/31/12 at 03:20 PM

Surrogate Quality Control

6528350	84
6528351	80
6528352	84
6528353	90
Blank	88
LCS	89
LCSD	92
Limits:	61-122

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12024A34A

	Trifluorotoluene-F
6528354	79
6528355	86
6528356	82
6528357	101
6528358	77
6528359	18*
6528360	164*
6528361	85
6528362	683*
6528363	89
Blank	102
LCS	93
LCSD	95
Limits:	61-122

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 12025A34A

	Trifluorotoluene-F
6528364	92
6528365	84
6528366	83
6528367	84
6528368	87
6528369	90
Blank	96
LCS	91
LCSD	94
Limits:	61-122

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

246061

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Ø1 2Ø15-Ø2 P.3OF5

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6528342-69 SCR#:

C# 12860031

Facility #: 21-1253
Site Address: 930 SPRINGTOWN [redacted], LIVERMORE, CA
Chevron PM: ERIC FROHNAPPLE Lead Consultant: CRA
Consultant/Office: 5900 HOLLIS ST, A, EMERYVILLE, CA
Consultant Prj. Mgr.: [redacted]ERSTEN HOEY
Consultant Phone #: 510-420-0700 Fax #: 510-420-9170
Sampler: A. RENSHAW
Service Order #: ☐ Non SAR:

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE – 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐
MW-[redacted]	S		5	2012-01-16	10.48		X		1	X	X				
MW-[redacted]	S		5	2012-01-16	12.13		X		1	X	X				
MW-20	S		5	2012-01-16	14.40		X		1	X	X				

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
~~EDF TO GMESSINGER@GW CRAWORLD.COM~~
EDF & EMAIL RESULTS TO KHOEY@CRAWORLD.COM

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
[redacted]	1/18/12	1658	SECURE LOCATION-CRA		
~~Relinquished by:~~ [redacted]	01/20/12	1235	A. Salgar	20 JAN 12	1235
A. Salgar 20 JAN 12		1636	FEDEX		
Relinquished by Commercial Carrier: UPS (FedEx) Other			[redacted]	1-21-12	1030
Temperature Upon Receipt 0.6-2.9 C°			Custody Seals Intact? (Yes) No		

Chevron California Region Analysis Request/Chain of Custody

246074

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Ø12Ø15-Ø2 P. 2 OF 5

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6528342-69 SCR#:

G# 1286031

Facility #: 21-1253
Site Address: 930 SPRINGTOWN BLVD, LIVERMORE CA
Chevron PM: ERIC FROHNAPPLE Lead Consultant: CRA
Consultant/Office: CRA / EMERYVILLE
Consultant Prj. Mgr.: KIERSTEN HOEY
Consultant Phone #: 510-420-3347 Fax #: 510-420-9170
Sampler: ANDREW RENSHAW
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + ~~MTBE~~ 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐						
MW-20	S		10	2012/1/17	0941		X		1	X	X										
MW-20	S		15	2012/1/17	0950		X		1	X	X										
MW-20	S		19.5	2012/1/17	1025		X		1	X	X										
MW-20	S		25	2012/1/17	1055		X		1	X	X										
MW-20	S		30	2012/1/17	1103		X		1	X	X										
MW-20	S		35	2012/1/17	1109		X		1	X	X										
MW-20	S		40	2012/1/17	1114		X		1	X	X										
MW-20	S		45	2012/1/17	1120		X		1	X	X										
MW-19	S		5	2012/1/17	1045		X		1	X	X										

Comments / Remarks
EDF To CMESSINGER@CRAWORLD.COM
EMAIL RESULTS TO KHOEY@CRAWORLD.COM

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

		Date	Time		Date	Time
Relinquished by:		1/17/12	1720	Received by: SECURE LOCATION - CRA	1/17/12	1720
Relinquished by:		1/20/12	1235	Received by:	24 JAN 12	1235
Relinquished by:	24 JAN 12		1638	Received by: FEDEX		
Relinquished by Commercial Carrier: UPS (FedEx) Other				Received by:	1-21-12	1030
Temperature Upon Receipt 0.6-2.9 C°				Custody Seals Intact? (Yes) No		

Chevron California Region Analysis Request/Chain of Custody

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246070

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6528342-69 SCR#:

~~Ø12Ø35AS~~ Ø12Ø12-Ø2 P.4 of 5

G# 1286031

Facility #: CHEVRON 21-1253
Site Address: 930 SPRINGTOWN BLVD, LIVERMORE, CA
Chevron PM: FROHNAPPLE Lead Consultant: CRA
Consultant/Office: CRA / EMERYVILLE
Consultant Prj. Mgr.: HOEY
Consultant Phone #: 510.420.0700 Fax #: 510.420.9170
Sampler: A RENSHAW
Service Order #: ☐ Non SAR:

Analyses Requested / **Preservation Codes**

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + ~~MTBE~~ 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐						
MW-19	S		10	12 01 18	0827		X		1	X	X										
MW-19	S		15	↓	0833		X		1	X	X										
MW-19	S		20	↓	0825		X		1	X	X										
MW-19	S		25	↓	0840		X		1	X	X										
MW-19	S		30	↓	0944		X		1	X	X										
MW-18	S		10	↓	1207		X		1	X	X										
MW-18	S		15	↓	1210		X		1	X	X										
MW-18	S		20	↓	1213		X		1	X	X										
MW-18	S		25	↓	1215		X		1	X	X										
MW-18	S		31	↓	1400		X		1	X	X										

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
edf to: ~~cmessinger@craworld.com~~
report to ↓
khoey@craworld.com

Turnaround Time Requested (TAT) (please circle)
(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	1/18/12	1845	SECURE LOCATION - CRA	1/18/12	1845
[signature]	1/20/12	1235	G. Salgar	20 JAN 12	1235
G. Salgar	20 JAN 12	1630	FEDEX		
Relinquished by Commercial Carrier: UPS (FedEx) Other ____			Received by: [signature]	1-21-12	1030
Temperature Upon Receipt 0.6-2.9 C°			Custody Seals Intact? (Yes) No		

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

3460 Rev. 10/04/01

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
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246071

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 6528342-69 SCR#:

Ø1 2Ø12-Ø2 P. 5 OF 5

G#1286031

Facility #: CHEVRON 21-1253
Site Address: 930 SPRINGTOWN BLVD, LIVERMORE
Chevron PM: E. FROHNAPPLE Lead Consultant: CRA
Consultant/Office: CRA / EMERYVILLE
Consultant Prj. Mgr.: K. HOEY
Consultant Phone #: 510.420.0700 Fax #: 510.420.9170
Sampler: RENSHAW
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + ~~MTBE~~ 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐
MW-17	S		10.5	12/01/12	0812		X		1	X	X				
MW-17	S		15.5		0815		X		1	X	X				
MW-17	S		20.5		0818		X		1	X	X				
MW-17	S		25.5		0822		X		1	X	X				
MW-17	S		30.5		0824		X		1	X	X				
MW-17	S		36.5		0827		X		1	X	X				

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

edf to cra

email results to khoey@craworld.com

Turnaround Time Requested (TAT) (please circle)

STD. TAT | 72 hour | 48 hour
24 hour | 4 day | 5 day

Data Package Options (please circle if required)

QC Summary | Type I – Full
Type VI (Raw Data) | ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	01/19/12	1515	Received by: secure location CRA		
Relinquished by:	01/20/12	1235	Received by:	20 JAN 12	1235
Relinquished by:	20 JAN 12	1635	Received by: FEDEX		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	1-21-12	1030
Temperature Upon Receipt 0.6-2.9 °C°			Custody Seals Intact? Yes No		

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

February 24, 2012

Project: 211253

Submittal Date: 02/15/2012
Group Number: 1289902
PO Number: 0015075227
Release Number: FROHNAPPLE
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
QA-T-120209 NA Water	6548772
MW-9-W-120209 Grab Water	6548773
MW-10-W-120209 Grab Water	6548774
MW-11-W-120209 Grab Water	6548775
MW-12-W-120209 Grab Water	6548776
MW-13-W-120209 Grab Water	6548777
MW-15-W-120209 Grab Water	6548778
MW-16-W-120209 Grab Water	6548779
MW-17-W-120209 Grab Water	6548780
MW-18-W-120209 Grab Water	6548781
MW-19-W-120209 Grab Water	6548782
MW-20-W-120209 Grab Water	6548783

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	CRA c/o Gettler-Ryan	Attn: Rachelle Munoz
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: Report Contact
ELECTRONIC COPY TO	Chevron	Attn: Anna Avina
ELECTRONIC COPY TO	CRA	Attn: Kiersten Hoey
ELECTRONIC	Chevron	Attn: Sheldon Nelson

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COPY TO

Questions? Contact your Client Services Representative
Jill M Parker at (717) 556-7262

Respectfully Submitted,

Susan M. Goshert
Group Leader

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Analysis Report

Sample Description: QA-T-120209 NA Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 QA

LLI Sample # WW 6548772
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

1253Q

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 12:10	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 12:10	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 12:44	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 12:44	Marie D John	1

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Analysis Report

Sample Description: MW-9-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-9

LLI Sample # WW 6548773
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 14:15 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

12539

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	6	3	5
10943	Ethylbenzene	100-41-4	250	3	5
10943	Toluene	108-88-3	7	3	5
10943	Xylene (Total)	1330-20-7	120	3	5
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	5,300	250	5

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 13:41	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 13:41	Daniel H Heller	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 18:35	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 18:35	Marie D John	5

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Analysis Report

Sample Description: MW-10-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-10

LLI Sample # WW 6548774
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 15:05 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25310

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	140	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 12:33	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 12:33	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 15:40	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 15:40	Marie D John	1

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Analysis Report

Sample Description: MW-11-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-11

LLI Sample # WW 6548775
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 15:55 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25311

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	220	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 14:04	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 14:04	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 16:02	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 16:02	Marie D John	1

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Analysis Report

Sample Description: MW-12-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-12

LLI Sample # WW 6548776
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 16:45 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25312

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	85	3	5
10943	Ethylbenzene	100-41-4	170	3	5
10943	Toluene	108-88-3	130	3	5
10943	Xylene (Total)	1330-20-7	590	3	5
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	8,700	250	5

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 14:26	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 14:26	Daniel H Heller	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 18:57	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 18:57	Marie D John	5

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Analysis Report

Sample Description: MW-13-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-13

LLI Sample # WW 6548777
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 17:40 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25313

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	1,600	50	100
10943	Ethylbenzene	100-41-4	370	50	100
10943	Toluene	108-88-3	3,700	50	100
10943	Xylene (Total)	1330-20-7	2,200	50	100
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	18,000	500	10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 15:12	Daniel H Heller	100
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 15:12	Daniel H Heller	100
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 19:19	Marie D John	10
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 19:19	Marie D John	10

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Analysis Report

Sample Description: MW-15-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-15

LLI Sample # WW 6548778
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 11:35 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25315

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 15:35	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 15:35	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 16:24	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 16:24	Marie D John	1

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Analysis Report

Sample Description: MW-16-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-16

LLI Sample # WW 6548779
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 10:00 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25316

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 15:58	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 15:58	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12047B20A	02/20/2012 16:46	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12047B20A	02/20/2012 16:46	Marie D John	1

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Analysis Report

Sample Description: MW-17-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-17

LLI Sample # WW 6548780
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 18:45 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25317

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	N.D.	0.5	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1
10943	Toluene	108-88-3	N.D.	0.5	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120532AA	02/22/2012 16:21	Daniel H Heller	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120532AA	02/22/2012 16:21	Daniel H Heller	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12051A07A	02/21/2012 06:03	Marie D John	1
01146	GC VOA Water Prep	SW-846 5030B	1	12051A07A	02/21/2012 06:03	Marie D John	1

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Analysis Report

Sample Description: MW-18-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-18

LLI Sample # WW 6548781
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 12:25 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25318

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	200	5	10
10943	Ethylbenzene	100-41-4	68	5	10
10943	Toluene	108-88-3	1,300	5	10
10943	Xylene (Total)	1330-20-7	2,200	5	10
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	12,000	500	10

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120531AA	02/22/2012 19:11	Daniel H Heller	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120531AA	02/22/2012 19:11	Daniel H Heller	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12051A07A	02/21/2012 07:18	Marie D John	10
01146	GC VOA Water Prep	SW-846 5030B	1	12051A07A	02/21/2012 07:18	Marie D John	10

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Analysis Report

Sample Description: MW-19-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-19

LLI Sample # WW 6548782
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 13:25 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25319

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	4	3	5
10943	Ethylbenzene	100-41-4	18	3	5
10943	Toluene	108-88-3	N.D.	3	5
10943	Xylene (Total)	1330-20-7	35	3	5
	A preserved vial was submitted for analysis. However, the pH at the time of analysis was 5.				
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	6,700	250	5

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120531AA	02/22/2012 19:34	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120531AA	02/22/2012 19:34	Daniel H Heller	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12051A07A	02/21/2012 06:28	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12051A07A	02/21/2012 06:28	Marie D John	5

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Analysis Report

Sample Description: MW-20-W-120209 Grab Water
Facility# 211253 Job# 385867 GRD
930 Springtown-Livermore T0600101353 MW-20

LLI Sample # WW 6548783
LLI Group # 1289902
Account # 10904

Project Name: 211253

Collected: 02/09/2012 10:45 by JH

Submitted: 02/15/2012 08:00
Reported: 02/24/2012 12:44

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

25320

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10943	Benzene	71-43-2	3	3	5
10943	Ethylbenzene	100-41-4	200	3	5
10943	Toluene	108-88-3	94	3	5
10943	Xylene (Total)	1330-20-7	600	3	5
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	9,100	250	5

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX 8260B Water	SW-846 8260B	1	D120531AA	02/22/2012 19:57	Daniel H Heller	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D120531AA	02/22/2012 19:57	Daniel H Heller	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	12051A07A	02/21/2012 06:53	Marie D John	5
01146	GC VOA Water Prep	SW-846 5030B	1	12051A07A	02/21/2012 06:53	Marie D John	5

Quality Control Summary

Client Name: Chevron Group Number: 1289902
Reported: 02/24/12 at 12:44 PM

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D120531AA	Sample number(s): 6548781-6548783							
Benzene	N.D.	0.5	ug/l	84		79-120		
Ethylbenzene	N.D.	0.5	ug/l	84		79-120		
Toluene	N.D.	0.5	ug/l	86		79-120		
Xylene (Total)	N.D.	0.5	ug/l	84		80-120		
Batch number: D120532AA	Sample number(s): 6548772-6548780							
Benzene	N.D.	0.5	ug/l	98		79-120		
Ethylbenzene	N.D.	0.5	ug/l	93		79-120		
Toluene	N.D.	0.5	ug/l	97		79-120		
Xylene (Total)	N.D.	0.5	ug/l	93		80-120		
Batch number: 12047B20A	Sample number(s): 6548772-6548779							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	91	90	75-135	1	30
Batch number: 12051A07A	Sample number(s): 6548780-6548783							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	109	109	75-135	0	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: D120531AA	Sample number(s): 6548781-6548783 UNSPK: P548785								
Benzene	106	104	80-126	2	30				
Ethylbenzene	102	103	71-134	2	30				
Toluene	104	104	80-125	1	30				
Xylene (Total)	100	103	79-125	3	30				
Batch number: D120532AA	Sample number(s): 6548772-6548780 UNSPK: 6548774								
Benzene	90	92	80-126	2	30				
Ethylbenzene	87	89	71-134	2	30				
Toluene	90	92	80-125	3	30				
Xylene (Total)	87	89	79-125	3	30				

Surrogate Quality Control

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1289902
Reported: 02/24/12 at 12:44 PM

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: D120531AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6548781	89	96	98	98
6548782	90	94	100	98
6548783	89	95	98	100
Blank	91	97	98	96
LCS	90	96	99	100
MS	90	99	99	101
MSD	90	95	101	101
Limits:	80-116	77-113	80-113	78-113

Analysis Name: UST VOCs by 8260B - Water
Batch number: D120532AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6548772	90	97	99	95
6548773	90	96	100	98
6548774	90	96	99	96
6548775	90	98	100	100
6548776	90	98	100	100
6548777	91	97	99	97
6548778	91	96	100	97
6548779	89	97	97	94
6548780	90	101	98	95
Blank	92	98	100	97
LCS	91	98	99	100
MS	90	99	99	98
MSD	90	100	99	99
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 12047B20A

	Trifluorotoluene-F
6548772	86
6548773	104
6548774	91
6548775	93
6548776	132
6548777	104
6548778	86
6548779	87
Blank	87
LCS	105
LCSD	104
Limits:	63-135

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 12051A07A

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Chevron Group Number: 1289902
Reported: 02/24/12 at 12:44 PM

Surrogate Quality Control

	Trifluorotoluene-F
6548780	109
6548781	112
6548782	135
6548783	130
Blank	107
LCS	119
LCSD	115
Limits:	63-135

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

021312-02

For Lancaster Laboratories use only

Acct. #: 10904 Sample # 6548772-83 Group #: 008781

1289902

Facility #: SS#211253-OML G-R#385867 GlobalID#T0600101353

Site Address: 930 SPRINGTOWN BLVD., LIVERMORE, CA

Chevron PM: EF Lead Consultant: CRAHK Hoey

Consultant/Office: ~~G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568~~ ~~Deanna L. Harding (deanna@grinc.com)~~

Consultant Prj. Mgr.:

Consultant Phone #: 925-551-7555 Fax #: 925-551-7899

Sampler: Juan Herrera

Matrix: ☐ Potable ☐ NPDES; Soil; Water; Oil ☐ Air

Analyses Requested / **Preservation Codes**

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil ☐ Air	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ____ Method	Total Lead ____ Method	Dissolved Lead ____ Method
QA	2/9/12		X			X		2	X	X					
MW-9		1415	X			X		6	X	X					
MW-10		1505	X			X		6	X	X					
MW-11		1555	X			X		6	X	X					
MW-12		1645	X			X		6	X	X					
MW-13		1740	X			X		6	X	X					
MW-15		1135	X			X		6	X	X					
MW-16		1000	X			X		6	X	X					
MW-17		1845	X			X		6	X	X					
MW-18		1225	X			X		6	X	X					
MW-19		1325	X			X		6	X	X					
MW-20	↓	1045	X			X		6	X	X					

Preservative Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Please forward the lab results directly to the Lead Consultant and cc: G-R.

Turnaround Time Requested (TAT) (please circle)

(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)

QC Summary Type I - Full **EDF/EDD**
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	2/9/12	2000	Received by: FETTLER-RYAN FEDEX	02-13-12	0700
Relinquished by:	02-13-12	1225	Received by:	2/13/12	1225
Relinquished by:	2/13/12	1630	Received by: SWA		
Relinquished by Commercial Carrier: (3)mp 2/15/12 UPS (FedEx) Other SWA			Received by:	2/15/12	0800
Temperature Upon Receipt 1.1-2.8 C°			Custody Seals Intact? (Yes) No		

eurofins | Lancaster Laboratories

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

APPENDIX G

GETTLER-RYAN'S
WELL DEVELOPMENT AND SAMPLING FIELD DATA SHEETS

GETTLER-RYAN INC.

TRANSMITTAL

February 16, 2012
G-R #385867

TO: Ms. Kiersten Hoey
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

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

RE: Former Texaco Service Station
930 Springtown Blvd.
Livermore, California
(Site #211253)

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Well Development of February 7, 2012** **First Quarter Event of February 9, 2012**

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans/211253

WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #211253**
Site Address: **930 Springtown Blvd.**
City: **Livermore, CA**

Job #: **385867**
Event Date: 2 - 07 - 2012
Sampler: HAIG KEVORK

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	BOLTS (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK (Y) / N	REPLACE CAP Y (N)	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y / N
MW-17	NEW							YES	N	EMCO - 12" / 2	N
MW-18	NEW							YES			
MW-19	NEW							YES			
MW-20	NEW							YES			

Comments

WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #211253** Job # **385867**

Site Address: **930 Springtown Blvd.** Event Date: 2/9/12

City: **Livermore, CA** Sampler: JH

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-9	OK							N	N	12" emco	N
MW-10	OK										
MW-11	OK										
MW-12	OK										
MW-13	OK										
MW-14	OK										
MW-15	OK										
MW-16	OK				D=36"	OK					
MW-17	OK										
MW-18	OK										
MW-19	OK										
MW-20	OK										

Comments

STANDARD OPERATING PROCEDURE –WELL DEVELOPMENT
GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to well development, each well is monitored for the presence of free-phase hydrocarbons and the depth to water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). 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 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, as directed by the scope of work. 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. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Evergreen Oil located in Newark, California.

CHEVRON SERVICE STATION
#211253
Livermore, CA

WELL DEVELOPMENT OF
February 7, 2012

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: **Chevron #211253** Job Number: **385867**
Site Address: **930 Springtown Blvd.** Event Date: 2/07/12 (inclusive)
City: **Livermore, CA** Sampler: HAIG K.

Well ID **MW-17** Date Monitored: 2/07/12
Well Diameter 4 in.
Initial Total Depth 36.93 ft.
Final Total Depth 37.12 ft.
Depth to Water 14.50 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

22.43 xVF 0.66 = 14.8 x10 case volume = Estimated Purge Volume: 148 gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: N/A

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer ✓
Stack Pump ✓
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment: N/A
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0855 Weather Conditions: LIGHT RAIN
Sample Time/Date: N/A Water Color: CLOUDY Odor: Y / (N)
Approx. Flow Rate: 1.5-2 gpm. Sediment Description: SAND / SILT
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: N/A

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0912	15	9.71	682	16.5		
0920	30	9.65	668	16.9		
0928	45	9.58	671	17.1		
0936	60	9.59	660	17.8		
0944	75	9.53	658	17.8		
0954	90	9.48	648	17.6		
1004	110	9.36	649	17.5		
1019	130	9.33	641	17.4		
1032	150	9.31	643	17.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)

COMMENTS: INITIAL CGI READING: 1415 X = 0 ppm, 10X4 = 20.9 %
1425 = 0.0 ppm, CO = 0 ppm

Add/Replaced Lock: ✓ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #211253 | Job Number: 385867
Site Address: 930 Springtown Blvd. | Event Date: 2/07/12 (inclusive)
City: Livermore, CA | Sampler: HAIG K.

Well ID: MW-18 | Date Monitored: 2/07/12
Well Diameter: 4 in.
Initial Total Depth: 14.87 ft.
Final Total Depth: 14.95 ft.
Depth to Water: 12.01 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

2.86 xVF 0.66 = 1.88 x10 case volume = Estimated Purge Volume: 18.8 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: N/A

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ✓
- Stack Pump: ✓
- Suction Pump: ____
- Grundfos: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Sampling Equipment: N/A
- Disposable Bailer: ____
- Pressure Bailer: ____
- Metal Filters: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____

Start Time (purge): 1142
Sample Time/Date: N/A /
Approx. Flow Rate: 0.5-1 gpm.
Did well de-water? YES If yes, Time: 1204 / 1214 Volume: 12 / 12 gal.

Weather Conditions: LIGHT RAIN
Water Color: CLOUDY Odor Y / N STRONG
Sediment Description: SAND / SILT
DTW @ Sampling: N/A

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1147	2	8.43	849	16.1		
1158	4	8.35	861	17.2		
1208	6	8.34	863	17.5		
1202	8	8.33	871	17.4		
1204	10	8.30	874	17.4		
1214	12	8.26	850	17.4		
1223	14	8.25	846	17.9		
1229	16	8.25	848	17.6		
1238	18	8.18	844	17.6		
1250	20	8.20	845	17.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)

COMMENTS: INITIAL CGI READING: HEX = 0 ppm, OXY = 20.9 %
H2S = 0.0 ppm, CO = 0 ppm

Add/Replaced Lock: ✓ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #211253 | Job Number: 385867
Site Address: 930 Springtown Blvd. | Event Date: 2/04/12 (inclusive)
City: Livermore, CA | Sampler: HAIG K.

Well ID: MW-19 | Date Monitored: 2/04/12
Well Diameter: 4 in.
Initial Total Depth: 14.82 ft.
Final Total Depth: 14.95 ft.
Depth to Water: 12.30 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

2.52 xVF 0.66 = 1.66 x10 case volume = Estimated Purge Volume: 16.6 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: N/A

Purge Equipment:
- Disposable Bailer
- Stainless Steel Bailer ✓
- Stack Pump ✓
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other:

Sampling Equipment: N/A
- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1045
Sample Time/Date: N/A /
Approx. Flow Rate: 0.5-1 gpm.
Did well de-water? YES If yes, Time: 1106 / 1119 Volume: 9 / 13 gal.

Weather Conditions: LIGHT RAIN
Water Color: CLOUDY Odor: (Y) / N MODERATE
Sediment Description: SAND/SILT
DTW @ Sampling: N/A

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1049	2	9.37	963	16.8		
1102	5	9.32	941	16.7		
1105	8	9.28	941	17.0		
1113	12	9.30	938	17.1		
1123	14	9.25	935	17.1		
1129	17	9.23	937	17.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)

COMMENTS: **INITIAL CGI READING:** HEX = 0 ppm, OXY = 20.9 %
H2S = 0.0 ppm, CO = 0 ppm,

(Add)/Replaced Lock: ✓ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #211253 | Job Number: 385867
Site Address: 930 Springtown Blvd. | Event Date: 2/04/12 (inclusive)
City: Livermore, CA | Sampler: HAIG K.

Well ID: MW-20 | Date Monitored: 2/04/12
Well Diameter: 4 in.
Initial Total Depth: 14.26 ft.
Final Total Depth: 14.97 ft.
Depth to Water: 9.60 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

4.66 xVF 0.66 = 3.0 x10 case volume = Estimated Purge Volume: 30 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: N/A

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ✓
- Stack Pump: ✓
- Suction Pump: ____
- Grundfos: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Sampling Equipment: N/A
- Disposable Bailer: ____
- Pressure Bailer: ____
- Metal Filters: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____

Start Time (purge): 0720 | Weather Conditions: LIGHT RAIN
Sample Time/Date: N/A / | Water Color: CLOUDY | Odor: (Y) N SLIGHT
Approx. Flow Rate: 0.5-1 gpm. | Sediment Description: SAND / SILT
Did well de-water? YES If yes, Time: 0751 0809 | Volume: 14 20 gal. | DTW @ Sampling: N/A

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm / µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0731	5	9.98	1954	15.4		
0745	8	9.86	1895	15.6		
0748	11	9.83	1882	15.7		
0751	14	9.95	1878	15.6		
0806	17	9.96	1843	15.9		
0809	20	9.91	1845	15.7		
0820	23	9.88	1863	15.9		
0830	26	9.92	1863	16.0		
0840	30	9.90	1866	16.2		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)

COMMENTS: INITIAL CGI READING: HEX = 0 ppm, OXY = 20.9 %
H2S = 0.0 ppm, CO = 0 ppm

Add/Replaced Lock: ✓ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

FORMER TEXACO SERVICE STATION
#211259
San Jose, CA

FIRST QUARTER EVENT OF
February 9, 2012

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #211253** Job Number: **385867**

Site Address: **930 Springtown Blvd.** Event Date: 2/9/12 (inclusive)

City: **Livermore, CA** Sampler: JW

Well ID **MW-9** Date Monitored: 2/9/12

Well Diameter **4**

Total Depth 14.47 ft.

Depth to Water 13.05 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

1.42 xVF .66 = .93 x3 case volume = Estimated Purge Volume: 2.81 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.33

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1345 Weather Conditions: Clear

Sample Time/Date: 1415 / 2/9/12 Water Color: Clear Odor: (Y) / N Strong

Approx. Flow Rate: — gpm. Sediment Description: Light

Did well de-water? no If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 13.30

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1349	1	7.39	1420	20.4		
1353	2	7.30	1467	20.7		
1358	2.5	7.16	1494	20.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	~~YES~~	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-10 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 26.44 ft.
Depth to Water 12.62 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

13.82 xVF .66 = 9.12 x3 case volume = Estimated Purge Volume: 27.36 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.38

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1435 Weather Conditions: Clear
Sample Time/Date: 1505 / 2/9/12 Water Color: Clear Odor: (Y) N Light
Approx. Flow Rate: 3 gpm. Sediment Description: Light
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 14.65

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1438	9	7.61	1671	19.4		
1441	18	7.37	1624	19.1		
1444	27	7.30	1603	19.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-11 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 14.62 ft.
Depth to Water 13.06 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

1.56 xVF .66 = 1.02 x3 case volume = Estimated Purge Volume: 3.08 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.37

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 1525 Weather Conditions: Clear
Sample Time/Date: 1555 / 2/9/12 Water Color: Clear Odor: (Y) / N Light
Approx. Flow Rate: — gpm. Sediment Description: None
Did well de-water? No If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 13.35

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1528	1	7.66	1425	19.3		
1531	2	7.25	1461	19.0		
1535	3	7.12	1513	19.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-11	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	~~NP~~	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-12 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 26.68 ft.
Depth to Water 13.11 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

13.57 xVF .66 = 8.95 x3 case volume = Estimated Purge Volume: 26.86 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.82

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1610 Weather Conditions: Clear
Sample Time/Date: 1645 / 2/9/12 Water Color: Clear Odor: (Y) (N) Low
Approx. Flow Rate: 3 gpm. Sediment Description: Low
Did well de-water? no If yes, Time: Volume: gal. DTW @ Sampling: 14.68

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1613	9	7.61	1394	17.9		
1616	18	7.52	1418	18.3		
1619	27	7.35	1452	18.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-12	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 | Job Number: 385867
Site Address: 930 Springtown Blvd. | Event Date: 2/9/12 (inclusive)
City: Livermore, CA | Sampler: JH

Well ID: MW-13 | Date Monitored: 2/9/12
Well Diameter: 4
Total Depth: 36.65 ft.
Depth to Water: 12.83 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

23.82 xVF .66 = 15.72 x3 case volume = Estimated Purge Volume: 47.16 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 17.59

Purge Equipment:
- Disposable Bailer: ____
- Stainless Steel Bailer: ____
- Stack Pump: X
- Suction Pump: ____
- Grundfos: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Sampling Equipment:
- Disposable Bailer: X
- Pressure Bailer: ____
- Metal Filters: ____
- Peristaltic Pump: ____
- QED Bladder Pump: ____
- Other: ____

Time Started: ____ (2400 hrs)
Time Completed: ____ (2400 hrs)
Depth to Product: ____ ft
Depth to Water: ____ ft
Hydrocarbon Thickness: ____ ft
Visual Confirmation/Description: ____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ____ gal
Amt Removed from Well: ____ gal
Water Removed: ____

Start Time (purge): 1705 | Weather Conditions: Clear
Sample Time/Date: 1740 / 2/9/12 | Water Color: Grey | Odor: Y / (N)
Approx. Flow Rate: 3 gpm. | Sediment Description: Light
Did well de-water? No | If yes, Time: ____ | Volume: ____ gal. | DTW @ Sampling: 16.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1710	15	7.93	1132	19.9		
1715	30	7.80	1165	19.3		
1721	48	7.67	1194	19.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-13	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	2 x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS: ____

Add/Replaced Lock: ____ Add/Replaced Plug: ____ Add/Replaced Bolt: ____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #211253** Job Number: **385867**

Site Address: **930 Springtown Blvd.** Event Date: 2/9/12 (inclusive)

City: **Livermore, CA** Sampler: JH

Well ID **MW- 14** Date Monitored: 2/9/12

Well Diameter 4

Total Depth 14.41 ft.

Depth to Water 10.69 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

3.72 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:

- Disposable Bailer
- Stainless Steel Bailer
- Stack Pump
- Suction Pump
- Grundfos
- Peristaltic Pump
- QED Bladder Pump
- Other: _____

Sampling Equipment:

- Disposable Bailer
- Pressure Bailer
- Metal Filters
- Peristaltic Pump
- QED Bladder Pump
- Other: _____

Time Started: — (2400 hrs)

Time Completed: — (2400 hrs)

Depth to Product: 10.35 ft

Depth to Water: 10.69 ft

Hydrocarbon Thickness: _____ ft

Visual Confirmation/Description: —

Skimmer / Absorbant Sock (circle one)

Amt Removed from Skimmer: _____ gal

Amt Removed from Well: _____ gal

Water Removed: _____

Start Time (purge): _____ Weather Conditions: _____

Sample Time/Date: _____ / _____ Water Color: _____ Odor: Y / N _____

Approx. Flow Rate: _____ gpm. Sediment Description: _____

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS: SOH

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-15 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 45.90 ft.
Depth to Water 10.44 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

35.46 xVF .66 = 23.40 x3 case volume = Estimated Purge Volume: 70.20 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 17.53

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1050 Weather Conditions: Clear
Sample Time/Date: 1135 / 2/9/12 Water Color: clear Odor: Y / (N)
Approx. Flow Rate: 3 gpm. Sediment Description: none
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 13.82

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
1058	24	7.44	1127	16.6		
1106	48	7.40	1145	16.1		
1113	70	7.29	1163	16.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-15	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	x 1 liter ambers	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-16 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 29.19 ft.
Depth to Water 10.62 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

18.57 xVF .66 = 12.25 x3 case volume = Estimated Purge Volume: 36.76 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.33

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump X
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer X
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 0930 Weather Conditions: Clear
Sample Time/Date: 1000 / 2/9/12 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 2 gpm. Sediment Description: None
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 10.54

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0936	12	7.46	982	15.1		
0942	24	7.46	964	15.0		
0949	37	7.28	961	15.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-16	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: SH

Well ID MW-17 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 37.08 ft.
Depth to Water 14.58 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

22.50 xVF .66 = 14.85 x3 case volume = Estimated Purge Volume: 44.55 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.08

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1805 Weather Conditions: Clear
Sample Time/Date: 1845 / 2/9/12 Water Color: ~~Cloudy~~ Odor: Y / N
Approx. Flow Rate: 3 gpm. Sediment Description: Lt Brn
Did well de-water? NO If yes, Time: Volume: gal. DTW @ Sampling: 17.66

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1810	15	7.68	1377	17.6		
1815	30	7.60	1402	17.2		
1820	45	7.33	1449	17.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-17	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-18 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 14.90 ft.
Depth to Water 12.06 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

2.84 xVF .66 = 1.87 x3 case volume = Estimated Purge Volume: 5.62 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.62

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1150 Weather Conditions: Clear
Sample Time/Date: 1225 / 2/9/12 Water Color: Clear Odor: Y / N
Approx. Flow Rate: — gpm. Sediment Description: Light
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 12.60

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1155	2	7.69	1246	17.2		
1200	4	7.60	1277	17.3		
1205	5.5	7.39	1291	17.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-18	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 | Job Number: 385867
Site Address: 930 Springtown Blvd. | Event Date: 2/9/12 (inclusive)
City: Livermore, CA | Sampler: JW

Well ID: MW-19 | Date Monitored: 2/9/12
Well Diameter: 4
Total Depth: 14.91 ft.
Depth to Water: 12.39 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

2.52 xVF .66 = 1.66 x3 case volume = Estimated Purge Volume: 4.98 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.89

Purge Equipment:

Disposable Bailer	X
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____

Start Time (purge): 1245 | Weather Conditions: Clear
Sample Time/Date: 1325 / 2/9/12 | Water Color: tan | Odor: (Y) / N Low
Approx. Flow Rate: — gpm. | Sediment Description: Heavy
Did well de-water? NO If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 12.72

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm / µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1247	1.5	7.85	2041	17.4		
1252	3.0	7.69	2063	17.7		
1257	4.5	7.60	2075	18.0		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-19	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	~~YES~~	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS: _____

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #211253 Job Number: 385867
Site Address: 930 Springtown Blvd. Event Date: 2/9/12 (inclusive)
City: Livermore, CA Sampler: JH

Well ID MW-20 Date Monitored: 2/9/12
Well Diameter 4
Total Depth 14.94 ft.
Depth to Water 9.68 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

5.26 xVF .66 = 3.47 x3 case volume = Estimated Purge Volume: 10.41 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.73

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	
Stack Pump	X
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	X
Pressure Bailer	
Metal Filters	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:

Start Time (purge): 1020 Weather Conditions: Clear
Sample Time/Date: 1045 / 2/9/12 Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: 1 gpm. Sediment Description: None
Did well de-water? No If yes, Time: Volume: gal. DTW @ Sampling: 10.60

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
1023	3	7.92	1516	16.8		
1026	6	7.50	1510	16.7		
1031	11	7.84	1501	16.5		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-20	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8260)
	~~x 1 liter ambers~~	YES	NP	CHEVRON RTC	CHEVRON PFI STUDY

COMMENTS:

Add/Replaced Lock: Add/Replaced Plug: Add/Replaced Bolt:

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories

For Lancaster Laboratories use only

Acct. #: ______ Sample # ______ Group #: 008781

SS#211253-OML G-R#385867 Global ID#T0600101353

Facility #: 930 SPRINGTOWN BLVD., LIVERMORE, CA

Site Address: EF CRAHK Huey

Chevron PM: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568 Lead Consultant:

Consultant/Office: Deanna L. Harding (deanna@grinc.com)

Consultant Prj. Mgr.: 925-551-7555 925-551-7899

Consultant Phone #: ______ Fax #: ______

Sampler: [signature]

Analyses Requested — Preservation Codes: H, H

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (☐ Potable ☐ NPDES)	Oil ☐ Air	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method					
QA	2/9/12		X			X		2	X	X										
MW-9	↓	1415	X			X		6	X	X										
MW-10		1505	X			X		6	X	X										
MW-11		1555	X			X		6	X	X										
MW-12		1645	X			X		6	X	X										
MW-13		1740	X			X		6	X	X										
MW-15		1135	X			X		6	X	X										
MW-16		1000	X			X		6	X	X										
MW-17		1845	X			X		6	X	X										
MW-18		1225	X			X		6	X	X										
MW-19		1325	X			X		6	X	X										
MW-20	↓	1015	X			X		6	X	X										

Preservative Codes

H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Please forward the lab results directly to the Lead Consultant and cc: G-R.

Turnaround Time Requested (TAT) (please circle)

(STD. TAT) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required) EDF/EDD
QC Summary Type I - Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	2/9/12	2000	[illegible]	[illegible]	[illegible]
[signature]	02-13-12	1225	[signature]	2/13/12	1225

Relinquished by Commercial Carrier: UPS FedEx Other ______ | Received by: | Date | Time

Temperature Upon Receipt ______ C° | Custody Seals Intact? Yes No

APPENDIX H

NORCAL GEOPHYSICAL SURVEY REPORT

NORCAL GEOPHYSICAL CONSULTANTS INC.

February 13, 2012

Mr Andrew Renshaw
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, California 94608

Subject: Geophysical Survey
Former Texaco Service Station 21-1253
930 Springtown Blvd
Livermore, California

NORCAL Project No. 11-462.109

Dear Mr Renshaw

This report presents the findings of a geophysical survey performed by NORCAL Geophysical Consultants, Inc. on portions of the subject site. The field work was conducted on January 4, 2012 by NORCAL Geophysicists David Bissiri and Anna Brody. Site logistics and background information was provided by Ms. Greti Wolfe and Mr. Andrew Renshaw of Conestoga-Rovers & Associates (CRA).

1.0 SITE DESCRIPTION

The site is an approximately 180- by 160-foot lot located on the southeastern corner of Springtown Boulevard and Lassen Road in Livermore, California (see Plate 1). The site currently is a 7-11 convenience store and comprises an asphalt and concrete paved parking lot on the northern half and the store structure on the southern half. The parking lot is bounded on the north and west by landscaped planters and entrance driveways; on the south by the building; and on the east by a landscaped slope. Within the parking lot area the notable surface features consist of a 30- by 25-foot concrete pad located approximately 60 feet east of the Lassen Street entrance, two suspected abandoned and filled storm drain catch basins located south of the Springtown Boulevard entrance; an active drainage swale and catch basin located in the Springtown Boulevard entrance; and several utility vaults/pull boxes, signposts, and light standards located in various portions of the planters. The survey area, as designated by CRA, consisted of an approximately 180- by 80-foot portion of the parking lot and planters adjacent to Springtown Boulevard.

2.0 PURPOSE and METHODOLOGY

According to reports provided to NORCAL the site was once a Texaco gasoline service station. The station was demolished sometime in the 1990's. The reports indicate that all the USTs associated with the former gasoline station were removed. However, subsequent soil and ground water samples have had detectable levels of pollutants higher than what would be expected, suggesting that there may be an additional undocumented source of pollution on site. The primary purpose of this investigation, therefore, is to use geophysical means to determine if any

detectable subsurface objects suggestive of underground storage tanks (USTs) exist within the designated survey area. A secondary purpose was to investigate six (6) proposed boring locations (MW-17, MW-18; MW-19; MW-20; MW-20A, MW-21) for detectable underground utility lines that could be obstructions to drilling.

The geophysical investigation was conducted using a combination of vertical magnetic gradient (VMG), metal detector (MD), ground penetrating radar (GPR), and electromagnetic line locating (EMLL) methods. These methods assist in characterizing the shallow subsurface. A more detailed discussion of these methods, data analysis, geophysical instrumentation, and limitations is presented in Appendix A.

3.0 DATA ACQUISITION

3.1 UST Survey

Our first task was to establish a survey grid in the parking lot area for VMG data acquisition. The grid consisted of a series of traverse lines spaced approximately four feet apart parallel to Lassen Road, with data stations placed at approximately 3-foot intervals along the lines. The baseline of the grid (Grid 0 North) was along the southern edge of the concrete pad and the western limit (Grid 0 East) was the inboard edge of the sidewalk along Lassen Road.

After the grid set-up, we conducted VMG and MD reconnaissance surveys. The VMG survey consisted of carrying a vertical gradient magnetometer along the survey grid lines and obtaining a series of VMG readings at the data stations. Following the VMG data collection, the data were uploaded to a field computer and processed on-site to produce a VMG contour map. The contour map was then evaluated for magnetic variations indicative of large ferrous objects. By comparing the locations of suspect magnetic variations identified on the contour map with the locations of known above-ground magnetic objects, the locations of suspected subsurface magnetic sources could be determined.

The MD survey consisted of conducting a series of bidirectional traverses (north-south and east-west) spaced 3-4 feet apart across accessible portions of the parking lot and planter areas. If a subsurface metallic object was detected then additional traverses of varying lengths and orientations were conducted as needed to further characterize the detected object and its outline marked on the ground.

Following the VMG and MD reconnaissance surveys, the GPR was used to investigate identified VMG and MD anomalies. This consisted of pushing the cart-mounted GPR unit along selected traverses of varying lengths that crossed over the approximate center of the anomalies, as depicted on Plate 2 by the solid red lines. The GPR data were then preliminarily processed on-site and evaluated for reflection patterns suggestive of USTs, associated piping, or backfill material. Additional data processing and evaluation was conducted later in our Cotati office.

3.2 Proposed Borings Survey and Underground Utilities

We conducted a series of bidirectional MD traverses approximately 20-feet long spaced approximately 3-4 feet apart at each boring location. If a subsurface metallic object was detected, additional traverses of varying lengths and orientations were conducted as needed in order to further define the object's apparent extent. If the proposed boring was closer than 3 feet to a detected object, then the proposed location was repositioned and the new position examined in a similar manner. Following the MD survey we then used the EMLL instrument to delineate detectable underground utility alignments noting the locations of detected features. Finally, we used the GPR to conduct, at a minimum, two bidirectional radar traverses centered over the proposed boring location at least 20 feet long (not shown). The resulting GPR profiles were then evaluated for reflection patterns suggestive of buried utilities in the vicinity of the borings and the position of the proposed boring adjusted as needed.

4.0 RESULTS and DISCUSSION

The results of our investigation are presented on Plates 1 and 2. Plate1 is a site map depicting the limits of the survey area, the locations of the six proposed boring locations, and the locations of pertinent above ground objects and interpreted subsurface features. Plate 2 is a vertical magnetic gradient contour map overlain with the locations of pertinent above-ground objects, interpreted sub-surface features, and the locations of the GPR traverses.

4.1 UST Survey

The VMG contour map depicts several areas with closely spaced and contorted contour lines. These contorted contour lines indicate the presence of nearby magnetic sources. Based on our field observations it appears that many of the VMG variations are attributable to known above-ground sources that include the light standards and the electric sign, utility vaults, and the storm drain catch basins. Other variations can be attributed to underground utility lines delineated with the MD and EMLL. However, there are some contour closures that cannot be attributed to these sources, and as a result are considered anomalous. The locations of these VMG anomalies are depicted on Plate 2 by the shaded red figures. Follow-up work with the MD and GPR suggest that these anomalies are most likely due to minor amounts of miscellaneous debris and rebar in the reinforced concrete pad. However, in the case of the anomalies in the vicinity of the concrete pad, the possibility that the rebar has distorted, or masked, the magnetic signature of a possible UST cannot be ruled out.

4.2 Proposed Borings Survey and Underground Utilities

We were able to delineate one non-metallic, and six metallic features that we suspect to be sections of underground utility lines. However, none of the lines appear to be within 5 feet of the proposed boring locations. The interpreted alignments of these suspect utilities are depicted on the plates as the dashed lines labeled "-uu-" One of the lines is located adjacent to the southernmost filled catch basin and is dashed in blue, which represents a non-metallic utility. The non-metallic nature and its proximity to the filled catch basin suggests that this line may be associated with a former storm drain system. The dashed black lines represent utilities

constructed with metal. The identities of these utilities were not determined but some may be electric lines, based on their proximity to light standards. One of the lines, located approximately 7 feet west of the southern filled-in catch basin, may be associated with a small buried utility box.

5.0 LIMITATIONS

Not all buried objects or substructures can be detected or characterized by the geophysical techniques used for this investigation. In general, there are limitations unique to each geophysical method. One limitation is the maximum depth that can be attained by a given technique Furthermore, each geophysical method relies on the existence of a significant contrast in physical properties between background soils and the object or substructure of interest. Also, each geophysical instrument responds differently to above or below ground cultural objects such as utilities, fences, and debris. These objects can cause interference, which can limit the effective detection of buried objects in their immediate vicinity. We recommend excavation of the suspected objects if conclusive determination of their identity is required. A more detailed discussion of the limitations with regard to each of the geophysical methods employed in this investigation is presented in Appendix A.

6.0 STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. The services were performed in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the services or products delivered under this agreement, expressed or implied, is made by NORCAL

We appreciate having the opportunity to provide our services to you on this project. If you have any questions, or require additional geophysical services, please do not hesitate to call.

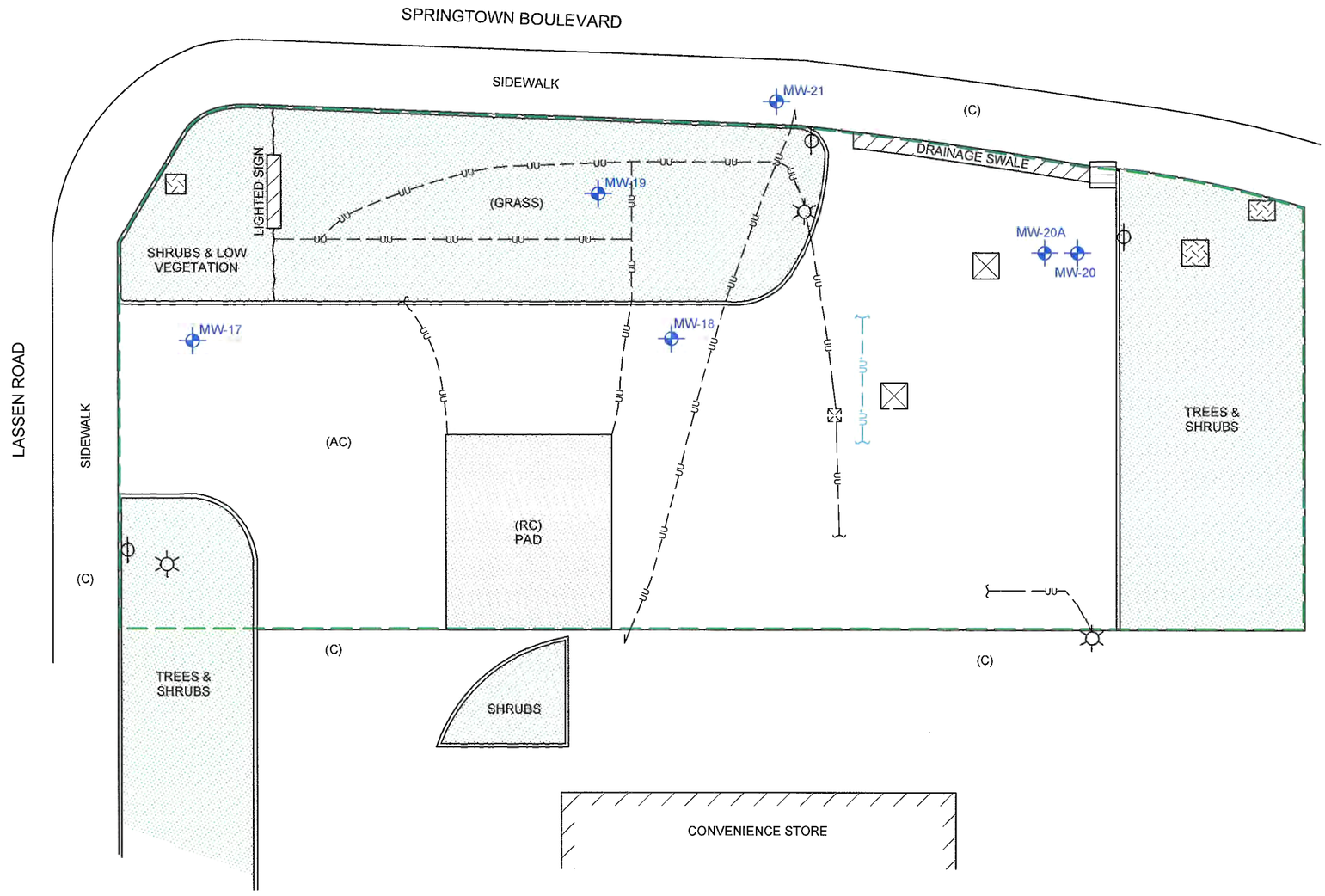
Respectfully,

NORCAL Geophysical Consultants, Inc.

David Bissiri
Professional Geophysicist PGp-1009

DJB/KGB/tt

Enclosures Plate 1 - Site Map
Plate 2 - Vertical Magnetic Gradient Contour Map
Appendix A - Geophysical Methodology, Instrumentation, Data Analysis, and Limitations



SCALE

0 10 20 40

(1 inch = 20 feet)

LEGEND

— — —	LIMITS OF GEOPHYSICAL SURVEY
— —UU— —	UNDIFFERENTIATED UTILITY LINE
— —UU— —	UNDIFFERENTIATED UTILITY LINE (NON-METALLIC)
⊠	FILLED (ABANDONED) STORM DRAIN CATCH BASIN
▤	STORM DRAIN CATCH BASIN
☼	LIGHT STANDARD
⊕	MONITORING WELL
⌽	SIGN POST
⊡	SUSPECTED BURIED UTILITY BOX?
⊠	UTILITY VAULT/PULL BOX
(AC)	ASPHALT
(C)	CONCRETE
(RC)	REINFORCED CONCRETE

NORCAL

GEOPHYSICAL SURVEY MAP
FORMER TEXACO SS 21-1253
930 SPRINGTOWN BOULEVARD

LOCATION: LIVERMORE, CALIFORNIA

CLIENT: CONESTOGA ROVERS ASSOCIATES

NORCAL GEOPHYSICAL CONSULTANTS INC.

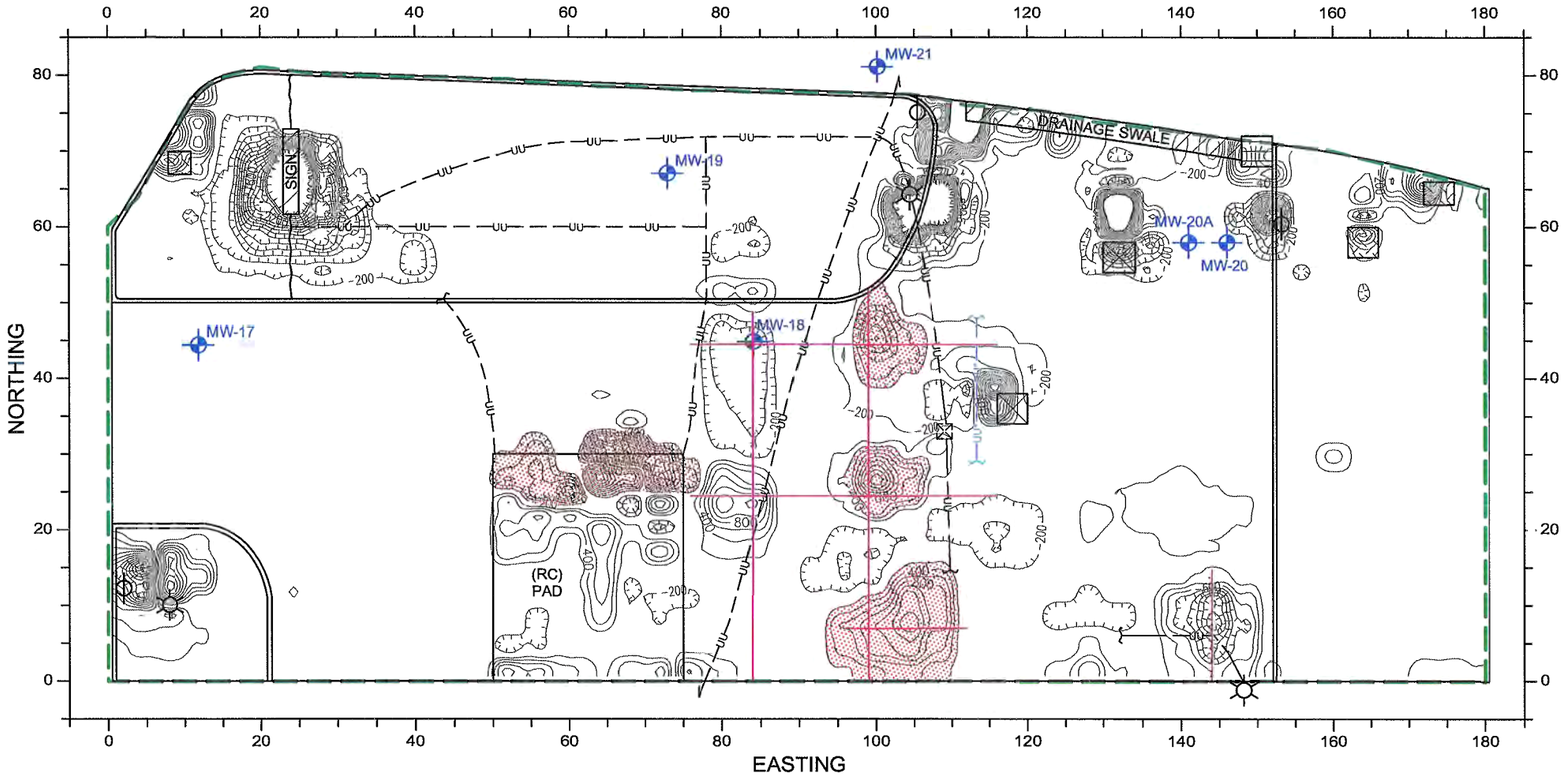
JOB #: 11-462.109

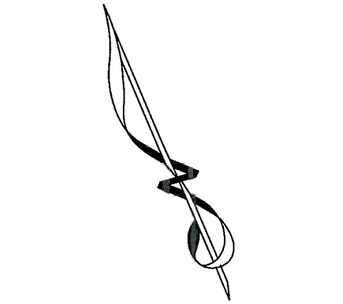
DATE: FEB. 2012

DRAWN BY: G.RANDALL

APPROVED BY: DJB

PLATE 1





LEGEND

	LIMITS OF VERTICAL MAGNETIC GRADIENT SURVEY
0	VERTICAL MAGNETIC GRADIENT (VMG) CONTOUR (CONTOUR INTERVAL = 200 nT/m)
	VMG ANOMALY
	GPR TRAVERSE
UU	UNDIFFERENTIATED UTILITY LINE
UU	UNDIFFERENTIATED UTILITY LINE (NON-METALLIC)
	FILLED (ABANDONED) STORM DRAIN CATCH BASIN
	STORM DRAIN CATCH BASIN
	LIGHT STANDARD
	MONITORING WELL
	SIGN POST
	SUSPECTED BURIED UTILITY BOX?
	UTILITY VAULT/PULL BOX
(RC)	REINFORCED CONCRETE

NORCAL

VERTICAL MAGNETIC GRADIENT CONTOUR MAP-FORMER TEXACO SS 21-1253 930 SPRINGTOWN BOULEVARD

LOCATION: LIVERMORE, CALIFORNIA

CLIENT: CONESTOGA ROVERS ASSOCIATES

JOB #: 11-462.109

NORCAL GEOPHYSICAL CONSULTANTS INC.

DATE: FEB. 2012

DRAWN BY: G.RANDALL

APPROVED BY: DJB

PLATE 2

Appendix A

Geophysical Methodology, Instrumentation, Data Analysis, and Limitations

Appendix A

VERTICAL MAGNETIC GRADIENT

Methodology

Vertical magnetic gradient surveys are used to determine the presence of buried ferrous objects A magnetic gradiometer measures the vertical gradient of the earth's magnetic field It consists of two total field magnetic sensors separated vertically by one-half meter. The magnetic field strength is measured simultaneously at both of these sensors. The difference in magnetic intensity between these measurements is proportional to the vertical gradient of the earth's magnetic field. Because the vertical gradient is constant with respect to time, the effect of diurnal variations is eliminated. Therefore, a gradiometer provides higher sensitivity and better resolution of near surface sources than total field magnetometers. Areas with significant amounts of buried metal typically produce anomalously steep magnetic gradients. Since it is sensitive to ferrous metal sources both above and below ground, site and vicinity surface conditions can affect survey results

We typically use a Geometrics G-858 cesium vapor magnetometer to obtain vertical magnetic gradient data. This instrument features a built-in memory that stores the vertical magnetic gradient and survey grid information. The information can be down loaded to a computer for further processing.

Data Analysis

Computer Processing

The VMG data are down loaded to a lap-top computer and converted it into a format for contouring. The contouring program (SURFER Version 9 0 by Golden Software) calculates an evenly spaced array of values (grid) based on the observed field data. Finally, these gridded values are contoured to produce a VMG contour map

Contour Map Interpretation

The VMG contour map illustrates the variations in the vertical magnetic gradient across the site Areas without below or above ground ferrous metal are characterized by very low magnetic gradients. In these areas, there are very few contours In areas with above or below ground ferrous metal, the magnetic gradient is relatively steep These areas are characterized by numerous closely spaced contours and are considered anomalous. If the source of the anomaly is linear (e.g. underground utilities or fence lines), then the contours tend to be parallel and evenly distributed. If the source of the anomaly is localized (e.g. sign post, buried drum, etc.), then the contours tend to form circular or elliptical closures proportional to the size of the object. The larger the object and the closer it is to the magnetometer, the denser the concentrations of contours. Magnetic anomalies that cannot be attributed to above ground objects (fences, vehicles, buildings, etc.) are probably caused by buried objects.

USTs are often characterized by circular to elliptical contour closures. These closures have magnitudes ranging from several hundred to several thousand nano-Tesla per meter (nT/m) depending on the size and depth of the tank. If the UST is cylindrical and lying horizontally, it will often produce a bi-polar VMG anomaly. This consists of two adjacent contour closures. One has VMG values that increase towards the center of the closure and is referred to as a positive lobe. The second has VMG values that decrease towards the center of the closure and is referred to as a negative lobe. Typically, the positive lobe is situated directly above the UST and the negative lobe is to the north of the UST. Utilities and scattered metal debris, on the other hand, are generally characterized by single circular or irregular shaped negative lobes, or a group of alternating positive and negative lobes (closures). These closures typically have magnitudes ranging from less than fifty to several hundred nano-Tesla per meter (nT/m) depending on the size, depth, and amount of utilities and debris in a given area.

Limitations

Below ground metal ferrous objects produce localized variations in the earth's magnetic field. The magnetic intensity associated with buried metal depends on the mass of the metal and the distance the metal object is from the magnetometer sensor. As the distance between the object and the magnetometer sensor increases, the intensity of the associated field decreases, thereby making detection more difficult. In addition, the ability to detect a buried metal object is based on the intensity of these variations versus the intensity of the background variations. Background variations can be caused by other nearby above or below ground metallic sources. Cultural features such as chain link fences, buildings, debris, railroad spurs, utilities, above ground electric lines, etc. typically produce numerous magnetic variations with high intensities. These variations may mask effects from buried metal objects, or make it very difficult to determine whether the magnetic variations are associated with below ground metal or above/below ground cultural features.

ELECTROMAGNETIC LINE LOCATION/METAL DETECTION (EMLL/MD)

Methodology

Electromagnetic line location techniques are used to locate the magnetic field resulting from an electric current flowing on a line. These magnetic fields can arise from currents already on the line (passive) or currents applied to a line with a transmitter (active). The most common passive signals are generated by live electric lines and re-radiated radio signals. Active signals can be introduced by connecting the transmitter to the line at accessible locations or by induction.

The detection of underground utilities is affected by the composition and construction of the line in question. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless the utilities carry a passive current, they must be exposed at the surface or in accessible utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that are not detectable using standard electromagnetic line location techniques include those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and pipes with insulated connections.

Buried objects can also be detected, without direct contact, by using the induction mode. This is used by the MD to detect buried near surface metal objects such as rebar, manhole covers, USTs, and various amounts of metallic debris. By holding the transmitter-receiver unit above the ground and continuously scanning the surface. The unit utilizes two orthogonal coils that are separated by a specified distance. One of the coils transmits an electromagnetic signal (primary magnetic field) which in turn produces a secondary magnetic field about the subsurface metal object. Since the receiver coil is orthogonal to the transmitter coil, it is unaffected by the primary field, but not by most secondary fields generated by buried metal objects. As a result, the secondary magnetic field generates an audible response from the unit. Typically the peak response indicates when the unit is directly over the metal object. By carefully noting where the response increases and decreases the general location, orientation and size of shallowly buried metallic objects may be determined.

The instrumentation typically used for the EMLL survey consists of a Radio Detection RD-400 and a Fisher TW-6 inductive pipe and cable locator

Data Analysis

The EMLL and MD instrumentation indicates the presence of buried objects by emitting an audible tone and changes on their respective visual displays, there are no recorded data to analyze. Therefore, the locations of buried objects detected with the EMLL and MD methods are usually limited to marks on the ground placed by the operator during the survey

Limitations

The detection of underground utilities is dependent upon the composition and construction of the line of interest, as well as depth. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless carrying a passive current these utilities must be exposed at the surface or accessible in a utility vault. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that may not be detectable using standard electromagnetic line location techniques include certain abandoned utilities, utilities not exposed at the ground surface, or those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and metal pipes with insulating joints. Pipes generally deeper than about five to seven feet may not be detected.

GROUND PENETRATING RADAR (GPR)

Methodology

Ground penetrating radar is a method that provides a continuous, high resolution cross-section depicting variations in the electrical properties of the shallow subsurface. The method is particularly sensitive to variations in electrical conductivity and electrical permittivity (the ability of a material to hold a charge when an electrical field is applied).

The GPR system operates by repeatedly radiating electromagnetic pulses into the ground from a transducer (antenna) as it is moved along a traverse. Since most earth materials are

transparent to electromagnetic energy, the signal spreads downward into the subsurface. However, when the signal encounters a variation in electrical permittivity, a portion of the electromagnetic energy is reflected back to the surface. When the signal encounters a metal object, all of the incident energy is reflected. The reflected signals are received by the same transducer and are printed in cross-section form on a graphical recorder. Changes in subsurface reflection character on the GPR records can provide information regarding the location of USTs, sumps, buried debris, underground utilities, and variations in the shallow stratigraphy

The GPR system typically used is a Geophysical Survey Systems, Inc. SIR-3000 Subsurface Interface Radar Systems equipped with a 400 megahertz (MHz) transducer. This transducer is near the center of the available frequency range and is used to provide high resolution at shallow depths.

Data Analysis

GPR records are examined to identify reflection patterns characteristic of USTs, utilities, and other buried debris. Typically, USTs are manifested by broad localized hyperbolic (upside-down "U" shape) reflection patterns that vary in intensity. The intensity of a reflection pattern is usually dependent upon the condition of the respective UST, its burial depth, and the type of fill over the UST Utilities and other buried debris are typically manifested by narrow localized hyperbolic reflections that also vary in intensity.

Limitations

The ability to detect subsurface targets is dependent on site specific conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Under ideal conditions, the GPR can generally detect objects buried to approximately six feet. However, as the clay content in the subsurface increases, the GPR depth of detection decreases. Therefore, it is possible that on-site soil conditions and target features may limit the depth of detection to the upper one to two feet below ground surface