

January 19, 2001

Mr. Barney Chan Alameda County Health Care Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577

3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-602 U.S.A. 916/638-2085 FAX: 916/638-8385

Subject: Monitoring Well Installation and Groundwater Sampling Results

Chevron Service Station No. 9-1851

451 Hegenberger Road Oakland, California

Delta Project No. DG91-851

Dear Mr. Chan:

Delta Environmental Consultants, Inc. (Delta) has been authorized by Chevron U.S.A. Product Company (Chevron) to conduct additional hydrogeologic investigation at the subject site. The location of the site is presented in Figure 1. A site map is included in Figure 2. This investigation was intended to further assess the distribution of petroleum hydrocarbon constituents in groundwater in the vicinity of the site. This report includes the results of drilling and well installation activities conducted on October 17, 2000. The work was conducted in accordance with Delta's Interim Corrective Action Plan dated August 1, 2000, as approved by the Alameda County Health Care Services (County). Copies of approved permits are included in Enclosure A.

Project Background

The Gettler-Ryan Inc. (G-R) report entitled Preliminary Site Assessment, dated December 29, 1995 indicates that petroleum hydrocarbon contaminants related to the operation of product storage and dispensing systems at the site were first reported in October 1995 during a baseline environmental investigation conducted G-R as part of a leasing agreement between Chevron and the current site owner Ben Schimek. In October 1995, G-R observed Bay Area Exploration Services, Inc., of Cordelia, California advance soil borings (SB-1 and MW-1 through MW-4) on-site. Boring SB-1 was hand augured to 6.5 feet below surface grade (bsg). Boring MW-1 was drilled to 15.5 feet bsg and borings MW-2 through MW-4 were drilled to 16.5 feet bsg. Soil borings MW-1 through MW-4 were converted The soil boring analytical results indicated that petroleum to groundwater monitoring wells. hydrocarbon constituents were present in the subsurface. On November 22, 1995, Virgil Chavez Land Surveying (Chavez), licensed land surveyor (#6323) of Vallejo, California, surveyed wells MW-1 through MW-4 relative to mean sea level.

During June and July 1997, Pacific Environmental Group (Pacific) reviewed files for five sites that had reported fuel leaks and are located near the subject site. Pacific identified the Unocal Service station located at 449 Hegenberger Road, Oakland, California to be a potential contributor to a commingled off-site methyl tertiary butyl ether (MTBE) plume. Pacific reviewed Department of Water Resources

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well records and prepared a ½ mile radius well survey. Additionally, Pacific performed a survey of existing underground utilities in the vicinity of the subject site and prepared a sensitive receptor survey.

During April 1998, Pacific advanced four hand auger soil borings (GW-2 through GW-5) within off-site utility trenches to approximately 4 to 5 feet bsg. Laboratory analyses of groundwater "grab" samples collected within the utility trenches did not indicate the presence of petroleum hydrocarbon constituents.

During the fourth quarter 1999, Geo-logic, Inc removed the 1,000-gallon used oil underground storage tank (UST) from the site. Apparently, a tank removal report has not been filed with ACHCS.

Quarterly groundwater monitoring and sampling has been performed at the site since the installation of the monitoring wells in October 1995. Historical soil sample analytical data is summarized in Enclosure B.

Soil Boring Results

Que October 17, 2000, a Delta geologist observed West Hazmat Drilling Corporation (West Hazmat) of Rancho Cordova, California advance three soil borings to approximately 12 feet beg and complete the borings as groundwater monitoring wells MW-5 through MW-7. Monitoring well MW-5 was installed hydraulically upgradient to identify potential off-site source(s) of MTBE. Monitoring wells MW-6 and MW-7 were installed hydraulically downgradient to further assess the lateral extent of MTBE in groundwater downgradient of the dispensing and product storage systems at the site. The locations of the monitoring wells are shown on Figure 2. Field methods and procedures used by Delta during installation of these wells are summarized in Enclosure C.

Soil samples were collected from each soil boring at a minimum of 5-foot intervals and at changes in lithology to the total depth of the boring. The soil samples from each boring were logged using visual and manual methods and were field-analyzed for the presence of organic vapors using a photoionization detector (PID). Soil samples were submitted for chemical analysis based on PID results, depth of the soil samples and soil lithology. Soil boring logs containing soil descriptions and other drilling information are included in Enclosure D.

Soil Sample Analytical Results

Selected soil samples collected between 4 and 9 feet bsg were submitted from each boring to Sequoia Analytical (Sequoia) of Sacramento, California (a California-certified laboratory) for analysis of benzene, toluene, ethylbenzene and total xylenes (BTEX), and total purgeable hydrocarbons (TPH) (C6-C12) using DHS LUFT Method, and volatile oxygenate compounds using EPA Method 8260A. Soil samples were collected using the procedures described in Enclosure B. Soil sample analytical results are summarized in Table 1. Copies of the laboratory reports are included in Enclosure E.

Groundwater Monitoring Well Construction and Installation

Groundwater monitoring wells MW-5 and MW-6 were constructed of 2-inch diameter, Schedule 40 PVC casing to approximately 10 feet bsg. Groundwater monitoring well MW-7 was constructed of 2-inch diameter, Schedule 40 PVC casing to approximately 13 feet bsg. The wells were screened from approximately 3 feet bsg to the total depth of the well with 0.02-inch wide slotted casing. The annular space of each well was filled with Lonestar No. 3 sand to 6-inches above the top of the well screen. A 6-inche bentonite seal was emplaced above the filter pack. The remaining annular space was

Mr. Barney Chan Alameda County Health Care Services. January 19, 2001 Page 3

filled with neat cement grout containing approximately 5 percent bentonite to approximately 6-inches bsg. Wellheads were completed with flush grade, traffic rated well boxes set in concrete. Well construction details are included in Enclosure D.

Monitoring Well Development and Groundwater Level Measurements

Monitoring wells MW-5 through MW-7 were developed and sampled on October 23, 2000 using the procedures described in Enclosure B. On November 15, 2000, Chavez surveyed wells MW-1 through MW-7 relative to mean sea level. A copy of the well survey report is included in Enclosure F.

Depth to groundwater measurements were recorded in monitoring wells MW-1 through MW-7. Groundwater measurements and physical observations are presented in Table 2. A groundwater contour elevation map using the October 23, 2000 water level data is presented as Figure 3. Based on the October 23, 2000 water level measurements, the inferred groundwater flow was generally toward the east. 7

Groundwater Sampling and Analytical Results

Groundwater samples collected from MW-5 through MW-7 were analyzed for BTEX, TPH (C6-C12), and volatile organic oxygenate compounds using EPA Method 8260B using the previously described methods. Groundwater analytical results are summarized in Table 2. Copies of the laboratory analytical reports are included in Enclosure G.

Soil Stockpile

Drilling activities generated approximately 0.5 cubic yards of drill cuttings. The drill cuttings were temporarily covered and stockpiled on-site. Four soil samples were collected from the stockpile and submitted to Sequoia for chemical analyses. The samples were composited by the laboratory into one sample and analyzed for BTEX and TPH (C6-C12) using the previously described methods. Additionally, the sample was analyzed for total metals by EPA 6000/7000 Series Methods. Laboratory analytical results are summarized in Table 1. A copy of the laboratory analytical report is included in Enclosure E. Integrated Wastestream Management, Inc. transported the stockpiled soil on November 8, 2000 to the Republic Services Vasco Road Landfill in Livermore, California for disposal. A copy of the waste manifest is included in Enclosure H.

Conclusions/Recommendations

The laboratory analytical results for the groundwater samples collected from monitoring wells MW-5 through MW-7 on October 23, 2000 indicate that MTBE is present in monitoring wells MW-6 and MW-7 at concentrations which exceed the California drinking water maximum contaminant level (MCL) of 5 μ g/L.

Additional assessment hydraulically east and southeast of the site appears to be necessary. Delta recommends evaluating the next two quarters (first and second quarter 2001) of groundwater monitoring data prior to determining extent of additional assessment.

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Schedule

The fourth quarter monitoring and sampling event was conducted on December 8, 2000 by G-R. Groundwater monitoring wile MWA, MW 6 and MW.7 are scheduled to the next sampling event which is scheduled for March 2001. A work plan will be submitted describing the proposed over-purging of the monitoring wells prior to implementation.

Remarks/Signatures

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

If you have any questions regarding this project, please contact Ben Heningburg at (916) 536-2623.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Benjamin I. Heningburg

Project Manager

Michael A. Berrington, R.G.

California Registered Geologist No. 7124

BIH (Lrp002.1851.doc)

Enclosures

cc:

Mr. Tom Bauhs - Chevron U.S.A. Products Company

Mr. James R. Brownell – Delta Environmental Consultants, Inc.

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS

Chevron Service Station No. 9-1851 451 Hegenberger Road Oakland, California

Sample ID	Date	Depth (ft)	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)	Oxygenate Compounds (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)
MW-5-4	10/17/00	4.0	<1.0	<0.005	<0.005	<0.005	<0.005	<10.0 ^a , <0.1 ^b , <0.1 ^c , <0.1 ^d , <150 ^e	0.147	NA
MW-6-4.5	10/17/00	4.5	<1.0	<0.005	<0.005	<0.005	<0.005	<10.0 ^a , <0.1 ^b , <0.1 ^c , <0.1 ^d , <150 ^e	<0.1	NA
MW-7-6.0	10/17/00	6.0	<1.0	<0.005	<0.005	<0.005	<0.005	<10.0°, <0.1°, <0.1°, <0.1°, <150°	<0.1	NA
MW-7-9.0	10/17/00	9.0	0,1>	<0.005	<0.005	<0.005	<0.005	<10.0°, <0.1°, <0.1°, <0.1°, <150°	0.172	NA
STOCKPILE										
SP-1A,B,C,D (comp)	10/17/00	-	<1.0	<0.005	<0.005	<0.005	<0.005	NA	NA	<10

TPH = Total purgeable hydrocarbons.

Oxygenates Compounds = Tert-butyl alcohol (TBA), Di-isopropyl ether (DIPE), Ethyl tert-butyl ether (ETBE), Tert-amyl methyl ether (TAME), ethanol.

MTBE = Methyl tertiary butyl ether by EPA Method 8260 unless otherwise noted.

ft = feet.

mg/kg = milligrams per kilogram.

NA = Not analyzed.

- ^a TBA
- ^b DIPE
- ^e ETBE
- ^d TAME
- ^c Ethanol

TABLE 2 GROUNDWATER ANALYTICAL RESULTS

Chevron Service Station No. 9-1851 452 Hegenberger Road Oakland, California

Monitoring Well	Date	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Ground Water Elevation (ft)	ΤΡΗ (C-6 - C12) (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	Oxygenate Compounds (µg/L)	MTBE (μg/L)
MW-1	10/23/00	8.61	4.39	4.22	NS	NS	NS	NS	NS	NS	NS
MW-2	10/23/00	9.52	5.32	4.20	NS	NS	NS	NS	NS	NS	NS
MW-3	10/23/00	9.08	4.85	4.23	'NS	NS	NS	NS	NS	NS	NS
MW-4	10/23/00	9.48	5.20	4.28	NS	NS	NS	NS	NS	NS	NS
MW-5	10/23/00	8.77	4.59	4.18	<50	<0.500	<0.500	<0.500	<0.500	<1000 ^a , <100 ^b , <2.0c, <2.0d, <2.0e	4.34
MW-6	10/23/00	11.45	7.15	4.30	<50	<0.500	<0.500	<0.500	<0.500	<1000 ^a , <100 ^b , <2.0c, <2.0d, <2.0e	5,96
MW-7	10/23/00	10.58	6.25	4.33	<50	<0.500	<0.500	<0.500	<0.500	<6670°, <667°, <13.3c, <13.3d, 1996;	1,210

^{*} Ethanol

TPH = Total purgeable hydrocarbons

Oxygenate Compounds = Ethanol, Di-isopropyl ether (DIPE), Ethyl tert-butyl ether (ETBE), Tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA)

MTBE = Methyl tertiary butyl ether by EPA Method 8260B

μg/L = micrograms per liter

NA = Not analyzed

NC = Not calculated

NM = Not measured

[▶] TBA

DIPE

^{*} ETBE

^{*} TAME

GENERAL NOTES:
BASE MAP FROM U.S.G.S.
SAN LEANDRO, CA.
7.5 MINUTE TOPOGRAPHIC
PHOTOREVISED 1980



QUADRANGLE LOCATION





SITE TOPOGRAPHIC MAP
CHEVRON STATION NO. 9-1851
451 HEGENBERGER ROAD
OAKLAND, CA.

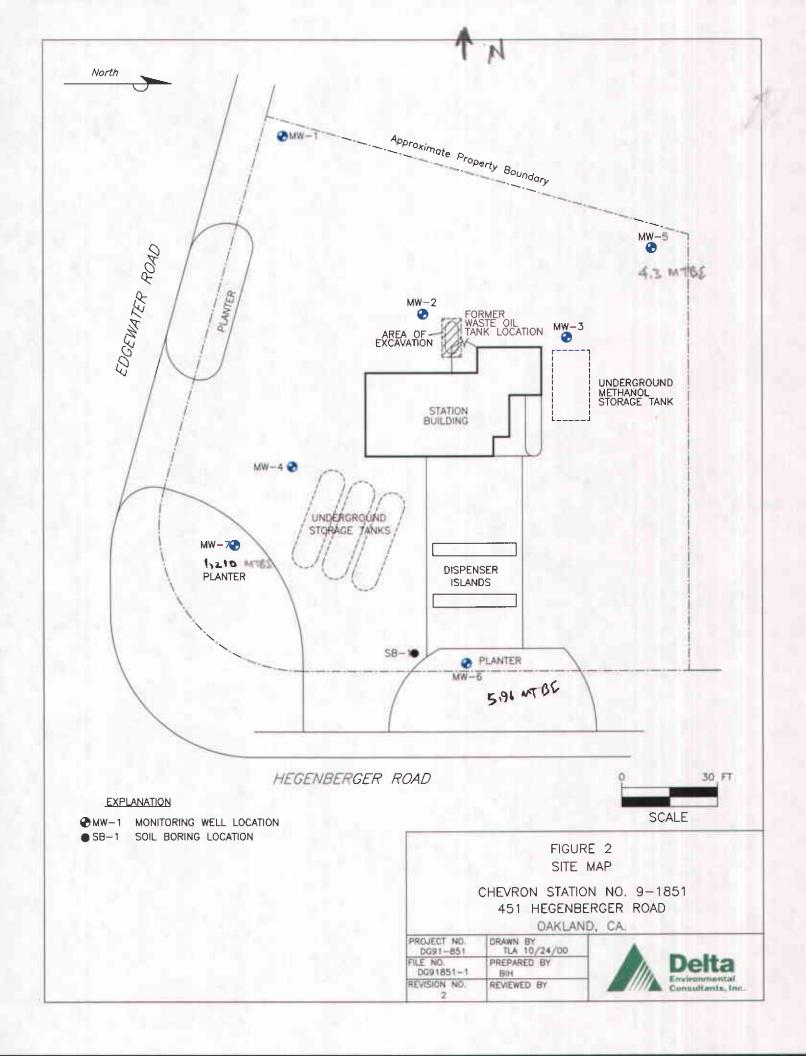
FIGURE 1

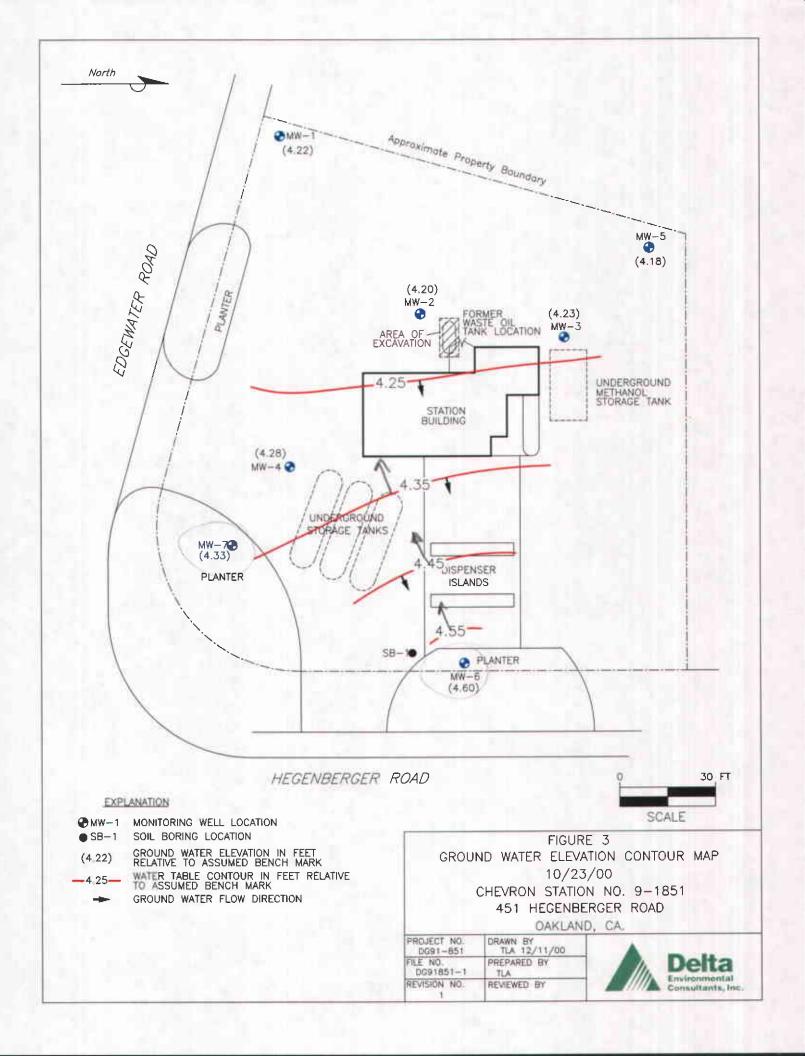
PROJECT NO. DRAWN BY TLA 10/24/00

FILE NO. PREPARED BY TLA

REVISION NO. REVIEWED BY





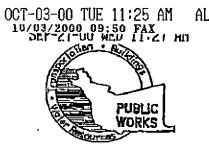


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ALAMEDA COUNTY PUBLIC WORKS AGENCY

DRILLING PERMIT APPLICATION

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

EOD Abbitet with combine	FOR OFFICE USE
FOR APPLICANT TO COMPLETE	LION 100
LOCATION OF PROJECT Cheuran Facility # 9-1851	PERMIT NUMBER WOO - 629
451 Hegenberger Board	WELL NUMBER
Dakland, CA	APN
CLIENT	PERMIT CONDITIONS Circled Fermit Requirements Apply
Name Chevron USA Products Communy	(A) GENERAL
Address P.O. Box 6004 Phone	(1.) A permit application should be submitted so as to
City San Raman Zip 94583.	arrive at the ACPWA office five days prior to
A 16.94 Aug 6.900	proposed starting date.
Name Delta Environmental Guestants, Inc.	2) Submit to ACFWA within 60 days offer completion of
BEN HENINGBURG FIX	permitted original Department of Water Resources-
Address 3164 Gold Comp Dryk Phone	3) Permit iz void if project not began within 90 days of
City Rancies Cordora Zip	approval date
	B. WAYER SUPPLY WELLS
TYPE OF PROJECT	l, Minispum purface seal thickness is two inches of
Well Construction Geologianism Investigation	etment grout placed by tremic. 2. Minimum seal depth is 50 (ant for municipal and
Cathodie Protection D General O	Industrial wells or 20 feet for domestic and irrigation
Water Supply D Consomidation C	weils unless a lesser depth is specially approved.
Monitoring 💢 Wall Destruction C	(C.)GROUNDWATER MONITORING WELLS
	Including Piezometers
PROPOSED WATER SUPPLY WELL TISE New Domestic D Replacement Domestic C	1. Minhnum swrince seal thickness is two inches of
New Domestic D Replacement Domestic C Municipal D Imparies 5	coment grout placed by tremis.
Other 2	 Misimum seat depth for monitoring wells is the maximum depth practicable or 20 feet.
	D. GEOTECHNICAL
DRILLING METHOD:	Backfill bore hole by tremse with coment grout or camen:
Mud Rotary C Air Rotary C August 💢	grout/sand mixture, Upper two-three feet replaced in kind
Caple a Other a	or with compacted cuttings.
DRILLER'S NAME West Hazmat	E. CATHODIC
•	Fill hale anode zone with concrete placed by trame. F. WELL DESTRUCTION
DRILLER'S LICENSE NO C-57 _ 554979	See attached requirements for destruction of shallow
EXP 1/30/11	wells. Send a map of work site A different permit
-14 . Lo-111	application is required for wells deeper than 45 feet,
WELL PROJECTS	G. Special conditions
Onil Hole Dismeter 5 in Maximum	NOTE: One application must be submitted for each well or well
Carling Diameters 2 in Danis ID 6	destruction. Multiple barings on one application are acceptable
Surface Seal Depth 2.5 ft. Owner's Well Number MW-5	for gentechnical and contamination investigations.
SECTECHNICAL PROJECTS	
Namber of Bounds Maximum	
Hole Drameser in. Depth ft.	
1940 4 1 1 1 1 1	1 4686 40 00
STIMATED STARTING DATE 1017 00	APPROVED DATE 10-3-0
	/ 1 / 1
bereby agree to comply with all requirements of this permit and Alameda County Ordin	anc= No. 73=68. /
	1/2 () /
PPLICANT'S SIGNATURE DATE DATE DATE	13/60 /1 /
LEASE PRINT NAME BOY AMIN T HENINGBURG REV. G.	-\$-0ô

ALAMEDA COUNTY PUBLIC WORKS AGENCY

PUBLIC

WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD CA. 94544-1395 PHONE (510) 670-5554 FAX (510)782-1959

DRILLING PERM	IIT APPLICATION
LOCATION OF PROJECT Chevran Facility # 9-1851 451 Hegenberger Koad Cakland, CA	FOR OFFICE USE PERMIT NUMBER WOO - 630 WELL NUMBER APN
CLIENT Name Chevron USA Products Company Address P.O. Box 6004 Phone City San Ramon Zip 94583. APPLICANT Name Delta Environmental Gasaltants Inc BEH HENINGRUSS Address 3164 Gold Comp Drive Phone City Rancko Cardons Zip	PERMIT CONDITIONS Chicled Permit Requirements Apply A GENERAL 1. A permit application should be submutted to as to strive at the ACPWA office five days prior to proposed starting date. 2) Submit to ACPWA within 60 days after completion of permitted drighted Department of Water Resourcess-Well Completion Report. 1. Permit is void if project not begun within 90 days of approval date.
TYPE OF PROJECT Well Construction Gentechnical lavestigation Cathodic Protection General O Water Supply Genteral O Monitoring Well Destruction O PROPOSED WATER SUPPLY WELL USE New Domestic Genteral Domestic Genteral O Intigation Genteral O Intigation Genteral O DRILLING METHOD: Mud Rotary Genter Genteral August DRILLER'S NAME West Hazmat DRILLER'S LICENSE NO. C-57 554979 WELL PROJECTS	B. WATER SUPPLY WELLS 1. Minimum surfaces seal thickness is two inches of coment grout placed by tremis. 2. Minimum scal depth is 30 feet for monicipal and industrial wells or 20 feet for domestic and irrigation wells unless a fester depth is specially approved. C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS 1. Minimum surface scal thickness is two inches of coment groun placed by tremis. 2. Minimum scal depth for monitoring wells it the maximum depth practicable or 20 feet. D. GEOTECHNICAL Backfill bota hole by treme with coment grout or coment grounds and maximum. Upper two-three feet replaced in kind or with compacted cuttings. E. CATHODIC Fill hole anade zone with concrete placed by treme. See otherhed requirements for destruction of shallow wells. Send a map of work site, A different permit
Drill Hole Diameter 8 in. Maximum Cating Diameter 2 in. Depth 10 ft. Surface Seal Depth 2.5 ft. Owner's Well Number MW-6 TEOTECHNICAL PROJECTS Number of Borings Maximum Hele Diameter in. Depth ft.	G. SPECIAL CONDITIONS NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for generalized and contamination investigations.
ESTIMATED STARTING DATE 10 17 00 STIMATED COMPLETION DATE 10 17 00 SCREBY ASTROCE TO COMPLETION DATE 10 17 100 PPLICANT'S SIGNATURE 10 DATE 10 10 10 10 10 10 10 10 10 10 10 10 10	3/00 ()

ALAMEDA COUNTY PUBLIC WORKS AGENCY

PUBLIC WORKS

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA, 94544-1395
PHONE (510) 670-5554 FAX (\$10)782-1939

DRILLING	
PARLUNG PER	MIT APPLICATION
FOR APPLICANT TO COMPLETE	
LOCATION OF PROJECT Cheuran Facility # 9-1851	FOR OFFICE USE
Cakland, CA	FERMIT NUMBER WOO-631 WELL NUMBER
	010
CLIENT Classes the A	PERMIT CONDITIONS
Name Chevron USA Products Company Address P.O. Box 6004 Phone	Circled Permit Requirements Apply
City Sala II - 1000	(A) GENERAL
APPLICANT	A permit application should be submitted to as to
V 13 1) a 100 a	proposed spring days prior to
BEN HEYINGBURG COUNTRY INC	(2)Submit to ACPWA white to a
Acciess 3164 AJ	permitted enginal Department of Water Resources,
City Rancies Cardons Zip	Well Completion Report.
	3. Permit is void if project not begun within 50 days of approval date
TYPE OF PROJECT	B. WATER SUPPLY WELLS
Well Construction	I. Minimum surface seal shirt and a
Cathodic Protection Gentechnical Investigation Witten Front D General	
Water 2 upply	T V(MUNUM Seal desile to an a constant
Monitoring Well Destruction C	wells makes and treet for domestic and irrigation
	C. GROUNDWATER MONITORY IS THE THE REPOVED.
PROPOSED WATER SUPPLY WELL USE New Domestic D	"" """ THE COMPTEDS
Municipal in Replacement Domestic C	. Minimum surface seal thinkness to make
Induction to Integrating the second s	
Other	2.Minimum seal death for months.
DRILLING METHOD:	D. GEOTECHNICAL
Mud Rozary C Air Rozary C Augus X	
Cable G Other G Augus X	Backfill here hole by tremie with coment grout or coment grout/sand manure. Upper two-three feet replaced in kind or with compacted comes.
PRILLER'S NAME West Hazmat	of with compared engine
1142110	a, evinobic
DRILLER'S LICENSE NO. C-57 554979	Fill hole anode zone with congrete placed by treme.
EXP 1/30/11	See already
ON 1120111	See purched requirements for destruction of shallow wells. Send a map of work site. A different permit
WELL PROJECTS	application is required for wells deeper than 45 feet. G. SPECIAL CONDITIONS
Onll Hole Diameter 8 in. Maximum	G. SPECIAL CONDITIONS
Surface Seed To a in. Depth To a	NOTE: One application
Owner's Well Number MIAI - 7	NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are secreptable for geotechnical and contamination investigation are secreptable.
JEUTECHNICAL PROMICE	for geotechnical and contample on one application are acceptable
regines of Holy 64	Paradis,
Hale Diamotor in, Daysh A	
STIMATED STARTING DATE	
TOTAL CONTRACTOR CONTR	Marx
LO 17 60	APPROVED ///
servery agree to comply with all requirements of this nerrols and armed	DATE 150
pereby agree to comply with all requirements of this permit and Alauneda County Ordin	#nc= No. 73-68.
The state of the s	13/10 ()()
LEASE PRINT NAME BOULANIN T. Hullen	Area / /
Rev.6-	5-00

TABLE 1

HISTORICAL SOIL DATA

Chevron Service Station No. 9-1851 451 Hegenberger Road Oakland, California

Sample ID	Depth (ft)	Date	Analytical Method	ТРНg	В	т	Е	X	O&G	TPHd	HVOCs	VOCs	Methanol	MEK
SB1-5.5	5.5	10/12/95	8015/8020	<1	<0.0050	<0.0050	< 0.0050	<0.0050						
MW1-4	4.0	10/12/95	0815/8020	<1	<0.0050	< 0.0050	< 0.0050	< 0.0050						~~~
MW2-5.5	5.5	10/12/95	8015/8020/ 8010/5520E&F	8.4	< 0.005	<0.0050	0.0097	0.025	2,100	77	9.2*			
MW3-5	5.0	10/12/95	8015/8020 8240	<1	<0.0050	<0.0050	<0.0050	<0.0050				ND	<1.0	<0.20
MW4-5	5	10/12/95	8015/8020	<1	<0.0050	<0.0050	<0.0050	<0.0050						
SP-(A-D)com	np 	10/12/95	8015/8020	<1	0.044	0.064	0.015	0.058			***			

EXPLANATION:

TPHg = Total Petroleum Hydrocarbons as gasoline

B == Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

O & G = Oil and Grease

TPHd = Total Petroleum Hydrocarbons as diesel

HVOCs = Halogenated Volatile Organic Compounds

VOCs = Volatile Organic Compounds

MEK = Methyl ethyl ketone

ppm = parts per million

--- = Not analyzed/not applicable

¹ = Sequoia indictes the chromatograph pattern is unidentified in the C9-C24 range

* = Chloroform (other HVOCs were not detected)

ND = 38 compounds analyzed not detected

ANALYTICAL METHODS:

8015 = EPA Method 8015 Mod for TPHg, TPHd, methanol and MEK

8020 = EPA Method 8020 for BTEX

5520E&F = Standard Method 5520E&F for O&G

8010 = EPA Method for HVOCs

8240 = EPA Method for VOCs

ANALYTICAL LABORATORY:

Sequoia Analytical of Redwood City, California.

Sample Identification:

MW1-4

M = Soil sample from boring

W1 = Boring Number

4 = Sample depth

1.0 METHODS AND PROCEDURES

1.1 Health and Safety Plan

Fieldwork performed by Delta and Delta's subcontractors at the site was conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document which describes the hazards that may be encountered in the field and specifies protective equipment, work procedures and emergency information. A copy of the SHSP was at the site and available for reference by appropriate parties during work at the site.

1.2 Locating Underground Utilities

Prior to commencement of work on-site, Delta researched the location of underground utilities with the assistance of Underground Service Alert (USA). USA contacted the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Work associated with the boring and monitoring well installation was preceded by manual hand augering to a minimum depth of 5 feet below surface grade (bsg) to avoid contact with underground utilities.

1.3 Soil Sampling and Contamination Reduction

Soil borings and soil sampling were performed under the direction of a Delta geologist. Soil borings were advanced using a truck-mounted hollow-stem auger drill rig.

To reduce the chances of cross-contamination between boreholes, all down-hole drilling equipment was steam-cleaned between each boring. To reduce cross-contamination between samples, the split-barrel sampler was washed in a soap solution and double-rinsed between each sampling event.

Soil sampling beyond 5 feet bsg was conducted in accordance with ASTM 1586-84. Using this procedure, a 2-inch outside-diameter split-barrel sampler or a 2-inch inside-diameter California-type sampler was driven into the soil by a 140-pound weight falling 30-inches. After an initial set of 6-inches, the number of blows required to drive the sampler an additional 12-inches (known as penetration resistance or the "N" value) was recorded. The N value was used as an empirical measure of the relative density of cohesionless soils and the consistency of cohesive soils.

Upon recovery, a portion of the soil sample was placed into a plastic bag and sealed for later screening with a photoionization detector (PID). Another portion of the soil sample was used for classification and description. That part of the soil sample collected in the leading brass tube within the California-type sampler was stored at approximately 4°C for transport to the laboratory.

1.4 Soil Classification

As the samples were obtained in the field, they were classified by the geologist in accordance with the Unified Soil Classification System (USCS). Representative portions of the samples were then retained for further examination and for verification of the field classification. Logs of the borings indicating the depth and identification of the various strata, the N value and pertinent information regarding the method of maintaining and advancing the borehole were made.

1.5 Soil Sample Screening/hNu Portable Photoionization Detector Method

After the soil sample plastic bags were brought to ambient temperature, the headspace vapors of the soil sample in the bag were screened with a PID equipped with a 10.2 eV lamp. The sample corner of the bag was opened and the detector probe immediately placed within the headspace. The highest observed reading was recorded.

1.6 Monitoring Well Gravel Pack and Slot Size Selection

The gravel pack was selected such that it would permit the development of a zone of higher hydraulic conductivity adjacent to the well screen but would reduce piping of the finer-grained formation materials into the well. The slot size of the well screen was selected such that it would retain a minimum of 95 percent of the gravel pack material.

1.7 Monitoring Well Development

After monitoring wells were installed, each monitoring well was developed with a surge block and bailer (or pump) until the water produced was relatively sediment-free and until the conductivity, pH, and temperature stabilized. If the well was pumped dry during the development process, recharge rates were recorded. No water or chemicals were introduced into the monitoring wells during well development. All development water was placed in drums on-site for later disposal.

1.8 Groundwater Sampling

At least three wetted casing volumes of liquid were removed from each well by bailing with a clean disposable bailer. A liquid sample was collected from each well with a clean disposable bailer and transferred into a laboratory supplied sampling container. Each sample was appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. Groundwater samples were transported to the laboratory and analyzed within the EPA-specified holding times for the requested analyses.

1.9 Liquid-Phase Petroleum Hydrocarbons

If liquid-phase petroleum hydrocarbons were present in a well, the thickness of the petroleum layer was measured by collecting a sample in a transparent disposable bailer with a check valve at the bottom or by measurement using appropriate fluid-level sounding equipment.

2.0 ANALYTICAL PROCEDURES

Selected soil samples submitted to the laboratory were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total purgeable hydrocarbons (TPH) (C6-C12) using DHS LUFT Method, and volatile oxygenate compounds using EPA Method 8260A. Selected groundwater samples submitted to the laboratory were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total purgeable hydrocarbons (TPH) (C6-C12) using DHS LUFT Method, and volatile oxygenate compounds using EPA Method 8260B.

3.0 QUALITY ASSURANCE PLAN

This section describes the field and analytical procedures that were followed throughout the investigation.

3.1 General Sample Collection and Handling Procedures

Proper collection and handling were essential to ensure the quality of a sample. Each sample was collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of soil samples used on this project can be found in Section 1.0 (Methods).

3.2 Sample Identification and Chain-of-Custody Procedures

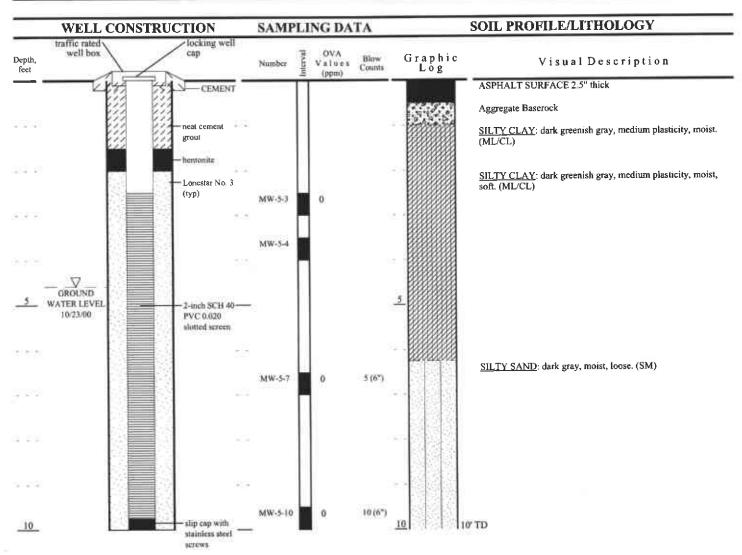
Sample identification and chain-of-custody procedures ensured sample integrity and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis had a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, were recorded on the borehole log or in the field records. Samples were analyzed by a California-certified laboratory.

A chain-of-custody form was used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples were shipped, the person in custody of them relinquished the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verified sample integrity and confirmed that it was collected in the proper container, preserved correctly, and that there was an adequate volume for analysis.

If these conditions were met, the sample was assigned a unique log number for identification throughout analysis and reporting. The log number was recorded on the chain-of-custody form and in the legally-required logbook maintained by the laboratory in the laboratory. The sample description, date received, client's name, and other relevant information was also recorded.



Street Address	Project ID						
451 Hegenberger	Chevron Station No. 9-1851						
City & State	Surface Elev.	Well / Boring ID					
Oakland California	9.02'	MW-5					
Delta Project #	Casing Elev.	Total Depth					
DG91-851	8.77'	10'					



Dates and Times	Logger Ben I. Heningburg	Sampling Method & Dumeter 2" ID split spoon	Permitting Agency Alameda County EHS
Start 19/17/00 19:00 AM	Drilling Company & Driller West HazMat Drilling Corp., Mike	Bore Hole Diameter 8.25-inch	Permit # W00-629
Total Depth 10/17/00 10:57 AM	Drillers C-57# 554979	Diameter, Type & Slot Size of Casing 2-inch SCH 40 PVC 0.020	
Completion or backfill 10/17/00 11:05 AM	Drilling Equipment and method CME-75HT, hollow stem auger		Page 1 of 1

WILL DG91-851-GPI 1/11/01



Street Address	Project ID					
451 Hegenberger	Chevron Station No. 9-185					
City & State	Surface Elev	Well / Boring ID				
Oakland California	11.65'	MW-6				
Delta Project #	Casing Elev.	Total Depth				
DG91-851	11.45'	10'				

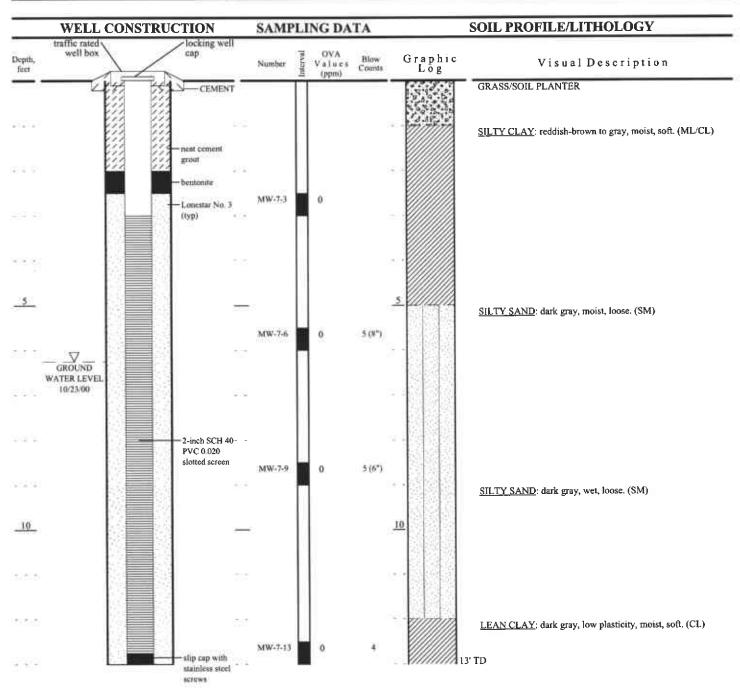
	WELL CONSTRUCTION			LIN	NG DA	TA		SOIL PROFILE/LITHOLOGY		
epth, fect	traffic rated well box	locking well	Number	Interval	OVA Values (ppm)	Blow Counts	Graphic Log	Visual Description		
- 107	L 4	CEMENT						BARE SOIL SURFACE		
12		neat coment grout								
10	5.5	- bentonite - Lonestur No. 3		Н				LEAN CLAY: reddish-brown to olive, moist. (CL)		
		(typ)	MW-6-3		0					
(2)			MW-6-4.5		0					
_		2-inch SCH 40— PVC 0.020	3				5			
(Z)		slotted screen								
	GROUND									
	WATER LEVEL 10/23/00		MW-6-8		0	5 (6")		LEAN CLAY WITH GRAVEL: brown to olive green with		
								black, moist, soft. (CL)		
0_		slip cap with	MW-6-10		0	5 (6*)	10	LEAN CLAY: dark gray to black, moist, soft. (CL) 0' TD		

Dates and Times	Logger Ben I. Heningburg	Sampling Method & Diameter 2" ID split spoon	Permitting Agency Alameda County EHS
Start	Drilling Company & Driller	Bore Hole Diameter	Permit # W00-630
10/17/00 11:30 AM	West HazMat Drilling Corp., Mike	8,25-inch	
Total Depth	Drillers C-57#	Diameter, Type & Slot Size of Casing	
10/17/00 11:59 AM	554979	2-inch SCH 40 PVC 0.020	
Completion or backfill 10/17/00 12:05 PM	Drilling Equipment and method CME-75HT, hollow stem auger		Page 1 of 1

WELL DO91-851,GP2 1/11/01



Street Address	Project ID					
451 Hegenberger	Chevron Station No. 9-1					
City & State	Surface Elev.	Well / Boring ID				
Oakland California	10.73'	MW-7				
Delta Project #	Casing Elev.	Total Depth				
DG91-851	10.58'	13'				



Dates and Times	Logger Ben I, Heningburg	Sampling Method & Diameter 2" ID split spoon	Permitting Agency Alameda County EHS
Start	Drilling Company & Driller	Bore Hole Diameter	Permit #
10/17/00 12:45 PM	West HazMat Drilling Corp., Mike	8.25-inch	W00-631
Total Depth	Drillers C-57#	Diameter, Type & Slot Size of Casing	
10/17/00 1:35 PM	554979	2-inch SCH 40 PVC 0.020	
Completion or backfill 10/17/00 1:55 PM	Drilling Equipment and method CME-75HT, hollow stem auger		Page 1 of 1

WELL DO91-851-GPJ 1/11/01





November 1, 2000

Ben Heningburg

Delta Environmental Consultants(Rancho Cordova

3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670

RE: Chevron 9-1851/S010348

Dear Ben Heningburg

Enclosed are the results of analyses for sample(s) received by the laboratory on October 19, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sandra R. Hanson

Client Services Representative

CA ELAP Certificate Number 1624





ANALYTICAL REPORT FOR S010348

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-5-4.0	S010348-01	Soil	10/17/00
MW-6-4.5	S010348-02	Soil	10/17/00
MW-7-6.0	S010348-03	Soil	10/17/00
MW-7-9.0	S010348-04	Soil	10/17/00



Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
				40.04				
<u>MW-5-4.0</u>		40.000	S01034	<u>48-01</u>	4.00		<u>Soil</u>	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	10	р .	11		0.00500	ND		
Toluene	10	H	*1		0.00500	ND	n	
Ethylbenzene	**	**	71		0.00500	ND	*1	
Xylenes (total)	H		**		0.00500	ND	**	
Surrogate: a,a,a-Trifluorotoluene	7/	Ff	#	60.0-140		107	%	
MW-6-4.5			S0103-	<u>48-02</u>			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	11		н		0.00500	ND	11	
Toluene	17	**			0.00500	ND	+1	
Ethylbenzene		H	n		0.00500	ND	f I	
Xylenes (total)	10	n	*1		0.00500	ND	ti	
Surrogate: a,a,a-Trifluorotoluene	PF .	tf	+T	60.0-140		101	%	
MW-7-6.0			S0103	48-03			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	71	74	11		0.00500	ND	"	
Toluene	Ħ	11	10		0.00500	ND	n	
Ethylbenzene	25	**	11		0.00500	ND	ır -	
Xylenes (total)	M	н	II .		0.00500	ND	n	
Surrogate: a,a,a-Trifluorotoluene	И		n	60.0-140		110	%	
MW-7-9.0			S0103	4 8 -04			<u>Soil</u>	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	"	0	ii		0.00500	ND	#	
Toluene	11	11	H		0.00500	ND	**	
Ethylbenzene	11	п	19		0.00500	ND	17	
Xylenes (total)	n	n			0.00500	ND	97	
Surrogate: a,a,a-Trifluorotoluene		n	"	60.0-140	0.00300	110	%	
surrogaie: a,u,a-1 rijiuoroiviuene				00.0-140		110	70	



Volatile Oxygenate Compounds by EPA Method 8260A Sequoia Analytical - Sacramento

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
MBW 5 4 0			50102	40 A1			Sail	
MW-5-4.0	0100242	10/25/00	S0103	48-U1	10.0	NID	<u>Soil</u>	
Tert-butyl alcohol	0100342	10/25/00	10/25/00			ND	mg/kg "	
Methyl tert-butyl ether	,,	u. Ur.			0.100	0.147	#	
Di-isopropyl ether	**	n.	" H		0.100	ND	" #	
Ethyl tert-butyl ether	;• •	"	"		0.100	ND	" #	
Tert-amyl methyl ether					0.100	ND		
Ethanol	H	H	Н		150	ND	***	
Surrogate: 1,2-DCA-d4	"	77	<i>i</i> 7	60.0-140		78. 4	%	
<u>MW-6-4.5</u>			S0103	48-02			<u>Soil</u>	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	17	н	t)		0.100	ND	н	
Di-isopropyl ether	P	н	**		0.100	ND	н	
Ethyl tert-butyl ether	t+	rr	•1		0.100	ND	11	
Tert-amyl methyl ether	H	н	н		0.100	ND	rt .	
Ethanol	rt	n	\$T		150	ND	н	
Surrogate: 1,2-DCA-d4	"	"	н	60.0-140		76.0	%	
MW-7-6.0	•		S0103	48-03			<u>Soil</u>	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	H	#	10.23,00		0.100	ND	11	
Di-isopropyl ether	**	17	"		0.100	ND	11	
Ethyl tert-butyl ether	**	m	19		0.100	ND	11	
Tert-amyl methyl ether	**	**	19		0.100	ND	11	
Ethanol	**	**	n		150	ND	11	
Surrogate: 1,2-DCA-d4	"	"	<i>n</i>	60.0-140	150	82.0	%	
3-03V # 0-0			C0103	40 04			Sail	
MW-7-9.0	0100242	10/25/02	S0103	40-U4	10.0	ND	Soil ma/ka	
Tert-butyl alcohol	0100342	10/25/00	10/25/00				mg/kg	
Methyl tert-butyl ether	" "	"	"		0.100	0.172		
Di-isopropyl ether	**	,,	" H		0.100	ND	"	
Ethyl tert-butyl ether					0.100	ND		
Tert-amyl methyl ether	H	**	n		0.100	ND	lt	
Ethanol	и	11	n		150	ND	1)	
Surrogate: 1,2-DCA-d4	"	n	H	60.0-140		76.0	%	



Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHST UFT/Onality Control Sequoia Analyticale Sacramento

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% l	Notes*
Batch: 0100330	Date Prepa	red: 10/26	/00		Extract	tion Method: EP	A 5030B	(MeOH)		
Blank	0100330-BI									
Purgeable Hydrocarbons	10/26/00			ND	mg/kg	1.00				
Benzene	н			ND	п	0.00500				
Toluene	н			ND	91	0.00500				
Ethylbenzene	H			ND	#1	0.00500				
Xylenes (total)	n			ND	#1	0.00500				
Surrogate: a,a,a-Trifluorotoluene	н	0.200		0.218	11	60.0-140	109			-
LCS	0100330-BS	<u>S1</u>								
Benzene	10/26/00	0.200		0.209	mg/kg	70.0-130	105			
Toluene	н	0.200		0.225	п	70.0-130	112			
Ethylbenzene	н	0.200		0.218	Ħ	70.0-130	109			
Xylenes (total)	н	0.600		0.613	11	70.0-130	102			
Surrogate: a,a,a-Trifluorotoluene	и .	0.200		0.222	н	60.0-140	111			
Matrix Spike	0100330-M	<u>S1</u> S0	010410-02							
Benzene	10/26/00	0.200	ND	0.184	mg/kg	60.0-140	92.0			
Toluene	11	0.200	ND	0.204	п	60.0-140	102			
Ethylbenzene	91	0.200	ND	0.203	H	60.0-140	101			
Xylenes (total)	н	0.600	ND	0.560	П	60.0-140	93.3			
Surrogate: a,a,a-Trifluorotoluene	n	0.200		0.223		60.0-140	112			
Matrix Spike Dup	0100330-M	SD1 S	010410-02							
Benzene	10/26/00	0.200	ND	0.186	mg/kg	60.0-140	93.0	25.0	1.08	
Toluene	II	0.200	ND	0.206	"	60.0-140	103	25.0	0.976	
Ethylbenzene	11	0.200	ND	0.206	n .	60.0-140	103	25.0	1.96	
Xylenes (total)	11	0.600	ND	0.568	IP	60.0-140	94.7	25.0	1.49	
Surrogate: a,a,a-Trifluorotoluene	n	0.200		0.225	n	60.0-140	112			



on Meth	10.0 0.100 0.100 0.100 0.100 0.100 0.100	PA 5030			% Notes⁴
	10.0 0.100 0.100 0.100 0.100 150	0 0 0 0 0 0 0		<u>DHI</u>	
66	0.100 0.100 0.100 0.100 150	10 10 10 10 10			
66	0.100 0.100 0.100 0.100 150	10 10 10 10 10			
66	0.100 0.100 0.100 150	0 0 0 0 50	- 10-10-7		
	0.100 0.100 150	0 0 0 0			
66	0.100 150	0 50	- 5/4 1/4		
66	150	50			
60					
60	60.0-140	n 75.			
	00.0-140	0 75.0	.6		
6	60.0-140				
60	60.0-140	0 95	i.2		
6	60.0-140	0 10	00		
60	60.0-140	0 88.	8.8		
6	60.0-140	0	1 88	88.8	100 88.8

2.32

2.50

60.0-140

92.8

Surrogate: 1,2-DCA-d4





Delta Environmental Consultants(Rancho Cordo	va Project:	Chevron 9-1851	Sampled:	10/17/00	
3164 Gold Camp Drive Ste. 200	Project Number:	DG91-851	Received:	10/19/00	
Rancho Cordova, CA 95670	Project Manager:	Ben Heningburg	Reported:	11/1/00	

Notes and Definitions

#	Note
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Chevron U.S P.O. BOX San Ramon, C FAX (415)84	S.A, Inc. 5004 CA 94583	Cone	ron Facil Facil Jultant Pr	lity Numt Ity Addre	mber eHA	9-18: 51 Heger DG91- Environs old Can BEN HI 16 53621	51 vibera 85) veud	ec l	Roac	<u>t</u>	S Tox:		Chevron Laborator	ry Releas	(Phone	Seq	uoir	Ba 4 A	whs FAX naly	ìca	g Dan fr. (
Samble Number	Lab Sample Number	Number of Containers	Mathr S = Sell A = Air W = Water C = Characei	Type 6 = Grab C = Composite D = Discrete		Sample Preservation	load (Yes or No)		1	Off and Great (\$520)	1 .		Purgeoble Organics up (8244)	ee To Be	CACFFEZANI (ICAF or AA)	8260 Octorde		7			\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
MW-5-1.0		1	5	D	1015		Y	X								X			SC	10	Remarke -8 3-18-CX	
MW-7-60			5	D	1147	- 	3	K		-			-			X						
MW-7-9.0		1	Š	<u>D</u>	1325		Ÿ	文								X		 			-0:	
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Reilinguished By	(Slonelyre)	<u>] </u>	Ога	onization	$\frac{1}{2}$	Date/Time ,	Re	Jelved) B	y (Signi	alure)	<u> </u>	L	Organizat	llon	Dol	-/Ilma	<u> </u>		<u> </u>			
Reinquished By	(Signajure)	7	Org	anization	4	10/9/10/6 Date/Time 10-19-00	46	pelved B	1.1	hu	e p		- N	lios_	-	•/Ilme)-/9 //2 c/ •/Time	00		ium Ar	24	ne (Circle Chala Fire.	•}
fret.	Fuch	2		e4110		1121	<u> \</u>	lem	KQ.	(A)	SCL	n	Caa	Luexa	100/	14/00	725			5	lire. Daye	
Relinquiehed By	(Signalure)		Org	anization		Dale/Time	Re	oleved F	or Labo	eratory E	(Signa	rture)		,	Dat	e/Ilme					Days) Ntracted	





October 23, 2000

Ben Heningburg Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670

RE: Chevron 9-1851/S010347

Dear Ben Heningburg

Enclosed are the results of analyses for sample(s) received by the laboratory on October 19, 2000. If you have any questions concerning this report, please feel free to contact me.

For Sanda Hanson

Sincerely, Lito Diaz

Sandra R. Hanson

Client Services Representative

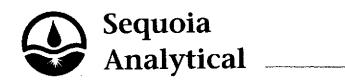
CA ELAP Certificate Number 1624





ANALYTICAL REPORT FOR S010347

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SP-1A,B,C,D (Composite)	S010347-01	Soil	10/17/00



Delta Environmental Consultants(Rancho Cordo	va Project:	Chevron 9-1851	Sampled:	10/17/00
3164 Gold Camp Drive Ste. 200	Project Number:	DG91-851	Received:	10/19/00
Rancho Cordova, CA 95670	Project Manager:	Ben Heningburg	Reported:	10/23/00

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
SP-1A,B,C,D (Composite)			S0103	47 <u>-01</u>			Soil	
Purgeable Hydrocarbons	0100285	10/23/00	10/23/00		1.00	ND	mg/kg	
Benzene	11	lf.	n		0.00500	ND	11	
Toluene	tr.	If	**		0.00500	ND	11	
Ethylbenzene	11	H	н		0.00500	ND	11	
Xylenes (total)	11	"	**		0.00500	ND	11	
Surrogate: a,a,a-Trifluorotoluene	11	11	"	60.0-140		112	%	<u> </u>





Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Sacramento

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
SP-1A,B,C,D (Composite) Lead	0100271	10/20/00	<u>S0103</u> 10/20/00	47-01 EPA 6010A	10.0	ND	<u>Soil</u> mg/kg	1,D





Cotal Pu	rgeable Hydro		€6-€12), an a Analytica			PT/Quality Co	ntrol		- 19 - 19 19	e de la companya de l
A1	Date	Spike	Sample	QC		Reporting Limit		RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
Batch: 0100285	Date Prepa	red: <u>1</u> 0/23	<u>/00</u>		Extrac	tion Method: EP	A 5030B	(MeOH)		
<u>Blank</u>	0100285-B	<u>LK1</u>								
Purgeable Hydrocarbons	10/23/00			ND	mg/kg	1,00				
Benzene	D .			ND	H	0.00500				
Toluene	11			ND	н	0.00500				
Ethylbenzene	11			ND	н	0.00500				
Xylenes (total)	11			ND	11	0.00500				
Surrogate: a,a,a-Trifluorotoluene	n	0.200		0.226	"	60.0-140	113			
LCS	0100285-BS	<u>S1</u>								
Benzene	10/23/00	0.200		0.216	mg/kg	70.0-130	108			
Toluene	17	0.200		0.239	"	70.0-130	119			
Ethylbenzene	**	0.200		0.236	н	70.0-130	118			
Xylenes (total)	**	0.600		0.656	H	70.0-130	109			
Surrogate: a,a,a-Trifluorotoluene	ri	0.200	Property and a	0.232	н	60.0-140	116			





r ur ja rak a kana a Baran a kana	: T otal Metals		000/7000 Se a Analytical		Contract Contract Annual Sections of					
	Date	Spike	Sample	QC		Reporting Limit		RPD	RPD	NT-4*
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	70	Notes*
Batch: 0100271 Blank	<u>Date Prepa</u> 0100271-Bl		<u>/00</u>		<u>Extract</u>	ion Method: EP.	A 3050B			
Lead	10/20/00			ND	mg/kg	2.50				
LCS Lead	0100271-B5 10/20/00	50.0		42.3	mg/kg	80.0-120	84.6			
<u>Matrix Spike</u> Lead	<u>0100271-M</u> 10/20/00	<u>\$1</u> <u>\$6</u>	010326-01 ND	48.1	mg/kg	80.0-120	96.2			D
Matrix Spike Dup Lead	0100271-M 10/20/00	<u>SD1</u> <u>S</u> 6	010326-01 ND	50.4	mg/kg	80.0-120	101	20.0	4.87	D





Delta Environmental Consultants(Rancho Core	lova Project:	Chevron 9-1851	Sampled: 10/17/00
3164 Gold Camp Drive Ste. 200	Project Number:	DG91-851	Received: 10/19/00
Rancho Cordova, CA 95670	Project Manager:	Ben Heningburg	Reported: 10/23/00

Notes and Definitions

#	Note
D	Data reported from a dilution.
1	The reporting limit for this analyte has been raised to account for matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Virgil Chavez Land Surveying

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

November 21, 2000 Project No. 1934-00

Trevor Atkinson Delta Environmental Consultants, Inc. 3164 Gold Camp Dr., Suite 200 Rancho Cordova, CA 95670-6021

Subject: Monitoring Well Survey

Chevron 9-1851

451 Hegenberger Road

Oakland, CA

Dear Trevor:

This is to confirm that we have proceeded at your request to survey the monitoring wells located at the above referenced location. The survey was completed on November 15, 2000. The benchmark for the survey was the letter "O" in Oakland on an inlet in the westerly curb of Oakport Road, 150' southerly of the end of curve. Please note that pursuant to a recent telephone conversation with the City of Oakland City Surveyor, the datum for the benchmark used for this survey has been clarified/corrected as shown. Measurements taken at approximate north side of top of box and top of casing. The back of an existing two foot redwood fence at the approximate easterly property line was used as the reference line. Benchmark Elevation = 7.82 feet, MSL.

Well No. MW - 1 MW - 2 MW - 3 MW - 4 MW - 5 MW - 6	Rim <u>Elevation</u> 8.85' 9.99' 9.69' 9.87' 9.02' 11.65'	TOC Elevation 8.61' 9.52' 9.08' 9.48' 8.77' 11.45'	Station 1+82.28 1+40.54 1+32.06 0+93.27 1+61.51 0+19.76	Offset -121.78(Lt) -94.71(Lt) -36.10(Lt) -121.74(Lt) -10.76(Lt) -72.55(Lt)
MW - 6	11.65'	11.45'	0+19.76	-12.55(Lt)
MW - 7	10.73'	10.58'	0+64.25	

Sincerely,

Virgil D. Chavez, PLS 632





November 8, 2000

Ben Heningburg
Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670

ha RHansw

RE: Chevron 9-1851/S010377

Dear Ben Heningburg

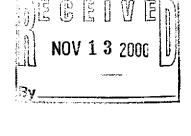
Enclosed are the results of analyses for sample(s) received by the laboratory on October 23, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

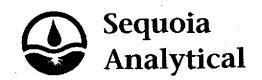
Sandra R Hanson

Client Services Representative

CA ELAP Certificate Number 1624







Delta Environmental Consultants(Rancho Cordova

Chevron 9-1851 Project:

Project Manager: Ben Heningburg

10/23/00 Sampled:

3164 Gold Camp Drive Ste. 200

Rancho Cordova, CA 95670

Project Number: DG91851

Received:

10/23/00 Reported: 11/8/00

ANALYTICAL REPORT FOR S010377

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW5	S010377-01	Water	10/23/00
MW6	S010377-02	Water	10/23/00
MW7	S010377-03	Water	10/23/00



Sampled: 10/23/00 Project: Chevron 9-1851 Delta Environmental Consultants(Rancho Cordova Project Number: DG91851 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670

Received: 10/23/00 Reported: 11/8/00 Project Manager: Ben Heningburg

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Sacramento

	Batch	Date	Date	Surrogate	Reporting		_	
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
							<u>Water</u>	
MW5		.*	<u>S0103</u>	77 -01	***	ND		
Purgeable Hydrocarbons	0100371	10/30/00	10/30/00		50.0	ND	ug/l	
Benzene	,,	#1	"		0.500	ND	 H	
Toluene	11	**	н		0.500	ND	"	
Ethylbenzene	н	H	n		0.500	ND		
Xylenes (total)	11	n	P		0.500	ND_		
Surrogate: a,a,a-Trifluorotoluene	"	"		60.0-140		99.3	%	
<u>MW6</u>			S0103	77-02			Water	
Purgeable Hydrocarbons	0100371	10/30/00	10/30/00	 	50.0	МD	ug/l	
Benzene	"	4	"		0.500	ND		
Toluene	#1	H	ır.		0.500	ND	Ħ	
	n	H	te.		0.500	ND	**	
Ethylbenzene	n	17	59		0.500	ND	17	
Xylenes (total) Surrogate: a,a,a-Trifluorotoluene	ri	"	"	60.0-140		94.2	%	
			S0103	77-03			Water	
MW7	0100371	10/30/00	10/30/00	,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	50.0	ND	ug/l	
Purgeable Hydrocarbons	0100371 #	10/30/00	10/30/00		0.500	ND	"	
Benzene		n	H		0.500	ND	Ħ	
Toluene	11				0.500	ND	**	
Ethylbenzene		" #	"		0.500	ND	н	
Xylenes (total)	"			(0.0.140	0.500	101	%	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		101	70	



Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200

Project: Chevron 9-1851

Sampled: 10/23/00 Received:

10/23/00

Rancho Cordova, CA 95670

Project Number: DG91851 Project Manager: Ben Heningburg

11/8/00 Reported:

Volatile Organic Oxygenated Compounds by EPA Method 8260B Sequoia Analytical - San Carlos

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes'
							Water	
<u>MW5</u>			S0103	<u>77-01</u>		3.775	Water	
Ethanol	0110008	11/5/00	11/5/00		1000	ND	ug/l	
Tert-butyl alcohol	11	,	n		100	ND	,,	
Methyl tert-butyl ether	н	71	**		2.00	4.34		
Di-isopropyl ether	n	н	71		2.00	ND	**	
Ethyl tert-butyl ether	н	11	**		2.00	ND	n	
Tert-amyl methyl ether		17	0		2.00	ND		
Surrogate: 1,2-Dichloroethane-d4	"	"	н	76.0-114		112	%	
MW6			S0103	77-02			<u>Water</u>	
Ethanol	0110031	11/6/00	11/6/00		1000	ND	ug/l	
Tert-butyl alcohol	11	17	"		100	ND	H	
Methyl tert-butyl ether	II	21	n		2.00	5.96	n	
Di-isopropyl ether	n	н	*1		2.00	ND	71	
Ethyl tert-butyl ether	n		16		2.00	ND	n	
Tert-amyl methyl ether		41	11		2.00	ND	n	
Surrogate: 1,2-Dichloroethane-d4	p	77	п	76.0-114		102	%	
MW7			S0103	77-03			Water	
Ethanol	0110008	11/5/00	11/5/00	· · · · · · · · · · · · · · · · · · · 	6670	ND	ug/l	D
Tert-butyl alcohol	и 10000	#	н		667	ND		D
Methyl tert-butyl ether	**	**	н		13.3	1210	n	D
Di-isopropyl ether	IF	**	••		13.3	ND	н	D
• • •	н	. 11	91		13.3	ND	**	D
Ethyl tert-butyl ether	17	ıı	n		13.3	199	n	Ð
Tert-amyl methyl ether Surrogate: 1,2-Dichloroethane-d4	. #	,,t	#	76.0-114		113	%	



Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT/Quality Control Sequoia Analytical - Sacramento

	Date	Spike	Sample	QC		Reporting Limit		RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
P-4-L- 0100271	Date Prepa	red: 10/30	/nn		Extrac	tion Method: EP/	5030B	(MeOH)		
<u>Batch: 0100371</u> Blank	0100371-BI		100		DALIGE					
Purgeable Hydrocarbons	10/30/00	<u> </u>		ND	ug/l	50.0				
	. 10/30/00			ND	n	0.500				
Benzene Toluene	19 ·			ND	H	0.500				
	H			ND	n	0.500				
Ethylbenzene	11			ND	"	0.500				
Xylenes (total) Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.71	77	60.0-140	97.1	- ·		
<u>LCS</u>	0100371-B5	21								
Benzene	10/30/00	10.0		10.3	ug/I	70.0-130	103			
Toluene	10/30/00	10.0		9.94	H - G -	70.0-130	99.4			
Ethylbenzene	11	10.0		10.0	H	70.0-130	100			
Xylenes (total)	H	30.0		30.0	11	70.0-130	100			
Surrogate: a,a,a-Trifluorotoluene	ıt	10.0	····	10.1	77	60.0-140	101			
Matrix Spike	0100371-M	S1 S	010361-02							
Benzene	10/30/00	10.0	ND	10.0	ug/l	60.0-140	100			
Toluene	n	10.0	ND	9.73	"	60.0-140	97.3			
Ethylbenzene	11	10.0	ND	9.88	*1	60.0-140	98.8			
Xylenes (total)	. n	30.0	ND	29.3	er e	60.0-140	97.7			
Surrogate: a,a,a-Trifluorotoluene	11	10.0		9.89	n	60.0-140	98.9			
Matrix Spike Dup	010037 <u>1-M</u>	SD1 S	010361-02							
Benzene	10/30/00	10.0	ND	9.91	ug/l	60.0-140	99.1	25.0	0.904	
Toluene	•	10.0	ND	9.92	н	60.0-140	99.2	25.0	1.93	
Ethylbenzene	н .	10.0	ND	10.1	**	60.0-140	101	25.0	2.20	
Xylenes (total)	Ħ	30.0	ND	29.9	н	60.0-140	99.7	25.0	2.03	
Surrogate: a,a,a-Trifluorotoluene	в	10.0		9.33	Ħ	60.0-140	93.3			



Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control Sequora Analytical - San Carlos

· · · · · · · · · · · · · · · · · · ·	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% Notes*
, , , , , , , , , , , , , , , , , , , ,									
Batch: 0110008	Date Prepa	red: 11/5/0	<u> 10</u>		Extrac	tion Method: EPA	5030B	[P/T]	
Blank	0110008-BI		_						
Ethanol	11/5/00			ND	ug/l	1000			
Tert-butyl alcohol	**			ND	"	100			
Methyl tert-butyl ether	н			ND	n	2.00			
Di-isopropyl ether	n			ND .	n	2.00			
Ethyl tert-butyl ether	Ħ			ND	*1	2.00			
Tert-amyl methyl ether	# 1			ND	*1	2.00			
Surrogate: 1,2-Dichloroethane-d4	ii.	50.0		55.5	n	76.0-114	111		
LCS	0110008-BS	S1							
Methyl tert-butyl ether	11/5/00	50.0		59.8	ug/l	70.0-130	120		
Surrogate: 1,2-Dichloroethane-d4	17	50.0		54.0	n	76.0-114	108		
Matrix Spike	0110008-M	S1 S	010377-0 <u>1</u>				٠	•	
Methyl tert-butyl ether	11/5/00	50.0	4.34	64.9	ug/l	60.0-140	121		
Surrogate: 1,2-Dichloroethane-d4	n	50.0		56.6	'n	76.0-114	113		·
Matrix Spike Dup	0110008-M	SD1 S	010377-01						
Methyl tert-butyl ether	11/5/00	50.0	4.34	58.8	ug/l	60.0-140	109	25.0	10.4
Surrogate: 1,2-Dichloroethane-d4	'n	50.0		54.6	#	76.0-114	109		
Batch: 0110031	<u>Date Prepa</u>	red: <u>11/6/</u> (<u>)00</u>		Extrac	tion Method: EPA	5030B	[P/T]	
Blank	0110031-B		_						
Ethanol	11/6/00			ND	ug/I	1000			
Tert-butyl alcohol	IF			ND	. 11	100			•
Methyl tert-butyl ether	I)			ND	н	2.00			
Di-isopropyl ether	n			ND	1)	2.00			
Ethyl tert-butyl ether	n			ND	11	2.00			
Tert-amyl methyl ether	н			ND	17	2.00			
Surrogate: 1,2-Dichloroethane-d4	77	50.0		49.1	ıt	76.0-114	98.2		
<u>Blank</u>	0110031-B	LK2							
Ethanol	11/6/00			ND	ug/l	1000			
Tert-butyl alcohol	•			ND	**	100			
Methyl tert-butyl ether	n .			ND	H	2.00			
Di-isopropyl ether	"			ND	н	2.00		-	
Ethyl tert-butyl ether	•1			ND	n	2.00			
Tert-amyl methyl ether	н			ND	11	2.00			<u></u>
Surrogate: 1,2-Dichloroethane-d4	п	50.0		48.7	н	76.0-114	<i>97.4</i>		

Sequoia Analytical - Sacramento

*Refer to end of report for text of notes and definitions.



Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control Sequoia Analytical - San Carlos

	Date	Spike	Sample	QC		Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	<u>Units</u>	Recov. Limits	%_	Limit	%	Notes*
LCS	0110031-BS	S1								
Methyl tert-butyl ether	11/6/00	50.0		50.9	ug/l	70.0-130	102			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.8	"	76.0-114	102			
LCS	0110031-B	<u>52</u>								
Methyl tert-butyl ether	11/6/00	50.0		48.1	ug/l	70.0-130	96.2			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.9	"	76.0-114	104			
Matrix Spike	0110031-M	<u>S1 L</u>	011035-02							
Methyl tert-butyl ether	11/6/00	50.0	ND	53.6	ug/l	60.0-140	107			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.6	ri .	76.0-114	101			
Matrix Spike Dup	0110031-M	SD1 L	011035-02	•						
Methyl tert-butyl ether	11/6/00	50.0	ND	51.1	ug/l	60.0-140	102	25.0	4.78	
Surrogate: 1,2-Dichloroethane-d4	n	50.0		49.6	11	76.0-114	99.2			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Project: Chevron 9-1851

Sampled: 10/23/00

Rancho Cordova, CA 95670

Project Number: DG91851

Project Manager: Ben Heningburg

Received: 10/23/00 Reported: 11/8/00

Notes and Definitions

	N
#	Note
D	Data reported from a dilution.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Chain-of-Custody-Record Fax copy of Lab Report and COC to Chevron Contact: □ No Cherron Conlact (Name) Tom Bunks Chevron Facility Number... Foolity Address 451 Hegen berger Road
Consultant Project Number D691851 (Phone)_______Laboratary Name________ Chevron U.S.A. Inc. P.O. BOX 5004 Address 3164 Gall Cump DE Kando Contine CH Laboratory Release Number ... San Ramon, CA 94583 Samplee Collected by (Name) Chris Hill FAX (415)842-9591 Project Contact (Name) Ben Henry burle
(Phone 116-536-2423 (Fax Number 196-1985) Analyses To Be Performed Purgeoble Aromotics (8020) Purgeoble Organics (8240) 81EX + 1PH GAS (8020 + 8015)
1PH Dieset (8015)
Oil and Graces (5520) Purpeable Holocarb (8010) 900 Remarks 0727 mu 5 5711 mm6 0649 mu 7 Received By (Signature) Organization

Organization

Organization Relipquipped By (Signature) 10/23 00 Turn Around Time (Circle Choice) Occapization. 24 Hre. Organization Received By (Signature) Date/Time 48 Hrs. Organization 6 Days 10 Days Reclevéd For Laboratory By (Signature) Date/Time Date/Time Organization Relinquished By (Signature) As Contracted

MM. Inc.

INTEGRATED WASTESTREAM MANAGEMENT, INC. 950 AMES AVENUE, MILPITAS, CA 95035 PHONE: 408.942.8955 FAX: 408.942.1499

CERTIFICATE OF DISPOSAL

Generator Name:	Chevron Products Company	Facility Name:	Chevron Station #9-1851
Address:	6001 Bollinger Canyon Road	Address:	451 Hegenberger Road
	San Ramon, CA 94583		Oakland, CA
Contact:	Bob Cochran	Facility Contact:	Ben Heningburg
Phone:	925-842-9500	Phone:	916-536-2623

IWM Job #:	91079-SS	
Description of Waste:	1 CY of	
Description of waste.	Non-Hazardous Soil	
D	11/8/00	
Removal Date: Ticket #:		

Transporter Information		Dispos	Disposal Facility Information	
Name:	IWM, Inc.	Name:	Republic Services VRL	
Address:	950 Ames Avenue	Address:	4001 North Vasco Road	
	Milpitas, CA 95035		Livermore, CA 94550	
Phone:	(408) 942-8955	Phone:	925-477-0491	

IWM, INC. CERTIFIES THAT THE ABOVE LISTED NON-HAZARDOUS WASTE WILL BE TREATED AND DISPOSED AT THE DESIGNATED FACILITY IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.

William T. DeLon

William 2. O. For

Authorized Representative (Print Name and Signature)

8 December 2000

Date