## AP - 056

## GENERAL CORRESPONDENCE

YEAR(S):

2006 - 2007



## NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

### **FEBRUARY 12, 2007**

Mr. Steve Huddleson Chevron Environmental Management Company 11111 S. Wilcrest Houston, Texas 77099

RE: STAGE 1 ABATEMENT PLAN - MARK OWEN NO. 9 RESERVE PIT SECTION 34, TOWNSHIP 21 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO ADMINISTRATIVE COMPLETENESS DETERMINATION AP056

Dear Mr. Huddleson:

The New Mexico Oil Conservation Division (OCD) has completed its administrative review of the *Stage 1 Abatement Plan - Chevron U.S.A.*, *Inc. - Mark Owen #9 Reserve Pit*, submitted on September 11, 2006, by Conestoga-Rovers & Associates on behalf of Chevron Environmental Management Company (CEMC). OCD has determined that the proposed Stage 1 Abatement Plan (Stage 1 AP) is not administratively complete and therefore, CEMC must revise and resubmit it by March 16, 2007.

OCD has identified three major issues that CEMC must address when it revises its Stage 1 AP. First, CEMC must completely define the extent of the vadose zone contamination as well as any ground water contamination. Second, it must revise the Stage 1 AP with the understanding that pit closure activities will not be addressed in accordance with OCD's pit closure guidance, but rather during the Stage 2 (remediation/closure) of the Abatement Plan, pursuant to OCD Rule 19. OCD's pit closure guidance is only appropriate for sites at which a release has not occurred. Third, CEMC appears to be confused about soil cleanup standards for chlorides. The Water Quality Control Commission numerical ground water protection standards specified at 20.6.2.3103 NMAC apply only to ground water – not to soil. OCD's 1993 guidance (Guidelines for Remediation of Leaks, Spills and Releases) does not specify a soil cleanup standard for chlorides.

Mr. Steve Huddleson February 12, 2007 Page 2

Vadose Zone Contamination OCD Rule 19B(1) specifies that "The vadose zone shall be abated so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water ...." Given that vadose zone (i.e., soil) standards are general performance standards rather than numerical standards, OCD requires operators to completely define the extent of any vadose zone contamination before making a site-specific determination as to how much vadose zone remediation is required to ensure that ground water will not be impacted by continued releases. At sites where ground water has been impacted by a release, OCD generally requires that the source be removed whenever possible.

OCD Rule 19.E(3) specifies that the investigatory work proposed by the responsible person in a Stage 1 AP must adequately define the site conditions and provide the data necessary to select and design an effective abatement option. Section 3.0 of the Stage 1 AP states that CEMC will not conduct additional site investigation activities, such as a soil boring program. However, CEMC has not yet delineated the full extent of the soil contamination beneath the drill pit; therefore, CEMC must revise Section 3.0 to include a soil boring program as well as a ground water monitoring program. CEMC must install a sufficient number of soil borings to delineate the vadose zone contamination and must justify the proposed locations of soil borings and monitor wells based on contour maps and cross sections using all available data. CEMC did not justify its interpretation of the site conditions by providing cross sections in either its proposed Stage 1 Abatement Plan or its Attachment A (2006 EPI Report). CEMC did provide one contour map at the 19-foot bgs interval. This map is based only on four soil borings and it is not clear why the other borings were not advanced deeper.

OCD suggests that CEMC re-title Section 3.0 as "Site Investigation Work Plan" to conform with OCD Rule 19E(3)(b).

Remediation/Closure Section 3.3 indicates that residual chloride-impacted soils will be addressed in accordance with OCD's 2004 *Pit or Below-Grade Tank Guidelines*. However, following that guidance is only appropriate "...if the liner has maintained its integrity." OCD's pit guidance also states that releases from pits must be remediated in accordance with its 1993 "Guidelines For Remediation Of Leaks, Spills And Releases." Operators are required to comply with the release reporting requirements of OCD Rule 116. Please note that any detrimental impact to ground water is a major release. Corrective action for releases must be addressed in accordance with an abatement plan pursuant to OCD Rule 19.

Soil Cleanup Standard For Chlorides As noted above, OCD does not have numerical cleanup standards for soil. OCD's 1993 guidelines provide recommended remediation action levels for soils contaminated with petroleum hydrocarbons. OCD's guidelines note that soils contaminated with substances other than petroleum hydrocarbons (*e.g.*, chlorides) may be required to be remediated based upon the nature of the contaminant and it's potential to impact fresh waters, public health, and the environment. Given the shallow depth to ground water and

Mr. Steve Huddleson February 12, 2007 Page 3

the fact that ground water has already been contaminated at concentrations that exceed the WQCC ground water protection standards, OCD may require removal of all remaining chloride contamination soil and bedrock.

OCD has several other issues with CEMC's Stage 1 AP that it would normally address during the technical review, but is briefly discussing them now to minimize the need for additional revisions.

- 1. Section 1.1 provides a statement of the purpose of the Stage 1 AP that differs from OCD Rule 19E(3). CEMC should revise this section accordingly.
- 2. Neither Section 2.3 nor Appendix A provide sufficient details on the drilling pit, such as the size of the drill pit, dates of operations, the volume and composition of drilling fluids used, the extent of contamination in the vadose zone and in ground water, the volume of soil excavated, disposed, or stored, *etc.* CEMC should revise this section accordingly.
- 3. Section 2.5 refers to "two clean soil stockpiles." CEMC should specify what the average chlorides concentration is at each stockpile and how this was determined.
- 4. Section 3.1.1 specifies on page 7 that soil samples will be collected in 5-foot intervals. However, on page 8, 10-foot intervals for analysis are specified. CEMC should review this section for consistency.
- 5. Section 3.1.2 indicates that monitor wells will be drilled and completed in accordance with the Office of the State Engineer's specifications. CEMC should follow OCD's 1993 guidelines for monitor well construction.
- 6. Section 3.2 indicates that CEMC will handle drill cuttings by either disposal at an OCD permitted facility or by thin-spreading on-site. OCD will not approve "thin-spreading" on-site of chlorides contaminated drill cuttings.

CEMC shall submit two paper copies and an electronic copy of its revised Stage 1 Abatement Plan to OCD's Santa Fe office by March 16, 2007, with a copy provided to the OCD Hobbs District Office.

Mr. Steve Huddleson February 12, 2007 Page 4

If you have any questions, please contact me at 505-476-3488.

Sincerely,

Glenn von Gonten Senior Hydrologist

cc: Mr. Larry Johnson, OCD Hobbs District Office



2135 S. Loop 25 West Midland, Texas 79703

Telephone: (432) 686-0086

http://www.craworld.com

Reference No. 046121

Fax: (432) 686-0186

January 11, 2007

Mr. Glenn VonGonten NMOCD 1220 South St. Francis Dr. Santa Fe, NM 87505

Re: Stage I Abatement Plan Mark Owen #9 Reserve Pit Lea County, NM

Dear Mr. VonGonten:

Per your request, enclosed is a copy of the Stage I Abatement Plan Mark Owen #9 Reserve Pit on CD. Should you need anything further, please contact me at 432-686-0086.

Sincerely,

Conestoga-Rovers & Associates, Inc.

Tom Larson

**Operations Manager** 

Equal Employment Opportunity Employer



### Price, Wayne, EMNRD

From: Price, Wayne, EMNRD

**Sent:** Thursday, May 25, 2006 1:52 PM

To: 'Huddleson, Steven M (SHuddleson)'

Cc: Williams, Larry (LCWL); Hall, Keith (Keith.Hall)

Subject: RE: Mark Owen No 9 Well (AP-56)

OCD hereby grants a 90 day extension.

From: Huddleson, Steven M (SHuddleson) [mailto:SHuddleson@chevron.com]

**Sent:** Thursday, May 25, 2006 1:30 PM

To: Price, Wayne, EMNRD

Cc: Williams, Larry (LCWL); Hall, Keith (Keith.Hall)

Subject: Mark Owen No 9 Well (AP-56)

Importance: High

Mr. Price.

The referenced project has been referred to my attention by Mr. Larry Williams of Chevron Operations. I have been assigned as the project manager for the environmental investigation of this property and should be the recipient of all future correspondence relating to its investigation. I have received a copy of your communication of May 19 requesting the submittal of an abatement plan pursuant to NMOCD Rule 19 within 30 days. Chevron respectfully requests an extension of time for the preparation and submittal of that plan. This is to allow an opportunity for me to become familiar with the project and to allow a transition from the current environmental contractor (Environmental Plus, Inc.) to one of Chevron Environmental Management Company's national alliance suppliers.

I look forward to working with you on this project. Please do not hesitate to contact me at any time if you have questions or comments. Your consideration of this request is greatly appreciated.

Please give my best wishes to Jack Ford on his retirement.. The lucky dog...

Steve Huddleson, P.G., C.P.G. Sr. Environmental Project Manager Chevron Environmental Management Company 11,111 S. Wilcrest Houston, TX 77099

281-561-4995 Office 832-771-3275 Cellular

NVIRONMENTAL P



### STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

2006 MAY 23 PM 12 52;

May 19, 2006

Mr. Wayne Price Energy, Minerals, and Natural Resources Department New Mexico Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Notification of Groundwater Impact Chevron USA (O-Grid #4323) Mark Owen #9 Pit (Ref. #200056) UL-J of Section 34, T21S, R37E Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference Figure 1) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and submitted to you for approval. All official communication should be sent to:

### STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

Chevron USA Mr. Larry Williams P.O. Box 1249 2401 Avenue O Eunice, New Mexico 88231 Telephone: (505) 394-1237 e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

Pat McCasland

EPI Senior Consultant

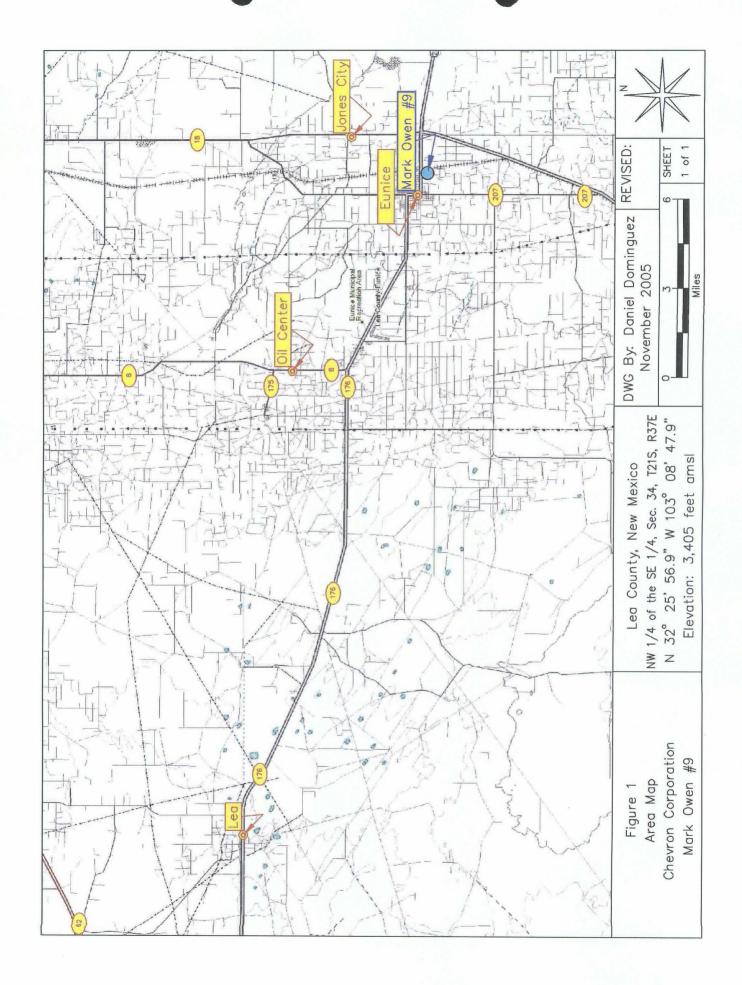
cc: Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)

Larry Williams, Chevron (LCWL@Chevron.com) Nathan Mouser, Chevron (NVMO@Chevron.com)

file

Enclosures:

Figure 1 Laboratory Report







PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558 EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/03/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

SO4 CI LAB NUMBER SAMPLE ID (ppm) (ppm)

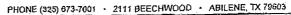
ANALYSIS DATE:	05/05/06	05/05/06	7]
H11087-11 TMW3-10'	246	6478	
H11087-12 TMVV3-13'	124	5678	7)
H11087-13 TMW3-18'	116	4447	1/:1
H11087-14 TMW3-23'	161	6830	1501
H11087-15 TMW3-28'	59.2	1711	
H11087-16 TMW3	240	9697	]] wate
			-
Quality Control	27,3	960	^-
True Value QC	25.0	1000	7
% Recovery	109,0	96	1
Relative Percent Difference	1.6	3.0	1

METHODS: EPA 600/4-79-020 375.4 SM 4500 CIB

NOTE: Analyses performed on 1:4 w.v aqueous extracts.

PLEASE NOTE: Liability and Damagax, Cardinal's liability and client's exclusive remedy for any claim adding, whether based in contract or fort, shall be limited to the amount paid by client for analyses.

All claims, including includes for negligence and any other cause whateover shall be deemed waived unless made in writing and received by Cardinal within thity (30) days after compission of the applicable service. I find blank shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, of loss of use, of loss of profits incirred by client, its subsidiaries, attitudes or successors arising out of or related to the performence of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.





PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND

P.O. BOX 1558 EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

SQ4 CI. LAB NUMBER SAMPLE ID (ppm) (ppm)

ANALYSIS DA	NTE:	05/05/06	05/05/06	
H11087-1	TMW1-5'	<1	16	)
H11087-2	TMW1-20'	27.3	16	\S01
H11087-3	TMW1-35'	58.8	32	U
H11087-4	TMW1	181	80	wate
H11087-5	TMW2-5'	128	48	
H11087-6	TMW2-20'	<1.	176	( 1
H11087-7	TMW2-35'	54.2	128	\ soi!
H11087-8	TMW2	116	80	1 wal
H11087-9	\$B3-5'	27.3	16	<u>.</u>
H11087-10	SB3-30'	277	16	301
Quality Contro	»l	27.3	960	}
True Value Qu	<b>D</b>	25.0	1000	
% Recovery		109.0	96	
Relative Perce	ent Difference	1.6	3.0	

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MACTUODO, COA COM	ፈ ፖስ በባበ	075 /	SM 4500 CFB
METHODS: EPA 600/-	4-79-020	375.4	2IVI 4200 CI D
		~ <u></u>	

NOTE: Analyses performed on 1:4 w.v aqueous extracts.



PHONE (505) 393-2326 + 101 E. MARLAND + HOBBS, NM 86240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND

P.O. BOX 1558 EUNICE. NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/08/06

Project Owner: CHEVRON USA (#20056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/01, 05/02, & 05/03/06

Semple Type: GROUNDWATER
Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

				ETHYL	TOTAL
		BENZENE	TOLUENE	BENZENE	XYLENES
LAB NUMBER	SAMPLE ID	(mg/L)	(mg/L)	(mg/L)	(mg/L)

ANALYSIS DATE	05/05/06	05/05/06	05/05/06	05/05/06
H11087-4 TMW1	<0.002	<0.002	<0.002	<0.006
H11087-8 TMW2	<0.002	<0.002	< 0.002	<0.006
H11087-16 TMW3	<0.002	<0.002	<0.002	<0.006
Quality Control	0.094	0.092	0.093	0.294
True Value QC	0.100	0.100	0.100	0,300
% Recovery	94.4	92.0	93.4	97.9
Relative Percent Difference	1.3	0.4	1.9	3,0

METHOD: EPA SW-846 8260

Date

PLEASE NOTE: Liability and Damagee. Cerdinal's liability and client's exclusive remedy for any claim educing, whether based in contract or tort, shall be limited to the emount paid by client for analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed valved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. I who was the contract of the performance of services including, without tratation, business interruptions, took of use, or loss of profits incurred by client, its subsidiaries, effiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.



PHONE (505) 383-2328 · 101 E MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558

EUNICE, NM 88231 FAX TO: (505) 394-2601

(505) 394-2601

Sampling Date: 04/28, 05/02, & 05/03/06

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

Receiving Date: 05/04/06 Reporting Date: 05/10/06

Project Owner: CHEVRON TEXACO (#200056)

Project Name: MARK OWENS #9 PIT

Project Location: NOT GIVEN

LAB NO. SAMPLE ID	GRO	DRO (	DEL COMO IN		ETHYL	TOTAL	
DAB NO. SAIMPLE ID	$(C_6-C_{10})$	(>C <sub>10</sub> -C <sub>28</sub> )	BENZENE	TOLUENE	BENZENE	XYLENES	
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/i/g)	
ANALYSIS DATE:	05/08/06	05/08/06	05/08/06	05/08/06	05/08/08	05/08/06	1
H11087-2 TMW1-20	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015	ħ
H11087-6 TMW2-20	<10.0	<10.0	<0.005	< 0.005	<0.005	< 0.015	1/ .
H11087-12 TMW3-13'	<10.0	<10.0	<0,005	<0.005	< 0.005	<0.015	1301
H11087-14 TMW3-23'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015	) '
					<u> </u>		
						ļ	
Quality Control	553	517	0,095	0.092	0.092	0,277	
True Value QC	500	500	0.100	0.100	0.100	0.300	
% Recovery	111	103	95.0	92.4	92.0	92.3	1
Relative Percent Difference	5.8	9.0	0,6	0.5	1,6	6.1	

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess I. A. Cooke, Ph. D.

Date

H11087A

PLEASE NOTE: Liability and Damagoo. Cardinal's liability and client's exclusive remedy for any claim arising, who ther based in contract or tord, shall be limited to the amount paid by client for analyses. All claims, including those for ragiligance and any other cause who to ever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or reliated to the partormance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

## 2111 Beechwood, Abilene, TX 79603

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

Cardinal Laboratories Inc.

915-673-7001 Fax 915-673-7020

REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPt. <<< R3HTO LCCP Fax Results To Pat McCasland - EPI @ 505-394-2601 SULFATES (80,7) CHLORIDES (CI.) M&108 H91 BISO8 XBT6 11.58 10:10 12:00 10:54 11.28 11:47 12:21 口縣匠 00:6 9:36 9:51 SAMPLING Attention: Mr. Larry Williams 4/28/05 **Eunice, NM 88231** 4/28/05 5/1/06 4/28/06 5/2/06 5/2/06 5/2/06 5/2/06 5/2/06 DATE 5/2/06 P. O. Box 1949 Chevron USA Cheuror **Н**ЭНТО PRESERV. ICE/COOF ACID/BASE :REMTO hecked By: BLUDGE MATRIX CHADE OIL TIOS × × Received By: (lab staff MASTEWATER REPOUND WATER Sample Cool & Intact Data 5-04-06 Received By: 505-394-3481 / 505-394-2601 m က # CONTAINERS Eumice New Mexico 88231 Environmental Plus, Inc. Ű Ü Ű O U C G Q (G)RAB OR (C)OMP. Ç Ó 10-6-5anc Time 4:28 Geroge Blackburn Mark Owen #9 P能 Par McCasland P.O. BOX 1558 Chevron USA SAMPLE 1.D. #200056 3 TRAW1-35 7 TTMW2-35 6 TIMW2-20 2|TMW1-20 5 THIN 11/2-5 TRIWIT 5 SB3-30 4 TIMPUT 9|SB3-5 8 TIMW2 EPI Project Manager EPI Sampler Name Project Reference EPI Phone#/Fax# - 10 Company Name Client Company Billing Address City, State, Zip ł 1 Facility Name Sampler Relinquished: LABID. Resignation by: Delivered by

1 of 2

## 2 of 2

# Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603

915-673-7001 Fax:915-673-7020

Company Name	Environmental Plus, Inc.	Inc.												ä		ioj M			
EPI Project Manager	ager Pat WcCasland					9,	Chevron	ron			-	<u> </u>							
Billing Address								I I								<i>-</i>	÷		
City, State, Zip	Eunice New Mexico 88231	88231	<u> </u>				$\rangle$						<u>-</u>				rain.		
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Client Company	Chevron USA				) <u>c</u>							<del>éne.</del>	·····;:*****				-		
Facility Name	Mark Owen #9 Pit			,	<b>L</b>	Ö,		7. C. DCX 1343	•		-			***************************************				descare.	
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HII687 - 11	TKW3-10'		×					5/3/06	4:42		T	<u></u>	-	-	-		1	1	
7.2	TWW3-13'	<u>ا</u>	X		_			5/3/06	4:49	×	×	-	×	<u> </u>			F	_	
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<b>争</b> /	TMW3-23	<u>ା ।</u>	X					5/3/06	5:10	×	$\overline{\times}$	×	×	<u> </u>			H		
7.5	5 TWW3-28'	<u> </u>	×		-			5/3/06	5:20			X	×					-	
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### Price, Wayne, EMNRD

From:

Price, Wayne, EMNRD

Sent:

Friday, May 19, 2006 11:33 AM

To:

'Pat Mccasland'

Cc:

Johnson, Larry, EMNRD; Sheeley, Paul, EMNRD; Larry Williams (Chevron); Nathan Mouser; 'Cody Miller'; 'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'lain Olness'; 'Jason Stegemoller'; 'Roger

Boone'

Subject: RE: Chevron Mark Owen #9 Notification of Groundwater Impact

Dear Mr. Williams and Mr. Mccasland:

You are hereby required to submit an abatement plan pursuant OCD rule 19 within 30 days. Your site has been assigned the abatement plan number AP-56. Please use this number on all future documents.

**From:** Pat Mccasland [mailto:pmccasland@envplus.net]

Sent: Friday, May 19, 2006 9:56 AM

To: Price, Wayne, EMNRD

Cc: Johnson, Larry, EMNRD; Sheeley, Paul, EMNRD; Larry Williams (Chevron); Nathan Mouser; 'Cody Miller';

'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'Iain Olness'; 'Jason Stegemoller'; 'Roger Boone'

Subject: Chevron Mark Owen #9 Notification of Groundwater Impact

Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits the attached <u>Notification of Groundwater Impact</u> and supporting documentation for the Chevron Mark Owen #9 drill pit. Hard copies will follow.

If there are any questions or more information is needed, please feel free to call Iain Olness or me at 505.394.3481 or Larry Williams (Chevron) at 505.394.1237.

Sincerely,

Pat McCasland Senior Consultant Environmental Plus, Inc. P.O. Box 1558 2100 Avenue O Eunice, New Mexico 88231

Office:

505.394.3481

Cellular:

505.390.7864

FAX:

505.394.2601

eddress:

pmccasland@envplus.net

### Price, Wayne, EMNRD

From:

Pat Mccasland [pmccasland@envplus.net]

Sent:

Friday, May 19, 2006 9:56 AM

To:

Price, Wayne, EMNRD

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'Cody Miller'; 'Daniel Dominguez'; DDuncan@envplus.net; 'EPI'; 'lain Olness'; 'Jason

Stegemoller'; 'Roger Boone'

Subject:

Chevron Mark Owen #9 Notification of Groundwater Impact

Attachments: Chevron Mark Owen #9 Groundwater Notification.pdf

Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits the attached <u>Notification of Groundwater Impact</u> and supporting documentation for the Chevron Mark Owen #9 drill pit. Hard copies will follow.

If there are any questions or more information is needed, please feel free to call Iain Olness or me at 505.394.3481 or Larry Williams (Chevron) at 505.394.1237.

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505.390.7864 505.394.2601

eddress:

pmccasland@envplus.net

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### ENVIRONMENTAL PLUS. INC. STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

May 19, 2006

Mr. Wayne Price Energy, Minerals, and Natural Resources Department New Mexico Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Notification of Groundwater Impact Chevron USA (O-Grid #4323) Mark Owen #9 Pit (Ref. #200056) UL-J of Section 34, T21S, R37E Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference Figure 1) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and submitted to you for approval. All official communication should be sent to:

----



### ENVIRONMENTAL PLUS, INC. STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

Chevron USA Mr. Larry Williams P.O. Box 1249 2401 Avenue O Eunice, New Mexico 88231 Telephone: (505) 394-1237 e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

Pat McCasland

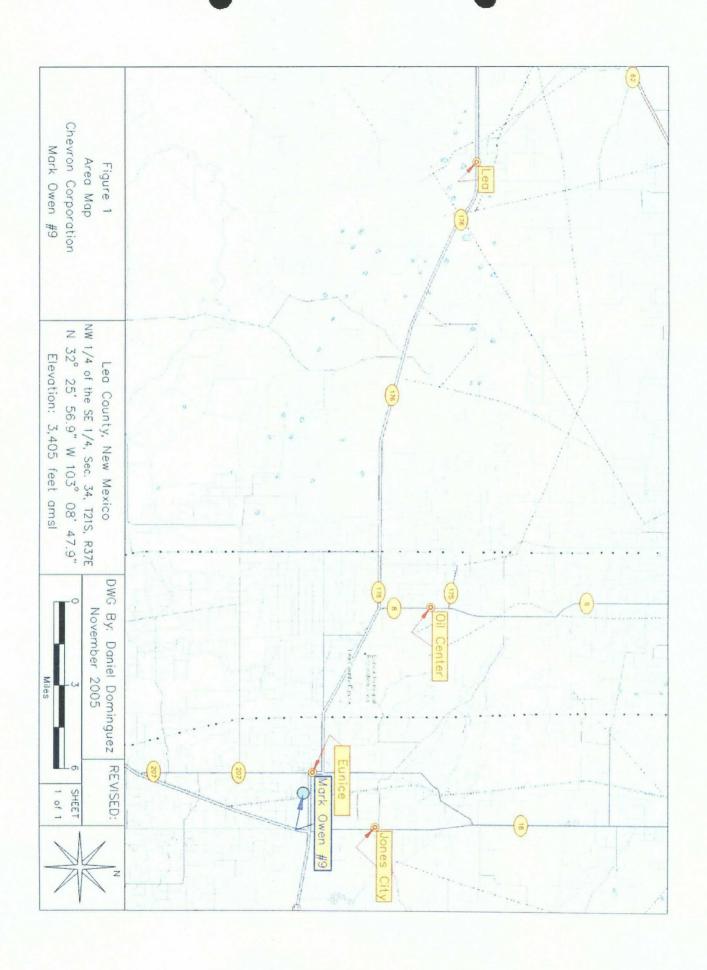
EPI Senior Consultant

cc: Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)

> Larry Williams, Chevron (LCWL@Chevron.com) Nathan Mouser, Chevron (NVMO@Chevron.com)

Enclosures:

Figure 1 Laboratory Report







PHONE (505) 393-2328 - 101 E. MARLAND - HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558

EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/03/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT

CI

Sample Received By: AB

Analyzed By: AB

SO<sub>4</sub>

LAB NUMBER SAMPLE ID

(ppm) (ppm)

ANALYSIS DATE:	05/05/06	05/05/06	]
H11087-11 TMW3-10'	246	6478	$\mathcal{T}$
H11087-12 TMW3-13'	124	5678	] ]
H11087-13 TMW3-18'	116	4447	11:21
H11087-14 TMW3-23'	161	6830	Soil
H11087-15 TMW3-28'	59.2	1711	IJ _,
H11087-16 TMW3	240	9697	]} wat
		——————————————————————————————————————	
Quality Control	27.3	960	
True Value QC	25.0	1000	{
% Recovery	109,0	96	1
Relative Percent Difference	1.6	3.0	

METHODS: EPA 600/4-79-020 375.4 SI NOTE: Analyses performed on 1:4 w;v aqueous extracts.

Chamiel

Date

SM 4500 CIB

PLEASE NOTE: Liability and Demagra. Cardinal's liability and clean's exclusive remedy for any claim arising, whether based in contract or fort, shall be limited to the amount paid by clean for analyses. All claims, including those for negligence and any other cause whateover shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after compation of the applicable pervice. If hind bush distall Cardinal be liable by incidental or consequential damages, including, without limitation, business interruptions, lose of use, or loss of profits hearing by substitutions. Substitutions, business interruptions, lose of use, or loss of profits hearing by substitutions.



PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND

P.O. BOX 1558 EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: WARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06

Sample Type: SOIL & WATER

Sample Condition: COOL & INTACT Sample Received By; AB

Analyzed By: AB

SO<sub>4</sub> CI LAB NUMBER SAMPLE ID (ppm) (ppm)

ANALYSIS DA	NTE:	05/05/06	05/05/06	
H11087-1	TMW1-5'	<1	16	1
H11087-2	TMW1-20'	27.3	16	\Soil
H11087-3	TMW1-35'	58,8	32	Water
H11087-4	TMW1	181	80	) water
H11087-5	TMW2-5'	128	48	D .
H11087-6	TMW2-20'	< 1	176	1/ )
H11087-7	TMW2-35'	54.2	128	15 5011
H11087-8	TMW2	116	80	Soi) Soi
H11087-9	SB3-5'	27.3	16_	H
H11087-10	SB3-30'	277	16	15501
Quality Contro	ol	27.3	960	{
True Value Qu		25.0	1000	
% Recovery		109.0	96	}
Relative Perce	ent Difference	1.6	3.0	1

METHODS: EPA 600/4-79-020 375.4 SM 4500 CI'B

NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

Date

PLEASE NOTE: Liability and Damagaa. Cardinal's liability and client's exclusive remady for any claim arising, whether based in contract or rort, shall be limited to the amount paid by client for enables.

All claims ployuding those for negligence and any other cause whatsoever shall be dearned waived unless made in writing and received by Cardinal within thirly (30) days after compission of the applicable service! In not with shall Cardinal be liable for incidental or consequential damages, including, without smitghten, business information, loss of use, or less of profits incurred by client, its substitutes affiliates or successors arising out of or related to the performance of services hateunder by Cardinal. regardless of whether such claim is based upon any or the above-stated reasons or outcomes.



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ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC.

ATTN: PAT McCASLAND

P.O. BOX 1558 EUNICE. NM 88231

FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/08/06

Project Owner: CHEVRON USA (#20056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/01, 05/02, & 05/03/06

Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

LAB NUMBER	SAMPLE ID	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)		,
ANALYSIS DAT	ſΈ	05/05/06	05/05/06	05/05/06	05/05/06		
H11087-4	TMW1	<0.002	<0.002	<0.002	<0.006	)	7
H11087-8	TMW2	<0.002	<0.002	<0.002	<0.006	}	Water
H11087-16	TMW3	<0.002	<0.002	<0.002	<0.006	ر	· ·
	<u> </u>						
Quality Control		0.094	0.092	0.093	0.294		
True Value QC		0.100	0.100	0.100	0.300		
% Recovery		94.4	92.0	93.4	97.9		
Relative Percer	nt Difference	1.3	0.4	1.9	3.0		

METHOD: EPA SW-846 8260

Burjess Ad Jothe

Date

PLEASE NOTE: Liability and Damagee. Cardinal's liability and client's exclusive remoty for any claim arising, whether based in contract or tork, shall be limited to the amount paid by client for analyses. All claims, Inchurge toget for negligance and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable exercise. I have been blad! Cardinal be flabel for incidental or consequential damages, including, without fartisation, business therruptions, less of use, or less of use, or less of profits incurred by client, its publisharies, altitudes or successors arising out of related to the performance of services herounder by Cardinal, regardless of whether such claim is based upon any of the above-stated deadone or otherwise.



PHONE (505) 393-2328 + 101 E MARLAND + HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558

EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06 Reporting Date: 05/10/06

Project Owner: CHEVRON TEXACO (#200056)

Project Name: MARK OWENS #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28, 05/02, & 05/03/06

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

LAB NO. SAMPLE ID	GRO $(C_6-C_{10})$ $(mg/Kg)$	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	
ANALYSIS DATE:	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	7
H11087-2 TMW1-20'	<10.0	<10.0	< 0.005	<0.005	<0.005	< 0.015	h
H11087-6 TMW2-20'	<10.0	<10.0	< 0.005	<0.005	<0.005	<0.015	17 .
H11087-12 TMW3-13'	<10.0	<10.0	< 0.005	<0.005	<0.005	<0,015	1301
H11087-14 TMW3-23'	<10.0	<10.0	<0.005	<0.005	<0.005	<0.015	)
				***			
Quality Control	553	517	0,095	0.092	0.092	0,277	
True Value QC	500	500	0.100	0.100	0,100	0.300	
% Recovery	111	103	95.0	92.4	92.0	92.3	
Relative Percent Difference	5.8	9.0	0.6	0.5	1.6	6,1	

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooks, Ph. D.

Date

H11087A

PLEASE NOTE: Limblity and Damageo. Cardinal's liability and client's exclusive remedy for any claim arising, whether based to contract or tert, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoover shall be deemed waived unless made in writing and received by Cardinal within filtry (30) days after complation of the applicants service. In no event shall Cardinal be liable for incidental or consequential damages, including, buildess interruptions, loss of use, or loss of profits incurred by client, its busisdishies, affinates or successors arising out of or related to the performance of contracts thereunder by Cardinal. regardless of whother such claim is based upon any of the show-stated reasons or otherwise.

# Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603 915-673-7001 Fax 915-673-7020

ne Environmental Plus, Inc.	ager	s P.O. BOX 1558	ax# 505-394-3481 / 505-394-2601 Chayrron 119.8	Chevron USA	Mark Owen #9 Pil	ance #200056 Eumice, NM 88231	Geroge Blackburn	MATRI	SAMPLE  CONTAINERS  CONTAINERS	THE BLACKS OF A COOL DATE TIME BLACKS OF THE CONTROL OF THE CONTRO	0. V V V V V V V V V V V V V V V V V V V	X X X X X X X X X X X X X X X X X X X	TMWH	STMWV2-5' G 1   X     5/2/06   9:36   X	6)TB/W2-20' G 1 X X X S S S S S X X X X	35' G 1 X     5/2/06   10:10     X	G 3 X		10 SB3-30' G 1 X X X   S12/06 11:28 X X X		Day 5-04-06 Received By: Fax Results To Pat McCasland - TREMARKS: Chain of custody requested.	Dass 5-04-06 Received By: The Date 5-4-2 Land Received By: (lab staff)	Dass 5-04-06 Received By:    Dass 5-04-06 Received By:   Fax Results To Pat McCasland     Time   Tim
3	ager	<i>a</i>	X#				EPI Sampler Name Ger		LABI.D. SAMF	11687 - 1 TANVAS	7 THAW11-50'	2 TABINA 25	- 4TMW1	- 5 TMW2-5'	- 6)TMW2-20'	- 7] TRIVV2-35'	8 TIWW2	- 9 <b>SB3-</b> 5,	~ 10 SB3-30'		mpler Reimquished:	mpler Ralinquished:	Sampler Ralmquished: Refinquished by:

1 of 2

# Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

> 2111 Beechwood, Abilene, TX 79603 915-673-7001 Fax 915-673-7020

EPI Project Manager City, State, Zip Company Name Client Company EPI Phone#/Fax# Billing Address EPI Sampler Name Project Reference Facility Name LAB I.D. 1 1 THAW3-10" 6 THAW3 13 TIMW3-18 TMW3-28' TMW3-23' TMW3-13' SAMPLE I.D. Pat McCasland Mark Owen #9 Pit 505-394-3481 / 505-394-2601 Eunice New Mexico 88231 P.O. BOX 1558 Environmental Plus, Inc. Geroge Blackburn #200056 Chevron USA 8 Otte 57-4-64 Received By. (lab stati) 5-04-06 Received By: Samicia Cool & Infact Yes No Ω ດ Ð ១ ធា (G)RAB OR (C)OMP. ្ឋា ယ # CONTAINERS GROUND WATER WASTEWATER SOIL MATRIX CRUDE OIL Attention: Mr. Larry Williams ecked By: SLUDGE Eunice, NM 88231 OTHER: P. O. Box 1949 Chevron USA ACID/BASE PRESERV. REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI. Fax Results To Pat McCasiand - EPI @ 505-394-2601 Cinevron ICE/COOL OTHER 5/3/0S 5/3/06 5/3/06 5/3/06 553706 5/3/06 DATE SAMPLING 6:00 5:20 5:10 4:59 4:49 BTEX 8021B **TPH** 8015M CHLORIDES (CI') SULFATES (SO4") рH TCLP OTHER >>>

of 2

### SENVIRONMENTAL PLUS, INC. STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

May 19, 2006

Mr. Wayne Price Energy, Minerals, and Natural Resources Department New Mexico Oil Conservation Division, Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Re: Notification of Groundwater Impact Chevron USA (O-Grid #4323) Mark Owen #9 Pit (Ref. #200056) UL-J of Section 34, T21S, R37E Lea County, New Mexico

Dear Mr. Price,

Environmental Plus, Inc. (EPI), on behalf of Chevron USA, submits this written notification of ground water impact in excess of the 250 mg/L standard for chloride. This written notification follows the verbal notification to the local New Mexico Oil Conservation Division (NMOCD) Hobbs office on May 11, 2006. The unintentional release of briny drilling fluid at the above-referenced site (reference Figure 1) was due to the failure of the drill pit liner during drilling and completion of the production well. On May 3, 2006, three temporary groundwater monitoring wells were installed and sampled to determine the depth to local groundwater, the vertical chloride concentration gradients and whether the local groundwater had been impacted. Temporary groundwater monitoring well (TMW3) was installed in the bottom of the excavated pit area. The chloride concentration from analysis of the water sample collected from temporary groundwater monitoring well TMW3 was reported by the laboratory to be 9,697 mg/L and is in excess of the 250 mg/L New Mexico Water Quality Control Commission (WQCC) standard. Temporary groundwater monitoring well TMW1 was installed approximately 100-feet northwest (up-gradient) of the pit and temporary groundwater monitoring well TMW2 was installed approximately 100-feet down-gradient of the pit. The chloride concentrations from analysis of the water samples collected from temporary groundwater monitoring wells TMW1 and TMW2 were reported by the laboratory to be 80 mg/L and were not in excess of the 250 mg/L WQCC standard. Benzene, toluene, ethylbenzene and total xylenes concentrations in the water samples collected from temporary groundwater monitoring wells TMW1, TMW2 and TMW3 were not reported by the laboratory to be in excess of the respective method detection limits (reference the attached laboratory report).

There are no domestic, agricultural, or public supply wells within a 1,000-foot radius of the site or other at-risk facilities. A remediation work plan addressing the impacted soil and ground water will be developed consistent with the "NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)" and submitted to you for approval. All official communication should be sent to:

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

Chevron USA Mr. Larry Williams P.O. Box 1249 2401 Avenue O Eunice, New Mexico 88231 Telephone: (505) 394-1237 e-mail: LCWL@Chevron.com

Should you have any questions or concerns, please call Mr. Iain Olness or myself at (505) 394-3481 or Mr. Larry Williams at (505) 394-1237.

Sincerely,

Pat McCasland

EPI Senior Consultant

cc:

Larry Johnson, NMOCD Hobbs (LWJohnson@state.nm.us)

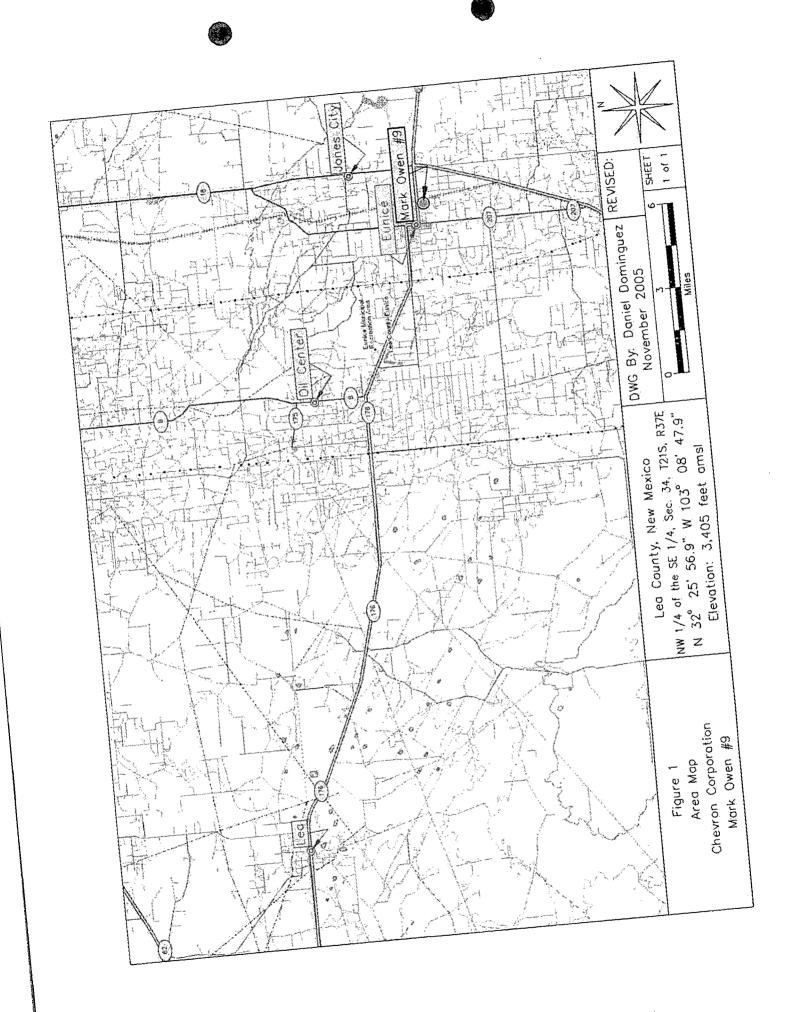
Larry Williams, Chevron (LCWL@Chevron.com) Nathan Mouser, Chevron (NVMO@Chevron.com)

file

Enclosures:

Figure 1

Laboratory Report





PHONE (505) 393-2326 - 101 E MARLAND - HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND

P.O. BOX 1558 **EUNICE, NM 88231** FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/03/06

Sample Type: SOIL & WATER Sample Condition: COOL & INTACT

CI

Sample Received By: AB

Analyzed By: AB

SOA (ppm)

LAB NUMBER SAMPLE ID

(mgg)

SM 4500 CTB

ANALYSIS DATE:	05/05/06	05/05/06	7
H11087-11 TMW3-10'	246	6478	1
H11087-12 TMW3-13'	124	5678	1)
H11087-13 TMW3-18'	116	4447	1/ - 1
H11087-14 TMW3-23'	161	6830	5001
H11087-15 TMW3-28'	59.2	1711	
H11087-16 TMW3	240	9697	] water
Quality Control	27.3	960	
True Value QC	25.0	1000	-
% Recovery	109,0	96	1
Relative Percent Difference	1.6	3.0	1

NOTE: Analyses performed on 1:4 w/v aqueous extracts.

METHODS: EPA 600/4-79-020

375.4

PLEASE NOTE: Liability and Camages. Cardinal's liability and elemits exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by cliem for analyses.

All cialing, including inces for negligence and any other cause whatsoever shall be deemed waived urloss made in writing and received by Cardinal within thirty (30) days after compission of the applicative service. If this bush shall Cardinal be liable for incidental or consequently demages, including, without limitation, business interruptions, loss of use, or loss of profits incidents by client, its substituting, allitates or successors arising out of or related to the performance of services hereunder by Cardinal; regardless of whether such claim is based upon any of the above-stated reasons or otherwise.



PHONE (505) 393-2326 · 101 E. MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558

EUNICE, NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/09/06

Project Owner: CHEVRON USA (#200056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28/06, 05/01/06 & 05/02/06

Sample Type: SOIL & WATER
Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: AB

		SO <sub>4</sub>	CI
LAB NUMBER	SAMPLE ID	(ppm)	(ppm)

ANALYSIS DA	NTE:	05/05/06	05/05/06	
H11087-1	TMW1-5'	<1	16	) . H
H11087-2	TMW1-20'	27.3	16	{soil
H11087-3	TMW1-35"	58.8	32	) . <u></u>
H11087-4	TMW1	181	80	Water
H11087-5	TMW2-5'	128	48	)
H11087-6	TMW2-20'	<1	176	1 1
H11087-7	TMW2-35'	54.2	128	> 301/
H11087-8	TMW2	116	80	(soi) (wate
H11087-9	SB3-5'	27.3	16	5 .,
H11087-10	SB3-30'	277	16	Soi)
Quality Contro	<u> </u>	27.3	960	
True Value Q	>	25.0	1000	
% Recovery		109.0	96	
Relative Perce	ent Difference	1.6	3,0	

METHODS: EPA 600/4-79-020 375.4 SM 4500 CFB NOTE: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

Date

PLEASE NOTE: Liability and Damagas. Cardinal's liability and client's exclusive remady for any claim arising, whether based in contract or rort, shall be limited to the amount paid by client for analyses. All claims showing those for negligence and any other dates whatsoever shall be desired waived unless made in writing and received by Cardinal within thirty. (30) days after completion of the applicable service! In not each shall be received as a liability for instance of the amount paid by cardinal be liable to rine destructions, it is abstricted as a liable to receive or related to the partomance of services note under by Cardinal. Regardless of whether such claim is based upon any of the above-stated reasons or elections.



PHONE (505) 393-2326 · 101 E. MARLAND · HOBBS, NM 88240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND

P.O. BOX 1558 EUNICE. NM 88231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06

Reporting Date: 05/08/06

Project Owner: CHEVRON USA (#20056)

Project Name: MARK OWEN #9 PIT

Project Location: NOT GIVEN

Sampling Date: 05/01, 05/02, & 05/03/06

Sample Type: GROUNDWATER Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

LAB NUMBER SAMPLE ID	BENZENE (mg/L)	TOLUËNE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)	
ANALYSIS DATE	05/05/06	05/05/06	05/05/06	05/05/06	
H11087-4 TMW1	<0.002	<0.002	<0.002	<0.006	<b>)</b>
H11087-8 TMW2	< 0.002	<0.002	<0.002	<0.006	2 Water
H11087-16 TMW3	<0.002	<0.002	<0.002	<0.006	٠ - د
Quality Control	0.094	0.092	0.093	0.294	
True Value QC	0.100	0.100	0,100	0,300	
% Recovery	94.4	92.0	93.4	97.9	
Relative Percent Difference	1.3	0.4	1.9	3,0	

METHOD: EPA SW-846 8260

injent of Joshe

Date

PLEASE NOTE: Liability and Damages. Cardinat's liability and client's exclusive remedy for any claim arising, whether based in contract or tod, shall be limited to the amount paid by client for shallyses.

All claims, Including Blose for notificance and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinat within thirty (30) days siter completion of the applicable service. I have well that Cardinal be liable for incidental or consequential damages, including, without invitation, business interruptions, loss of use, or loss of profits incurred by client, its substitutions.

Hintowall that Cardinal be liable for incidental or consequential damages, including, without invitation, business interruptions, loss of use, or loss of profits incurred by client, its substitutions.

Hintowall that is a substitution of the performance of services hereafted to the performance of services hereafte



PHONE (505) 393-2326 - 101 E MARLAND - HOBBS, NM 80240

ANALYTICAL RESULTS FOR ENVIRONMENTAL PLUS, INC. ATTN: PAT McCASLAND P.O. BOX 1558 EUNICE, NM 68231 FAX TO: (505) 394-2601

Receiving Date: 05/04/06 Reporting Date: 05/10/06

Reporting Date: US/10/06

Project Owner: CHEVRON TEXACO (#200056)

Project Name: MARK OWENS #9 PIT

Project Location: NOT GIVEN

Sampling Date: 04/28, 05/02, & 05/03/06

Sample Type: SOIL

Sample Condition: COOL & INTACT

Sample Received By: AB

Analyzed By: BC

LAB NO. SAMPLE ID	GRO (C <sub>6</sub> -C <sub>10</sub> ) (mg/Kg)	DRO (>C <sub>10</sub> -C <sub>28</sub> ) (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	
ANALYSIS DATE:	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	05/08/06	}
H11087-2 TMW1-20'	<10.0	<10.0	< 0.005	<0.005	<0.005	< 0.015	h
H11087-6 TMW2-20'	<10.0	<10.0	<0.005	<0.005	<0.005	< 0.015	11
H11087-12 TMW3-13!	<10.0	<10.0	<0,005	<0.005	< 0.005	< 0.015	1301
H11087-14 TMW3-23'	<10.0	<10.0	<0,005	<0.005	<0.005	<0,015	) '
Quality Control	553	517	0,095	0.092	0,092	0,277	
True Value QC	500	500	0.100	0.100	0,100	0.300	
% Recovery	111	103	95.0	92.4	92.0	92.3	1
Relative Percent Difference	5.8	9,0	0.6	0.5	1,6	6,1	f

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8260.

Burgess J. A. Cooke, Ph. D.

Date

H11087A

PLEASE NOTE: Liebility and Damages. Cardinal's liebility and citient's exclusive remedy for any claim arising, whether based in contract or fort, shall be limited to the amount paid by client for analyses.

All claims, including those for negligence and eny other cause whattoower shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors atteing out of or related to the performance of services thereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated respons or whethere.

# Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI. <<< F3HTO LOFE Fax Results To Pat McCasland - EPI @ 505-394-2601 Hd SULFATES (9047) CHTOHIDES (CL) Matos Hq1 BIEX 8021B 12:00 11.58 10:10 10:54 11:28 TIME 11:47 12:21 9:00 9:36 9:51 SAMPLING Attention: Mr. Larry Williams 4/28/06 4/28/06 4/28/06 5/2/06 5/2/06 5/2/06 5/2/06 5/2/08 **Eunice, NM 88231** DATE 30/1/9 5/2/06 P. O. Box 1949 Chevron USA Cheuron ЯЗНТО PRESERV. CECOOL **BSAB/GIDA** :REHTO STADGE MATRIX CHODE OIL 7105 Received By: (lab staff) **H**BTAWBTSAW REDUND WATER Sampter Good & Intact 5-04-06 (Received By 505-394-3481 / 505-394-2601 # СОЙТАІИЕРЯ Eunice New Mexico 88231 ග Environmental Plus, Inc. Ċ Ć Ø Ű G U Q C Q (G)RAB OR (C)OMP. Date 5-4-31 Time 4:20 Geroge Blackburn Mark Owen #9 Pil Pat McCasland P.O. BOX 1558 Derka Time Chevron USA SAMPLE 1.D. #200056 THW1-20 TRAW1-35 6 TTMW2-20 TH/W2-35 TMW1-5 5 TMW2-5 - 10|SB3-30 4 TIMW1 - 8 TTMW2 - 9|SB3-5 EPI Project Manager EPI Sampler Name Project Reference EPI Phone#/Fax# Company Name Client Company Billing Address City, State, Zip Facility Name ampler Relanquished ABID. Refiniquished by: Delyered by:

# Cardinal Laboratories Inc.

101 East Marland, Hobbs, NM 88240 505-393-2326 Fax 505-393-2476

2111 Beechwood, Abilene, TX 79603 915-673-7001 Fax 915-673-7020

EPI Project Manager Sampler Relinquished Facility Name Client Company EPI Phone#/Fax# City, State, Zip Billing Address Company Name Relinquished by: EPI Sampler Name Project Reference LAB I.D. EAMUL TWW3-28' TMW3-23' 31-EMMIL 101-EAABIL TMW3-13' SAMPLE I.D. #200056 Chevron USA 505-394-3481 / 505-394-260 P.O. BOX 1558 Pat McCasland Environmental Plus, Inc. Geroge Blackburn Mark Owen #9 Pit Eunice New Mexico 88231 Office 5 TY AG Received By. (lab stati) CKING 5-04-06 Received By: Sample Cool & Intact മ (G)RAB OR (C)OMP. O ្ឋា G g دن # CONTAINERS **GROUND WATER** WASTEWATER MATRIX SOIL CRUDE OIL Attention: Mr. Larry Williams SLUDGE Eurlice, NM 88231 OTHER: P. O. Box 1949 Chevron USA ACID/BASE PRESERV. REMARKS: Chain of custody requested. Send original reports to Pat McCasland - EPI. Chevron Fax Results To Pat NcCastand - EPI @ 505-394-2601 ICE/COOL OTHER 5/3/06 5/3/06 5/3/06 5/3/06 5/3/06 90/5/5 DATE SAMPLING 5:20 5:10 6:00 4:59 4.49 4:42 TIME **BTEX 8021B** TPH 8015M CHLORIDES (CI') × SULFATES (SO4") рН TCLP OTHER >>>

2 of 2

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410

1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy Minerals and Natural Resources



Form C-144 June 1, 2004

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

## Pit or Below-Grade Tank Registration or Closure Is pit or below-grade tank covered by a "general plan"? Yes \( \subseteq \text{No} \subseteq \)

Type of action: Registration of a pit o	r below-grade tank Closure of a pit or below-g	grade tank
Operator: CHEVRON U.S.A. INC. Telephone: 432-687-7375 e-mail Address: 15 SMITH ROAD, MIDLAND, TEXAS 79705		1
Facility or well name: MARK OWEN #9 API #: 30 025.37186	U/L or Qtr/Qtr J Sec 34 T 21-S	R 37-E
	de 103 08' 46.27" W NAD: 1927	
Surface Owner: Private		
Pit	Below-grade tank	
Type: Drilling	Volume: bbl Type of fluid:	
1 Type: Dimmig	Construction material:	
	Double-walled, with leak detection? Yes If	
Lined [	Double-walled, with leak detection: Tes [] if	not, explain why not.
Liner type: Synthetic Thickness 20 mil		
Pit Volume 4106 bbl		
Depth to ground water (vertical distance from bottom of pit to seasona)	Less than 50 feet	(20 points)
, ,	50 feet or more, but less than 100 feet	(10 points)
high water elevation of ground water.)	100 feet or more	( 0 points)
	v	(20 :-+)
Wellhead protection area: (Less than 200 feet from a private dornestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	No	( 0 points)
	Less than 200 feet	(20 points)
Distance to surface water: (horizontal distance to all wetlands, playas,	200 feet or more, but less than 1000 feet	(10 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	1000 feet or more	( 0 points)
		10
	Ranking Score (Total Points)	10
If this is a pit closure: (1) Attach a diagram of the facility showing the pit	s relationship to other equipment and tanks. (2) In	dicate disposal location: (check the onsite box if
your are burying in place) onsite offsite If offsite, name of facility_	(3) Attach a gener	al description of remedial action taken including
remediation start date and end date. (4) Groundwater encountered: No	Yes \ If yes, show depth below ground surface	ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excava		
Additional Comments:		
I hereby certify that the information above is true and complete to the best has been/will be constructed or closed according to NMOCD guideline	of my knowledge and belief. I further certify the es [2], a general permit [3], or an (attached) alter	at the above-described pit or below-grade tank rnative OCD-approved plan .
		· ·
Date: 4-07-2005	TV LUB	
Printed Name/Title MARK GARZA DRILLING ENGINEER	Signature Stex Suran	Jor
Your certification and NMOCD approval of this application/closure does otherwise endanger public health or the environment. Nor does it relieve regulations.	not relieve the operator of liability should the conte the operator of its responsibility for compliance with	ints of the pit or tank contaminate ground water or th any other federal, state, or local laws and/or
	URIGINAL SIGNED BY	,
Approval:	PALL E VALITY	ADD
Printed Name/Title	Signature PETROLEHM ENCINE	Dat APR 1 1 2005

District I .
1625 N. French Dr., Hobbs, NM 88240
District II .
1301 W. Grand Avenue, Artesia, NM 88210
District III .
1000 Rio Brazos Road, Aztec, NM 87410
District IV .
1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources



Form C-144 June 1, 2004

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit	or	Below-	Grade	Tank	Reg	gistratio	n or	Closure

Type of action: Registration of a pit or below-g	d by a "general plan"? Yes ∑rade tank ⊠ Closure of a pit or below-grad	NO			
	nil address: (wrbe@chevrontexaco.com)				
Address: PO Box 1949 2401 Avenue O Eunice, New Mexico 88231					
Facility or well name: Mark Owen #9 API #: 30-025-37189 Unit Let	ter (UL): J Qtr/Qtr: NW¼ SE¼	Section: 34, T21S, R37E			
County: Lea Latitude: 32°25'56,9"N Longitude: 103°08'47.9"W NAI	D: 1927 🗌 1983 🗍 WGS 84 🔯				
Surface Owner: Federal ☐ State ☑ Private (Chevron USA) ☐ Indian ☐					
Pit	Below-grade tank				
Type: Drilling   Production   Disposal   Workover   Emergency   Volume: bbl Type of fluid:					
Lined Unlined Construction material:					
Liner type: Synthetic ☑ Thickness 12 mil Clay ☐	Double-walled, with leak detection? Yes	☐ If not, explain why not.			
Pit Volume: ~3,000 bbl	Less than 50 feet	(20 points)			
Depth to ground water (vertical distance from bottom of pit to seasonal high water	50 feet or more, but less than 100 feet	(20 points) ☐ (10 points) ☒			
elevation of ground water.) ~68'bgs	100 feet or more	( 0 points)			
WI W A	Yes	(20 points)			
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	No	( 0 points)			
Company of the state of the sta	Less than 200 feet	(20 points)			
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation	200 feet or more, but less than 1,000 feet	(10 points)			
canals, ditches, and perennial and ephemeral watercourses.)	1,000 feet or more	( 0 points)			
	Ranking Score (Total Points)	10			
If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relations	hip to other equipment and tanks. (2) Indicat	e disposal location: (check the onsite box if			
your are burying in place) onsite 🛛 offsite 🔲 If offsite, name of facility	. (3) Attach a general de	scription of remedial action taken including			
remediation start date and end date. (4) Groundwater encountered: No $\boxtimes$ Yes $\square$ If	yes, show depth below ground surface	ft. and attach sample results.			
(5) Attach soil sample results and a diagram of sample locations and excavations.					
Additional Comments: This pit is closed consistent with the "ChevronTexaco Drilling Comments of the Comment of		cember 2004" and the NMOCD Pit and			
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R		cember 2004" and the NMOCD Pit and			
1		tember 2004" and the NMOCD Pit and			
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R  Pit Status: Liner intact  Liner punctured or tom	ule 50 (19.15.2.50 NMAC).				
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R	ule 50 (19.15.2.50 NMAC).  he ChevronTexaco Drilling and Reserve Pit (	Closure General Plan.(i.c.,			
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R  Pit Status: Liner intact  Liner punctured or tom   Method of Closure: Encapsulation in place according to the NMOCD Pit Rules and to pit contents will be stiffened, pit liner folded over contents, overlay 20-mil polyethyle.  Thereby certify that the information above is true and complete to the best of my known and complete to the complete to the best of my known and complete	the ChevronTexaco Drilling and Reserve Pit of the liner, cover with 3-feet of clean soil, continued and belief. I further certify that the	Closure General Plan.(i.e., our and seed.)			
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R  Pit Status: Liner intact  Liner punctured or tom   Method of Closure: Encapsulation in place according to the NMOCD Pit Rules and to pit contents will be stiffened, pit liner folded over contents, overlay 20-mil polyethyle.  I hereby certify that the information above is true and complete to the best of my knowill be closed according to NMOCD guidelines , a general permit , or an (a)	the ChevronTexaco Drilling and Reserve Pit of the liner, cover with 3-feet of clean soil, continuously and belief. I further certify that the ttached) alternative OCD-approved plan	Closure General Plan.(i.e., our and seed.)			
Below-Grade Tank Guidelines, November 1, 2004 as promulgated under NMOCD R  Pit Status: Liner intact  Liner punctured or tom   Method of Closure: Encapsulation in place according to the NMOCD Pit Rules and to pit contents will be stiffened, pit liner folded over contents, overlay 20-mil polyethyle.  Thereby certify that the information above is true and complete to the best of my known and complete to the complete to the best of my known and complete	the ChevronTexaco Drilling and Reserve Pit of the liner, cover with 3-feet of clean soil, continuously and belief. I further certify that the ttached) alternative OCD-approved plan	Closure General Plan.(i.e., our and seed.)			
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