ShD 4100

Chevron

Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500 Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

March 24, 1993

Ms. Eva Chu Alameda County Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Re: Former Chevron Service Station No. 9-7127 Highway I-580 and Grantline Rd. Tracy, California

Dear Ms. Chu:

Enclosed is a report from Pacific Environmental Group (PEG) dated March 22, 1993. This report documents the results of the recent soil and groundwater investigation at the above referenced site.

Briefly, three groundwater monitoring wells (MW-1 through MW-3) were installed, and one additional boring was drilled. Water samples were collected from only two of the wells. One of the wells (MW-1) contained liquid hydrocarbons. Monitoring well MW-2 did not detect any dissolved hydrocarbons but well MW-3 did detect dissolved hydrocarbons at 19000 ppb total petroleum hydrocarbon as gasoline (TPH-G), 8900 ppb benzene, 660 ppb toluene, 380 ppb ethylbenzene, and 720 ppb xylenes. Depth to water level measurements not including MW-1 were 28.59 and 30.69 feet. Soil samples were collected, and the results show one sample, MW-1 at 29 feet, with 8100 ppm TPH-G, 21 ppb benzene, 560 ppb toluene, 150 ppb ethylbenzene, and 840 ppb xylenes. The sample above the same boring had 2600 ppm TPH-G, 79 ppm benzene, 30 ppm ethylbenzene, and 200 ppm xylenes. The remaining samples were either nondetect (ND) or had concentrations ranging from 0.0056 to 4 ppm.

As it was stated to you earlier in February, Chevron has instructed PEG to conduct weekly bailing of the liquid hydrocarbon from MW-1. To this date, approximately 6.7 liters (1.77 gals.) of liquid hydrocarbon were recovered. In addition, Chevron has instructed PEG to install a passive skimmer to aid in the recovery of the liquid hydrocarbons. Approximately, 1.05 liters (1.11 qts.) were recovered in addition to the 6.7 liters recovered from the weekly bailing. The liquid hydrocarbon in MW-1 was reduced to a sheen and bailing has also been reduced to every other week. At this time, based on the amount of hydrocarbons being recovered, the bailing frequency was reduced to once a month. Chevron has also instructed PEG to sample the nearby supply well on a weekly basis. To this date, all results with the exception of one (1) event show TPH-G, benzene, toluene, ethylbenzene, and xylenes as nondetect (ND).

Chevron will continue to bail the liquid hydrocarbons on a monthly basis and continue to sample the supply well on a weekly basis.

Chevron has removed all underground storage tanks and product lines at the site. Furthermore, Chevron has done extensive excavation in the vicinity of the former product lines and tank area when the tanks and lines were removed.

.

Page 2 Former Chevron Service Station 9-7127 Tracy March 23, 1993

Chevron has notified the owner of the supply well of this situation.

Please refer to the report for additional information. If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

enn

Kenneth Kan Engineer

LKAN MacFile 9-7127R3

Enclosure

cc: Mr. Eddy So RWQCB-S.F.Bay Region 2101 Webster Street, Suite 500 Oakland, CA 94612

> William S. Carnazzo, M.D. Carnazzo Land Company, Inc. P.O. Box 6031, Atascadero, CA 93423

Ms. Bette Owen Chevron U.S.A.Products Co.



PACIFIC ENVIRONMENTAL GROUP INC.

March 22, 1993 Project 325-04.01

Mr. Kenneth Kan Chevron U.S.A. Products Company P.O. Box 5004 San Ramon, California 94583-0804

Re: Former Chevron U.S.A. Service Station 9-7127 Highway I-580 at Grant Line Road Tracy, California

Dear Mr. Kan:

This report presents the results of a recent soil and groundwater investigation performed by Pacific Environmental Group, Inc. (PACIFIC) at the site referenced above. This investigation was performed in response to the Alameda County Health Care Services (ACHCS) letter dated June 5, 1991 which required further investigation of hydrocarbons detected beneath the tank complex. The investigation was performed in accordance with the PACIFIC Work Plan dated July 3, 1991 and Work Plan Addendum dated October 20, 1992.

This report includes a discussion of site background, regional hydrogeologic setting, previous site investigations, scope of work, and findings. Field and analytical procedures are presented as Attachment A. Boring logs and well completion data are presented as Attachment B. Certified analytical reports and chain-of-custody documentation are presented as Attachment C.

BACKGROUND

The site is a former Chevron U.S.A. service station and is located at the southeast corner of the junction between Grant Line Road and I-580 in Tracy, California (Figure 1). The site lies adjacent the freeway and is situated within rolling foothills northwest of Tracy. With the exception of a water-supply well, all site improvements have been removed. The site is currently used for cattle-grazing. Grant

3/26/93 Need: D'determine GW Contam.phine v) CAP

March 22, 1993 Page 2

Line Road terminates at the south-end of the site creating a cul-de-sac which commuters use for daily parking.

The station was operational for 15 years, between 1971 and 1986. The service station had three underground gasoline storage tanks (two 9,500-gallon and one 5,750-gallon) in a common excavation. Based on the extent of backfill materials northeast of the tank complex, it appears that the fuel tank complex may have formerly contained a fourth tank. A 1,500-gallon waste oil tank and a 850-gallon heating fuel tank were located in a common excavation northeast of the station building (Figure 2). All tanks were constructed of single-walled fiberglass. The underground tanks and associated piping were removed on April 4, 1991.

REGIONAL HYDROGEOLOGIC SETTING

The site is located in a small basin in the eastern foothills of the Diablo Range, in eastern Alameda County, California. The Diablo Range is a northwest-southeast trending range of mountains bounded to the west by the flatlands of the San Francisco Bay area, and to the east by the San Joaquin Valley. Site elevation is approximately 326 feet above mean sea level.

The site is underlain by approximately 6 to 17 feet of fill and Quaternary alluvial fan and fluvial deposits which overly bedrock. Bedrock in the vicinity of the site belongs to two formations, the Upper Cretaceous Panoche Formation and the Miocene Neroly Formation (Bishop, 1970). The Panoche Formation was not encountered during drilling activities, but has been mapped to the northwest and west of the site. The Neroly Formation has been described as a marine blue to gray sandstone, which is pebbly in some locations (Dibblee, 1980).

PREVIOUS SITE INVESTIGATIONS

Previous work has been conducted at the site by EA Engineering Science and Technology (EA), Kleinfelder Associates (Kleinfelder), Gettler-Ryan Inc. (Gettler-Ryan), and GeoStrategies Inc. (GeoStrategies). The following is a description of previous investigations and findings.

 EA conducted a soil vapor investigation at the site in October 1987. Thirteen soil vapor points were sampled. Soil vapor concentrations ranged from nondetectable to 28,500 parts per million (ppm). The highest concentrations were detected in the vicinity of the gasoline storage tank complex and associated product piping (EA, November 13, 1987).

3250401/REPORT

 In December 1987, Kleinfelder conducted a site investigation which consisted of drilling seven soil borings to depths ranging from 6 to 20 feet. Kleinfelder encountered auger refusal at these depths due to the sandstone bedrock which underlies the surficial fill beneath the site.

Soil samples were collected for laboratory analysis from these borings within the surficial fill. Total petroleum hydrocarbons calculated as gasoline (TPH-g) was detected in soil samples at concentrations ranging from non-detectable to 2,300 ppm. The highest concentrations were detected in the northeast end of the gasoline tank complex backfill at a depth of 14 to 15 feet below ground surface (bgs) (Kleinfelder Associates, January 6, 1988).

Kleinfelder conducted a well survey to identify documented water-supply wells (in addition to the water-supply well located on site) in the vicinity of the site. This survey identified two nearby wells; the first is located approximately 1/2 mile southeast of the site on the opposite side of a hill, and would not be expected to be impacted by site conditions. The second well is located approximately 300 yards uphill (upgradient) of the site. This well was reportedly damaged in 1980 and is not used.

- o In May 1989, Gettler-Ryan installed a carbon adsorption treatment system on the on-site water-supply well, and performed subsequent sampling of the treated well water. Gettler Ryan's sampling data is included in reports prepared by GeoStrategies dated September 14, 1989, October 1, 1990, and April 9, 1991.
- On April 4, 1991, Golden West Builders removed the five underground storage tanks and the product lines from the site. Blaine Tech Services, Inc. (Blaine) visually inspected the tanks and collected and analyzed soils from the tank and product line excavations. At this time, Chevron initiated overexcavation activities. Overexcavation was limited; however, due to the sandstone bedrock, which was not rippable with the excavating equipment.

The results of the tank inspection and the results of soil samples collected and analyzed from the tank and product line excavations are documented in Blaine's report of June 24, 1991 and are summarized below.

3250401/REPORT

A detailed inspection of each tank was conducted following their removal from the excavation. The tanks were visually inspected and likely failure points were probed with small pointed metal examination tools. No holes were observed in any of the tanks. A total of 33 soil samples were collected from the tank and product line excavations (8 samples from the tank excavation, 2 from the product line excavation, 2 from the dispenser island locations, and 21 stockpiled soil samples). Analysis of these soil samples included TPH-g, benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), and waste oil tank parameters.

The results of the soil analytical data from the soil samples collected beneath the tank complex and product lines indicated that hydrocarbon-affected soils are primarily limited to the northeast and southern portion of the tank complex. TPH-g concentrations in these areas range from 710 to 5,700 ppm. Overenceva-tion of contaminated areas was performed to remove elevated levels of hydrocarbons, but was limited at approximately 14 feet bgs due to encountered bedrock.

The results of soil analytical data from the soil samples collected beneath the waste oil tank were not detected at a depth of 11 to 18 feet for the following parameters: TPH-g, BTEX compounds, TPH-d, volatile organics, and waste oil.

Under the direction of Chevron, soils generated from the excavation activities were stockpiled and aerated on site until concentrations were reduced to less than 10 ppm TPH-g. The aerated soils, along with the clean overburden materials, were used to backfill the excavations.

SCOPE OF WORK

Based on the gasoline contamination detected within the former tank excavation, the ACHCS requested a preliminary contaminant assessment to be initiated at the site. The ACHCS is the local implementing agency in this area.

The specific scope of work for this investigation is summarized below.

Groundwater Monitoring Well Installation. Three groundwater monitoring wells designated MW-1, MW-2, and MW-3 were installed on site (Figure 2) to enable determination of the groundwater flow direction beneath the site, and to investigate groundwater conditions. These wells were screened from approximate depths of 21 to 37.5 feet bgs. After a minimum 24-hour waiting period, the groundwater monitoring wells were developed, depth to groundwater measurements were taken, and groundwater samples were collected for laboratory analysis.

March 22, 1993 Page 5

- o Soil Boring. Soil Boring B-1 was drilled south of the former tank complex to determine the lateral extent of hydrocarbons in this area. This boring was drilled to 22 feet bgs. Groundwater was not encountered. The soil boring for Well MW-1 was drilled in the northern portion of the tank complex. The purpose of this boring was to determine the vertical extent of hydrocarbons beneath the tank complex. Additional exploratory soil borings were outlined by ACHCS; however, after discussion with an ACHCS representative in the field, it was concluded that these borings were unnecessary based on the findings of Well MW-1 which indicated that hydrocarbons beneath the tank complex had penetrated the underlying bedrock.
- Soil Analysis. Soils analyzed from Boring B-1 were collected at depths between 7 and 21.5 feet bgs. Soils analyzed from Boring MW-1 were collected between 19 and 38.5 feet bgs. These soil samples were analyzed for TPH-g and BTEX compounds.

Soils were not analyzed from the boring for Wells MW-2 or MW-3 because these wells were not located in potential source areas. In addition, no odor was detected in either boring with the exception of capillary fringe samples from Well MW-Stat a depthof approximately 30 feet.

 Groundwater Analysis. Groundwater samples were collected from site Wells MW-2 and MW-3. These samples were analyzed for TPH-g and BTEX compounds (EPA Methods 8020 and 8015). Groundwater was not sampled from Monitoring Well MW-1 due to the presence of separate-phase hydrocarbons (SPH).

FINDINGS

The following sections summarize the results of PACIFIC's soil and groundwater investigation.

Subsurface Conditions

Borings encountered primarily sand, clayey sand, and clay-fill to depths of 2.5 to 17 feet bgs, which is underlain by sandstone bedrock to the total depth explored. Fill and alluvium thicken toward the south. Neroly Formation sandstone was first encountered from 2.5 feet bgs in the boring for Well MW-2 to 17 feet bgs in Boring B-1 (Figure 3). Blue-gray to black sandstone is comprised of moderately cemented quartz, feldspar, and volcanic-derived medium sand. The unit is locally conglomeratic with subrounded pebbles up to 2 inches in diameter. Alteration veins of chlorite and epidote are evident. Iron oxidation and rare manganese oxide are locally developed throughout the matrix and concentrated within weak to locally strong parting and fracturing. Bedding observed during drilling and bedrock outcrops indicate the Neroly Formation strike is from 150 to 175 degrees and dips 27 degrees east.

Groundwater was first encountered in the borings for Wells MW-1, MW-2, and MW-3 at approximate depths of 26.5 to 28 feet bgs on December 8 through 10, 1992. The first encountered groundwater stabilized on December 28, 1992 at 26.5 to 28.5 feet bgs within the bedrock. Groundwater flow direction (Figure 2) was determined to be to the north-northwest with a gradient of approximately 0.005. Groundwater elevation data are presented in Table 1.

Soils Analysis

Soil samples collected on December 8 and 9, 1992, were analyzed for TPH-g and BTEX compounds. Detectable concentrations of petroleum hydrocarbons were detected in Boring B-1 and from the boring for Well MW-1. TPH-g was detected at 4.0 ppm in the soil sample collected from Boring B-1 at 12.5 feet. **TPH-g** and benzene concentrations were 8,100 and 21 ppm, respectively at 29 feet the in the capillary fringe. TPH-g was non-detectable at depth in the saturated zone in samples collected from Well MW-1. Trace levels of BTEX compounds were detected in other samples from both borings. The soil analytical results are presented in Table 2.

Groundwater Analysis

Groundwater samples collected from site wells were analyzed for TPH-g and BTEX compounds to determine if, and to what extent, groundwater has been affected by petroleum hydrocarbons. Groundwater samples were collected from Monitoring Wells MW-2 and MW-3 on December 28, 1992; sample collection procedures are presented in Attachment A. The groundwater sample collected from Well MW-2 did not contain detectable concentrations of TPH-g. Xylenes were detected at 0.6 parts per billion (ppb), however, the trip blank (sample TB-1) also detected xylenes at 0.9 ppb. The groundwater sample from Well MW-3 contained TPH-g at a concentration of 19,000 ppb and benzene at 8,900 ppb. Toluene, ethylbenzene, and xylenes compounds were also detected and are presented in Table 3. Groundwater Monitoring **Well MW-1** was not sampled on December 28, 1992 due to the presence of SPH in the well. The SPH was measured at a thickness of 1.67 feet which was subsequently bailed from the well. The well was then bailed on a weekly basis through January 29, 1993 at which time the SPH had been reduced to a sheen. To ensure the removal of any recurring SPH, a passive skimmer was installed in the well on January 29, 1993. The skimmer has been emptied every two weeks since its installation. The amount of bailed SPH from December 28, 1992 through January 29, 1993 was approximately 6.7 liters. The amount of SPH removed from the well via the skimmer has been approximately 1.05 liters. SPH removed from the well is stored in a double-contained storage drum pending disposal at Chevrons Richmond Refinery.

Tital

Tilders

The on-site water-supply well has been tested numerous times during previous investigations (*Final Report, Domestic Water Contaminant Source Evaluation,* Kleinfelder Associates, August 2, 1989). The well has been sampled approximately 26 times from December 1987 to March 1991. During sampling from December 1987 through January 1988, groundwater samples were collected from a drain spigot located approximately 30 feet from the well head. Samples collected at this location contained low levels of benzene which ranged from 1 to 4 ppb. Kleinfelder denoted that these hydrocarbons could likely be from a source that is located between the well head and the drain spigot.

During sampling from August 1989 through March 1991, groundwater samples were collected directly from the well head through a water discharge valve. Twenty-six groundwater samples collected from this location were non-detectable for TPH-g and benzene with the exception of one sample which contained 320 ppb TPH-g and one sample which contained 0.07 ppb benzene.

At the request of Chevron, PACIFIC initiated weekly groundwater sampling of the on-site water-supply well in January 1993. Groundwater samples are analyzed for TPH-g and BTEX compounds. Toluene and benzene were detected during the January 29, 1993 sampling event at concentrations of 3 and 2 ppb, respectively. Groundwater samples analyzed from all other sampling events did not detect TPH-g or BTEX compounds. Table 4 summarizes the weekly data; the certified analytical reports are presented in Attachment C. March 22, 1993 Page 8

If there are any questions regarding the contents of this report, please do not hesitate to call.

Sincerely,

Pacific Environmental Group, Inc.

Ross W. Tinline Staff Geologist

-Steven E. Krcik Senior Geologist RG 4976



Attachments:	Table 1 - Groundwater Elevation Data
	Table 2 - Soil Analytical Data - Total Petroleum Hydrocarbons
	(TPH as Gasoline and BTEX Compounds)
	Table 3 - Groundwater Analytical Data -
	Total Petroleum Hydrocarbons
	(TPH as Gasoline and BTEX Compounds)
	Table 4 - Water Well Analytical Data -
	Total Petroleum Hydrocarbons
	(TPH as Gasoline and BTEX Compounds)
	Figure 1 - Site Location Map
	Figure 2 - Site Map
	Figure 3 - Geologic Cross-Section A-A'
	Attachment A - Field and Analytical Procedures
	Attachment B - Boring Logs and Well Completion Data
	Attachment C - Certified Analytical Reports and

Chain-of-Custody Documentation

Table 1 Groundwater Elevation Data

Former Chevron U.S.A. Service Station 9-7127 Highway I-580 at Grant Line Road Tracy, California

Well Number	Sample Date	Well Elevation (feet)	Depth to Water (feet, TOC)	Groundwater Elevation (feet)	
MW-1	12/28/92	329.18	30.78*	299.09*	
MW-2	12/28/92	327.22	28.59	298.63	
MW-3	12/28/92	329.26	30.69	298.57	

TOC = Top of casing

* Separate-phase hydrocarbons (1.67 feet) were reported; level measured represents the top of liquid.

Elevations relative to bench mark 477-R at 309.20 feet, USC & GS datum.

Table 2 Sell Antitytical Data

Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Service Station 9-7127 Highway I-580 at Grant Line Road Tracy, California

Boring Number	Sample Date	Sample Depth (feet)	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)		
B-1	12/09/92	7 12.5 17.5 21.5	ND 4.0 ND ND	ND ND ND ND	ND ND 0.014 0.013	ND ND ND ND	ND 0.015 0.025 0.018		
NW-1	12/08/92	19 24 30.5 38.5	ND 25600 8,100 ND ND	ND <5.0* 21 ND ND	0.0056 79 560 ND 0.013	ND 30 150 ND ND	0.0079 200 840 ND 0.024		
Detection l	_imits:		1.0	0.005	0.005	0.005	0.005		
ppm = Parts per million ND = Not detected * Elevated method reporting limit.									

No soil analysis for MW. 2 and MW-3?

• N

Table 3 Groundwater Analytical Data Total Petroleum Hydrocarbons

(TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Service Station 9-7127 Highway I-580 at Grant Line Road Tracy, California

Well Number	Sample Date	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-2	12/28/92	ND	ND	ND	ND	0.6*
MW-3	12/28/92	19,000	8,900	660	380	720
Detection	Limits:	50	0.4	0.3	0.3	0.4
ppb = Pa	arts per billion	· · · · · · · · · · · · · · · · · · ·				· · · ·

ND = Not detected at or above limit of detection

* The trip blank (TB-1) also contained detectable xylenes at 0.9 ppb.

MW-1 12/28/92 Floating Product

3250401/REPORT

Table 4 Water Well Analytical Data Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Service Station 9-7127 Highway I-580 at Grant Line Road Tracy, California

Sample Date	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
01/07/93	ND	ND	ND	ND	ND
01/22/93	ND	ND	ND	ND	ND
01/29/93	ND	ND	3	ND	2
02/04/93	ND	ND	ND	ND	ND
02/12/93	ND	ND	ND	ND	ND
02/19/93	ND	ND	ND	ND	ND
02/26/93	ND	ND	ND	ND	ND
03/04/93	ND	ND	ND	ND	ND
03/11/93	ND	ND	ND	ND	ND
Detection Limits:	0.5	0.5	0.5	0.5	50

ppb = Parts per billion

ND = Not detected at or above limit of detection

* The trip blank (TB-1) also contained detectable xylenes at 0.9 ppb.





LEGEND

1	0	GROUNDWATER MONITORING WELL LO	CATION
		AND DESIGNATION	

B-1 SOIL BORING LOCATION AND DESIGNATION

(299.09) GROUNDWATER OR LIQUID ELEVATION IN FEET

POTENTIOMETRIC SURFACE ELEVATION CONTOUR IN FEET, 12-28-92

GEOLOGIC CROSS SECTION A

NOTE: ALL ELEVATIONS RELATIVE TO BENCH MARK 477-R ELEVATION 309.20, U.S.C. AND G.S. DATUM



OF GROUNDWATER FLOW

APPROXIMATE GRADIENT = 0.005

127	FIGURE: 2
	PROJECT:
	325-04.01



-

LEGEND

TANK COMPLEX BACKFILL

INTERBEDDED COARSE AND FINE GRAINED DEPOSITS

SANDSTONE WITH INTERBEDDED SANDY CLAYSTONE

MW-3 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

B-1 SOIL BORING LOCATION AND DESIGNATION

✓ FIRST ENCOUNTERED WATER

STATIC GROUNDWATER LEVEL

proj PROJECTED ONTO LINE OF SECTION (FEET)

4.0/ND TPH-g/BENZENE CONCENTRATION IN SOIL, IN MILLIGRAMS PER KILOGRAM, 12-28-92

ND NOT DETECTED

NOTE: CROSS SECTION IS SUBPARALLEL TO STRIKE WHICH HAS BEEN MEASURED IN OUTCROP TO RANGE FROM 150° TO 175° AND DIP FROM HORIZONTAL TO 27° EAST.

127		
	FIGURE:	
	3	
	PROJECT:	
	325-04.01	

ATTACHMENT A

FIELD AND ANALYTICAL PROCEDURES

ATTACHMENT A FIELD AND ANALYTICAL PROCEDURES

Exploratory Soil Boring and Monitoring Well Installation

The soil borings were drilled using air rotary drilling equipment, and logged by a Pacific Environmental Group, Inc. (PACIFIC) geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and chemical analysis from Wells MW-1 through MW-3 were collected continuously using a dry-core sampling system with brass sample liners. Soil samples for chemical analysis were retained in the brass liners, capped with Teflon squares and plastic end caps, and sealed in zip-lock bags. The samples were placed on ice and transported to the laboratory accompanied by the appropriate chain-of-custody documentation. The drilling equipment was steam-cleaned after each boring.

Selected borings were converted to groundwater monitoring wells by the installation of 2- and 4-inch diameter flush-threaded Schedule 40 PVC casing with 0.020-inch factoryslotted screen. Graded 2-/16 sand pack was placed in the annular space across the screened interval, and the wells were surge-blocked to remove void spaces in the sand pack. A bentonite and concrete seal was placed from the top of the sand pack to the ground surface. A locking cap and protective vault box were installed on the top of each well. Well elevations were surveyed by a licensed surveyor to an accuracy of 0.01 foot, relative to a benchmark. Three hundred feet must be added to all elevations to bring them to the USGS mean sea level datum.

Organic Vapor Analysis

Soil samples collected during drilling were analyzed in the field for ionizable organic compounds using the HNU Model PI-101 photo-ionization detector with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this subsample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar is warmed for approximately 20 minutes, then the foil is pierced and the headspace within the jar is tested for total organic vapor, measured in parts per million as benzene (ppm). The instrument

3250401/REPORT

March 22, 1993

was previously calibrated using a 100-ppm isobutylene standard (in air) and a sensitivity factor of 0.7, which relates the photo-ionization sensitivity of benzene (10.0 ppm) to the ionization potential of isobutylene (7.0 ppm). Results of these tests were used to assist in selection of samples for laboratory analysis.

Groundwater Sampling

The groundwater sampling was performed using techniques approved by the Regional Water Quality Control Board (RWQCB). The sampling procedure consists of first measuring the water level in each well and checking each well for the presence of floating petroleum product using an optic probe or a clear Teflon bailer. If no free product is detected, the wells are purged of a minimum of four casing volumes of water (or until dryness). During purging, temperature, pH, and electrical conductivity were monitored until stable in order to ensure that a representative sample was obtained. After the water levels partially recover, groundwater samples were collected using a Teflon bailer and placed into appropriate EPA-approved containers. The samples were labeled, logged onto chain-of-custody documents, and transported on ice to the laboratory using appropriate chain-of-custody documentation.

Laboratory Analysis

Selected soil and groundwater samples were analyzed in the laboratory for the presence of total petroleum hydrocarbons calculated as gasoline (TPH-g), and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). The method of analysis for TPH-g was by modified EPA Methods 8015. Final analysis was performed by the purge-and-trap technique with final detection by gas chromatography using a flame-ionization detector and a photo-ionization detector. All analyses were performed by a state-certified laboratory.

ATTACHMENT B

BORING LOGS AND WELL COMPLETION DATA

												· · · · · · · · · · · · · · · · · · ·			
LOC								PAC	PACIFIC ENVIRONMENTAL GROUP, INC. WELL NO. PAGE 1 OF 2						
NORTHING EASTING ELEVATION 154.6 172.9 29.18							PROJ LOGG DRILL DRILL SAMP CASIN SLOT GRAV	PROJECT NO. 325-04.01CLIENT: CHEVRONLOGGED BY: RWNTDATE DRILLED: 12-8-92DRILLER: GREAT SIERRALOCATION: Grant Line RoadDRILLING METHOD: AIR ROTARYHOLE DIAMETER: 10"SAMPLING METHOD: DRY COREHOLE DEPTH: 39.5'CASING TYPE: Sch 40 PVCWELL DIAMETER: 4"SLOT SIZE: 0.020"WELL DEPTH: 38'GRAVEL PACK: #2-/16 LonestarCASING STICKUP: ~2.3							
сом	VELL PLETK	лс	CORE BOX	HUN	MOISTURE	DID	ROD (%)	ОЕРТН (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / RE	MARKS		
	BENTONITE		1 -	1 2 3	Dp	0 16 3	0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			SC GC- SC GC SS	 CLAYEY SAND - FILL: dark gravis moderate plasticy; 40% clay; 15% medium sand; weak subangular angular gravel fragments; loose; CLAYEY GRAVEL to CLAYEY SA gray; 60% clay; 10% silt; 30% me sand with 1" angular gravel fragment throughout; minor iron oxide stain medium dense; weak product od CLAYEY SAND: dark greenish grap plasticity; 50% clay; 15% silt; 35% sand; granular; loose texture; par product odor. SILTY GRAVEL: silica cemented diameter rounded quartz pebbles recovery. SANDSTONE - (Neroly Formation brown; 80-90% medium quartz, mineral grains subrounded with rounded 1/4 - 1" diameter congle minor mica; local 1/4" bandof wf rich zone perpendicular TCA; sa poorly sorted and is derived from rocks (andesite); low hardness; @19': weak product odor increas odor at 23'. 	sh brown; low to 6 silt; 45% fine to blocky; minor no product odor. ND - FILL: dark edium to coarse nents ning and caliche; or. ay; low to medium 6 medium to coarse eosol odor; no 1/4 - 1 1/4" s; poor core a): very dark greenish feldspar and mafic 10-20% coarse omeratic pebbles; nite altered feldspar ndstone is granular; a intermediate volcanic no product odor. ing to strong product a		
- 0 -		. —					32	_22				· · · · · · · · · · · · · · · · · · ·			

.

								ورانات					
								PACIFI	C	ENV	RON	MENTAL GROUP, INC.	WELL MW-1 PAGE 2 OF 2
S	See Page One					PROJECT NO. 325-04.01CLIENT:LOGGED BY:DATE DFDRILLER:LOCATICDRILLING METHOD:HOLE DISAMPLING METHOD:HOLE DECASING TYPE:WELL DISLOT SIZE:WELL DEGRAVEL PACK:CASING					LED: : METER: TH: METER: TH: TH: TICKUP:		
WEL COMPLE	-L Etio			MOISTURE	CONTENT	PID	ROD (%)	DEPTH (FEET)	SAMPLE ANALYZED	GRAPHIC	SOIL TYPE	LITHOLOGY / R	EMARKS
- =		-						-			SS	SANDSTONE (Neroly Formation)): continued
	Г И G H			5 6 9	Dp- Mst Dp Wt Wt	>200 >220 70	22 53 0	$\begin{array}{c} 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 30 \\ 31 \\ 32 \\ 33 \\ 34 \\ 35 \\ 36 \\ 37 \\ 38 \\ 39 \\ 40 \\ 41 \\ 42 \\ 41 \\ 41$			55	 @23': 1/2" altered epidotized ve horizontal parting common; ve at 25" and continues with depth @29': bedding at 80° TCA. @31': moderate product odor; e @32': poor core recovery due to sandstone; weak product odor. @38': 5" bed of subrounded core from 1/4" to 2" diameter; no pro@39': 1mm wide chlorite veinlet BOTTOM OF BORIN 	nglomerate pebbles oduct odor. Is at 12° TCA.
	•							43					

p

		PACIFIC ENVIRONMENTAL GROUP, INC. WELL NO. #WW-2 PAGE 1 OF 2						
NORTHING EASTING ELE 270.1 131.9 27	N VATION 22	PROJECT NO. 325-04.01CLIENT: CHEVRONLOGGED BY: RWNTDATE DRILLED: 12-10-92DRILLER: GREAT SIERRALOCATION: Grant Line RoadDRILLING METHOD: AIR ROTARYHOLE DIAMETER: 8"SAMPLING METHOD: DRY COREHOLE DEPTH: 37'CASING TYPE: Sch 40 PVCWELL DEPTH: 37'SLOT SIZE: 0.020"WELL DEPTH: 36'GRAVEL PACK: #2-/16 LonestarCASING STICKUP: ~2.1						
METI RUN MOISTURE CONTENT MOISTURE	ROD (%)	DEPTH (FEET) RECOVERY SAMPLE INTERVAL GRAPHIC SOIL TYPE	LITHOLOGY / REMARKS					
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	T 2 16 0 8 0	I I I I SC 1 I I I I 2 I I I I 3 I I I I 3 I I I I 5 I I I I 6 I I I I 9 I I I I 10 I I I I 11 I I I I 12 I I I I 13 I I I I 14 I I I I 18 I I I I 10 I I I I I 13 I I I I I I 18 I I I I I I I 10 I I I I I I I <td> CLAYEY SAND - FILL: brown to dark brown; low plasticity; 25% clay; 15% silt; 60% medium sand; abundant subangular lithic fragments throughout; loose; no product odor. SANDSTONE (Neroly Formation): >90% fine to medium sand as subangular quartz and mafic mineral grains and weakly altered feldspar; sucrosic texture; weak alteration; moderate to hard; no product odor. @2-5.5': moderate alteration evident as iron oxide surrounding up to 10% rounded 1/4 - 1" conglomeratic pebbles; 50% pebbles from 2-3'. @5': bedding attitude at 55° TCA. </td>	 CLAYEY SAND - FILL: brown to dark brown; low plasticity; 25% clay; 15% silt; 60% medium sand; abundant subangular lithic fragments throughout; loose; no product odor. SANDSTONE (Neroly Formation): >90% fine to medium sand as subangular quartz and mafic mineral grains and weakly altered feldspar; sucrosic texture; weak alteration; moderate to hard; no product odor. @2-5.5': moderate alteration evident as iron oxide surrounding up to 10% rounded 1/4 - 1" conglomeratic pebbles; 50% pebbles from 2-3'. @5': bedding attitude at 55° TCA. 					
	0 100	20 21 22	@20': pebbles; brown to dark brown; matrix is >90% quartz and altered chloritic minerals; ~5-20% intergranular porosity; angular grains; pebbles are subangular, 1/4 - 1" diameter pebbles weathered by iron oxide and manganese oxide; hard; no product odor.					

.

· · · · · · · · · · · · · · · · · · ·	PACIFIC ENVIRONMENTAL GROUP, INC. WELL MW-2 PAGE 2 OF 2						
See Page One	PROJECT NO. 325-04 LOGGED BY: DRILLER: DRILLING METHOD: SAMPLING METHOD: CASING TYPE: SLOT SIZE: GRAVEL PACK:	4.01 CLIENT: DATE DRILLED: LOCATION: HOLE DIAMETER: HOLE DEPTH: WELL DIAMETER: WELL DEPTH: CASING STICKUP:					
METT CORE BOX RUN MOISTURE CONTENT PID PID	DEPTH (FEET) RECOVERY SAMPLE ANALYZED GRAPHIC SOIL TYPE	LITHOLOGY / REMARKS					
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	SS 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30 - 31 - 32 - 33 - 34 - 35 - 36 - 37 - 38 - 37 - 38 - 39 - 40 - 41 - 42 - 43 - 44 -	 SANDSTONE (Neroly Formation): continued @25-26': sandy claystone; brown to dark brown; fine sandy texture; horizontal platy fracturing; rare mineral grain solution cavities; moderate hardness; no product odor. @27.5': parting common at 80° TCA. @28.5-29.3': sandy claystone; brown to dark brown; fine sandy texture; horizontal platy fracturing; rare mineral grain solution cavities; moderate hardness; no product odor. @31.5': bedding at 75° TCA. @33.3-34': brecciated claystone as described above; rare biotite; moderate hardness; crushed fracturing; no product odor. @34-36': Neroly Formation; intense parting at 76° TCA. @36-36.2': brecciated claystone as described above; rare biotite; moderate hardness; crushed fracturing; no product oodor. BOTTOM OF BORING AT 37' 					

•

	PACIFIC ENVIRONMENTAL GROUP, INC. WELL NO.
NORTHING EASTING ELEVATION 220.3 242.3 29.26	PROJECT NO. 325-04.01CLIENT: CHEVRONLOGGED BY: RWNTDATE DRILLED: 12-10-92DRILLER: GREAT SIERRALOCATION: Grant Line RoadDRILLING METHOD: AIR ROTARYHOLE DIAMETER: 8"SAMPLING METHOD: DRY COREHOLE DEPTH: 40'CASING TYPE: Sch 40 PVCWELL DIAMETER: 2"SLOT SIZE: 0.020"WELL DEPTH: 37.5'GRAVEL PACK: #2-/16 LonestarCASING STICKUP: ~2.3
CORE BOX RUN MOISTURE CONTENT PID PID	LEETH FECOVERY SAMPLE INTERVAL SOIL TYPE SOIL TYPE
	1 SC CLAYEY SAND - FILL: moderate plasticity; 50% clay; 10% silt; 40% fine to medium sand; occasional to 3" angular lithic fragments throughout; minor roots; soft; no product odor. @1': 3-4" asphalt layer 3 CL SANDY CLAY - FILL: yellowish brown; medium plasticity; 65% clay; 10% silt; 25% fine to medium sand; subangular blocky peds; calcium carbonate and iron oxide blebs and fracture fills; in part lithified with low hardness; minor rounded to 1" pebbles; rare manganese oxide; stiff; no product odor. 6 7 SP 7 SP SAND (Neroly Formation): black; <15% fines; 85% fine to medium, subangular, volcanically derived sand; poorty graded; massive; weathered feldspar grains; weakly oxidized; poor recovery; loose; no product odor. 10 11 11 12 12 SS 10 11 11 12 12 SS 10 11 11 12 12 13 14 15 16 16 17 16 18 17 19 20 20 @17-18': rounded 2" diameter pebbles recovered; no sand matrix. 21 22

4

.

	PACIFIC ENVIRONMENTAL GROUP, INC.		WELL MW-3 PAGE 2 OF 2
See Page One	PROJECT NO. 325- LOGGED BY: DRILLER: DRILLING METHOD: SAMPLING METHOD CASING TYPE: SLOT SIZE: GRAVEL PACK:	04.01 CLIENT: DATE DRIL LOCATION HOLE DIAN HOLE DEP WELL DIAN WELL DEP CASING ST	LED: : METER: TH: METER: TH: TH: TICKUP:
MELL MOISTURE MOISTURE MOISTURE PID	DEPTH (FEET) (FEET) RECOVERY SAMPLE INTERVAL GRAPHIC SOIL TYPE	LITHOLOGY / R	EMARKS
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	23	 SANDSTONE (Neroly Formation) subangular quartz and weathere feldspar grains fine to medium g sucrosic texture; homogeneous; to intense fracturing; weakly weano product odor. @22-24': slight clay enriched zo subhorizontal parting. @23.5': bedding at 62° TCA with running at 77° TCA. @28': bedding at 77° TCA with a fracture perpendicular to beddi increased hardness due to centommon along bedding planes @30': slight product odor. @36': bedding at 55° TCA. @38': high angle fractures at 30 BOTTOM OF BORM 	e black; 90% ed mafic minerals; minor rrained; 10% fines; moderate athered; low hardness; ne; brittle h perpendicular fracture similar high angle ng at 25° TCA; nentation; parting at 75° and 83° TCA.

	1	PACIFIC ENVIRONMENTAL GROUP, INC. BORING MORING MOR		
NORTHING EASTING 154.6 172.9	ELEVATION 29.18	PROJECT NO. 325-04.01CLIENT: CHEVRONLOGGED BY: RWNTDATE DRILLED: 12-9-92DRILLER: GREAT SIERRALOCATION: Grant Line RoadDRILLING METHOD: AIR ROTARYHOLE DIAMETER: 6"SAMPLING METHOD: DRY COREHOLE DEPTH: 22'CASING TYPE: NAWELL DIAMETER: NASLOT SIZE: NAWELL DEPTH: NAGRAVEL PACK: NACASING STICKUP; NA		
MELL CORE BOX MOISTURE MOISTURE	PID ROD (%)	DEPTH FFET) AMPLEINTERVAL SOIL TYPE FILTHOFOGA \ BEWABKR		
X Z Z Back Filled Ms With Grout	0 0 0 1 1	Image: Second state in the		
4 4 4 4 0 0 0 0 	15 26	 SS subangular; abundant to 1/2" clastic fragments; weak fracturing; intragranular porosity; hard; no to weak product odor. 19 20 21 22 22 BOTTOM OF BORING AT 22' 		

ATTACHMENT C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION





December 28, 1992 Sample Log 5549

Ross Tinline Pacific Environmental Group (Santa Clara Office) 1601 Civic Center Dr., Suite 202 Santa Clara, CA 95050

Subject: Analytical Results for 9 Soil Samples Identified as: Project # 325 04.01 (Facility 9-7127) Received: 12/10/92 Purchase Order: 8097900

Dear Mr. Tinline:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on December 28, 1992 and describes procedures used to analyze the samples.

Sample(s) were received in brass sleeves that were sealed with PTFE sheets and plastic endcaps. Each sample was transported and received under documented chain of custody and stored at 4 degrees C until analysis was performed.

Sample(s) were analyzed using the following method(s):

"BTEX" (EPA Method 8020/Purge-and-Trap) "TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)

Please refer to the following table(s) for summarized analytical results and contact us at 916-757-4650 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:

Jdel Kiff

Senior Chemist

Sample Log 5549

Sample: B-1 (7')

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/09/92 Dilution : 1:1 QC Batch : 4072i Matrix : Soil

Parameter	(MDL) mg/kg	Measured Value mg/kg
Benzene	(.0050)	<.0050
Toluene	(.0050)	<.0050
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	<.0050
TPH as Gasoline	(1.0)	<1.0





Sample Log 5549

Sample: B-1 (12.5)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/09/92 Dilution : 1:1 QC Batch : 4073a Matrix : Soil

Parameter	(MDL) mg/kg	Measured Value =9/kg
Benzene	(.0050)	<.0050
Toluene	(.0050)	<.0050
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	.015
TPH as Gasoline	(1.0)	4.0



Western Environmental Science & Technology + 45133 County Road 32B + Davis, CA 95616 + 910 753-9500 + FAX: 916 757-4652

Sample Log 5549 5549-3

Sample: B-1 (17.5)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/09/92 Dilution : 1:1 QC Batch : 4072j Matrix : Soil

Parameter	(MDL) =g/kg	Measured Value sg/kg
Benzene	(.0050)	<.0050
Toluene	(.0050)	.014
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	.025
TPH as Gasoline	(1.0)	<1.0



Western Environmental Science & Technology • 45133 County Road 32B • Davis, CA 95616 • 916/753-9500 • FAX: 916 757-4652

Sample Log 5549

Sample: B-1 (21.5)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/09/92 Dilution : 1:1 QC Batch : 4072K Matrix : Soil

Parameter	(MDL) mg/kg	Measured Value =9/kg

Benzene	(.0050)	<.0050
Toluene	(.0050)	.013
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	.018
TPH as Gasoline	(1.0)	<1.0





Sample Log 5549

Sample: MW-1 (19)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/08/92 Dilution : 1:1 QC Batch : 4072j Matrix : Soil

Parameter	(MDL) mg/kg	Measured Value mg/kg
Benzene	(.0050)	<.0050
Toluene	(.0050)	.0056
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	.0079
TPH as Gasoline	(1.0)	<1.0


5549-6

Sample: MW-1 (24)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/08/92 Dilution : 1:1000 QC Batch : 4072j Matrix : Soil

Parameter	(MDL) =g/kg	Measured Value 199789
Benzene	(5.0)	<5.0
Toluene	(5.0)	79
Ethylbenzene	(5.0)	30
Total Xylenes	(5.0)	200
TPH as Gasoline	(1000)	2600



Sample: MW-1 (29)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/08/92 Dilution : 1:1000 QC Batch : 4072j Matrix : Soil

Parameter	(MDL) mg/kg	Measured Value mg/kg
Benzene	(5.0)	21
Toluene	(5.0)	560
Ethylbenzene	(5.0)	150
Total Xylenes	(5.0)	840
TPH as Gasoline	(1000)	8100



Western Environmental Science & Technology • 45133 County Road 32B • Davis, CA 95616 • 916 753-9500 • FAX: 916 757-4652



Sample: MW-1 (30.5)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/08/92 Dilution : 1:1 QC Batch : 4072j Matrix : Soil

Parameter	(MDL) mg/kg	Value =9/kg
Benzene	(.0050)	<.0050
Toluene	(.0050)	<.0050
Ethylbenzene	(.0050)	<.0050
Total Xylenes	(.0050)	<.0050
TPH as Gasoline	(1.0)	<1.0



Western Environmental Science & Technology • 45133 County Road 32B • Davis, CA 95616 • 916 753-9500 • FAX: 916 757-4652

Sample: MW-1 (38.5)

From : Project # 325 04.01 (Facility 9-7127) Sampled : 12/09/92 Dilution : 1:1 QC Batch : 4072j Matrix : Soil

(MDL) wg/kg	Measured Value mg/kg
·	
(.0050)	<.0050
(.0050)	.013
(.0050)	<.0050
(.0050)	.024
(1.0)	<1.0
	(MDL) wg/kg (.0050) (.0050) (.0050) (.0050) (.0050) (1.0)



Western Environmental Science & Technology · 45133 County Road 32B · Davis, CA 95616 · 916/53-9500 · FAX: 916 757-4652

PROJECT N	10. 32.5	(04.01			Ch	nain c	of Custody	1		4		PACIFIC Environime Group, inc	NIAL	1601 Ci Santa C (408) 94	vic Cente Ilara, Cal 34-6536	er Dr., Su ilornia, 99 FAX (40	ite 202 5050 08) 243-3	3911
Facility no. CLIENT enginee	9-712 mith k	2-7		Facilit GR PACI	y Address ANT <u>L</u> FIC Point c CoSS	: INE I Di Contact Tinin	ROAD	<i>¢ I-5</i> 80	Sam	RAC, Ipler: Rost	<u>y ci</u> s Ti	d NFING		Billing re <u>CAB</u> R Laborate WE	elerence i <u>C-CSE</u> ory name E ST	umber ₩ 80	9790	0	
Sample I.D.	Lab No.	Container no.	Container size	Sample Preservation	Matrix S = Soil A = Alr W = Water C = Charcoal	TYPE G = Grab C = Comp. D = Discrete	Sampling date	Sampling time	BTEX/VPH Gas (8015/8020/5030)	TPH Diesel (3015)	Non Chloronated H.C. (8020)	Oil and Grease (5520)	Halogenated Volatile Organics (EPA 601/8010)	Purgeable Organics (EPA 624/8240)	Semi Volatile Organics (EPA 625/8270)	Metals Total Dissolved	Lead Org./DHS 🔲 Lead (EPA 7420/7421)		
3-16	>		242×4"	KE	5	P	12-5	7 1200	X		<u> </u>								
8-1/2.5	1		1		1	<u> </u>	12-9	1230			ļ		<u> </u>						
B-1 (17.9)							1315				ļ	<u> </u>	ļ		 			
B-1 (2) 3	5)							133 *					<u> </u>	<u> </u>			ļ		<u> </u>
Mud-1(19)						<u> </u>	12-8	13.pm					<u> </u>	ļ		 			
-mw-1/20							12-8) ZPM				<u> </u>							
MD-169							12-8	23mpm											
Mula Bo S	3					11.	12-8	3PM						Ţ					
mu -1/3×	s)			U	TV/	1.1/	12-9	IJAM.	V		1			1					
1.100	·Y		¥			*	1	·····					1						
Comments:			i							1.7-	n-92	<u>, </u>		<u></u>		Tumar	ound time	-	
WILL F	FINALIZ	EI	SAMPLE	5 70	BE .	ANAY	YZE	D JONO	KKUW	(12						Prio 1 Bu	rty Rush Jsiness D	ay	C
Condition of sa	ample:		<u></u>					Temperature rece	ived: Sでて	183	30, R	-10-4	22) F:	#J		Rus 2 Bi	h Isiness N	avs	٢
Relinquished t	by Sampler	6		Date	10-92	ih	Time :46	Received by	Frees	jan.	Da /	ite 2-10-1	?z	Time 16=	41	Exp 5 Bi	edited usiness F	lavs	Ľ
Relinquished	by	<u> </u>	-	Date			Time	Received by			Da	110	<u> </u>	Time		Star 10 8	ndard Business	Days	5
Relinquished	by			Date			Time	Received by labor	atory		Da	ite		Time		As	Contracte	đ	C

PROJECT No	- 04	.0				Cł	nain	of C	Sustody	,		4		ACIFIC INVIRONIM BROUP, INC	NIAL	1601 Ci Santa C (408) 98	vic Cente Iara, Cai 14-6536	r Dr., Su ifornia, 9 FAX (40	ite 202 5050 08) 243-39)))
Facility no. 9- CLIENT engineer	712	7	Kon	Fadili GE PACI	y Address JANTA-I STC Point g STC S 5	Contac	Rof L	10 ¢	158	0 . Sa	TRAC Impler: Ross	cy Tin	CA time	•	Billing m Laborat We	elerence r <u>AEZ el</u> ocr nama ST	number	809	7900	
Sample I.D.	Lab No.	Container no.	Container size	Sample Preservation	Matrix S-Soùl A-Air W - Water C-Charcoal	TYPE G = Grab C = Comp. D = Discrete	Samulita data		Sampiing time	BTEX/VPH Gas (B015/B020/5030)	TPH Diesel (8015)	Non Chloronated H.C. (8020)	Oil and Grease (5520)	Halogenated Volatile Organics (EPA 601/8010)	Purgeable Organics (EPA 624/8240)	Semi Volatile Organiça (EPA 625/8270)	Metals Total 🗍 Dissolved 🗍	Lead Org./DHS 🗍 Lead (EPA 7420/7421) 🗍		
·W-2 (7)			27ex4*	ICE	S	\mathcal{D}	2-1	0-92	0900	X			ļ			<u> </u>				
MW-2 (13))	1					0930			_			<u> </u>		 	· · · ·	· · ·	
MW-2 (19)						□			1000		<u> </u>			<u> </u>	<u> </u>				 	
MW-2 (23.5									10:00						<u> </u>			ļ		
MW-2 (28.5								7	1040											<u> </u>
MW-2(33.5							V	/	1050		_				<u> </u>	<u> </u>				
MW-3(15)							12-1	0-92	1430					ļ	<u> </u>	ļ		ļ		
mw-3 (195									1430				_	<u> </u>	1	ļ	ļ	\ 		
MW-3 (23)									1450			_	_			<u> </u>		<u> </u>		
MW-3 (29)	1						1 N	/	1500									<u> </u>		Ĺ
MW-3(3)			V	V		¥		V	1500 1510	J	(Turnar Prio 1 Bi	ound tim orty Rush usiness C	e Day	
Condition of sa	mple:	L 1	FINALIZ	6 54	and se	BE	-11-17	meT	perature recei	ived:	18:30	, 12 -	10-92	,747	1		Rus 2 B	sh usiness (Davs	
Relinquished b	y Sampler				A	<u> </u>	Tim 6 24(e Reci	alved by	up	n	D	iate /2-00	-92	Time (6:	46	Exp 5 B	edited usiness (Days	
Relinquished L	y Land	in	~	Date			Tim	e Rec	eived by	1			ate		Time		Sta 10	ndard Business	Days	M
Relinquished t	· July		- F	Date			Tim	e Rec	eived by labo	alory		C	ate		Time		As	Contracte	, ed	
l				<u> </u>						,	<u></u>		PL	1613	3	<u></u>		Page	lof 2	

`...

1252 Quarry Lane P.O. Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106

Clavton ENVIRONMENTAL CONSULTANTS PACIFIC ENVIKORMENTAL GROUF, INC. PLEASANT HILI JAN 18 1993 RECEIVED

January 11, 1993

Mr. Scott Pisle PACIFIC ENVIRONMENTAL GROUP 620 Contra Costa Blvd. Ste. 209 Pleasant Hill, CA 94523

Client Ref. 9-7127/325-04.01 Clayton Project No. 92123.46

Dear Mr. Pisle:

Attached is our analytical laboratory report for the samples received on December 28, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Suzanne Silvera, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH Director, Laboratory Services Western Operations

RHP/caa Attachments

Page 2 of 8

Results of Analysis for Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

> Client Reference: 9-7127/325-04.01 Clayton Project No. 92123.46

Sample Identification:	TB-1	Date Sampled:	12/28/92
Lab Number:	9212346-01A	Date Received:	12/28/92
Sample Matrix/Media:	WATER	Date Prepared:	01/05/92
Preparation Method:	EPA 5030	Date Analyzed:	01/05/92
Analytical Method:	EPA 8015/8020	· · · · · · · · · · · · · · · · · · ·	

CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
71-43-2	ND	0.4
108-88-3	ND	0.3
100-41-4	ND	0.3
	0.9	0.4
95-47-6	ND	0.4
	ND	50
	Recovery (%)	QC Limits (%)
98-08-8	99	50 - 150
	CAS # 71-43-2 108-88-3 100-41-4 95-47-6 98-08-8	CAS # Concentration (ug/L) 71-43-2 ND 108-88-3 ND 100-41-4 ND 0.9 95-47-6 ND ND 88-08-8 99

ND: Not detected at or above limit of detection --: Information not available or not applicable

Page 3 of 8

Results of Analysis for Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

> Client Reference: 9-7127/325-04.01 Clayton Project No. 92123.46

Sample Identification:	MW-2	Date	Sampled:	12/28/92
Lab Number:	9212346-02A	Date	Received:	12/28/92
Sample Matrix/Media:	WATER	Date	Prepared:	01/06/92
Preparation Method:	EPA 5030	Date	Analyzed:	01/06/92
Analytical Method:	EPA 8015/8020			

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100 - 41 - 4	ND	0.3
p,m-Xylenes		0.6	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline		ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	10,4	50 - 150

ND: Not detected at or above limit of detection --: Information not available or not applicable

Page 4 of 8

Results of Analysis for Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

> Client Reference: 9-7127/325-04.01 Clayton Project No. 92123.46

Sample Identification:	MW-3	Date Sampled:	12/28/92
Lab Number:	9212346-03A	Date Received:	12/28/92
Sample Matrix/Media:	WATER	Date Prepared:	01/06/92
Preparation Method:	EPA 5030	Date Analyzed:	01/06/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	8,900	0.4
Toluene	108-88-3	660	0.3
Ethylbenzene	100-41-4	380	0.3
p.m-Xylenes		480	0.4
o-Xylene	95-47-6	240	0.4
Gasoline		19,000	50
Surrogates		Recovery (%)	<u>QC Limits (%)</u>
a,a,a-Trifluorotoluene	98-08-8	107	50 - 150

ND: Not detected at or above limit of detection --: Information not available or not applicable

Page 5 of 8

Results of Analysis for Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

> Client Reference: 9-7127/325-04.01 Clayton Project No. 92123.46

Sample Identification:	METHOD BLANK	Date	Sampled:	
Lab Number:	9212346-04A	Date	Received:	
Sample Matrix/Media:	WATER	Date	Prepared:	01/06/92
Preparation Method:	EPA 5030	Date	Analyzed:	01/06/92
Analytical Method:	EPA 8015/8020			

Concentratio S # (ug/L)	Limit of on Detection (ug/L)
43-2 ND	0.4
88-3 ND	0.3
41-4 ND	0.3
ND	0.4
47-6 ND	0.4
ND	50
Recovery (%) QC Limits (%)
08-8 104	50 - 150
	Concentration S # (ug/L) 43-2 ND 88-3 ND 41-4 ND ND 47-6 ND ND <u>Recovery (%</u> 08-8 104

ND: Not detected at or above limit of detection

--: Information not available or not applicable

Quality Assurance Results Summary for Clayton Project No. 92123.46

Clayton Lab Number:	9212329-01A	Analytical Method:	EPA8015 8020
Ext./Prep, Method:		Instrument ID:	02857
Date:	11	Date:	01/05/92
Analyst:		Time:	16:06
Std. Source:	V921223-01W	Analyste	PF .
Sample Matrix/Media:	WATER	Units:	UG/L

		•	· ·	а.	MS		MSD	Averace		-		
Analyte		Sample Result	Spike Level	Matrix Spike Result	Recovery (%)	Matrix Spike Duplicate Result	Recovery (%)	Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	5.00	5. 12	102	4. 68	94	98	81	118	. 9, 0	20
GASOLINE	(FID)	ND	200	171	86	180	90	88	80	150	5.1	25
TOLUENE	(PID)	ND .	21. 0	22.1	105	20. 2	96	101	84	118	9. 0	20

LCS = Laboratory Control Sample ND = Not detected at or above limit of detection LCL = Lower Control Limit

UCL = Upper Control Limit SOR = Spike out of range due to high sample concentration.

Quality Assurance Results Summary for Clayton Project No. 92123.46

Clayton Lab Number:	9212348-02A	i -		Anai	tical Method:	EPA8015_8020
Ext,/Prep. Method:				inst	ument ID:	02857
Date:	11		· · · · · · · · · · · · · · · · · · ·	Date		01/06/93
Analyst:	· ·		•	Time		12:01
Std. Source:	V921223-01W			Anal	st:,	PF
Sample Matrix/Media:	WATER			Unit	i t	UG/L

Analyte		Sample Result Spike Level		Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	4, 00	4.09	102	3. 59	90	96	81	118	13	20
GASOLINE	(FID)	ND	200	194	97	182	91	94	80	150	6.4	25
TOLUENE	(PID)	ND	19, 0	18.1	95	16. 2	85	90	84	118	11	20

 $LCS = Laboratory Control Sample \\ ND = Not detected at or above limit of detection$

LCL = Lower Control Limit

UCL = Upper Control Limit SOR = Spike out of range due to high sample concentration.

*

Quality Assurance Results Summary for Clayton Project No. 92123.46

Clayton Lab Number:	9212369-02A	Anzlytical Method:	EPA8015 8020
Ext./Prep. Method:		Instrument (D:	05587
Date:	11	Date;	01/07/92
Analyst:		T I me:	18:14
Std. Source:	V921223-01W	Analyst:	PF
Sample Matrix/Media:	WATER	Units:	UG/L

Analyte		Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	4.00	3, 59	90	3. 67	92	91	81	118	2. 2	20
GASOLINE	(F1D)	ND	200	183	92	190	95	93	80	150	3, 8	25
TOLUENE	(P1D)	ND	14.0	14.2	101	14. 5	104	103	84	118	2. 1	20

Fax co Chevron U. P.O. BOX San Ramon, FAX (415)8	py of S.A. Inc. 5004 CA 94583 42-9591	Cone Cone A	Rep ron Facili Facili ultant Pro ultant Na ddress <u>6</u> F	ort (ty Numb- ty Address oject Nur me Pac 20 Co 21easa	and $\underline{T-5}$ <u>nber</u> <u>ific</u> <u>ntra</u> nt Hi	COC to -7/2-7 325-0 Environme Costa Blv 11. CA 94	Che mut DY. C ntal d. St 523	Vron Line Group e. 20	Co Ro . In 	ntac	:t: [3 S O Chevron Laborator Laborator Samples	Contact (y Name, y Release Collected	(Nome) (Phone) • Numb by (N	Ch Clay Clay Sor Will	alı Ke	n K	of-(esq.	Cus	ody–Record
9272			roject Co	ntact (N (P	am o) hone <u>) (5</u>	10)825-08	55 (Fox	Number	. ,825 -	0882		_	Collection Signature	Date	fø.	<u>,</u>	1.2	t		· · · · · · · · · · · · · · · · · · ·	
Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcox	Type G = Grab C = Composite D = Discrete	Tm.	Sample Preservation	Icad (Yes or No)	BTEX + TPH CAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeoble Halocarbons (8010)	Purgeable Aromatice (8020)	Purgeoble Organics [8240]	Extroctable Organics of 0	Mercia C4.Cr.Pb.Zn.Ni (ICUP or AA)	med					NOTE: DO NOT BILL TB-LB SAMPLE Remarks
TB-1 HW-2 HW-3	OIAB PABC DBABC	2 3 3		4 4 4	- 11:40 10:20	He (Xes	XXX													
				· ·																	
Relinguished By	(Signișture)		Orge	nization		Date/Time	Reo	elved a	y-(Signe	Hura)	1		Organizat	on	Date (2-	Vilme 20172	2		Turn An	ound Th	Kectalton DNA OK ne (Circle Choice)
Relinquished By	(Signature) (Signature)		Orgo	onization		Date/Time	Rec	anc plved B) leved Fr	y (Signe	iture) ratory B	y (Signa	ature)	Organizat	<u>1100</u>	Date Date			~		24 48 5 10 An Co	Hre. Hrs. Days Days htracted

Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 - Martinez, California 94553 - (510) 229-1512 / fax (510) 229-1526

			PACTRIC DIVINION PLEASE	IENTIN, GROUP, INC MAT MILL				
Pacific Envi:	ronment	tal Group	JAR 1	3 1993 =IVED		Projec	:t 32	25-04.01
Attn: Scott j	pisle		REU			Report	ed	01/11/93
		TOTAL PETH	ROLEUM H	YDROCARBO	15			
Lab #	Sample	Identificat	ion	Sample	ed .	Analy	zed	Matrix
87583-1	VATER V	VELL		01/07/	/93	01/08	8/93	Water
Laboratory N	umber:	RESULI 87583- 1	rs of an	ALYSIS		* n.		
Gasoline: Benzene: Toluene: Ethyl Benzene: Xylenes:		ND<50 ND<0.5 ND<0.5 ND<0.5 ND<0.5						
Concentration	:	ug/L						
· .			•					
				•	• •			



CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2 QA/QC INFORMATION SET: 87583

NA = ANALYSIS NOT REQUESTED ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT ug/L = parts per billion (ppb)

- OIL AND GREASE ANALYSIS By Standard Methods Method 5520F: Minimum Detection Limit in Water: 5000ug/L
- Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons: Minimum Quantitation Limit for Diesel in Water: 50ug/L
- EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons: Minimum Quantitation Limit for Gasoline in Water: 50ug/L
- EPA SW-846 Method 8020/BTXE Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	200 ng	97/92	5%	70-130
Benzene:	200 ng	89/85	5%	70-130
Toluene:	200 ng	93/90	38	70-130
Ethyl Benzene:	200 ng	98/94	48	70-130
Xylenes:	600 ng	97/94	38	70-130

Richard Srna, Ph.D.

Laboratory Director

Certified Laboratories

Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

MOCK INVOICE

Chevron USA P.O. Box 5004 San Ramon, CA 94583 Date: 01/11/93 Date Rcvd: 01/08/93 Date Rptd: 01/11/93 Our Job #: 87583 Invoice #: 87583

Pacific Environmental Group Job # 325-04.01 Chevron USA Release # 809-7900 Facility #: 9-7127

QTY/MATRIXANALYSISEXT. PRICE1 Water sample(s) for VPHBTXE @ \$0.00 (RUSH)0.00

TOTAL INVOICE

0.00

Please Send Payment To: Superior Precision Analytical P.O. Box 1545 Martinez, CA 94553

TERMS: NET 30 A charge of 1.5% per month may be applied to unpaid balances.

Fax co	py of	Lab	Rep	ort	and	COC to	Che	vron	Co	ntac	;t: [] Ye] No	es D	01	~~~	<`⊃ ℃	hai	n-a	of-	Cus	tod	v-Record
Chevron U. P.O. BOX San Ramon, FAX (415)8	S.A. Inc. 5004 CA 94583 429591	Chev Cone Cone F	ron Fool Fool ultant Pr ultant Na ultant Na Uddress_[Project C	ity Numb ity Addres roject Nus ome Pac 520 Cc 520 Cc Please entact (N	er mber ific ontra int Hi lame) (5	9-712 ut Line 325 7 Environme Costa Bly 11, CA 94 10)825-08	7 R Da 04.0 2017 20.5t 1523 355(Fox	Grou e. 20)9 ,825-	58 c. 0882	20		Chevron Laborato Laborato Samples Collection	Contact ry Name ry Relea Collecte Date _	(Name) (Phone) se Numi d by (N) Supe bor 1-7 4 +	1:01 80 93 1:01 1:01	47 97 284	CM 200 Prst	Ken 27 Fi 2.	uez	<u> </u>
			jo										Analye	ee To B	e Perfo	med		-		· · · · ·	NC	·····
Sampio Number	Lab Sampie Number	Number of Contoiners	Matrix S = Soil A = Ar W = Water C = Chon	Type G = Grub C = Composite D = Discrete	•	Sample Preservation	kod (Yee or No)	BIEX + TPH GAS (8020 + 8015)	TPH Ditered (8015)	Oli and Grease (5520)	Purgeoble Holocarbons (8010)	Purgeoble Aromatice (8020)	Purgeoble Organice (8240)	Extractoble Organics (8270)	Metais Cd.Cr.Pb.Zn.Ni (ICAP or M)	-						NOT BILL -LB SAMPLE
Poter Well		3	W	0	1530	HEI	Yes	X													12	P. U.C.
				- 	122-		/~~/		,				<u> ·</u>							┥┈─	Tax to	Nove Anley
															*****			·			408	441-7519
													1 Sa	noloc	illial:		THE WEAK				1-1	11-93
													App	roprie		l in ic	ç		24			
									,				VO4	ples p	reser	naine ad	rs		L	+		
								· ,					Com	Pents.	iout j	cails	aco	⊨/			<u>}</u>	
													\models					Z	<u>}</u>			
																	$ \rightarrow $	K		·	= 1	
<u> </u>						4						·	_ <u></u>					<u>+</u>		<u>+ -</u>	<u>-</u>	
	·															· · ·			<u> </u>	+		
																		<u> </u>			<u> </u>	
ilingulariad By	(Signature)		Orga	Inization	2	ote/Time	Reo	ilved By	(Signa	ture)		0	l. Irganizat	ion	Date	/Time		L	i Turn Ar	round Th	i me (Circ	ole Cholce)
ilingulahed By	(Signature)	<u> </u>	Orga	+-(}- Inization	r	075 ():53 late/Time	Reci	ilved By	(Signa	ture)	listo	0	tganizati HHE	on	Date	/Time				(24 48 8	Hre. Hre. Days	
Hinquished By	(Signature)		Orgo	Inization	C	ote/Time	Real	eved Fo	r Labor	atory By	i Signat	lure)	Syp	es no	Date // 8	/11me 752	3.:	,		10 A# Co	Days Intracted	1



Pacific Environmental Group Attn: Scott Pisle Project 325-04.02 Reported 02/08/93

		TOTAL PETROLE	UM HYDR	OCARBONS		
Lab #	Sample	Identification		Sampled	Analyzed	Matrix
87692- 1	WATER	WELL		01/22/93	02/05/93	Water
Laboratory	Number:	RESULTS O 87692- 1	F ANALY	SIS		·
Gasoline: Benzene: Toluene: Ethyl Benzen Xylenes: Concentratio	e: n:	ND<50 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5	· · · · ·		•	

Superior Precision Analytical, Inc.



825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2 QA/QC INFORMATION SET: 87692

NA = ANALYSIS NOT REQUESTED ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F: Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons: Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons: Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	83/95	13%	70-130
Benzene:	80/94	16%	70-130
Toluene:	78/90	14%	70-130
Ethyl Benzene:	83/92	10%	70-130
Xylenes:	85/94	10%	70-130

Richard Srna, Ph.D.
End + A ((- R) =18/93
Laboratory Director

Certified Laboratories

Chevron U.S P.O. BOX San Ramon, (FAX (415)84	S.A. Inc. 5004 XA 94583 H2-9591	Chevron Facility Number <u>325-04.02</u> <u>9-7127</u> Facility Address <u>Growt LMeRa at Highway S80</u> Consultant Project Number <u>325-04.02</u> Consultant Name <u>Pacific Environmental Group, Trc.</u> Address <u>620 Contra Costa Blvd. Ste. 209</u> <u>Pleasant Hill, CA 94523</u> Project Centeet (Neme) <u>(510)825-0855 (Fox Number)825-0882</u>											Chevron Contact (Name)							· · · · · · · · · · · · · · · · · · ·	
Sample Number	ab Sample Number	lumber of Containers	katrix i — Soll A = Air Y = Water C = Charcool	ypa 6 = Grob 6 = Composita D = Discreta	Ē	omple Preservation	sed (Yes or No)	TEX + TPH CAS 8020 + 8015)	PH Diesei (3013)	it and Graces (5520)	urgeable Hakoarbans (8010).	urgeable Aromatics (8020)	Warlowie Organica (8240) Organica	troctable Organica a (3270)	Perfoi Interesting	med					NOTE: DO NOT BILL TB-LB SAMPI
Vater well		3	W	6	[4:0D	Hcl	7	X			а. 	IQ.,	•								Remorks Send Result
					·				, 				27-							+	10. 2025 buteway
									PI S	ease i Imple Porce	hilialı Stor Cate e	in i oniai	L.	5							SanJOS, CA. 95110
										umple DA's	s pres Withou M(5)	eryed A hec		<u>FA</u>		· · · · ·				<u> </u>	Attin. Marce Do
																				<u> </u>	
			,					<u> </u>	<u> </u>											<u> </u>	
Relinguistied By	(Slanature)	6	orgo	onization	p	ate/Time	R	polyad B	y (Signe	oture)		0	rganizati	on	Date	/Time	7		Turn Ar	ound T	me (Circle Choice)
A	(Signoture)		Orge	inization	/? 0 //	2593 1. 10te/Time 951 25/13	Rec	>> / <u>)</u> >=lved B;	/ (Signo	sture)		0	<u>At K</u> rganizati	O on	2-5/ Dote	/ ˈj· /Time				24 46 75 10	Hre. Daya



Client Number: PACCH



Work Order Number: C3-02-096 Total Number of Pages: 3

February 10, 1993

4080-C Pike Lone Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX)

Steve Krcik

Pacific Environmental Group, Inc. 2025 Gateway Place, Suite 440

San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/02/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eleen F. Bullin,

Eileen F. Bullen Laboratory Director

GTEL Concord, CA C302096.DOC

Client Number: PACCHVO8 Project ID: Chevron, Grant Line Rd. at Hwy. 580 Work Order Number: C3-02-096 Total Number of Pages: 3

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02					
Client Identification		WATER WELL	WATER METHOD WELL BLANK					
Date Sampled		01/29/93	1/29/93 -					
Date Analyzed		02/09/93	02/09/93					
Analyte	Detection Limit, ug/L		Concentra	ation, ug/L				
Benzene	0.5	<0.5	<0.5					
Toluene	0.5	3	<0.5					
Ethylbenzene	0.5	<0.5	<0.5					
Xylene, total	0.5	2	<0.5					
BTEX, total	-	5	+					
TPH as Gasoline	50	<50	<50					
Detection Limit Multiplier		1	`1					
BFB surrogate, % recovery		101	99.8					

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



GTEL Concord, CA C302096.DOC

 $\sim 2^{\prime}$

Client Number: PACCHVO8 Project ID: Chevron, Grant Line Rd. at Hwy. 580 Work Order Number: C3-02-096 Total Number of Pages: 3

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:	, ,						
Benzene	C302096-1	20	ug/L	108	108	0.0	55 - 129
Toluene	C302096-1	20	ug/L	102	106	3.8	72 - 149
Ethylbenzene	C302096-1	20	ug/L	9 4.5	100	5.7	75 - 138
Xylene, total	C302096-1	60	ug/L	86.7	103	17.2	74 - 147



GTEL Concord, CA C302096A.DOC

		Lab	Rep	ort	and	COC to	Che	evror	n Co	onta	st: 7		รร 0			(:hai	n	of—	Cus	tody_Record	
Chevron U. P.O. BOX San Ramon, FAX (415)8	S.A. Inc. 5004 CA 94583 42—9591	Cone Cone F	Chevron Feelility Number <u>9-1121</u> Feelility Address <u>Grant Line</u> Rd <u>J</u> Hwy SEC Consultant Project Number <u>325-04.0.2</u> Consultant Name <u>Pacific Environmental Group, Inc.</u> Address <u>620 Contra Costa Blvd. Ste. 209</u> Pleasant Hill, CA 94523 <u>Struc</u> <u>KRCik</u> <u>c</u> (Phone)(510)825-0855(Fex Number)825-0882 s												Chevron Contact (Name) <u>Kenneth Kan</u> (Phone) <u>Fan' 842 - 9654</u> Laboratory Name <u>GTEL</u> Laboratory Release Number <u>8679730</u> Samples Collected by (Name) <u>Scott</u> . PISIC. Collection Date <u>1-29-93</u> Standure							
Sampie Number	Lab Somple Sumber	Number of Containers	Mathi S = Soil A = Ar W = Water C = Charcool	Type 6 = Grub C = Composite D = Discrete	(Sample Preservation (87)	load (Yea or No)	BIEX + TPH GAS	TPH Diesel (8015)	Oil and Graces (5520)	Puryectile Holoconthens (8010)	Purgeable Aromotice (8020)	Purgeoble Organica (8240)	Extractable Organica at (8270)	Headis C4.C2.Pb.Zn.Mi (C4.P or At)	med					NOTE: DO NOT BILL TB-LB SAMPLE Remarks	
uzell MA	01	3	W 19-	6	14:00	HC1	Y	X					1	~) ~) (•	2	59	Y				
		<u> </u>	12	<u>1 A 53</u>	<u>1114</u>				··							· • • • • · ·		 			Tenp. le. 9	
	1		·	<u></u>							- 6-							 	<u> </u>		prus. Hel	
					. 4		·····		<u> </u>										<u> </u>		seals into t-	
				100			 .				<u> </u>	<u>د</u>						ļ	<u> </u>			
												L¢			· .		<u> </u>					
						· · · · ·					_ 7	<u>) (</u>	<u>P</u>									
											×	$\overline{\mathbf{x}}$					ľ					
ALL THE AREA IN THE												d'a	ľ –						1	1	· · · · · · · · · · · · · · · · · · ·	
	t.																1	1	1	+		
	1													<u> </u>			1	<u> </u>				
	1.1												<u> </u>					<u> </u>	 			
																		 				
																	 					
Tetraulehed By	(Signoture)		Orgo PE Orgo	nization 	0. 	ate/Time -43 12:3 ate/Time	Received By (Signature)				0	rganizati rganizati	on on	Date	/Time	L	Turn Around Time (Cirole Choloe) 24 Hre. 48 Hre.					
Relinquished P	'signature)		Orga	nization	D	ate/Time	Reol	eved Fo	r Lab	D	(Signati	 ur•) 	-7	ln=	Dote, 12.	/Time ・ - スノ	,			10 An Co	Doys) 	



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX)

Client Number: PAC Project ID; Chevrol Work Order Number: C3-02-Total Number of Pages: 2



February 24, 1993

Mary Doden **Pacific Environmental Group** 2025 Gateway Place, Ste. 440 San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/05/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Villen J. Bullen

Eileen F. Bullen Laboratory Director

Client Number: PAC Project ID: Chevron, Grant Line Rd. Hwy. 50 Work Order Number: C3-02-165 Date Reissued: 02-24-93

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

CTEL Sample Number		01	02	
Client Identification		WATER WELL	METHOD BLANK	
Date Sampled		02/04/93		
Date Analyzed		02/05/93	02/05/93	
Analyte	Detection Limit, ug/L		Concentra	ation, ug/L
Benzena	0.5	<0.5	<0.5	
Toluepe	0.5	<0.5	<0.5	
Ethylhenzene	0.5	<0.5	<0.5	
Videna total	0.5	- <0.5	<0.5	
BTEX total				
	50	<50	<50	
Detection Limit Multiplier		1	1	
BEB surrogate % recovery	<u> </u>	97.0	93.4	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



 $S \rightarrow \infty$

00 X.	py or	Lab) Kep	port	and	COC to	Che	vror	n Co	ont	t: 1	<u>j N</u>	. <u>.</u> D		فنواد وسبعا	<u> </u>	hai	<u>n-</u>	of-	Cus	toi -Record
Chevron II	5 4 100	Che	vron Foci Faoil	lity Numi Ity Addre	ber	7- 110	2/ re ka	at	-Hw	y S	-80	- ·	Chevron	Contact	(Norne)	Kenn	ev		Kan	<u>}</u>
P.O. BOX	5004	Con	ultant Pi	roject Nu	mber	325-6	04:0:	<u> </u>		と			chorpto	n Nom	(Phon	<u>معمر</u> آبر)	EL	_ <u></u>	<u> </u>	65	1
San Ramon,	CA 94583	Cone	ultant No	me Par	<u>rific</u>	Environm	ental	Grou	pIr	DC		i	.oborato:	ry Relea	se Num	mber 8679730.					
FAX (415)8	42-9591		Addrees I	Pleas	int Hi	$\frac{11}{11}$, CA 9	<u>va. st</u> 4523	.e. 2	09			- s	Samplea	Collecte	nd by (I	lame)_	Sco	ar f	2,31	<u>ى</u>	······································
1		'	(Phone) (510) 825-0855 (For Number 825-0882											-70-	<u> 2</u>	- 4- 4	33	AP			
			Signature											19							
	*	5											Anolye	•• To B	e Perfo	rined	17	<u>ب م</u> ر		· * -	NOTE:
	E S	E E	22 1	853		vation	0	3			- upo	natio	, į	3		l					DO NOT BILL TB-LB SAMPLE
E DZ	-	0 5	< ১	000 111		Ĩ	8	815 815			Haloc	Į	0 0 0	5	23	ļ	110	5			
ela	San	1 A	¥ Sol	000		1 1 1 1	<mark>عہ</mark>		13	28	940			o febi	8 8		ľu	17		ĿŶ	• •
S.	٩ ٩	NUN	ans.	Å,	j ∰	Ess	2		ES.	59	100 100	Ê Ê	Ê.	651	10 3 3 2 2			* '	,		
watfil	101	2	112	(ar	1452	HCI	Vec	X									<u> </u>	ļ		·	Remarke
	- 	<u>ن</u> د		<u> </u>	(1.55		1427	<u> </u>						 	 		ļ	<u> </u>	 		of Lab Repret
							<u> </u>		·							·	 	<u> </u>	<u> </u>		to Marce Dolen
							<u> </u>							·				<u> </u>			at P.E.G.
																		ļ	\downarrow		Sen JOSE
· · · · · · · · · · · · · · · · · · ·									:			<u> </u>					 	ļ	<u> /</u>		405-441-1339
						<u> </u>										-		<u> </u>			
·									-d	>								<u> </u>			
								, 		<u>></u>											
									$\overline{}$	<u></u>	\leq										
						·····		<u> </u>													
			<u> </u>		<u> </u>								•								
- <u></u> -			·····																		
Bellingutebed Dr. (Slopetruck					a . Ann							 								
1 reul		2	PF			110/Time 192 I ひい		iyed By	(Signal	ure) ()	-1-	20	gonization Neon	und Light	Date	/Time		•	Turn Are	und 11m	• (Circie Choice)
Relinquished By (Signature)		Organ	nizotion	<u>~~</u>	te/lime	Rece	LMELY Nod By	노나 (Signot	ure)	n rata	<u>- 'a</u>	aUU ganizatik	<u>LÜÅ</u>	Dete	/93 ¹ , /11me	<u> </u>			24 48	Hen. Hen.
			_							0				(Dop							
Relinquiehed By (Signature)		Organ	nization	Do	nte/Time	Reoli	Realeved For Laboratory By (Signature)				Dote/Time 10 Days									
							<u> </u>	<u>-61</u>	Lh	$\gamma(t)$	<u>51</u>	<u>a.</u> N	a.		1431	92.	12:15	5	~		



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX)

Steve Krcik

Pacific Environmental Group 2025 Gateway Place, Ste. 440 San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/12/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eller F. Bullen K.

Eileen F. Bullen Laboratory Director Client Number: Project ID: Work Order Number: Total Number of Pages:



February 23, 1993

GTEL Concord, CA C302349A.DOC

Client Number: PAC Project ID: 325-04.02 Work Order Number: C3-02-349

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	02		
Client Identification		WATER WELL	METHOD BLANK		
Date Sampled		02/12/93			
Date Analyzed		02/19/93	02/19/93		
Analyte	Detection Limit, ug/L		Concentra	ation, ug/L	
Benzene	0.5	<0.5	<0.5		· ·
Toluene	0.5	<0.5	<0.5		
Ethylbenzene	0.5	<0.5	<0.5		
Xylene, total	0.5	<0.5	<0.5		
BTEX, total	-	-	- <u>.</u>		
TPH as Gasoline	50	<50	<50		
Detection Limit Multiplier		1	1		
BFB surrogate, % recovery	· · ·	98.4	98.8	· · · · · ·	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



QC Matrix Spike and Duplicate Spike Results

Matrix:	W	ater
---------	---	------

Analyte	Sampie ID	Spike Arnount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	Reagent Water	20.0	ug/L	90.0	90.5	0.6	70 - 147
Toluene	Reagent Water	20.0	ug/L	94.0	91.0	3.2	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	90.0	87.0	3.4	69 - 145
Xylene, total	Reagent Water	60.0	ug/L	90.3	91.0	0.2	71 - 152



Fax cor	by of I	Lab	Rep	ort d	and (000 to	Che	vron	Co	ntac	t:/ C		5 D			С	haiı	n-o	f-(Cus	tody-Record
Chevron U.S P.O. BOX San Ramon, (FAX (415)84	5.A. Inc. 5004 X 94583 12—9591	Chevron Facility Number <u>9-7127</u> Facility Address <u>Aroust Line Road at Away 580</u> Consultant Project Number <u>325-04.02</u> Consultant Name <u>Pacific Environmental Group, Inc.</u> Address <u>620 Contra Costa Blvd. Ste. 209</u> <u>Pleasant Hill, CA 94523 (1)</u> Project Contact (Name) (510)825-0855 (Fax Number)825-0882										Chevron Contact (Name) <u>KCM</u> Kan (Phone) EA: 842 - 96 54 Laboratory Name <u>GTEL</u> Laboratory Release Number <u>8679730</u> Samples Collected by (Name) <u>2-12-93</u> by SCOTT PISKS Collection Date <u>2-12-93</u> Signature <u>MER</u> MER									
Sampie Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grub C = Composite D = Discrete	Tme	Sample Preservation	iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diezed (8015)	Oil and Grease (5520)	Purgeoble Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeoble Organics (8240)	Extractable Organics	Metals C4.Cr.Pb.Zn.Ni (ICAP or M) 20	K	3(ح	3	цо	NOTE: DO NOT BILL TB-LB SAMPLE Remarks
ubter well ner	ai	3 P	w • (Q	6- M.K	<u>11:30</u>	HC1	Y	X		·						•					Also Fax CAR report to Maree
			·	· · ·				,				1		2	\$						Joden 408-441-7539
														· · · · · · · · · · · · · · · · · · ·							8.9 °C Seals in tact He (D
																•					
	101 A						100		(Class				Oreesland						Turn A-		ma (Clocka Chatas)
Relinguished By	(Signature) (Signature)			anization EG anization HEL gonization		-/2- <u>73</u> 3:0 Dote/Time 12-0335 Dote/Time	22 R	Jolu Jolu Incelved B roleved F Jan	y (Sign y (Sign or Labo	ature)) (Signa CX-<	ature)	GTE Organizat	- <u>L</u> Jon 2/9	Date Date 3 4	/Time /Time /Time //Time	308		, um AC	24 48 10 24	Hre. 1 Hre. Doye Doye

Fax cop	by of I	Lab	Rep	ort	and (COC to	Che	vron	Co	ntac	t: C	5 ¥0] N	es o			Ch	ain	1-0	f-(Cust	lody-Record
Chevron U.S P.O. BOX San Ramon, (FAX (415)84	S.A. Inc. 5004 CA 94583 12-9591	Chevron Facility Number <u>9-7127</u> Facility Address Arout Line Road at Awy 580 Consultant Project Number <u>325-04.02</u> Consultant Name Pacific Environmental Group, Inc. Address 620 Contra Costa Blvd. Ste. 209 Pleasant Hill, CA 94523 <u>Stove Kreik</u> (Phone)(510)825-0855 (Fox Number)825-0882 Chevron Contact (Name) <u>KCH Kan</u> . (Phone)Easi 842-7654 (Phone)Easi 842-7654 Laboratory Name <u>6-7EL</u> Laboratory Release Number <u>8679730</u> Samples Collected by (Name) <u>2-12-73</u> by <u>568</u> Collection Date <u>2-12-73</u>												COT Piske							
			joo.										Analyse	n To B	• Perfor	məd					NOTE:
ampie Number	ab Sample Number	lumber of Containers	ketrts 5 - Soil A = Air 7 - Water C = Chan	ype G = Grub C = Composite D = Discrete	eu	sample Preservation	cod (Yes or No)	REX + TPH CAS 8020 + 8015)	PH Diesel (8015)	Xi and Graces (5520)	Varyeable Halocarbons (8010)	^b urgechie Aromotice (8020)	urgechie Organice (8240)	Extractable Organica (8270)	Hetole 24.Cr.Pb.Zn.Ni 1CAP or AV)						DO NOT BILL TB-LB SAMPLE
6 6 600/		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								<u> </u>									· · · · · · · · · · · ·		
ubter wei		3	\mathcal{N}	0-	11:30	HCI	<u>الا ا</u>			 		·				·				 	Also Fax
													· .								CAR report
				<u> </u>																┼───	the playee
					[·		-						••••••••••••••••••••••••••••••••••••••	<u> </u>	408-441-7539
				 .											· · · · · · · · · · · · · · · · · · ·						
·`· · · · · · · · · · · · · · · · ·				<u> </u>			- <u></u>												·	1	8.9 °C
· · · · · · · · · · · · · · · · · · ·																					Seals as tact
																					Nec (D)
									}												<u>,</u>
																,					
								<u> </u>		-											
							 	_	i											ļ	
Relinguisted By	(cinnoisure)		P	anization EG	2	nate/Time 12-13 3:0	10 Roc	John B	(Signo We	iture)			Organizati GTE	on 	Dote 2/1	/11me 3 2./73	80	[um Arc	ound Tin 24 48	ne (Circle Choice) Hre. Hre.
Reinquished By	Warsh			HEL	5	17-93 3°	22	anted P	, ∕≫iĝuo	nur#)			OLAOHION.	411		/ 10110				Ē	Degree -
Relinquished By	(Signature)		Org	enization		late/Time	Reg	am	or Labor	ratory B) (Signa X	tur•)	2/1	2/2	B Doto	/Tim• 100			(10	ntraoted

. . . .



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX)

Maree Doden Pacific Environmental Group

2025 Gateway Pl., Ste. 440

San Jose, CA 95110

з THE ENVIRONMENTAL GROUP, INC C

Client Number: P. Project ID: 3 Work Order Number: C Total Number of Pages: 3

March 1, 1993

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/22/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eleen F. Jullen R. 4

Eileen F. Bullen Laboratory Director

Client Number: PAC01CHV08 Project ID: 3250402 Work Order Number: C3-02-0082

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015ª

GTEL Sample Number		01	02					
Client Identification		WATER WELL	METHOD BLANK					
Date Sampled		02/19/93						
Date Analyzed		02/24/93						
Analyte	Detection Limit, ug/L	Concentration, ug/L						
Benzene	0.5	<0.5	<0.5					
Toluene	0.5	<0.5	<0.5					
Ethylbenzene	0.5	<0.5	<0.5					
Xylene, total	0.5	<0.5	<0.5					
BTEX, total								
TPH as Gasoline	50	<50	<50					
Detection Limit Multiplier		1	1 1					
BFB surrogate, % recovery		97.3	98.4					

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.


QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	Reagent Water	20.0	ug/L	90.5	86.5	4.5	70 - 147
Toluene	Reagent Water	20.0	ug/L	91.0	86.5	5.1	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	87.5	83.5	4.7	69 - 145
Xylene, total	Reagent Water	60.0	ug/L	91.7	87.8	4.3	71 - 152

Eax con	w nf 1	ah	Ren	ort c	ind (200 to	Che	vron	Co	ntac	⊔ t:□	⊺e: ⊨No	S ,			Cł	nain	<u>ا</u> سم	f(lust	odv-Record
rux cop		Chevr	ron Facilit	by Numbe	320	60402		9-7	12	F	···		hevron C	entact	(Nawe)	Kr Kr	nne	th	KA	と	
Chevron U.S	5.A. Inc.	_	Facili	y Addres	Gran MA	of line	Rd	<u>C58</u>	01	Vac 267	sih2	-			(Phone)	- T	il .	· · · _ · · · ·			
P.O. BOX	5004	Consi	ullant Pro	me <u>Pa</u>	cific	Enviro	nmen	tal	Grou	1p		= Li Li	aboralory aboralory	Releas	e Numb	er	86	7	97	39	
FAX (415)84	2-9591		ddrees <u>2</u> rolait Co	2025	<u>Gatev</u> Imar A	iay Plac IAN <i>C</i> E ù	ie St Vode	<u>e.44</u> 心	<u>0 Sa</u> 9:	an Jo 5110	ose_!	- s	ampies (oliection	Collecter	1 by (N	-19-	<u>CJ.</u> 93	no		SICA (5
				(PI	home <u>) (</u>	08)441-	7500	Number). 441	1-75	39	s	lonoture .		<u> </u>	<u>5.</u>	iot	Snc	₩~~		· · · · · · · · · · · · · · · · · · ·
ĺ				5						<u> </u>			Analyse	e Ta B	• Perfor	međ					NOTE: DO NOT BILL
	umber	ntainer	₹ð	db Partes Techtes		vetion	(°)	36			- votrov	ometic	zanka	n in the second		•					TB-LB SAMPLE
- quiny	r -jqr	3 5	 	111		i de la compañía de la	5 2	H41 +	1	Cree Cree	H H	₹	5	oble (6.ZnN or M)						Seals Infact
Sample	ي م	Ишрег	-0× 511 20×	***	Ĕ	Somple	icaed (Y	BIEX (8020	H41 100)	Off and (5520	Purpect (8010	Purges (6020	Purgeo (8240	Extract (BZ70	C C C C						Remarke
water well		3	W	G	10-20	HCI	Y	\mathbf{X}					· .							<u> </u>	
		<u> </u>		 	16:20			<u> </u>	 												· · · · · · · · · · · · · · · · · · ·
	 		<u> </u>																		
											5					<u> </u>	[
				<u> </u>							D	~					ļ				
	 			 		 							<u> </u>		<u> </u>					<u> </u>	
	.																<u> </u>		{	-{	
						ļ			<u> </u>					.				 			
	<u> </u>					· · · · · · · · · · · · · · · · · · ·															
	<u> </u>		<u> </u>	-{		-		-			-				-						-
Relinguished B	y (Signature))	Or	ganization	C	Dole/Time	R	Hoelyed	By (Slgr	nolure)			Organiza	tion S	Do 27/4	1+/Tlm+ 2 /7	71		Turn /	Around	lime (Circle Choice)
Rollinguiahad B	y (Signotur)	$\widehat{\mathbf{h}}$	Or	<u>1 CC</u> panlaction		Dote/Time	1725 R	beviese	By (Sla	neture)		4	Organiza	Uon	Da	te/Time	. <u>-</u> - <u>></u>	1		: 	14 Hrs.
72	sad	<u></u>	- 0	<u> </u>	· •	12/53 3					<u> </u>							-		1	D Doys
Relinguished B	ly (Signature)	Į M	nganization	·	Date/Time			ror Lob		BY (SIG	L (ا ہ	1-1	a 1 00	····		1		A # -	Contracted

-			-						•		. 5) Ye	S				• .			.	اا
Fax cop	y of	Lab	Rep	ort c	ind (COC to	Che	vron	Co	ntac	t: L] No)				nair	<u>1-0</u>	1-0	Jusi	00V-1480010
Chevron U.S P.O. BOX San Ramon, C FAX (415)84	5.A. Inc. 5004 X 94583 42—9591	Chevr Cone A P	ron Facilit Facilit uttant Pro witant Ha ddreee_2 vroject Co	ty Numbe y Address oject Nun me <u>Pa</u> 2025 Intact (Ni (Pi	n <u>326</u> Gran cific Gatew dmær_N hon•)(4	CHOR CONC Enviro May Plac (ARE L (08)441-	RA nmen e St Dde 7500	9-2 658 HJ tal e.44 Number	Grou 0 Si 0 44	251 10 1-75	05e 39	0 1 1 5 5	hevron (aborator) aborator) iamples (iallection ilgnature	Contact Y Name Y Releas Collecte Date _	(Hame) (Phone) (Phone) (F end) (Phone)		nne El CJ 101	Fa nc	47 97 105	N 30 ich	NAR 1 1993
			To or										Anolyse	• To B	e Perfor	med	<u> </u>	r		τ	NOTE: DO NOT BILL
Sample Number	Lab Sample Number	Number of Containen	Matthe S = Soll A = Ar W = Water C = Char	Type G = Grub C = Composite D = Diacrete	Time	Sample Preservation	Icad (Yes or No)	BTEX + TPH CAS (8020 + 8015)	TPH Diamed (8015)	Oli and Grass (5520)	Puryeable Halocarbous (8010)	Purgeoble Aromatics (8020)	Purgeoble Organica (8240)	Extractoble Organica (8270)	Mataia Cd.Cr.Pb.Zn.Ni: (ICUP or M)						TB-LB SAMPLE 40° Sodly Infact Remorke
WATES well		3	W	G	10-20	HCI	Y	X			· ·										
					16:20													 		ļ	
						•									ļ					<u> </u>	· · · · · · · · · · · · · · · · · · ·
·				ļ				ļ							<u> .</u>	<u> </u>		ļ			
· · ·		<u> </u>					 	 	<u> </u>	<u> </u>	ļ				<u> </u>				<u> </u>		•
· · · · · · · · · · · · · · · · · · ·		ļ	 				ļ			<u> </u>			· .	<u> </u>	<u> </u>				 		
		<u> </u>	<u> </u>	<u> </u>	_		<u> </u>	<u> </u>	ļ	 	<u> </u>				· · ·		 			ļ	
			ļ				ļ	 	 							<u> </u>		ļ	· .		
			<u> </u>	ļ	ļ		ļ	<u> </u>		<u> </u>	ļ						<u> </u>	<u> </u>	- 	<u> </u>	
					<u> </u>		ļ			·	_		_		_						
			_											.	_						
		. 	<u> </u>									 			-	·	<u> </u>	-			`
	<u> </u>			<u> </u>					<u> </u>			 			·						-
			<u> </u>	<u> </u>		J	<u> </u>				<u> </u>	l				<u> </u>		<u> </u>	<u> </u>		
Relingulehed By	(Stanature)		0ŋ	PEE PEE	1-	Date/Time 22/33 Date/Time	225 225	celved i	By (Slor	alure)	e e	2	Organiza	illon S	0a 9/2 0a	19/Time - <u>/2</u> Le/Time	25		Turn A	round T 2 4	ime (Circle Choloe) 4 Hrs. 8 Hrs.
	- (Signowith)	'J;	- 0	~5	R	22/53 3	ijo "				-					•				9	Dove
Relingulahed B	y (Signature)	Or	ganization	•	Date/11me	B	sloved i Jan	For Lab	orotory	By/(Sign	igture)	s 2/	2.2/	93	1•/Tim• 3'/C)]		λ# () ontracted



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX) Client Number: Project ID: Work Order Number: Total Number of Pages:



March 12, 1993

Maree Doden

Pacific Environmental Group, Inc. 2025 Gateway Place, Suite 440 San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 02/26/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eleen F. Bullen/K

Eileen F. Bullen Laboratory Director

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015ª

GTEL Sample Number		01	02		
Client Identification		WATER WELL	METHOD BLANK		
Date Sampled		02/26/93			
Date Analyzed		03/06/93	03/06/93		
Analyte	Detection Limit, ug/L		Concentra	ation, ug/L	
Benzene	0.5	<0.5	<0.5		
Toluene	0.5	<0.5	<0.5		
Ethylbenzene	0.5	<0.5	<0.5		
Xylene, total	0.5	<0.5	<0.5		
BTEX, total			· ••		
TPH as Gasoline	50	<50	<50		
Detection Limit Multiplier	<u> </u>	1	1		
BFB surrogate, % recovery		97.6	102		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.





QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Arnount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:		·					
Benzene	Reagent Water	20.0	ug/L	94.8	95.3	0.526	70 - 147
Toluene	Reagent Water	20.0	ug/L	97.1	99.5	2.44	67 - 150
Ethylbenzene	Reagent Water	20.0	ug/L	93.9	94.9	1.06	69 - 145
Xylene, total	Reagent Water	60.0	ug/L	103	104	0.966	71 - 152



Chevron U.S.A. Inc. P.O. BOX 5004 San Ramon, CA 94583 FAX (415)842-9591	Chevro Consult Consult Add Pro	Faolit Faolit tant Pro tant Nor dress <u>6</u> pjoct Co	ty Numb y Addres oject Num me Pac 20 co 1easa ntoct (Ni (Pi	er nber nfic ntra nt Hi eme) hone) (5	$\frac{9-712}{325-0}$ Environme Costa Blu 11, CA 94 10)825-08	7 4.0 ental vd. St 4523 355 (Fox	at Grou e. 2	Τ- p, Ir 09 μ	0882			Chevron Chevron Ceborato Samples Collection	Contact ry Name ry Relea Collecte Date	: (Name) (Phone)))))))))))))))))))) ber ame)	Ken Sc Sc	84 67 67	973	30 Sle forlo	
VBA Active Number Lab Sample Number	A Number of Containers Motits	Veter C = Charcool	Type 6 = Grub C = Composite D = Discrete	• 	Sample Preservation	Iced (Yes or No)	(8020 + 8015)	TPH Diesel (8015)	Oll and Grease (5520)	Purgectile Halocarbans (8010)	Purgeoble Aromatics (8020)	Purgeoble Organice (8240)	Extractable Organics	Perfor	med		Ba	2	D	NOTE: DO NOT BILL TB-LB SAMPLE DOU Remarke
				7.60	,	_7es												· · · · · · · · · · · · · · · · · · ·		Fox Capy of CAR. to Navee Dollen 408-441-7537 and sevel eniginal CAR to Theree D at
					RU	39														Sam Jose office
Relinquished By (Signature)		Organi: PE Organi: GT Organi:	zation Zation EL zation		te/Time 16-73 14:3 16/Time 26 14:41 te/Time	3 Rece 3 A Rece Rece	Ived By Qen 1 Ived By	(Signat	ure) C-1 ure)	(Sinnety		ganizatia 9-TE ganizatia	on on	Date/ 2/2 Date/	Time 2 6	33		um Aro	und Tim 24 48 5 D 10 T	• (Cirole Choloe) Hre. Hre. oya

.



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX)

March 22, 1993

Maree Doden Pacific Environmental Group, Inc. 2025 Gateway Place, Suite 440 San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 03/08/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

E Seen F. Bullen K.M.

Eileen F. Bullen Laboratory Director

GTEL Concord, CA C3030125.BTE

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015ª

GTEL Sample Number		• 01	031293GCM		
Client Identification		WATER WELL	METHOD BLANK		
Date Sampled		03/04/93	-		
Date Analyzed		03/12/93	03/12/93		
Analyte	Detection Limit, ug/L		Concentrat	ion, ug/L	
Benzene	0.5	<0.5	<0.5		
Toluene	0.5	<0.5	<0.5		
Ethylbenzene	0.5	<0.5	<0.5		
Xylene, total	0.5	<0.5	<0.5		
BTEX, total		-			
TPH as Gasoline	50	<50	<50		
Detection Limit Multiplier	· · · · · · · · · · · · · · · · · · ·	1	ſ		
BFB surrogate, % recovery		96.0	96.0	· · · · · · · ·	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	DI Water	20.0	ug/L	104	97.5	12.4	55 - 129
Toluene	DI Water	20.0	ug/L	110	102	7.61	72 - 149
Ethylbenzene	DI Water	20.0	ug/L	103	96.5	6.5	75 - 138
Xylene, total	DI Water	60.0	ug/L	113	105	7.3	74 - 147



GTEL Concord, CA C3030125.BTE

Chevron U. P.O. BOX San Ramon, FAX (415)8	S.A. Inc. 5004 CA 94583 42-9591	Cond Cond Cond	vron Fool Faol sultant P sultant N Address Project C	lity Numi ity Addre roject Nu ome Par 620 Cc Please ontact ()	mber mber cific ontra ant Hi dame) (5	9-7 325-0 Environm Costa B1 11, CA 9 510)825-0	2.7 Rd 0 <u>4.07</u> ental vd. <u>5</u> 4523 855 (re	Grou Grou ite. 2	p, I 09 " <u>825</u> .	7/ nc. -0882	<u>ке</u>		Chevron Chevron Laborata Laborata Samples Collection Signature	Conter ory Nam ory Relea Collect n Date	(Name (Phon)))))))))))))))))))) •) Fei (-T) hoor Name). 3	ha Ken EL 86 5 4	n-1 1-1 1-12- 1-2- 1-2-	01- 865 737 Pis 3	Cu:	stody-Recor
Sample Number	Lab Sample Number	Number of Containers	V Matth S = Soll A = Ar W = Weter C = Charcool	Type 6 = Grub C = Composite D = Diacrete	lime.	Sample Preservation	Load (Yam or No)	(3020 + 3015)	TPH Diesel (8015)	Ol and Grass (5520)	Purgeoble Helocarbons (8010)	Purgeable Arometics (8020)	Purgeethe Organica (8240)	Estractudio Organica 2 (8270)	Calcore And			3			NOTE: DO NOT BILL TB-LB SAMPLE Seals lutaet: 4-3°, HCI CB Remorks
		· · · · · · · · · · · · · · · · · · ·					Y									by and the second secon	j j j				Fax copy of CAR. to Harce Doden 408-441-7539 Follow the fax up by Milling Original CAR. to Marce Dolen at Cate way swite 17403 San Jose 95110
Relinquished By (Relinquished By (Relinquished By (Relinquished By (Signature) Signature) Qa Signature)		Organ P.E Organ G.T Organ	nization SU: nization	0. 3- 0. 3-	ate/Time 8-93 //:3 ste/Time 8-93 //:5 ste/Time	0 Rec	solved By Jolus Solved By Solved By	r (Signa - WQ (Signa r Labor MM	ture) ture) otory B	(Signatu		rganizoti 3 TE rganizoti	on On	Dote 3-4 Dote 0ote 3/4	/Time 5 1 (/Time /Time	30		Furn Ard	aund Th	me (Circle Choice) Hre.

. . .

.



Northwest Region 4080-C Pike Lane Concord, CA 94520 (510) 685-7852 (800) 544-3422 from inside California (800) 423-7143 from outside California (510) 825-0720 (FAX) Client Number: PAC01CHV08 Project ID: 325-04.02 Work Order Number: C3-03-0225

March 22, 1993

Maree Doden Pacific Environmental Group, Inc. 2025 Gateway Place, Suite 440 San Jose, CA 95110

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 03/12/93.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,

GTEL Environmental Laboratories, Inc.

Eleen F. Bullen / T.M.

Eileen F. Bullen Laboratory Director

Table 1

ANALYTICAL RESULTS

Aromatic Volatile Organics and Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	031593GCA		
Client Identification		WATER WELL	METHOD BLANK		
Date Sampled		03/11/93			
Date Analyzed		03/15/93	03/15/93		
Analyte	Detection Limit, ug/L		Concentra	ation, ug/L	
Benzene	0.5	<0.5	<0.5		
Toluene	0.5	<0.5	<0.5		
Ethylbenzene	0.5	<0.5	<0.5		
Xylene, total	0.5	<0.5	<0.5		
BTEX, total	-	<u> </u>			
TPH as Gasoline	50	<50	<50		
Detection Limit Multiplier		1	• 1		
BFB surrogate, % recovery		99.4	92.9		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C3030225-01	20.0	ug/L	102	91.0	11.4	55 - 129
Toluene	C3030225-01	20.0	ug/L	96.5	86.5	10.9	72 - 149
Ethylbenzene	C3030225-01	20.0	ug/L	90.0	81.5	9.9	75 - 138
Xylene, total	C3030225-01	60.0	ug/L	97.2	88.5	9.4	74 - 147

GTEL Concord, CA C3030225.BTE



Chevron U. P.O. BOX San Ramon, FAX (415)8	S.A. Inc. 5004 CA 94583 42-9591	Che Con Con	rvron Fao Faol neultant P neultant N Addrees Project Č	Allty Num Rity Addre Troject Nu arme Par 620 Cc Please Contact (1	mber	9-71 325-0 Environm Costa Bl 11, CA 9 10)825-00	2-7 Rd a 4.07 ental vd. S 4523	Grou te. 2	5 80 10. Tu 109	7 / 	4643		Chevron Laborata Laborata Samples Collection	Contac bry Nam rry Relea Collect n Date	t (Nami (Phen e e by (() () (hor Name).	Ha Ken EL 86 S	11-(1 1-(1) 1-(2)(21-1 915 732 Pist	Cu:	stody-Reco
iple Number	Sample Number	ber of Containers	k Soit A = Air Water C = Charcool	c Crab c Crab c Composite D'acrete		is Preservation	(Cas or No)	+ 1PH CuS + 8015)		Coose (o	bie Halocarbons 0)	obie Aromatice	Analys Analys Suschoo (0	table Organics	So Porto	med					NOTE: DO NOT BILL TB-LB SAMPLE Soals/n 5.9°, HC
woter well	ਭ 	S Num	W	es.	₽ 14'00	HC1	<u>y</u>		Haji	03 or (552	503 Fride	Puro (802	(824	Extrac (827				20			Remarks Fax copy of C.AR, to
																		5	3/14		Harce Doden 408-441-7539 Follow the fax
																					Briginal CAR to Marce Dole at Enterny swite 440
																					San Jose 95/10
elinquished By (Signature)	<u> </u>	Organ P.E Organ	nization 5-6- nization	- Do 3-7/ Do	nte/Time 1283 /305 nte/Time	- Rec	elved By	(Signat	iure)	L	Or	ganizatio ganizatio	9 n	Date Date	/Time		TI	urn Arou	und Tin 24 48	ne (Circle Choloe) Hre. Hre.
elinquiehed By (\$	Signature)		Organ	lization	Da	t∙∕∏m•	Prove 4	Ma For	r Labora	itory By	(Stinatur Do	L D	be		Dote,	Time 2/9:	3/1	25	(10 An Cor	Doys Itrooted

.....