



3164 Gold Camp Drive
Suite 200
Rancho Cordova, CA 95670-6021
U.S.A.
916-638-2085
FAX: 916-638-6585

January 25, 2001

Revised
541

ENVIRONMENTAL
PROTECTION
00 JAN 26 AM 9:11

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

Subject: *Monitoring Well Installation and Groundwater Sampling Results - Revised*
Chevron Service Station No. 9-1851
451 Hegenberger Road
Oakland, California
Delta Project No. DG91-851


Dear Mr. Chan:

Enclosed find a revised copy of our *Monitoring Well Installation and Groundwater Sampling Results* dated January 17, 2001. Pursuant to our recent telephone conversation we have revised the groundwater flow direction and Conclusions/Recommendations section of the January 17, 2001 report. Please replace your copy of our original report with this revised report dated January 25, 2001..

Should you have any questions, please contact me at 916-536-2623.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.


Benjamin I. Heningburg
Project Manager

BIH: (CI001.1851.doc)

Enclosure

cc: Mr. Tom Bauhs – Chevron U.S.A. Products Company
Mr. James R. Brownell – Delta Environmental Consultants, Inc.



8164 Gold Camp Drive
Suite 200
Palo Alto, California CA 94303-6021
U.S.A.
916-638-2085
FAX: 916-638-6985

January 25, 2001

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

Subject: *Monitoring Well Installation and Groundwater Sampling Results - Revised*
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 to groundwater monitoring wells. The soil boring analytical results indicated that petroleum 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

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

On 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 bsg 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 thick bentonite seal was emplaced above the filter pack. The remaining annular space was

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~~ west.

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 µg/L.

Based on the results from this investigation and historical groundwater monitoring data for the site, additional hydrogeologic assessment south and west 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 the extent of additional assessment.

Mr. Barney Chan
Alameda County Health Care Services.
January 25, 2001
Page 4

Schedule

The fourth quarter monitoring and sampling event was conducted on December 8, 2000 by G-R. Groundwater monitoring wells MW-4, MW-6 and MW-7 are scheduled to be over-purged prior to the next sampling event that 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.

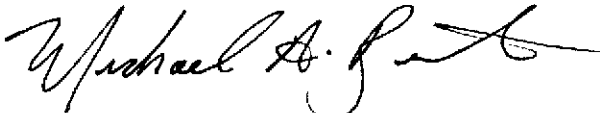
If you have any questions regarding this project, please contact Ben Heningburg at (916) 536-2623.

Sincerely,

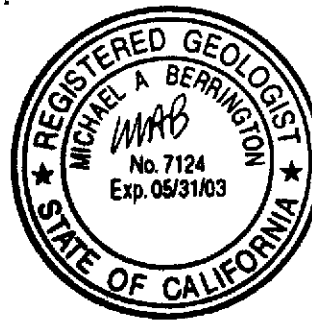
DELTA ENVIRONMENTAL CONSULTANTS, INC.



Benjamin I. Heningburg
Project Manager



Michael A. Berrington, R.G.
California Registered Geologist No. 7124



BIH (Lrp003.1851.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					Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	Oxygenate Compounds (mg/kg)	MTBE (mg/kg)	Total Lead (mg/kg)
			Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)							
MW-5-4	10/17/00	4.0	<1.0	<0.005	<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	<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	<0.005	<10.0 ^a , <0.1 ^b , <0.1 ^c , <0.1 ^d , <150 ^e	<0.1	NA	
MW-7-9.0	10/17/00	9.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<10.0 ^a , <0.1 ^b , <0.1 ^c , <0.1 ^d , <150 ^e	0.172	NA	

STOCKPILE

SP-1A,B,C,D (comp)	10/17/00	--	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	NA	NA	<10
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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

^c ETBE

^d TAME

^e 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)	TPH (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 ^a , <667 ^b , <13.3c, <13.3d, 199e	1,210

^a Ethanol

^b TBA

^c DIPE

^d ETBE

^e TAME

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)

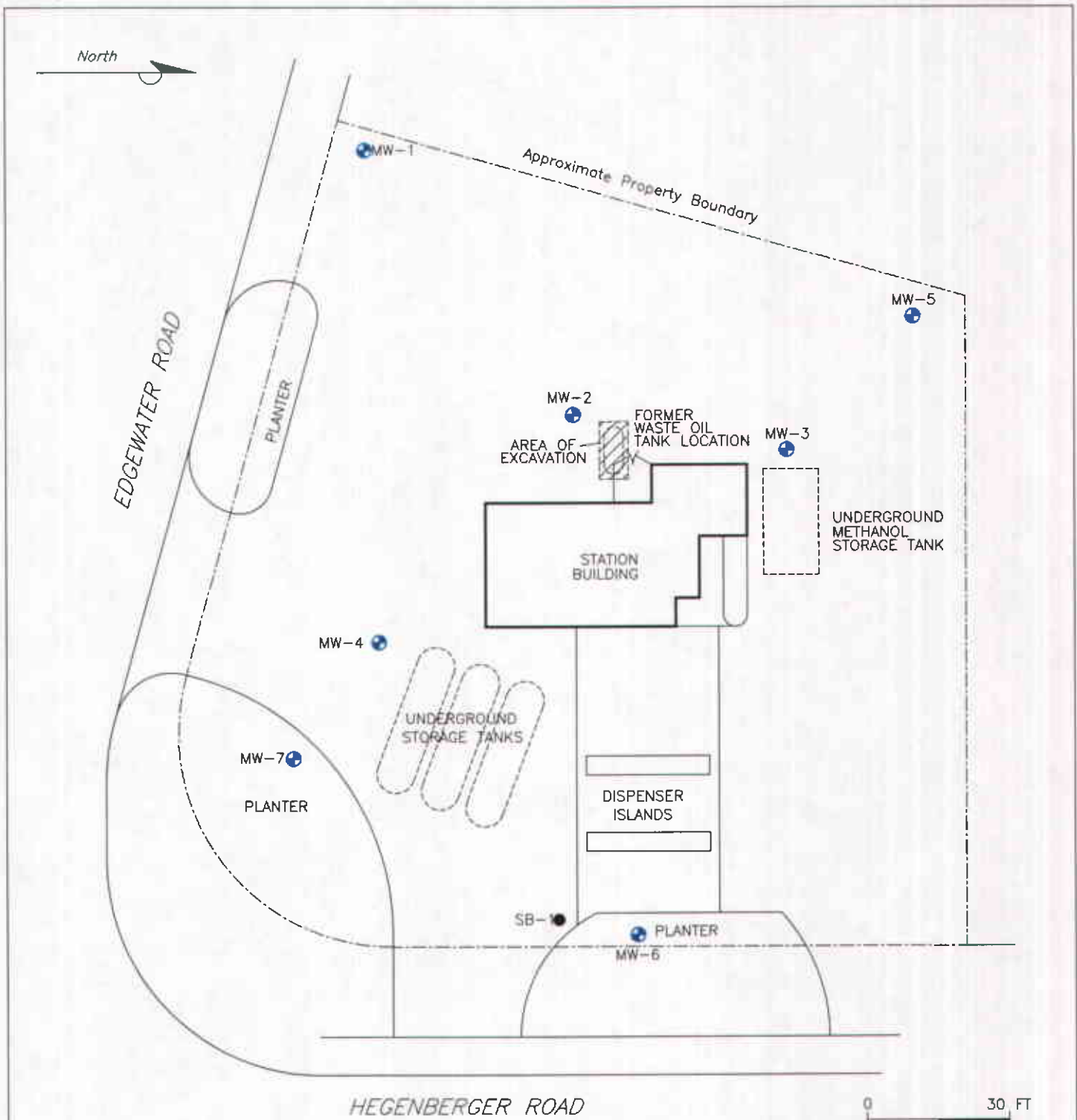
MTBE = Methyl tertiary butyl ether by EPA Method 8260B

µg/L = micrograms per liter

NA = Not analyzed

NC = Not calculated

NM = Not measured



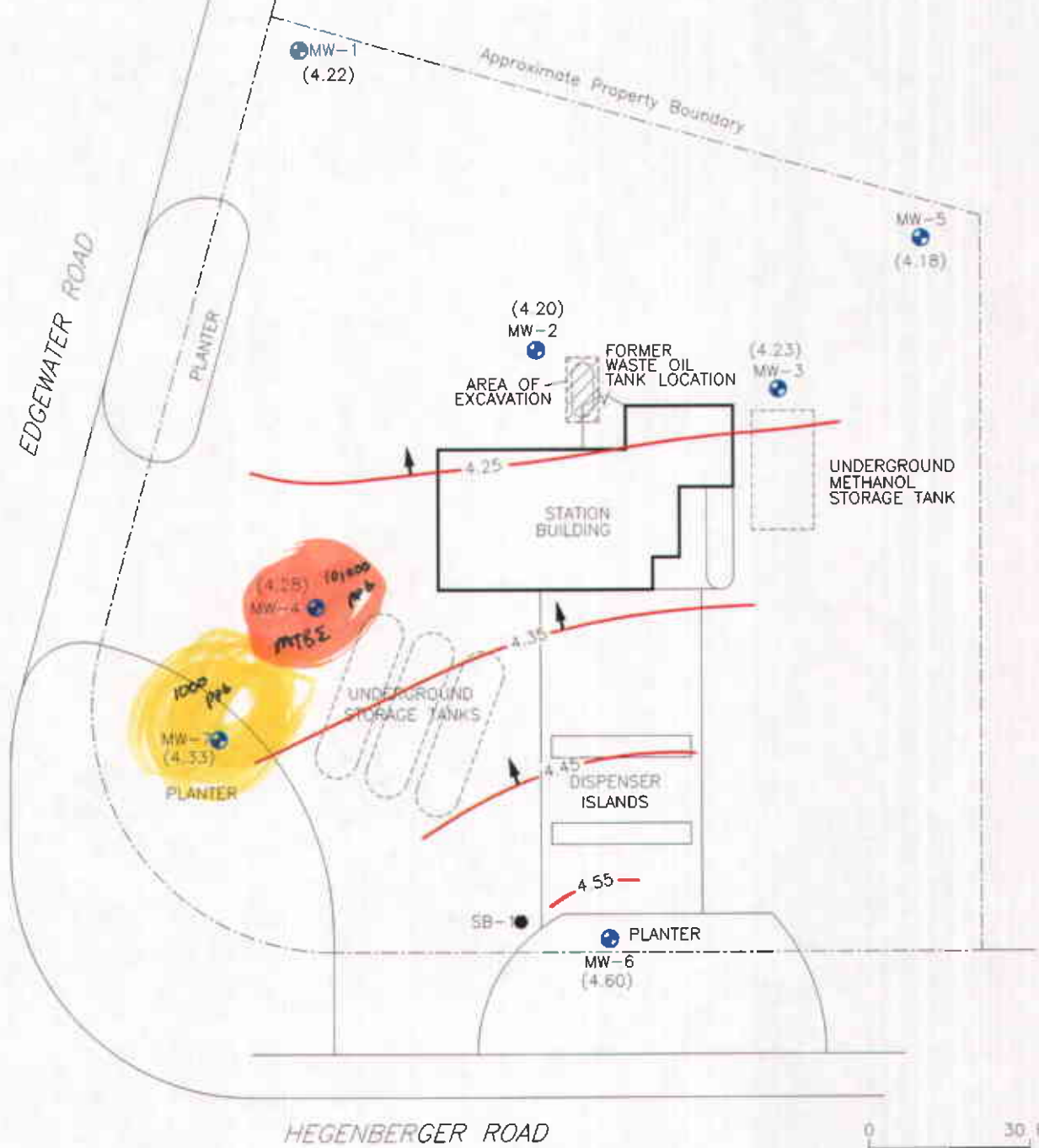
EXPLANATION

- ⊕ MW-1 MONITORING WELL LOCATION
- SB-1 SOIL BORING LOCATION



FIGURE 2
SITE MAP
CHEVRON STATION NO. 9-1851
451 HEGENBERGER ROAD
OAKLAND, CA.

PROJECT NO. DG91-851	DRAWN BY TLA 10/24/00	 Delta Environmental Consultants, Inc.
FILE NO. DG91851-1	PREPARED BY BIH	
REVISION NO. 2	REVIEWED BY	



EXPLANATION

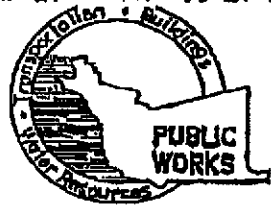
- MW-1 MONITORING WELL LOCATION
- SB-1 SOIL BORING LOCATION
- (4.22) GROUND WATER ELEVATION IN FEET RELATIVE TO ASSUMED BENCH MARK
- 4.25 — WATER TABLE CONTOUR IN FEET RELATIVE TO ASSUMED BENCH MARK
- ➔ GROUND WATER FLOW DIRECTION



FIGURE 3
GROUND WATER ELEVATION CONTOUR MAP
10/23/00
CHEVRON STATION NO. 9-1851
451 HEGENBERGER ROAD
OAKLAND, CA.

PROJECT NO. DG91-851	DRAWN BY TLA 12/11/00
FILE NO. DG91851-1	PREPARED BY TLA
REVISION NO. 1	REVIEWED BY





ALAMEDA COUNTY PUBLIC WORKS AGENCY

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

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Chevron Facility # 9-1851
451 Heegenberger Road
Oakland, CA

PERMIT NUMBER W00-629
WELL NUMBER _____
APN _____

PERMIT CONDITIONS
Circled Permit Requirements Apply

CLIENT
Name Chevron USA Products Company
Address P.O. Box 6004 Phone _____
City San Ramon Zip 94583

- (A) GENERAL
 - 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 - 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
 - 3. Permit is void if project not begun within 90 days of approval date.

APPLICANT
Name Delta Environmental Consultants, Inc
BEN HEENINGBURG Fax _____
Address 3164 Cold Camp Drive Phone _____
City Bancho Cordova Zip _____

- 2. WATER SUPPLY WELLS
 - 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 - 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- (C) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 - 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 - 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

- D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

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

DRILLER'S NAME West Hazmat

- F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. C-57 554979
exp 1/30/11

- G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum	
Casing Diameter	<u>2</u> in.	Depth	<u>10</u> ft.
Surface Seal Depth	<u>2.5</u> ft.	Owner's Well Number	<u>MW-5</u>

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 10/17/00
ESTIMATED COMPLETION DATE 10/17/00

APPROVED [Signature] DATE 10-3-00

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

APPLICANT'S SIGNATURE [Signature] DATE 10/3/00

LEASE PRINT NAME Benjamin J. Heeningburg Rev. 6-5-00



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554
FAX (510) 781-1939

002/002
10/27/00

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Chevron Facility # 9-1851
451 Hegenberger Road
Oakland, CA

PERMIT NUMBER W00-630
WELL NUMBER _____
APN _____

CLIENT
Name Chevron USA Products Company
Address P.O. Box 6004 Phone _____
City San Ramon Zip 94583

PERMIT CONDITIONS
Circled Permit Requirements Apply

APPLICANT
Name Delta Environmental Consultants Inc
BEN HEININGBERG Fax _____
Address 3164 Odd Camp Drive Phone _____
City Rancho Cordova Zip _____

- A. GENERAL**
1. A permit application should be submitted to us to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

- B. WATER SUPPLY WELLS**
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

- D. GEOTECHNICAL**
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLER'S NAME West Hazmat
DRILLER'S LICENSE NO. C-57 554979
exp 1/30/11

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

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum Depth	<u>10</u> ft.
Casing Diameter	<u>2</u> in.	Owner's Well Number	<u>MW-6</u>
Surface Seal Depth	<u>2.5</u> ft.		

- F. WELL DESTRUCTION**
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

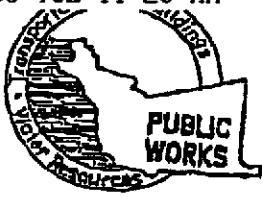
G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

ESTIMATED STARTING DATE 10/17/00
ESTIMATED COMPLETION DATE 10/17/00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 75-61.

APPLICANT'S SIGNATURE Ben Heiningberg DATE 10/3/00
PLEASE PRINT NAME Benjamin I. Heiningberg

APPROVED [Signature] DATE 10-3-00



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 678-5554
FAX (510) 782-1939

11 04704
002/002
1. 02/00

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Chevron Facility # 9-1851
451 Heegenberger Road
Oakland, CA

PERMIT NUMBER W00-631
WELL NUMBER _____
APN _____

CLIENT
Name Chevron USA Products Company
Address P.O. Box 6004 Phone _____
City San Ramon Zip 94583

APPLICANT
Name Delta Environmental Consultants, Inc
Ben Henningburg Fax _____
Address 3169 Cold Camp Drive Phone _____
City Rancho Cordova Zip _____

PERMIT CONDITIONS
Circled Permit Requirements Apply

- (A) GENERAL
 1. A permit application should be submitted to us to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.

- B. WATER SUPPLY WELLS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

- (C) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

- D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

- E. CATHODIC
Fill bore anode zone with concrete placed by tremie.

- F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

- G. SPECIAL CONDITIONS
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input checked="" type="checkbox"/>	Well Destruction	<input type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input checked="" type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S NAME West Hazmat

DRILLER'S LICENSE NO. C-57 554979
exp 1/30/11

WELL PROJECTS

Drill Hole Diameter	<u>8</u> in.	Maximum Depth	<u>10</u> ft.
Casing Diameter	<u>2</u> in.	Owner's Well Number	<u>MW-7</u>
Surface Seal Depth	<u>2.5</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 10/17/00
ESTIMATED COMPLETION DATE 10/17/00

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

APPLICANT'S SIGNATURE Ben Henningburg DATE 10/3/00

PLEASE PRINT NAME Benjamin I Henningburg Rev. 6-5-00

APPROVED [Signature] DATE 10-3-00

TABLE 1

HISTORICAL SOIL DATA

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

Sample ID	Depth (ft)	Date	Analytical Method	TPHg	B	T	E	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)comp	---	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 indicates 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

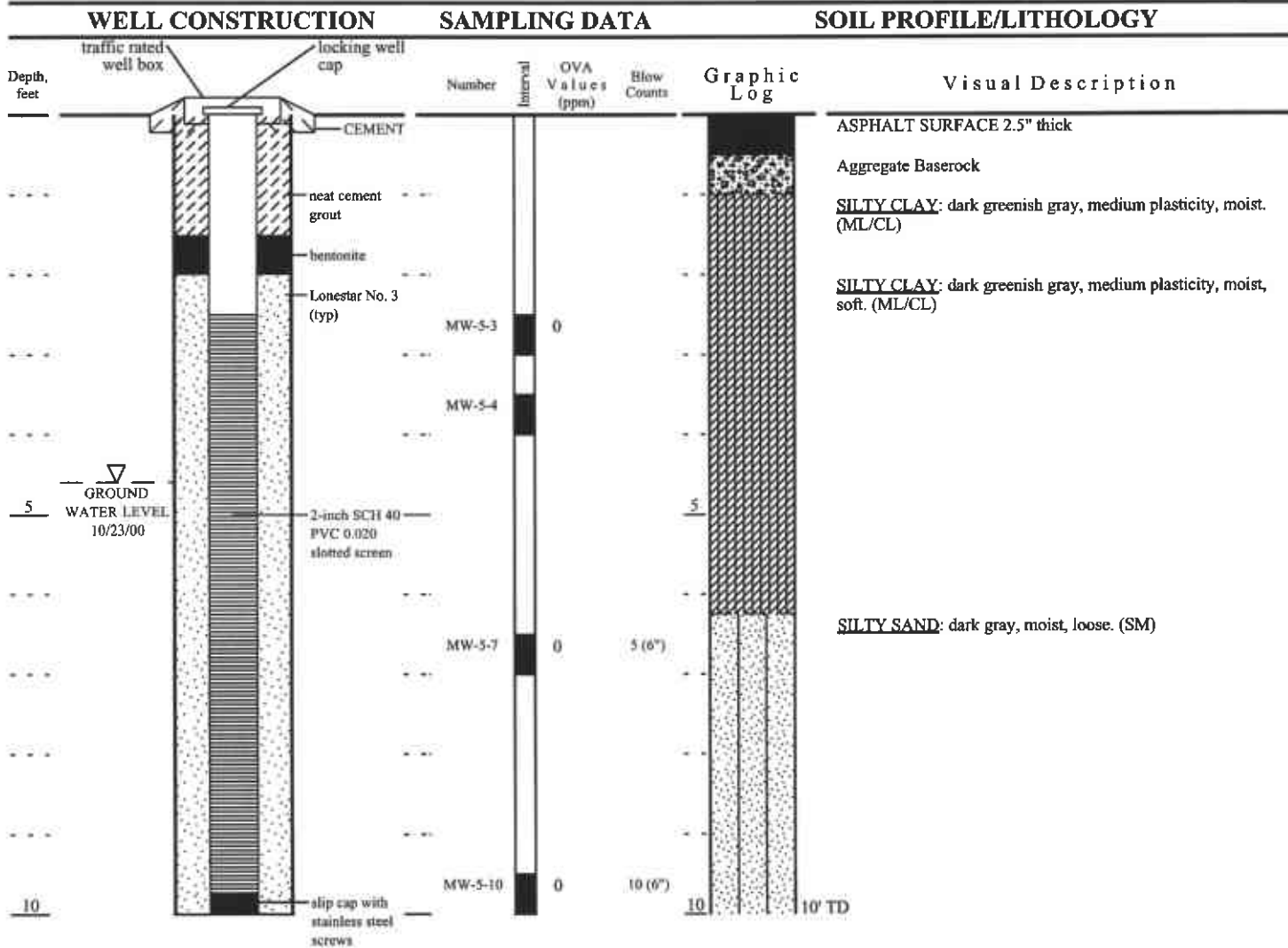
sample integrity and confirmed that it was collected in the proper container, preserved correctly, and that there was an adequate volume for analysis.

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.



Delta
Environmental
Consultants, Inc.

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

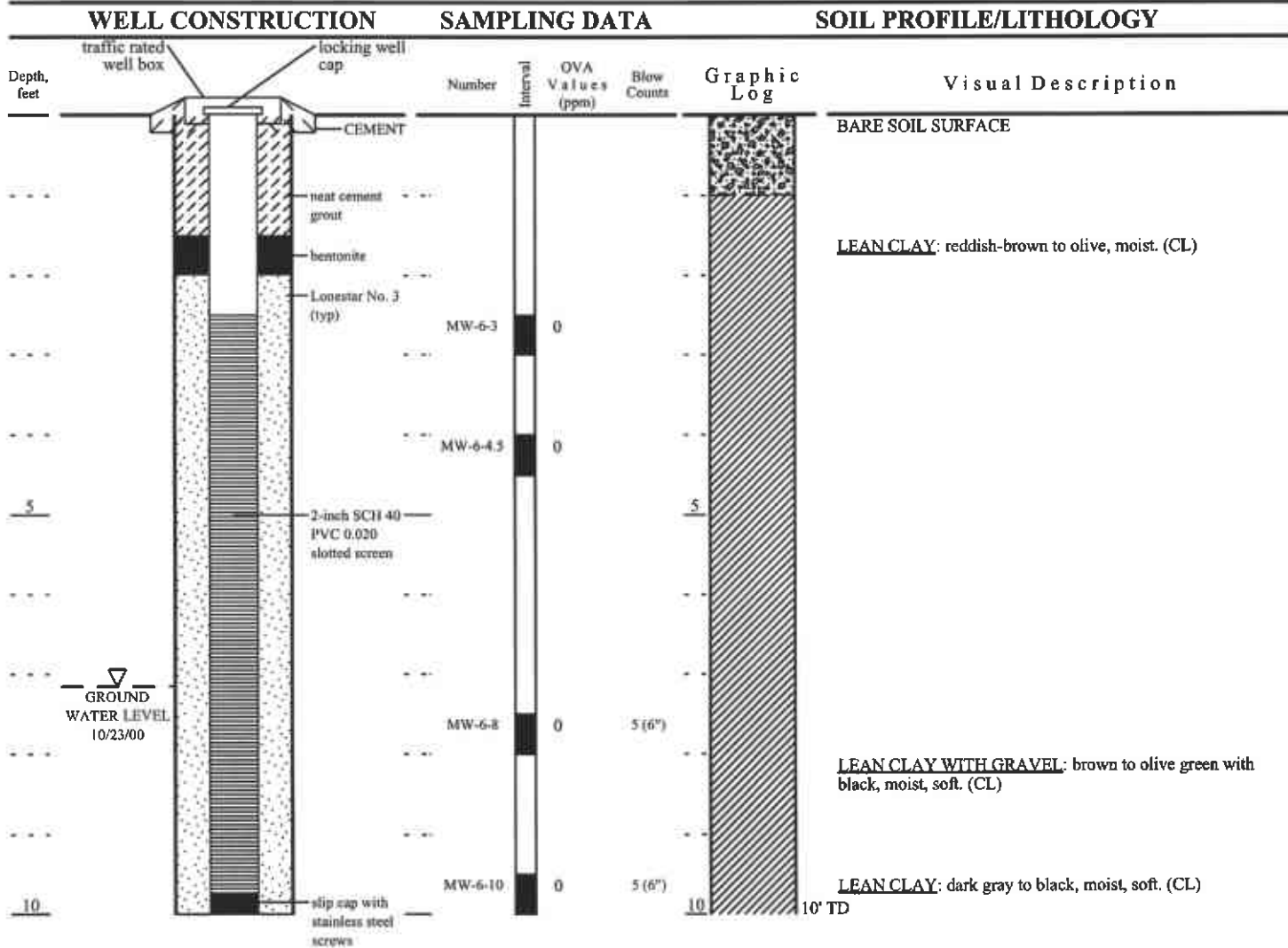


Dates and Times	Logger Ben I. Heningburg	Sampling Method & Diameter 2" ID split spoon	Permitting Agency Alameda County EHS
Start 10/17/00 10:00 AM	Drilling Company & Driller West HazMat Drilling Corp., Mike	Bore Hole Diameter 8.25-inch	Permit # W00-629
Total Depth 10/17/00 10:57 AM	Drillers C-57# 554979	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		



Delta
Environmental
Consultants, Inc.

Street Address 451 Hegenberger	Project ID Chevron Station No. 9-1851	
City & State Oakland California	Surface Elev. 11.65'	Well / Boring ID MW-6
Delta Project # DG91-851	Casing Elev. 11.45'	Total Depth 10'

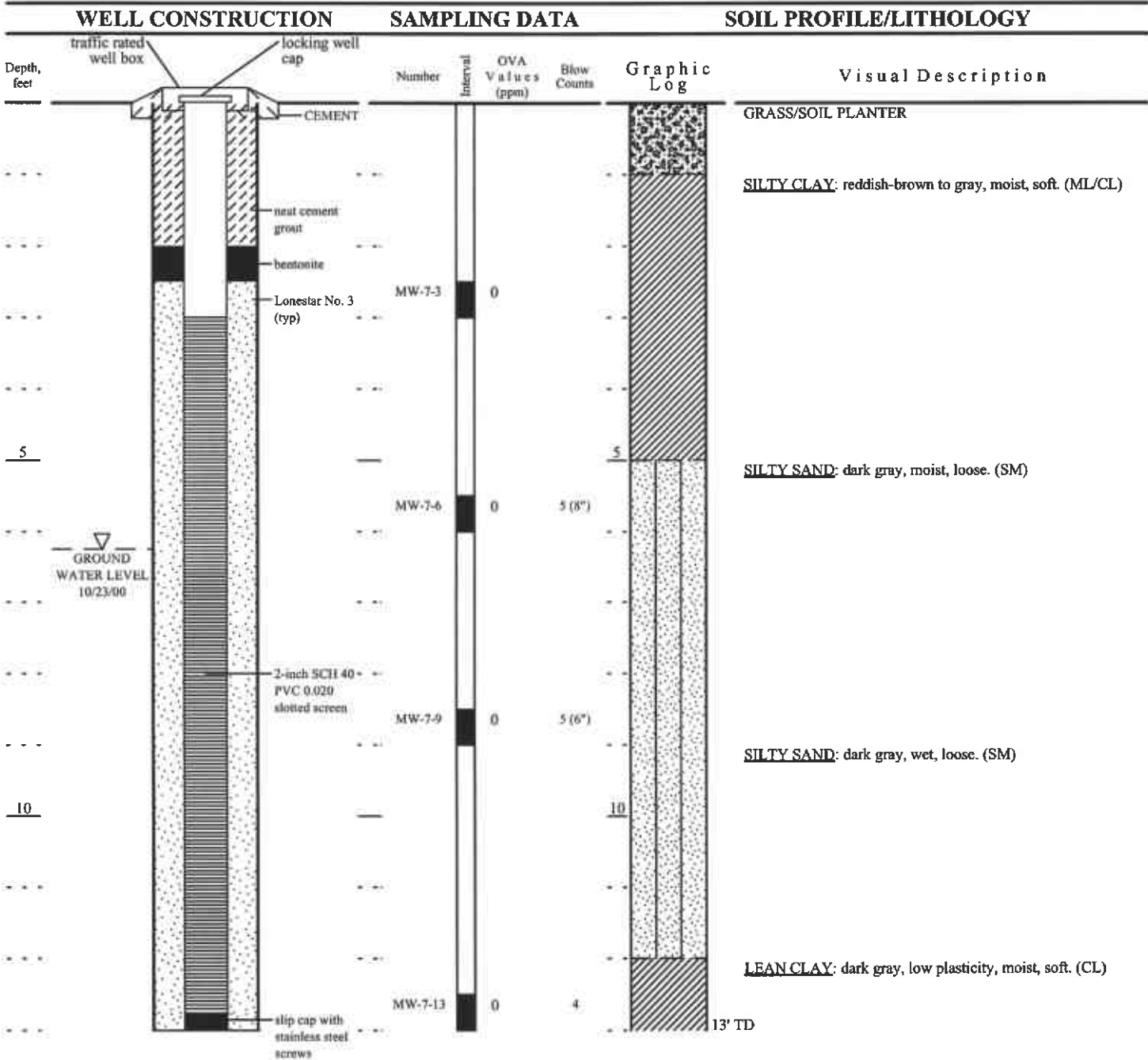


Dates and Times	Logger Ben I. Heningburg	Sampling Method & Diameter 2" ID split spoon	Permitting Agency Alameda County EHS
Start 10/17/00 11:30 AM	Drilling Company & Driller West HazMat Drilling Corp., Mike	Bore Hole Diameter 8.25-inch	Permit # W00-630
Total Depth 10/17/00 11:59 AM	Drillers C-57# 554979	Diameter, Type & Slot Size of Casing 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		



Delta
Environmental
Consultants, Inc.

Street Address 451 Hegenberger	Project ID Chevron Station No. 9-1851	
City & State Oakland California	Surface Elev. 10.73'	Well / Boring ID MW-7
Delta Project # DG91-851	Casing Elev. 10.58'	Total Depth 13'



Dates and Times	Logger Ben I. Heningburg	Sampling Method & Diameter 2" ID split spoon	Permitting Agency Alameda County EHS
Start 10/17/00 12:45 PM	Drilling Company & Driller West HazMat Drilling Corp., Mike	Bore Hole Diameter 8.25-inch	Permit # W00-631
Total Depth 10/17/00 1:35 PM	Drillbit C-57# 554979	Diameter, Type & Slot Size of Casing 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		



Sequoia Analytical

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(916) 921-9600
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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,

L. F. Olson

L For Sandra Hanson

Sandra R. Hanson
Client Services Representative

CA ELAP Certificate Number 1624





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





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 11/1/00
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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*
MW-5-4.0				S010348-01			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		107	%	
MW-6-4.5				S010348-02			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		101	%	
MW-7-6.0				S010348-03			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		110	%	
MW-7-9.0				S010348-04			Soil	
Purgeable Hydrocarbons	0100330	10/26/00	10/26/00		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		110	%	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Henningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 11/1/00
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**Volatile Oxygenate Compounds by EPA Method 8260A
 Sequoia Analytical - Sacramento**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-5-4.0				S010348-01			Soil	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	"	"	"		0.100	0.147	"	
Di-isopropyl ether	"	"	"		0.100	ND	"	
Ethyl tert-butyl ether	"	"	"		0.100	ND	"	
Tert-amyl methyl ether	"	"	"		0.100	ND	"	
Ethanol	"	"	"		150	ND	"	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		78.4	%	
MW-6-4.5				S010348-02			Soil	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	"	"	"		0.100	ND	"	
Di-isopropyl ether	"	"	"		0.100	ND	"	
Ethyl tert-butyl ether	"	"	"		0.100	ND	"	
Tert-amyl methyl ether	"	"	"		0.100	ND	"	
Ethanol	"	"	"		150	ND	"	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		76.0	%	
MW-7-6.0				S010348-03			Soil	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	"	"	"		0.100	ND	"	
Di-isopropyl ether	"	"	"		0.100	ND	"	
Ethyl tert-butyl ether	"	"	"		0.100	ND	"	
Tert-amyl methyl ether	"	"	"		0.100	ND	"	
Ethanol	"	"	"		150	ND	"	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		82.0	%	
MW-7-9.0				S010348-04			Soil	
Tert-butyl alcohol	0100342	10/25/00	10/25/00		10.0	ND	mg/kg	
Methyl tert-butyl ether	"	"	"		0.100	0.172	"	
Di-isopropyl ether	"	"	"		0.100	ND	"	
Ethyl tert-butyl ether	"	"	"		0.100	ND	"	
Tert-amyl methyl ether	"	"	"		0.100	ND	"	
Ethanol	"	"	"		150	ND	"	
Surrogate: 1,2-DCA-d4	"	"	"	60.0-140		76.0	%	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 11/1/00
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**Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100330		Date Prepared: 10/26/00			Extraction Method: EPA 5030B (MeOH)					
Blank		0100330-BLK1								
Purgeable Hydrocarbons	10/26/00			ND	mg/kg	1.00				
Benzene	"			ND	"	0.00500				
Toluene	"			ND	"	0.00500				
Ethylbenzene	"			ND	"	0.00500				
Xylenes (total)	"			ND	"	0.00500				
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.218	"	60.0-140	109			
LCS		0100330-BS1								
Benzene	10/26/00	0.200		0.209	mg/kg	70.0-130	105			
Toluene	"	0.200		0.225	"	70.0-130	112			
Ethylbenzene	"	0.200		0.218	"	70.0-130	109			
Xylenes (total)	"	0.600		0.613	"	70.0-130	102			
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.222	"	60.0-140	111			
Matrix Spike		0100330-MS1	S010410-02							
Benzene	10/26/00	0.200	ND	0.184	mg/kg	60.0-140	92.0			
Toluene	"	0.200	ND	0.204	"	60.0-140	102			
Ethylbenzene	"	0.200	ND	0.203	"	60.0-140	101			
Xylenes (total)	"	0.600	ND	0.560	"	60.0-140	93.3			
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.223	"	60.0-140	112			
Matrix Spike Dup		0100330-MSD1	S010410-02							
Benzene	10/26/00	0.200	ND	0.186	mg/kg	60.0-140	93.0	25.0	1.08	
Toluene	"	0.200	ND	0.206	"	60.0-140	103	25.0	0.976	
Ethylbenzene	"	0.200	ND	0.206	"	60.0-140	103	25.0	1.96	
Xylenes (total)	"	0.600	ND	0.568	"	60.0-140	94.7	25.0	1.49	
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.225	"	60.0-140	112			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 11/1/00
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**Volatile Oxygenate Compounds by EPA Method 8260A/Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100342			Date Prepared: 10/25/00			Extraction Method: EPA 5030B [MeOH]				
Blank			0100342-BLK1							
Tert-butyl alcohol	10/26/00			ND	mg/kg	10.0				
Methyl tert-butyl ether	"			ND	"	0.100				
Di-isopropyl ether	"			ND	"	0.100				
Ethyl tert-butyl ether	"			ND	"	0.100				
Tert-amyl methyl ether	"			ND	"	0.100				
Ethanol	"			ND	"	150				
Surrogate: 1,2-DCA-d4	"	2.50		1.89	"	60.0-140	75.6			
LCS			0100342-BS1							
Methyl tert-butyl ether	10/25/00	2.50		2.62	mg/kg	60.0-140	105			
Surrogate: 1,2-DCA-d4	"	2.50		2.38	"	60.0-140	95.2			
Matrix Spike			0100342-MS1		S010216-01					
Methyl tert-butyl ether	10/25/00	2.50	ND	2.50	mg/kg	60.0-140	100			
Surrogate: 1,2-DCA-d4	"	2.50		2.22	"	60.0-140	88.8			
Matrix Spike Dup			0100342-MSD1		S010216-01					
Methyl tert-butyl ether	10/25/00	2.50	ND	2.73	mg/kg	60.0-140	109	25.0	8.61	
Surrogate: 1,2-DCA-d4	"	2.50		2.32	"	60.0-140	92.8			





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

#	Note
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- 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





Sequoia Analytical

819 Striker Avenue, Suite 8
Sacramento, CA 95834
(916) 921-9600
FAX (916) 921-0100
www.sequoialabs.com

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.

Sincerely, *Lito Diaz*

[Signature] For Sandra Hanson

Sandra R. Hanson
Client Services Representative

CA ELAP Certificate Number 1624





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 10/23/00
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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 Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 10/23/00
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**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)				S010347-01			Soil	
Purgeable Hydrocarbons	0100285	10/23/00	10/23/00		1.00	ND	mg/kg	
Benzene	"	"	"		0.00500	ND	"	
Toluene	"	"	"		0.00500	ND	"	
Ethylbenzene	"	"	"		0.00500	ND	"	
Xylenes (total)	"	"	"		0.00500	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	60.0-140		112	%	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 10/23/00
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**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*
<u>SP-1A,B,C,D (Composite)</u>				<u>S010347-01</u>			<u>Soil</u>	
Lead	0100271	10/20/00	10/20/00	EPA 6010A	10.0	ND	mg/kg	1,D





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Henningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 10/23/00
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**Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Quality Control
Sequoia Analytical - Sacramento**

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100285	Date Prepared: 10/23/00			Extraction Method: EPA 5030B (MeOH)						
Blank	0100285-BLK1									
Purgeable Hydrocarbons	10/23/00			ND	mg/kg	1.00				
Benzene	"			ND	"	0.00500				
Toluene	"			ND	"	0.00500				
Ethylbenzene	"			ND	"	0.00500				
Xylenes (total)	"			ND	"	0.00500				
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	0.200		0.226	"	60.0-140	113			
LCS	0100285-BS1									
Benzene	10/23/00	0.200		0.216	mg/kg	70.0-130	108			
Toluene	"	0.200		0.239	"	70.0-130	119			
Ethylbenzene	"	0.200		0.236	"	70.0-130	118			
Xylenes (total)	"	0.600		0.656	"	70.0-130	109			
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	0.200		0.232	"	60.0-140	116			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91-851 Project Manager: Ben Heningburg	Sampled: 10/17/00 Received: 10/19/00 Reported: 10/23/00
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Total Metals by EPA 6000/7000 Series Methods/Quality Control
 Sequoia Analytical - Sacramento

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0100271	Date Prepared: 10/20/00			Extraction Method: EPA 3050B						
Blank	0100271-BLK1									
Lead	10/20/00			ND	mg/kg	2.50				
LCS	0100271-BS1									
Lead	10/20/00	50.0		42.3	mg/kg	80.0-120	84.6			
Matrix Spike	0100271-MS1		S010326-01							
Lead	10/20/00	50.0	ND	48.1	mg/kg	80.0-120	96.2			D
Matrix Spike Dup	0100271-MSD1		S010326-01							
Lead	10/20/00	50.0	ND	50.4	mg/kg	80.0-120	101	20.0	4.87	D





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

#	Note
D	Data reported from a dilution.
I	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



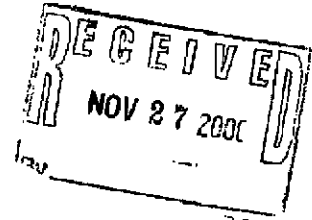
Virgil Chavez Land Surveying

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

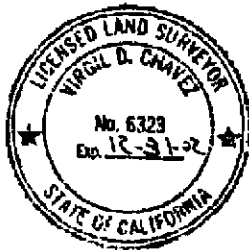


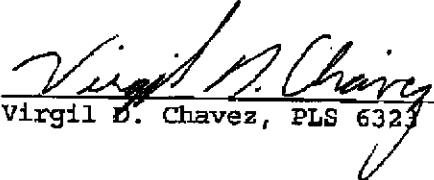
Dear Trevor:

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.

<u>Well No.</u>	<u>Rim Elevation</u>	<u>TOC Elevation</u>	<u>Station</u>	<u>Offset</u>
MW - 1	8.85'	8.61'	1+82.28	-121.78 (Lt)
MW - 2	9.99'	9.52'	1+40.54	-94.71 (Lt)
MW - 3	9.69'	9.08'	1+32.06	-36.10 (Lt)
MW - 4	9.87'	9.48'	0+93.27	-121.74 (Lt)
MW - 5	9.02'	8.77'	1+61.51	-10.76 (Lt)
MW - 6	11.65'	11.45'	0+19.76	-72.55 (Lt)
MW - 7	10.73'	10.58'	0+64.25	-139.02 (Lt)

Sincerely,



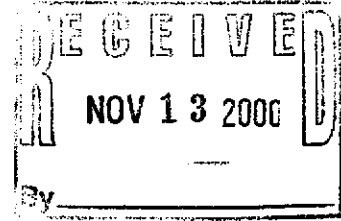

Virgil D. Chavez, PLS 6323

ENCLOSURE G

Groundwater Analytical Reports



November 8, 2000



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

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 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Henningburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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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





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Henningburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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**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*
								Water
MW5								ug/l
Purgeable Hydrocarbons	0100371	10/30/00	10/30/00	S010377-01	50.0	ND		
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		99.3	%	
								Water
MW6								ug/l
Purgeable Hydrocarbons	0100371	10/30/00	10/30/00	S010377-02	50.0	ND		
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		94.2	%	
								Water
MW7								ug/l
Purgeable Hydrocarbons	0100371	10/30/00	10/30/00	S010377-03	50.0	ND		
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	60.0-140		101	%	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Heningburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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**Volatile Organic Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW5								
				S010377-01			Water	
Ethanol	0110008	11/5/00	11/5/00		1000	ND	ug/l	
Tert-butyl alcohol	"	"	"		100	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	4.34	"	
Di-isopropyl ether	"	"	"		2.00	ND	"	
Ethyl tert-butyl ether	"	"	"		2.00	ND	"	
Tert-amyl methyl ether	"	"	"		2.00	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		112	%	
MW6								
				S010377-02			Water	
Ethanol	0110031	11/6/00	11/6/00		1000	ND	ug/l	
Tert-butyl alcohol	"	"	"		100	ND	"	
Methyl tert-butyl ether	"	"	"		2.00	5.96	"	
Di-isopropyl ether	"	"	"		2.00	ND	"	
Ethyl tert-butyl ether	"	"	"		2.00	ND	"	
Tert-amyl methyl ether	"	"	"		2.00	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		102	%	
MW7								
				S010377-03			Water	
Ethanol	0110008	11/5/00	11/5/00		6670	ND	ug/l	D
Tert-butyl alcohol	"	"	"		667	ND	"	D
Methyl tert-butyl ether	"	"	"		13.3	1210	"	D
Di-isopropyl ether	"	"	"		13.3	ND	"	D
Ethyl tert-butyl ether	"	"	"		13.3	ND	"	D
Tert-amyl methyl ether	"	"	"		13.3	199	"	D
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		113	%	





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Heningburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control
 Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0110008		Date Prepared: 11/5/00		Extraction Method: EPA 5030B [P/T]						
Blank		0110008-BLK1								
Ethanol	11/5/00			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	100				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		55.5	"	76.0-114	111			
LCS		0110008-BS1								
Methyl tert-butyl ether	11/5/00	50.0		59.8	ug/l	70.0-130	120			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		54.0	"	76.0-114	108			
Matrix Spike		0110008-MS1		S010377-01						
Methyl tert-butyl ether	11/5/00	50.0	4.34	64.9	ug/l	60.0-140	121			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		56.6	"	76.0-114	113			
Matrix Spike Dup		0110008-MSD1		S010377-01						
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	"	50.0		54.6	"	76.0-114	109			
Batch: 0110031		Date Prepared: 11/6/00		Extraction Method: EPA 5030B [P/T]						
Blank		0110031-BLK1								
Ethanol	11/6/00			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	100				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.1	"	76.0-114	98.2			
Blank		0110031-BLK2								
Ethanol	11/6/00			ND	ug/l	1000				
Tert-butyl alcohol	"			ND	"	100				
Methyl tert-butyl ether	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.7	"	76.0-114	97.4			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Heningsburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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Volatile Organic Oxygenated Compounds by EPA Method 8260B/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS	0110031-BS1									
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-BS2									
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-MS1 L011035-02									
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	"	76.0-114	101			
Matrix Spike Dup	0110031-MSD1 L011035-02									
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	"	50.0		49.6	"	76.0-114	99.2			





Delta Environmental Consultants(Rancho Cordova 3164 Gold Camp Drive Ste. 200 Rancho Cordova, CA 95670	Project: Chevron 9-1851 Project Number: DG91851 Project Manager: Ben Heningburg	Sampled: 10/23/00 Received: 10/23/00 Reported: 11/8/00
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Notes and Definitions

#	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





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
Address: 6001 Bollinger Canyon Road
San Ramon, CA 94583
Contact: Bob Cochran
Phone: 925-842-9500

Facility Name: Chevron Station #9-1851
Address: 451 Hegenberger Road
Oakland, CA
Facility Contact: Ben Heningburg
Phone: 916-536-2623

IWM Job #:	<u>91079-SS</u>
Description of Waste:	<u>1 CY of</u> <u>Non-Hazardous Soil</u>
Removal Date:	<u>11/8/00</u>
Ticket #:	<u>02771</u>

Transporter Information

Name: IWM, Inc.
Address: 950 Ames Avenue
Milpitas, CA 95035
Phone: (408) 942-8955

Disposal Facility Information

Name: Republic Services VRL
Address: 4001 North Vasco Road
Livermore, CA 94550
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 T. DeLon*
Authorized Representative (Print Name and Signature)

8 December 2000
Date