STID 871

Chevron

June 21, 1999

Chevron Products Company
6001 Bollinger Canyon Road
Building L, Room 1080
PO Box 6004
San Ramon, CA 94583-0904

Philip R. Briggs
Project Manager
Site Assessment & Remediation
Phone 925 842-9136
Fax 925 842-8370

Mr. Thomas Peacock, Manager
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station #9-9708
5910 MacArthur Blvd.
Oakland, California

Dear Mr. Peacock:

Enclosed is the Monitoring Well Installation Report that was prepared by our consultant Gettler-Ryan Inc. for the above noted facility. This work was performed to evaluate the lateral extent of MtBE impacted groundwater downgradient of the subject site and as directed by your approval of the work plan dated January 15, 1999.

To determine this evaluation, one boring was installed downgradient of monitoring well MW-2 which has the highest concentration of MtBE at this site. This well was drilled to a final depth of 20.0 with soil samples collected every 5 feet. The soil lithology was consistent with the soil materials encountered in the previous investigation.

The soil boring was converted to a 2-inch diameter monitoring well. The well was developed and the ground water sample and the soil sample were analyzed for TPH-g, BTEX and MtBE constituents. In addition the water sample was also analyzed for other oxygenates (Ethanol, t-Butanol, DIPE, EtBE, TAME) by EPA Method 8260.

Only one soil sample was analyzed at 11.5 feet with the results below method detection limits for all of the constituents.

All of the oxygenates, including MtBE in the water sample were below method detection limits. Benzene was below method detection limits, with TPH-g at 140 ppb.

It appears that the soil has not been impacted from petroleum hydrocarbons, while the ground water has been minimally impacted from dissolved hydrocarbons. It appears that MtBE has not migrated offsite.

Chevron has added this well to the quarterly sampling program scheduled for June. If you have any questions please call me at (925) 842-9136.

Sincerely,
CHEVRON PRODUCTS COMPANY

Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

cc. Mr. Bill Scudder, Chevron

Mr. Chuck Headlee
RWQCB-San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Nisson Saidion
5910 MacArthur Blvd.
Oakland, CA 94605

GETTLER-RYAN INC.

MONITORING WELL INSTALLATION REPORT

for
Chevron Service Station #9-9708
5910 MacArthur Boulevard
Oakland, California

Report No. 346395.02-2

Prepared for:

Mr. Phil Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, California 94583

Prepared by:

Gettler-Ryan Inc.
6747 Sierra Court, Suite G
Dublin, California 94568

Barbara Sieminski
Project Geologist
R.G. 6676

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

Stephen J. Carter
Senior Geologist
R.G. 5577

June 8, 1999

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

MONITORING WELL INSTALLATION REPORT

for
Chevron Service Station #9-9708
5910 MacArthur Boulevard
Oakland, California

Report No. 346395.02-2

1.0 INTRODUCTION

This report summarizes the results of a well installation performed at Chevron Station #9-9708, located at 5910 MacArthur Avenue in Oakland, California. The work was performed by Gettler-Ryan Inc. (GR) at the request of Chevron Products Company (Chevron) to evaluate the lateral extent of methyl tertiary butyl ether (MtBE) impacted groundwater downgradient of the subject site. The scope of work included: obtaining the required encroachment and well installation permits; drilling one off-site soil boring and installing a groundwater monitoring well (MW-4) in this boring; surveying MW-4 wellhead elevation; developing and sampling well MW-4; collecting and submitting soil and groundwater samples for chemical analysis; arranging for Chevron's contractor to dispose of the waste materials; and preparing a report documenting the work. This work was proposed in GR Report No. 346395.02, *Work Plan for Monitoring Well Installation*, dated August 25, 1998, and approved by Alameda County Health Care Services Agency (ACHCSA) in their letter to Chevron dated November 12, 1998 (Appendix A).

2.0 SITE DESCRIPTION

2.1 General

The subject site is an operating service station situated on the eastern corner of the intersection of MacArthur Boulevard and Seminary Avenue (Figure 1). Aboveground station facilities consist of a station building and four dispenser islands. Three fuel underground storage tanks (USTs) are located in the common pit immediately northwest of the southern service islands. A former waste oil UST was located behind the station building in the eastern corner of the property. Pertinent site features are shown on Figure 2.

2.2 Geology and Hydrogeology

The subject site is located on the eastern margin of the East Bay Plain at the western edge of the Berkeley Hills, approximately 2 miles northeast of San Leandro Bay. The site is a relatively flat asphalt and concrete covered lot at an elevation of approximately 100 feet above mean sea level. As mapped by Helley and others (1979), soil in the site vicinity consists of late Pleistocene alluvium consisting of weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel. The nearest surface water is Arroyo Viejo creek located approximately 1 mile southeast of the site. Based on

the quarterly monitoring data, the groundwater flow direction in the vicinity of the site fluctuates between south and west.

2.3 Previous Environmental Work

In May 1997, GR installed three groundwater monitoring wells (MW-1 through MW-3) at the site. Soil beneath the site consisted predominantly of clay and silt interbedded with clayey to silty sand and clayey gravel to the total depth explored of 41.5 feet below ground surface (bgs). Groundwater was present beneath the site at depths ranging between 11 and 13 feet bgs. Petroleum hydrocarbons were present in soil beneath the site at depths between 11 and 16 feet bgs. Soil in the vicinity of wells MW-1 and MW-2 was impacted by total petroleum hydrocarbons as gasoline (TPHg), benzene and MtBE at the concentrations up to 140 ppm, 0.027 ppm and 1.3 ppm, respectively. Soil in the vicinity of well MW-3 was impacted by total oil and grease (TOG) at concentrations up to 1,000 ppm, but had not been impacted by TPHg, benzene, MtBE, total petroleum hydrocarbons as diesel (TPHd), volatile organic compounds (VOs) or semivolatile organic compounds (SVOs).

Groundwater monitoring wells have been monitored on a quarterly basis since May 1997. Depth to water in the wells has fluctuated between 10.80 to 14.29 feet bgs. Groundwater flow direction has ranged from west to south. Groundwater from wells MW-1 and MW-2 has contained TPHg (up to 420 parts per billion [ppb] and 7,100 ppb, respectively), benzene (up to 120 ppb and 650 ppb, respectively) and MtBE (92 ppb and 7,100 ppb, respectively). TPHd (up to 2,700 ppb) has been present in groundwater from well MW-3 but TPHg, benzene or MtBE have not been detected. Well MW-3 was tested for TOG, SVOs and VOs in May 1997. These compounds were not detected except for 1,2-dichloroethane (1.0 ppb).

3.0 FIELD WORK

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix B) and the Site Safety Plan dated April 7, 1999. An encroachment permit (dated March 30, 1999) and a street excavation permit (#9900279, dated April 9, 1999) were obtained from the City of Oakland Office of Planning and Building (COOPB), and a well installation permit (#99WR153, dated April 9, 1999) was obtained from the Alameda County Public Works Agency (ACPWA). An underground utility locator was contracted to clear the boring location, and Underground Service Alert was notified prior to drilling at the site. Copies of the permits and the State of California Well Completion Report are included in Appendix C.

3.1 Drilling Activities

On April 13, 1999, a GR geologist observed Bay Area Exploration, Inc. (C57 #522125) drill one off-site soil boring and install groundwater monitoring well MW-4 in this boring at the location shown on Figure 2. Soil boring MW-4 was drilled to 20 feet bgs using 8-inch hollow-stem augers driven by a truck-mounted drill rig. Soil samples were collected from boring MW-4 approximately every 5 feet. The GR geologist

prepared the log of boring and screened the soil samples in the field for the presence of volatile organic compounds. Screening data are presented on the boring log (Appendix C).

A groundwater monitoring well was constructed in boring MW-4 using 10 feet of two-inch diameter, 0.020-inch machine-slotted Schedule 40 PVC screen. Lonestar #3 graded sand was placed in the well across the entire screen interval and extended approximately 1 foot above the top of the screen. The well was then sealed with 2 feet of hydrated bentonite chips followed by neat cement. Well construction details are presented on the boring log in Appendix C.

Drill cuttings were placed on and covered with plastic sheeting and stored on-site pending disposal. After completion of drilling, four samples for disposal characterization were collected from the drill cuttings and submitted to the laboratory for compositing and analysis as sample SP (A-D). On April 22, 1999, the drill cuttings were removed from the site and transported to the BFI Landfill in Livermore by Integrated Wastestream Management (IWM).

3.2 Well Development and Sampling

On May 4, 1999, groundwater monitoring well MW-4 was developed by GR personnel using a vented surge block and hand-bailing. Depth to water was measured in the well prior to development. Depth to water was also measured in preexisting wells MW-1 through MW-3. Groundwater samples were collected from well MW-4 upon completion of well development. Water purged during well development and sampling was transported to McKittrick Waste Management by IWM. Groundwater monitoring data are presented in Table 1, and copies of the GR Well Development and Sampling Field Data Sheets are included in Appendix D.

3.3 Wellhead Survey

On May 4, 1999, well MW-4 was surveyed relative to mean sea level by Virgil Chavez, a California licensed land surveyor (#6323). Horizontal coordinates were obtained at the same time. A copy of the survey report is included in Appendix E, and the survey data is summarized in Table 1.

3.4 Laboratory Analysis

Soil and groundwater samples were analyzed by Sequoia Analytical in Walnut Creek, California (ELAP #1271). The soil sample collected from boring MW-4 at 11.5 feet bgs and the groundwater sample were analyzed for TPHg, benzene, toluene, ethylbenzene and xylenes (BTEX), and MtBE by Environmental Protection Agency (EPA) Methods 5030/8015Mod/8020. The groundwater sample was also analyzed for oxygenate compounds (MtBE, Ethanol, t-Butanol, Di-isopropyl ether [DIPE], ethyl tertiary butyl ether [EtBE] and tertiary amyl methyl ether [tAME]) by EPA Method 8260. The composite sample from the drill cuttings was analyzed for TPHg and BTEX. Copies of the laboratory analytical reports and chain-of-custody records are included in Appendix F.

4.0 RESULTS

4.1 Subsurface Conditions

Soil encountered in boring MW-4 consisted predominantly of sandy clay interbedded with clayey gravel to the total depth explored of 20 feet bgs. Backfill material was encountered immediately beneath the ground surface and extended to the approximate depth of 4 feet bgs. Groundwater was encountered and stabilized at a depth of approximately 12 feet bgs. Detailed descriptions of the subsurface materials encountered during drilling are presented on the boring logs in Appendix C. The lithology of boring MW-4 is consistent with the soil materials encountered in on-site soil borings during the previous investigation. Based on the groundwater monitoring data collected on May 4, 1999, shallow groundwater beneath the site appears to flow to the west at an approximate gradient of 0.02 (Figure 2).

4.2 Soil Analytical Results

TPHg, benzene or MtBE were not detected in the soil sample collected from boring MW-4 at 11.5 feet bgs (just above groundwater). The composite stockpile sample did not contain petroleum hydrocarbons. Soil chemical analytical data are summarized in Table 2.

4.3 Groundwater Analytical Results

The groundwater sample collected from well MW-4 contained TPHg (140 ppb). Benzene and oxygenate compounds (MtBE, ethanol, t-butanol, DIPE, EtBE and TAME) were not detected in this sample. Groundwater analytical data are summarized in Table 1.

5.0 CONCLUSIONS

Analytical results of the soil sample collected from the capillary fringe zone in boring MW-4 indicate that soil in the immediate western (downgradient) vicinity of the subject site has not been impacted by petroleum hydrocarbons. The lateral extent of hydrocarbon impacted soil west of the subject site has been delineated to nondetectable concentrations of TPHg, benzene and MtBE.

Based on analytical results of groundwater sample collected from well MW-4, it appears that shallow groundwater in the western (downgradient) vicinity of the subject site has been impacted by TPHg (140 ppb), but has not been impacted by benzene, MtBE or other oxygenate compounds. The lateral extent of hydrocarbon impacted groundwater has been delineated to nondetectable concentrations of benzene and MtBE downgradient of the subject site.

6.0 REFERENCES

E. J. Helley and others, 1979, Flatland Deposits of the San Francisco Bay Region, California: U.S. Geological Survey Professional Paper 943.

Gettler-Ryan Inc., June 27, 1997, Subsurface Investigation Report for Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California, Report No. 6395.01-1.

Gettler-Ryan Inc., October 15, 1998, Third Quarter 1998 Groundwater Monitoring & Sampling Report for Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California, Report No. 6395.80.

Gettler-Ryan Inc., August 25, 1998, Work Plan for Monitoring Well Installation at Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California, Report No. 346395.02.

Gettler-Ryan Inc., April 7, 1999, Site Safety Plan for Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California, Job No. 346395.02.

Table 1. Water Level Data and Groundwater Analytical Results - Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California.

Well ID/ TOC (feet)	Date	DTW (feet)	GWE (msl)	Product Thickness (feet)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE
					<----------ppb---------->					
MW-1/ 96.61	05/04/99	12.76	83.85	0	—	—	—	—	—	—
MW-2/ 96.91	05/04/99	12.86	84.05	0	—	—	—	—	—	—
MW-3/ 97.86	05/04/99	11.43	86.43	0	—	—	—	—	—	—
MW-4/ 96.25	05/04/99	12.59	83.66	0	140	<0.50	0.62	0.67	2.6	<2.5
TB-LB Trip Blank	05/04/99	—	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Groundwater elevation
TPHg = Total Petroleum Hydrocarbons as gasoline
MtBE = Methyl tertiary butyl ether
msl = Measurements referenced relative to mean sea level
ppb = Parts per billion
— = Not analyzed/Not applicable

ANALYTICAL METHODS:

TPHg = EPA Method 8015Mod
benzene, toluene, ethylbenzene, xylenes, MtBE = EPA Method 8020

ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1271)

NOTES:

Well MW-4 was surveyed on May 4, 1999, and wells MW-1 through MW-3 were surveyed on June 18, 1997, by Virgil Chavez of Vallejo, California (PLS 6323).

Table 2. Soil Analytical Results - Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California.

Sample ID	Depth (feet)	Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE
			<--------		ppm			-------->
MW4-11.5	11.5	04/13/99	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050
SP (A-D)	—	04/13/99	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050

EXPLANATION:

TPHg = Total Petroleum Hydrocarbons as gasoline
MtBE = Methyl tertiary butyl ether
ppm = Parts per million
— = Not analyzed/not applicable

ANALYTICAL METHODS:

TPHg = EPA Method 8015Mod
Benzene, toluene, ethylbenzene, xylenes, MtBE = EPA Method 8020

ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1271)

346495.02-2

Table 3. Groundwater Analytical Results, Oxygenate Compounds - Chevron Service Station #9-9708, 5910 MacArthur Boulevard, Oakland, California.

Well ID/ TOC (feet)	Date	Ethanol	t-Butanol	MtBE	DIPE	EtBE	TAME
		<--------		ppb			-------->
MW-4	05/04/99	< 500	< 100	< 2.0	< 2.0	< 2.0	< 2.0

EXPLANATION:

MtBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether
EtBE = Ethyl tertiary butyl ether
TAME = tertiary amyl methyl ether
ppb = Parts per billion

ANALYTICAL METHODS:

EPA Method 8260

ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1271)

346395.02-2

Source: Street Atlas USA, Delorme (1995).

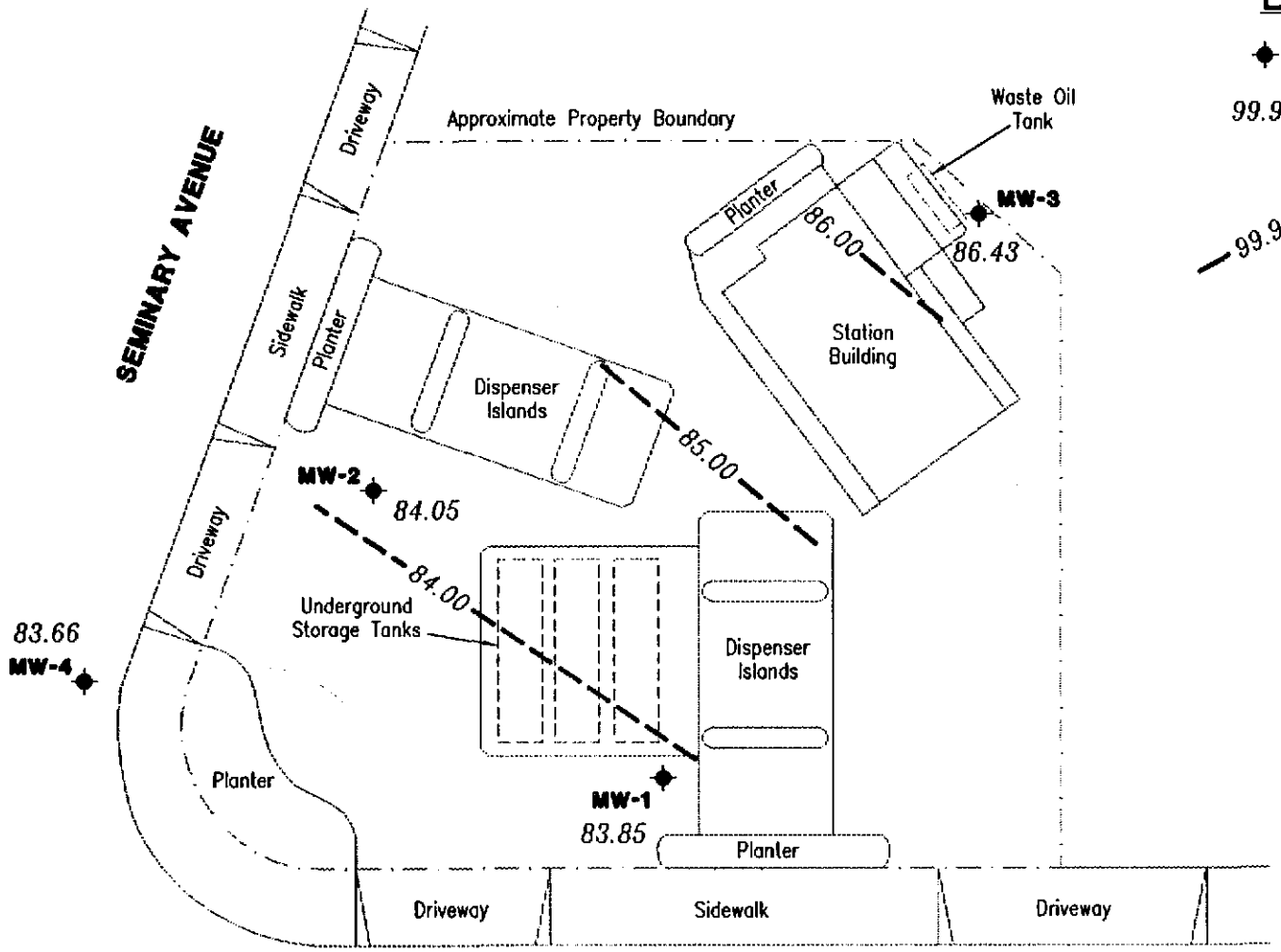
Gettler - Ryan Inc.

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

VICINITY MAP
Chevron Service Station No. 9-9708
5910 Mac Arthur Boulevard
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
346395		08/98	



EXPLANATION

- Groundwater monitoring well
- 99.99 — Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 — Groundwater elevation contour, dashed where inferred.

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

N

0 30

Scale in Feet

Gettler - Ryan Inc.

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

POTENTIOMETRIC MAP
Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

FIGURE 2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
346395.02		May 4, 1999	

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

P.R.S.
NOV 16 '98

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

9-9708

November 12, 1998

STID 871

Phil Briggs
Chevron U S A Inc.
P. O. Box 5004
San Ramon, CA 94583-0904

re: Chevron Station, 5910 MacArthur Blvd., Oakland, CA 94605

Dear Mr. Briggs:

This office has received and reviewed a Quarterly Groundwater Monitoring Report dated July 31, 1998 by Gettler-Ryan Inc, with your cover letter, and a work plan dated August 25, 1998, also by Gettler-Ryan Inc. The following comments concern this report and the workplan:

1. The level of contamination in MW-2 is still very high, with MTBE levels of 4,000 ppb when tested using EPA 8260. Although the level declined from the previous quarter, this is not significant in relationship to the levels since 06/04/97 when it was at 2,100 ppb.

2. The workplan is acceptable. You say that implementation will begin upon regulatory approval. This should be within at least 60 days. Please call this office at least 3 days prior to implementation of the field portion of the workplan.

You may contact me at (510) 567-6782 if you have any questions regarding this letter.

Sincerely,

Thomas Peacock, Manager
Environmental Protection Division

c: Dick Pantages, Chief – Files-Tom
LeRoy Griffin, City Of Oakland Hazardous Materials

Post-it® Fax Note 7671	Date 11-7-98	# of pages ▶ 1
To Scott Gurke	From Phil Briggs	
Co./Dept. Gettler-Ryan	Co. Chevron	
Phone #	Phone # 925 842 9136	
Fax # 916 631-1317	Fax #	

Approve work of work plan - proceed

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 (MSL).

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.

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 polyvinylchloride (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

A temporary PVC screen is installed in the boring to facilitate a grab groundwater sample collection. 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.

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 5910 MacArthur Blvd, Oakland
Chevron SS # 9-9702

California Coordinates Source _____ ft. Accuracy ± ___ ft.
CCN _____ ft CCE _____ ft.
APN _____

CLIENT
Name Chevron Products Co
Address P.O. Box 6004 Phone (925) 842-9136
City San Ramon Zip 94583

APPLICANT
Name Gettler-Ryan Inc
Fax (925) 551-7888
Address 6747 Sierra Ct, Ste G Phone (925) 551-7555
City Dublin Zip 94568

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☑	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Hollow Stem Auger	☑
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. 522125

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 7 ft. Number 1

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

ESTIMATED STARTING DATE 04/13/99
ESTIMATED COMPLETION DATE 04/13/99

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

APPLICANT'S SIGNATURE Barbara Sieminski DATE 04/06/99

FOR OFFICE USE

PERMIT NUMBER 99 WR 153
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 work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(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 with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings

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

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED [signature] DATE 4/9/99

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PERMIT NUMBER	X9900279	SITE ADDRESS/LOCATION	5910 MACARTHUR BL
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) #: 427249

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.

*Barbara Gilgenbach 4/9/99

Signature of Permittee ☐ Agent for ☐ Contractor ☐ Owner Date

DATE STREET LAST RESURFACED	90	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	M. Vallean			DATE ISSUED	4/9/99		

SEMINARY AVE. → 0793

P.R.B.

MAY 4 '99

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 2328 • OAKLAND, CALIFORNIA 94612-2031

Community and Economic Development Agency
Building Services Division

(510) 238-3102
FAX (510) 238-6445
TDD (510) 238-6312

March 23, 1999

Philip R. Briggs
Chevron Products Co.
6001 Bollinger Canyon Rd., Bldg. L
San Ramon, CA 94583-0904

Dear Mr. Briggs:

RE: MINOR ENCROACHMENT PERMIT FOR MONITORING WELL IN SEMINARY AVENUE, OAKLAND

Enclosed are the Minor Encroachment Permit and Agreement and the Conditions For Granting a Minor Encroachment Permit allowing you to place one monitoring well within the public right-of-way of Seminary Avenue adjacent to 5910 MacArthur Boulevard.

Before the permit will become effective, however, it must be signed by the person(s) having the legal authority to do so, properly notarized with notary acknowledgment slip(s) attached, and returned to this office to the attention of Roger Tam for recordation.

You must also obtain a street excavation permit from the Engineering Information Counter, 2nd Floor, 250 Frank H. Ogawa Plaza, Oakland, prior to the start of the proposed work in the City right-of-way. For questions regarding the street excavation permit, call the Engineering Information Counter at (510) 238-4777 between 8 a.m. and 4 p.m., Monday through Friday.

If you have any other questions regarding this minor encroachment permit, please call Roger Tam at (510) 238-6314.

Very truly yours,

CALVIN N. WONG
Director of Building Services

By Philip A. Grubstick

PHILIP A. GRUBSTICK
Engineering Services Manager

Enclosures

:rt

file: MacArthur5910.mw\covr-let(18)

Recording requested by:
City of Oakland

When Recorded Mail to:
City of Oakland
Community & Econ. Develop. Agency
Building Services, Eng. info.
250 Frank H. Ogawa Plaza, 2/F
Oakland, CA 94612

TAX ROLL PARCEL NUMBER
(ASSESSOR'S REFERENCE NUMBER)

---	---	---	---
MAP	BLOCK	PARCEL	SUB

SPACE ABOVE FOR RECORDER'S USE ONLY

Address: Seminary Avenue, Oakland

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Chevron Products Company, a corporation is hereby granted a Conditional Revocable Permit to encroach into the public right-of-way of Seminary Avenue with 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 owner of the property described above, and its successors in interest thereof.

In witness whereof, I have set my signature this 30 day of March, 1999.

CHEVRON PRODUCTS COMPANY

By: Garrick Jauregui 3/
Name: Garrick Jauregui
Title: SAR MANAGER / attorney in fact

-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --

BELOW FOR OFFICIAL USE ONLY

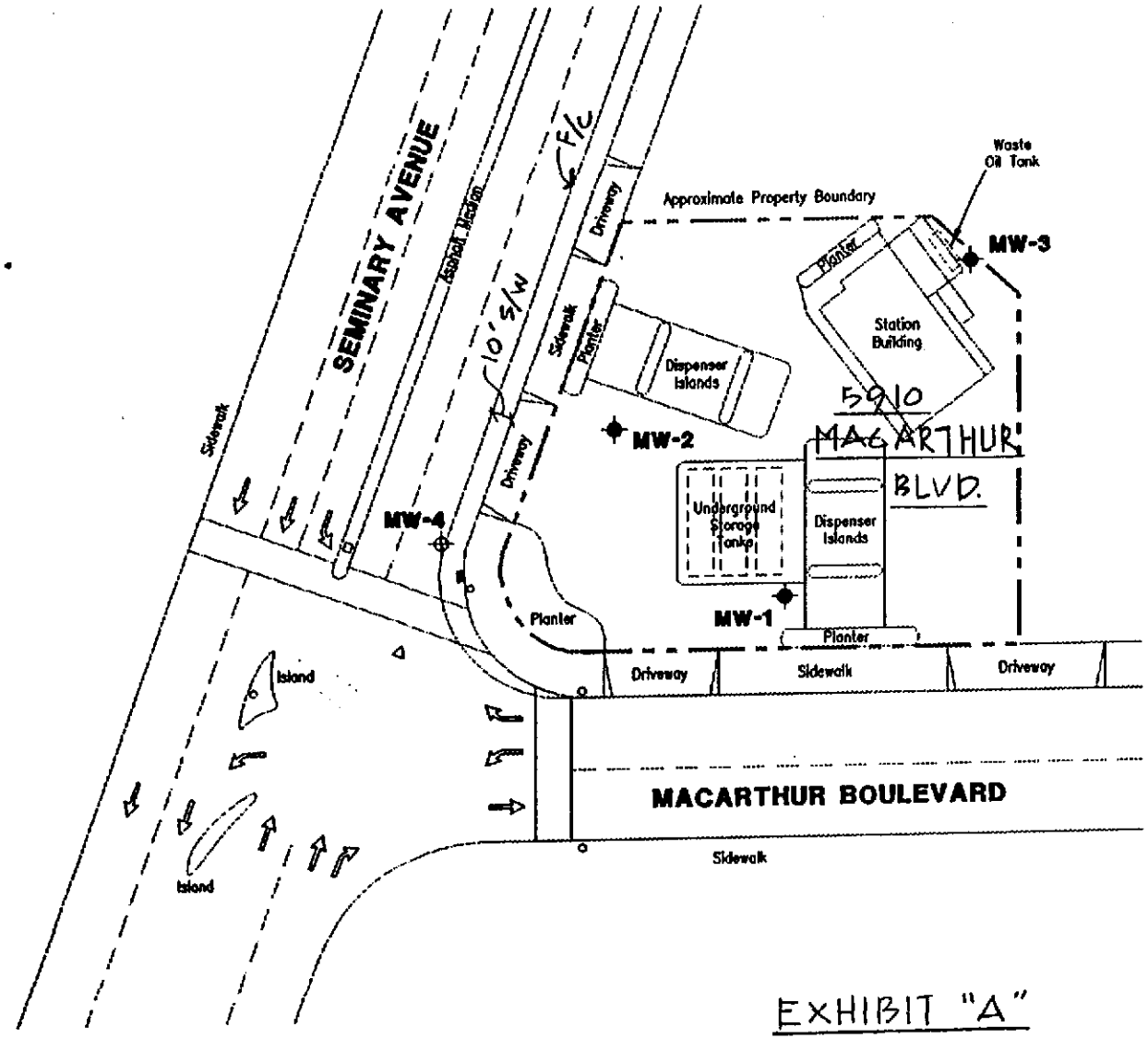
CITY OF OAKLAND

Dated_____

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

:rt

file: MacArthur3910.mw\per&agt(18)



EXPLANATION

- Groundwater monitoring well
- Proposed groundwater monitoring well
- Street Light
- Traffic Light
- EBMUD Manhole
- Catch Basin

EXHIBIT "A"

N

0 50

Scale in Feet

FIGURE 1

Gettler - Ryan Inc.

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

SITE PLAN
Chevron Service Station No. 9-9708
5910 MacArthur Boulevard
Oakland, California

JOB NUMBER
346395.02

REVIEWED BY

DATE
January, 1999

REVISED DATE

TO: Chervon Products Company
(APN: 037A-2337-022-03)

Address: 6001 Bollinger Canyon Rd., Bldg. L, San Ramon, CA 94583

RE: Minor Encroachment Permit for Monitoring Well in Seminary Avenue

CONDITIONS FOR GRANTING A MINOR ENCROACHMENT PERMIT

1. That this permit shall be revocable at the pleasure of the Chief 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 sidewalk or 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 be considered self-insured. The permittee shall maintain in force and effect at all times that said encroachment occupies said public right-of-way, good and sufficient fund to cover public liability and property damage, both including contractual liability insuring the City of Oakland against any and all claims arising out of the existence of said encroachment in said public right-of-way area.

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 sidewalk and street area, and any damage resulting therefrom shall be repaired to the satisfaction of the Chief of Building Services.

7. That the permittee shall file with the City of Oakland for recordation a 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 the construction and a separate excavation permit prior to the removal of the ground water monitoring wells.

9. (a) 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 perfomance bond shall be returned to the permittee after the monitoring is complete and the monitoring well is/are removed and the street area is restored.

(b) That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the ground water monitoring wells and the results of all data collected from the monitoring wells.

10. That said permittee shall remove the monitoring wells and repair any damage to the sidewalk or 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 Building Services, Community and Economic Development Agency after the monitoring well(s) is/are removed and the sidewalk or street area restored to initiate the procedure to rescind the minor encroachment permit.

12. That monitoring well covers installed within the sidewalk area shall have a skidproof surface. A precast concrete utility box may be used in conjunction with the bolted cast iron cover with City approval.

13. That the ground water monitoring well casting and cover shall be cast 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.

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. That the permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the encroachment area, and 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, judgments, 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 or 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 6901 et seq.), the Clean Water Act (33 U.S.C. Section 466 et Seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401-1450), the Hazardous Materials Transportation Act (49 U.S.C. Section 1801 et seq.), the Toxic Substance Control Act (15 U.S.C. Sections 2601-2629), the California 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 Section 25300 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."

17. 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 his/her decision to execute this encroachment agreement, 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 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 the 5910 MacArthur Boulevard, 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.

(d) 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.

19. That the hereinabove conditions shall be binding upon the permittee and the successive owners and assigns thereof.

20. 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 Chief of Building Services, and shall become null and void upon the failure of the permittee to comply with all conditions hereinabove set forth.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of Contra Costa } ss.

On 3/30/99 (Date), before me, Susan R Weber (Name and Title of Officer (e.g., "Jane Doe, Notary Public")),
personally appeared GARRIK Jauregui (Name(s) of Signer(s)),

☒ personally known to me
☐ 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.

Susan R Weber
Signature of Notary Public

SUSAN R WEBER
Comm. # 1059775
NOTARY PUBLIC CALIFORNIA
Contra Costa County
My Comm. Expires June 30, 1999

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document
Title or Type of Document: Minor Encroachment permit

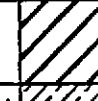
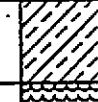
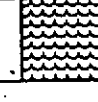
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer
Signer's Name: _____
☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 15% FINES	GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
			GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 15% FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
			OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

LL	- Liquid Limit (%)
PI	- Plastic Index (%)
PID	- Volatile Vapors in ppm
MA	- Particle Size Analysis
2.5 YR 6/2	- Soil Color according to Munsell Soil Color Charts (1975 Edition)
5 GY 5/2	- GSA Rock Color Chart

☒	- No Soil Sample Recovered
■	- "Undisturbed" Sample
⊠	- Bulk or Classification Sample
▽	- First Encountered Ground Water Level
▼	- Piezometric Ground Water Level
Penetration	- Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs

Unified Soil Classification - ASTM D 2488-85 and Key to Test Data

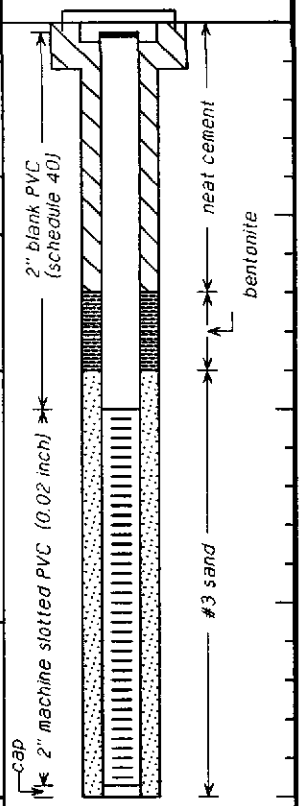
Gettler-Ryan, Inc.

Log of Boring MW-4

PROJECT: *Chevron SS #9-9708*	LOCATION: *5910 MacArthur Boulevard, Oakland, CA.*
GR PROJECT NO.: *346395.02*	SURFACE ELEVATION: *96.25ft. MSL*
DATE STARTED: *04/13/99*	WL (ft. bgs): *12.0* DATE: *04/13/99* TIME: *15:30*
DATE FINISHED: *04/13/99*	WL (ft. bgs): *12.0* DATE: *04/13/99* TIME: *16:25*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *20.0 Feet*
DRILLING COMPANY: *Bay Area Exploration Inc.*	GEOLOGIST: *Barbara Sieminski*

DEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT - Concrete over baserock
						Fill	SILTY GRAVEL WITH SAND - yellowish brown (10YR 5/4), moist, dense; 50% fine to coarse gravel, 30% fine to coarse sand, 20% silt; fill.
5						CL	CLAY (CL) - very dark grayish brown (10YR 3/2) mottled pale brown (10 YR 6/3), moist, low plasticity, soft; 70% clay, 30% fine to caorse sand, trace gravel.
	0	3	MW4-6			GC/SC	CLAYEY GRAVEL WITH SAND (GC/SC) - strong brown (7.5YR 5/8), moist, loose; 45% fine to coarse gravel, 30% fine to coarse sand, 25% clay.
10						CL	SANDY CLAY WITH GRAVEL (CL) - very dark gray (10YR 3/1), moist, plasticity, medium stiff; 50% clay, 25% fine to coarse sand, 25 % fine to caorse gravel.
	0	6	MW4-11.5				Becomes saturated at 12 feet bgs.
15							
	0	12	MW4-16			GC	CLAYEY GRAVEL WITH SAND (GC) - brown (10YR 5/3), saturated, medium dense; 45% fine to coarse gravel, 30% fine to coatse sand, 25% clay.
	0	17	MW4-19.5				
20							Bottom of boring at 20.0 feet.
							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: *346395.02*

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

MONITORING WELL
OBSERVATION SUMMARY SHEET

CHEVRON #: 9-9708 G-R JOB #: 34 6395.80

LOCATION: 5910 MacArthur Blvd. DATE: 5/4/1999

CITY: Oakland, CA TIME:

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments
MW-1	20.2'	12.76	∅	TOC	MONITORED
MW-2	20.1'	12.86	∅	↓	↓
MW-3	20.1'	11.43	∅	↓	↓
MW-4	19.54	12.59	∅	↓	19 GALLONS PURGED THEN SAMPLED.

Comments:

Sampler: HAIG KEVORK Assistant: N/A

sunsheet11/96

FIELD DATA SHEET

Client/ Facility: CHEVRON #9-9708 Job#: 346395

Address: 5910 MacArthur Blvd. Date: 5/4/99

City: OAKLAND, CA Sampler: HAIG KEVORK

Well ID: MW-4 Well Condition: NEW

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

Total Depth: 19.54 ft.

Depth to Water: 12.59 ft.

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

6.95 x VF 0.17 = 1.18 x 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer; [Bailer]; Stack; [Suction]; Grundfos; Other: _____

Sampling Equipment: [Disposable Bailer]; Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 13:54 Weather Conditions: SUNNY-WINDY

Sampling Time: 16:05 Water Color: _____ Odor: NO

Purging Flow Rate: 0.5 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: N/A Volume: N/A (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:57	1	7.54	502	22.3			
14:00	2	7.39	532	19.6			
15:04	3	7.27	568	18.3			
15:09	5	7.10	576	17.5			
15:15	7	7.16	570	17.1			
15:22	9	7.19	579	17.3			
15:29	11	7.22	582	17.0			
15:35	13	7.20	591	16.8			
15:41	15	7.15	603	16.4			
15:47	17	7.12	604	16.3			
15:52	19	7.11	600	16.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	4-VOA	YES	HCl	SEQUOIA	TPH-G/BTEX/ MTBE 8020/ OXYG'S COMP 8260

COMMENTS: APPROXIMATELY 16 CASING VOLUME WERE PURGED (~19 GALLONS).

9/97-fieldst.frm

Virgil Chavez Land Surveying
312 Georgia Street, Suite 200
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

May 7, 1999
Project No. 1104-68

Barbara Sieminski
Gettler-Ryan, Inc.
6747 Sierra Ct. Suite J
Dublin, Ca. 94568

Subject: Monitoring Well Survey
Chevron SS # 9-9708
5910 MacArthur Blvd.
Oakland, Ca.

Dear Barbara:

This is to confirm that we have proceeded at your request to survey the new monitoring well at the above referenced site. Our findings are shown in the tables below. The survey was performed on May 4, 1999. The benchmark for the survey was the top of curb at the southerly end of the return at the easterly corner of MacArthur Blvd. and Seminary Avenue. Measurement locations were marked at the approximate north side of top of box. The second table is for top of casing locations, using the back of sidewalk on MacArthur Blvd. as reference line, beginning at the return described above. The benchmark and reference line are the same as used previously. Benchmark Elevation 95.88 feet, MSL.

Well No.	Rim Elevation	TOC Elevation
MW - 4	96.46'	96.25'

Well No.	Station	Offset
MW - 4	0-38.02	-33.63(Lt.)
BSW Ret. MacArthur	0+00.00	0.00
BSW-MacArthur Blvd.	---	0.00

Sincerely,

LICENSED LAND SURVEYOR
VIRGIL D. CHAVEZ
No. 6323
Exp. 12-31-02
STATE OF CALIFORNIA

Virgil D. Chavez, PLS 6323

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Chevron #9-9708, Oakland	Sampled:	Apr 13, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Soil	Received:	Apr 14, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 19, 1999
Attention: Barbara Sieminski	First Sample #:	904-1060		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 904-1060 SP (A-D)
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	4/15/99
Instrument Identification:	HP-5
Surrogate Recovery, %: (QC Limits = 40-140%)	76

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9041060.GET <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Barbara Sieminski

Client Project ID: Chevron #9-9708, Oakland
Matrix: Solid
QC Sample Group: 904-1060

Reported: Apr 19, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD Batch#:	9041103	9041103	9041103	9041103
Date Prepared:	4/15/99	4/15/99	4/15/99	4/15/99
Date Analyzed:	4/15/99	4/15/99	4/15/99	4/15/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
Conc. Spiked:	0.80 mg/kg	0.80 mg/kg	0.80 mg/kg	2.4 mg/kg
Matrix Spike % Recovery:	150	150	150	154
Matrix Spike Duplicate % Recovery:	150	150	150	158
Relative % Difference:	0.0	0.0	0.0	2.7
LCS Batch#:	5LCS041599	5LCS041599	5LCS041599	5LCS041599
Date Prepared:	4/15/99	4/15/99	4/15/99	4/15/99
Date Analyzed:	4/15/99	4/15/99	4/15/99	4/15/99
Instrument I.D.#:	HP-5	HP-5	HP-5	HP-5
LCS % Recovery:	91	95	95	100
% Recovery Control Limits:	50-150	50-150	50-150	50-150

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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

Chain-of-Custody-Record

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

Chevron Facility Number: 9-9708
Facility Address: 5910 MacArthur Blvd, Oakland
Consultant Project Number: 346295.02
Consultant Name: Gettler-Ryan Inc.
Address: 6747 Sierra Ct, Ste J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone) (925) 551-7555 (Fax Number) (925) 551-7888

Chevron Contact (Name): Phil Briggs
(Phone) (925) 842-9136
Laboratory Name: Sequoia
Laboratory Release Number: 9144488 99.04.1328
Samples Collected by (Name): Barbara Sieminski
Collection Date: 04/13/99
Signature: B. Sieminski

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (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)					Remarks
SP-A		1	S	G	16:30		Yes	X												9041060
SP-B		1	↓	↓	16:32		↓	X												A-D
SP-C		1			16:34			X												↓
SP-D		1			16:36			X												
																				TH 12

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Barbara Sieminski	G-R	04/14/99 1327			
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 4/14/99 1307

Turn Around Time (Circle Choice)
24 Hrs.
(48 Hrs.)
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin	Client Project ID:	Chevron #9-9708, Oakland	Sampled:	Apr 13, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Soil	Received:	Apr 14, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported:	Apr 20, 1999
Attention: Barbara Sieminski	First Sample #:	904-1061		

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit mg/Kg	Sample I.D. 904-1061 MW4-11.5
Purgeable Hydrocarbons	1.0	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Total Xylenes	0.0050	N.D.
MTBE	0.050	N.D.
Chromatogram Pattern:		--

Quality Control Data

Report Limit Multiplication Factor:	1.0
Date Analyzed:	4/16/99
Instrument Identification:	HP-4
Surrogate Recovery, %: (QC Limits = 40-140%)	89

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9041061.GET <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342

Gettler-Ryan - Dublin
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Barbara Sieminski

Client Project ID: Chevron #9-9708, Oakland
Matrix: Solid
QC Sample Group: 904-1061

Reported: Apr 20, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD Batch#:	9040966	9040966	9040966	9040966
Date Prepared:	4/16/99	4/16/99	4/16/99	4/16/99
Date Analyzed:	4/16/99	4/16/99	4/16/99	4/16/99
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Conc. Spiked:	0.80 mg/kg	0.80 mg/kg	0.80 mg/kg	2.4 mg/kg
Matrix Spike % Recovery:	93	81	88	100
Matrix Spike Duplicate % Recovery:	91	80	84	96
Relative % Difference:	1.4	1.6	4.4	4.3
LCS Batch#:	4LCS041699	4LCS041699	4LCS041699	4LCS041699
Date Prepared:	4/16/99	4/16/99	4/16/99	4/16/99
Date Analyzed:	4/16/99	4/16/99	4/16/99	4/16/99
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	99	85	91	100
% Recovery Control Limits:	50-150	50-150	50-150	50-150

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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

Chain-of-Custody-Record

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

Chevron Facility Number: 9-9708
Facility Address: 5910 MacArthur Blvd, Oakland
Consultant Project Number: 346395.02
Consultant Name: Gettler-Ryan Inc.
Address: 6747 Sierra Ct, Ste J, Dublin, CA 94568
Project Contact (Name): Barbara Sieminski
(Phone) (925) 551-7555 (Fax Number) (925) 551-7888

Chevron Contact (Name): Phil Briggs
(Phone) (925) 842-9136
Laboratory Name: Sequoia 9041329
Laboratory Release Number: 9144488
Samples Collected by (Name): Barbara Sieminski
Collection Date: 04/13/99
Signature: B Sieminski

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	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015) / MTBE	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)					Remarks
MW4-6		1	S	D	15:20		Yes													hold
MW4-11.5		1	↓	↓	15:30		↓	X												9041061
MW4-16		1			15:40															hold
MW4-19.5		1	↓	↓	15:45		↓													

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Barbara Sieminski	G-R	04/14/99 1327			
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
			Ronnie C. Jensen		4/14/99 1307

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Gettler-Ryan - Dublin	Client Project ID:	Chevron #9-9708, Oakland	Sampled: May 4, 1999
6747 Sierra Court, Suite J	Sample Matrix:	Water	Received: May 5, 1999
Dublin, CA 94568	Analysis Method:	EPA 5030/8015 Mod./8020	Reported: May 12, 1999
Attention: Barbara Sieminski	First Sample #:	905-0282	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX / MTBE

Analyte	Reporting Limit µg/L	Sample I.D. 905-0282 MW-4	Sample I.D. 905-0283 TB-LB
Purgeable Hydrocarbons	50	140	N.D.
Benzene	0.50	N.D.	N.D.
Toluene	0.50	0.62	N.D.
Ethyl Benzene	0.50	0.67	N.D.
Total Xylenes	0.50	2.6	N.D.
MTBE	2.5	N.D.	N.D.
Chromatogram Pattern:		Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	5/8/99	5/7/99
Instrument Identification:	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	90	88

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Gettler-Ryan - Dublin	Client Project ID:	Chevron #9-9708, Oakland	Sampled:	May 4, 1999
6747 Sierra Court, Suite J	Sample Descript:	Water, MW-4	Received:	May 5, 1999
Dublin, CA 94568	Analysis Method:	EPA 8260	Analyzed:	May 11, 1999
Attention: Barbara Sieminski	Lab Number:	905-0282	Reported:	May 12, 1999

OXYGENATED COMPOUNDS (EPA 8260)

Analyte	Detection Limit µg/L	Sample Results µg/L
Ethanol	500	N.D.
t-Butanol	100	N.D.
Methyl t-Butyl Ether (MTBE)	2.0	N.D.
Di-Isopropyl Ether (DIPE)	2.0	N.D.
Ethyl t-Butyl Ether (ETBE)	2.0	N.D.
t-Amyl Methyl Ether (TAME)	2.0	N.D.

Surrogates	Control Limit %		% Recovery
Dibromofluoromethane	50	150	83
1,2-Dichloroethane-d4	50	150	72

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

9050282.GET <2>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Gettler-Ryan - Dublin
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Barbara Sieminski

Client Project ID: Chevron #9-9708, Oakland
Matrix: Liquid
QC Sample Group: 9050282-283

Reported: May 12, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD Batch#:	9050025	9050025	9050025	9050025
Date Prepared:	5/7/99	5/7/99	5/7/99	5/7/99
Date Analyzed:	5/7/99	5/7/99	5/7/99	5/7/99
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L
Matrix Spike % Recovery:	105	110	110	108
Matrix Spike Duplicate % Recovery:	100	110	110	108
Relative % Difference:	4.9	0.0	0.0	0.0
LCS Batch#:	9LCS050799	9LCS050799	9LCS050799	9LCS050799
Date Prepared:	5/7/99	5/7/99	5/7/99	5/7/99
Date Analyzed:	5/7/99	5/7/99	5/7/99	5/7/99
Instrument I.D.#:	HP-9	HP-9	HP-9	HP-9
LCS % Recovery:	100	105	105	103
% Recovery Control Limits:	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (925) 988-9600, FAX (925) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100
1455 McDowell Blvd. North, Ste. D, Petaluma, CA 94954, (707) 792-1865, FAX (707) 792-0342
1551 Industrial Road, San Carlos, CA 94070-4111, (650) 232-9600, FAX (650) 232-9612

Gettler-Ryan - Dublin
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Barbara Sieminski

Client Project ID: Chevron #9-9708, Oakland
Matrix: Liquid
QC Sample Group: 9050282-283
Reported: May 12, 1999

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	MTBE
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8260	EPA 8260
Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	N. Nelson	N. Nelson
MS/MSD Batch#:	9050217	9050217	9050217	9050217	9050100	9050100
Date Prepared:	5/8/99	5/8/99	5/8/99	5/8/99	5/11/99	5/11/99
Date Analyzed:	5/8/99	5/8/99	5/8/99	5/8/99	5/11/99	5/11/99
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	GC/MS-2	GC/MS-2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	50 µg/L	50 µg/L
Matrix Spike % Recovery:	90	75	75	90	82	82
Matrix Spike Duplicate % Recovery:	105	90	95	107	96	96
Relative % Difference:	15	18	24	17	-	-
LCS Batch#:	4LCS050899	4LCS050899	4LCS050899	4LCS050899	LCS051099	LCS051199
Date Prepared:	5/8/99	5/8/99	5/8/99	5/8/99	5/10/99	5/11/99
Date Analyzed:	5/8/99	5/8/99	5/8/99	5/8/99	5/10/99	5/11/99
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	GC/MS-2	GC/MS-2
LCS % Recovery:	100	85	90	105	130	94
% Recovery Control Limits:	70-130	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL, #1271

Julianne Fegley
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Copy of this report can be faxed to Chevron

Chain of Custody Record

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

Chevron Facility Number: 9-9708 - OAKLAND
Facility Address: 5910 Mac Arthur Boulevard
Consultant Project Number: 346395
Consultant Name: GETTLER - RYAN INC. (GR)
Address: 6747 Sierra Court, Ste J, DUBLIN
Project Contact (Name): BARBARA SIEMINSKI
(Phone): (925) 551-7555 (Fax Number): 551-7888

Chevron Contact (Name): PHIL BRIGGS
(Phone):
Laboratory Name: SEQUOIA ANALYTICAL
Laboratory Release Number: 9144488
Samples Collected by (Name): HAIG KEVORK
Collection Date: 5/4/1999
Signature:

Service Number	Lab Sample Number	Number of Containers	Matrix (W = Water, S = Soil, A = Air, C = Charcoal)	Type (G = Grab, C = Composite, D = Discrete)	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (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) (CAM or RCRA)	MTBE 8020	OXYGENATE COMP's 8260				Remarks
MW-4		4	W	G	16:05	HCl	YES	✓		9050282			A-D			✓	✓				
TB-LB		1	W	G		HCl	YES	✓		9050283						✓					

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GR				
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
					5/5/99 09:40

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted