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## MONITORING WELL INSTALLATION REPORT

at  
Chevron Service Station #9-4800  
1700 Castro Street  
Oakland, California


GR Report No. 346383.06-1  
Delta Project No. DG94-800


### Prepared for:

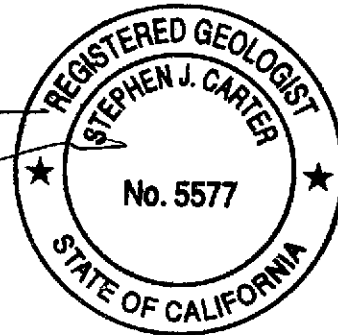
Mr. Thomas Bauhs  
Chevron Products Company  
P.O. Box 6004  
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### Prepared by:

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May 29, 2001

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## MONITORING WELL INSTALLATION REPORT

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1700 Castro Street  
Oakland, California

GR Report No. 346383.06-1  
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### INTRODUCTION

At the request of Chevron Products Company (Chevron), Delta Environmental Consultants, Inc. Network Associate Gettler-Ryan Inc. (GR) installed one monitoring well at the follow Chevron Station #9-4800, located at 1700 Castro Street in Oakland, California. The work was performed to evaluate if soil and groundwater downgradient of the subject site have been impacted by petroleum hydrocarbons. The scope of work included: obtaining the required monitoring well and encroachment permits; updating a site safety plan; installing one monitoring well; surveying the newly installed well; developing and sampling the new well; analyzing groundwater and selected soil samples; arranging for disposal of waste material; and preparing a report documenting the work. This work was proposed in GR's, *Work Plan for Monitoring Well Installation*, dated November 19, 1999 and approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated November 30, 1999.

### SITE DESCRIPTION

The subject site is an active service station located on the southeast corner of Castro Street and 18<sup>th</sup> Street in Oakland, California (Figure 1). The current facilities consist of a kiosk, five dispenser islands and four gasoline UST's that share a common excavation in the northern portion of the site. Locations of pertinent site features are shown on Figure 2.

### PREVIOUS ENVIRONMENTAL WORK

Five dispenser islands were upgraded in February 1997. On February 18, 1997, one soil sample was collected from beneath each of the five dispenser islands at a depth of 4.0 feet below ground surface (bgs). Total Petroleum Hydrocarbons as gasoline (TPHg) were detected in four samples ranging from 1.9 to 890 parts per million (ppm). Benzene was detected in four samples at concentrations ranging from 0.016 to 15 ppm. Total Petroleum Hydrocarbons as diesel (TPHd) were detected in four samples at concentrations ranging from 1.9 to 220 ppm. The highest concentrations of hydrocarbons at the site were detected in samples collected beneath the central and southern dispenser islands.

On February 21 and 22, 1997 GR hand augered 12 soil borings, to a maximum depth of 10.0 feet, to evaluate the extent of the hydrocarbon impact to the soil beneath the site. Groundwater was not encountered in the soil borings. TPHg were detected in five soil samples and ranged from 1.9 to 890 ppm. TPHd were detected in six soil samples and ranged from 1.0 to 640 ppm. Benzene was detected in 12 soil samples and ranged in concentrations from 0.011 to 3.0 ppm.

On May 29, 1997 GR supervised the installation of three groundwater monitoring wells at the site. TPHg were not detected in soil samples from these well borings. TPHd were detected in the well borings MW-2

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at 21.0 feet bgs (1.9 ppm) and MW-3 at 16.0 feet bgs (1.1 ppm). Benzene was detected in soil from the well borings MW-1 and MW-3 at concentrations of 0.0069 to 0.12 ppm, respectively. Benzene was not detected in the soil from well boring MW-2. Methyl tertiary-Butyl Ether (MtBE) was detected in soil from well boring MW-2 and MW-3 at concentrations ranging from 0.041 to 0.58 ppm. MtBE was not detected in the soil samples collected from well soil boring MW-1.

On March 23, 1999, GR supervised the installation of three groundwater monitoring wells at the site (MW-4, MW-5 and MW-6). Concentrations of TPHg, benzene, toluene, ethylbenzene and xylenes (BTEX) and MtBE were not detected in any of the soil samples collected and analyzed from well borings MW-5 or MW-6. Concentrations of benzene (0.0051 ppm) and MtBE (0.045 ppm) were detected in boring MW-4 at 23.0 feet bgs. MtBE was detected in the soil sample from 6 feet bgs in boring MW-4 at a concentration of 0.22 ppm. No other petroleum hydrocarbons were detected in soil samples from boring MW-4.

The most recent (March 1, 2001) quarterly groundwater monitoring analytical results indicated TPHg concentrations in monitoring wells MW-1 through MW-4 ranged in concentrations from 193 to 2,340 parts per billion (ppb). Benzene concentrations in these wells ranged from 2.31 to 218 ppb. TPHd concentrations were detected in all six wells at concentrations ranging from 77.4 to 1,320 ppb. MtBE by EPA Method 8020 was detected in samples collected from wells MW-1 through MW-6 at concentrations of 7.52 to 1,220 ppb. Groundwater flow direction was westerly at a depth of approximately 25 feet bgs.

## **FIELD ACTIVITIES**

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A) and the Site Safety Plan dated March 29, 2001. Drilling permit #WO1-107 was obtained from the Alameda Public Works Agency and a Minor Encroachment Permit #X000214 was obtained for the City of Oakland. Underground Service Alert (USA) was notified prior to drilling at the site. Copies of the permits are included in Appendix B.

### **Well Installation**

On March 30, 2001 a GR geologist observed Gregg Drilling Inc. (C57-485165) install one monitoring well (MW-7) in the location shown on Figure 2. A hand auger was used for the first five feet of the borehole in order to clear the location of any underground utilities. A truck-mounted rig using 8-inch-diameter hollow stem augers advanced the borehole to 30 feet bgs. A GR geologist prepared a log of the boring (Appendix B).

The well was constructed of 2-inch-diameter polyvinyl chloride (PVC) to a depth of 30 feet bgs. The bottom 20 feet of the well was screened with 0.01-inch machine-slotted casing. Lonestar #3 sand was placed in the annular space from the bottom of the boring to approximately 2 feet above the well screen. The well was then sealed with hydrated bentonite followed by neat cement. A water-resistant box installed in concrete was placed over the well. An expandable waterproof well cap secured with a lock was placed on the top of the well casing. Well construction details are shown on the boring log in Appendix B.

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1700 Castro Street

Oakland, California

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Drill cuttings were placed on and covered with plastic sheeting pending disposal. One 4-point disposal characterization sample (SP-1-4) was collected from the stockpile.

### **Well Development, Monitoring, and Sampling**

Well MW-7 was developed and sampled on May 4, 2001, during the regularly scheduled monitoring and sampling event. Depth-to-water was measured and the well was checked for the presence of separate phase hydrocarbons (SPH). SPH were not found in the well. The newly installed well de-watered during development, but the well yielded a minimum 10 casing volumes. Following development, groundwater samples were collected from the well. Purge water generated during development and sampling procedures were stored on-site in properly labeled 55-gallon drums pending disposal. Well development procedures are included in Appendix A. A copy of the well development form is included in Appendix C.

### **Wellhead Survey**

Following installation of the well, the elevation was surveyed by Virgil Chavez Land Surveying of Vallejo, CA (license #6323). Top of casing and vault box elevation was measured relative to Mean Sea Level (MSL), and the horizontal location of the well was measured. The surveyor's report is included in Appendix D.

## **RESULTS OF THE SUBSURFACE INVESTIGATION**

Soil encountered during this investigation consisted of silty sand and sandy silt to approximately 15 feet bgs. Poorly graded sand with abundant iron oxide staining was encountered at approximately 20 feet bgs and appeared to continue to approximately 29 feet bgs. Clay with sand was encountered at 29 feet bgs. Groundwater was first encountered at approximately 28 feet bgs. Based on the groundwater monitoring data collected on May 4, 2001, the water table beneath the site is at approximately 25 feet bgs. Detailed descriptions of the soil encountered during drilling are presented on the boring log in Appendix B.

## **CHEMICAL ANALYTICAL RESULTS**

All samples were analyzed by Sequoia Analytical in Walnut Creek, California (ELAP #1271). Soil samples from the well borings were analyzed for TPHg, TPHd, BTEX and MtBE by DHS LUFT. Stockpile samples were analyzed for TPHg, TPHd, BTEX, MtBE, and total lead by EPA Method 6010. Groundwater samples were analyzed for TPHg, TPHd, BTEX and MtBE by DHS LUFT, and Ethanol, Tertiary-Butyl Alcohol (TBA), Di-isopropyl ether (DIPE), Ethyl tertiary-butyl ether (EtBE), and tertiary-Amyl methyl ether (TAME) by EPA Method 8260B. Copies of the laboratory analytical reports and chains-of-custody are included in Appendix E. Analytical reports for the newly installed well and the groundwater sampling event are included in the same report.

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### **Soil Analytical Results**

Concentrations of TPHg, BTEX and MtBE were not detected in any of the five soil samples collected from well boring MW-7. TPHd was detected in the sample from 15 feet bgs at a concentration of 1.5 ppm, slightly above the laboratory reporting limit of 1.0 ppm. The disposal characterization samples from the drill cuttings contained lead at a concentration of 2.8 ppm. Concentrations were acceptable to the disposal facility. These data are summarized in Table 1

### **Groundwater Analytical Results**

TPHg or TPHd were not detected in the groundwater sample collected from MW-7. MtBE was detected at concentrations of 567 ppb by EPA Method 8021B and 470 ppb by EPA Method 8260B. TBA and TAME were detected at concentrations of 57 ppb and 11 ppb, respectively. These data are summarized in Table 2.

### **WASTE DISPOSAL**

Drill cuttings were removed from the site on April 9, 2001, by IWM. The drill cuttings were transported to the Republic landfill in Livermore California for disposal. Waste water generated during well development and sampling was transported by IWM to Mckittrick for disposal.

### **CONCLUSIONS**

The purpose of this investigation was to evaluate if soil and groundwater downgradient of the subject site have been impacted by petroleum hydrocarbons. Hydrocarbon impact to soil at a depth of 15 feet bgs in the vicinity of MW-7 is negligible. Additional assessment of soil conditions in the vicinity of MW-7 is not warranted.

Dissolved gasoline, diesel, and BTEX hydrocarbons were not detected in samples collected from MW-7. Oxygenating compounds TBA, MtBE, and TAME were detected in samples at concentrations of 57 ppb, 470 ppb (by EPA Method 8260B) and 567 ppb (by EPA Method 8021B), and 11 ppb, respectively.

The dissolved hydrocarbon plume remains undefined downgradient. Based on the analytical results of groundwater samples from MW-7, the concentrations of detected TBA, MtBE and TAME with no detected TPHg, TPHd, or BTEX may indicate the leading edge of the hydrocarbon plume. GR recommends that quarterly monitoring and sampling be implemented for MW-7. Groundwater samples from MW-7 should be analyzed for TPHg, TPHd, BTEX and MtBE.

**TABLE 1 - SOIL CHEMICAL ANALYTICAL DATA**  
**Chevron Service Station, #9-4800**  
**1700 Castro Street**  
**Oakland, California**

Sample ID	Sample Date	Sample Depth (feet bgs)	TPHg (ppm)	TPHd (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	MtBE* (ppm)	Total Pb (ppm)
<b>Boring MW-7</b> MW-7-6'	03/30/01	6.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
<b>Boring MW-7</b> MW-7-10'	03/30/01	10.0	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
<b>Boring MW-7</b> MW-7-15'	03/30/01	15.0	<1.0	1.5	<0.005	<0.005	<0.005	<0.005	<0.05	---
<b>Boring MW-7</b> MW-7-19.5'	03/30/01	19.5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
<b>Boring MW-7</b> MW-7-24.5'	03/30/01	24.5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	---
<b>Stockpile Samples</b> SP-1-4	03/30/01	---	<1.0	<2.0	<0.005	<0.005	<0.005	<0.005	<0.05	2.8

**Explanation:**

TPHg = Total Petroleum Hydrocarbons as gasoline  
 TPHd = Total Petroleum Hydrocarbons as diesel  
 BTEX = benzene, toluene, ethyl-benzene, total xylenes  
 MtBE = methyl tertiary-butyl ether  
 feet bgs = feet below ground surface  
 (ppm) = parts per million  
 --- = not applicable  
 Pb = total lead

**Analytical Laboratory:**

Sequoia Analytical (CA ELAP #1271)

**Analytical Methods:**

TPHg/TPHd/BTEX/MtBE: DHS LUFT  
 Total Lead by EPA Method 6010A

**TABLE 2 - GROUNDWATER CHEMICAL ANALYTICAL DATA**

Chevron Service Station #9-4800

1700 Castro Street

Oakland, California

Sample ID	Sample Date	Depth to Water (ft.)	TPHg (ppb)	TPHd (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MtBE* (ppb)	TBA (ppb)	DIPE (ppb)	EtBE (ppb)	TAME (ppb)	Ethanol (ppb)
MW-7														
MW-7 (Water)	05/04/01	27.87	<50	<50	<0.50	<5.0	<5.0	<5.0	567/470	57	<2.0	<2.0	11.00	<500

**Explanation:**

TPHg = total petroleum hydrocarbons as gasoline (includes MtBE)

TPHd = total petroleum hydrocarbons as diesel

BTEX = benzene, toluene, ethylbenzene, total xylenes

MtBE = methyl tertiary-butyl ether

TBA = tertiary-butyl alcohol

DIPE = di-isopropyl ether

EtBE = ethyl tertiary-butyl ether

TAME = tertiary-amyl methyl ether

(ppb) = parts per billion

ft = feet

\* Reported as MtBE by DHS LUFT/EPA Method 8260B

**Analytical Laboratory**

Sequoia Analytical (ELAP #1271)

**Analytical Methods**

TPHg/TPHd/BTEX/MtBE: DHS LUFT

Oxygenates: EPA Method 8260B





Source: Street Atlas USA, Delorme (1995).

FIGURE



**Gettler - Ryan Inc.**

6747 Sierra Ct., Suite J (510) 551-7555  
Dublin, CA 94568

VICINITY MAP  
Chevron Service Station No. 9-4800  
1700 Castro Street  
Oakland, California

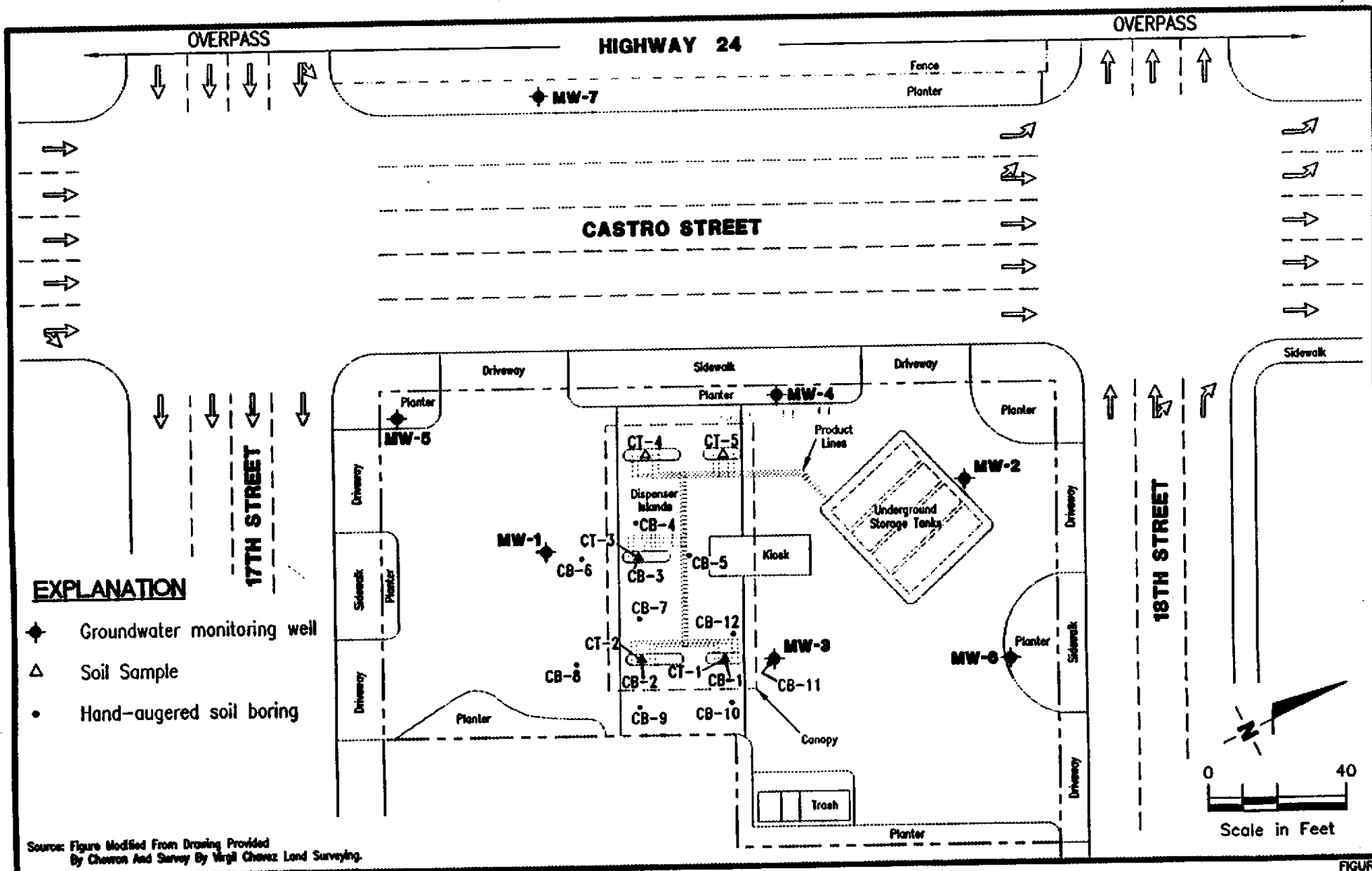
DATE  
2/97

REVISED DATE

JOB NUMBER  
6383

REVIEWED BY  
f

1



**SITE PLAN**

Chevron Service Station No. 9-4800  
 1700 Castro Street  
 Oakland, California

FIGURE

**2**



**Gottler - Ryan Inc.**

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

JOB NUMBER  
 346383.05

REVIEWED BY

DATE  
 11/99

REVISED DATE

## GETTLER-RYAN INC.

### FIELD METHODS AND PROCEDURES

#### Site Safety Plan

Fieldwork performed by Gettler-Ryan Inc. (G-R) is conducted in accordance with G-R's Health and Safety Plan (revised January 16, 1995) and the Site Safety Plan. G-R personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The G-R geologist or engineer at the site when the work is performed acts as the Site Safety Officer. G-R utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

#### Collection of Soil Samples

Soil borings are drilled by a California-licensed well driller. A G-R 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 soil boring with a split-barrel sampling device fitted with 2-inch-diameter, clean brass tube 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 soils are 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 headspace analysis in the field for the presence of organic vapors from the soil sample. A small volume of sample (20-30 cm<sup>3</sup>) is placed in a Ziplock®-type plastic bag with headspace. After allowing the sample to warm for approximately 10 minutes, the PID sample tube is inserted into the headspace above the sample and a measurement taken. PID screening results are recorded on the boring log as reconnaissance data. G-R does not consider field-screening techniques to be verification of the presence or absence of hydrocarbons.

### **Construction of Monitoring Wells**

Monitoring wells are constructed in the exploratory soil 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 that generally extends from the total well depth to a point above the groundwater. Appropriately sized sorted sand is placed in the annular adjacent to the entire screened interval. A bentonite 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 waterproof cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

### **Measurement of Water Levels**

The top of the newly installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (MSL). Depth-to-groundwater in the well is measured from the top of the well casing with an electronic water-level indicator. Depth-to-groundwater is measured to the nearest 0.01-foot, and referenced to MSL.

### **Well Development and Sampling**

The purpose of well development is to improve hydraulic communication between the well and the surrounding aquifer. Prior to development, each well is monitored for the presence of floating product and the depth-to-water is recorded. Wells are then developed by alternately surging the well with a vented surge block, then purging the well with a pump or bailer to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized. After the wells have been developed, groundwater samples are collected. Well development and sampling is performed by Gettler-Ryan Inc. of Dublin, California.

### **Storing and Sampling of Drill Cuttings**

Drill cuttings are stockpiled on plastic sheeting and samples are collected and analyzed on the basis of one composite sample per 100 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 steel 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.

ADDRESS: 6001 Bollinger Canyon Road Bldg.L  
P.O.Box 6004  
San Ramon, CA 94583-0904  
(APN: 003-0059-013-02)

RE: Minor Encroachment Permit for installation of one monitoring well adjacent to 1700 Castro Street.

### CONDITIONS FOR GRANTING A MINOR ENCROACHMENT PERMIT

1. That this permit shall be revocable at the pleasure of the Director of Building Services
2. That the permittee, by the acceptance, either expressed or implied, of the minor encroachment permit hereby disclaims any right, title, or interest in or to any portion of the public street area, and agrees that said temporary use of said area does not constitute an abandonment on the part of the City of Oakland of any of its rights for street purposes and otherwise.
3. The permittee shall maintain in force and effect at all times that said encroachment occupies said public area, good and sufficient public liability insurance in the amount of \$300,000 for each occurrence, and property damage insurance in the amount of \$50,000 for each occurrence, both including contractual liability, insuring the City of Oakland, its officers and employees against any and all claims arising out of the existence of said encroachment in said sidewalk area, as respects liabilities assumed under this permit, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the Director of Building Services of the City of Oakland, and that such certificate shall state that said insurance coverage shall not be canceled or be permitted to lapse without thirty (30) days written notice to said Director of Building Services. The permittee also agrees that the City may review the type and amount of insurance required of the permittee every five (5) years and may require the permittee to increase the amount of and/or change the type of insurance coverage required.
4. That the permittee, by the acceptance, either expressed or implied, of this revocable permit shall be solely and fully responsible for the repair or replacement of any portion or all of said improvements in the event that said improvements shall have failed or have been damaged to the extent of creating a menace or of becoming a hazard to the safety of the general public; and that the permittee shall be liable for the expenses connected therewith.
5. That the permittee is aware that the proposed work is out of the ordinary and does not comply with City standard installations. Permittee is also aware that the City has to conduct work in the public right-of-way, which may include, but may not be limited to, excavation, trenching, and relocation of its facilities, all of which may damage encroachments. Permittee is further aware that the City takes no responsibility for repair or replacement of encroachments, which are damaged by the City or its contractors. That the permittee, by the acceptance, either expressed or implied, of the encroachment permit hereby agrees that upon receipt of notification from the City, permittee shall immediately repair or replace within 30 days all damages to permittee's encroachments within the public right-of-way which are damaged by the City or its contractors in carrying out the City's work. Permittee agrees to employ interim measures required and approved by the City until repair or replacement work is completed.
6. That upon the termination of the permission herein granted, permittee shall immediately remove said encroachment from the street area, and any damage resulting therefrom shall be repaired to the satisfaction of the Director of Building Services.

That the permittee shall file with the City of Oakland for recordation Minor Encroachment Permit and Agreement, and shall be bound by and comply with all the terms and conditions of said permit.

8. That said permittee shall obtain an excavation permit prior to construction and a separate excavation permit prior to the removal of the ground water monitoring well.
9. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the monitoring well and the results of all data collected from the monitoring well.
10. That said permittee shall remove the monitoring well and repair any damage to the street area in accordance with City standards two (2) years after construction or as soon as monitoring is complete.
11. That said permittee shall notify the Community & Economic Development Agency, Building Services Division after the monitoring well is removed and the street area restored to initiate the procedure to rescind the minor encroachment permit.
12. That the monitoring well cover installed within the sidewalk area shall have a skid-proof surface.
13. That the ground water monitoring well casing and cover shall be iron and shall meet H-20 load rating. The cover shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface. For sidewalk installations, a pre-cast concrete utility box and non-skid cover may be needed in conjunction with the bolted cast iron cover with City approval.
14. That the permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.
15. The permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the encroachment area, and permittee hereby waives and fully releases and forever discharges the City and its officers, directors, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgements, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition or required remediation of the excavation area of any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 466 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401, 1450), the Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Sections 253000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).
16. Permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: " A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR. "

Permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect its decision to agree to these encroachment terms and conditions, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

18. (a) That the permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs; collectively referred to as "claims", whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were either (1) caused by the permittee, its agents, employees, contractors or representatives, or, (2) in the case of environmental contamination, the claim is a result of environmental contamination that emanates or emanated from 1700 Castro Street, Oakland, California site, or was otherwise caused by the permittee, its agents, employees, contractors or representatives.
  - (b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from 1700 Castro Street, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.
  - (c) That the permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.
19. That the permittee hereby does remise, release, and forever discharge, and agree to defend, indemnify, and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, claims, and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or by the undersigned and any other person or persons, and arising out of, or by reason of the occupation of said public property, and the future removal of the above-mentioned encroachment.
  20. That the herein above conditions shall be binding upon the permittee and the successive owners and assigns thereof.
  21. That said permittee shall provide to the City of Oakland a performance bond for the amount of \$3,000 per each monitoring well encroaching within the public right-of-way prior to the issuance of the encroachment permit. Said performance bond shall be returned to the permittee after the monitoring is complete and the monitoring well is removed and the street area is restored.
  22. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the Director of Building Services, and shall become null and void upon the failure of the permittee to comply with all conditions.

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)

003	0059	013	02
MAP	BLOCK	PARCEL	SUB

Address: 1700 CASTRO STREET

Space Above for Recorder's Use Only


**MINOR ENCROACHMENT PERMIT AND AGREEMENT**

Chevron Products Company (Chevron) is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way of Castro Street to install one monitoring well. The location of said encroachment shall be as delineated in Exhibit 'A' attached hereto and made a part hereof.

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 12<sup>th</sup> day of March, 2001.

  
NAME: David Wickland  
TITLE: Office Manager - SAR

-----  
*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



# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

COUNTY OF Contra Costa

On 3/12/01

DATE


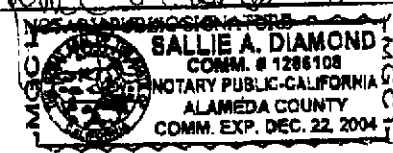
before me, Sallie A. Diamond

NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"

personally appeared, Dave Wickland

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

  
(SEAL)  


## OPTIONAL INFORMATION

THIS OPTIONAL INFORMATION SECTION IS NOT REQUIRED BY LAW BUT MAY BE BENEFICIAL TO PERSONS RELYING ON THIS NOTARIZED DOCUMENT.

TITLE OR TYPE OF DOCUMENT \_\_\_\_\_

DATE OF DOCUMENT \_\_\_\_\_

NUMBER OF PAGES \_\_\_\_\_

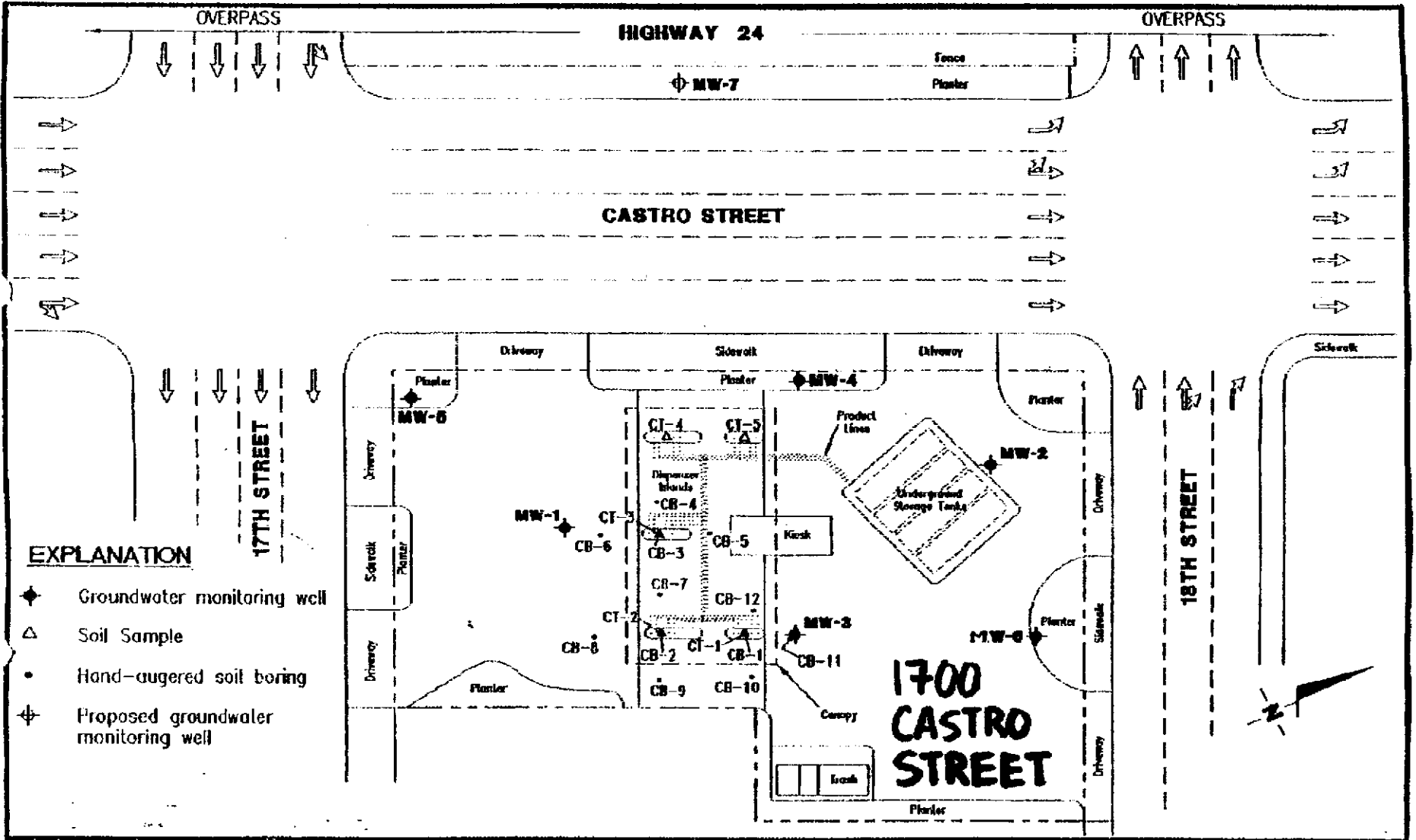
SIGNER(S) OTHER THAN NAMED ABOVE \_\_\_\_\_

SIGNER'S NAME \_\_\_\_\_

SIGNER'S NAME \_\_\_\_\_

RIGHT THUMBPRINT

RIGHT THUMBPRINT



**EXPLANATION**

- ◆ Groundwater monitoring well
- △ Soil Sample
- Hand-augered soil boring
- ⊕ Proposed groundwater monitoring well

**SITE PLAN**  
 Chevron Service Station No. 9-4800  
 1700 Castro Street  
 Oakland, California

EXHIBIT 'A'

FROM : GETTLER-RYAN INC.

PHONE NO. : 916 631 1317

Feb. 08 2001 02:04PM P2



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. RAYWARD CA. 94544-1395
PHONE (510) 476-8854
FAX (510) 797-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT CHEVRON # 9-4800
1700 CASTRO STREET, OAKLAND

FOR OFFICE USE

PERMIT NUMBER W01-107
WELL NUMBER
APN

PERMIT CONDITIONS
Cited Permit Requirements Apply

CLIENT
Name CHEVRON Products Company
Address P.O. Box 6004
City SAN RAMON
Phone (925) 842-1998
Fax (925) 842-1998
Zip 94583

APPLICANT
Name Gettler-Ryan Inc.
Address 2140 Gull Camp Dr. #110
City RAINIER, CA
Phone (916) 631-1317
Fax (916) 631-1317
Zip 94570

TYPE OF PROJECT

Well Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General
Contamination
Well Construction

PROPOSED WATER SUPPLY WELL USE

New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

DRILLING METHOD:

Mud Rotary
Cable
Air Rotary
Other
Auger

DRILLER'S NAME CASCADE DRILLING, INC.

DRILLER'S LICENSE NO. C57-717510
Exp. 1-31-02

WELL PROJECTS

Drill Hole Diameter 8 in.
Casing Diameter 2 in.
Surface Seal Depth 9 in.
Maximum Depth 30 ft.
Owner's Well Number MW-7

GEOTECHNICAL PROJECTS

Number of Borings
Hole Diameter
Maximum Depth 03/30/01

ESTIMATED STARTING DATE 02/20/01
ESTIMATED COMPLETION DATE 03/13/01

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.
2. 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 30 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 30 feet.

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout and sand. Upper two-three feet replaced in kind or with corepacked concrete.

E. CATHODIC

Fill hole inside casing with concrete placed by tremie.

F. WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application 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.

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

APPLICANT'S SIGNATURE Tony P. Mikacich DATE 02/09/01

APPLICANT PRINT NAME Tony P. Mikacich Rev 6-8-00

APPROVED [Signature] DATE 2-9-01

# Gettler-Ryan, Inc.

# Log of Boring MW-7

PROJECT: *Chevron Service Station No. 9-4800*

LOCATION: *1700 Castro Street, Oakland, CA.*

GR PROJECT NO.: *346383.06*

CASING ELEVATION:

DATE STARTED: *03/30/01*

WL (ft. bgs): *27.6* DATE: *03/30/01* TIME: *10:30*

DATE FINISHED: *03/30/01*

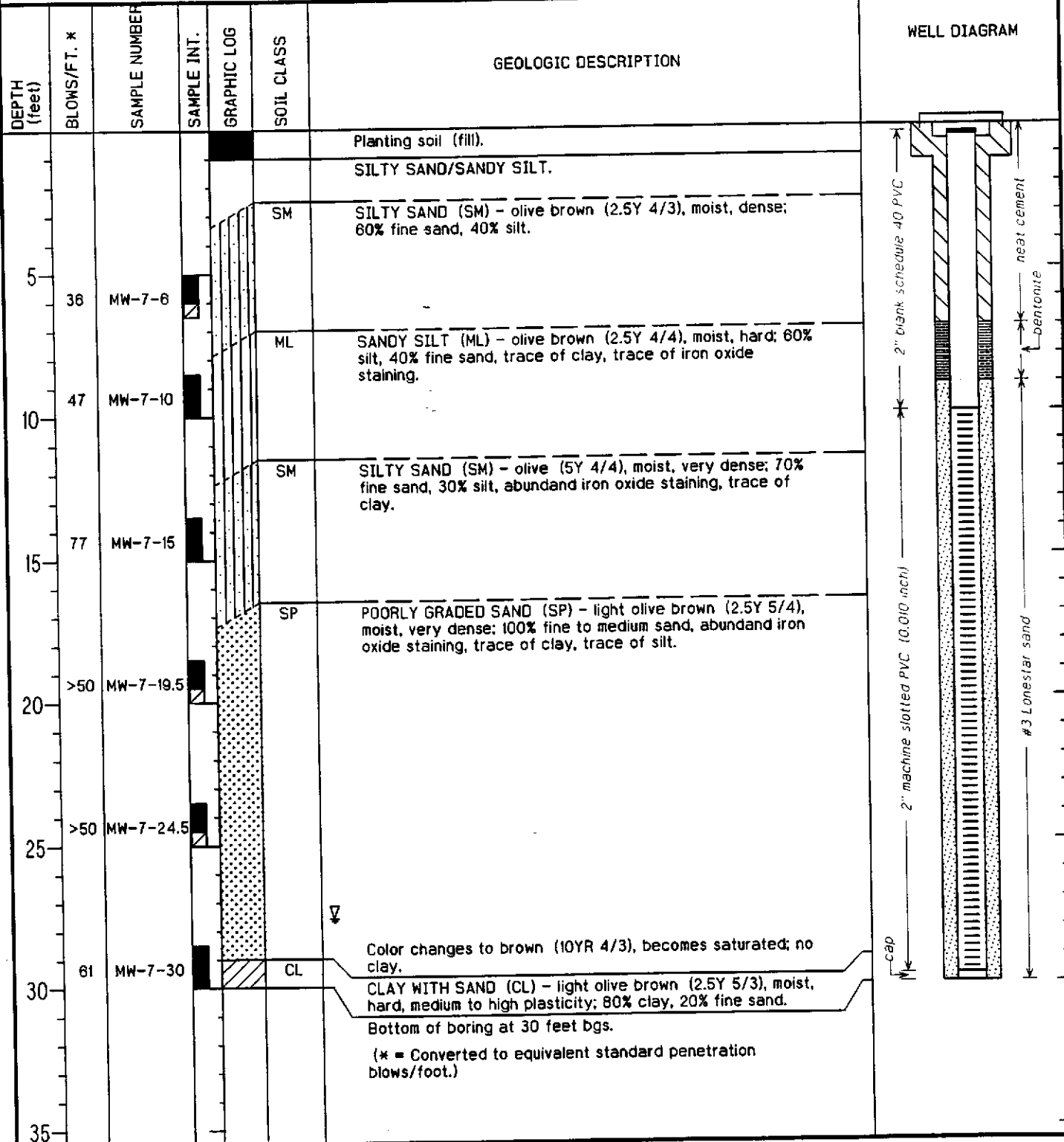
WL (ft. bgs): DATE: TIME:

DRILLING METHOD: *8 in. Hollow Stem Auger*

TOTAL DEPTH: *30 feet*

DRILLING COMPANY: *Gregg Drilling*

GEOLOGIST: *Tony Mikacich*



**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**WELL MONITORING/DEVELOPMENT  
FIELD DATA SHEET**

Client/Facility: Chevron #9-4800  
 Address: 1700 CASTRO ST  
 City: OAKLAND

Job#: 380383  
 Date: 5-4-01  
 Sampler: FB

Well ID: MW-7  
 Well Diameter: 2 in.  
 Total Depth: 29.97 ft.  
 Depth to Water: 27.87 ft.

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

2.1 x VF 47 = 357 (case volume) = Estimated Purge Volume: 7.0 (gal.)

Purge Equipment: Disposable Bailer  
 Bailer  
 Stack  
 Suction  
 Grundfos  
 Other: Metal Bailer

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

Starting Time: 10:07  
 Sampling Time: ~~10:15~~ 15:30  
 Purging Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? \_\_\_\_\_

Weather Conditions: SUNNY  
 Water Color: Light Brown Odor: NO  
 Sediment Description: SILT  
 If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°C)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:11	1	6.16	956	74.3			
10:15	2	6.01	871	76.4			
10:31	3	5.94	856	72.6			
10:50	4	5.90	849	72.8			
15:34	5						
15:38	6						
15:42	7						

SAMPLE ID	(M) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	5 X VOA VIAL	Y	HCL	Seg	TPH-G/STRENGTH/COV'S
"	1 Amber	Y	NO	"	TPH-D

COMMENTS: Very little water in well. Slow recovery. Sampled then purged 5 more gal.  
Purged 4 gal; waited 4 hrs. Sampled then purged

**Virgil Chavez Land Surveying**

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

April 17, 2001  
Project No. 1104-67B

Tony Mikacich  
Gettler-Ryan, Inc.  
3140 Gold Camp Drive, Suite 170  
Rancho Cordova, CA 95670

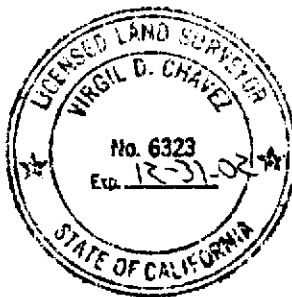
Subject: Monitoring Well Survey  
Chevron SS # 9-4800  
1700 Castro Street  
Oakland, Ca.

Dear Tony:

This is to confirm that we have proceeded at your request to survey the monitoring wells at the above referenced location. The survey was performed on April 11, 2001. The benchmark for the survey was the top of curb at the south end of the return at the southeast corner of Castro Street and 18th Street. Measurement locations were marked at the approximate north side of top of box and top of casing. The station and offset data are relative to the back of sidewalk on 18th Street.

Benchmark Elevation 29.65 feet, MSL.

<u>Well No.</u>	<u>Rim Elevation</u>	<u>TOC Elevation</u>	<u>Station</u>	<u>Offset</u>
MW - 7	32.14'	31.90'	0-88.90	152.62 (Rt)
BSW Intx.			0+00.00	0.00
BSW-18th Street			---	0.00



Sincerely,

*Virgil D. Chavez*  
 \_\_\_\_\_  
 Virgil D. Chavez, PLS 6323

## APPENDIX E





# Sequoia Analytical

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404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673  
www.sequoialabs.com

12 April, 2001

Tony Mikacich  
Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova, CA 95670

RE: Chevron  
Sequoia Report: W103680

Enclosed are the results of analyses for samples received by the laboratory on 30-Mar-01 13:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater  
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7-6'	W103680-01	Soil	30-Mar-01 09:34	30-Mar-01 13:00
MW-7-10'	W103680-02	Soil	30-Mar-01 09:40	30-Mar-01 13:00
MW-7-15'	W103680-03	Soil	30-Mar-01 09:46	30-Mar-01 13:00
MW-7-19.5'	W103680-04	Soil	30-Mar-01 09:55	30-Mar-01 13:00
MW-7-24.5'	W103680-05	Soil	30-Mar-01 10:00	30-Mar-01 13:00
SP-1-4	W103680-06	Soil	30-Mar-01 10:55	30-Mar-01 13:00





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA. 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7-6' (W103680-01) Soil Sampled: 30-Mar-01 09:34 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	04-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	CC-3
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.3 %	40-140		"	"	"	"	
<b>MW-7-10' (W103680-02) Soil Sampled: 30-Mar-01 09:40 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	04-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	CC-3
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.7 %	40-140		"	"	"	"	
<b>MW-7-15' (W103680-03) Soil Sampled: 30-Mar-01 09:46 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	04-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	CC-3
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		124 %	40-140		"	"	"	"	





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7-19.5' (W103680-04) Soil Sampled: 30-Mar-01 09:55 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	04-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	CC-3
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.0 %		40-140	"	"	"	"	
<b>MW-7-24.5' (W103680-05) Soil Sampled: 30-Mar-01 10:00 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	04-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	CC-3
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		116 %		40-140	"	"	"	"	
<b>SP-1-4 (W103680-06) Soil Sampled: 30-Mar-01 10:55 Received: 30-Mar-01 13:00</b>									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1D02003	02-Apr-01	02-Apr-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	CC-3
<i>Surrogate: a,a,a-Trifluorotoluene</i>		100 %		40-140	"	"	"	"	





Gettler Ryan, Inc. - Rancho Cordova 3140 Gold Camp Drive #170 Rancho Cordova CA, 95670	Project: Chevron Project Number: Chevron # 9-4800 Project Manager: Tony Mikacich	<b>Reported:</b> 12-Apr-01 07:40
--	--	-------------------------------------

**Diesel Hydrocarbons (C9-C24) by DHS LUFT**  
**Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7-6' (W103680-01) Soil    Sampled: 30-Mar-01 09:34    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	ND	1.0	mg/kg	1	1D02017	02-Apr-01	04-Apr-01	DHS LUFT	
Surrogate: n-Pentacosane		85.0 %	50-150		"	"	"	"	
<b>MW-7-10' (W103680-02) Soil    Sampled: 30-Mar-01 09:40    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	ND	1.0	mg/kg	1	1D02017	02-Apr-01	04-Apr-01	DHS LUFT	
Surrogate: n-Pentacosane		79.1 %	50-150		"	"	"	"	
<b>MW-7-15' (W103680-03) Soil    Sampled: 30-Mar-01 09:46    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	1.5	1.0	mg/kg	1	1D02017	02-Apr-01	04-Apr-01	DHS LUFT	D-06
Surrogate: n-Pentacosane		96.4 %	50-150		"	"	"	"	
<b>MW-7-19.5' (W103680-04) Soil    Sampled: 30-Mar-01 09:55    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	ND	1.0	mg/kg	1	1D02017	02-Apr-01	04-Apr-01	DHS LUFT	
Surrogate: n-Pentacosane		79.1 %	50-150		"	"	"	"	
<b>MW-7-24.5' (W103680-05) Soil    Sampled: 30-Mar-01 10:00    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	ND	1.0	mg/kg	1	1D02017	02-Apr-01	04-Apr-01	DHS LUFT	
Surrogate: n-Pentacosane		8.01 %	50-150		"	"	"	"	S-03
<b>SP-1-4 (W103680-06) Soil    Sampled: 30-Mar-01 10:55    Received: 30-Mar-01 13:00</b>									
Diesel Range Hydrocarbons	ND	2.0	mg/kg	1	1C28017	30-Mar-01	03-Apr-01	DHS LUFT	
Surrogate: n-Pentacosane		100 %	50-150		"	"	"	"	





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**Total Metals by EPA 6000/7000 Series Methods  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-1-4 (W103680-06) Soil <b>Sampled: 30-Mar-01 10:55</b> <b>Received: 30-Mar-01 13:00</b>									
Lead	2.8	1.0	mg/kg	1	1C30019	30-Mar-01	02-Apr-01	EPA 6010A	





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1D02003 - EPA 5030B MeOH</b>										
<b>Blank (1D02003-BLK1)</b>					Prepared & Analyzed: 02-Apr-01					
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.682		"	0.600		114	40-140			
<b>LCS (1D02003-BS1)</b>					Prepared: 02-Apr-01 Analyzed: 03-Apr-01					
Benzene	0.528	0.0050	mg/kg	0.800		66.0	50-150			
Toluene	0.720	0.0050	"	0.800		90.0	50-150			
Ethylbenzene	0.756	0.0050	"	0.800		94.5	50-150			
Xylenes (total)	2.34	0.0050	"	2.40		97.5	50-150			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.654		"	0.600		109	40-140			
<b>Matrix Spike (1D02003-MS1)</b>					Source: W103680-01		Prepared: 02-Apr-01 Analyzed: 05-Apr-01			
Benzene	0.610	0.0050	mg/kg	0.800	ND	76.3	50-150			
Toluene	0.758	0.0050	"	0.800	ND	94.8	50-150			
Ethylbenzene	0.800	0.0050	"	0.800	ND	100	50-150			
Xylenes (total)	2.47	0.0050	"	2.40	ND	103	50-150			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.482		"	0.600		80.3	40-140			
<b>Matrix Spike Dup (1D02003-MSD1)</b>					Source: W103680-01		Prepared: 02-Apr-01 Analyzed: 05-Apr-01			
Benzene	0.650	0.0050	mg/kg	0.800	ND	81.2	50-150	6.35	20	
Toluene	0.752	0.0050	"	0.800	ND	94.0	50-150	0.795	20	
Ethylbenzene	0.800	0.0050	"	0.800	ND	100	50-150	0	20	
Xylenes (total)	2.45	0.0050	"	2.40	ND	102	50-150	0.813	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	0.472		"	0.600		78.7	40-140			





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1C28017 - EPA 3550A</b>										
<b>Blank (1C28017-BLK1)</b> Prepared: 28-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	1.59		"	1.11		143	50-150			
<b>Blank (1C28017-BLK2)</b> Prepared: 30-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	0.889		"	1.11		80.1	50-150			
<b>LCS (1C28017-BS1)</b> Prepared: 28-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	14.0	1.0	mg/kg	15.0		93.3	60-140			
Surrogate: n-Pentacosane	1.70		"	1.11		153	50-150			S-03
<b>LCS (1C28017-BS2)</b> Prepared: 30-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	8.90	1.0	mg/kg	15.0		59.3	60-140			Q-01
Surrogate: n-Pentacosane	0.944		"	1.11		85.0	50-150			
<b>LCS Dup (1C28017-BSD1)</b> Prepared: 28-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	16.7	1.0	mg/kg	15.0		111	60-140	17.6	40	
Surrogate: n-Pentacosane	1.91		"	1.11		172	50-150			S-03
<b>Matrix Spike (1C28017-MS1)</b> Source: W103619-01 Prepared: 28-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	60.0	1.0	mg/kg	15.0	43	113	50-150			
Surrogate: n-Pentacosane	2.44		"	1.11		220	50-150			S-03
<b>Matrix Spike Dup (1C28017-MSD1)</b> Source: W103619-01 Prepared: 28-Mar-01 Analyzed: 03-Apr-01										
Diesel Range Hydrocarbons	94.7	1.0	mg/kg	15.0	43	345	50-150	44.9	50	Q-01
Surrogate: n-Pentacosane	2.36		"	1.11		213	50-150			S-03







Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

## Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1D02017 - EPA 3510B</b>										
<b>Blank (1D02017-BLK1)</b>				Prepared: 02-Apr-01 Analyzed: 03-Apr-01						
Diesel Range Hydrocarbons	ND	1.0	mg/kg							
Surrogate: <i>n</i> -Pentacosane	0.722		"	1.11		65.0	50-150			
<b>LCS (1D02017-BS1)</b>				Prepared: 02-Apr-01 Analyzed: 03-Apr-01						
Diesel Range Hydrocarbons	11.7	1.0	mg/kg	15.0		78.0	60-140			
Surrogate: <i>n</i> -Pentacosane	0.777		"	1.11		70.0	50-150			
<b>LCS Dup (1D02017-BSD1)</b>				Prepared: 02-Apr-01 Analyzed: 03-Apr-01						
Diesel Range Hydrocarbons	10.6	1.0	mg/kg	15.0		70.7	60-140	9.87	40	
Surrogate: <i>n</i> -Pentacosane	0.700		"	1.11		63.1	50-150			
<b>Matrix Spike (1D02017-MS1)</b>				Source: W103695-01		Prepared: 02-Apr-01 Analyzed: 03-Apr-01				<b>Q-01</b>
Diesel Range Hydrocarbons	7.88	2.0	mg/kg	15.0	5.4	16.5	50-150			
Surrogate: <i>n</i> -Pentacosane	1.73		"	1.11		156	50-150			S-04
<b>Matrix Spike Dup (1D02017-MSD1)</b>				Source: W103695-01		Prepared: 02-Apr-01 Analyzed: 03-Apr-01				<b>Q-01</b>
Diesel Range Hydrocarbons	7.88	2.0	mg/kg	15.0	5.4	16.5	50-150	0	50	
Surrogate: <i>n</i> -Pentacosane	1.41		"	1.11		127	50-150			





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

**Total Metals by EPA 6000/7000 Series Methods - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
<b>Batch 1C30019 - EPA 3050B</b>										
<b>Blank (1C30019-BLK1)</b>										
					Prepared: 30-Mar-01 Analyzed: 02-Apr-01					
Lead	ND	1.0	mg/kg							
<b>LCS (1C30019-BS1)</b>										
					Prepared: 30-Mar-01 Analyzed: 02-Apr-01					
Lead	49.5	1.0	mg/kg	50.0		99.0	80-120			
<b>LCS Dup (1C30019-BSD1)</b>										
					Prepared: 30-Mar-01 Analyzed: 02-Apr-01					
Lead	50.7	1.0	mg/kg	50.0		101	80-120	2.40	20	





Gettler Ryan, Inc. - Rancho Cordova  
3140 Gold Camp Drive #170  
Rancho Cordova CA, 95670

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Tony Mikacich

**Reported:**  
12-Apr-01 07:40

### Notes and Definitions

- CC-3 Continuing Calibration indicates that the quantitative result for this analyte includes a greater than 15% degree of uncertainty. The value as reported is within method acceptance.
- D-06 Discrete peaks.
- Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- S-03 The surrogate recovery for this sample is outside of established control limits. Review of associated QC indicates the recovery for this surrogate does not represent an out-of-control condition.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Chevron U.S.A. Inc.  
P.O. BOX 5004  
San Ramon, CA 94583  
FAX (415)842-9591

Chevron Facility Number CHEVRON # 9-7800  
Facility Address 1700 CASTRO STREET, OAKLAND  
Consultant Project Number GR# 346383.06  
Consultant Name Gettler-Ryan Inc.  
Address 3170 Gold Camp Dr., Suite 170, Rancho Cordova  
Project Contact (Name) Tony Mikacich  
(Phone) (916) 631-1300 (Fax Number) (916) 631-1317

Chevron Contact (Name) THOMAS BANKS  
(Phone) \_\_\_\_\_  
Laboratory Name Sedona Analytical  
Laboratory Release Number W1103680  
Samples Collected by (Name) Tony Mikacich  
Collection Date 03/30/01  
Signature Tony Mikacich

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed											Remarks				
								TEX + TPH GAS, MIBK (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	TOTAL Pb by (6010)							
MW-7-6'		1	S	D	9:34	NONE	Y	X	X														(10-day TAT)
MW-7-10'		1		D	9:40			X	X														
MW-7-15'		1		D	9:46			X	X														
MW-7-19.5'		1		D	9:55			X	X														
MW-7-24.5'		1		D	10:00			X	X														
MW-7-30'		1		D	10:08			X	X														Hold
SP-1		1		C	10:55			X	X														48-hr. TAT
SP-2		1		C	10:55			X	X														(4:1) Composite
SP-3		1		C	10:55			X	X														
SP-4		1		C	10:55			X	X														

COC-3.DWG/03 91/HCH

Relinquished By (Signature) <u>Tony Mikacich</u>	Organization <u>Gettler-Ryan Inc.</u>	Date/Time <u>03/30/01 11:00</u>	Received By (Signature) <u>Michael Quinn</u>	Organization <u>Sedona</u>	Date/Time <u>3/30/01/1301</u>	Turn Around Time (Circle Choice) 24 hrs. <u>48 hrs.</u> 5 Days <u>10 Days</u> As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	



**Sequoia  
Analytical**

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court, Suite J Dublin CA, 94568	Project: Chevron Project Number: Chevron # 9-4800 Project Manager: Deanna L. Harding	Reported: 22-May-01 10:31
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TA-LB	W105122-01	Water	04-May-01 00:00	04-May-01 15:25
MW-1	W105122-02	Water	04-May-01 13:40	04-May-01 15:25
MW-2	W105122-03	Water	04-May-01 14:19	04-May-01 15:25
MW-3	W105122-04	Water	04-May-01 12:36	04-May-01 15:25
MW-4	W105122-05	Water	04-May-01 13:03	04-May-01 15:25
MW-6	W105122-06	Water	04-May-01 12:18	04-May-01 15:25
MW-7	W105122-07	Water	04-May-01 15:10	04-May-01 15:25

Sequoia Analytical - Walnut Creek

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

Charita Westwater, Project Manager



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

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**Diesel Hydrocarbons (C9-C24) by DHS LUFT  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-1 (W105122-02) Water</b>	Sampled: 04-May-01 13:40 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	130	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	D-14
Surrogate: n-Pentacosane		77.2 %	50-150		"	"	"	"	
<b>MW-2 (W105122-03) Water</b>	Sampled: 04-May-01 14:19 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	3100	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	D-14
Surrogate: n-Pentacosane		111 %	50-150		"	"	"	"	
<b>MW-3 (W105122-04) Water</b>	Sampled: 04-May-01 12:36 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	ND	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	
Surrogate: n-Pentacosane		73.1 %	50-150		"	"	"	"	
<b>MW-4 (W105122-05) Water</b>	Sampled: 04-May-01 13:03 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	1100	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	D-14
Surrogate: n-Pentacosane		125 %	50-150		"	"	"	"	
<b>MW-6 (W105122-06) Water</b>	Sampled: 04-May-01 12:18 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	ND	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	
Surrogate: n-Pentacosane		68.2 %	50-150		"	"	"	"	
<b>MW-7 (W105122-07) Water</b>	Sampled: 04-May-01 15:10 Received: 04-May-01 15:25								
Diesel Range Hydrocarbons	ND	50	ug/l	1	1E17008	17-May-01	17-May-01	EPA 8015M	
Surrogate: n-Pentacosane		87.1 %	50-150		"	"	"	"	

Sequoia Analytical - Walnut Creek

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

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**Volatile Organic Compounds by EPA Method 8260B  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-7 (W105122-07) Water Sampled: 04-May-01 15:10 Received: 04-May-01 15:25</b>									
Ethanol	ND	500	ug/l	1	1E11003	16-May-01	16-May-01	EPA 8260B	
tert-Butyl alcohol	57	20	"	"	"	"	"	"	
Methyl tert-butyl ether	470	10	"	5	"	"	17-May-01	"	
Di-isopropyl ether	ND	2.0	"	1	"	"	16-May-01	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	11	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		90.0 %		50-150	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		90.0 %		50-150	"	"	"	"	

Sequoia Analytical - Walnut Creek

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

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**Total Petroleum Hydrocarbons as Gasoline by EPA 8015M  
Great Lakes Analytical**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TR-LB (W105122-01) Water</b> Sampled: 04-May-01 00:00 Received: 04-May-01 15:25									
Gasoline	ND	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	
<b>MW-1 (W105122-02) Water</b> Sampled: 04-May-01 13:40 Received: 04-May-01 15:25									
Gasoline	991	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	T1
<b>MW-2 (W105122-03) Water</b> Sampled: 04-May-01 14:19 Received: 04-May-01 15:25									
Gasoline	11900	1250	ug/l	25	1050388	17-May-01	18-May-01	EPA 8015M-VOA	G12,T1
<b>MW-3 (W105122-04) Water</b> Sampled: 04-May-01 12:36 Received: 04-May-01 15:25									
Gasoline	1260	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	T1
<b>MW-4 (W105122-05) Water</b> Sampled: 04-May-01 13:03 Received: 04-May-01 15:25									
Gasoline	722	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	T1
<b>MW-6 (W105122-06) Water</b> Sampled: 04-May-01 12:18 Received: 04-May-01 15:25									
Gasoline	ND	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	
<b>MW-7 (W105122-07) Water</b> Sampled: 04-May-01 15:10 Received: 04-May-01 15:25									
Gasoline	ND	50.0	ug/l	1	1050388	17-May-01	18-May-01	EPA 8015M-VOA	

Sequoia Analytical - Walnut Creek

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5747 Sierra Court Suite J  
Dublin CA, 94568

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**BTEX+MTBE by EPA Method 8021B**

**Great Lakes Analytical**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (W105122-01) Water</b> Sampled: 04-May-01 00:00 Received: 04-May-01 15:25									
Benzene	ND	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	ND	5.00	"	"	"	"	"	"	
Ethylbenzene	ND	5.00	"	"	"	"	"	"	
Total Xylenes	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.500	"	"	"	"	"	"	
<i>Surrogate: 4-BFB</i>		101 %	41.8-147	"	"	"	"	"	
<b>MW-1 (W105122-02) Water</b> Sampled: 04-May-01 13:40 Received: 04-May-01 15:25									
Benzene	127	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	32.6	5.00	"	"	"	"	"	"	
Ethylbenzene	73.0	5.00	"	"	"	"	"	"	
Total Xylenes	137	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	95.4	0.500	"	"	"	"	"	"	
<i>Surrogate: 4-BFB</i>		124 %	41.8-147	"	"	"	"	"	
<b>MW-2 (W105122-03) Water</b> Sampled: 04-May-01 14:19 Received: 04-May-01 15:25									
Benzene	199	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	33.9	5.00	"	"	"	"	"	"	
Ethylbenzene	1420	125	"	25	"	"	18-May-01	"	G12
Total Xylenes	290	5.00	"	1	"	"	18-May-01	"	
Methyl tert-butyl ether	3890	12.5	"	25	"	"	18-May-01	"	G12
<i>Surrogate: 4-BFB</i>		262 %	41.8-147	"	"	"	18-May-01	"	G5
<b>MW-3 (W105122-04) Water</b> Sampled: 04-May-01 12:36 Received: 04-May-01 15:25									
Benzene	146	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	79.6	5.00	"	"	"	"	"	"	
Ethylbenzene	38.2	5.00	"	"	"	"	"	"	
Total Xylenes	101	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	1070	5.00	"	10	"	"	18-May-01	"	G12
<i>Surrogate: 4-BFB</i>		98.5 %	41.8-147	"	"	"	18-May-01	"	



# Sequoia Analytical

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Dublin, CA, 94568

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

## BTEX+MTBE by EPA Method 8021B Great Lakes Analytical

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-4 (W105122-05) Water</b> Sampled: 04-May-01 13:03 Received: 04-May-01 15:25									
Benzene	12.0	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	ND	5.00	"	"	"	"	"	"	
Ethylbenzene	17.1	5.00	"	"	"	"	"	"	
Total Xylenes	89.4	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	2390	25.0	"	50	"	"	18-May-01	"	G12
Surrogate: 4-BFB		110 %	41.8-147	"	"	"	18-May-01	"	
<b>MW-6 (W105122-06) Water</b> Sampled: 04-May-01 12:18 Received: 04-May-01 15:25									
Benzene	ND	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	ND	5.00	"	"	"	"	"	"	
Ethylbenzene	ND	5.00	"	"	"	"	"	"	
Total Xylenes	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	2.74	0.500	"	"	"	"	"	"	
Surrogate: 4-BFB		86.5 %	41.8-147	"	"	"	"	"	
<b>MW-7 (W105122-07) Water</b> Sampled: 04-May-01 15:10 Received: 04-May-01 15:25									
Benzene	ND	0.500	ug/l	1	1050388	17-May-01	18-May-01	EPA 8021B	
Toluene	ND	5.00	"	"	"	"	"	"	
Ethylbenzene	ND	5.00	"	"	"	"	"	"	
Total Xylenes	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	567	5.00	"	10	"	"	18-May-01	"	G12
Surrogate: 4-BFB		108 %	41.8-147	"	"	"	18-May-01	"	



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Gettler Ryan, Inc. Dublin  
6747 Sierra Court (Suite J)  
Dublin, CA, 94568

Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control  
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1E17008 - EPA 3510B</b>									
<b>Blank (1E17008-BLK1)</b>					Prepared & Analyzed: 17-May-01				
Diesel Range Hydrocarbons	ND	50	ug/l						
Surrogate: n-Pentacosane	23.0			33.3	69.1	50-150			
<b>LCS (1E17008-BS1)</b>					Prepared & Analyzed: 17-May-01				
Diesel Range Hydrocarbons	401	50	ug/l	500	80.2	60-140			
Surrogate: n-Pentacosane	33.7			33.3	71.2	50-150			
<b>LCS Dup (1E17008-BSD1)</b>					Prepared & Analyzed: 17-May-01				
Diesel Range Hydrocarbons	411	50	ug/l	500	82.2	60-140	2.46	50	
Surrogate: n-Pentacosane	23.3			33.3	70.0	50-150			

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Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

## Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1E11003 - EPA 5030B (P/T)</b>										
<b>Blank (1E11003-BLK1)</b>										
Prepared & Analyzed: 16-May-01										
Ethanol	ND	500	ug/l							
tert-Butyl Alcohol	ND	20	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
Surrogate: Dibromofluoromethane	47.1			50.0		94.2	50-150			
Surrogate: 1,2-Dichloroethane-d4	40.6			50.0		81.2	50-150			
<b>LCS (1E11003-BS1)</b>										
Prepared & Analyzed: 16-May-01										
Methyl tert-butyl ether	49.2	2.0	ug/l	50.0		98.4	70-130			
Surrogate: Dibromofluoromethane	47.5		"	50.0		95.8	50-150			
Surrogate: 1,2-Dichloroethane-d4	37.8		"	50.0		75.6	50-150			
<b>Matrix Spike (1E11003-MS1)</b>										
Source: W105049-04 Prepared & Analyzed: 16-May-01										
Methyl tert-butyl ether	44.1	2.0	ug/l	50.0	ND	88.2	60-150			
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	43.0		"	50.0		86.0	50-150			
<b>Matrix Spike Dup (1E11003-MSD1)</b>										
Source: W105049-04 Prepared & Analyzed: 16-May-01										
Methyl tert-butyl ether	54.4	2.0	ug/l	50.0	ND	109	60-150	20.9	25	
Surrogate: Dibromofluoromethane	48.0		"	50.0		96.0	50-150			
Surrogate: 1,2-Dichloroethane-d4	53.0		"	50.0		106	50-150			



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Project: Chevron  
Project Number: Chevron # 9-4800  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

**Total Petroleum Hydrocarbons as Gasoline by EPA 8015M - Quality Control  
Great Lakes Analytical**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1050388 - EPA 5030B (P/T)</b>										
<b>Blank (1050388-BLKI)</b>										
Prepared & Analyzed: 17-May-01										
Gasoline	ND	50.0	ug/l							
<b>LCS (1050388-BS2)</b>										
Prepared & Analyzed: 17-May-01										
Gasoline	2220	50.0	ug/l	2000		111	85.1-124			
<b>Matrix Spike (1050388-MS2)</b>										
Source: B105165-04 Prepared: 17-May-01 Analyzed: 19-May-01										
Gasoline	1880	50.0	ug/l	2000	ND	94.0	69.6-142			
<b>Matrix Spike Dup (1050388-MSD2)</b>										
Source: B105165-04 Prepared: 17-May-01 Analyzed: 19-May-01										
Gasoline	1980	50.0	ug/l	2000	ND	99.0	69.6-142	5.18	33.7	



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Gettler Ryan, Inc - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Chevron Project Number: Chevron # 9-4800 Project Manager: Deanna L. Harding	Reported: 22-May-01 10:31
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**BTEX+MTBE by EPA Method 8021B - Quality Control**  
**Great Lakes Analytical**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 1050388 - EPA 5030B (P/T)</b>										
<b>Blank (1050388-BLK1)</b> Prepared & Analyzed: 17-May-01										
Benzene	ND	0.500	ug/l							
Toluene	ND	5.00	"							
Ethylbenzene	ND	5.00	"							
Total Xylenes	ND	5.00	"							
Methyl tert-butyl ether	ND	0.500	"							
Surrogate: 4-BFB	19.5		"	20.0		97.5	41.8-147			
<b>LCS (1050388-BS1)</b> Prepared: 17-May-01 Analyzed: 18-May-01										
Benzene	25.8	0.500	ug/l	25.0		103	74.8-116			
Toluene	27.3	5.00	"	25.0		109	75.9-116			
Ethylbenzene	26.4	5.00	"	25.0		106	73.8-117			
Total Xylenes	81.9	5.00	"	75.0		109	72.6-122			
Methyl tert-butyl ether	24.3	0.500	"	25.0		97.2	73.2-123			
Surrogate: 4-BFB	22.6		"	20.0		116	41.8-147			
<b>Matrix Spike (1050388-MS1)</b> Source: B105165-04 Prepared: 17-May-01 Analyzed: 19-May-01										
Benzene	23.2	0.500	ug/l	25.0	ND	92.8	34.2-160			
Toluene	22.6	5.00	"	25.0	ND	90.4	30.8-161			
Ethylbenzene	22.9	5.00	"	25.0	ND	91.6	34.8-163			
Total Xylenes	64.3	5.00	"	75.0	ND	85.7	32.9-160			
Methyl tert-butyl ether	23.6	0.500	"	25.0	ND	94.4	10.0-282			
Surrogate: 4-BFB	19.4		"	20.0		97.0	41.8-147			
<b>Matrix Spike Dup (1050388-MSD1)</b> Source: B105165-04 Prepared: 17-May-01 Analyzed: 19-May-01										
Benzene	22.8	0.500	ug/l	25.0	ND	91.2	34.2-160	1.74	37.0	
Toluene	22.9	5.00	"	25.0	ND	91.6	30.8-161	1.32	27.3	
Ethylbenzene	22.7	5.00	"	25.0	ND	90.8	34.8-163	0.877	28.0	
Total Xylenes	64.0	5.00	"	75.0	ND	86.5	32.9-160	0.929	28.1	
Methyl tert-butyl ether	22.4	0.500	"	25.0	ND	89.6	10.0-282	5.22	79.4	
Surrogate: 4-BFB	18.8		"	20.0		94.0	41.8-147			

Sequoia Analytical - Walnut Creek

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Project: Chevron  
Project Number: Chevron # 9-4830  
Project Manager: Deanna L. Harding

Reported:  
22-May-01 10:31

### Notes and Definitions

- D-14 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
- G12 The reporting limit of this sample/analyte is elevated due to sample matrix and/or other effects.
- O5 The recovery for this analyte is above the laboratory's established acceptance criteria.
- T1 Gas Pattern
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

# Chain-of-Custody-Record

<b>Chevron Products Co.</b> P.O. BOX 8004 San Ramon, CA 94583 FAX (925)842-8370	Chevron Facility Number <u>79-4800</u> Facility Address <u>1700 CASTRO ST., OAKLAND, CA.</u> Consultant Project Number <u>386383</u> Consultant Name <u>GETTLER-RYAN INC.</u> Address <u>6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568</u> Project Contact (Name) <u>DEANNA L. HARDING</u> (Phone) <u>925-551-7555</u> (Fax Number) <u>925-551-7899</u>	Chevron Contact (Name) <u>MR. TOM BAUMS</u> (Phone) <u>(925) 842-8898</u> Laboratory Name <u>SEQUOIA</u> Laboratory Service Order <u>W105122</u> Laboratory Service Code _____ Samples Collected by (Name) <u>FRANK H. BOWLER</u> Signature <u>Frank H. Bower</u>
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Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time	State Method: <input checked="" type="checkbox"/> CA <input type="checkbox"/> OR <input type="checkbox"/> WA <input type="checkbox"/> NW Series <input type="checkbox"/> CO <input type="checkbox"/> UT IDAHO													Remarks	
					ETEX/MTBE+TPH GAS (8020 + 8015)	ETEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Chlorinated (8090)	Petroleum Hydrocarbons (8010)	Polycyclic Aromatics (8280)	Extraneous Organics (8270)	Oil and Grease (3020)	Mercury (ICAP or MV) CALIF. PROP. 65	ETEX (8020)	ETEX/MTBE/Heptan (8020)	TPH - HCD	TPH-D Extended		
TB-LB	1	W	NCL	5-4-01	X														01A
MW-1	3	1		13:40	X	X													02A-D
MW-2	3			14:19	X	X													03
MW-3	3			12:36	X	X													04
MW-4	3			13:03	X	X													05
MW-6	3	✓	✓	12:18	X	X													06 ↓
MW-7	6	✓	✓	15:10	X	X	X												07A-F

Relinquished By (Signature) <u>Frank H. Bower</u>	Organization G-R INC.	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N	Turn Around Time (Circle Choice)  24 Hrs. 48 Hrs. 5 Days 10 Days
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced Y/N	

FROM: GETTLER RYAN INC FAX NO.: 9255517899 May. 23 2001 08:35AM P13