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Consultants, Inc.

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TRANSMITTAL

TO: Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
San Ramon, California, 94583

DATE: April 11, 2002
PROJ. #: DG26145C.4C01
SUBJECT: Well Installation Report
Former Chevron SS #20-6145
800 Center Street
Oakland, California

FROM:
Douglas J. Lee
Project Manager
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

Recd 4/12/02
• well + utilities Survey

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	April 11, 2002	Well Installation Report

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COMMENTS:

Enclosed is one copy of the referenced Report. If you have any questions, please call me at (925) 551-7555.

cc: Mr. Barney Chan, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577.
Mr. Jim Brownell, Delta Environmental, 3164 Gold Camp Drive, Suite 200, Rancho Cordova, CA, 95670.
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Mr. Hollis Rodgers, c/o Victor Brown, 580 Grand Avenue, Oakland CA 94610

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MONITORING WELL INSTALLATION REPORT

for

Former Chevron Service Station No. 20-6145
800 Center Street
Oakland, California

GR Report No. 346492.02-2
Delta Project No. DG26-145

Rec'd
4/12/02

Prepared for:

Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
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Prepared by:

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STATE OF CALIFORNIA

April 11, 2002

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Delta Environmental Consultants, Inc.

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MONITORING WELL INSTALLATION REPORT

Former Chevron Service Station No. 20-6145
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Report No. 346492.02-2
Delta Project No. DG26-145

INTRODUCTION

At the request of Chevron Products Company (Chevron), Delta Environmental Consultants Inc. Network Associate Gettler-Ryan Inc. (GR) has prepared this report to document the installation of one off-site groundwater monitoring well in the vicinity of the subject site. This work was requested by the Alameda Count Environmental Health Services (ACEHS) in a letter dated August 1, 2000. The purpose of this new well is to further delineate the extent of petroleum hydrocarbons in groundwater southwest of this site.

The scope of work included: obtaining the required well installation permit from the Alameda County Public Works Department (ACPWD) and encroachment and excavation permits from the City of Oakland; updating the site safety plan; installing one off-site monitoring well; collecting soil samples for possible chemical analysis and preparing a log of the well boring; surveying the newly installed monitoring well; developing and sampling the well; conducting a well search and a Sensitive Receptor Survey (SRS) and preparing a report presenting the findings of the investigation.

SITE DESCRIPTION

The subject site is located on the northeastern corner of the intersection of 8th Street and Center Street in the City of Oakland, California (Figure 1). The topography in the vicinity of the site is relatively flat at an elevation of approximately 15 feet above mean sea level. The nearest surface water is Oakland Inner Harbor approximately 1 mile south of the site.

The site was first developed as a service station in 1932. Four 1,000 gallon underground fuel storage tanks (USTs) and one waste oil UST, apparently installed when the site was built, were removed in 1973 when the station was closed. The original station facilities, including the building, USTs and the dispenser islands have been removed and the site is now vacant. Properties in the vicinity are developed as residential housing, churches and retail businesses.

PREVIOUS ENVIRONMENTAL WORK

The information discussed below was obtained from files provided by Chevron. Locations of the wells and borings are shown on Figure 2. Three subsurface investigations have been performed at the subject site. In 1989, Subsurface Consultants Inc. drilled five soil borings (1 through 5) to depths between 4.5 and 26 feet below ground surface (bgs). Temporary wells were installed in two of these borings. Borings 1 through 4

were installed in the vicinity of the former USTs, the dispenser island, and sumps along the eastern property boundary. Concentrations up to 14,000 parts per million (ppm) of Total Petroleum Hydrocarbons as diesel (TPHd), up to 31,000 ppm of Total Petroleum Hydrocarbons as gasoline (TPHg) and up to 500 ppm of benzene were detected in soil collected from depths up to 15 feet bgs. One sample from 3.5 feet bgs in boring 5, situated near the hydraulic hoist, contained 16,000 ppm oil and grease (O&G). Grab groundwater samples were collected from borings 1 and 3. TPHd was not detected in either sample. The sample from boring 3 contained benzene (340 parts per billion, or ppb).

Groundwater Technology Inc. drilled three soil borings (SB-1 through SB-3) to 12 feet bgs and installed four groundwater monitoring wells (MW-1 through MW-4) to 15 feet bgs in 1995. Concentrations of TPHg (up to 14,000 ppm) and benzene (up to 120 ppm) were detected in soil samples collected at 5 and 10 feet bgs in borings SB-1, SB-2 and MW-1. TPHg or benzene was not detected in soil samples from borings SB-3 or MW-2 through MW-4 (except for 0.24 ppm of benzene in the sample from boring MW-3 at 10 feet bgs).

Pacific Environmental Group advanced 5 soil vapor points (SV-1 through SV-5) to depths up to 12 feet bgs in 1997. Petroleum hydrocarbons were detected in soil samples collected from all borings at concentrations up to 8,000 ppm of TPHg and 52 ppm of benzene. Soil vapor samples from these borings contained up to 50,000 micrograms per liter (µg/l) of TPHg and 65 µg/l of benzene. The highest soil vapor concentrations were encountered in soil between 6 and 10 feet bgs.

In 1999, Chevron contracted GR to remove the dispenser island, sumps, hydraulic hoist, building foundations, trash enclosure, yard lights and asphalt remaining at the site. This work was initiated in September 1999. At that time, GR encountered one 1,000 gallon UST in the area of the former fuel UST pit along the western property boundary, adjacent to Center Street. One 550 gallon waste oil UST was encountered in front of the existing station building situated along the eastern property boundary. One buried 55 gallon steel drum, apparently used as a makeshift UST, was encountered in the vicinity of the hydraulic hoist inside the station building. At that time, work at the site was discontinued while negotiations between Chevron and the property owner were initiated concerning UST ownership. The USTs were not removed until April 2001. Locations of the USTs are shown on Figure 2.

On April 12, 2001, GR conducted compliance soil sampling during the removal of one 1,000 gallon gasoline UST, one 550 gallon waste oil UST, the hydraulic hoist and one 55 gallon drum. Two soil samples were collected from beneath the former gasoline UST at approximately 8.5 feet bgs. One soil sample was collected from beneath the former waste oil UST at approximately 8.0 feet bgs. The two soil samples collected from beneath the gasoline UST contained TPHg at 630 and 32 ppm, benzene at 10 and 0.11 ppm and MtBE at not detected and 0.38 ppm. The soil sample collected from beneath the former waste oil UST contained TPHg, TPHd, benzene, MtBE and O&G at 10.0, 3.2, 0.0092, 0.058 and 110 ppm, respectively.

Quarterly monitoring since October 1995 confirms that dissolved hydrocarbons are present in the groundwater. Depth to water fluctuates from approximately 5 to 10 feet bgs. Groundwater generally flows from northeast to southwest. During the November 28, 2001, fourth quarter monitoring and sampling event at the site, TPHg, benzene, toluene, ethyl-benzene, and total xylenes were detected in the groundwater samples collect from MW-1 at 26,000 ppb, 1,300 ppb, 3,900 ppb, 620 ppb and 3,400 ppb, respectively. The only other monitoring well

that contained hydrocarbon constituents in the groundwater collect from it was MW-3, which contained TPHg, benzene, toluene, ethyl-benzene, and total xylenes at 57, 000 ppb, 10,000 ppb, 2,900 ppb, 2,900 ppb and 2,800 ppb, respectively. MtBE was not detected in any of the groundwater samples collect during the fourth quarter 2001 monitoring and sample event (GR, November 28, 2001).

FIELD ACTIVITIES

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A) and Delta's Class III *Petroleum Site Health and Safety Plan* number DG26-145, dated December 5, 2000. Drilling permit number W01-2155 was obtained from the Alameda County Public Works Agency. An encroachment permit and an excavation permit was obtained from the City of Oakland Building Services Division. Copies of the drilling permit, encroachment permit and excavation permit are included in Appendix B.

Underground Service Alert (USA) was notified prior to drilling at the site. As a precautionary measure, a private utility locator was contracted to identify utilities near the proposed boring locations. The borings were hand excavated for the first five feet bgs to insure that no utilities were disturbed.

Well Installation

On January 9, 2002, a GR geologist observed Gregg Drilling and Testing Inc. (C57 #485165) installing one groundwater monitoring well (MW-8) at the location shown on Figure 2. Soil samples were collected at 5 foot intervals at a minimum using the methods outlined in the GR Field Methods and Procedures included in Appendix A. A track-mounted rig using 8-inch-diameter hollow stem augers advanced the borehole to 20 feet bgs. The GR geologist prepared a log of the boring and screened soil samples in the field for the presence of volatile organic compounds. The screening data are presented on the boring log in Appendix B.

The well was constructed of 2-inch-diameter polyvinyl chloride (PVC) to a depth of 20 feet bgs. The bottom 15 feet of the well casing consisted of 0.02-inch machine-slotted screen. Lonestar #3 sand was placed in the annular space from the bottom of the boring to approximately 1 foot above the well screen. The well was then sealed with hydrated bentonite followed by neat cement. A water resistant flush mounted well cover, installed in the concrete, was placed over the well casing. An expandable well cap, secured with a lock, was placed in the top of the well casing. Well construction details are shown on the boring log in Appendix B.

Drill cuttings were placed in DOT approved, properly labeled 55-gallon drums and stored on-site pending removal by Integrated Wastestream Management (IWM). One four part composite soil sample (SP1-Comp) was collected from the drill cuttings and analyzed as described below. Upon approval from the landfill, soil was transported to the Republic Landfill in Livermore California for disposal.

Well Monitoring, Development, and Sampling

During the first quarter monitoring and sampling event at the site, on February 14, 2002, static groundwater levels for the new and existing wells were measured and all wells were checked for the presence of separate-phase hydrocarbons (SPH). SPH were not detected in any of the monitoring wells.

After the static water levels were measured, the newly installed well (MW-8) was developed using a 2-inch diameter stainless steel bailer and a submersible pump. After development, groundwater samples were collected from the newly installed and pre-existing wells as specified by GR Field Methods and Procedures (Appendix A). Water generated during well development and sampling was transported to McKittrick Waste Management, in McKittrick California for disposal.

Wellhead Survey

The well casing elevations of the new and preexisting wells were surveyed by Virgil Chavez Land Surveying of Vallejo, CA (license #6323). Top of Casing (TOC) elevations were measured relative to mean sea level (MSL), and the horizontal location of the new well was measured. Well casing elevations for all the wells at the site are presented in Table 2. The surveyor's report is included in Appendix D.

RESULTS OF THE SUBSURFACE INVESTIGATION

Soil encountered during drilling generally consisted of poorly to well graded sand with silt from beneath the concrete at ground surface to the total explored depth of 20 feet bgs. A layer of silty sand was observed from approximately 3 feet bgs to 8 feet bgs. Groundwater was first encountered during drilling at 13.5 feet bgs. After the well was completed the water level in the well stabilized at 9.89 feet below TOC. Detailed descriptions of the soil encountered during drilling are presented on the boring log in Appendix B. A potentiometric map showing groundwater elevations and flow direction during the February 14, 2002, monitoring and sampling event is included as Figure 2.

CHEMICAL ANALYTICAL RESULTS

Selected soil and all groundwater samples were submitted to Lancaster Laboratories, in Lancaster, Pennsylvania (California Laboratory Certification Number 2116). Soil and groundwater samples were analyzed for Total Petroleum Hydrocarbons as gasoline and diesel (TPHg and TPHd) by Environmental Protection Agency (EPA) Method 8015M, benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MtBE) by EPA Method 8020A/8021B. In addition, the groundwater sample collected from MW-8 was analyzed for ethanol, tert-butyl alcohol (TBA), MtBE, di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), 1,2-dichloroethane (1,2 DCA), tert-amyl methyl ether (TAME) and ethylene dibromide (EDB) by EPA Method 8260B. Soil sample SP1-Comp, collected from the drill cuttings, was analyzed for TPHg and TPHd (EPA Method 8015M), BTEX and MtBE (EPA Method 8020A), and total lead (EPA Method 6010B). Copies of the laboratory analytical reports and chain-of-custody records are included in Appendix E.

Soil Analytical Results

Petroleum Hydrocarbons were not detected in any of the soil samples collected from the well boring MW-8. The disposal characterization samples from the drill cuttings (SP1-Comp) contained lead at concentrations that

where acceptable to the disposal facility. These data are summarized in Table 1.

Groundwater Analytical Results

The groundwater sample collected from MW-8 contained TPHd at 130 ppb; however, none of the other petroleum hydrocarbons analyzed were detected in this sample. The analytical data for groundwater samples from MW-8 and the pre-existing wells are summarized in Tables 2 and 3.

WASTE DISPOSAL

On April 3, 2002, drill cuttings were removed from the site by IWM and transported to Republic Landfill in Livermore California for disposal. Waste water generated during the well development was transported by IWM to the McKittrick facility.

WELL SEARCH

In March and April 2001, GR conducted a well search for an area within 1/2 miles of the subject site. The well search was conducted through records supplied to GR from the Alameda County Public Works Agency, Engineering and Construction Department, Water Resource Section. The results of the well search indicated that there are three wells within a 1/2 mile radius of the subject site (two industrial and one irrigation). One additional well was identified approximately 1/2 a mile from the site. The closest well identified is approximately 1,600 feet south of the site. Table 3 summarizes the results of the well search and Figure 3 shows the locations of the four wells within study area.

UTILITY SURVEY

In addition to the well search, GR conducted a survey of subsurface utilities in the vicinity of the subject site. The purpose of this work was to determine if any utility trenches near the site exist at groundwater depths and provide preferential pathways for groundwater in the vicinity. The utility search was conducted by reviewing construction details provided by the City of Oakland Engineering Services, East Bay Municipal Water District (EBMUD) and Pacific Gas and Electric (PG&E). The results of the utility search indicated that utilities near the site are buried at depths ranging from approximately 3 to 5 feet bgs. Current and historical groundwater data indicate that depth to water in the vicinity of the subject site ranges from approximately 5 to 11 feet bgs. Therefore, the utilities identified do not appear to be preferential pathways. Figure 4 is a utility map that summarizes the results of the utility search.

CONCLUSIONS

The purpose of this investigation was to determine if soil and groundwater downgradient of the subject site have been impacted by petroleum hydrocarbons. The analytical results from the soil samples collected during the monitoring well installation show that hydrocarbons have not impacted the soil in the vicinity of the MW-8. TPHd was detected at 130 ppb in the groundwater sample collected during the development of MW-8, however, none of the other hydrocarbon constituents analyzed were detected in MW-8. The analytical data collected during the February 14, 2002 groundwater monitoring and sampling event show that petroleum

hydrocarbons were detected in MW-1 and MW-3. None of the other monitoring wells at the site contained detectable levels of hydrocarbon constituents. Current groundwater data indicate that the groundwater flow direction at the site is to the south at a gradient of approximately 0.01 to 0.02 ft/ft.

Since groundwater sample MW-1 did have detectable concentrations of petroleum hydrocarbons, and the groundwater flow direction is toward the south, where MW-8 is located, GR recommends continuation of the quarterly monitoring and sampling program at the site.

REFERENCES

GR, Groundwater Monitoring and Sampling Report, Fourth Quarter November 28, 2001, dated January 11, 2002.

Work Plan For Monitoring Well Installation, Former Chevron Service Station No. 20-6145, 800 Center Street Oakland CA, Delta Environmental Consultants Inc. Network Associate Gettler - Ryan Inc., Dated May 25, 2001.

TABLE 1- SOIL CHEMICAL ANALYTICAL DATA

Former Chevron Service Station Number 20-6145
800 Center Street
Oakland, California

Sample No.	Sample Date	Sample Depth (in feet)	TPHg (ppm)	TPHd (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	MtBE (ppm)	Total lead (ppm)
MW-8 (11)	1/9/02	11	<1.0	<10	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
MW-8(15)	1/9/02	15	<1.0	<10	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
MW-8(20)	1/9/02	20	<1.0	<10	<0.0050	<0.0050	<0.0050	<0.015	<0.050	---
SP1-Comp	1/9/02	N/A	<1.0	<10	<0.0050	<0.0050	<0.0050	<0.015	<0.050	2.7

EXPLANATION:
ppm = parts per million
--- = analysis not requested
N/A = not applicable

ANALYTICAL LABORATORY:
Lancaster Laboratories (ELAP #2116)

ANALYTICAL METHOD:
TPHg = Total Petroleum Hydrocarbons as gasoline by California LUFT Method
TPHd = Total Petroleum Hydrocarbons as diesel by California LUFT Method
Benzene, Toluene, Ethylbenzene and Total Xylenes by EPA method 8020A
MtBE = Methyl tert-butyl ether by EPA Method 8020A
Total Lead by EPA Method 6010B

TABLE 2 - GROUNDWATER CHEMICAL ANALYTICAL DATA

Former Chevron Service Station Number 20-6145
800 Center Street
Oakland, California

Sample No.	Sample Date	Total Well Depth (ft.)	Well[1] Elev. (ft. (MSL)	Depth to Water (ft.)	Floating Product (ft.)	Ground Water Elevation (ft. MSL)	TPHg (ppb)	TPHd (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MtBE (ppb)
MW-1	2/14/02	13.70	15.63	7.29	0.00	8.34	1,400	---	100	360	45	240	9.3
MW-2	2/14/02	9.93	15.69	7.83	0.00	7.86	<50	---	<0.50	<0.50	<0.50	<1.5	<2.5
MW-3	2/14/02	14.10	15.40	7.67	0.00	7.73	51	---	2.9	<0.50	1.9	1.8	<2.5
MW-4	2/14/02	8.55	14.37	6.71	0.00	7.66	<50	---	<0.50	<0.50	<0.50	<1.5	<2.5
MW-5	2/14/02	19.25	15.01	7.05	0.00	7.96	<50	---	<0.50	<0.50	<0.50	<1.5	<2.5
MW-6	2/14/02	8.51	14.68	6.78	0.00	7.90	<50	---	<0.50	<0.50	<0.50	<1.5	<2.5
MW-7	2/14/02	17.98	16.31	8.10	0.00	8.21	<50	---	<0.50	<0.50	<0.50	<1.5	<2.5
MW-8	2/14/02	19.84	15.29	7.99	0.00	7.30	<50	130	<0.50	<0.50	<0.50	<1.5	<2.5

EXPLANATION:

ft. = feet
ft. MSL = feet relative to Mean Sea Level.
ppb = parts per billion

ANALYTICAL LABORATORY:

Lancaster Laboratories (ELAP # 2116)

[1] = Well elevations reported as top of casing (TOC) surveyed by Virgil Chavez, Licensed California Land Surveyor No. 6323.
--- = analysis not requested

ANALYTICAL METHODS:

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified
TPHd = Total Petroleum Hydrocarbons as diesel according to EPA Method 8015 Modified
Benzene, Toluene, Ethylbenzene, and Total Xylenes according to EPA Method 8021B
MtBE = Methyl tertiary butyl ether according to EPA Method 8021B

TABLE 3 - GROUNDWATER CHEMICAL ANALYTICAL DATA - OXYGENATE COMPOUNDS

Former Chevron Service Station Number 20-6145
800 Center Street
Oakland, California

Sample No.	Sample Date	Ethanol (ppb)	TBA (ppb)	MtBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-1	2/14/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-2	2/14/02	---	---	---	---	---	---	---	---
MW-3	2/14/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-4	2/14/02	<500	<100	<2.0	<2.0	<2.0	<2.0	9	<2.0
MW-5	2/14/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MW-6	2/14/02	---	---	---	---	---	---	---	---
MW-7	2/14/02	---	---	---	---	---	---	---	---
MW-8	2/14/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

EXPLANATIONS:

Ethanol
TBA = tert Butyl alcohol
MtBE = Methyl tert- butyl ether
DIPE = Di-isopropyl ether
ETBE = Ethyl tert- butyl ether
TAME = tertiary Amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
EDB = Ethylene dibromide
ppb = parts per billion
--- = analysis not requested

ANALYTICAL LABORATORY:

Lancaster Laboratories (ELAP #2116)

ANALYTICAL METHOD:

EPA Method 8260B for Oxygenate Compounds

346492.02-2
DG26145C.4C01

TABLE 4 - WELL SEARCH DATA

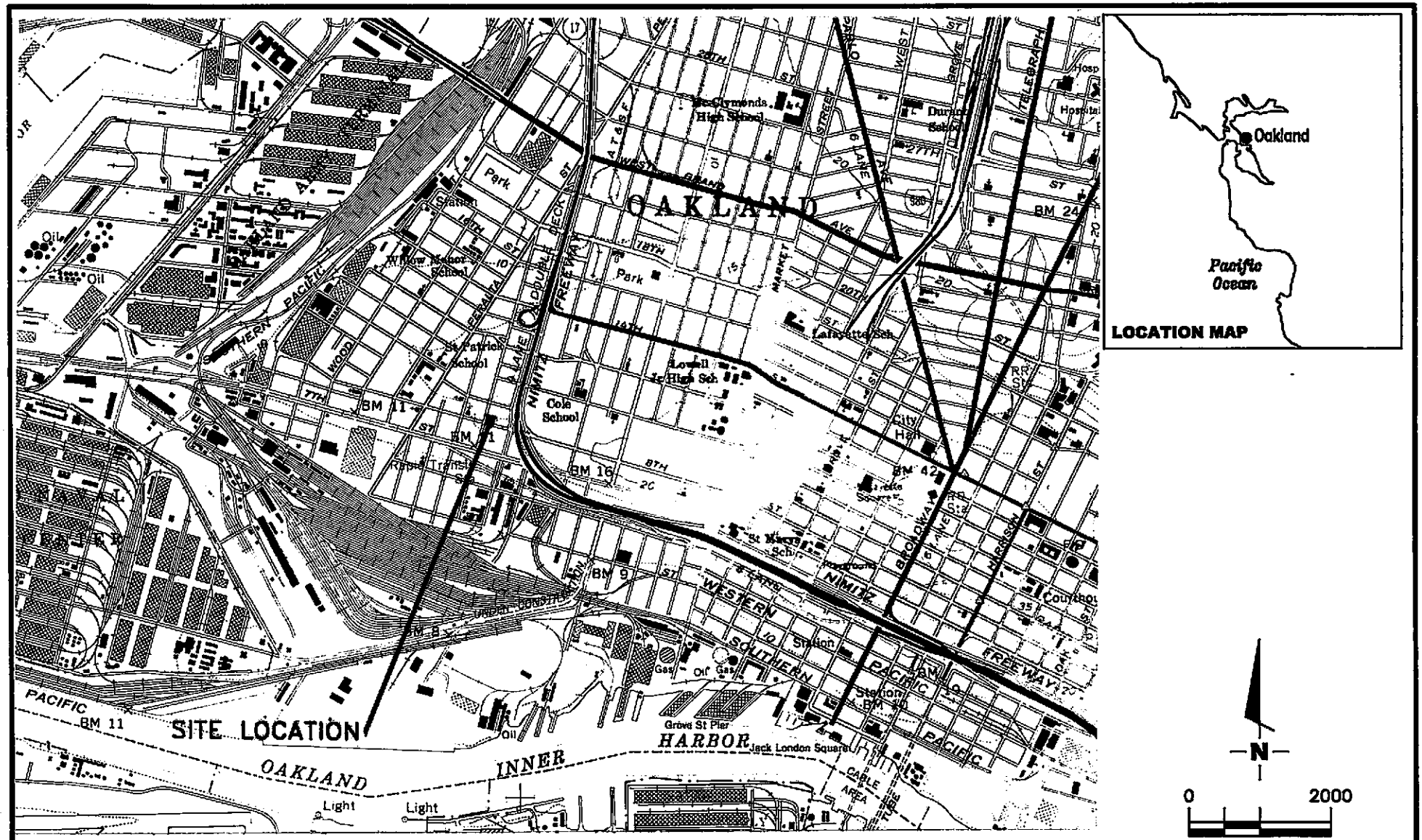
Former Chevron Service Station No. 20-6145
800 Center Street, Oakland California
Half Mile Radius Around Site

Map ID	Well Owner	Well Location	Well Use	Well Status	State Well #	Year Installed	Well Depth (feet)	Screen Interval From (feet)	Screen Interval To (feet)	Well Diameter (inches)	AVG DTW (feet)
1	General Electric Company	1614 Campbell Street	IND	NA	NA	1918	200	NA	NA	NA	4
2	Carnation Dairy Facility	1310 4th Street	ABD	NA	NA	1990	20	NA	NA	2	NA
3	Shredded Wheat	Union and 14th Street	IRR	NA	NA	1915	55	NA	NA	NA	8
4	Red Star Yeast Company	1384 5th Street	IND	NA	NA	1946	350	NA	NA	12	43

Explanation

Well location data supplied by the County of Alameda Public Works Agency

IND = Industrial Well
ABD = Abandoned Well
IRR = Irrigation Well
NA = Information Not Available
DWT = Depth To Water



Source: USGS Topographic Map, Oakland West, 7.5

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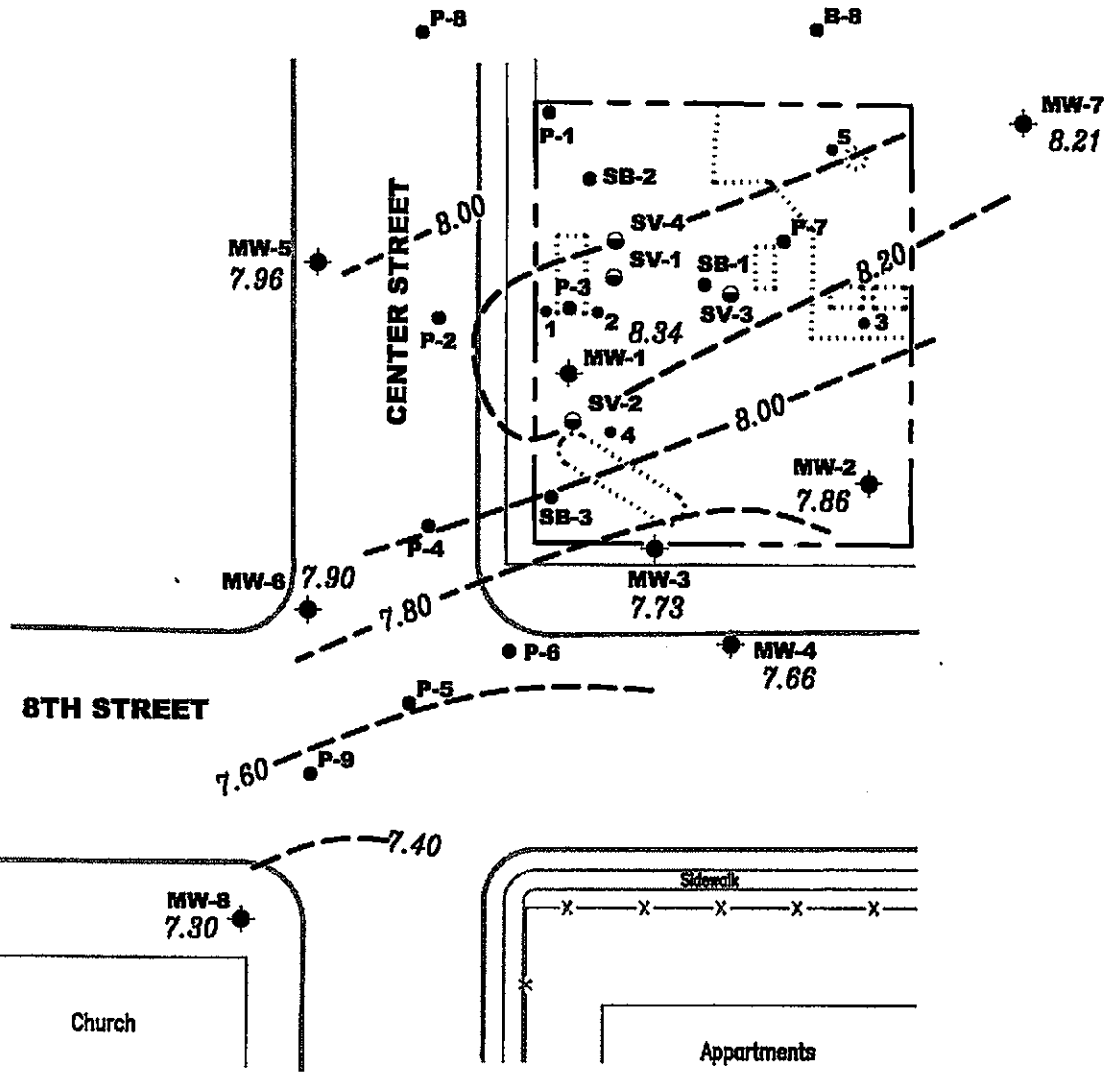
VICINITY MAP
Former Signal Oil Service Station No 20-6145
800 Center Street
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
347492		12/00	

FILE NAME: P:\ENVIRO\CHEVRON\20-6145\VIC-20-6145.DWG | Layout Tab: CA



EXPLANATION

- Groundwater monitoring well
- Soil boring
- Soil vapor probe
- Test boring
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- Groundwater elevation contour, dashed where inferred

Approximate groundwater flow direction at a gradient of 0.01 to 0.02 Ft./Ft.

N

0 40

Scale in Feet

Source: Figure modified from drawing provided by RRM engineering contracting firm.

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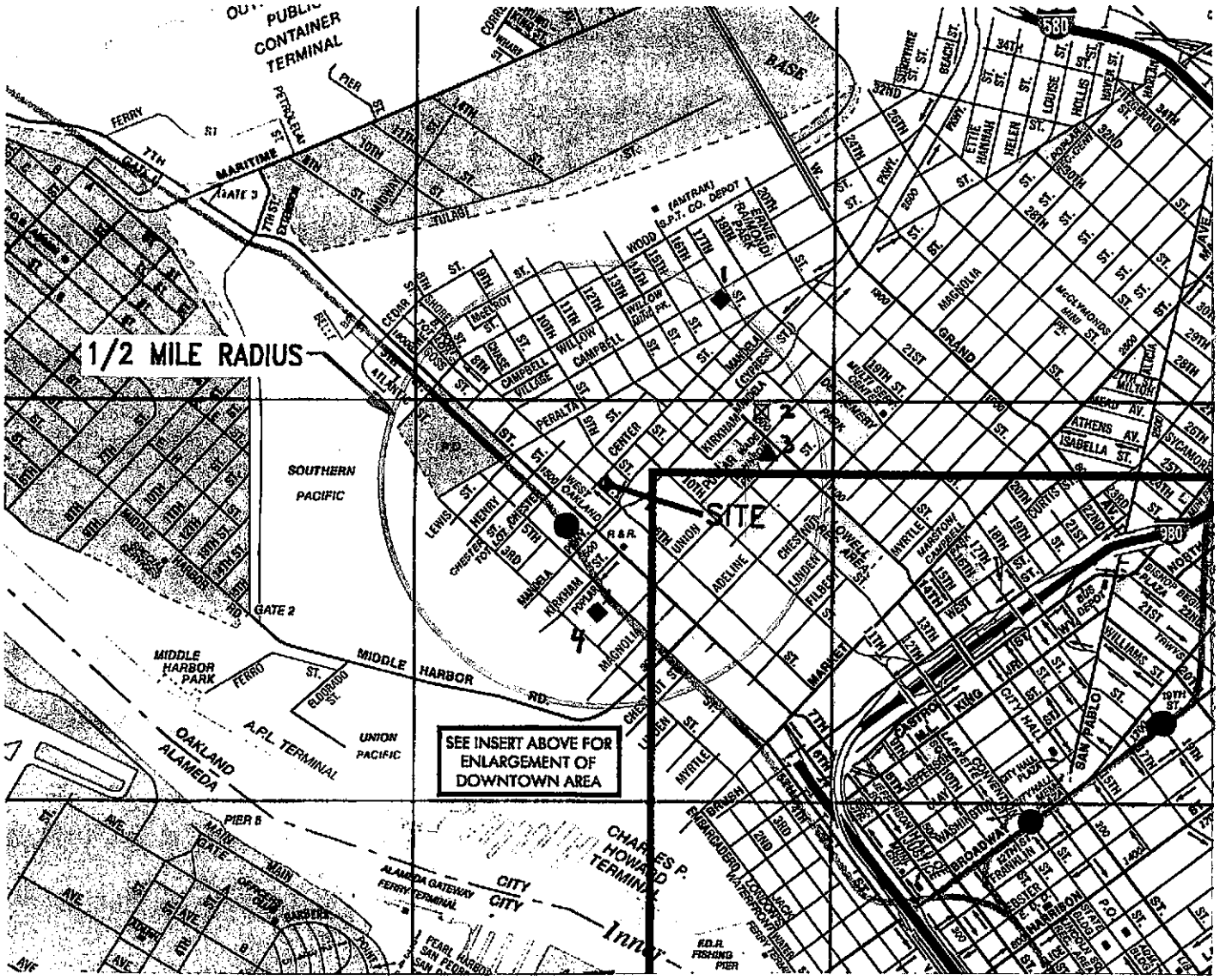
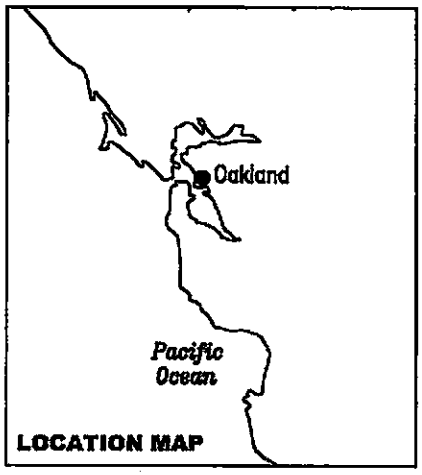
POTENTIOMETRIC MAP
Former Chevron Service Station No 20-6145
800 Center Street
Oakland, California

FIGURE
2

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
DG26145C.4C01		February 14, 2002	

FILE NAME: P:\ENVIRO\CHEVRON\206145\A01-20-6145.DWG | Layout Tab: Well Install 3-02





EXPLANATION

- ☒ Abandoned Well
- ◆ Industrial Well
- ▲ Irrigation Well

N

0 2000

Scale in Feet

Source: AAA map.

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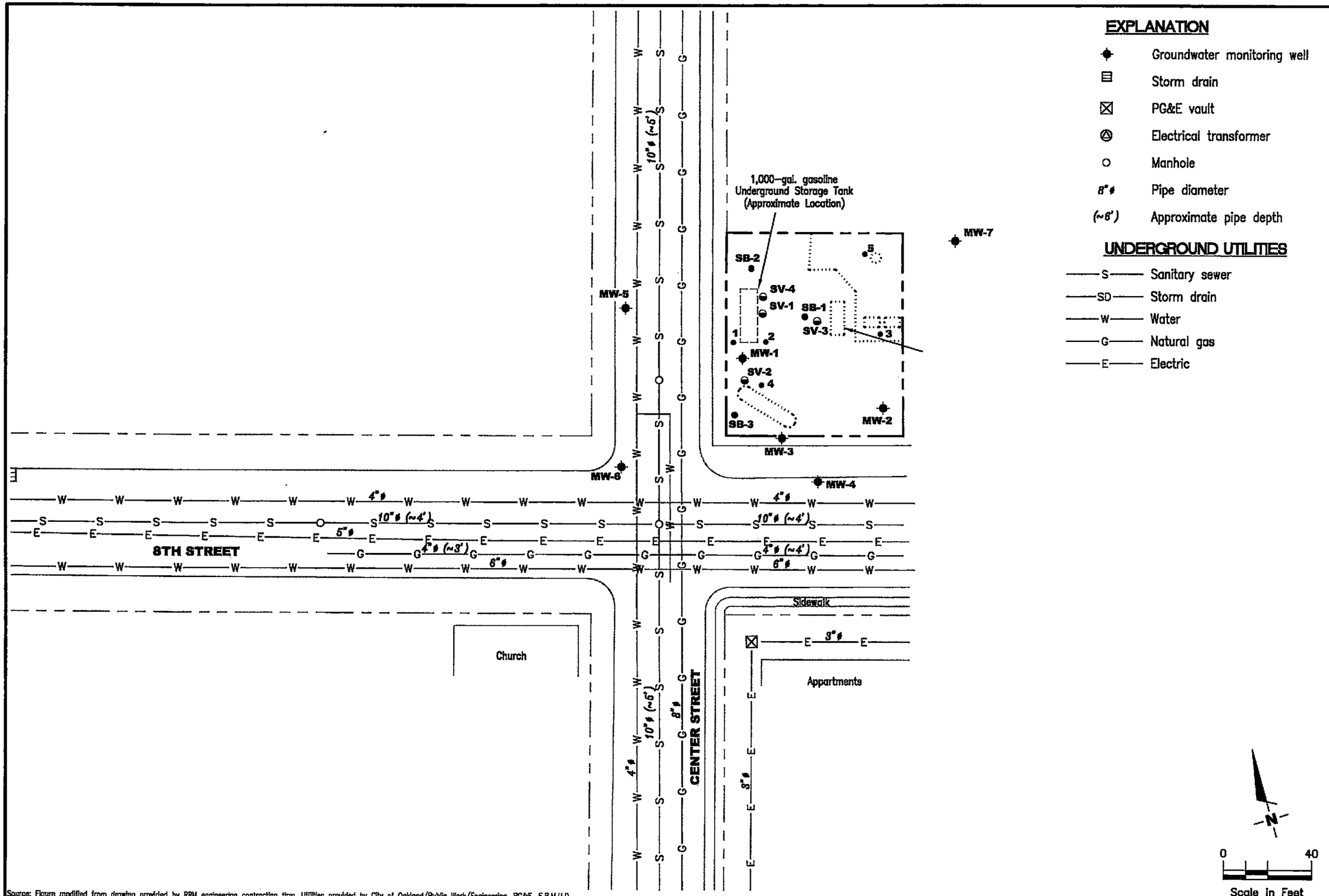
WELL SURVEY MAP
Former Signal Oil Service Station No 20-6145
800 Center Street
Oakland, California

FIGURE
3

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
347492		3/01	

FILE NAME: P:\ENVIRO\CHEVRON\20-6145\VIC-20-6145.DWG | Layout Tab: Well Survey 3-01



EXPLANATION

- Groundwater monitoring well
- Storm drain
- PG&E vault
- Electrical transformer
- Manhole
- 8"ø — Pipe diameter
- (~6') — Approximate pipe depth

UNDERGROUND UTILITIES

- S — Sanitary sewer
- SD — Storm drain
- W — Water
- G — Natural gas
- E — Electric

Source: Figure modified from drawing provided by RRM engineering contracting firm. Utilities provided by City of Oakland/Public Work/Engineering, PG&E, E.B.M.U.D.

FIGURE 4

UTILITY MAP
Former Chevron Service Station No. 20-6145
800 Center Street
Oakland, California

REVISED DATE

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

PROJECT NUMBER
DG26145C.4C01

REVIEWED BY

DATE
3/02

FILE NAME: P:\ENVIRO\CHEVRON\20614S\A01-20-6145.DWG | Layout Tab: Utility 3-02

APPENDIX A
GR FIELD METHODS AND PROCEDURES

GETTLER - RYAN
FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan, Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the of these plans contents prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Soil Samples

Exploratory soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the exploratory soil boring with a split-barrel sampler or other appropriate sampling device fitted with clean brass or stainless steel liners. The sampling device is driven approximately 18 inches with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler each successive 6 inches is recorded on the boring log. The encountered soil is described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based on:

a. depth relative to underground storage tanks and existing ground surface
b. depth relative to known or suspected groundwater
c. presence or absence of contaminant migration pathways
d. presence or absence of discoloration or staining
e. presence or absence of obvious gasoline hydrocarbon odors
f. presence or absence of organic vapors detected by headspace analysis

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing some soil from one of the sample tubes not retained for chemical analysis and immediately covering the end of the tube with a plastic cap. The PID probe is inserted into the headspace inside the tube through a hole in the plastic cap. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Stockpile Sampling

Stockpile samples consist of four individual sample liners collected from each 100 cubic yards (yd^3) of stockpiled soil material. Four arbitrary points on the stockpiled material are chosen, and discrete soil sample is collected at each of these points. Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless steel or brass tube into the stockpiled material with a wooden mallet or hand driven soil sampling device. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, placed in the

cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

Construction of Monitoring Wells

Monitoring wells are constructed in the exploratory borings with Schedule 40 polyvinyl Chloride (PVC) casing. All joints are thread-joined; no glues, cements, or solvents are used in well construction. The screened interval is constructed of machine-slotted PVC well screen which generally extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular space adjacent to the entire screened interval. A bentonite transition seal is placed in the annular space above the sand, and the remaining annular space is sealed with neat cement or cement grout.

Wellheads are protected with water-resistant traffic rated vault boxes placed flush with the ground surface. The top of the well casing is sealed with a locking cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on plastic sheeting or stored in drums depending on site conditions and regulatory requirements. Stockpile samples are collected and analyzed on the basis of one composite sample per 50 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless or brass sample tube into the stockpiled material with a hand, mallet, or drive sampler. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

Wellhead Survey

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (M.S.L.).

Well Development

The purpose of well development is to improve hydraulic communication between the well and surrounding aquifer. Prior to development, each well is monitored for the presence of separate-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.

Grab Groundwater Sampling

A Hydropunch® groundwater sampling tool or temporary PVC casing installed in the boring may be used to facilitate grab groundwater sample collection. Samples of groundwater are collected from the surface of the water in the Hydropunch® or temporary casing using a teflon bailer. The water samples are then gently poured into laboratory-cleaned containers and sealed with teflon-lined caps, and inspected for air bubbles to check for headspace. The samples are then labeled by an adhesive label, noted in permanent ink, and promptly placed in an ice storage. A Chain-of-

Custody Record is initiated and updated throughout handling of the samples, and accompanies the samples to the laboratory certified by the State of California for analyses requested.

Groundwater Sampling

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

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

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

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

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

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

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

Groundwater Monitoring and Sampling

Decontamination Procedures

All physical parameter measuring and sampling equipment are decontaminated prior to sample collection using Alconox or equivalent detergent followed by steam cleaning with deionized water. During field sampling, equipment placed in a well are decontaminated before purging or sampling the next well by cleaning with Alconox or equivalent detergent followed by steam cleaning with deionized water.

Water-Level Measurements

Prior to sampling each well, the static water level is measured using an electric sounder and/or calibrated portable oil-water interface probe. Both static water-level and separate-phase product thickness are measured to the nearest 0.01 foot. The presence of separate-phase product is confirmed using a clean, acrylic or polyvinyl chloride (PVC) bailer, measured to the nearest 0.01 foot with a decimal scale tape. The monofilament line used to lower the bailer is replaced between borings with new line to preclude the possibility of cross-contamination. Field observations (e.g. product color, turbidity, water color, odors, etc.) are noted. Water-levels are measured in wells with known or suspected lowest dissolved chemical concentrations to the highest dissolved concentrations.

Sample Collection and Labeling

Samples of groundwater are collected from the surface of the water in each well or boring using the Teflon bailer or a pump. The water samples are then gently poured into laboratory-cleaned containers and sealed with Teflon-lined caps, and inspected for air bubbles to check for headspace. The samples are then labeled by an adhesive label, noted in permanent ink, and promptly placed in an ice storage. A Chain-of-Custody Record is initiated and updated throughout handling of the samples, and accompanies the samples to the laboratory certified by the State of California for analyses requested.

APPENDIX B

PERMITS AND BORING LOGS

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 800 Center St. South West Corner of 8th & Center St. Oakland

CLIENT
Name Chevron
Address _____ Phone _____
City San Ramon Zip 94568

APPLICANT
Name Geffler Byron Inc.
Fax (925) 551-7888
Address 6747 Sierra Ct Suite J Phone (925) 551-7444 ext 127
City Dublin CA Zip 94568

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	0	General	0
Water Supply	0	Contamination	0
Monitoring	X	Well Destruction	0

PROPOSED WATER SUPPLY WELL USE

New Domestic	0	Replacement Domestic	0
Municipal	0	Irrigation	0
Industrial	0	Other Groundwater Monitoring	X

DRILLING METHOD:

Mud Rotary	0	Air Rotary	0	Auger	X
Cable	0	Other	0		

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO. 485165

WELL PROJECTS
Drill Hole Diameter 8" in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 4 ft. Owner's Well Number MW-8

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 1/8/01
ESTIMATED COMPLETION DATE 1/8/01

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

APPLICANT'S SIGNATURE [signature] DATE 12/28/0

PLEASE PRINT NAME Andrew Smith

Rev.5-13-00

FOR OFFICE USE

PERMIT NUMBER WO1-2155
WELL NUMBER _____
APN _____

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
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.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

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

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 12-28-01

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

EWM/01/98

PERMIT NUMBER	SITE ADDRESS/LOCATION
X010/1874	200 CENTER ST.
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS	CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: 3167 Jan 17, 02

2) **48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.**

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X _____ Signature of Permittee ☐ Agent for ☒ Contractor ☐ Owner — Date 12-27-01

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☒ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☒ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☒ NO
ISSUED BY		DATE ISSUED 12-27-01	

Recording Requested by:
CITY OF OAKLAND

When Recorded Mail to:
City of Oakland
Community & Economic
Development Agency
Building Services Division,
Engineering Information
250 Frank H. Ogawa Plaza, 2nd Floor
Oakland, CA 94612

TAX ROLL PARCEL NUMBER
(ASSESSOR'S REFERENCE NUMBER)

004	0067	016	00
MAP	BLOCK	PARCEL	SUB

Address: 800 CENTER STREET

Space Above for Recorder's Use Only

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Gettler – Ryan Inc. is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way of 8th Street to install a monitoring well. The location of said encroachment shall be as delineated in Exhibit 'A' attached hereto and made a part hereof. Gettler – Ryan Inc. was authorized by Chevron Products Company (Chevron) to act on their behalf in conducting all business related to obtaining the encroachment permit (see Exhibit 'B').

The permittee agrees to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the undersigned, the present owners of the property described above, and their successors in interest thereof.

In witness whereof, I have set my signature this 5th day of NOVEMBER, 2001.

Gettler – Ryan Inc.

David A. Byron

NAME: DAVID A. BYRON

TITLE: VICE-PRESIDENT

Below for Official Use Only

CITY OF OAKLAND

Dated: _____

By: _____
CALVIN N. WONG
Director of Building Services
For:
WILLIAM E. CLAGGETT
Executive Director,
Community & Economic Development Agency

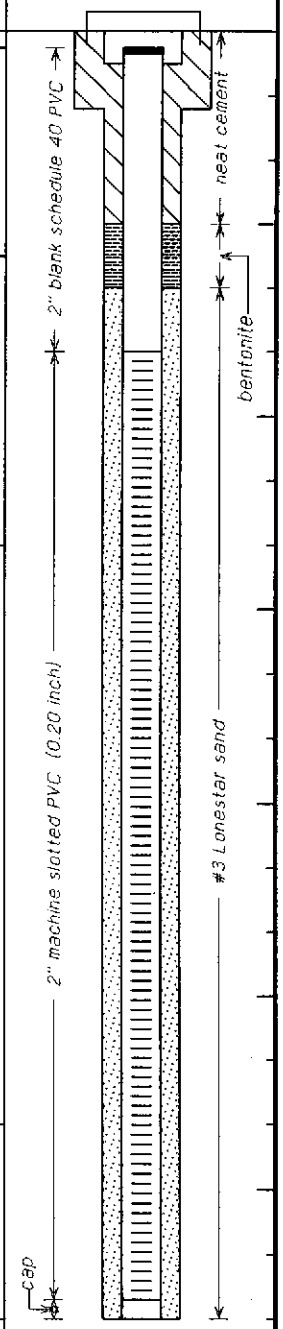
Gettler-Ryan, Inc.

Log of Boring MW-8

PROJECT: *Chevron Station No. 20-6145*	LOCATION: *800 Center Street, Oakland, California*
GR PROJECT NO.: *346492.02*	CASING ELEVATION:
DATE STARTED: *01/09/02*	WL (ft. bgs): *14.5* DATE: *01/09/02* TIME: *9:05*
DATE FINISHED: *01/09/02*	WL (ft. bgs): *9.89* DATE: *01/09/02* TIME: *11:30*
DRILLING METHOD: *8" hollow-stem auger*	TOTAL DEPTH: *20 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SOIL CLASS	GEOLOGIC DESCRIPTION
0				Concrete – 3 inches thick.
			SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) – yellowish brown (10YR 5/4), moist, medium dense; 90% sand, 10% silt.
3			SM	SILTY SAND (SM) – dark yellowish brown (10YR 4/6), moist, dense; 85% sand, 15% silt.
6	0			
9			SP-SM	POORLY GRADED SAND WITH SILT (SP-SM) – dark yellowish brown (10YR 4/5), moist, medium dense; 90% sand, 10% silt.
12	0	MW-8 (11)		
15	0	MW-8 (15)		
18			SW-SM	WELL GRADED SAND WITH SILT (SW-SM) – dark yellowish brown (10YR 4/5), moist, medium dense; 90% sand, 10% silt.
21	0	MW-8 (20)		Bottom of boring at 20 feet bgs.

WELL DIAGRAM



JOB NUMBER: *346492.02*

APPENDIX C

WELL DEVELOPMENT FORM

WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET

Client/ Facility: Chevron #206145 — Job#: 386492

Address: 800 CENTER ST. — Date: 2/14/07

City: OAKLAND, CA. — Sampler: T-C

Well ID: MW-8 — Well Condition: O.K

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

Total Depth: 18.68 ft. — Depth to Water: 7.99 ft.

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

10.69 X VF .17 = 1.8 X10 (case volume) = Estimated Purge Volume: 18.0 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; Grundfos; (Other:) 2" STAINLESS BAILER

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 1354 — Weather Conditions: Pkly. Cloudy

Sampling Time: 1452 — Water Color: BROWN — Odor: NO

Purging Flow Rate: 2.0 gpm. — Sediment Description: _____

Did well de-water? NO — If yes; Time: _____ — Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1359	2.0	8.16	989	69.2			
1403	4.0	8.07	973	68.1			
1408	6.0	7.91	962	66.2			
1415	8.0	7.64	910	65.4			
1418	10.0	7.22	864	65.8			
1425	12.0	7.24	791	65.3			
1429	14.0	7.24	764	64.8			
1438	16.0	7.16	732	64.9			
1439	16.0	7.12	716	64.6			
1440	20.0	7.14	712	64.8			
1443	25.0	7.08	715	64.9			

"Bailers"

Static

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	6 VOAs w/ HCl	Y	HCl	LANCASTER	TPH-G/BTEX/MTBE
					(8) OXYS 8260
MW-8	2 X AMBER	Y	NP	" "	TPH-D

COMMENTS: TOOK WELL A WHILE TO CLEAN UP. PURGED AN EXTRA 7 Gal.
DEPTH TO BOTTOM AFTER DEVELOPMENT 19.84

APPENDIX D

SURVEYOR'S REPORT

Virgil Chavez Land Surveying
312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

March 5, 2002
Project No.: 2118-01

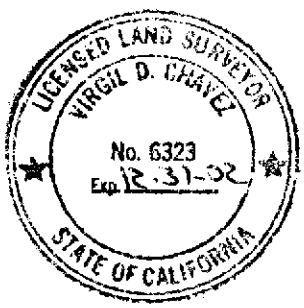
Andrew Smith
Gettler-Ryan, Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568-2611

Subject: Monitoring Well Survey
Former Chevron Service Station
800 Center Street
Oakland, CA

Dear Andrew:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on March 4, 2002. The benchmark for this survey was a City of Oakland Benchmark #25-H monument disk in well casting in sidewalk at the northwest corner of 7th and Center. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83).
Benchmark Elevation 10.784 feet (NGVD 29).

Latitude	Longitude	Northing	Easting	Elev.	Desc.
				15.13	RIM MW-6
37.8064423	-122.2945882	2121076.59	6043243.56	14.68	TOC MW-6
				15.59	RIM MW-8
37.8062958	-122.2946970	2121023.85	6043211.11	15.29	TOC MW-8
				16.10	RIM MW-1
				15.63	TOC MW-1
				16.19	RIM MW-2
				15.69	TOC MW-2
				16.07	RIM MW-3
				15.40	TOC MW-3
				14.76	RIM MW-4
				14.37	TOC MW-4
				15.35	RIM MW-5
				15.01	TOC MW-5
				17.01	RIM MW-7
				16.31	TOC MW-7



Sincerely,

Virgil D. Chavez, PLS 6323

APPENDIX E

CHEMICAL ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS

Lancaster Laboratories
Where quality is a science.

ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904
925-842-8582

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 793073. Samples arrived at the laboratory on Thursday, January 10, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description			Lancaster Labs Number
MW-8-S-11-020109	Grab	Soil	3756978
MW-8-S-15-020109	Grab	Soil	3756979
MW-8-S-20-020109	Grab	Soil	3756980

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Gettler-Ryan, Inc. Attn: Greg Gurss

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

Christine M. Dulaney
Sr. Chemist

Lancaster Laboratories
Where quality is a science.

Lancaster Laboratories Sample No. SW 3756978

Collected:01/09/2002 08:40 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-11-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S11-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	n.a.	N.D.	10.	mg/kg	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).					
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	CA LUFT Diesel Range Organics	1	01/21/2002 15:41	Tracy A Cole	1

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Lancaster, PA 17605-2425
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Lancaster Laboratories Sample No. SW 3756978

Collected:01/09/2002 08:40 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-11-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S11-

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/15/2002 04:55	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8020A	1	01/15/2002 04:55	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/14/2002 20:14	Martha L Seidel	n.a.
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	01/16/2002 17:40	Kelly E Brickley	1

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Lancaster Laboratories Sample No. SW 3756979

Collected:01/09/2002 09:10 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-15-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S15-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	n.a.	N.D.	10.	mg/kg	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).					
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	CA LUFT Diesel Range Organics	1	01/21/2002 16:46	Tracy A Cole	1

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Lancaster Laboratories Sample No. SW 3756979

Collected:01/09/2002 09:10 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-15-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S15-

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/15/2002 05:32	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8020A	1	01/15/2002 05:32	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/14/2002 20:15	Martha L Seidel	n.a.
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	01/16/2002 17:40	Kelly E Brickley	1

Lancaster Laboratories
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Lancaster Laboratories Sample No. SW 3756980

Collected:01/09/2002 09:40 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-20-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S20-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	n.a.	N.D.	10.	mg/kg	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).					
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	CA LUFT Diesel Range Organics	1	01/21/2002 17:07	Tracy A Cole	1

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Lancaster Laboratories Sample No. SW 3756980

Collected:01/09/2002 09:40 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:33
Discard: 02/23/2002
MW-8-S-20-020109 Grab Soil

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145 GRRC
800 CENTER ST-OAKLAND T0600102230 MW-8

8S20-

01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/15/2002 06:10	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8020A	1	01/15/2002 06:10	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/14/2002 20:16	Martha L Seidel	n.a.
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	01/16/2002 17:40	Kelly E Brickley	1

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Quality Control Summary

Client Name: Chevron Products Company
Reported: 01/23/02 at 04:33 PM

Group Number: 793073

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02014A31	Sample number(s): 3756978-3756980							
TPH-GRO - Soils	N.D.	1.	mg/kg	83		72-112		
Benzene	N.D.	.005	mg/kg	110		73-133		
Toluene	N.D.	.005	mg/kg	111		88-116		
Ethylbenzene	N.D.	.005	mg/kg	110		87-127		
Total Xylenes	N.D.	.015	mg/kg	111		88-120		
MTBE	N.D.	.05	mg/kg	113		54-164		
Batch number: 020160006A	Sample number(s): 3756978-3756980							
TPH - DRO CA LUFT (Soils)	N.D.	10.	mg/kg	92		41-143		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02014A31	Sample number(s): 3756978-3756980								
TPH-GRO - Soils	64	68	54-100	7	20				
Benzene	115	129	48-140	12	30				
Toluene	89	100	66-120	12	30				
Ethylbenzene	95	108	66-131	12	30				
Total Xylenes	90	101	67-122	12	30				
MTBE	92	103	42-163	11	30				
Batch number: 020160006A	Sample number(s): 3756978-3756980								
TPH - DRO CA LUFT (Soils)	92	77	65-125	18	20				

Surrogate Quality Control

Analysis Name: TPH-GRO - Soils
Batch number: 02014A31

	Trifluorotoluene-F	Trifluorotoluene-P
3756978	71	88
3756979	75	91
3756980	75	91
Blank	80	103
LCS	95	105
MS	77	90
MSD	80	98
Limits:	48-132	68-122

Analysis Name: TPH - DRO CA LUFT (Soils)
Batch number: 020160006A

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

MEMBER
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2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
Where quality is a science.

Quality Control Summary

Client Name: Chevron Products Company
Reported: 01/23/02 at 04:33 PM

Group Number: 793073

Surrogate Quality Control

	Orthoterphenyl
3756978	85
3756979	78
3756980	74
Blank	91
LCS	85
MS	80
MSD	75
Limits:	29-152

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

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Lancaster, PA 17605 2425
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Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories — Where quality is a science.

COC# 090102-002

*Global ID T0 600102234

Acct. #: 10992 | For Lancaster Laboratories use only — Sample #: 375689-375699-80 | SCR#:

Facility #: Former Chevron SS #20-6145
Site Address: 800 Center St. Oakland
Chevron PM: Thomas Bauhs Lead Consultant: Getler-Ryan
Consultant/Office: Sacramento CA
Consultant Prj. Mgr.: Greg Gurss
Consultant Phone #: (916) 631-1300 Fax #: (916) 631-1317
Sampler: Andew Smith
Service Order #: ☐ Non SAR:

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

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: 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	Lead 7420 ☐ 7421 ☐	TPH-D (8015M)	TPH-G (8015M)	BTEX (8020)	MTBE (8020)	Total Lead (6010)
MW-8(11)	1/9/02	840	X		X										X	X	X	X	
MW-8(15)	↓	910	X		X										X	X	X	X	
MW-8(20)		940	X		X										X	X	X	X	
SP1-Comp	↓	1030		X	X										X	X	X	X	X

Comments / Remarks
* As per Andrew Smith telecon RMA 1/9/02

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
1	Andrew Smith	1/9/02	1310	Andrea Amaya	1-9-02	1310
2	Andrea Amaya	1-9-02	1530	Airborne	1-9-02	
3		Date	Time		Date	Time

Relinquished by Commercial Carrier: UPS FedEx (Other) Airborne
Temperature Upon Receipt ____ C°
Received by: Date 1/10/02 Time 0915
Custody Seals Intact? (Yes) No

Lancaster Laboratories
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ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904
925-842-8582

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 793076. Samples arrived at the laboratory on Thursday, January 10, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description	Lancaster Labs Number
SP1-COMP Composite Soil Sample	3756989

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Gettler-Ryan, Inc. Attn: Greg Gurss

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

Max E. Snavely
Sr. Chemist

Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
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Lancaster Laboratories Sample No. SW 3756989

Collected:01/09/2002 10:30 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:35
Discard: 02/23/2002
SP1-COMP Composite Soil Sample

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145
800 Center St; Oakland, CA

SP1CP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05547	TPH - DRO CA LUFT (Soils)	n.a.	N.D.	10.	mg/kg	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons).					
01655	Lead	7439-92-1	2.7	0.80	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.0050	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.0050	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.0050	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.015	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.050	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor

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Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
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Lancaster Laboratories Sample No. SW 3756989

Collected:01/09/2002 10:30 by AS

Account Number: 10992

Submitted: 01/10/2002 09:15
Reported: 01/23/2002 at 16:35
Discard: 02/23/2002
SP1-COMP Composite Soil Sample

Chevron Products Company
6001 Bollinger Canyon Road
Building L P.O. Box 6004
San Ramon CA 94583-0904

Facility# 206145
800 Center St; Oakland, CA

SP1CP

05547	TPH - DRO CA LUFT (Soils)	CA LUFT Diesel Range Organics	1	01/21/2002 17:28	Tracy A Cole	1
01655	Lead	SW-846 6010B	1	01/17/2002 07:07	David K Beck	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	01/15/2002 06:48	Martha L Seidel	25
02160	BTEX/MTBE	SW-846 8020A	1	01/15/2002 06:48	Martha L Seidel	25
01150	GC VOA Soil Prep	SW-846 5035	1	01/14/2002 20:17	Martha L Seidel	n.a.
05708	SW SW846 ICP Digest	SW-846 3050B	1	01/16/2002 12:00	Megan L Ross	1
07004	Extraction - DRO (Soils)	TPH by CA LUFT	1	01/16/2002 17:40	Kelly E Brickley	1

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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 793076
Reported: 01/23/02 at 04:35 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 02014A31	Sample number(s): 3756989							
TPH-GRO - Soils	N.D.	1.	mg/kg	83		72-112		
Benzene	N.D.	.005	mg/kg	110		73-133		
Toluene	N.D.	.005	mg/kg	111		88-116		
Ethylbenzene	N.D.	.005	mg/kg	110		87-127		
Total Xylenes	N.D.	.015	mg/kg	111		88-120		
MTBE	N.D.	.05	mg/kg	113		54-164		
Batch number: 020160006A	Sample number(s): 3756989							
TPH - DRO CA LUFT (Soils)	N.D.	10.	mg/kg	92		41-143		
Batch number: 020165708001	Sample number(s): 3756989							
Lead	N.D.	.82	mg/kg	94		76-124		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02014A31	Sample number(s): 3756989								
TPH-GRO - Soils	64	68	54-100	7	20				
Benzene	115	129	48-140	12	30				
Toluene	89	100	66-120	12	30				
Ethylbenzene	95	108	66-131	12	30				
Total Xylenes	90	101	67-122	12	30				
MTBE	92	103	42-163	11	30				
Batch number: 020160006A	Sample number(s): 3756989								
TPH - DRO CA LUFT (Soils)	92	77	65-125	18	20				
Batch number: 020165708001	Sample number(s): 3756989								
Lead	(2)	(2)	75-125	2	20	371.	373.	0	20

Surrogate Quality Control

Analysis Name: TPH-GRO - Soils
Batch number: 02014A31

	Trifluorotoluene-F	Trifluorotoluene-P
3756989	75	88
Blank	80	103
LCS	95	105
MS	77	90
MSD	80	98

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

MEMBER ACIL
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2425 New Holland Pike
PO Box 12425
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Quality Control Summary

Client Name: Chevron Products Company
Group Number: 793076
Reported: 01/23/02 at 04:35 PM

Surrogate Quality Control

Limits: 48-132 68-122

Analysis Name: TPH - DRO CA LUFT (Soils)
Batch number: 020160006A

	Orthoterphenyl
3756989	71
Blank	91
LCS	85
MS	80
MSD	75
Limits:	29-152

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

Lancaster Laboratories, Inc.
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Lancaster, PA 17605-2425
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Lancaster Laboratories
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ANALYTICAL RESULTS

Prepared for:

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904
925-842-8582

Prepared by:

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

SAMPLE GROUP

The sample group for this submittal is 797424. Samples arrived at the laboratory on Tuesday, February 19, 2002. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description			Lancaster Labs Number
QA-T-020214	NA	Water	3775751
MW-1-W-020214	Grab	Water	3775752
MW-2-W-020214	Grab	Water	3775753
MW-3-W-020214	Grab	Water	3775754
MW-4-W-020214	Grab	Water	3775755
MW-5-W-020214	Grab	Water	3775756
MW-6-W-020214	Grab	Water	3775757
MW-7-W-020214	Grab	Water	3775758
MW-8-W-020214	Grab	Water	3775759

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO Delta C/O Gettler-Ryan Attn: Deanna L. Harding

Lancaster Laboratories
Where quality is a science.

Questions? Contact your Client Services Representative
Teresa M Lis at (717) 656-2300.

Respectfully Submitted,

Matthew E. Barton
Sr. Chemist/Coordinator

MEMBER ACIL
Lancaster Laboratories, Inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3775751

Collected:02/14/2002 00:00

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
QA-T-020214 NA Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 QA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1

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Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 02:23	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 02:23	Melissa-Ann S McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 02:23	Melissa-Ann S McAlpine	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775752

Collected:02/14/2002 13:17 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-1-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-1

COMW1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	1,400.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	100.	0.50	ug/l	1
00777	Toluene	108-88-3	360.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	45.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	240.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	9.3	2.5	ug/l	1
01594	BTEX + Oxygenates by 8260B					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

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Laboratory Chronicle

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N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775752

Collected:02/14/2002 13:17 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-1-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-1

COMW1

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 14:41	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 14:41	Melissa-Ann S McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	02/23/2002 02:14	Nicole S Albright	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 14:41	Melissa-Ann S McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/23/2002 02:14	Nicole S Albright	n.a.

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N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775753

Collected:02/14/2002 12:54 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-2-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1

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Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 04:44	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 04:44	Melissa-Ann S McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 04:44	Melissa-Ann S McAlpine	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775754

Collected:02/14/2002 13:38 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-3-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-3

COMW3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	51.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	2.9	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	1.9	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	1.8	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX + Oxygenates by 8260B					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

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N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775754

Collected:02/14/2002 13:38 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-3-W-020214 Grab Water

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Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-3

COMW3

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 05:19	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 05:19	Melissa-Ann S McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	02/25/2002 07:45	Kenneth L Boley Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 05:19	Melissa-Ann S McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2002 07:45	Kenneth L Boley Jr	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775755

Collected:02/14/2002 12:08 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-4-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-4

COMW4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX + Oxygenates by 8260B					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	9.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

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N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775755

Collected:02/14/2002 12:08 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-4-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
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Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-4

COMW4

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 05:54	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 05:54	Melissa-Ann S McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	02/25/2002 09:02	Kenneth L Boley Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 05:54	Melissa-Ann S McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2002 09:02	Kenneth L Boley Jr	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775756

Collected:02/14/2002 11:17 by TC Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-5-W-020214 Grab Water

Chevron Products Company
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Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-5

COMW5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX + Oxygenates by 8260B					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

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N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775756

Collected:02/14/2002 11:17 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:30
Discard: 04/04/2002
MW-5-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-5

COMW5

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 06:30	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 06:30	Melissa-Ann S McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	02/25/2002 09:27	Kenneth L Boley Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 06:30	Melissa-Ann S McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2002 09:27	Kenneth L Boley Jr	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775757

Collected:02/14/2002 11:51 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:31
Discard: 04/04/2002
MW-6-W-020214 Grab Water

Chevron Products Company
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Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1

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Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 07:05	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 07:05	Melissa-Ann S McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 07:05	Melissa-Ann S McAlpine	n.a.

#=Laboratory Method Detection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775758

Collected:02/14/2002 12:38 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:31
Discard: 04/04/2002
MW-7-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1

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Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 07:40	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 07:40	Melissa-Ann S McAlpine	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 07:40	Melissa-Ann S McAlpine	n.a.

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

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Lancaster Laboratories Sample No. WW 3775759

Collected:02/14/2002 14:52 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:31
Discard: 04/04/2002
MW-8-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-8

COMW8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
05553	TPH - DRO CA LUFT (Waters)	n.a.	130.	100.	ug/l	1
	According to the California LUFT Protocol, the quantitation for Diesel Range Organics was performed by peak area comparison of the sample pattern to that of our #2 fuel oil reference standard (between C10 and C28 normal hydrocarbons). Site-specific MS/MSD samples were not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level. The observed sample pattern is not typical of diesel/#2 fuel oil. Due to interferences from the sample matrix (high sediment content), the reporting limit was increased.					
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50.	ug/l	1
	The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time. A site-specific MSD sample was not submitted for the project. A LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.					
08214	BTEX, MTBE (8021)					
00776	Benzene	71-43-2	N.D.	0.50	ug/l	1
00777	Toluene	108-88-3	N.D.	0.50	ug/l	1
00778	Ethylbenzene	100-41-4	N.D.	0.50	ug/l	1
00779	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1
00780	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	ug/l	1
01594	BTEX + Oxygenates by 8260B					
01587	Ethanol	64-17-5	N.D.	500.	ug/l	1
02010	Methyl t-butyl ether	1634-04-4	N.D.	2.	ug/l	1
02011	di-Isopropyl ether	108-20-3	N.D.	2.	ug/l	1
02013	Ethyl t-butyl ether	637-92-3	N.D.	2.	ug/l	1
02014	t-Amyl methyl ether	994-05-8	N.D.	2.	ug/l	1

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

Lancaster Laboratories
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Lancaster Laboratories Sample No. WW 3775759

Collected:02/14/2002 14:52 by TC

Account Number: 10905

Submitted: 02/19/2002 09:05
Reported: 03/04/2002 at 16:31
Discard: 04/04/2002
MW-8-W-020214 Grab Water

Chevron Products Company
6001 Bollinger Canyon Road
Building L PO Box 6004
San Ramon CA 94583-0904

Facility# 206145 Job# 386492 GRD
800 Center St-Oakland T0600102230 MW-8

COMW8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
02015	t-Butyl alcohol	75-65-0	N.D.	100.	ug/l	1
05402	1,2-Dichloroethane	107-06-2	N.D.	2.	ug/l	1
05412	1,2-Dibromoethane	106-93-4	N.D.	2.	ug/l	1

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
05553	TPH - DRO CA LUFT (Waters)	CA LUFT Diesel Range Organics	1	02/27/2002 07:34	Tracy A Cole	1
01729	TPH-GRO - Waters	N. CA LUFT Gasoline Method	1	02/21/2002 10:35	Melissa-Ann S McAlpine	1
08214	BTEX, MTBE (8021)	SW-846 8021B	1	02/21/2002 10:35	Melissa-Ann S McAlpine	1
01594	BTEX + Oxygenates by 8260B	SW-846 8260B	1	02/25/2002 09:53	Kenneth L Boley Jr	1
01146	GC VOA Water Prep	SW-846 5030B	1	02/21/2002 10:35	Melissa-Ann S McAlpine	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	02/25/2002 09:53	Kenneth L Boley Jr	n.a.
07003	Extraction - DRO (Waters)	TPH by CA LUFT	1	02/21/2002 01:35	JoElla L Rice	1

#=Laboratory MethodDetection Limit exceeded target detection limit
N.D.=Not detected at or above the Reporting Limit

MEMBER ACIL
lancaster laboratories, inc.
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax: 717-656-2681

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Quality Control Summary

Client Name: Chevron Products Company Group Number: 797424
Reported: 03/04/02 at 04:31 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 020510022A	Sample number(s): 3775759							
TPH - DRO CA LUFT (Waters)	N.D.	50.	ug/l	85	86	54-120	1	20
Batch number: 02051A55	Sample number(s): 3775751-3775759							
Benzene	N.D.	0.5	ug/l	104	100	80-118	4	30
Toluene	N.D.	0.5	ug/l	111	106	82-119	5	30
Ethylbenzene	N.D.	0.5	ug/l	115	109	81-119	5	30
Total Xylenes	N.D.	1.5	ug/l	114	109	82-120	4	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	102	99	79-127	3	30
TPH-GRO - Waters	N.D.	50.	ug/l	88	85	76-126	3	30
Batch number: P020531AA	Sample number(s): 3775752							
Ethanol	N.D.	500.	ug/l	71		44-139		
Methyl t-butyl ether	N.D.	2.	ug/l	97		77-127		
di-Isopropyl ether	N.D.	2.	ug/l	97		74-125		
Ethyl t-butyl ether	N.D.	2.	ug/l	94		74-120		
t-Amyl methyl ether	N.D.	2.	ug/l	93		71-114		
t-Butyl alcohol	N.D.	100.	ug/l	87		59-139		
1,2-Dichloroethane	N.D.	2.	ug/l	94		77-132		
1,2-Dibromoethane	N.D.	2.	ug/l	95		84-119		
Batch number: P020561AA	Sample number(s): 3775754-3775756,3775759							
Ethanol	N.D.	500.	ug/l	77		44-139		
Methyl t-butyl ether	N.D.	2.	ug/l	95		77-127		
di-Isopropyl ether	N.D.	2.	ug/l	93		74-125		
Ethyl t-butyl ether	N.D.	2.	ug/l	89		74-120		
t-Amyl methyl ether	N.D.	2.	ug/l	89		71-114		
t-Butyl alcohol	N.D.	100.	ug/l	83		59-139		
1,2-Dichloroethane	N.D.	2.	ug/l	94		77-132		
1,2-Dibromoethane	N.D.	2.	ug/l	92		84-119		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 02051A55	Sample number(s): 3775751-3775759								
Benzene	106	106	77-131	0	30				
Toluene	114	113	80-128	1	30				
Ethylbenzene	119	118	76-132	1	30				
Total Xylenes	118	116	76-132	1	30				
Methyl tert-Butyl Ether	106	111	61-144	4	30				
TPH-GRO - Waters	95		74-132						
Batch number: P020531AA	Sample number(s): 3775752								
Ethanol	88	90	70-130	2	30				
Methyl t-butyl ether	95	96	69-134	1	30				
di-Isopropyl ether	95	96	68-133	2	30				

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

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Quality Control Summary

Client Name: Chevron Products Company Group Number: 797424
Reported: 03/04/02 at 04:31 PM

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Ethyl t-butyl ether	91	92	73-123	1	30				
t-Amyl methyl ether	91	92	69-118	1	30				
t-Butyl alcohol	86	90	51-148	5	30				
1,2-Dichloroethane	94	95	75-141	1	30				
1,2-Dibromoethane	92	95	78-120	3	30				
Batch number: P020561AA	Sample number(s): 3775754-3775756,3775759								
Ethanol	81	69*	70-130	16	30				
Methyl t-butyl ether	98	97	69-134	1	30				
di-Isopropyl ether	98	97	68-133	2	30				
Ethyl t-butyl ether	95	96	73-123	1	30				
t-Amyl methyl ether	93	93	69-118	0	30				
t-Butyl alcohol	98	97	51-148	1	30				
1,2-Dichloroethane	98	97	75-141	1	30				
1,2-Dibromoethane	94	95	78-120	1	30				

Surrogate Quality Control

Analysis Name: TPH - DRO CA LUFT (Waters)
Batch number: 020510022A

	Orthoterphenyl
3775759	94
Blank	101
LCS	75
LCSD	81
Limits:	59-139

Analysis Name: TPH-GRO - Waters
Batch number: 02051A55

	Trifluorotoluene-F	Trifluorotoluene-P
3775751	89	86
3775752	88	89
3775753	91	86
3775754	86	84
3775755	85	83
3775756	90	87
3775757	90	86
3775758	90	86
3775759	90	87
Blank	91	87
LCS	99	87
LCSD	98	87
MS	101	87
MSD		86

*- Outside of specification
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Quality Control Summary

Client Name: Chevron Products Company Group Number: 797424
Reported: 03/04/02 at 04:31 PM

Surrogate Quality Control

Limits: 67-135 71-130

Analysis Name: BTEX + Oxygenates by 8260B
Batch number: P020531AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3775752	96	94	94	92
Blank	96	95	95	93
LCS	94	94	96	94
MS	95	94	96	94
MSD	95	95	97	94
Limits:	86-118	80-120	88-110	86-115

Analysis Name: BTEX + Oxygenates by 8260B
Batch number: P020561AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
3775754	97	95	94	91
3775755	97	97	94	91
3775756	97	95	94	91
3775759	97	95	94	90
Blank	97	94	95	91
LCS	96	95	96	94
MS	97	94	95	93
MSD	96	94	95	94
Limits:	86-118	80-120	88-110	86-115

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

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Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories *Where quality is a science.*

150202-001

Acct. #: 10905 — For Lancaster Laboratories use only — Sample #: 3775751-71 — SCR#:

Facility #: 206145 Job #386492 Global ID #T0600102230

Site Address: 800 CENTER ST., OAKLAND, CA

Chevron PM: Tom Bauhs Lead Consultant: Delta/G-R

Consultant/Office: G-R, Inc., 6747 Sierra Court, Dublin, Ca 94568

Consultant Prj. Mgr. Deanna L. Harding (Deanna@grinc.com)

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

Sampler: TONY CAMACHO

Service Order #: ☐ Non SAR:

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

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Water (☐ Potable ☐ NPDES)	Oil ☐ Air ☐	Total Number of Containers	Preservation: H	H			H								Analyses Requested: BTEX + MTBE 8260 ☐ 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	8 Oxygenates 8260	Lead 7420 ☐ 7421 ☐
QA	2/14/02	—				X		2													X	X				
MW-1		1317	X			X		6													X	X			X	
MW-2		1254	X			X		3													X	X				
MW-3		1338	X			X		6													X	X			X	
MW-4		1208	X			X		6													X	X			X	
MW-5		1117	X			X		6													X	X			X	
MW-6		1151	X			X		3													X	X				
MW-7		1238	X			X		3													X	X				
MW-8		1452	X			X		8													X	X	X		X	

Comments / Remarks

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:	2/15/02	0800	Received by:	2/15/02	12:10
Relinquished by:	2/15/02	2/15/02 3:30	Received by:	2/15/02	3:30
Relinquished by: Andres Amaya	2-18-02	1500	Received by: Airborne	2-18-02	
Relinquished by Commercial Carrier: UPS FedEx Other Airborne			Received by:	02/19/02	0915
Temperature Upon Receipt 1.5 °C			Custody Seals Intact? Yes No		

3460 Rev. 7/30/01