## GETTLER-RYAN INC.

### TRANSMITTAL

TO: Mr. Thomas Bauhs

Chevron Products Company

P.O. Box 6004

San Ramon, CA 94583

DATE: September 28, 2000 PROJECT #: 346461.06-1

SUBJECT: Off-site Well Installation

Report for Chevron Service

Station #9-8139.

FROM:

Barbara Sieminski Project Geologist Gettler-Ryan Inc. 6747 Sierra Court, Suite G Dublin, California 94568

#### WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	09/26/00	Off-site Well Installation Report for Chevron Service Station #9-8139, 16304 Foothill Boulevard,
		San Leandro, California.

#### THESE ARE TRANSMITTED as checked below:

[] For review and comment	i 1 Approved as submitted	[] Resublifit copies for approve
[X] As requested	[] Approved as noted	[] Submit copies for distribution
[] For approval	[ ] Return for corrections	[ ] Return corrected prints

[X] For your files

cc: Mr. Scott Seery, Alameda County Health Care Services Agency

Mr. Chuck Headlee, RWQCB San Francisco Bay Region

Mr. Harv Dhaliwal, G&S Associates, Inc.

Ms. Betty Owen, Chevron Products Company

Mr. James Brownell, Delta Environmental Consultants, Inc.

GR File

COMMENTS: Attached is a copy of the final report for your use. Copies of this report have been submitted to the above listed parties. Please call if you have questions.



3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-6021 U.S.A. 916/638-2085 FAX: 916/638-8385

No. 6676

OF CAL

#### OFF-SITE WELL INSTALLATION REPORT

for Chevron Service Station #9-8139 16304 Foothill Boulevard San Leandro, California

Report No. 346461.06-1

#### Prepared for:

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

#### Prepared by:

Delta Environmental Consultants, Inc/Gettler-Ryan Inc. 6747 Sierra Court, Suite G Dublin, California 94568

> Barbara Sieminski Project Geologist

> > R.G. 6676

Stephen J. Carter Senior Geologist

R.G. 5577

September 26, 2000

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#### OFF-SITE WELL INSTALLATION REPORT

for

Chevron Service Station #9-8139 16304 Foothill Boulevard San Leandro, California

Report No. 346461.06-1

#### 1.0 INTRODUCTION

This report summarizes the results of an installation of three off-site groundwater monitoring wells at Chevron Service Station #9-8139, located at 16304 Foothill Boulevard in San Leandro, California. The work was performed at the request of Chevron Products Company (Chevron) to further evaluate the extent of methyl tertiary butyl ether (MtBE) downgradient of the site. The scope of work included: preparing a site safety plan and obtaining the required encroachment and well installation permits; installing three off-site groundwater monitoring wells; collecting and submitting soil samples from well borings for chemical analysis; surveying wellhead elevations; developing the newly installed wells; arranging for Chevron's contractor to dispose of the waste materials; and preparing a report documenting the work. This work was proposed in Gettler-Ryan Inc. (GR) Report No. 346461.05-1, Work Plan for Off-site Monitoring Well Installation, dated March 17, 2000, and Addendum 1 to GR Report #346461.05-2, dated May 11, 2000, approved by Mr. Scott Seery of the Alameda County Health Care Services Agency (ACHCSA). Copy of the ACHCSA approval letter is attached in Appendix A. Monitoring and sampling of the newly installed groundwater.

#### 2.0 SITE DESCRIPTION

#### 2.1 General

The subject site is located on the eastern side of Foothill Boulevard approximately 0.1 mile south of Strang Avenue in San Leandro, California (Figure 1). The site is a Chevron branded service station currently developed into a mini-market/gas station facility owned and operated by Mr. Harv Dhaliwal. Chevron discontinued operation at the subject site in 1998, and the previous Chevron station facilities consisting of a station building, three gasoline underground storage tanks (USTs) and two dispenser islands, have been removed prior to the site reconstruction. Current site configuration includes a mini-market building located in the eastern corner of the site, two new gasoline USTs that share a common pit southwest of the minimarket building and service islands located in the central portion of the site. Pertinent former and current site features are shown on Figure 2.

#### 2.2 Geology and Hydrogeology

also within they work fault zone!

The subject site is located at the western edge of San Leandro Hills approximately 4 miles east of San Francisco Bay and approximately 1¼ mile south of Lake Chabot. The site is a relatively flat lot at an elevation of approximately 125 feet above mean sea level. Based on the boring logs from previous environmental investigations, the subject site is underlain by sandy clay with clayey and gravelly sand interbeds to the total depth explored of 41.5 feet below ground surface (bgs). Groundwater was encountered in the borings at depths ranging from 17 to 26 feet bgs and stabilized at depths ranging from 12 to 19 feet bgs. Based on the historical groundwater monitoring data, groundwater in the vicinity of the subject site flows to the south. The groundwater depth has fluctuated between 8.5 and 22.5 feet. The nearest surface water is San Lorenzo Creek located approximately 1 mile south of the subject site.

#### 2.3 Previous Work

Eleven groundwater monitoring wells (on-site wells MW-1 through MW-7 and off-site wells MW-8 through MW-11) were installed at the subject site between 1989 and 1992 to monitor groundwater condition beneath the site and in its downgradient (southern) vicinity. Groundwater extraction well EW-1 was installed at the site in 1990 for groundwater remediation. In 1991, groundwater monitoring wells MW-5 and MW-4 were destroyed and extraction wells EW-2 and EW-3 were installed in the locations of the destroyed wells, respectively, to aid in groundwater remediation. In 1998, on-site wells MW-1, MW-2, MW-3, MW-6, MW-7, and EW-1were destroyed, prior to the site redevelopment. Extraction wells EW-2 and EW-3 were retained for future use as monitoring wells.

Groundwater at the subject site has been monitored and sampled since December 1989. Historical sampling data indicate that on-site wells MW-3, MW-4/EW-3, MW-5/EW-2, and EW-1 have contained total petroleum hydrocarbons as gasoline (TPHg), benzene and methyl tertiary butyl ether (MtBE) at concentrations up to 51,000 parts per billion (ppb), 12,000 ppb and 13,000 ppb, respectively. Floating product (up to 1.3 feet) was present in well MW-5 between September 1990 and May 1991. Off-site wells MW-8 and MW-9 have contained TPHg, benzene, and MtBE at concentrations up to 17,000 ppb, 470 ppb, and 39,000 ppb, respectively. On-site wells MW-1, MW-2, MW-6, MW-7 and off-site wells MW-10 and MW-11 have never contained MtBE. Benzene was detected in these wells only on few occasions at low concentrations (up to 19 ppb). TPHg has never been detected in wells MW-6, MW-10 and MW-11, and has been detected sporadically at low concentrations (up to 100 ppb) in wells MW-1, MW-2 and MW-7.

#### 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 August 8, 2000. An amendment (#1) to the existing encroachment permit (#ROO-910274) and well installation permits (#WOO-226 through WOO-228) were obtained from the Alameda County Public Works Agency, an underground utility locator was contracted to clear boring locations, and Underground Service Alert was notified prior to drilling at the site. Copies of the permits and the State of California Well Completion Reports are included in Appendix C.

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#### 3.1 Drilling Activities

On August 2 and 18, 2000, a GR geologist observed Bay Area Exploration, Inc. (C57 #522125) install three off-site groundwater monitoring wells (MW-12 through MW-14) at the locations shown on Figure 2. Well borings were drilled to 28.8 feet bgs (MW-12), 30 feet bgs (MW-14), and 34 feet bgs (MW-14) using 8-inch hollow-stem augers driven by a truck-mounted CME-75 drill rig. Soil samples were collected approximately every 5 feet. The GR geologist prepared logs of each boring and screened the soil samples in the field for the presence of volatile organic compounds. Screening data are presented on the boring logs (Appendix C).

A groundwater monitoring well was constructed in each boring using 15 (MW-13 and MW-14) or 18 (MW-12) feet of two-inch diameter, 0.01-inch machine-slotted Schedule 40 PVC screen. Lonestar #2/12 graded sand was placed in each well across the entire screen interval and extended approximately 1 to 2 feet above the top of the screen. Each well was then sealed with 1½ to 2 feet of hydrated bentonite chips followed by neat cement. Well construction details are presented on the boring logs 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 August 29, 2000, the soil stockpile was removed from the site by Integrated Wastestream Management (IWM).

#### 3.2 Well Development

On September 1, 2000, groundwater monitoring wells MW-12 through MW-14 were developed by GR personnel using a vented surge block and band-bailing. Depth to water was measured in the wells prior to development. Water purged during well development was transported to McKittrick Waste Management by IWM. Copies of the GR Well Development Field Data Sheets are included in Appendix D. Wells MW-12 through MW-14 will be monitored and sampled in October 2000, during the regular site groundwater monitoring and sampling event, and the results will be presented in the second semi-annual 2000 groundwater monitoring report.

#### 3.3 Wellhead Survey

On September 16, 2000, wells MW-12 through MW-14 were surveyed relative to mean sea level by Virgil Chavez, a California licensed land surveyor (#6323). Horizontal coordinates of well locations were also obtained. On-site wells EW-2 and EW-3 were also surveyed at that time. A copy of the survey report is included in Appendix E.

#### 3.4 Laboratory Analysis

Soil samples were analyzed by Sequoia Analytical in Walnut Creek, California (ELAP #1271). Samples collected from borings MW-13 and MW-14 at depths of 16 and 21 feet bgs, and from boring MW-12 at

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346461.06-1

a depth of 11 feet bgs were analyzed for TPHg, benzene, toluene, ethylbenzene and xylenes (BTEX), and MtBE by Environmental Protection Agency (EPA) Methods 8015 Mod/8020. The composite sample from the drill cuttings was analyzed for TPHg, BTEX, MtBE, and total lead. Copies of the laboratory analytical reports and chain-of-custody records are included in Appendix F.

#### 4.0 RESULTS

#### 4.1 Subsurface Conditions

Native soil encountered in borings MW-12 through MW-14 consisted predominantly of clayey materials to the total depth explored of 34 feet bgs. Backfill material was encountered in all borings immediately beneath the ground surface and extended to the depths of approximately 1.5 to 3 feet bgs. Clay grading to sandy clay was encountered beneath the backfill in all borings. A 2 to 3.5 foot thick sandy layer, consisting of silty sand to sand with gravel, was encountered within clayey materials in all borings at depths ranging from 24.5 to 27.5 feet bgs. Groundwater was encountered in borings MW-12 through MW-14 at depths of 21, 25, and 15 feet bgs, respectively, and stabilized at a depth of approximately 12 feet in all borings. Detailed descriptions of the subsurface materials encountered during drilling are presented on the boring logs in Appendix C.

#### 4.2 Soil Analytical Results

MW-147

The samples collected from boring MW-13 at 16 and 21 feet bgs commined MtBB as the concentrations of 2.9 ppm, and 6.13 ppm; respectively. TPHg or BTEX were not detected in these samples. Unsaturated soil samples collected from boring MW-12 at 11 feet bgs and from boring MW-13 at 16 and 21 feet bgs did not contain TPHg, BTEX, or MtBE.

The composite stockpile sample did not contain TPHg, BTEX or MtBE. Lead was detected in this sample at the concentration of 22 ppm. Soil chemical analytical data are summarized in Table 1.

#### 5.0 CONCLUSIONS

Based on analytical results from soil samples collected and analyzed during this investigation, it appears that soil within the smear zone near well MW-14 has been slightly impacted by MtBE, but has not been impacted by TPHg or BTEX. Soil in the vicinity of wells MW-12 and MW-13 has not been impacted by TPHg, BTEX, or MtBE.

#### 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.

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Gettler-Ryan Inc., March 17, 2000, Work Plan for Off-site Monitoring Well Installation at Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California, Report No. 346461.05-2. Gettler-Ryan Inc., May 11, 2000, Addendum 1 to GR Report #346461.05-2, Work Plan for Off-site Monitoring Well Installation at Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California, Report No. 346461.05-3.

Gettler-Ryan Inc., August 8, 2000, Site Safety Plan for Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California, Job No. 346461.06.

Table 1. Soil Analytical Results - Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro, California.

Sample ID	Depth (feet)	Date	TPHg <	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE	Lead
MW12-11	11	08/18/00	<1.0	< 0.0050	< 0.0050	< 0.0050	< 00050	< 0.050	<del></del>
MW13-16 MW13-21	16 21	08/09/00 08/09/00	<1.0 <1.0	<0.0050 <0.0050	<0.0050 <0.0050	<0.0050 <0.0050	< 00050 < 00050	<0.050 <0.050	
MW14-16 MW14-21	16 21	08/09/00 08/09/00	<1.0 <1.0	<0.0050 <0.0050	<0.0050 <0.0050	< 0.0050 < 0.0050	< 00050 < 00050	2.9 0.13 ↔	 -
SP-(A-D)	-	08/09/00	<1.0	< 0.0050	< 0.0050	< 0.0050	< 00050	< 0.050	22

EXPLANATION:
TPHg = Total Petroleum Hydrocarbons as gasoline

MtBE - Methyl t-Butyl Ether

ppm - Parts per million

-- - Not analyzed/not applicable

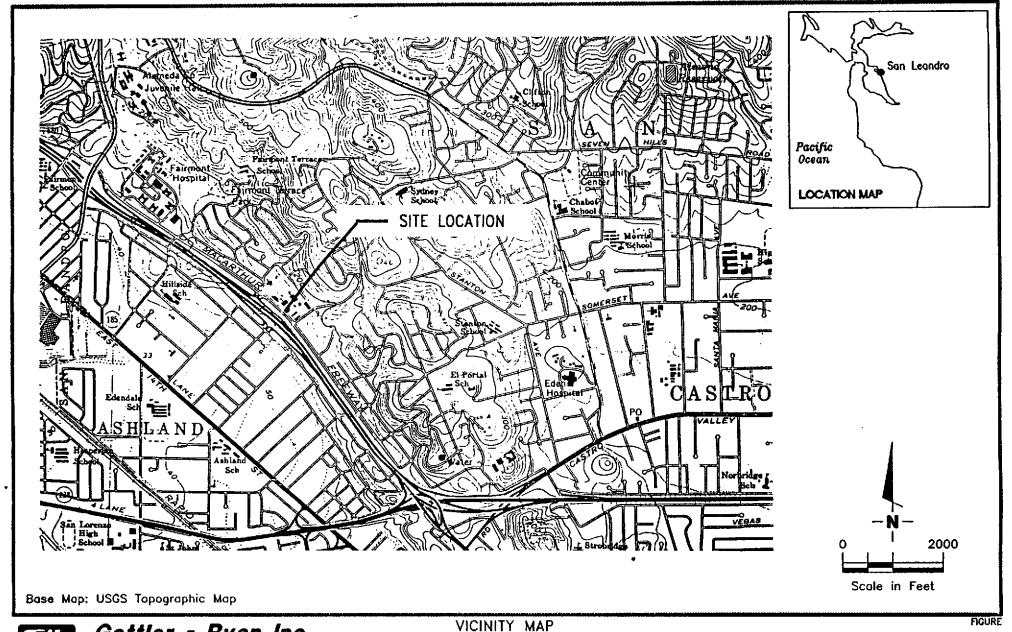
#### **ANALYTICAL METHODS:**

TPHg, benzene, toluene, ethylbenzene, xylenes, MtBE = DHS LUFT Method Lead = EPA Method 6010A

#### ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1271)

346461.06-1





Gettler - Ryan Inc.

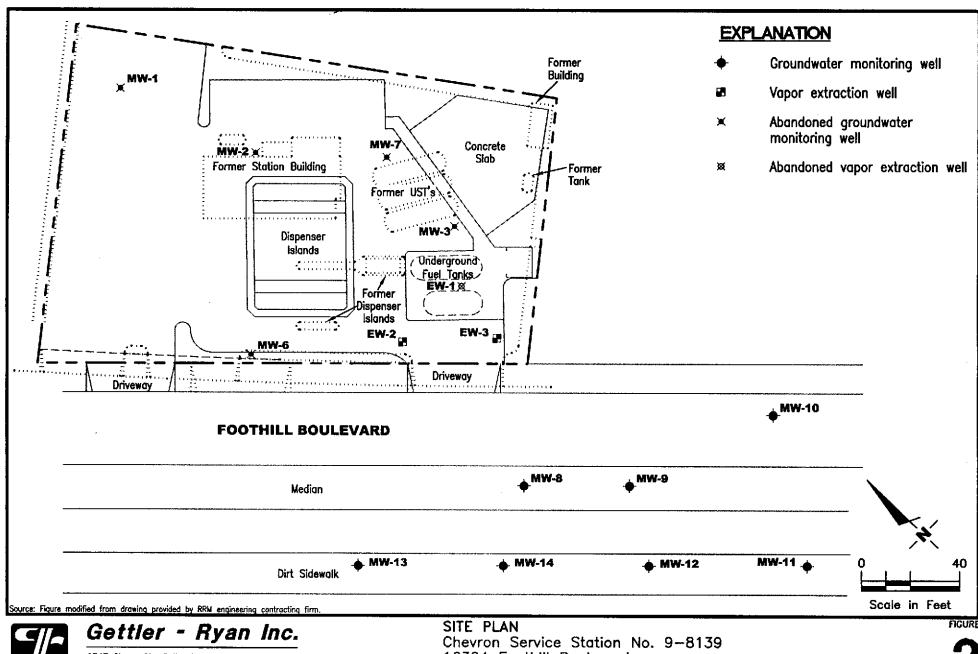
REVIEWED BY

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

Chevron Service Station No. 9-8139 16304 Foothill Boulevard San Leandro, California

REMSED DATE

JOB NUMBER 346461 DATE 01/00



6747 Sierro Ct., Suite J Dublin, CA 94568

(925) 551-7555

16304 Foothill Boulevard San Leandro, California

REVISED DATE

PROJECT NUMBER 346461

BENJEWED BY

DATE 9/00

FILE NAME: P:\ENMRO\CHEVRON\9-8139\ADO-9-8139.DWG | Layout Tab: Well Install 9-00

# APPENDIX A ACHCSA WORK PLAN APPROVAL LETTER

ALAMEDA COUNTY

#### **HEALTH CARE SERVICES**

**AGENCY** 



DAVID J. KEARS, Agency Director

April 25, 2000

STID 1801

Mr. Thomas Bauhs Chevron Products Company P.O. Box 6004 San Ramon, CA 94583-0904 ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94602-6577 (510) 567-6700 FAX (510) 337-9335

RE: Chevron Service Station #9-8139, 16304 Foothill Boulevard, San Leandro

Dear Mr. Bauhs:

I am in receipt of the March 17, 1999 Gettler-Ryan Inc. (GRI) workplan for the proposed installation of additional monitoring wells on the west side of Foothill Boulevard. This workplan was submitted under GRI cover of the same date. The proposed wells are intended to track the extent of the MtBE plume from the subject site. This workplan supersedes a previous GRI workplan dated January 6, 2000 which proposed the installation of a new monitoring well near (now destroyed) well MW-3 intended to assess the extent of impacts on the southern margin of the site.

The March 17, 2000 GRI workplan is accepted for this phase of work at this site with the following changes:

- Three (3) wells, rather than the two proposed, shall be installed. These wells shall be completed on 60' centers, beginning at well MW-11, along the same alignment as originally proposed. This well density will provide 180' of coverage from four points.
- Well sampling shall not occur sooner than 24, but preferably 72, hours following well development.

This work is to be completed within 60 days of the date of this letter.

For your information, Senate Bill (SB) 989 was signed into law by Governor Davis on October 8, 1999. SB 989 directs the State Water Resources Control Board (SWRCB) to identify areas most vulnerable to releases of MtBE, prioritize resources, and develop investigation and cleanup guidelines. The SWRCB MtBE cleanup guidelines have now been drafted, and prescribe the step-wise process in development of a Site Conceptual Model (SCM). A SCM, now required for all MtBE release sites, is the progressive assemblage of information regarding the distribution of chemicals at a site, its hydrologic setting, geology, surrounding land use, well locations, and existing and projected water use patterns. The SCM functions as the framework for the investigation, remediation, and ultimately the closure of the site. Each phase of an investigation should seek to fill any data gaps that may remain from previous phases. Once the source area and receptor pathways have been adequately characterized, an appropriate remedial alternative can be selected and implemented.

Attached to this letter you will find a copy of Appendix C, derived from the referenced SWRCB MtBE guidance. Appendix C provides a format for your consultant to follow when putting together the SCM for this site. You are requested to ensure that your consultant adheres to this format when submitting the report documenting this phase, and subsequent phases, of work at your site.

Mr. Thomas Bauhs Re: 16304 Foothill Blvd., San Leandro April 25, 2000 Page 2 of 2

In addition, Chevron was advised in correspondence from this office dated October 15, 1998, and again June 28, 1999, that a Risk Based Corrective Action (RBCA) evaluation need be completed for this project. Approval to remove the remediation system from the site, which facilitated the redevelopment of the property into the retail fuel facility that operates there today, was conditioned on the completion of this evaluation. To date, this request has not been fulfilled. Chevron must now complete this task. I request that we arrange to meet in the next month to discuss how this task should best be completed.

Please call me at (510) 567-6783 should you have any questions, and to inform me when field work has been scheduled.

Sincerely,

Scott O. Seery, CHMM

Hazardous Materials Specialist

Attachment - Appendix C

c: Chuck Headlee, RWQCB Robert Weston, ACDEH

Harv Dhaliwal, G&S Associates, Inc., 4430 Deerfield Way, Danville, CA 94506

Barbara Sieminski, Gettler-Ryan, Inc., 6747 Sierra Ct., Ste. G, Dublin, CA 94568 (w/attmnt.)

# APPENDIX B GR FIELD METHODS AND PROCEDURES

#### GETTLER - RYAN FIELD METHODS AND PROCEDURES

#### Site Safety Plan

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

#### **Collection of Soil Samples**

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

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

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

#### Field Screening of Soil Samples

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

#### Stockpile Sampling

Stockpile samples consist of four individual sample liners collected from each 100 cubic yards (yd³) 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  $\pm 0.01$  foot. The presence of separate-phase product is confirmed using a clean, acrylic or polyvinylchloride (PVC) bailer, measured to the nearest  $\pm 0.01$  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.

#### **APPENDIX C**

# ENCROACHMENT AND WELL INSTALLATION PERMITS, BORING LOGS AND STATE OF CALIFORNIA WELL COMPLETION REPORTS



## COUNTY OF ALAMEDA PUBLIC WORKS AGENCY

399 Elmhurst Street • Hayward, CA 94544-1395 (510) 670-5480

July 19, 2000

Mr. Brett Hunter Chevron Products Company. PO Box 6004 San Ramon CA 94583-0907

#### AMENDMENT #1 TO PERMIT # ROO-910274

Modify the said permit, as follow:

Add the following to the scope of work:

• Installation of tree additional monitoring wells, MW-12 Through MW-14, within the public right-of-way.

Add the following to the permit file:

- Bond for \$13,500 by Chevron (bond #U805120-1757)
- Updated Hold Harmless and Indemnification Statement by Chevron.

All other aspects of the permit shall remain unchanged.

Yours very truly,

GÁRY MOORE

GRADING/PERMIT SUPERVISOR



#### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

#### DRILLING PERMIT APPLICATION FOR APPLICANT TO COMPLETE FOR OFFICE USE LOCATION OF PROJECT 16304 Fronthill Bowlevard PERMIT NUMBER <u>San Leandro</u> WELL NUMBER MSA California Coordinates Source PERMIT CONDITIONS Circled Permit Requirements Apply CEXERAL 1. A permit application should be submitted so as to Phone (325) 842-8898 Address P. D. Box arrive at the ACPWA office five days prior to 21p 9458 proposed starting date. City San Ramon Submit to ACPWA within 60 days after completion of APPLICANT permitted work the original Department of Water Resources - WEL Name Gettler F112 (925)551-7888 Barbara Siemi Address 6747 Sierra (4 Ste G Phone (925) 551-7555 I Permit is void if project not begun within 90 days of Cny <u>Dublin</u> Zip 94562 approval date B. WATER SUPPLY WELLS "PE OF PROJECT 1 Munimum surface seal thickness is two inches of ell Construction Geottebniest Investigation coment grout placed by tremie. Cathodia Protection ٥ General ¢ Contamination 2. Minimum seal depth is 50 feet for municipal and ¢ ۵ Water Supply industrial wells or 20 feet for domestic and irrigation Menitoring Well Destruction wells unless a lesser depth is specially approved. C. CROUNDWATER MONITORING WELLS PROPOSED WATER SUPPLY WELL USE INCLUDING PIEZOMETERS New Domestic Q Replacement Domestic a 1 Minimum surface scal thickness is two inches of Municipal C imigation Industrial o Other . c eament grout placed by tremie. 2 Minimum seal depth for manitoring wells is the maximum depth practicable or 20 feet. DRILLING METHOD: D. GEOTECHNICAL **Mud Rotary** Air Rothry Auger Moder Stem Backfill bore hele with compacted cuttings or heavy Caple Other a benignite and upper two feet with compacted material DRILLER'S LICENSE NO \_ C 57# 522125 In areas of known or suspected contamination, tremted cement grout shall be used in place of compacted cuttings WELL PROJECTS E. CATHODIC Fill hale above anode zone with concrete placed by tremie Drill Hole Diameter Maximum Depth \_25 F. WILL DESTRUCTION Casing Diameter Surface Seal Depth Number 3 See attached G. SPECIAL CONDITIONS GEOTECHNICAL PROJECTS Number of Borings \_ Manage Depth Hole Dismeter ESTIMATED STARTING DATE ESTIMATED COMPLETION DATE I hereby agree to comply with all requirements of this permit and hismeda County Ordinance No. 73-6\$ APPLICANT'S

NGNATURE\_



### ALAMEDA COUNTY PUBLIC WORKS AGENCY

#### DRULING PERMIT APPLICATION

DRILLING PERMIT	AFFEJCARION
FOR APPLICANT TO COMPLETE  CATION OF PROJECT 16304 Frothill Boulevand, San Leandyn	FOR OFFICE USE  PERMIT NUMBER WOO - 228  WELL NUMBER
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FERMIT CONDITIONS
informit Coordinates Source	Circled Permit Requirements Apply
LIENT Chernon Products Co same Chernon Products (A) St. 2-3898 ddress P. O. Box Phone (325) 842-3898 Zip 94583  PPLICANT Came Gratter - Ryan Inc. Barbura Sieman Lie Fra (925) 551-1888 Raddress 6747 Sierra (1 Ste G Phone (325) 551-1855	A. GENERAL  1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to perposed starting date.  2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources: WELL COMPLETION  3. Permit is void if project not begun within 90 days of
TE OF PROJECT  FIL Construction Geographical Investigation  Cathodic Protection Concrat  Water Supply Contamination  Mell Destruction C	approval date  B. WATER SUPPLY WELLS  1 Minimum surface seal thickness is two inches of cement grout placed by termine.  2. Minimum seal depth is 50 feet for municipal and incurrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
PROPOSED WATER SUPPLY WELL USE  New Domestie D Replacement Domestic D.  Municipal C Intigation C.  Industrial O Other	C. CROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS  1. Minimum surface seal thickness is two inches of cement grout placed by tremic 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
Mud Rotary 0 Air Rotary C Ajeri Cable 0 Other 0 Hollow Stem DRILLER'S LICENSE NO C 57# 502 125	Backfill bore held with compacted cuttings or heavy benionite and upper two feet with compacted material in areas of known or suspected contamination, tremied coment grout shall be used in place of compacted cuttings
WELL PROJECTS  Dith Hole Diameter 2 in Depth 25 fi  Surface Seal Depth 4 fi Number 3	E. CATHODIC  Fill hale above anode zone with concrete placed by tremie  F. WELL DESTRUCTION  See attached  G. SPECIAL CONDITIONS
CEOTECHNICAL PROJECTS  Number of Borings	APPROVED GROWN LEGG DATE 5720
ESTINATED COMPLETION DATE  I hereby agree to comply with all requirements of this permit and  plameda County Ordinance No. 73-65	MW#: 13
APPLICANT'S Barbine Dilumborte	5-12-00

\*\* TOTAL PAGE.001 \*\*



#### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD 1019494544
THONE (\$10)670-5554

DRILLING PERMIT	APPLICATION
FOR APPLICANT TO COMPLETE LOCATION OF PROJECT   6304 Footbill Bowlevard, San Leandro	FOR OFFICE USE  PERMIT NUMBER WELL NUMBER  APN
California Coordinates Sourceft. recursey 3ft	PERMIT CONDITIONS  Circled Permit Requirements Apply
CLIENT Name Chernan Products O Address P. O. Box Phone (325) 842-8898 City San Rouman Zip 94583  APPLICANT Name Gettler - Ryan Inc. Barbara Sieten 124 Address 6747 Sierre Ct Ste G City Dublin Zip 94562	A CEYERAL  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 fermitted work the original Department of Water Resources WELL COMPLETION  3 Permit is void if project not begun within 90 days of
/PE OF PROJECT  Nell Construction General Cathodic Protection D General C Water Supply D Consumination C Monitoring Well Destruction D  PROPOSED WATER SUPPLY WELL USE New Domestic D Replacement Domestic D  Municipal C Impation D  Industrial D Other D  DRILLING METHOD:  Mud Rotary D Air Rotary D Auger Machanists Cable D Other D Machanists	approval date  B. WATER SUPPLY WELLS  1 Minimum surface seal thickness is two inches of ecment grout placed by tremic.  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. CROUNDWATER MONITORING WELLS  1 Minimum surface seal thickness is two inches of cement grout placed by tremic.  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.  D. GEOTECHNICAL  Backfill bore hole with compacted cuttings of heavy bentonite and upper two feet with compacted material.
ORILLER'S LICENSE NO C57#522125  WELL PROJECTS  Drill Hole Diameter 8 in Maximum Casing Diameter 2 in Outh 25 is Surface Seal Depth 4 is Number 3	In areas of known or suspected contamination, tremicd exement grout shall be used in place of compacted cuttings  E. CATHODIC  Fill hale above anode zone with concrete placed by tremic.  F. WELL DESTRUCTION  See attached  G. SPECIAL CONDITIONS
CEOTECHNICAL PROJECTS  Number of Borings	APPROVED SOMB A COOR DATE 5-120
t hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68	MW#14 CAXED
APPLICANT'S Barbre D'eninhorte	[-(S-12-00)]

\*\* TOTAL PAGE.001 \*\*
5107821939 PAGE.004

Gettler-Ryan, Inc.						Inc.		Log of Boring MW-12			
PROJI	ECT:	Che	vron Servi	ce :	Statio	n #9-	8139	LOCATION: 16304 Foothill Bouleval	rd, San Leandro, CA		
			.: 3464	61.0	6			CASING ELEVATION:MSL			
	ATE STARTED: 08/18/00							WL (ft. bgs): 15.0 DATE: 08/18/00	TIME: 10:55		
			): <i>08/18/</i>			-		WL (ft. bgs): 11.8 DATE: 08/18/00	TIME: 14:00		
DRIL	LING I	METH	OD: 8 in.	Но	llow S	tem Au	ıger	TOTAL DEPTH: 28.50 feet			
DRILI	LING (	COMP	ANY: Ba	y Ai	rea E.	plorat	ion	GEOLOGIST: Barbara Sieminski			
DEPTH (feet)	PIO (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS		SEOLOGIC DESCRIPTION	WELL DIAGRAM		
					9 25 - 25 35 c		FILL: Gravel with	sand and silt.			
5—	O	14	MW12-6			CL	plasticity, stiff; sand.	rk brown (10YR 4/3), moist, medium 90% clay, 5% silt, 5% fine to medium  D (CL) - yellowish brown (10YR 4/4), city, stiff; 60% clay, 20% silt, 20% fine	E" blank schedule 40 PVC —    Introduction		
10-	1.2	10	MW12-11			CL	moist, low plastic	CL) – yellowish brown (10YR 4/4), city, stiff; 50% clay, 30% fine to % silt, trace subangular fine gravel.			
15	0	5	MW12-16			CL/SC	yellowish brown medium stiff; 40	TH CLAYEY SAND LENSES (CL/SC) - (10YR 5/4), saturated, low plasticity, % clay, 30% fine to coarse sand, 5-10% gravel, 20-25% silt.	'C (0.01 inch) ————————————————————————————————————		
- 20- - -	o	8	MW12-21				Gravel decrease	es to trace, clay increases to 50%.	2" machine slotted PVC (		
25 <del>-</del>	0	7	MW12-24.5			SM	(10YR 5/4), sat	TH GRAVEL (SM) — yellowish brown wrated; loose; 80% fine to coarse sand, ar fine gravel, 30% silt, 5-10% clay.			
-	o	4	MW12-27.5	5		CL	CLAY (CL) - da saturated, medi silt, 5-10% fine	ark yellowish brown (10YR 3/4), um plasticity, soft; 80% clay, 10-15% to coarse sand. g at 28.5 feet bgs.			
30-				-				1 to equivalent standard penetration			
35-					-						

	6	3et	tier-R	ye	n, I	nc.		Log of Boring	MW-13		
PROJ	PROJECT: Chevron Service Station #9-8139						8139	LOCATION: 16304 Foothill Boulevard, San Leandro, CA			
GR PI	ROJEC							CASING ELEVATION:MSL			
DATE STARTED: 08/09/00								WL (ft. bgs): 25.0 DATE: 08/09/00 TIME: 12:00			
DATE	FIN	SHEC	08/09	/00				WL (ft. bgs): 12.1 DATE: 08/09/00	TIME: 17:50		
DRILLING METHOD: 8 in. Hollow Stem Auger TOTAL DEPTH: 34 feet											
DRIL	LING	COMP	ANY: Ba	y Ar	rea Exp	olorati	ìon	GEOLOGIST: Barbara Sieminski			
DEРТН (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	G	EOLOGIC DESCRIPTION	WELL DIAGRAM		
-					3.50 2000 2.00 2.00 3.50 3.50		FILL: Gravel with				
5-	0	9	MW13-6			CL		k brown (10YR 4/3), moist, medium 10% clay, 5% silt, 5% fine to medium	ile 40 PVC		
10-	0	13	MW13-11			CL	(10YR 5/6), sitt ir sand, 60% clay a	color changes to yellowish brown ncreases to 30%, 10% fine to coarse at 10 feet.	- 2" blank schedu		
15-	0	12	MW13-16			GL .	damp, low plastic to coarse sand,	ity, stiff; 50% clay, 25% silt, 20% fine 5% subangular fine gravel at 15 feet after pulling augers up 1.5	Section 19   Contourse		
20-	0	11	MW13-21			CL	low plasticity, sti	L) – yellowish brown (10YR 5/4), moist, ff, 40% clay, 30% fine to coarse sand, ubangular fine gravel.			
25-	0	6	MW13-26				becomes medium	to 35%, gravel increases to 5%,, stiff and saturated at 25 feet.	2" machine slotted PVC (0.01 inch)		
30-	0	6	MW13-31			CL	5/4), saturated, subangular fine ( CLAY (CL) - yel	VEL (SW-SM) - yellowish brown (10YR loose; 70% fine to coarse sand, 20% gravel, 10% silt.  lowish brown (10YR 5/8), saturated, y, medium stiff; 100% clay.			
- 35-			246461					at 34 feet bgs. (* = Converted to ard penetration blows/foot.)	Page Lot 1		

	(	Get	tler–R	yε	n, i	Inc.		Log of Boring	g MW-14		
PROJ	ECT:	Chi	evron Serv	ice	Statio	on #9-	-8139	LOCATION: 16304 Foothill Boulevard, San Leandro, CA			
GR PI	GR PROJECT NO.: 346461.06							CASING ELEVATION:MSL			
DATE STARTED: 08/09/00								WL (ft. bgs): 21.0 DATE: 08/09/00	TIME: 16:35		
DATE	FIN	ISHE	D: <i>08/09</i>	/00	l			WL (ft. bgs): 14.5 DATE: 08/09/00	TIME: 20:00		
ORIL	LING	METI	HOD: 8 in	. Ho	llow S	tem A	uger	TOTAL DEPTH: 30 feet	· · · · · · · · · · · · · · · · · · ·		
DRIL	LING	СОМ	PANY: Ba	y Ai	ea Ex	plora	tion	GEOLOGIST: Barbara Sieminski			
OEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	G	EOLOGIC DESCRIPTION	WELL DIAGRAM		
_					2000 2000 2000 2000		FILL: Gravel with	sand and silt.			
1						CL		k brown (10YR 4/3), moist, medium 90% clay, 5% silt, 5% fine to medium			
5-	0	16	MW14-6			CL	5/6), damp, low p	O (CL) – dark yellowish brown (10YR olasticity, stiff; 80% clay, 20% silt, 20% and, trace subangular fine gravel.	2" blank schedule 40 PVC		
10-	0	15	MW14-11			CL	damp, low plastic	.) – yellowish brown (10YR 5/4), ity, stiff, 40% clay, 30% fine to 6 silt, 10% subangular fine gravel.	Internal Control of the Control of t		
15-	4	8	MW14-16				# Becomes moist a	t 16 feet. No water in hole.			
20-	3.5	8	MWI4-21				¥		2" machine slotted PVC (0.01 inch)		
25-	0	5	MW14-24.5			SM	saturated, loose:	1) - yellowish brown (10YR 5/4), 60% fine to coarse sand, 5-10% gravel, 30% silt, 0-5% clay.	-cap 2" machine sto		
70	0	6	MW14-29.5			CL	CLAY (CL) – dar saturated, mediur silt, 0–5% fine sa	k yellowish brown (10YR 3/4), moist to n plasticity, stiff; 80% clay, 15-20% nd.			
30-							Bottom of boring equivalent standa	at 30 feet bgs. (* = Converted to ard penetration blows/foot.)	<u> </u>		
35- JOB I	NUMB	ER:	346461.0						Page 1 of		

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

## REMOVED

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

## REMOVED

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

## REMOVED

#### APPENDIX D

## WELL DEVELOPMENT FIELD DATA SHEETS



## MONITORING WELL OBSERVATION SUMMARY SHEET

CHEVRON #	9-8139		G-R JOB #: _	3464	61.06
LOCATION:	16304 F	OOTHILL B	LVD, DATE:	9/1/	00
CITY:	SAN LE	ANDRO,	CA TIME:	· · · · · · · · · · · · · · · · · · ·	
				•	A CONTRACTOR OF THE PARTY OF TH
Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC V	Comments
MW-12 MW-13 MW-14	28.50 34.00 29.50	11.69	9	TOC	30 gal. 40 30
Comments:			PEVEL		
			APLED 11		
	TOCKPIL		Assistant	N/A	THE SITE
• •	1110 111-			<del>- 1 - ( - )</del>	• • • • • • • • • • • • • • • • • • • •

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Address: 16 3		-8139	Job#: <u>3</u>	464	61.0	06
, 1441 233. TA	304 FOOTHI	LL BLVD	Date:	<del>- /</del>	00	<u></u>
City: SAU	LEANDRO	CA	Sampler:	+KE	ORK	
Well ID	MW-12	Well Condition:	NE	w		
Well Diameter	in.	Hydrocarbon Thickness:		Amount Bai		(gal.)
Total Depth	28.50m	Volume		3" = 0.38		= 0.66
Depth to Water	11.69 1	Factor (VF)	1.5	-	12 = 3.60	
	16.81 x VF	0.17-2.8x	(case volume) = E	stimated Purg	e Volume: _	28 (03)
Purge Equipment:	Disposable Bailer Bailer	Sam		osable Baile	Br	
rdobusur.	Stack		Baile			
·	Grundfos Other:			Sample		
	Other.	<u> </u>				
Starting Time:	15:20		onditions: _C			· · · · · · · · · · · · · · · · · · ·
Sampling Time: Purging Flow Rate	- <del> </del>		r: <u>CLOUTY</u> Description:		)dor:	
Did well de-water	<u> </u>	<del></del>	ne:		e:	(gal.)
· ·	olume pH gal.)	Conductivity  µmhos/cm	Temperature	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
15:23	3 736	1048	MIL			
15:133	3 7.36 10 7.21	1048	71.1 70.5 608			
15:23	3 7.36 10 7.21 20 7.16 24 7.13	1048	70.5 69.8 69.6			
15:133 15:131 15:149 15:149	3 7.36 10 7.21 20 7.16 24 7.13	1048 962 975 939	70.5 60.8 60.8			
15:33 15:31 15:49 15:49	3 7.36 10 7.21 20 7.13 24 7.13 27 7.15	1048 962 975 939 939	71.1 70.5 69.8 69.8 69.5			
15:23 15:31 15:49 15:54 15:59	3 7.36 10 7.21 20 7.13 24 7.13 27 7.15 30 7.13	1048 962 975 939 939	70.5 69.8 69.8 69.5			
15:193 15:191 15:191 15:151 15	3 7.36 10 7.21 20 7.16 24 7.13 27 7.15 30 7.19	1048 962 975 939 939	71.1 70.5 69.8 69.8 69.5			
15154 15154 15158	30 7113	ABORATORY INF	•	MA	ANALY	'SES
15:193 15:149 15:149 15:54 15:58	30 7113		•	MA	ANALY	TSES
15154 15154 15158	30 7113		•	MA	ANALY	'SES

### WELL MONITORING/DEVELOPMENT FIFLD DATA SHEET

Client/ CH Facility # Address: 16 City: 5A	304	\$134 FOOTH	u Blv		9/1,	461.1 100 VORK	
Well ID	MW.	-13	Well Condit	ion: NE	w		
Well Diameter	2	in.	Hydrocarbo Thickness:	" ( <i>/</i>	Amount Bai	<u> </u>	(gal.)
Total Depth	34.	00 m	Volume	2" = 0.17	3" = 0.38	4"	= 0.66
Depth to Water	11.	57m	Factor (VF)	6" = 1.		12" = 5.80	
	22	143x VF	0.17.3.	X 3 (case volume) =	Estimated Purp	ge Volume:	38 (gal.)
Purge Equipment:	Disposa Bailer Stack Suction Grundfo Other:	s		N/A Bail Pre	ssure Bailer ib Sample		
Starting Time: Sampling Time Purging Flow F Did well de-wa	late: 🌊	10	Water ( opm. Sedime If yes;	er Conditions: Color: ent Description: Time:	<u> </u>	Odor:	(qal,) Alkalinity
Time	Volume (gal.)	pН	Conductivity  µmhos/cm	Temperature	(mg/L)	(mV)	(ppm)
13:24 13:31 13:42 13:51 14:00	4 10 20 28 36 40	7.45 7.36 7.32 7.34 7.31 7.38	639 677 679 673 668 671	69.7 69.3 68.8 69.0 68.8			
		<u></u>		(	MA		
SAMPLE ID /	(#) - CON			INFORMATION ( RV. TYPE LABOR	TATORY (T	ANALY	SES
			<b>/</b>		<del> }</del>		/
<del></del>		$\rightarrow \downarrow \swarrow$					
COMMENTS:	<del>\</del>				·		

### WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/ Facility CHE	EVRON#9	-8139	Job#:	3466	+61,	m 6
	304 Fao 1			9:/1/	/ 00	<u> </u>
	U LEAN!			H. KAN		<u>-</u>
City:	0 0011700	×100, =11	Sampler:		01117	
Well ID	MW-14	Well Condition	on: NE	EW		
Well Diameter		Thickness		Amount Ba		8
Total Depth	29,50 m	Volume	2" = 0.17			( <u>qal.)</u> 4" = 0.66
Depth to Water	11.96 #	Factor (VF)	6" <b>=</b> 1	.50	12" = 5.80	
	14.54x	VF 0.17-2.9	X 2 (case volume) =	Estimated Purg	je Volume: _	30 (gal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Pre Gra	posable Bail ler ssure Bailer ıb Sample	er	
Starting Time:	14:20	O Weather	Conditions: _C	LOUD	Υ	
Sampling Time:	-N/A		lor:		Odor:	
Purging Flow Rate		<u>oom.</u> Sediment	Description:	<del>-</del>		
Did well de-water	13 <u>NO</u>	If yes; T	ime:	Volum	e:	(ga(,)
	olume pH gal.)	Conductivity µmhos/cm	Temperature O	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
14:23 14:34 14:44 14:53	3 7.30 0 7.27 18 7.27 24 7.21	692 662 659	72.0			
14:58 2	27 7.20 30 7.18	660	70.4			
15:102 2	7.18	LABORATORY INF	_	N/A	ANALYS	SES
15:102 2	7.18	LABORATORY INFRESERV.	_	N/A TORY	ANALYS	SES.
15:102 2	7.18		_	N/A TORY	ANALYS	SES

# APPENDIX E WELLHEAD SURVEY REPORT

#### Virgil Chavez Land Surveying

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

September 18, 2000 Project No. 1904-02

Barbara Sieminski Gettler-Ryan, Inc. 6747 Sierra Ct., Ste. G Dublin, Ca. 94568

Subject: Monitoring Well Survey Chevron SS# 9-8139 16304 Foothill Blvd. San Leandro, CA

#### Dear Barbara:

This is to confirm that we have proceeded at your request to survey the new wells located at the above referenced site. The survey was performed on September 16, 2000. The benchmark used for the survey was a copper disc set in the top of headwall on the east side of Foothill, approx. 158 feet south of Miramar Ave., stamped EBMUD 17B. The station and offset data are relative to the front edge of concrete for the gas dispenser island area, looking southerly. Measurements were taken at approximate north side of top of box and top of casing.

Benchmark Elevation = 127.162 feet, NAVD 29.

	Rim	TOC		
Well No.	Ele <u>vation</u>	<u>Elevation</u>	<u>Station</u>	<u>Offset</u>
MW - 12	122.93'	122.36'	1+59.74	124.46(Rt)
MW - 13	121.99'	121.49'	0+38.64	120.92(Rt)
MW - 14	122.52'	122.04'	1+00.71	122.73(Rt)
EW - 2	125.93'	125.52'	0+57.48	6.63(Rt)
EW - 3	125.75'	125.21'	1+03.61	7.99(Rt)
W. Cor. D			0+00	0.00
S. Cor. D	<b>-</b>		0+43.6	0.00
E. Cor. D			0+43.6	-57.6 (Lt)

Sincerely,

ringil D Chavez, PLS 6323

#### APPENDIX F

# LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY RECORDS

24 August, 2000

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

RE: Chevron Sequoia Report W008342

Enclosed are the results of analyses for samples received by the laboratory on 14-Aug-00 16:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271



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

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

Dublin CA, 94568

Project: Chevron

Project Number: Chevron #9-8139

Project Manager: Barbara Sieminski

**Reported:** 24-Aug-00 16:05

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW13-16	W008342-01	Soil	09-Aug-00 11:30	14-Aug-00 16:40
MW13-21	W008342-02	Soil	09-Aug-00 12:00	14-Aug-00 16:40
MW14-16	W008342-03	Soil	09-Aug-00 16:25	14-Aug-00 16:40
MW14-21	W008342-04	Soil	09-Aug-00 16:35	14-Aug-00 16:40

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.

Charlie Westwater, Project Manager

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski

**Reported:** 24-Aug-00 16:05

## 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
MW13-16 (W008342-01) Soil	Sampled: 09-Aug-00 1	1:30 Receiv	ed: 14-A	ug-00 16:4	0		<del> </del>		
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H16002	16-Aug-00	16-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	11	77	4	"	,	**	
Toluene	ND	0.0050	"	11		tf		H	
Ethylbenzene	ND	0.0050	,	"	*	u	n	н	
Xylenes (total)	ND	0.0050	**	H		н	h	π	
Methyl tert-butyl ether	ND	0.050	**	н	**	"	11	*	
Surrogate: a,a,a-Trifluorotoluer	1e	102 %	40	140	ır	"	"	"	
MW13-21 (W008342-02) Soil	Sampled: 09-Aug-00 1	2:00 Receiv	ed: 14-A1	ug-00 16:4	0				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H16002	16-Aug-00	16-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	n	"	**	"	"	n	
Toluene	ND	0.0050	rt	"		h	11	"	
Ethylbenzene	ND	0.0050		н	**	77	Ħ	n	
Xylenes (total)	ND	0.0050	**	"	II .	н	**	**	
Methyl tert-butyl ether	ND	0.050	н	**	п	19	**	"	
Surrogate: a,a,a-Trifluorotoluen	ie	101 %	40-	140	,,	"	"	"	<del></del>
MW14-16 (W008342-03) Sail	Sampled: 09-Aug-00 1	6:25 Receive	ed: 14-Au	ıg-00 16:4	0				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H16002	16-Aug-00	17-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	Ħ	I)	11	, "	11	*	
Toluene	ND	0.0050	*	11	n		#	п	
Ethylbenzene	ND	0.0050	11	**	II	"	•	It.	
Xylenes (total)	ND	0.0050	н	•	n	w	*	n.	
Methyl tert-butyl ether	2.9	0.050	n .	•	"	**	"	11	
Surrogate: a,a,a-Trifluorotoluen	ne	90.7 %	40-1	140	"	"	#	,,	



6747 Sierra Court Suite J

Dublin CA, 94568

Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 24-Aug-00 16:05

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

### Sequoia Analytical - Walnut Creek

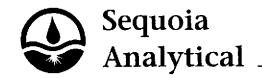
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW14-21 (W008342-04) Soil	Sampled: 09-Aug-00 16	:35 Receiv	ed: 14-A	ug-00 16:4	0			· · · · · · · · · · · · · · · · · · ·	
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H16002	16-Aug-00	17-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	п	*	Ħ	н		#	
Toluene	ND	0.0050	Ħ	#	Ħ	Ħ	н	**	
Ethylbenzene	ND	0.0050	11	**	11	Ħ	**	#	
Xylenes (total)	ND	0.0050	11		u	"	"	₩	
Methyl tert-butyl ether	0.13	0.050	н	n	**	•	n		
Surrogate: a,a,a-Trifluorotoluen	ne	94.0 %	40-	140	"	,,	"	"	

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 24-Aug-00 16:05

## 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
Batch 0H16002 - EPA 5030B [MeOH]			-			_				
Blank (0H16002-BLK1)				Prepared	& Analyz	ed: 16-Au	g-00			<del></del>
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	n							
Toluene	ND	0.0050	*							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	н							
Methyl tert-butyl ether	ND	0.050								
Surrogate: a,a,a-Trifluorotoluene	0.604		"	0.600		101	40-140			
LCS (0H16002-BS1)				Prepared	& Analyz	ed: 16-Au	g <b>-0</b> 0			
Benzene	0.698	0,0050	mg/kg	0.800		87.3	50-150			
Toluene	0.738	0.0050	**	0.800		92.2	50-150			
Ethylbenzene	0.794	0.0050	*	0.800		99.3	50-150			
Xylenes (total)	2.35	0.0050	П	2.40		97.9	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.692		"	0.600		115	40-140			
Matrix Spike (0H16002-MS1)	So	urce: W0081	65-04	Prepared	& Analyze	ed: 16-Au	g-00			
Benzene	0,534	0.0050	mg/kg	0.800	ND	66.7	50-150			
Toluene	0.558	0.0050	•	0.800	ND	69.8	50-150			
Ethylbenzene	0.584	0.0050	"	0.800	ND	73.0	50-150			
Xylenes (total)	1.76	0.0050		2,40	ND	73.3	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.652		Ħ	0.600		109	40-140			
Matrix Spike Dup (0H16002-MSD1)	So	urce: W0081	65-04	Prepared	& Analyze	ed: 16-Au	g-00			
Benzene	0.516	0.0050	mg/kg	0.800	ND	64.5	50-150	3.43	20	
Toluene	0.548	0.0050	"	0.800	ND	68.5	50-150	1.81	20	
Ethylbenzene	0.580	0.0050	"	0.800	ND	72.5	50-150	0.687	20	
Xylenes (total)	1.74	0.0050	*	2.40	ND	72.5	50-150	1.14	20	
Surrogate: a, a, a-Trifluorotoluene	0.636	<del></del>	"	0.600		106	40-140			



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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported: 24-Aug-00 16:05

#### **Notes and Definitions**

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

Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: M No Chevron Contact (Name) Tom Bauhs Chevren Facility Humber 9-8139 (Phono) [925 \842-8898 FOOTHY Address 16304 Foothill Blod, San Leandro Consultant Project Number 346461.05 Laboratory Name Seguoia Chevron U.S.A. Inc. P.O. BOX 5004 Consultant Name Getter- Ryan Inc Laboratory Release Number\_ Samples Collected by (Home) Barbara Sieminski San Ramon, CA 94583 Morano 6747 Sierra Ct. SteG. Dublin CA 94568 FAX (415)842-9591 Project Contact (Home) Barbara Sieminski Collection Date 08/09/00
Signature (Phone) (925) 551-7555 (Fex Number) (925) 551-7888 3020 + 3015) Analyses To Be Performed Purperble Helecarbons (8010) Purgeable Arometica (8020) Purgeable Organica (8240) Extractable Organi (8270) • Oil and Grease (5520) 900 Remarks Yes MW13-6 11:00 11:20 MW13-11 11:30 MW13-16 12:00 MW13-21 MW13-26 12:15 لحامم MW13-31 12:40 HW14-6 رکند MW14-II 16:11 MW14-16 16:25 MW14-21 16 35 MW14-245 16:45 hold 17:00 MW14-29.5 Date/Time/ Turn Around Time (Circle Cholce) Received By (Signature) Organization Relinquished By (Signature) Organization Date/Time 8.14/160 509 GR 08/14/00 Dorbone Dilwirk 24 Hre. 68 Hre. Dale/Time Date/Time 8-14/1640 Relinquished By (Signature) Organization Received By (Signature) Organization 5 Days 10 Doye Date/Time Organization Date/Time Recleved For Laboratory By (Signature) Relinquished By (Signature) The Contracted e1/14/016:40



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

Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 05-Sep-00 07:42

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-12-11	W008478-01	Soil	18-Aug-00 10:40	21-Aug-00 16:25

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.

Charlie Westwater, Project Manager

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 05-Sep-00 07:42

# 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
MW-12-11 (W008478-01) Soil	Sampled: 18-Aug-00	10:40 Recei	ved: 21-A	ug-00 16:2	25				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H23002	23-Aug-00	24-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	#	**	•	"	"	n	
Toluene	ND	0.0050	n	n	**	"	n	If	
Ethylbenzene	ND	0.0050		**		н	Ħ	11	
Xylenes (total)	ND	0.0050		u	н	#	*	п	
Methyl tert-butyl ether	ND	0.050		ч	"	11	*	70	
Surrogate: a,a,a-Trifluorotoluen	e	83.0 %	40-1	40	ır	"	,,	"	



6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 05-Sep-00 07:42

RPD

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

Spike

Source

%REC

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0H23002 - EPA 5030B [MeOH]										
Blank (0H23002-BLK1)				Prepared	& Analyz	ed: 23-Au	g-00			
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	u							
Toluene	ND	0.0050								
Ethylbenzene	ND	0.0050								
Xylenes (total)	ND	0.0050	10							
Methyl tert-butyl ether	ND	0.050	19							
Surrogate: a,a,a-Trifluorotoluene	0.430		"	0.600		71.7	40-140			<del></del>
LCS (0H23002-BS1)				Prepared	& Analyz	ed: 23-Au	g-00			
Benzene	0,846	0,0050	mg/kg	0.800		106	50-150			
Toluene	0.866	0.0050	n	0.800		108	50-150			
Ethylbenzene	0.910	0.0050	H	0.800		114	50-150			
Xylenes (total)	2.68	0.0050	n	2.40		112	50-150			
Surrogate: a, a, a-Trifluorotoluene	0.588		"	0.600		98.0	40-140			
Matrix Spike (0H23002-MS1)	Sou	rce: W0084	100-05	Prepared:	23-Aug-0	0 Analyz	ed: 24-Au	g-00		
Benzene	1.10	0.0050	mg/kg	0.800	ND	138	50-150		<del></del>	
Tolyene	1.14	0.0050	"	0.800	ND	142	50-150			
Ethylbenzene	1.19	0.0050	**	0.800	ND	149	50-150			
Xylenes (total)	3.51	0.0050	**	2.40	ND	146	50-150			
Surrogate: a, a, a-Trifluorotoluene	0.472			0.600		78.7	40-140	33 8/-		
Matrix Spike Dup (0H23002-MSD1)	Sou	rce: W0084	100-05	Prepared:	23-Aug-0	0 Analyz	ed: 24-Au	g-00		
Benzene	1.12	0,0050	mg/kg	0.800	ND	140	50-150	1.80	20	
Toluene	1.14	0.0050	44	0.800	ND	142	50-150	0	20	~
Ethylbenzene	1.20	0.0050	11	0.800	ND	150	50-150	0.837	20	
Xylenes (total)	3.51	0.0050	и	2.40	ND	146	50-150	0	20	
Surrogale: a, a, a-Trifluorotoluene	0.474		<sub>p</sub>	0.600		79.0	40-140			



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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported:

05-Sep-00 07:42

#### **Notes and Definitions**

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

LI Yes Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: M No Chevron Contest (Nome) Tom Baulis Chevron Facility Number 9-8139 (Phone) (925)842-8898 FOOTHY Address 16304 Foothill Blood, San Leandro Laboratory Name Sergusia Was 178 Chevron U.S.A. Inc. Consultant Project Number 346461.05 P.O. BOX 5004 Consultant Name Getter- Ryan The Laboratory Release Number\_ Samples Collected by (Name) Barbara Sieminski Morros 6747 Sierra Cf. SteG, Dublin CA 94568 San Ramon, CA 94583 FAX (415)842-9591 Collection Date 08/18/00
Signature 8 Communication Project Contoct (Name) Barbara Siewinski (Phone) (925) 551-7555 (Fax Number) (925) 551-7888 Metric S = Sol A = Ar X = Mr X = Weight C = Charcool

Type G = Grab

C = Composite

C = Composite Analyses To Be Performed ### CAST | FEB CAST | Remerks ndd Yes 10:30 HW12-6 10:40 M-D-M 10:55 HW12-16 11:25 MW12-21 11:35 MW12-245 hi:u< MW12-275 Bale/Time / 8-21/15:30 Turn Around Time (Circle Choles) Organization Received By (Signature) Organization Date/Time Refinquished By (Signature) Bostono D'eminai OP/21/00 Scar G-R 24 Hrs. Organization 48 Hre. Date/Time/ 8-21/1675 Received By (Signature) Organization Relinguished By (Signature) 5 Doye Seg 10 Days Date/Time Date/Time Regioned For Laboratory By (Signature) As Contracted Organization Relinguished By (Signature) 8/21kg 16 2



23 August, 2000

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

RE: Chevron Sequoia Report W008469

Enclosed are the results of analyses for samples received by the laboratory on 21-Aug-00 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater Project Manager

CA ELAP Certificate #1271



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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported:

23-Aug-00 11:40

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP-(A-D)	<b>W</b> 008469-01	Soil	18-Aug-00 12:50	21-Aug-00 16:25

Sequoia Analytical - Walnut Creek

custody document. This analytical report must be reproduced in its entirety.

The results in this report apply to the samples analyzed in accordance with the chain of

Charlie Westwater, Project Manager

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported:

23-Aug-00 11:40

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

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-(A-D) (W008469-01) Soil	Sampled: 18-Aug-00 12:50	Receive	d: 21-Aug	-00 16:25	<u> </u>				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0H22002	22-Aug-00	22-Aug-00	EPA 8015/8020	
Benzene	ND	0.0050	**			n	*	19	
Toluene	ND	0.0050	**		10	н	**	19	
Ethylbenzene	ND	0.0050	11	•	"	**	**	п	
Xylenes (total)	ND	0.0050	11	"	*	H	"	10	
Methyl tert-butyl ether	ND	0.050	н	#1	**	n	**	•	
Surrogate: a.a.a-Trifluorotolue	ne	95.0 %	40-1	40	*	"	"	"	



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

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 23-Aug-00 11:40

### 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
Batch 0H22002 - EPA 5030B [MeOH]										
Blank (0H22002-BLK1)				Prepared	& Analyz	ed: 22-Au	g-00			
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	I†							
Toluene	ND	0.0050	n							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	н							
Surrogate: a, a, a-Trifluorotoluene	0.608			0.600		101	40-140			
LCS (0H22002-BS1)				Prepared	& Analyz	ed: 22-Au	g-00			
Benzene	0.634	0.0050	mg/kg	0.800		79.2	50-150			
Toluene	0.662	0.0050	"	0.800		82.7	50-150			
Ethylbenzene	0.704	0.0050	u	0.800		88.0	50-150			
Xylenes (total)	2.09	0.0050	**	2.40		87.1	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.622		Ħ	0.600		104	40-140			
Matrix Spike (0H22002-MS1)	S	ource: W0084	41-01	Prepared	& Analyz	ed: 22-Au	g-00			
Benzene	0.658	0.0050	mg/kg	0.800	ND	82.2	50-150		-	
Toluene	0.700	0.0050	II	0.800	ND	87.5	50-150			
Ethylbenzene	0.742	0.0050	"	0.800	ND	92.7	50-150			
Xylenes (total)	2.19	0.0050	Ħ	2.40	ND	91.2	50-150			
Surrogate: a,a,a-Trifluorotoluene	0,526		"	0.600	•••	87.7	40-140			
Matrix Spike Dup (0H22002-MSD1)	S	ource: W0084	141-01	Prepared	& Analyz	ed: 22-Au	g-00			
Benzene	0.690	0.0050	mg/kg	0.800	ND	86.2	50-150	4.75	20	
Toluene	0.732	0.0050	**	0.800	ND	91.5	50-150	4.47	20	
Ethylbenzene	0.774	0.0050	"	0.800	ND	96.7	50-150	4.22	20	
Xylenes (total)	2.29	0.0050	**	2.40	ND	95.4	50-150	4.46	20	
Surrogate: a,a,a-Trifluorotoluene	0.556		,,	0.600		92.7	40-140			



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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported: 23-Aug-00 11:40

Natas and Definitions

#### **Notes and Definitions**

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

Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: M No Chevron Contact (Name) Tom Bauks Chevron Facility Humber 9-8139 (Phono) (925) 842 - 8898 Facility Address 16304 Foothill Blod, San Leanbro Laboratory Name Segusia WooB 969 Consultant Project Number 346461.05 Chevron U.S.A. Inc. Consultant Home Gettler-Ryan Inc. Address 6747 Sierra Cf. Ste G. Dublin, CA 94568 P.O. BOX 5004 Laboratory Release Humber ..... Samples Collected by (Hame) Barbara Sieminski San Ramon, CA 94583 Collection Date 08/18/00 Project Conloct (Name) Barbara Siewinski FAX (415)842-9591 (Phone) (925) 551-7555 (Fax Number) (925) 551-7888 Number of Containers

Verific = Soil A = Air

Water C = Charcod

G = Grab

G = Grab Analyses To Be Performed (8020 + 8015) TPH Elevel
(8015)
Oil and Grecoe
(5520)
Purpeable Holocarbora
(8010)
Purpeable Aramordice
(8020)
Extractable Organice
(8240)
Extractable Organice
(8270)
Extractable Organice
(8270) Remorks Yes 12:50 016-0 SP-A72 12:52 SP-B 1 12:54 12:00 Turn Around Time (Circle Choice) Date/Time Organization Received By (Signature) Date/Time 8.21/150 Organization Reinquished By (Signature) Seg 24 Hrs. 08/21/00 Barboro A'luinh 45 Hrs. Dole/Time Organization Date/Time Received By (Signature) 6 Dore Organization Relinquished By (Signature) 10 Doye An Contracted Date/Time Recleved For Laboratory By (Signature) Date/Time Organization 8/21/60 16:2: Relinquished By (Signature) cho (n)



29 August, 2000

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

RE: Chevron Sequoia Report W008469

Enclosed are the results of analyses for samples received by the laboratory on 21-Aug-00 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater Project Manager

CA ELAP Certificate #1271



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

Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported:

29-Aug-00 13:28

#### ANALYTICAL REPORT FOR SAMPLES

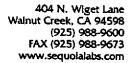
Sample ID	Laboratory ID	Matrix	Date Sampled Date Received
SP-(A-D)	W008469-01	Soil	18-Aug-00 12:50 21-Aug-00 16:25

Sequoia Analytical - Walnut Creek

Charlie Westwater, Project Manager

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.

Page 1 of 4





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

Dublin CA, 94568

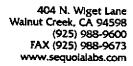
Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported: 29-Aug-00 13:28

### Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SP-(A-D) (W008469-01) Soil	Sampled: 18-Aug-00 12:50	Receive	d: 21-A1	ıg-00 16:25					
Lead	22	1.0	mg/kg	1	0H28007	28-Aug-00	29-Aug-00	EPA 6010A	





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

Project: Chevron

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski Reported: 29-Aug-00 13:28

### 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 Limits	RPD	RPD Limit	Notes
Batch 0H28007 - EPA 3050B				-						
Blank (0H28007-BLK1)	07-BLK1) Prepared: 28-Aug-00 Analyzed: 29-Aug-00									
Load	ND	1.0	mg/kg							
LCS (0H28007-BS1)		Prepared: 28-Aug-00 Analyzed: 29-Aug-00								
Lead	51.5	1.0	mg/kg	50.0	<del></del>	103	80-120			
LCS Dup (0H28007-BSD1)	Prepared: 28-Aug-00 Analyzed: 29-Aug-00									
Lead	53.0	1.0	mg/kg	50.0		106	80-120	2.87	20	·





Project: Chevron

6747 Sierra Court Suite J Dublin CA, 94568

Project Number: Chevron #9-8139 Project Manager: Barbara Sieminski **Reported:** 29-Aug-00 13:28

#### **Notes and Definitions**

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



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

### REQUEST TO RELOG SAMPLES 232-9612

(Please submit to sample control with a copy of the COC)

CLIENT: GELTLER HAN MATRIX: SOLL	<del></del>
PREVIOUSLY LOGGED SAMPLES	
Change status to:  Change status as of Day: 8-28-00 Time: 3 Towns	
CHANGE ANALYSES	
Add Analyses Cancel Analyses	
Sequoia Project ID: WOOGUO	
Sample Number Analyses W008469-01	
	<del></del>
SAMPLES ON HOLD	
Sample Description - Analyses	
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Client Authorization (Person/Date/Time): Steve CARTER 8-38-30 3	<u></u>
Project Manager: Dimple Sharma	

Fax co	py of	Lab	Rep	ort c	ind (	COC to	Che	vron	Со	ntas	t: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	No	)			<u>C</u>	<u>ıair</u>	1-0	<u>f-C</u>	<u>Cust</u>	<u>ody-</u> [	Record
Chevron U. P.O. BOX San Ramon, FAX (415)8	5004 CA 94583	Cherron Facility Number 9-8139										<u>-   8</u>	Chevron Contect (Name) 10m Daums  (Phone) (925) 842 - 8898  Laboratory Name Sequesia (1008469)  Laboratory Release Number Samples Collected by (Name) Barbara Silminski  Collection Date 08/18/02									
Sample Number	Lab Sample Number	Humber of Containers	Metts S = Sol A = Air W = Water C = Charcool	Type G == Grab C == Composite C == Discrete	Time	Sample Preservation	load (Yee or No)	1 t					Purgachie Organice	Extractable Organics of (8270)	CACYPLZALM CACYPLZALM (NOW or AN)						Ren	norks
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Barbara Aluinh G-K				Date Time Received By (Signature)						Seq. Organization						1	48 Hre.					
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