



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number:** pJXK1620949504

**1RP - 4366**

**CHEVRON U S A INC**



RECEIVED

August 26, 2010

Mr. Larry Johnson  
Environmental Engineer  
Oil Conservation Division  
New Mexico Energy, Minerals and Natural Resources Department  
1625 N. French Drive  
Hobbs, New Mexico 88240

SEP 16 2010  
HOBBSOCD

**Re: Spill Remediation Report, Chevron MidContinent Alaska,  
Vacuum Glorietta West Unit #96,  
Unit Letter I (NE/4, SE/4), Section 36, Township 17 South, Range 34 East,  
Lea County, New Mexico  
(Latitude: N 32.78759° / Longitude: W 103.51101°)**

Dear Mr. Johnson:

Chevron MidContinent Alaska (Chevron) has retained Crain Environmental (CE) to remediate impacts to soil from a leak at the Vacuum Glorietta West Unit #96 (Site). The Site is located in the northeast quarter (NE/4) of the southeast quarter (SE/4), Section 36, Township 17 South, Range 34 East, Lea County, New Mexico. Approximately 25 barrels of produced water were released from a fiberglass line leading to the separator on November 6, 2009, and approximately 10 barrels were recovered from the site. A C-141 was submitted to the New Mexico Oil Conservation Division (NMOCD) on November 17, 2009, a copy of which is included as Appendix A. Figure 1 shows the site location.

Based on published literature (1961), well records of the New Mexico State Engineer, and well records of the United States Geological Survey, groundwater occurs at approximately 120 feet bgs in the well located nearest the Site. No domestic water wells are located within 1,000 feet of the site. The NMOCD has established recommended remediation action levels (RRALs) for benzene, total BTEX and TPH resulting from spills of natural gas liquids ("Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993"). Remediation levels for benzene, total BTEX and TPH were calculated using the following NMOCD criteria:

Criteria	Result	Ranking Score
Depth-to-Groundwater	> 100 Feet	0
Wellhead Protection Area	No	0
Distance to Surface Water Body	>1000 Horizontal Feet	0
	<b>Total:</b>	<b>0</b>

The following RRALs have been assigned based on NMOCD criteria:

**Benzene** 10 mg/kg  
**Total BTEX** 50 mg/kg  
**TPH** 5,000 mg/kg

Mr. Larry Johnson  
Page 2  
August 26, 2010

**Initial Remediation and Investigation**

On November 6, 2009, a vacuum truck was dispatched to the Site and recovered approximately ten (10) barrels of free standing fluid. Visibly impacted soil was excavated from the spill area and hauled to an NMOCD approved disposal facility. On May 25, 2010, soil samples (SS-1 through SS-7) were collected at a depth of one (1) foot below ground surface (bgs). The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Cardinal Laboratories (Cardinal), of Hobbs, New Mexico for chloride analysis. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix B provides a copy of the laboratory reports and chain of custody documentation.

Referring to Table 1, chloride concentrations were reported above 1,000 mg/kg in soil samples SS-1 (2,960 mg/kg), SS-2 (5,120 mg/kg), SS-5 (1,720 mg/kg) and SS-6 (1,010 mg/kg). Additional soil was excavated from the areas surrounding those sample points, and samples were collected at sample points SS-1, SS-2, SS-5 and SS-6 on June 7, 2010, at a depth of 1.5 feet bgs. Referring to Table 1, chloride concentrations remained above 1,000 mg/kg at sample point SS-1 (3,760 mg/kg), SS-2 (3,600 mg/kg), SS-5 (2,400 mg/kg) and SS-6 (1,140 mg/kg).

**Confirmation Sampling Activities**

An additional one (1) foot of soil was excavated from the SS-1, SS-2, SS-5 and SS-6 sample point areas until soil samples were collected on July 6, 2010 at a depth of 2.5 feet bgs. The soil samples were placed in clean glass sample jars, labeled, chilled in an ice chest and delivered to Cardinal for analysis of chloride. Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations. Appendix B provides a copy of the laboratory reports and chain of custody documentation.

Referring to Table 1, soil samples collected at the Site reported all chloride concentrations below 1,000 mg/kg. The excavation was backfilled with clean soil.

Chevron respectfully requests that the Vacuum Glorietta West Unit #96 site be closed by the NMOCD. A final C141 form is included in Appendix C. If you have any questions or need additional information, please call Mr. Kim Klahren at (432) 894-3298, or myself at (575) 441-7244. We may also be reached by email at [KDKL@chevron.com](mailto:KDKL@chevron.com) or [Cindy.Crain@gmail.com](mailto:Cindy.Crain@gmail.com).

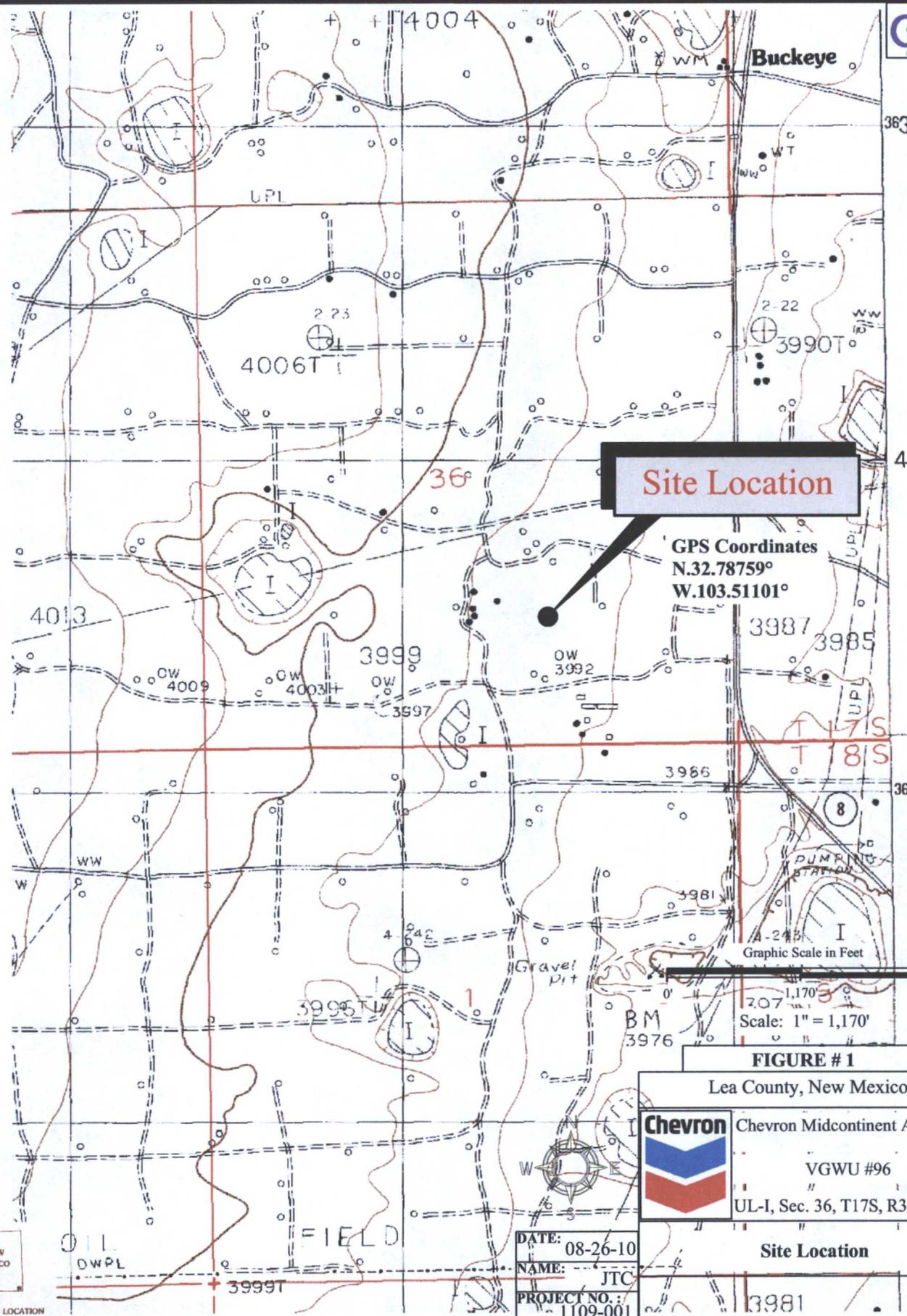
Sincerely,  
***Crain Environmental***



Cindy K. Crain, P.G.  
President

cc: Kim Klahren, Chevron

**FIGURES**



**Site Location**

GPS Coordinates  
 N.32.78759°  
 W.103.51101°

Graphic Scale in Feet  
 0 707 1,170 2,340  
 Scale: 1" = 1,170'

**FIGURE # 1**

Lea County, New Mexico



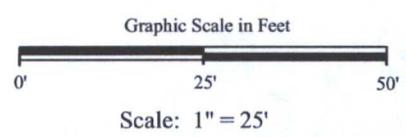
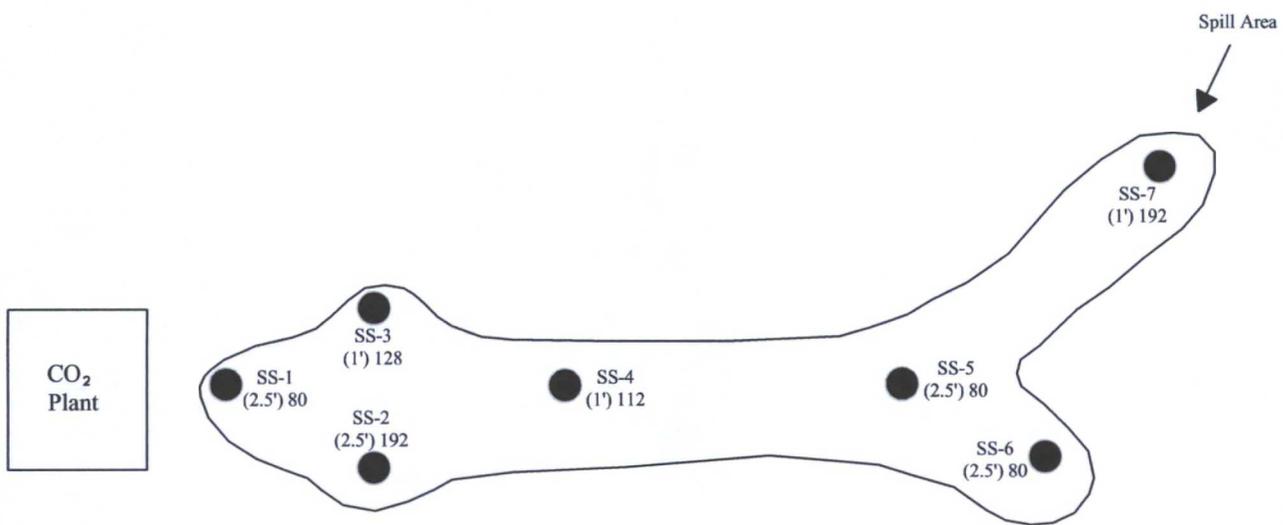
Chevron Midcontinent Alaska  
 VGWU #96  
 UL-I, Sec. 36, T17S, R34E

**Site Location**

DATE: 08-26-10  
 NAME: JTC  
 PROJECT NO.: 1109-001



QUADRANGLE LOCATION



**FIGURE # 2**

Lea County, New Mexico

**Chevron** Chevron Midcontinent Alaska

VGWU #96

UL-I, Sec. 36, T17S, R34E

**Site Drawing With Soil Sample Locations**



GPS Coordinates	
SS-1	N.32.78759 W.103.51101
SS-2	N.32.78757 W.103.51095
SS-3	N.32.78761 W.103.51095
SS-4	N.32.78760 W.103.51090
SS-5	N.32.78760 W.103.51075
SS-6	N.32.78760 W.103.51070
SS-7	N.32.78760 W.103.51064

**LEGEND**

● SS-1 (2.5') 80

Soil Sample Location With Depth (feet bgs) and Chloride Concentration (mg/kg)

DATE:	08-26-10
NAME:	JTC
PROJECT NO.:	1109-001

**TABLE**

**Table 1:**  
**Summary of Laboratory Analysis of Soil Samples from Excavation**  
**Chevron MidContinent Alaska, VGWU #96**  
**Unit Letter I, Section 36, Township 17 South, Range 34 East**  
**Lea County, New Mexico**

Sample Date	Soil Boring Number	Sample Depth (feet BGS)	Chloride (mg/kg)	Soil Status
RRAL			1000	
5/25/10	SS-1	1	2,960	Excavated
6/7/10	SS-1	1.5	3,760	Excavated
7/6/10	SS-1	2.5	80	In Situ
5/25/10	SS-2	1	5,120	Excavated
6/7/10	SS-2	1.5	3,600	Excavated
7/6/10	SS-2	2.5	192	In Situ
5/25/10	SS-3	1	128	In Situ
5/25/10	SS-4	1	112	In Situ
5/25/10	SS-5	1	1,720	Excavated
6/7/10	SS-5	1.5	2,400	Excavated
7/6/10	SS-5	2.5	80	In Situ
5/25/10	SS-6	1	1,010	Excavated
6/7/10	SS-6	1.5	1,140	Excavated
7/6/10	SS-6	2.5	80	In Situ
5/25/10	SS-7	1	192	In Situ

- Notes: *Samples analyzed by Cardinal Laboratories, Hobbs, New Mexico.*
1. BGS: Depth in feet below ground surface
2. mg/kg: Milligrams per kilogram

**APPENDIX A**  
**INITIAL C141 DOCUMENTATION**

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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised March 17, 1999

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

x Initial Report  Final Report

Name of Company- Chevron	Contact- Kim Klahsen <input type="checkbox"/>
Address-HCR 60, Box 423- Lovington NM 88260; 56 Texas Camp Rd., Lovington, NM 88260	Telephone No. 575-396-4414 EXT. 228 ; Cell- 432-894-3298 <input type="checkbox"/>
Facility Name- Vacuum Glorietta Well 96, Water Injection well	Facility Type; Water Injection Well <input type="checkbox"/>

Surface Owner	Mineral Owner; State of NM	Lease No.- B-155-6 <input type="checkbox"/>
---------------	----------------------------	---------------------------------------------

**LOCATION OF RELEASE**

**API # 30-025-31844 GPS Coordinates: N 32.78834, W 103. 506**

Unit Letter	Section	Township	Range	Feet from the	South Line	Feet from the	East Line	County
I	36	17S	34E	1427		183		Lea <input type="checkbox"/>

**NATURE OF RELEASE**

Type of Release- Produced Water	Volume of Release- 25 bbls	Volume Recovered- 10 bbls <input type="checkbox"/>
Source of Release- A fiberglass line leading to injection well	Date and Hour of Occurrence- 11-06-09 approximately 9:00	Date and Hour of Discovery <input type="checkbox"/> 11-06-09 approximately 9:30
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? <input type="checkbox"/>	Date and Hour <input type="checkbox"/>	
Was a Watercourse Reached? <input type="checkbox"/> Yes x No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*  
Not applicable

Describe Cause of Problem and Remedial Action Taken.\*  
A fiberglass line broke and released 25bbls of produced water.

Describe Area Affected and Cleanup Action Taken.\* The release surrounded the well.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<b>OIL CONSERVATION DIVISION</b>		
	Approved by <input type="checkbox"/> District Supervisor:		
Printed Name: Kim Klahsen	Approval Date:	Expiration Date:	
Title: HES Specialist	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 11-17-09	Phone: 575-396-4414 x 228		

\* Attach Additional Sheets If Necessary

**APPENDIX B**

**ANALYTICAL DATA AND CHAIN OF CUSTODY  
DOCUMENTATION**



# ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

May 26, 2010

Cindy Crain  
Ocotillo Environmental  
P.O. Box 1816  
Hobbs, NM 88241

Re: VGWU #96 (1109-011C)

Enclosed are the results of analyses for sample number H19968, received by the laboratory on 05/25/10 at 3:45 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

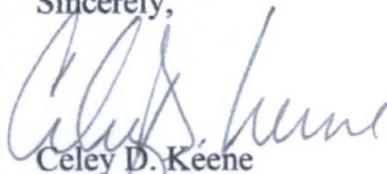
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

  
Celey D. Keene  
Laboratory Director





# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240  
(575) 393-2326 Fax (575) 393-2476

Company Name: <b>W. OCOTILLO ENVIRONMENTAL</b>		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>											
Project Manager: <b>CINDY CRAIG</b>		P.O. #:													
Address: <b>PO Box 1816</b>		Company:													
City: <b>Hobbs</b> State: <b>NM</b> Zip: <b>88241</b>		Attn: <b>SAME</b>													
Phone #: <b>575-393-6371</b> Fax #: <b>432-272-0304</b>		Address: <b>SAME</b>													
Project #: <b>1109-011C</b> Project Owner: <b>CHEVRON</b>		City:													
Project Name: <b>VGWU #96</b>		State: Zip:													
Project Location: <b>Buckeye CO2 PLANT</b>		Phone #:													
Sampler Name: <b>Bobby D Jones</b>		Fax #:													

FOR LAB USE ONLY		Lab I.D.	Sample I.D.	(GIRAB OR (C)OMP. # CONTAINERS)	MATRIX						PRESERV.			SAMPLING		DATE	TIME									
GROUNDWATER	WASTEWATER				SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :															
		H199108-1	SS #1	G 1			X				X			5/25/10	12:50p	/										
		2	#2	G 1			X				X			"	1:05p	/										
		3	#3	G 1			X				X			"	1:15p	/										
		4	#4	G 1			X				X			"	1:26p	/										
		5	#5	G 1			X				X			"	1:37p	/										
		6	#6	G 1			X				X			"	1:45p	/										
		7	#7	G 1			X				X			"	1:58p	/										

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 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.

Sampler Relinquished:		Date:	Received By:		Phone Result:	<input type="checkbox"/> No	Add'l Phone #:
		Time:			Fax Result:	<input type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:		REMARKS:		
Bobby D Jones		5/25/10	Jodi Henson		FAX CINDY CRAIG		
Delivered By: (Circle One)		Time:					
Sampler - UPS - Bus - Other:			Temp.	Sample Condition	CHECKED BY:		
UPS			28°C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	JH		

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

#26



# ARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 9, 2010

Cindy Crain  
Ocotillo Environmental  
P.O. Box 1816  
Hobbs, NM 88241

Re: VGWU #96

Enclosed are the results of analyses for sample number H20048, received by the laboratory on 06/07/10 at 4:40 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene  
Laboratory Director







**ARDINAL  
LABORATORIES**

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

July 13, 2010

Cindy Crain  
Ocotillo Environmental  
P.O. Box 1816  
Hobbs, NM 88241

Re: V6WU #96

Enclosed are the results of analyses for sample number H20287, received by the laboratory on 07/07/10 at 10:30 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

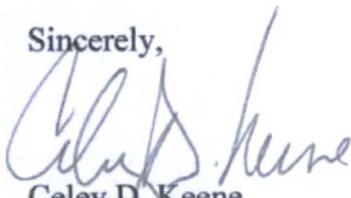
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,



Celey D. Keene  
Laboratory Director





**APPENDIX C**  
**FINAL C141 FORM**

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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

RECEIVED

SEP 16 2010

HOBBSUCD

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Chevron Midcontinent Alaska	Contact	Kim Klahsen
Address	HCR 60 Box 423 Lovington, NM 88260	Telephone No.	(575) 396-4414 x 128 or (432) 894-3298 (cell)
Facility Name	Vacuum Glorietta Well 96, Water Injection	Facility Type	Water Injection Well

Surface Owner:	Mineral Owner: State of New Mexico	Lease No. B-155-6
----------------	------------------------------------	-------------------

**LOCATION OF RELEASE**

30 025 31844

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	36	17S	34E	1427	South	183	East	Lea

Latitude N 32.78759° Longitude W 103.51101°

**NATURE OF RELEASE**

Type of Release	Produced Water	Volume of Release	25 bbl	Volume Recovered	10 bbl
Source of Release	A fiberglass line leading to injection well	Date and Hour of Occurrence	11/6/09 @ 9:00 AM	Date and Hour of Discovery	11/6/09 @ 9:30 AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson			
By Whom?	Tejay Simpson	Date and Hour	11/6/09 @ 10:00 AM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A fiberglass line broke and released 25 bbls of produced water. Approximately 10 bbl of water was recovered by vacuum truck.

Describe Area Affected and Cleanup Action Taken.\*

Visibly impacted soil was removed from an area approximately 125' x 30' and disposed at an NMOCD approved facility. Soil samples were collected on 5/25/10. Additional soil was excavated and removed from the site, until further sampling confirmed that chloride concentrations were below 1,000 mg/kg at the site. Figures are attached that show the site location (Fig #1) and the soil sample locations (Fig #2). Laboratory data and chain of custody documentation is also attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Kim Klahsen	Approved by District Supervisor:		
Title: HES Specialist	Approval Date:	Expiration Date:	
E-mail Address: KDKL@chevron.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8/27/10	Phone: (432) 894-3298		

\* Attach Additional Sheets If Necessary